INTEGRATED
ANNUAL REPORT
2023-24

Building a Resilient Energy Landscape



Water Stewardship Yielding Visible Results

Rating upgrade by 2 levels

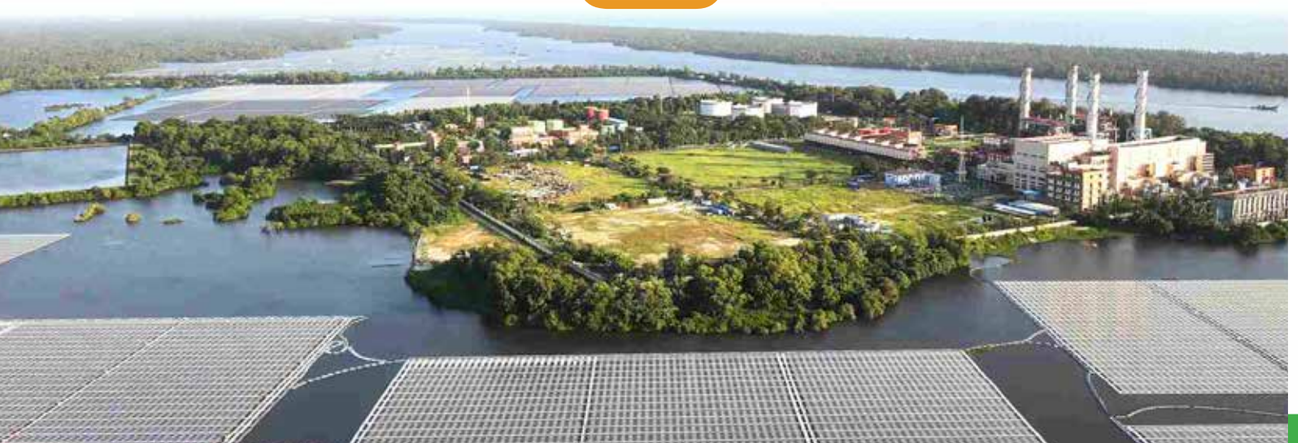
NTPC has achieved a significant improvement in its ESG score, moving from a D rating in 2022 to a C rating in 2023 in the Carbon Disclosure Project (CDP) Water Security Rating. The CDP is a prominent ESG rating agency assessing companies on their environmental performance, particularly in climate change, water security, and deforestation.

This upgrade highlights NTPC's strong commitment to water conservation and sustainable water management practices. NTPC's efforts to enhance water reuse and recycling have led to a substantial decrease in specific water consumption in recent years. Despite challenges such as renewable energy integration and the implementation of wet flue gas desulfurization systems, NTPC continues to reduce water consumption through innovative measures and efficient practices.

In 2021, NTPC became a signatory of the CEO Water Mandate, further emphasizing its commitment to responsible water management and participation in global water sustainability initiatives.

Key initiatives on water conservation include:

- **Optimization of Water Consumption**: Through advanced technologies and process reengineering
- **Zero Liquid Discharge (ZLD) Status**: Maintaining ZLD status across almost all stations
- **Increasing Cycles of Concentration (CoC)**: Reducing freshwater intake at all stations
- **Robust Water Policies**: Implementation of a comprehensive "Water Policy" and "Rainwater Harvesting Policy
- **Deployment of Air-Cooled Condensers**: Saving up to 60% of water usage
- **Community Investments**: Enhancing freshwater availability and capacity building







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Annual General Meeting

Day & Date	:	Thursday, 29.08.2024
Time	:	10:30 A.M.
Venue/Mode	:	Video Conferencing (VC)/ Other Audio-Visual Means (OAVM)

'SUPPORT GREEN INITIATIVE'

The Ministry of Corporate Affairs has takes a "Green Initiative in the Corporate Governance" by allowing paperless compliances by the companies and has issued circulars stating that service of notice/ documents including Annual Reports can be send by e-mail to its members. To support this green initiative of the Government in full measure, members who have not registered their e-mail addresses, so far, are requested to register their e-mail address, in respect of electronic holdings with the Depository through their concerned Depository Participants. Members who hold shares in physical form are requested to get their e-mail address registered with Beetal Financial & Computer Services Private Limited, RTA of the Company

About the Report

"NTPC's Integrated Annual Report is designed to transparently convey our value creation journey to all stakeholders. This report presents clear and comparable information on key financial and non-financial matters, alongside our strategic plans, ESG roadmap, and holistic approach to sustainable development."

Approach

The NTPC Integrated Annual Report has been prepared in accordance with the International Integrated Framework, now part of the IFRS Foundation. The information presented in this Report pertains to the period from April 1, 2023 to March 31, 2024.

Frameworks, guidelines, and standards

This Integrated Annual Report has been prepared with reference to the following:

- GRI Standards 2021, and further complies along with the EUSS
- WEF - Stakeholder Capitalism Metrics
- Business Responsibility and Sustainability Reporting (BRSR) based on the National Guidelines for Responsible Business Conduct (NGRBC)
- United Nations Global Compact Principles (UNGCP)
- Companies Act, 2013
- Indian Accounting Standards, the Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015
- Secretarial Standards.

Report Methodology

Uniform methodologies are used to collect performance data at all NTPC group stations. The data is processed at each station using universally accepted approaches for measurement, calculation, and analysis. The measurement methods in this report remain unchanged from the previous report unless specified. The report's content and aspect boundary have been reviewed and approved by the company's top management.

Boundary of the Report

This report encompasses the business activities of all entities within the NTPC group, unless specified otherwise. However, for sustainability indicators it includes NTPC Limited's business activities and its Joint Ventures & Subsidiaries, focusing on Electricity Generation (Thermal, Renewables, Hydro), Consultancy, Business Development, NETRA, and Energy Trading pertaining to operational power generation plants located in India. Noteworthy changes in installed power generation capacity during this period are outlined in the manufactured capital section of the report.

Audit/ Assurance of the Report

The standalone and consolidated annual financial statements have been audited by statutory Auditors. Non-financial information in this report has been independently assured by M/s Bureau Veritas (India) Private Limited. A reasonable assurance was conducted as per ISAE 3000 Standards on select non-financial disclosures reported based on GRI 2021 standards and BRSR core requirements.

Forward-looking statements

Certain sections of this report contain forward-looking statements. These can typically be identified by terminology such as 'believes,' 'expects,' 'may,' 'shall,' 'could,' 'should,' 'intends,' 'estimates,' 'plans,' 'assumes,' and 'anticipates,' or similar phrases, including negative variations. These statements are subject to specific risks and opportunities that could be beyond NTPC's control or based on NTPC's current beliefs and assumptions about future events. Consequently, the actual performance of the company may differ from the expected outcomes and performance implied in this report.

Feedback

NTPC appreciates feedback from all stakeholders. For any additional information regarding the IAR Report, please reach out to the addresses given below:

Chief Sustainability Officer

Engineering Office Complex (EOC)
NTPC Limited Sector - 24, Noida - 201 301 (U.P.)
Email - sustainability@ntpc.co.in
Phone: (+91) 120 – 4946611

Reference Information

Registered Office

NTPC Bhawan
SCOPE Complex, 7, Institutional Area,
Lodi Road, New Delhi-110003

Registrar & Share Transfer Agent for Equity Shares

Beetal Financial & Computer Services Private Limited,
Beetal House, 3rd Floor, 99, Madangir, Behind LSC,
Near Dada Harsukhdas Mandir, New Delhi - 110 062

Contact person : Shri Punit Mittal or
Shri Ratan Kumar Karna

Phone : 011-29961281 – 83, 26051061
and 26051064

Email : ntpc@beetalfinancial.com

Depositories

National Securities Depository Limited
Central Depository Services (India) Limited

Shares listed at

National Stock Exchange of India Limited
BSE Limited

NTPC's Subsidiary Companies (as on 31st March, 2024)

- NTPC Vidyut Vyapar Nigam Limited
- NTPC Electric Supply Company Limited
- Bhartiya Rail Bijlee Company Limited
- Patratu Vidyut Utpadan Nigam Limited
- NTPC Mining Limited
- North Eastern Electric Power Corporation Limited
- THDC India Limited
- NTPC EDMC Waste Solutions Private Limited
- NTPC Green Energy Limited
- Ratnagiri Gas and Power Private Limited

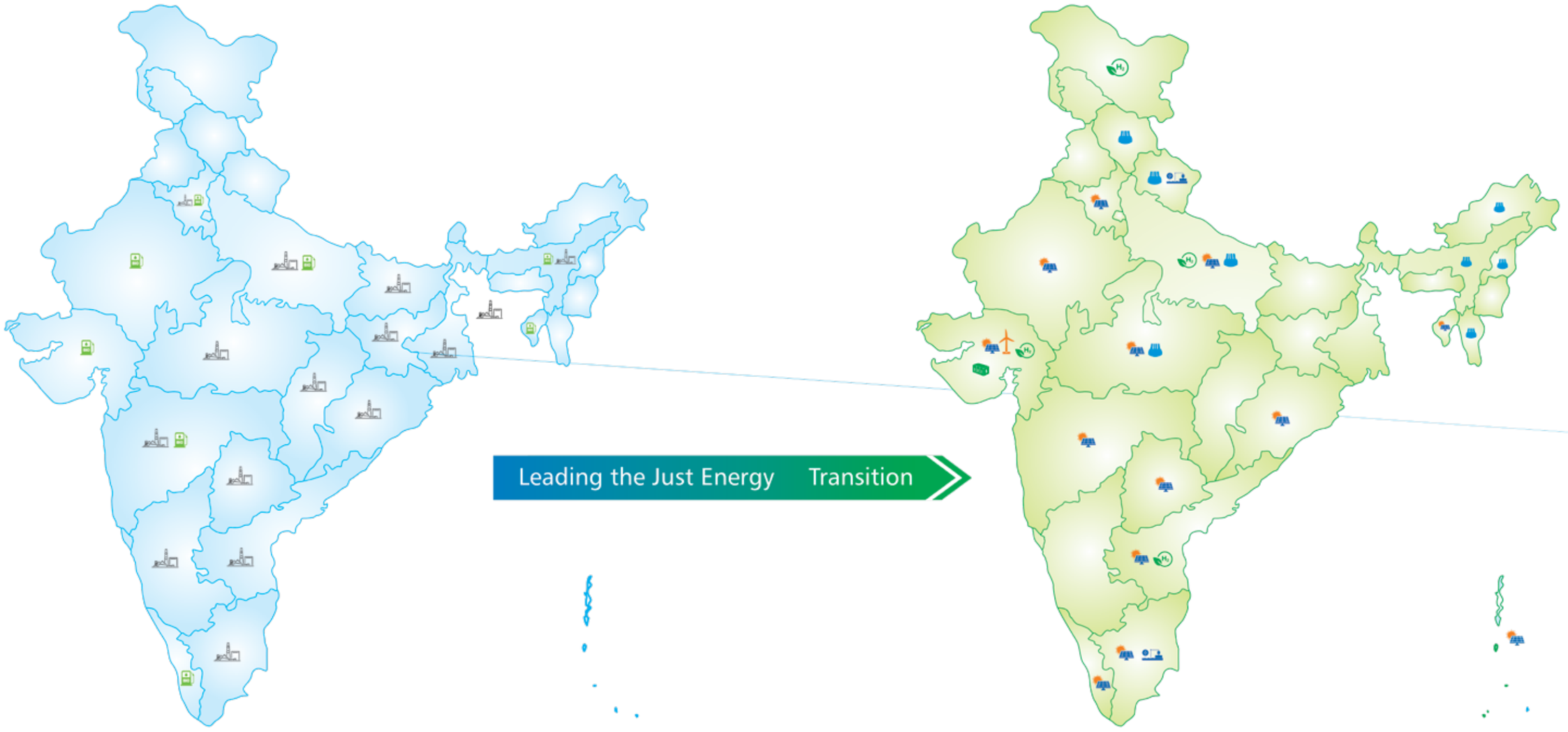
Company Secretary

- Ms. Ritu Arora

Auditors

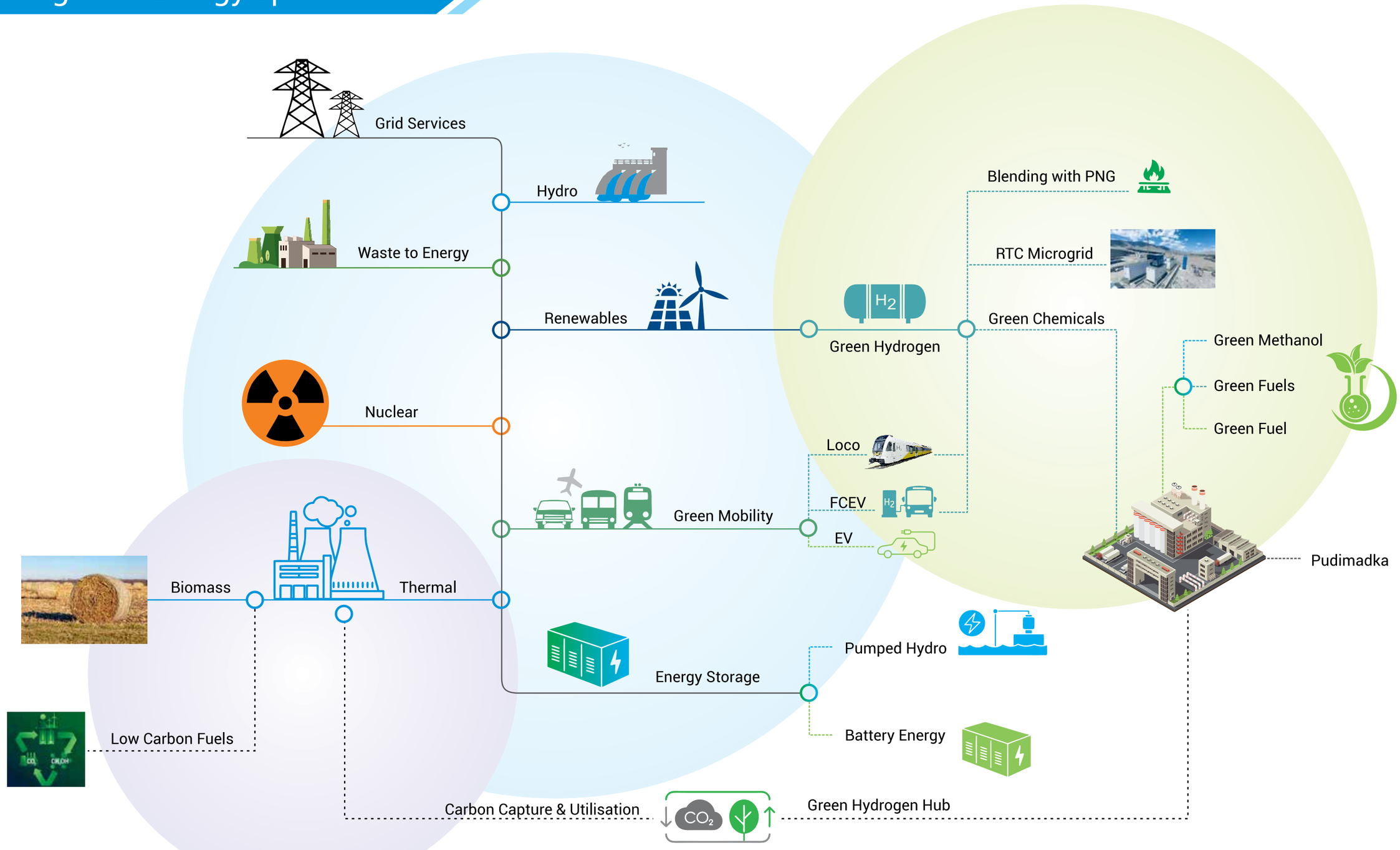
1. M/s Vinod Kumar & Associates
2. M/s Goyal Parul & Co.
3. M/s M C Bhandari & Co.
4. M/s J K S S & Associates
5. M/s Agasti & Associates
6. M/s S N Kapur & Associates

NTPC at a glance



	Coal	Gas	Hydro (Incl Small)	Solar	Wind	Green H_2	BESS	PSP
Commissioned	62.2 GW	6.5 GW	3.8 GW	3.3 GW	0.2 GW	1 kg/day	-	-
Under Construction	9.6 GW	-	2.3 GW	7.0 GW	1.5 GW	340 kg/day	-	1 GW/6 GWh
Under Tendering	15.2 GW	-	-	3.8 GW	5.6 GW	200 kg/day	2 GW/12 GWh	3 GW/18 GWh

Integrated Energy Spectrum



Eco-conscious Power Generation

Just Transition

Clean Energy

Integrated Value Chain

Coal Mining

Coal

Biomass

Green Charcoal

Fresh Water

Sea Water

Rain Water

Waste Water

Water

Technological Upgradation

HELE Technology

Energy Efficiency

Air Cooled Condensers

Flexible Power

RE Integration

De-SOx through FGD

De-NOx

PM Control

Non GHG Emissions

CO_2

Carbon Capture & Utilisation

GHG Emissions

Carbon Sink

Roads

Cement

Building Materials

Fly Ash Utilisation

Circular Economy

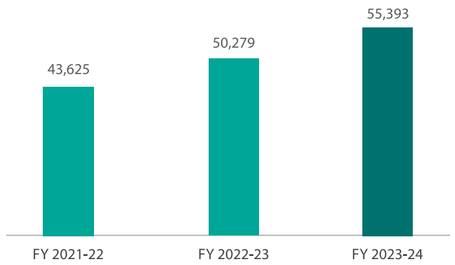
Resource Efficiency

39 Mn Trees Planted

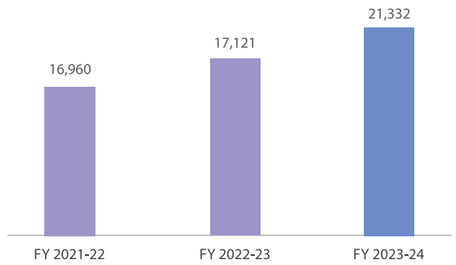
End of Life Management

Financial Highlights

EBITDA** (₹ Cr)



Profit for the Year** (₹ Cr)



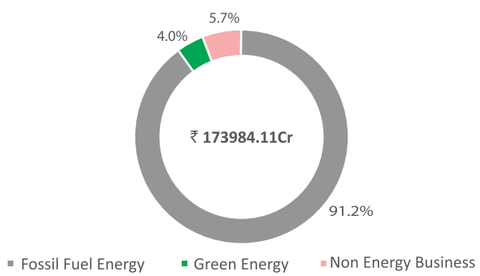
Performance Highlights

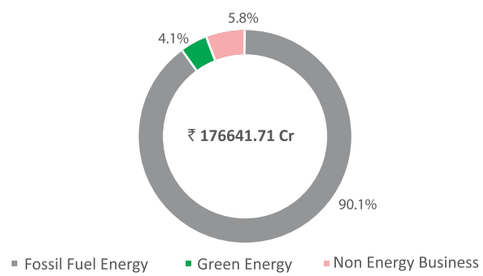
Realisation of Bills (₹ Cr)*

Green Capex (%)**

31% of total CAPEX

Breakup of Turnover**

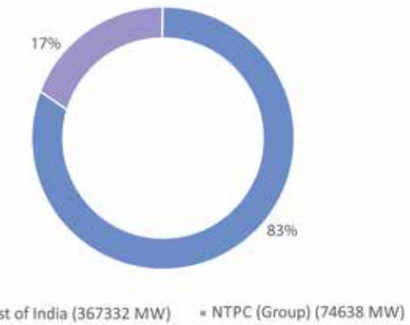




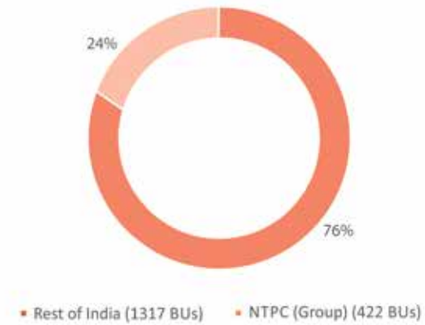
* NTPC Standalone ** NTPC Group

Operational Highlights

NTPC Share of Installed Capacity



NTPC Share of Electricity Generated



Performance Highlights

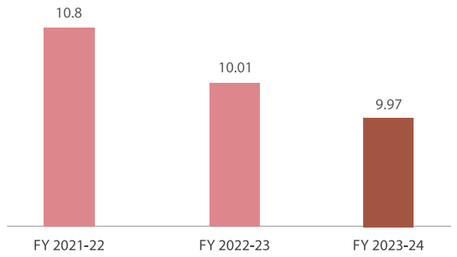
NTPC PLF Vs All India PLF (%)

	FY 2022-23		FY 2023-24	
	Installed Capacity (MW)	Power Generation (MU)	Installed Capacity (MW)	Power Generation (MU)
Coal	58814.00	376334.48	60874.00	395243.04
Gas	6511.00	5176.20	6511.00	7649.52
Hydro	3757.00	12988.86	3757.00	12504.88
Renewables	3009.00	4486.48	3283.00	6480.34
Others	163.00	324.04	213.00	338.12

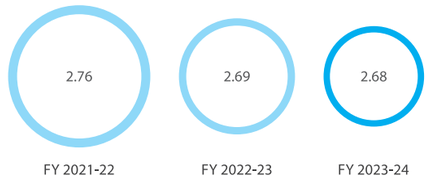
Performance Highlights

Sustainability Highlights

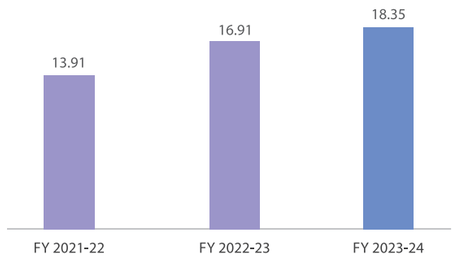
Net Energy Intensity (MJ/kWh)



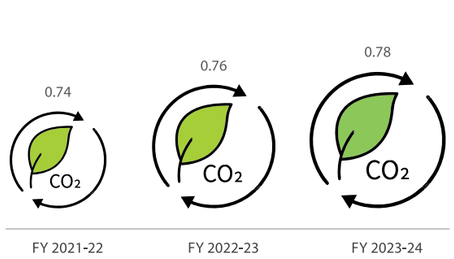
Sp. water Consumption (L/kWh)



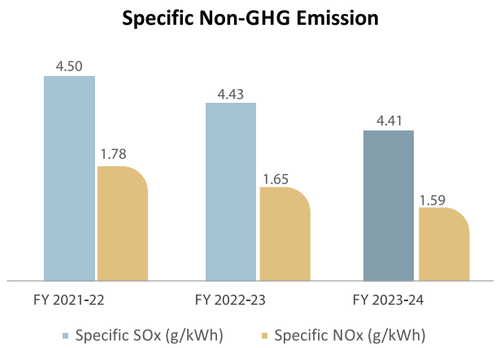
Avoided Emission (Mn Tonnes of CO_2 Eq.)



Carbon Sink (Mn Tonnes of CO_2 Eq.)



Specific Non-GHG Emission





2720
Girl beneficiaries

41
Locations

GEM Program

NTPC Group Organography (Subsidiaries & JVs)

Subsidiaries (10)*

COAL MINING
- NTPC Mining Ltd. (100%)

POWER TRADING
- NTPC Vidyut Vyapar Nigam Ltd. (100%)

POWER GENERATION
- THDC India Ltd. (74.496%)
- North Eastern Electric Power Corporation Ltd. (100%)
- Bhartiya Rail Bijlee Company Ltd. (74%)
- NTPC Green Energy Ltd. (100%)
- Ptratu Vidyut Utpadan Nigam Ltd. (74%)
- Ratnagiri Gas and Power Private Ltd. (86.49%)

SERVICES
- NTPC Electric Supply Company Ltd. (100%)
- NTPC EDMC Waste Solutions Private Ltd. (74%)

**Direct Subsidiaries*

Joint Ventures (16)

Coal Mining
- CIL NTPC Urja Pvt. Ltd. (50%)

Equipment Manufacturing
- Transformers and Electricals Kerala Ltd. (44.60%)
- NTPC BHEL Power Projects Pvt. Ltd. (50%)



Power Generation
- Aravali Power Company Pvt. Ltd. (50%)
- NTPC Tamil Nadu Energy Company Ltd. (50%)
- NTPC SAIL Power Company Ltd. (50%)
- Bangladesh - India Friendship Power Company Pvt. Ltd. (50%)
- Meja Urja Nigam Pvt. Ltd. (50%)
- Trincomalee Power Company Ltd. (50%)
- Anushakti Vidhyut Nigam Ltd. (49%)
- Jhabua Power Ltd. (50%)

Fertilizers
- Hindustan Urvarak & Rasayan Ltd. (29.67%)

Power Services
- Utility Powertech Ltd. (50%)
- Energy Efficiency Services Ltd. (39.252%)
- NTPC GE Power Services Pvt. Ltd. (50%)
- National High Power Test Laboratory Pvt. Ltd. (12.5%)



Vision

To be the World's Leading Power Company, Energising India's Growth





Mission

Provide Reliable Power and Related Solutions in an Economical, Efficient and Environment Friendly Manner, Driven by Innovation and Agility

Core Values

ICOMIT



Corporate Objectives

Policy and Objectives

- To foster a collaborative style of working with customers, growing to be a preferred brand for quality and reliable power supply.
- To expand the customer portfolio through profitable diversification into downstream business inter alia E-mobility and direct supply.
- To ensure rapid commercial decision-making, using customer-specific information, with adequate concern for the interest of the customer.
- To adapt business models and organisation structures to capture value which is progressively shifting towards the customers.

Financial Soundness

- To maintain and improve the financial soundness of NTPC by prudent management of the financial resources.
- To continuously strive to reduce the cost of capital through prudent management of deployed funds, leveraging opportunities in domestic and international financial markets.
- To promote innovative funding models to support entry into new businesses and sustain long-term growth.
- To develop appropriate commercial policies and processes which would ensure remunerative tariffs, balance capital work-in-progress and minimise receivables.

Sustainability and Corporate Social Responsibility

- To deliver business and environmental value through projects which are beneficial for business and the larger ecosystem.
- To ensure sustainable power development by ensuring minimal wastage across operations.
- To actively contribute towards societal development.
- To lead the sector in the areas of environment protection including effective ash-utilisation, peripheral development and energy conservation practices.

Human Resource Development

- To enhance organisational performance by institutionalising an objective and open performance management system.
- To align individual and organisational needs and develop business leaders by implementing a career development system.
- To build a lean organisation with diverse skills and a high ability to adapt to change.
- To build and sustain a learning organisation of competent world-class professionals.
- To institutionalise core values and create a culture of team-building, ownership, empowerment, equity, innovation and openness which would motivate employees and enable the achievement of strategic objectives.

Business Portfolio Growth

- To sustain NTPC's position as the leading power generation company in the world.
- To broaden the base of the generation, mix with a significant proportion of clean energy sources.
- To enable the generation fleet to operate at optimum efficiency while meeting the demand and stability in the grid.
- To diversify into emerging businesses and markets across the power value chain including coal mining, power trading, ancillary services, E-mobility, storage and related adjacencies.
- To establish a strong services brand in domestic and international markets.
- To assist in the capacity creation of key stakeholders.

Research & Development (R&D)

- To undertake R&D initiatives in sync with the overall business portfolio.
- To pioneer the adoption of reliable, efficient and cost-effective technologies by carrying out fundamental and applied research in alternate fuels and technologies.
- To collaborate with leading institutes, technology players and service providers, particularly in the area of power plant construction, generation technology, operations, renewable energy sources, storage, e-mobility etc. that can contribute towards efficiency, reliability and environmental friendliness.

Performance Leadership

- To continuously strive for innovation in reducing costs, enhancing operational flexibility, and addressing changing customer needs.
- To continuously improve on project execution time and cost in order to sustain long-term competitiveness.
- To effectively leverage Information Technology to drive process efficiencies and enable system flexibility in line with the market needs.
- To create capabilities to attain leadership in new and emerging businesses.
- To embed quality and safety in all systems and processes.
- Support the evolution of power markets to meet customer needs through products, platforms, services etc. to create a win-win opportunity across stakeholders.
- To lead development efforts in the Indian power sector through stakeholder consultation.

Agile Corporation

- To ensure effectiveness in business decisions and responsiveness to changes in the business environment by:
  - Adopting a portfolio approach to new business development.
  - Continuous and coordinated assessment of the business environment to identify and respond to opportunities and threats.
- To create lean organisation and business processes.
- To develop a learning organisation with a knowledge-based competitive edge in current and future businesses.
- To develop a culture of curiosity and innovation in learning and adopting new technologies, business models and operational philosophies in line with the evolving market and changing customer needs.





Shri Gurdeep Singh
Chairman & Managing Director

Letter to Shareholders

Dear Shareholders,

I am delighted to update you all as we look back on our company's performance over the past year and reaffirm our goals for building a stronger and sustainable business. This year has been nothing short of extraordinary for your company, and we are proud of the achievements it has accomplished.

During FY24 Our market capitalization touched an all-time high of ₹3.49 lakh Crore ($42 billion). This surge in investor confidence is a testimony to the company's sound financial management and belief in its long-term growth prospects. I would like to congratulate you on this achievement and express my sincere thanks for reaffirming your trust in us.

Your company's balance sheet has been growing bigger and stronger demonstrating its financial strength and stability. Consolidated PAT for FY24 stood at ₹21,332 Crore ($ 2.54 billion), registering an increase of nearly 25% over FY23. We have also realized over 100% of our current billing with a total realization of ₹1,57,138 Crore ($ 18.93 billion) and our debtors stand at only 31 days of average billing. These achievements could not have been possible without the consistent efforts of a dedicated team.

Furthermore, as informed earlier, to solidify our commitment to clean energy, the Initial Public Offering of our subsidiary, NTPC Green Energy Limited (NGEL) is on the anvil.

We remain steadfast in our commitment to enhancing financial performance, delivering consistent returns for our shareholders, and maintaining our reputation as a trusted and responsible leader in the energy industry. This commitment is reflected in the payment of dividend for the 31st consecutive year with a declaration of a total dividend of ₹7.75 per equity share for FY24, subject to shareholders' approval in the upcoming Annual General Meeting. This dividend payout is nearly 42% of our profit. We are completely focused on increasing the wealth of shareholders and working on alternative ways of incentivizing the shareholders as well.

One of the important events in the past year has been the issuance of the Tariff Regulations by the Central Electricity Regulatory Commission for the five-year period (2024-29) starting 1st April 2024. These are forward-looking and capture the needs of the sector through various provisions. These tariff regulations are expected to help us continue our growth trajectory, which is essential for meeting the country's growing power needs.

Providing reliable and affordable power has been, and will continue to be, our guiding principle as we define priorities for the future. We're continuously investing in and adapting to advanced technologies to meet the nation's growing electricity demand. Our team has been working relentlessly to deliver value in all facets of our business and our goal is to make decisions that will benefit the shareholders.

Due to the strong focus on the "Make-in-India" initiative of the Government coupled with changes in residential consumption patterns, it is expected that India will continue to register 6-7% annual growth in power demand at least for the next decade. This mandates the requirement of additional capacities both renewable and conventional sources till significant storage capacity is in place. This offers enough room for power utilities like NTPC to expand their horizons. Accordingly, your company is fully geared up to tap this opportunity and take all required actions for expanding its portfolio with the right fuel mix.

Ensuring the safety of our operations is paramount. We are continuously evaluating to enhance our safety measures to meet and exceed industry standards, reflecting our dedication to operational excellence and responsible stewardship of shareholder interests. We have implemented rigorous safety protocols, devised training modules for imparting training to all the employees including contractual workers and investing in state-of-the-art technology to maintain a safe working environment.

Building a Brighter, Sustainable Future for India

NTPC holds a commanding 17% share of India's total installed power capacity. When it comes to generation, the company contributes a substantial 24% of India's total power generation which underscores our robust O&M and asset management practices.

Your company achieved generation of 422 BU of electricity, registering a growth of ~6% year-on-year. We have also added 3924 MW capacity, taking the total installed capacity to 76 GW. The addition includes not just coal-based power plants but Renewable energy capacity as well. This impressive growth



translates to a stronger ability to meet India's ever-growing energy demands.

India met a peak demand of 250 GW in May 2024. As per the estimates prepared by the Central Electricity Authority, the peak demand is expected to touch 366 GW in 2032. Accordingly, the additional coal-based capacity requirement is 80 GW including 28 GW which is currently under construction. Out of the 80 GW, your company is expected to add 26 GW of coal-based capacity including 9.5 GW which is under construction, and all these capacities are planned to be commissioned by 2031-32.

As part of the above plan, in FY24, orders have been placed for 3200 MW of coal-based capacity at Singrauli-III and Lara-II. Further, tenders have been issued for 10.4 GW of capacity which is expected to be placed in 2024 and the orders for the balance capacity is also expected to be placed in next one year. We are keeping a strong focus on delivering projects on time and developing mechanisms to make our decision-making process faster within the ambit of all principles.

We recognize the urgency of addressing climate change and are actively diversifying our portfolio beyond traditional sources. Our Renewable energy installed capacity has reached 3.6 GW. By investing in renewables, and storage solutions, with over 11 GW of renewable energy and hydro projects under construction, and a strong pipeline of over 20 GW in various stages of tendering, your company is taking a significant step towards becoming a fully integrated clean energy provider.

We are well poised to achieve the committed 60 GW of renewable capacity by 2032. We are constantly evolving and developing new strategies and business models for fast-tracking the renewable capacity addition. Our focus has been changed from implementing projects through a plain EPC model to sourcing components and aggregating which includes solar PV modules, land patches and connectivity. Your company's strong presence across the length and breadth of the country gives us an edge to collaborate with various State Governments for securing land patches and we are effectively utilising this position.

We are fast-tracking the development of hydro projects through your company's subsidiaries THDC and NEEPCO. I am pleased to inform you that we are close to commissioning of a 1000 MW Pumped Storage Project at the existing Tehri hydro project complex. Additionally, the Government of Tamil Nadu has allocated 1000 MW upper Bhavani PSP to be executed in a JV mode for which the developmental activities have started. With the current plan, your company's fossil and non-fossil mix is expected to be nearly 60:40 by 2032.

This expansion strengthens your company's stature as a leading power generator in India and positions us to make the most of future market opportunities. By strategically increasing its generation capacity, NTPC ensures a secure and sustainable stream of revenue generation.

I am happy to share that your company's commitment to self-sufficiency in coal production has yielded impressive results. During the FY24, total coal despatch of 34.15 MMT was achieved, registering over 50% growth when compared to the preceding year. This accounts for nearly 13% of our total coal consumption. Looking ahead, we are strategizing to fulfil a minimum of 25% of our coal requirement through captive mines by FY30. Furthermore, NML secured the rights to develop the North Dhadu (East) coal block. This not only supports our fuel security but also translates to cost savings. NTPC's dedication to sustainable mining practices is highlighted by the recent recognition of two of our mines, which have received Star Rating Awards under the category of Opencast mines by the Ministry of Coal.

NTPC has conceptualized the development of all its mines as a "Model Mine" by adopting the best technological practices, integrating digital tools for operational efficiency, striving towards 'Zero Incident potential', promoting green footprints, and setting benchmarks in the mining industry.

I am happy to share that your company is driving India's clean energy transition by leading initiatives in green hydrogen, green chemicals, and carbon capture utilization. These efforts contribute to the government's goal of achieving a carbon-neutral economy. Towards this endeavour, we have joined forces with leading players like IOCL, ONGC, HPCL Mittal Energy, and NALCO to develop large-scale renewable energy parks. These partnerships will not only accelerate project development but also support collaboration across the energy sector.

You all will be pleased to know that your company is making big moves in nuclear power, with 2.8 GW capacity project in Rajasthan through ASHVINI a JV between NTPC and Nuclear Power Corporation of India. Simultaneously, action has been taken for the formation of a separate subsidiary for carrying out nuclear business and requisite approvals of the Government are in the advanced stage. After gaining the requisite expertise in nuclear project development, we would like to undertake projects on our own under the new subsidiary.

This fiscal year we achieved a major milestone by fully commissioning our first overseas power station in Bangladesh. This achievement assumes significance in our "Golden Jubilee" year. Our collaborations with Indian states and foreign governments on power projects solidify our position as a global energy player. Thus, NTPC climbed 61 positions to secure the 372nd rank in Forbes' Global 2000 List for 2024.

I'm happy to announce the groundbreaking advancements achieved by our R&D team this year. One key development is the first-of-its-kind waste-to-charcoal plant in Varanasi. This facility tackles waste management while creating a valuable resource. Furthermore, the successful trial of hydrogen buses in Leh showcases our commitment to clean transportation solutions, especially for remote areas. This pioneering initiative paves the way for wider adoption and a reduced carbon footprint. We aspire to address environmental and societal challenges through innovative technologies. To sustain and accelerate these advancements, we've significantly increased our R&D expenditure by 70%, reaching nearly ₹484 Crore ($ 58.3 Million).

Investing in Our People

As we look back on a year full of achievements, I am particularly proud of the company's strong commitment to its most valuable asset- people. The strong operational and financial performance shows our dedication to advancing a world-class workforce and implementing impactful initiatives. We've invested in our employees' potential by implementing new policies and career development programs. This has not only helped us deploy our workforce more effectively but also prepared our high performers to take on future leadership roles.

We're committed to keeping our employees at the forefront of their fields to ensure we maintain the optimal skillset; we've implemented a multifaceted manpower strategy. We have integrated advanced technological tools into our learning modules and partnered with leading institutions to offer training in the latest technologies. This continuous skill development ensures our workforce stays future-proof. We've streamlined our systems to increase transparency and eliminate discretionary decision-making. I am happy to share that your company triumphed again at the ATD BEST Awards 2024, marking its seventh win in talent development excellence. Your company is also certified as a "Top Employer 2024" in India by Brandon Hall Group.

Beyond the Bottom Line: Our Commitment to Social Impact

At our core, we uphold the principles of sound corporate governance and are unwavering in our dedication to ethical business practices. Guided by values of conscience, transparency, fairness, professionalism, and accountability, these principles form the bedrock of our operations.

NTPC's commitment to ESG is evident through its focus on environmental responsibility, social development, and robust corporate governance. From reducing water consumption and implementing emission control technologies to its impactful CSR initiatives and dedication to employee well-being, NTPC is actively shaping a sustainable future for India, its stakeholders, and its workforce.

The decision to permanently discontinue operation of the outdated Barauni Thermal Power Station reflects our commitment to optimizing our operations and focusing on more efficient power generation technologies.

NTPC's consistent commitment to high standards of corporate governance is recognized by the Gold Award it received in December 2023 for its Annual Report at the "Corporate Governance Disclosures Competition 2022," organized by the South Asian Federation of Accountants (SAFA). Additionally, the company's Internal Audit department was honoured with the "Internal Auditor of the Year" award at the 5th Audit and Risk Summit & Awards (UBS Forums, May 2024).

I am pleased to share with you that NTPC's ESG Score has ascended by two levels, transitioning from D rating in 2022 to C rating in 2023 in the Carbon Disclosure Project (CDP) Water Security Rating. To support GoI's initiatives towards creating additional carbon sinks, we have planted more than 1 million trees in the last fiscal, totalling 39 million trees till date. Additionally, we are undertaking the Green Credit Program of GoI for eco-restoration of degraded forest lands on a voluntary basis. This will promote a sustainable lifestyle and environmental conservation as part of the 'LiFE' initiative announced by our Prime Minister in COP26.

We understand and value the trust and confidence reposed in us by our stakeholders. By adhering to robust governance standards



and nurturing a culture rooted in integrity, we strive to ensure that our company operates in a manner that serves the best interests of all those we serve.

Beyond delivering reliable and affordable power, we recognize the impact we have on the social and environmental fabric of India. Our focus has always been to take development beyond boundaries and be inclusive in our approach. This year, we have further strengthened our commitment to Corporate Social Responsibility (CSR) initiatives, adopting a holistic approach that creates value for our society.

As India's largest power generation company, we understand the critical role we play in shaping the nation's sustainable future. Our CSR initiatives have focused on Health, Sanitation, Education, Sports, Skill Development, and Women Empowerment, ensuring social well-being alongside economic growth. Our Girls Empowerment Mission (GEM), with a vision to create a brighter future for both girls and society, has blossomed into a nationwide movement and has already benefited more than 10,000 girls in India. Through many such initiatives, NTPC has made a positive impact on the lives of over 16 lakh people.

Unlocking New Opportunities

NTPC remains committed to innovation and excellence in the ever-evolving energy landscape. Guided by our core values, we are constantly seeking out new opportunities for responsible and sustainable growth.

India, home to around one-sixth of the population, aspires to become a developed country by 2047. This calls for the significant build-up of infrastructure and expansion of the manufacturing base which in turn gives rise to the energy demand.

Your company being India's largest power utility, is ready for significant growth in the coming years. NTPC's expertise in the power sector makes it well-equipped to capitalize on this growth opportunity. India's demographic strength, with a large and young population, coupled with the vast latent demand for electricity, is set to drive rapid growth in the power sector.

Acknowledgements

I extend my heartfelt gratitude to the Government of India, especially the Ministry of Power, Ministry of Coal, Ministry of Railways, Ministry of Environment, Forest, and Climate Change, Ministry of New and Renewable Energy, DIPAM, CERC, CEA, CAG, State Governments, our esteemed Customers, Auditors, Vendors, and other authorities and agencies for their unwavering support. Your strong and continued support has played a pivotal role in our achievements.

I also want to acknowledge and thank my fellow Board members for their invaluable contributions in strengthening the Company. To our investors, shareholders, employees, and customers, I deeply appreciate your trust and support. Your confidence is paramount to us, and we are committed to maintaining it through our dedicated efforts.

Once again, I sincerely thank all stakeholders for their trust and confidence in our Company. We are committed to exceeding expectations and fostering a sustainable energy future.

With best wishes,

Yours sincerely,

Sd/-

(Gurdeep Singh)

Chairman & Managing Director

Our Group's Overview | Innovating for Sustainability | Statutory Disclosures | Statutory and Financial Results

Directors' Profile



Gurdeep Singh
Chairman & Managing Director

Gurdeep Singh [DIN: 00307037] is the Chairman & Managing Director of NTPC Limited, India's largest integrated power utility and a global energy major since 2016.

In an illustrious career spanning, more than three and a half decades, he has held leadership positions with several national and multinational companies like PowerGen, CESC, AES, IDFC, GSECL, NEEPCO, and DVC.

Mr. Singh is an alumnus of NIT Kurukshetra and IIM Ahmedabad and has undergone management and leadership training from Harvard and Oxford business schools.

An accomplished business leader with expertise in building and managing businesses across the power sector value chain, Mr. Singh is leading NTPC's transformational journey into a sustainable integrated energy company.

Mr. Singh embraces innovation and a people-centric sustainable approach to business. Under his leadership, NTPC has been consistently ranked as a 'best employer' internationally and received awards and recognitions for its community-oriented innovative CSR initiatives and business sustainability.

Mr. Singh's pioneering efforts in leading India's clean energy transition have earned him global acclaim, including the S&P Platts Global CEO of the year award and SCOPE Eminence Award.



Jaikumar Srinivasan
Director (Finance)

Jaikumar Srinivasan, [DIN: 01220828], has over 3 decades of experience in Power and Mining sector in State and Central PSUs in the field of Finance, Accounts, Taxation, Commercial, Electricity regulation, Renewables, IT, Project development etc. with more than a decade of Board level experience. Before his appointment as Director (Finance), NTPC Limited, he served on the Board of various companies. He was Director (Finance) in NLC India Limited as well as in Maharashtra State Electricity and Distribution Company Limited (MSEDCL) and Maharashtra State Power Generation Company Limited (MAHAGENCO).

He also holds charge of Commercial function of the Company. He is also on the Boards of NTPC Green Energy Limited (NGEL). He is also the Part-time Chairman of Ratnagiri Gas and Power Private Limited (RGPPL), Indian Oil NTPC Green Energy Limited (INGEL) and Green Valley Renewable Energy Limited (GVREL).





Shivam Srivastava
Director (Fuel)

Shivam Srivastava [DIN:10141887], a Mechanical Engineering graduate from Kamala Nehru Institute of Technology, Sultanpur (Avadh University), Post Graduate in Business Management from MDI Gurgaon, had joined NTPC as 13th batch executive trainee in 1988. He has also undergone a Leadership Management course from Harvard Business School, Boston (USA). In his professional career, he has accumulated over 34 years of experience with outstanding contribution in areas of Fuel Handling, Fuel management, Safety, plant operation & maintenance and in coal mining projects.

His experience in the energy sector includes exposures as Head of Fuel Management functions, Head of Operation & Maintenance functions in power plants along with experience as Business Unit Head of two coal mining projects of NTPC. Prior to his elevation to the post of Director (Fuel), he was working as CGM and Business Unit Head of Pakri Barwadih Coal Mining Project of NTPC Limited where he had been instrumental in ensuring fuel security and building self-reliance in coal supply to power projects of NTPC.

As Director (Fuel), NTPC, he is responsible for ensuring fuel availability, affordability, and security for generating stations along with development and safe operation of captive coal mines of NTPC. He is also responsible for Fuel Supply Agreements with Gas Suppliers, Coal suppliers and ensuring timely supply of quality coal at power stations as per power generation requirement alongside maintaining adequate stock levels. He is also Part-time Chairman of NTPC Electric Supply Company Limited (NESCL), NTPC Mining Limited (NML) and NTPC Vidyut Vyapar Nigam Ltd (NVVN).



K. Shanmugha Sundaram
Director (Projects)

K. Shanmugha Sundaram [DIN: 10347322], as Director (Projects) of NTPC Limited is responsible for Projects (Thermal, Hydro & RE), Engineering, R&D, Corporate Contracts & Materials, Dispute Resolution and Information Technology verticals of NTPC.

He is a 1988 batch Electronics and Communication Engineering graduate from Govt. College of Technology, Coimbatore with PGDM from MDI Gurgaon in Strategy & Finance and joined NTPC Limited as Graduate Engineer Trainee officer in 1988.

He has over 35 years of diverse experience in Project Management of greenfield & brown-field projects including execution, commissioning and operation & maintenance of vast fleet of power stations.

He was actively involved for the development of 1st supercritical power project of NTPC at Sipat-I (3x660 MW). He has worked in various capacities at NTPC Darlipali Project (2x800 MW). He has exposure of working at Corporate Centre in Operation Services wherein monitoring of Company's functions is being carried out and strategic initiatives taken.

During his tenure as Head of Project at NTPC Barauni (720 MW), a taken over Project from Bihar State Electricity Board, project commissioning was accomplished. As Head of Project at Talcher Kaniha (3000 MW), he was influential in improving the performance of the station which has ensured CII-ITC Sustainability award and construction of FGD. Prior to joining as Director (Projects), NTPC Limited, he was Executive Director to CMD, NTPC Limited.

Apart from being a member of NTPC board, he is also Part-time Chairman in NTPC Green Energy limited (NGEL), NTPC Renewable Energy Limited (NREL), Patratu Vidyut Utpadan Nigam Limited. (PVUNL), Aravali Power Company Private Limited (APCPL), Meja Urja Nigam Private Limited (MUNPL) & Energy Efficiency Services Limited (EESL), Vice Chairman in Fertiliser JV Company -Hindustan Urvarak & Rasayan Limited(HURL).

He is a professional with Corporate and Site experience, people-oriented approach, knowledge and experience of the entire power sector and works towards speedy implementation of Projects.



Ravindra Kumar
Director (Operations)

Ravindra Kumar (DIN: 10523088), a Mechanical engineering graduate from BIT Sindri, joined NTPC as 14th Batch Executive Trainee in 1989. He has over 34 years of vast experience with outstanding contributions in power plant Operation & Maintenance, Engineering & Project Management. He initially worked in various capacities in O&M functions including Commissioning at NTPC Kahalgaon Project. Subsequently he worked at Corporate Centre in Engineering Department and as a Technical Support to Director (Technical), NTPC Ltd.

Shri Ravindra Kumar's experience in power sector includes Senior Management level exposure as a CTO (Chief Technical Officer) of BIFPCL (Bangladesh India Friendship Power Company Ltd) where he was actively involved in development of Maitree (2X660 MW) supercritical power project of BIFPCL, Bangladesh. He spearheaded all Engineering, Procurement, Erection, Commissioning, and O&M activities including Fuel Security of both the Units of BIFPCL. Later, as Chief Executive Officer (CEO), Patratu, he expedited various Engineering, Procurement, Erection and Commissioning activities of the Project.

Shri Ravindra Kumar took charge as Director (Operations), NTPC Ltd. on 26th February 2024. Prior to this, he was OSD (Officer on Special Duty) to Director (Operations), NTPC Ltd.

Shri Ravindra Kumar is also Part time Chairman on the Board of NTPC Tamil Nadu Energy Company Ltd. (NTECL), Bhartiya Rail Bijli Corporation Limited (BRBCL), Jhabua Power Limited (JPL), NTPC-SAIL Power Company Limited (NSPCL) & NTPC BHEL Power Projects Private Limited (NBPPL). He is Part time Director on the Boards of NTPC Mining Ltd (NML), Bangladesh India Friendship Power Company (Pvt.) Limited (BIFPCL) and Board Member of Central Pollution Control Board (CPCB).

As Director (Operations), he is responsible for overall planning for Safe, Reliable, Sustainable, and Efficient operation of all power generating stations of NTPC group, while ensuring Fuel Security & Environmental compliance at all the Power Stations.



Piyush Singh
Govt. Nominee Director

Piyush Singh [DIN: 07492389], is a 2000 Batch IAS officer from Maharashtra Cadre. He is working as Joint Secretary (Thermal and Coal, Distribution), Ministry of Power, Govt. of India.

He has done B. Tech (Civil) from IIT Delhi. He worked in various capacities in District Administration, Department of Social Justice & Empowerment and Department of health & family welfare, Government of Maharashtra. He also served in Uttarakhand in Planning department, Dehradun.

He has wide experience in the area of Public Administration and Planning.He is also on the Board of North Eastern Electrical Power Corporation Limited (NEEPCO) & THDC (India) Limited.



Ms. Sangitha Varier
Independent Director

Sangitha Varier, [DIN: 09402812], is a Corporate Leader. She is a Commerce Graduate and Bachelor in Education (B. Ed.). During her career, she has held various positions. She is Director of The Arya Vaidya Pharmacy Ayurveda Hospital & Training Academy, a wing of The Arya Vaidya Pharmacy (Coimbatore) Ltd. She also headed the Administration and Academics of four Chinmaya Vidyalaya Schools as Correspondent. Presently she is state General Secretary in Seva Bharathi, Tamil Nadu.



Vidyadhar Vaishampayan
Independent Director

Vidyadhar Vaishampayan, [DIN: 02667949], is an M-Tech from IIT-Mumbai and he has also completed Executive Development Study from IIM-Bangalore. He is an active member of various social organizations and groups.

He was associated with TJSB Sahakari Bank Ltd., Thane, Maharashtra, since 1994 and was elected as a Board Member for the tenure of 1994-2002 and was a member of various sub committees. In tenure of 2002-2005, he has been elected as Vice-chairman then in the tenure of 2005-2015, he has been elected as a Chairman of the Bank and in the tenure of 2015-2020, he was a Director of the Bank. He was also Director in National Federation of Urban Co-Operative Bank and was member of RBI Task Force from 2014 to 2019. In technical field, he has developed multilevel parking system, which is essential requirement of present as well as future.



Jitendra Jayantilal Tanna
Independent Director

Jitendra Jayantilal Tanna, [DIN: 09403346], is a Chartered Accountant by profession. He is also a Commerce Graduate. He has functional expertise in areas of Direct Taxation, Audit and Finance Management.



Vivek Gupta
Independent Director

Vivek Gupta, [DIN: 08794502], is a serial entrepreneur. He is a Management Graduate with a degree of Law. He is founder CEO in Jaipur scientific instrument, Jaipur Scientific Agriculture Research Sol. Pvt. Ltd. and Director in Drinkbucket Pvt. Ltd.

Senior Management Team (as on 1st August, 2024)

Sr. No	First Name	Last Name	Position held
1	Prem	Parkash	RED (WR-I) & (SR)
2	Pradipta Kumar	Mishra	RED (WR-II) & (USSC)
3	Manohar Krishna	Asthana	ED (QA & Inspection)
4	Kedar Ranjan	Pandu	ED (Ramagundam)
5	Aditya	Dar	ED (Finance)
6	Shoba	Pattabhiraman	ED (Vigilance)
7	Asesh Kumar	Chattopadhyay	ED (Tanda)
8	Bodanki	Srinivasa Rao	ED (FGD)
9	S	Govindarajan	ED (DRC) & (CC&M)
10	Shambhu Nath	Tripathi	RED (Hydro) & ED(PM)
11	Nasaka	Srinivasa Rao	RED (NR)
12	Sudip	Nag	RED (ER-I)
13	Umakant Haribhau	Gokhe	ED (CPG-I)
14	Harekrushna	Dash	ED (CP)
15	Satish	Upadhyay	ED (Biomass)
16	Subhra Kumar	Ghosh	ED (OS)
17	R	Sarangapani	ED (BD & IBD)
18	Arindam	Sinha	RED (ER-II)
19	Goutam	Deb	ED (Hydro)
20	Ajay	Dua	ED (Commercial)
21	Prasenjit	Pal	ED (Nuclear)
22	Vijay	Goel	ED (Barh)
23	Udayan	Kumar	ED (Engg)
24	E	Satya Phani Kumar	ED (Vindhyachal)
25	Vijay	Prakash	ED (SSEA)
26	Shaswattam		ED (Netra)
27	Masood Akhtar	Ansari	ED (Fin)
28	Virendra	Malik	ED (Fin(Coml))
29	Harjit	Singh	ED (Corporate Communication)
30	Animesh	Jain	RED (Coal Mining)
31	Anil	Kumar	ED (Lara)
32	C	Kumar	ED (HR)
33	V	Sudershanbabu	ED (SR)
34	Pushpendra	Tyagi	GM (Internal Audit)

Posted in JVs/Subsidiaries

1	Sangeeta	Kaushik	MD (BIFPCL)
2	Apelagunta Kama	Manohar	CEO (NTECL), Vallur
3	Diwakar	Kaushik	CEO (NSPCL)
4	Gampa	Brahmaji Rao	CEO (APCPL), Jhajjar
5	Rajiv	Gupta	CEO (NGEL)
6	Kamlesh	Soni	CEO (Meja)
7	Renu	Narang	CEO (NVVN)
8	Santosh Kumar	Takhele	CEO(RGPPL, Ratnagiri)



Introduction to capitals and value creation model

INPUTS

FINANCIAL CAPITAL

- Debt of ₹2,35,040.30 Cr.
- Net worth of ₹1,59,689.61 Cr.

MANUFACTURED CAPITAL

- 92 power plants 5 operating captive coal mines
- 74,638 MW of installed capacity
- ~10% of Non-fossil Portfolio

INTELLECTUAL CAPITAL

- ₹483.63 Cr. R&D Expenditure
- 10 NABL & ISO 17025 accredited labs

HUMAN CAPITAL

- 20,074 Regular employees 1,22,542 Contractual employees
- ₹6,592.03 Cr. spent on Employee Benefits

SOCIAL CAPITAL

- 43 vendor development programmes for MSEs suppliers
- 88 Discoms / beneficiaries purchasing bulk power
- ₹ 254.62 Cr. spent on CSR

NATURAL CAPITAL

- 264.52 Mn MT of Coal 172 kilo MT of Biomass consumption
- 1132.75 MCM of water consumption

OUR BUSINESS MODEL



Our Vision To be the World's Leading Power Company, Energizing India's Growth



OUTPUTS

- ₹ 21,332.45 Cr. of PAT
- ₹ 3,25,759.50 Cr. of Market Capitalisation

- 422.21 Bn Units of Power Generation
- 77.25% PLF at coal stations

- 47 patents granted 17 copyrights granted
- E-library of 25,000 e-books, 1,00,000 articles, reports and journals

- 0.29 of Man-MW ratio 0.052% of Involuntary attrition rate
- 42 hours of Learning opportunities per employee per year
- 4.42 Mn man-hours of safety training

- 96.89% Customer Satisfaction Score
- 1.63 million lives touched through CSR work

- 92% Ash utilised
- 2.68 L/kWh of specific water consumption
- 39 Mn trees/saplings planted since inception
- 47.2 Lakh KL of rainwater harvested

OUTCOME

Sustainable cash flows and robust earnings per share.Best credit ratings within the industry such as CRISIL AAA/ Stable, ICRA AAA/ Stable, IND AAA/Stable, and CARE AAA/ Stable.

Increased availability and improved efficiency of generating units, with enhanced fuel security and reduced costs. A higher share of renewables mitigates risks.

Improved employee productivity and retention, resulting in the lowest attrition rate. Significant reduction in safety hazards and incidents, creating a skilled and better decision-making workforce.

Increased availability and efficiency of power generation units. Improved water conservation and optimized ash utilization through research and development initiatives.

Robust and reliable supply chain with inclusive development of community.

Improved resource and energy efficiency aligned with circular economy principles, resulting in lower emissions.

Impact

Economic Impact

Contribute to socio-economic growth through reliable power generation, job creation, and dividend payments to the government.



Social Impact

Creating a positive social impact by promoting inclusive growth through increased community engagement, reducing socio-economic vulnerabilities and fostering sustainable livelihoods.



Environmental Impact

Ensuring a sustainable and habitable Earth through eco-friendly energy solutions and reduced environmental impact.





Stakeholder Engagement and Materiality Assessment

Our Approach

At NTPC, we place paramount importance on creating value for all our stakeholders across the entire value chain. We consistently strive to align our operations and business processes to effectively meet the expectations of our esteemed stakeholders. Our strategies are meticulously crafted to prioritize the needs of our diverse range of stakeholders, encompassing employees, communities, contractors, customers, and vendors. We actively engage with them with unwavering commitment and undertake materiality assessment to capture and integrate stakeholder issues into our decision-making and business strategy. We prioritize critical and recurring stakeholder concerns within the analysis, which further inform our actions and responses as outlined in the materiality section.

Stakeholder Engagement[1]

We, at NTPC, recognize that stakeholder engagement is a continuous process, encompassing interactions at various management levels and through diverse communication channels. With a rich history spanning nearly five decades, we have diligently cultivated a positive and constructive relationship with our stakeholders, built upon the foundations of mutual trust, transparency, ethics, and accountability. Our growth and achievements can be attributed in large part to the ongoing dialogue that we maintain with stakeholders, actively seeking and incorporating their valuable feedback on matters pertaining to our operations.

To effectively manage stakeholder relationships, NTPC has implemented a comprehensive and structured stakeholder management process across verticals, functions, and establishments. This includes a 4 step systematic methodology that includes identifying key stakeholders, analyzing their perspectives and interests, and mapping and prioritizing their needs, leading ultimately to the framing of engagement strategy. Further details on this process can be found on the NTPC website at https://www.ntpc.co.in/sustainability/stakeholder-management.



Stakeholder engagement framework



[1]GRI 2-29

Our Stakeholders

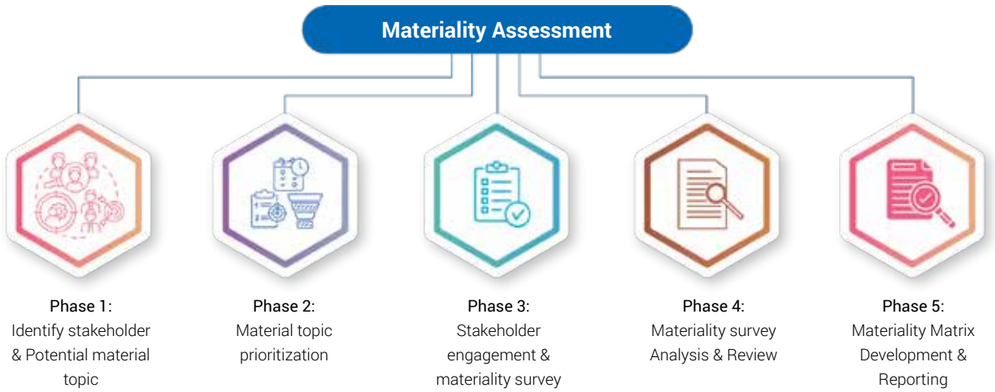
Stakeholder Group	Modes of Engagement	Frequency of Engagement	Key Concerns	Materiality Topics Linkage
Government of India	• Minister & Secretary level review • Meetings with MoP, MNRE, MoEFCC, MoC, DAE, DPE, Parliamentary Committees, CEA, NITI Aayog etc.	• Quarterly • Need based	• Ample power generation capacity • 24x7 affordable power to all • Maximizing infrastructure utilization • Social development • Climate Change & Environment conservation • Promote Govt. schemes (viz. Make in India, Skill India, Swachh Bharat Mission, etc.)	All
Regulators	• Public hearings • Statutory audits & inspections • Meeting for clearances, consents and compliances	• Need based • As per statutory provisions	• Optimum electricity tariff • Compliance with changing business environment	
Communities & NGOs	• Public hearings • Village Development Advisory Committee (VDAC) • Public information centers • Project-based stakeholder meets	• Need based • Annually	• Infrastructure development • Quality of life • Employment opportunities • Land acquisition and R&R issues • Increased community involvement	4, 6,7,8, 9, 12
Investors & Lenders	• Analyst and investors meetings • Annual general meeting • Review meets with bankers (Domestic and Foreign)	• Quarterly • Annual • Regular	• Improving RoI • Climate change & business sustainability • Risk and governance compliance • Increased disclosures on Environment, Social and Governance (ESG) aspects	4,10,11
Employees	• Participative forums • Communication meetings • Employee surveys • Intranet and website • Trainings and workshops • Internal magazines	• Defined frequency of concerned Fora • Need based	• Professional growth • Work life balance • Health, safety and security • Timely resolution of grievances • Transparent appraisal and promotion cycle	1,2, 7, 10, 11, 14, 15



Stakeholder Group	Modes of Engagement	Frequency of Engagement	Key Concerns	Materiality Topics Linkage
Customers	• Regional customer meets • Regional power committees (RPCs) • Commercial meetings/ interactions • Technical coordination committee • Operation coordination committee • Business partner meet • Customer support services	• Quarterly • Monthly • Yearly • Need Based	• Resolving commercial issues • Resolving technical issues	3,4,5,10
Suppliers	• Pre-bid conference • Suppliers meets, Vendor enlisting • NTPC website	• Before tendering • Need based	• Transparent dealings • Timely payments • Fair opportunities • Sustainable Supply Chain	2,10,11,13
Media	• Press releases • Press conferences	• Need based • Event based	• Information sharing • Increased transparency	All
Indian Citizens	• Right to Information (RTI) Act queries • NTPC website	• Continuous	• Community development • Environmental issues • Progressive organization	All

Materiality Assessment[2]

NTPC recognizes the importance of conducting materiality assessments, which form a core component of our Integrated Report, and enables us to gain understanding of the relative importance of specific environmental, social and economic issues and their potential impact on value creation. We have adopted a structured methodology for conducting materiality assessment using a dedicated materiality survey at a regular interval (3 to 4 years), in which we engage both internal and external stakeholders.

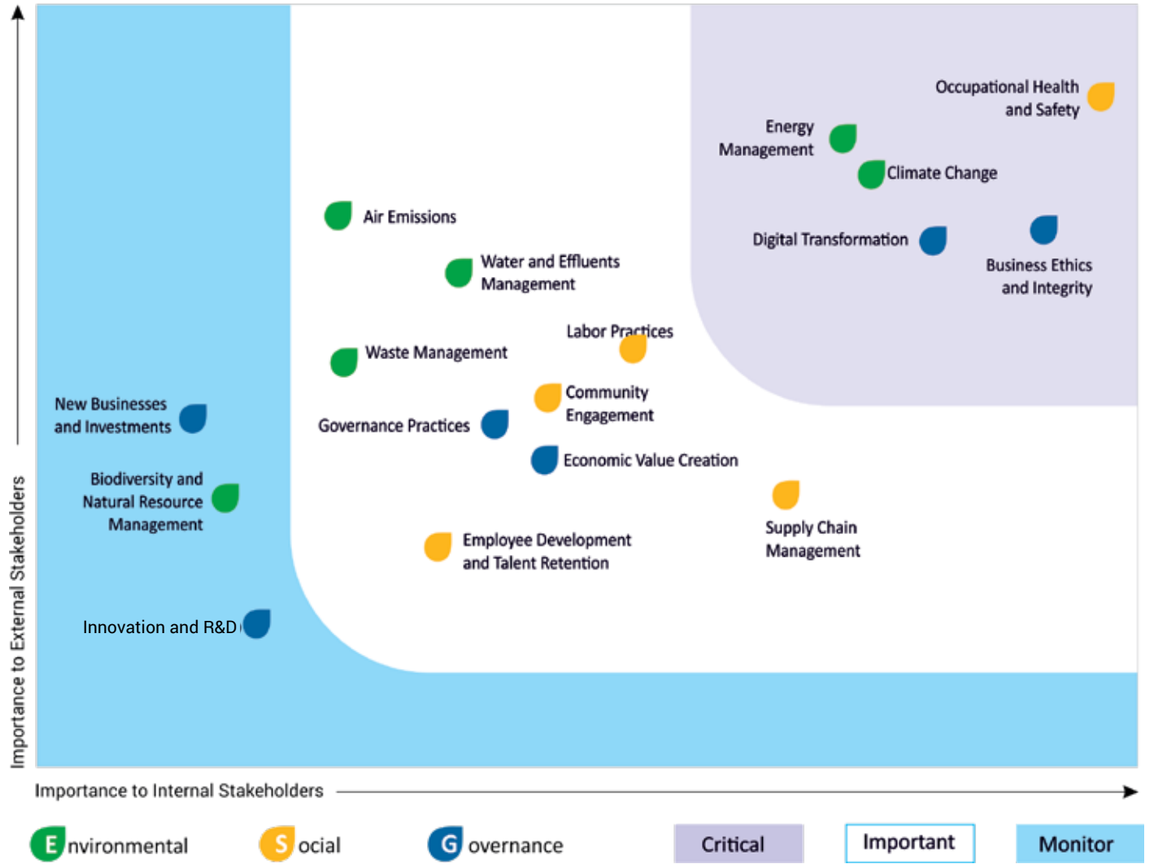


NTPC's Materiality Assessment Process

[2]GRI 2-29

Keeping in line with our robust materiality assessment methodology, we undertook an assessment of our material topics in FY-2021-22 (in accordance with the IIRC Framework and GRI standards) through a credible MNC. This exercise was helpful in prioritizing the inputs received from relevant stakeholders, as described in the previous section (Stakeholder Engagement), and incorporating them into the decision-making process of NTPC. The material topics also provide further insights into the challenges, risks, and opportunities that our company may face as described in the chapters on Risk and Governance, and Ethics and Vigilance. Our business sustainability depends on the effective management of material topics since it guides our strategic planning and management priorities towards creating long-term sustainable value for our stakeholders. The details about methodology and engagements undertaken can be accessed from NTPC's website.
(https://ntpc.co.in/sustainability/materiality-analysis)

NTPC's Materiality Matrix





Our approach to materiality topics

Material Topics	Key Actions	SDG Linkages	Capital Linkages
1. Occupational health and safety	• Safety is inculcated in the core values of NTPC; SAP Integrated NTPC Safety Framework developed • Target of zero incidents by establishment of robust safety culture and policy • Up-gradation of operating procedures to make the work environment safer • Mitigation of potential safety hazards owing to diversification into new technologies and business areas • NTPC Unchahar Safety Academy has been established to provide hands-on training on specific safety and emergency requirements • Mandatory Periodic Occupational Health Check-ups for all employees and contract labourers • Record Keeping of medical history of employees and their family through online centralized HMS Framework "Jeevan Rekha"		**Human Capital**
2. Business ethics and integrity	• Ethics being part of core values, all business processes are aligned to the principles of ethics and integrity • Policies of code of conduct, whistle-blower, complaint handling and banning of business dealings in place • 100% compliance with laws and regulations ensuring a transparent and corruption-free work environment • Display Boards at all offices exhorting any visitor not to succumb to pressure, and report any case of corrupt practices directly to Nodal and Chief Vigilance Officer		**Social Capital**
3. Energy management	• Stress on efficient utilization of resources and use of technological advancements for improving energy efficiency • Dedicated groups (CenPEEP & CEETEM) created to improve the Energy Efficiency Management • Energy Efficiency Management System (EEMS) consisting of periodic assessments, field tests, performance gap analysis, deviations analysis and updation of action plans at all stations.		**Manufactured and Natural Capital**
4. Climate change	• Enhanced geographical and technological diversification, inherently reduces our risks to any location-specific natural catastrophe • Power plants and associated infrastructure are designed to withstand cyclones, heatwaves and increase in ambient temperatures • Decommissioning of old thermal plants and a revised target of 60 GW of RE capacity by 2032 • Our current Non-Fossil based energy capacity is ~10% . And with further massive RE addition, we anticipate reducing our specific CO_2 emissions substantially over the next few years.		**Natural, Social and Manufactured Capital**
5. Digital transformation	• Launched notable digital platforms for business approvals and Suppliers/Labour bill payments • CPM & BI tool for data monitoring and reporting		**Intellectual Capital**
6. Water & effluents management	• Optimisation of water consumption through advanced technologies and process re-engineering • NTPC is a signatory to the CEO Water Mandate • Implementation of "Water Policy" and "Rainwater Harvesting Policy" • Implementation of "Zero Liquid Discharge (ZLD)" at all stations, including ensuring good quality freshwater availability in and around plant locations through community investments and capacity building • Installation of Air-Cooled Condensers having potential to save 60% of water • Cycles of Concentration (CoC) is being increased at all stations for reducing freshwater intake		**Natural and Social Capital**
7. Labour practices	• Uphold the best Global and Indian labour standards pertaining to wage determination, allocation of tasks, shifts & working hours, provision of training, incentive & reward schemes and occupational health & safety • Dedicated Human Rights Policy in place to promote and safeguard all kinds of human rights, including organizational rights • Operating bipartite collective bargaining forum (NTPC Bipartite Council) since 1982 • Implemented CLIMS for online labour payments, skill training and building health Information profile		**Human and Social Capital**



Material Topics	Key Actions	SDG Linkages	Capital Linkages
8. Air emissions	• Installation of FGD/DSI system for SOx control completed for 23 units while execution work in 119 units is in process • Combustion modifications for De-NOx 49/50 units completed, whereas execution work for rest one unit is in process • Retrofitting of ESP done for 40/50 units at 13+ GW capacity to curb particulate emissions at all stations, whereas retrofitting for the remaining capacity is ongoing. • Continuous Emission Monitoring System (CEMS) of all stacks • Ambient air quality monitoring through an online Ambient Air Quality Monitoring System (AAQMS)		**Natural Capital**
9. Community engagement	• Dedicated CSR policy in line with Companies Act, 2013 and Department of Public Enterprises (DPE) Guidelines for CSR • Key community-based programmes through NTPC Foundation • Our focus areas include Health, Sanitation, Water and Education • One of the top CSR spending conglomerates in country through expenditure of 352.79 Cr. in FY 2023-24		**Social Capital**
10. Governance practices	• Committees of Audit, Nomination and Remuneration, Stakeholders Relationship, CSR and Risk Management • Govt. nominated directors on our Board, ensuring strict monitoring and transparency in our governance system • Financial Accounts are audited by Statutory Auditors appointed by o/o C&AG and supplementary audit is carried out by o/o C&AG. Further, Internal Auditors carry out review of processes and internal controls. • NTPC's pay policies are governed by DPE • Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels		**Social, Human and Financial Capital**
11. Economic value creation	• NTPC Group's economic performance during the FY 2023-24 has resulted in a direct economic value generation of INR 1,77,608.87 Cr.		**Financial Capital**

Material Topics	Key Actions	SDG Linkages	Capital Linkages
12. Waste management	• Waste (Hazardous & Non-hazardous) generated are properly handled and disposed with approved agencies • Specific guidelines and systems instituted for handling domestic waste and bio-medical waste • The scrap and recyclable waste are managed through auction on the MSTC e-platform • Other solid waste is managed according to our Waste Management Policy & applicable govt. regulations		**Natural Capital**
13. Supply chain management	• Implementation of Sustainable Supply Chain Policy • Capacity building programmes for suppliers on Environment, Social and Governance fronts to create shared value • Capturing ESG data of suppliers and mapping the vulnerability		**Social Capital**
14. New businesses and investments	• Transforming into an integrated energy player from a power generator only • Diversified into Renewables, Green Hydrogen, Green Chemicals, EV Ecosystem & Power Trading, etc.		**Financial and Manufactured Capital**
15. Employee development and talent retention	• Continuously re-engineering HR systems to strengthen the relationship between business growth and systematic employee development • Continuous engagement activities and training programs • Systematic job rotation and career development scheme to aid employees in their horizontal and vertical growth		**Human Capital**
16. Biodiversity and natural resource management	• Implementation of dedicated Biodiversity Policy • 39+ Million saplings have been planted • Currently implementing 16 Wildlife and habitat restoration projects. • Integration of biodiversity considerations into business decision-making processes.		**Natural Capital**
17. Innovation and R&D	• Delivering sustainable technology solutions through applied research and providing advanced scientific services through dedicated R&D centre (NETRA) • Independently developing patented technology • Mitigation of greenhouse gas emissions by taking up projects on renewable, WtE, CCU, Water conservation etc. • R&D projects to increase the reuse of wastewater in our plants		**Intellectual Capital**

Our Group's Overview | Innovating for Sustainability | Statutory Disclosures | Statutory and Financial Results

Risk and Governance

NTPC has implemented a robust Enterprise Risk Management (ERM) system, supported by a comprehensive framework and established processes. In compliance with SEBI (Listing Obligations and Disclosure Requirements) Regulations, NTPC has constituted a Director-level sub-committee called the Risk Management Committee (RMC) to oversee the implementation of ERM practices. The RMC consists of key members, including the Chairperson (Director- Projects), the Director (Operations), an Independent Director, and the Chief Risk Officer (CRO). The RMC ensures that the company's Risk Management Policy adheres to the globally recognized ISO 31000 (Risk Management Guidelines). In alignment with this policy, the RMC conducts holistic evaluation of operational risks and opportunities to ensure the continuity of business operations for attainment of long-term organizational goals.

The Risk Management Committee holds key roles and responsibilities, which include

- Developing a comprehensive Risk Management Policy that encompasses the identification of internal and external risks specific to the organization, such as financial, operational, sectoral, ESG, information, and cyber security risks, or any other risks determined by the Committee.
- Monitoring and overseeing the implementation of the risk management policy, including evaluating the adequacy of risk management and internal control systems.
- Ensuring appropriate methodology, processes, and systems are in place to monitor and evaluate risks associated with the business of the Company.
- Reviewing the risk management policy on annual basis, including by considering the changing industry dynamics and evolving complexity.
- Keeping the board informed about the nature and content of its discussions, recommendations, and actions to be taken.



Enterprise Risks

- **Operational Risks**: The risks associated with processes, systems, or events that have the potential to disrupt business operations.
- **Long-Term Risks**: The risks associated with the company's long-term objectives
- **Commercial Risks**: The risks associated with bill realization, denial of Power Purchase Agreements (PPAs), despatch uncertainties, and market-driven energy pricing.

The organization proactively manages enterprise risks, assessing their nature and impact on operations, activities, and long-term objectives. Details on risk management strategies are provided in the next section, highlighting proactive measures to mitigate risks and ensure resilience.

Risks & Opportunities	NTPC's Initiatives
Operational Risks : - Risks related to processes, systems or events having potential to disrupt business operations.	
Regulatory and compliance risks	
• Environmental norms for thermal power plants require substantial reduction in SPM, SOx, NOx emissions and water consumption. • 100% ash utilisation by thermal plants are other risk areas. • Enhanced load ramping requirements	• NTPC is installing Flue Gas Desulphurisation systems at a massive scale for its thermal power plants for SO2 reduction, and Combustion modification for NOx reduction. ESPs have undergone R&M for SPM control. • Dry Ash Extraction System (DAES) & High Concentration Slurry Discharge (HCSD) technology are used to minimize use of water in Ash handling. Further, new avenues for ash utilisation such as roads and building construction, mine filling and long term off take agreements have been continuously explored. • NTPC has retrofitting, upgrading its thermal assets to fulfil the ramping rate requirements.
Safety or Hazard Risk	
With a large workforce involved in both operating stations as well as projects under construction, safety of people and property remains a potential risk.	To embed safety in all systems and processes, Safety policy has been revised and "***SAP integrated Safety Framework***" has been implemented across the organization to mitigate risks and eliminate hazards.

Risks & Opportunities	NTPC's Initiatives
Fuel Security	
It has become an area of concern owing to reduction in coal supplies and gradual increase in our fleet size.	NTPC is ensuring fuel security through long-term coal supply agreements. Production has started from captive mines i.e. Pakri-Barwadih, Dulanga, Talaipalli, Chatti-Bariatu and Kerandari. Production from these mines is being ramped up to enhance fuel security. Other Mines are in various stages of development. Further, NTPC is also importing coal and blending Biomass pellets as per requirement and in alignment with guidelines issued by Government.
Legal Risk	
With changing legal and regulatory landscape in the country, many legal issues are emerging with the growth in the business. As dispute take longer time to settle, there is a risk of contracts not being closed in a time bound manner.	A Dedicated Arbitration cell created to work in close coordination with best legal advisors and industry partnership to clear cases on priority. Mechanism like Conciliation Committees of Independent Experts (CCIE), Expert Settlement Council, Vivad-Se-Vishwas, Independent Engineer (for Hydro Projects) are also utilized for dispute avoidance. Many cases have been resolved through Mutual Consultation. Focus is on capability enhancement for employees to minimize disputes.
Cyber Security Risk	
Risks to Power Supply System resulting from Cyber intrusion attempts and Cyber-attacks on the plant DCS system as well as grid system operation network have potential to endanger the secured grid operation.	Cyber security is given utmost importance to ensure data security. There is a Security Operation Centre (SOC) which is operational 24x7. NTPC is also part of the Indian Computer Emergency Response Team (CERT_IN)-Thermal. Periodic audits of the network through CERTIN-certified agencies are performed to identify vulnerabilities and are plugged immediately. Interaction with IB on cyber security-related matters is done and their recommendations are complied with. NTPC has also created the position of CISO (Chief information security officer) at corporate level and Single point of Contact (SPOC) for cyber security at stations and projects.
Commercial Risks: - Risk to bill realization, PPA denial, despatch risk and market driven energy pricing	
Realization Risks	
Poor financial health of the DISCOMS affecting the bill realization and cashflows remains a risk.	NTPC has in place a robust payment security mechanism in the form of Letters of Credit (LC) backed by the Tri-Partite Agreement (TPA). In addition to the LCs, payment is secured by the Tri-Partite Agreements (TPAs) signed amongst the State Governments, Government of India (GoI) and Reserve Bank of India (RBI).
Market driven energy pricing	
The power sector is slowly shifting from a regulatory regime to a market driven regime. The tariffs of new projects are being explored through competitive bidding. Being an asset heavy business model, shifting from a fixed RoE to market-based earning leads to uncertainties and risks.	NTPC contributes more that 24 % of India's power requirement with about 17% of installed capacity. In terms of variable cost, NTPC has been consistently maintaining competitive edge over its peers. Additionally, NTPC has been leveraging market mechanism like Security Constrained Economic Despatch (SCED). Regular market analysis and forecasting is enable NTPC to anticipate demand accurately. This includes monitoring factors such as fuel prices, electricity demand, regulatory changes, and other factors in the power value chain.

Risks & Opportunities	NTPC's Initiatives
Long-term risks: Risk related to long term goals of the company.	
Climate Change: Physical and Transition risk	
Climate change is posing both physical and transition risks to all business entities including NTPC. The risks associated with the increase in sea levels, water stress situations, increased heat waves, erratic rainfall and frequent natural disasters may impact the business. Rising climate change concerns and threats may bring future policy and regulatory risks in terms of carbon tax and cess.	NTPC has an enhanced geographical and technology diversification. NTPC operates across more than 91 locations in India and abroad, inherently reducing risks to any individual location specific natural catastrophe. As part of NTPC's preparedness against such situations, our power plants and infrastructure are designed to withstand cyclones, cooling systems to withstand the increase in water temperatures brought forth by climate change. To de-risk its business from transition risk, NTPC is making substantial progress towards decarbonization of energy through increasing penetration of renewables in its portfolio.It is aimed to increase RE capacity to 60GW by 2032
Water Security	
As a proactive measure to avoid any risk due to water scarcity in future, NTPC has adopted a policy of Reduce, Reuse and Recycle (3Rs) for the water being consumed in its station and projects.	The proactive measures for water conservation include process improvements and technology adoption in all possible manners. Some of the key measures being adopted at power generating stations are: • Optimisation of cycles of concentration (COC) • Implementation of ZLD to reduce freshwater consumption, • Adoption of Air-Cooled Condenser (ACC) based cooling not only in water stressed location but every where except where technically not feasible in all upcoming units. • Dry Ash Extraction System (DAES) & High Concentration Slurry Discharge (HCSD) technology to minimize use of water in Ash handling. NTPC has commissioned India's 1st Air Cooled Condenser at North Karanpura STPP
Energy Transition	
Increased focus on energy transition associated with climate change has opened many avenues for energy sector players. Influx of more variable renewable energy in the grid would require greater support of flexible operation of coal stations, energy storage and ancillary services.	In alignment with climate change objective of GoI, NTPC has made an aggressive growth plan in RE space, with an envisaged target of achieving 60 GW by 2032. NTPC is developing internal mechanisms to deal with flexibilization enabling its coal plants to operate at minimum technical load. Further, NTPC is pursuing integration of coal-based projects with RE and Battery storage for round the clock (RTC) supply. NTPC stations are also providing ancillary services for grid security and grid balancing. Pilot projects to produce Green Chemicals like Methanol, Green Hydrogen and Carbon Capturing and Utilization (CCU) have been undertaken.
Digitalisation	
The dynamic business landscape is being driven through Digitalisation. In this highly competitive era, digitalisation is enabling faster decision making, reducing costs through automation and rendering long term competitive advantage.	NTPC is taking all measures for faster adoption of digitalisation across functions and company verticals. **Key digitalisation initiatives by NTPC** • PRADIP for paperless business processes, and suppliers bill payment & CLIMS for online labour payments. • 'RE Assets Monitoring System', a centralised system for real-time monitoring of all RE generating Assets (Solar & Wind) of NTPC. • Project being undertaken for adoption of Robotic Process Automation (RPA), Artificial Intelligence (AI) and Machines Learning (ML) in business processes.

Risks & Opportunities	NTPC's Initiatives
Increased Geo-strategic presence	
Electricity demand is rising in neighbouring countries and in few parts of world having low energy consumption per capita. Lots of opportunities in terms of project construction, consultancy etc. are coming on NTPC way.	NTPC, by virtue of its experience in project management and O&M, has ventured into overseas opportunities such as. • NTPC through its Joint venture with Bangladesh Power Development Board (BPDB) has commissioned 1320 MW thermal power plant at Rampal Bangladesh. • Trincomalee Power Company Ltd. (TPCL), a 50:50 joint venture with CEB Sri-Lanka. TPCL shall develop solar power project (50MW- Phase-I & 85 MW Phase-II) at Sampur. • NTPC Vidyut Vyapar Nigam Limited (NVVN) has signed Agreement with Nepal Electricity Authority (NEA) for sale/ purchase of electricity. NVVN is also suppling power to Bangladesh. NTPC is also executing Project Management Consultancy (PMC) assignments for setting up of solar projects worth 6.6 GWs of ISA in Africa, South and central America.



Ethics and Vigilance at NTPC

Ethics play a pivotal role in shaping the culture and driving the success of NTPC. At NTPC, we hold the values of integrity and trust at our core, ensuring that the highest ethical standards are upheld. By prioritizing fairness, transparency, and accountability in our practices, we foster positive relationships with customers, employees, and stakeholders. Ethical business conduct not only contributes to our long-term success but also builds a reputable brand, attracts loyal customers, and promotes employee engagement and loyalty.

NTPC among top rankers in Efficiency in Vigilance Administration as per objective assessment of efficiency of vigilance administration by CVC in 2023

To uphold high ethical standards, NTPC has implemented various initiatives that demonstrate our unwavering commitment to ethics. These initiatives are designed to foster transparency, accountability, and responsibility in the workplace, reinforcing our dedication to maintain an ethical work environment. Our efforts have been recognized by CVC in their objective assessment of efficiency of vigilance administration. The results have been published by CVC in the booklet "Best Practices in Vigilance Administration". NTPC Ranked 1st among Power Sector CPSUs & 3rd among all CPSUs.

Implementation of Various Policies

NTPC has implemented several policies to enhance integrity, ethics & transparency in governance of the Company. We have developed a comprehensive Anti-Bribery and Anti-Corruption (ABAC) Policy to ensure that our business is conducted in accordance with the highest ethical standards within prescribed rules and applicable laws of India. The detailed description of our policies can be accessed from https://www.ntpc.co.in/sustainability/policies

NTPC among top rankers in Efficiency in Vigilance Administration as per objective assessment of efficiency of vigilance administration by CVC in 2023

- ABAC Policy: Primary policy guiding our business conduct and ethics Additional Policies (connected to ABAC Policy)
- NTPC Conduct, Discipline and Appeal Rules (CDA Rules)
- Fraud Prevention Policy
- NTPC Policy & Procedure for Debarment from Business Dealings
- Integrity Pact
- Whistleblower Policy
- NTPC Complaint Handling Policy
- Applicable Standing Orders under the Industrial Employment (Standing Orders) Act, 1946
- Code of Conduct for Board of Directors, Senior Management Personnel and Employees
- Other Circulars/Policies as may be implemented from time to time.

Implementation of Integrity Pact

NTPC has implemented the Integrity Pact since 2009. This pact covers tenders with an estimated value of 10 crore and above, excluding taxes and duties. By implementing the Integrity Pact, NTPC ensures transparency, fairness, and integrity in the tendering process, fostering an environment of trust and ethical conduct.

Vigilance Mechanism

To uphold transparency, objectivity, and high quality decision-making across its operations, NTPC has implemented an ISO-9001:2015 certified Vigilance Mechanism. The Company's Vigilance Framework comprises Vigilance Executives stationed both at the Corporate Centre and various sites. At site locations, the Vigilance Executives report administratively to the Project Head and functionally to the Chief Vigilance Officer. This structure ensures robust oversight and adherence to ethical practices within the organization. These Corporate Vigilance Department cover

Corporate Vigilance Department Cells

- Vigilance Investigation and Processing Cell
- Departmental Proceedings Cell
- Technical Examination Cell
- MIS Cell



various aspects of our Vigilance Mechanism. The responsibility for vigilance operations has been decentralized, with Regional Vigilance Executives assigned to Corporate Centre, ensuring prompt resolution of matters. Regular meetings are held among senior officials from the Vigilance Department, including the ED (Vigilance), Regional Vigilance Executives, and the Head of DRC/ MIS Cell. These meetings foster open discussions on shared challenges, aiming to establish consistent practices across all regions. This collaborative approach promotes transparency, efficiency, and effectiveness among vigilance personnel, leveraging their collective knowledge, experience, and expertise. It also helps in breaking down silos and bridging gaps, enhancing our overall capabilities.

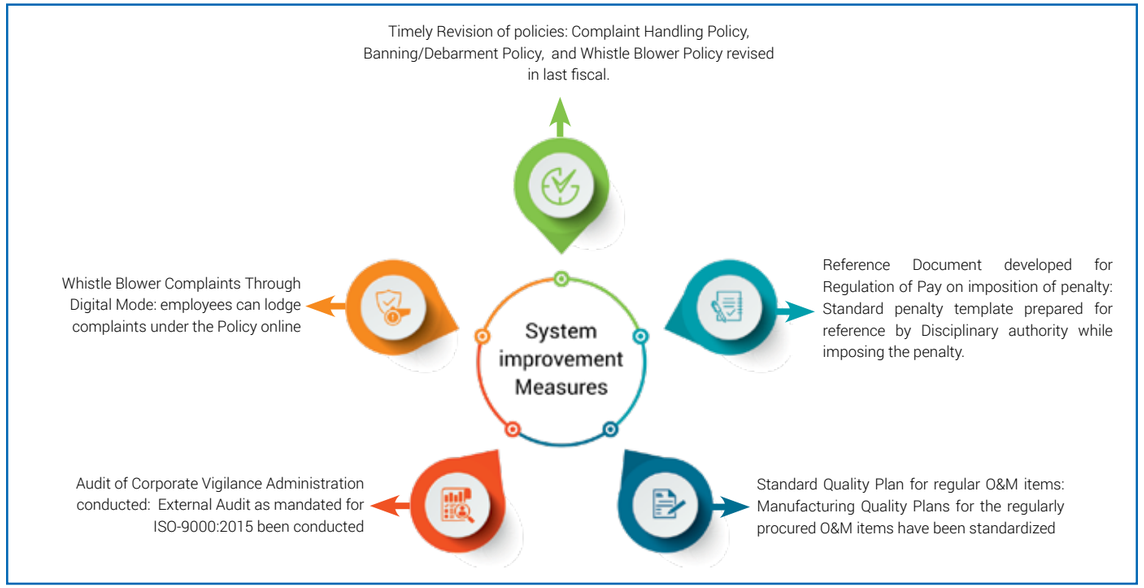
Vigilance work during FY 2023-24

During the year 2023-24 a total of 82 Vigilance complaints (including complaints received under Fraud Prevention Policy) were investigated, out of which 67 complaints have been finalized and the remaining 15 are under various stages of investigation as on 31.03.2024. Appropriate disciplinary action has also been initiated against the involved employees along with system improvements, wherever found necessary. 331 Preventive Vigilance Checks (Surprise, Routine, CTE Type & Scrutiny of Files) were conducted during the period and recovery of Rs 90.43 lacs was affected against various discrepancies detected during checks/inspection. During the last year a total of 282 Preventive Vigilance Workshops were conducted covering more than ten thousand employees at various projects/ places of the Company.

Vigilance Awareness Week

NTPC observed Vigilance Awareness Week 2023 across all offices and power plants of NTPC group including Joint Ventures and Subsidiaries, from October 30 to November 5. The theme was “Say no to corruption; commit to the Nation”. During the three-month campaign from August 16 to November 15, activities included awareness on PIDPI, capacity building in public procurement, ethics, governance, cyber security, and vigilance functions, as well as systemic improvements and updates to circulars and manuals.

The week commenced with the Integrity Pledge on October 30, involving NTPC locations nationwide. Various activities engaged over 21,000 participants, including employees, families, CISF personnel, associates, students, and other stakeholders. Competitions such as slogan writing, poster making, essay writing, quizzes, debates, and elocutions were held, emphasizing the anti-corruption theme. Additionally, Gram Sabhas and Nukkad Nataks were organized in villages near NTPC projects and stations, while workshops and training sessions were conducted for employees, CISF personnel, and other associates, reinforcing NTPC's commitment to transparency and integrity. These initiatives aimed to promote awareness about corruption, encourage ethical practices, and foster a culture of integrity and transparency within the organization.



Financial Capital

Management Approach

We place a significant emphasis on capital expenditure (CAPEX), ensuring a diverse deployment that aligns with our long-term objectives. We recognize the importance of efficient operations and maintenance, and to this end, we have embraced digitalization as a fundamental component of our strategy. By extensively implementing digital tools and technologies, we enhance operational efficiency and optimize resource utilization. This approach enables us to achieve our commitment to high capital productivity while supporting sustainable growth and resource conservation.

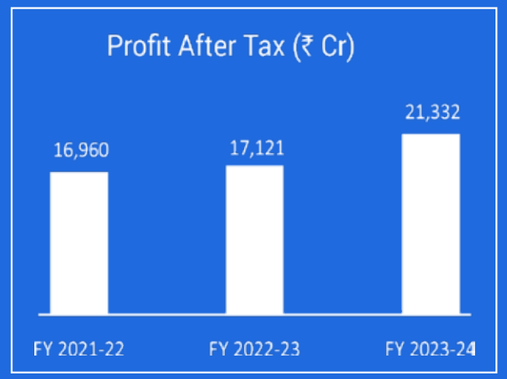
Key Highlights

₹ 1.81 Lakh Cr
of revenues (consolidated) generated

₹ 30.08K Cr
worth of Economic value retained

₹ 254.62 Cr
of community investments

Data Trends



Material Topic(s) [11] [14] [17]

NGRBC Principle : [1]

Mapping with SDGs





Overview

NTPC is dedicated to upholding the highest standards of corporate governance, fostering growth, and achieving performance excellence while prioritizing sustainability. Our strong financial position and esteemed corporate image are a direct outcome of our ethical and equitable corporate governance system and policies. We emphasize maximizing asset utilization, efficient capital allocation, and prompt payments to our capital providers and suppliers to maintain a solid balance sheet. Simultaneously, we actively seek opportunities to expand our presence and deliver value to our investors, shareholders, and workforce while optimizing overall expenses. Furthermore, we are committed to increasing revenue through non-fossil fuel ventures, aligning with our goal of sustainable development.

In the Financial Year 2023-24, we achieved remarkable milestones, with a net profit of ₹21,332.45 crore on a consolidated basis and ₹18,079.39 crore on a standalone basis. Our robust payment security mechanism resulted in realizing over 100% of the billed amount in the reporting year.

NTPC maintains a robust financial system and prioritizes responsible financial resource management to lower capital costs. Our weighted average cost of borrowing is most competitive at 6.67%, reflecting our credibility. We have earned the highest credit ratings from CRISIL, ICRA, India Ratings and CARE, and our foreign ratings from Fitch, S&P, and Moody's are equivalent to sovereign ratings. We actively explore domestic and international borrowing options, aligning with our strategy of business diversification.

We invest in both backward and forward integration across the energy value chain.

While ensuring robust financial growth, we are equally committed to inclusive growth. In Financial Year 2023- 24, we spent ₹200.57 crore (on a standalone basis) on CSR initiatives, exceeding the prescribed 2% limit. For group CSR projects on a consolidated basis, we incurred an expenditure of ₹254.62 crore. In addition to enriching lives through CSR activities, we undertake numerous initiatives to ensure environmental sustainability. These initiatives include large-scale tree plantation and maintenance, installation of rooftop solar PV systems on power stations, public utility buildings, and schools, as well as the implementation of vermicomposting, bio-methanation plants, and paper recycling machines.

Direct Economic Value Generated and Distributed[1]

NTPC group's operational performance in Financial Year 2023-24 generated an economic value of ₹1,80,605.13 crore.

Sr. No.	Particulars	FY 2023-24 (₹ Cr)
A	Direct Economic Value Generated	
1	Revenue*	1,80,605.13
	Total (A)	**1,80,605.13**
B	Direct Economic Value Distributed	
2	Operating Costs	1,19,512.87
3	Employee Wages and Benefits	6,592.03
4	Payments to Providers of Capital	19,467.64
5	Payments to Government	4,694.39
6	Community Investments	254.62
7	**Total (B)**	**1,50,521.55**
A-B	Economic Value Retained	**30,083.58**

*Except provisions and certain other items

[1] GRI 201-1





NTPC's projects serve as catalysts for local economic growth, creating favorable conditions for local suppliers to thrive and contribute goods and services. Additionally, NTPC goes above and beyond by extending additional facilities to project-affected families, surpassing their entitled benefits, in accordance with government policies.

In Financial Year 2023-24, NTPC's total income reached ₹1,81,165.86 crore, marking an increase from ₹1,77,976.39 crore in Financial Year 2022-23. The company's board recommended a final dividend of ₹3.25 per share for the Financial Year 2023-24, complementing the aggregate interim dividends of ₹4.50 per share. Thus, the total dividend for Financial Year 2023-24 equals ₹7.75 per share.

Description of Main Activity	Description of Business Activity	% of Turnover on consolidated basis	Operating Turnover (₹ Cr)
Generation of Electricity	Power Generation from - Coal	83.66	1,47,778.33
Generation of Electricity	Power Generation from – Gas	6.47	11,429.23
Generation of Electricity	Power Generation from – Solar	1.22	2,148.98
Generation of Electricity	Power Generation from – Hydro	2.76	4,881.42
Generation of Electricity	Power Generation from – Wind	0.08	142.43
Consultancy	Technical Consultancy services	0.10	169.46
Energy Trading	Sale of energy through trading	5.71	10,091.86

Financial Assistance from government

NTPC operates on a self-sustained basis and consistently contributes to the Government of India through regular dividends on its equity. Since Financial Year 2020, NTPC has successfully managed its capital investments without requiring any additional funding from the Government of India. Moreover, the company upholds its commitment to financial independence by not relying on any direct government benefits such as subsidies, grants, or royalties.

Financial implications due to climate change[2]

The growing concerns about climate change have prompted the adoption of stricter regulations and a greater focus on renewable energy. NTPC, as a socially responsible organization, has not only taken measures to address the risks posed by climate change but has also turned them into opportunities.

During the Financial Year 2023-24, an impressive ₹17,434.15 crore, accounting for a significant 10% of the NTPC group's total operating revenue, was derived from non- fossil fuel endeavors. The revenue breakdown for the various renewable energy sources has been provided in above table.

10%

revenue from Zero-carbon emission-based businesses



[2] GRI 201-1

Selected Financial Information (Standalone)

(₹ Crore)

		2023-24	2022-23*	2021-22*	2020-21	2019-20
A	**Revenue**					
	Revenue from operations	1,61,985.03	1,63,769.77	1,21,174.55	99,206.72	97,700.39
	Other income	3,722.24	3,954.64	3,575.11	4,345.99	2,778.02
	Total revenue	**1,65,707.27**	**1,67,724.41**	**1,24,749.66**	**1,03,552.71**	**1,00,478.41**
B	**Expenses**					
	Fuel	94,037.49	96,851.50	66,570.07	52,849.64	54,241.82
	Energy purchased for trading	3,881.66	3,656.26	3,450.22	3,031.25	2,776.44
	Employee benefits expense	5,670.10	5,559.03	5,412.07	4,942.19	4,925.60
	Other expenses	15,213.43	14,474.59	9,717.19	9,580.28	8,663.81
	Profit before depreciation, finance cost and tax	46,904.59	47,183.03	39,600.11	33,149.35	29,870.74
	Depreciation, amortization and impairment expense	13,943.15	13,136.71	12,058.24	10,411.80	8,622.85
	Profit before finance cost and tax	32,961.44	34,046.32	27,541.87	22,737.55	21,247.89
	Finance costs	10,250.82	9,979.23	8,216.54	7,459.03	6,781.97
	Profit before exceptional items tax and regulatory deferral account balances	22,710.62	24,067.09	19,325.33	15,278.52	14,465.92
	Exceptional Items (+) income/ (-) loss	834.55	-	-	(1,363.00)	-
	Profit before tax	**23,545.17**	**24,067.09**	**19,325.33**	**13,915.52**	**14,465.92**
	Tax expense	6,600.03	6,279.27	4,457.77	1,925.39	9,181.95
	Profit for the year before regulatory deferral account balances	16,945.14	17,787.82	14,867.56	11,990.13	5,283.97
	Net movement in regulatory deferral account balances (net of tax)	1,134.25	(591.09)	1,414.43	1,779.39	4,828.84
	Profit for the year	**18,079.39**	**17,196.73**	**16,281.99**	**13,769.52**	**10,112.81**
	Other comprehensive income/(expense) for the year (net of income tax)	15.26	(75.70)	(87.65)	(68.19)	(327.22)
	Total comprehensive income for the year	**18,094.65**	**17,121.03**	**16,194.34**	**13,701.33**	**9,785.59**
	Dividend	7,272.50	7,030.08	6,933.12	5,531.06	2,968.37
	Dividend tax	-	-	-	-	607.80
	Retained profit	10,806.89	10,166.65	9,348.87	8,238.46	6,536.64
C	**Assets**					
	Property, plant & equipment	2,11,323.43	1,96,441.71	1,95,084.07	1,63,892.12	1,56,273.02
	Capital work-in-progress	47,153.81	61,743.88	73,519.11	75,343.60	73,066.76
	Investment property	859.90	465.18	-	-	-
	Intangible assets	427.69	454.17	486.47	556.74	538.28
	Intangible assets under development	3.19	44.92	98.47	94.90	292.52
	Total Fixed Assets (Net block)	2,59,768.02	2,59,149.86	2,69,188.12	2,39,887.36	2,30,170.58
	Investments in Subsidiaries, JVs & Others (Non-current)	33,107.93	29,719.75	23,249.37	28,125.65	26,400.89
	Other non-current financial assets	2,596.74	4,556.18	2,306.48	2,686.96	2,003.86
	Other non-current assets	11,938.70	12,353.64	12,355.11	13,790.02	11,464.50
	Current assets	72,356.14	65,812.53	59,402.42	47,543.21	48,504.86
	Assets held for sale	117.19	120.52	18.09	-	-
	Regulatory deferral account debit balances	13,409.81	11,961.97	12,822.88	11,143.72	9,122.76
	Total Assets	**3,93,294.53**	**3,83,674.45**	**3,79,342.47**	**3,43,176.92**	**3,27,667.45**

(₹ Crore)

		2023-24	2022-23*	2021-22*	2020-21	2019-20
D	**Liabilities**					
	Borrowings					
	Non-current borrowings	1,46,159.07	1,56,315.69	1,60,122.17	1,50,509.00	1,46,538.70
	Current maturities of non-current borrowings	22,355.46	17,172.23	17,366.26	10,247.45	6,154.92
	Total borrowings	1,68,514.53	1,73,487.92	1,77,488.43	1,60,756.45	1,52,693.62
	Other Non-current liabilities	16,337.95	13,733.74	14,427.64	13,638.31	10,182.85
	Current liabilities	78,304.16	72,118.27	74,151.75	58,049.71	54,704.16
	Less: Current maturities of non-current borrowings	22,355.46	17,172.23	17,366.26	10,247.45	6,154.92
	Net Current liabilities	55,948.70	54,946.04	56,785.49	47,802.26	48,549.24
	Deferred Revenue	2,328.01	2,616.87	1,973.39	1,994.41	2,672.30
	Regulatory deferral account credit balances	280.32	-	-	-	-
E	**Net-worth**					
	Equity	9,696.67	9,696.67	9,696.67	9,696.67	9,894.56
	Other Equity	1,40,188.35	1,29,193.21	1,18,970.85	1,09,288.82	1,03,674.88
	Networth	1,49,885.02	1,38,889.88	1,28,667.52	1,18,985.49	1,13,569.44
	Networth excluding Fly ash utilisation reserve fund, Corporate social responsibility (CSR) reserve & reserve for Equity instruments through OCI	1,48,771.01	1,38,069.76	1,27,982.41	1,18,306.11	1,13,031.54
	Total Liabilities	**3,93,294.53**	**3,83,674.45**	**3,79,342.47**	**3,43,176.92**	**3,27,667.45**
F	**Value added**	60,624.46	59,314.62	48,446.40	42,965.45	37,586.93
G	**Number of shares**	9,69,66,66,134	9,69,66,66,134	9,69,66,66,134	9,69,66,66,134	9,89,45,57,280
H	**Number of employees**	14,983	15,159	15,786	16,798	17,398
I	**Ratios**					
	Return on Net Worth (Profit for the year/Average Shareholder's Equity) (%)	12.52	12.85	13.15	11.84	9.15
	Book value per Share (₹)	154.57	143.23	132.69	122.71	114.78
	Earnings per share (₹)	18.64	17.73	16.79	13.99	10.22
	Current ratio	0.92	0.91	0.80	0.82	0.89
	Debt equity ratio {(Non Current Borrowings+Current Borrowings)/ (Total Equity)}	1.24	1.34	1.50	1.46	1.46
	Value added per employee (₹ crore)	4.05	3.91	3.07	2.56	2.16

* Restated. Balance-sheet figures in the column for FY 2021-22 represent restated figures as at 1 April 2022.

@ Earnings per share for the year ended 31 March 2021 has been computed on the basis of weighted average number of shares outstanding during the year i.e., 984,46,77,868 shares considering buy back of 19,78,91,146 fully paid-up equity shares completed on 30 December 2020.



Manufactured Capital

Management Approach

Our management approach is anchored in a strong commitment to three core objectives: producing power at the lowest cost, minimizing emissions, and ensuring the highest level of safety. These goals are fundamental to our operations and drive our pursuit of sustainable practices. To achieve them, we focus on continuous research and development, fostering a culture of innovation that helps reduce both capital expenditure (CAPEX) and operational expenditure (OPEX). By optimizing our operational capabilities and flexibility, we are well-positioned to meet the evolving needs and expectations of our customers, placing us at the forefront of sustainability in the energy industry.

Key Highlights

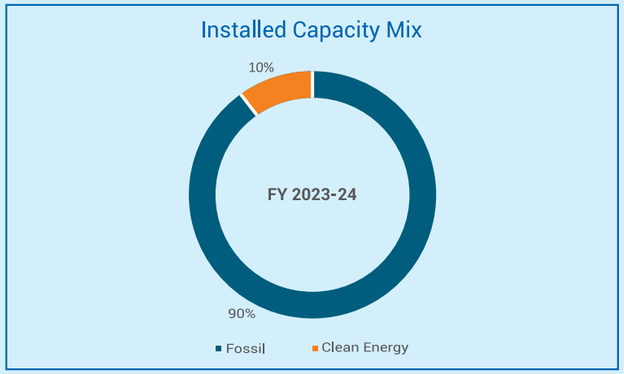
74.64 GW
total installed capacity

3.26 GW
capacity Installed in reporting year

422.2 BU
total generation

0.33 GW
non-fossil capacity added in reporting year

Data Trends



Mapping with SDGs

Material Topic : [3] [4] [17]

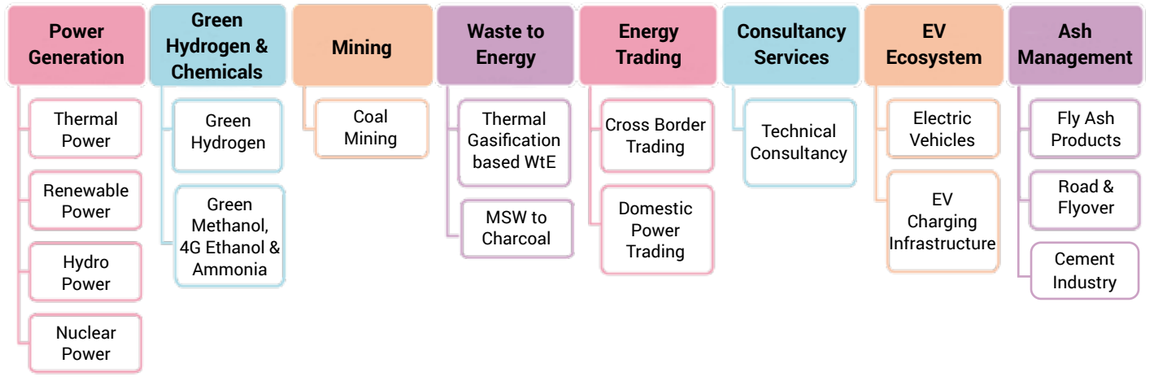


Overview

At NTPC, our manufactured capital is dedicated to optimizing the use of material resources and energy consumption in the electricity generation process. This includes a wide array of physical assets such as power generating stations, captive coal mines, equipment, machinery, raw materials, and logistic infrastructure essential for power production.

NTPC is committed to enhancing the efficiency and effectiveness of its power generation assets through policies and practices that emphasize the conservation of natural resources and the long-term sustainability of the manufacturing ecosystem. By strategic planning, leveraging technological advancements, and practicing responsible resource management, NTPC aims to improve the performance and resilience of its manufacturing infrastructure, promoting an environmentally conscious and sustainable future.

NTPC's Business Verticals



Power Generation

NTPC, being the largest power generating company in the country, operates a total of 92 power stations across various Indian states, either independently or through its JVs and subsidiaries. The details of portfolio has been provided in subsequent section. The broad mix of energy sources demonstrates the group's commitment to leverage renewable and clean energy technologies while maintaining a sustainable and reliable power supply for the nation. The state-wise installed capacity & generation can be referred from NTPC website.

Notably, in the Financial Year 2023-24, we achieved an all-time high- power generation of 422 BU , marking a remarkable growth of 5.75% compared to the previous year. Our core focus lies in power generation, as we strive to contribute significantly to India's energy and economic growth, ultimately creating sustainable long-term value for our stakeholders.

NTPC has set an ambitious target of establishing a substantial share of its installed capacity through renewable energy sources by 2032, further reinforcing its commitment to a sustainable future. In the Financial Year 2023-24, NTPC achieved remarkable progress by recording a substantial growth of 4.68% (YoY) in its non-fossil portfolio capacity, which plays a vital role in the company's sustainability strategy i.e. The Brighter Plan 2032. These achievements underscore NTPC's unwavering dedication to clean energy transition and its contribution towards achieving a greener and more sustainable energy landscape.

Installed Capacity and Generation

NTPC, a leading power company in India, demonstrates a strong commitment to provide uninterrupted and affordable power, bringing immense benefits to even the most remote corners of the country. With an impressive



total installed capacity of 74.64 GW for the entire group, including allied companies with an installed capacity of 15.56 GW, NTPC plays a pivotal role, accounting for approximately 17% of the nation's total installed capacity and contributing nearly a quarter of country's power supply. Notably, Total Capacity (Including International) declared commercial during 2023-24 is 3.92 GW. This remarkable progress underscores the company's relentless efforts to expand its energy portfolio and contribute to the nation's energy sector. Also, in the reporting year, NTPC decommissioned 2X110 MW of thermal units at its Barauni Plant.

	FY 2021-22		FY 2022-23*		FY 2023-24*	
	Gross Capacity (MW)	Gross Gen (BU)	Gross Capacity (MW)	Gross Gen (BU)	Gross Capacity (MW)	Gross Gen (BU)
Coal	56,874	337.27	58,154	376.33	60,874	395.24
Gas/Liquid	6,511	8.60	6,511	5.18	6,511	7.65
Hydro	3,725	12.09	3,725	12.88	3,725	12.39
Renewable Energy	1,852	2.55	3,204	4.92	3,528	6.93
Total	**68,962**	**360.51**	**71,594**	**399.31**	**74,638**	**422.22**

* Excluding International Portfolio

Fuel Security

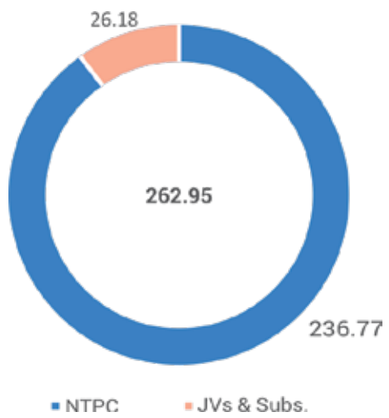
At NTPC, we adhere to sustainable production and consumption principles, striving for high operational efficiency to minimize the consumption of primary resources such as coal, gas, biomass, and water. Effective management of raw materials not only benefits our stakeholders but also positively impacts our environment. By optimizing resource use, we can reduce electricity tariffs, making energy more affordable for everyone. Additionally, minimizing resource extraction and waste generation helps preserve the environment and promote sustainability.

Recognizing the importance of fuel availability for the nation's energy security, NTPC continuously explores new fuel sources and engages in long-term supply contracts to ensure the uninterrupted operation of its plants.

Coal Sourcing

NTPC has secured Long-term Fuel Supply Agreements (FSAs) with Coal India Limited (CIL) subsidiaries and Singareni Collieries Company Limited (SCCL). As of March 31, 2024, these agreements cover an Annual Contracted Quantity (ACQ) of 214.45 Million Metric Tonnes (MMT) with CIL and 27.99 MMT with SCCL for existing thermal power stations, valid for 20 years with a five-year review provision. Additionally, NTPC has signed a two-year swapping agreement effective from April 7, 2022, transferring 2.4 MMT of its Mahanadi Coalfields Limited (MCL) ACQ to NLC India Limited (NLCIL) for coal supply from NLCIL's Talabira captive mine to NTPC's Lara plant, enhancing cost efficiency. For FY 2023-24, ACQ materialization from CIL and SCCL was 92.8%, with NTPC plants receiving 34.2 MMT from captive mines and 6 MMT from NLCIL's Talabira mine through an MoU. Additionally, NTPC awarded an imported coal contract of 19.977 MMT for FY 2022-23 as per the Ministry of Power's directive dated December 7, 2021.

Break up of Coal Sourcing (MMT)

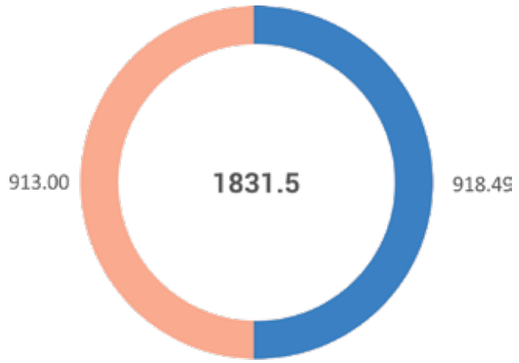




Gas Sourcing

NTPC has established long-term Gas Supply Agreements (GSAs) with GAIL for the supply of Administered Price Mechanism (APM) gas and non-APM gas, valid until July 6, 2026. However, due to the diversion of allocated gas to the City Gas Distribution (CGD) sector as per Ministry of Petroleum and Natural Gas guidelines, domestic gas supplies to NTPC power plants have been nil since June 16, 2021. NTPC also holds a long-term agreement with GAIL for the supply of 1.36 MMSCMD of RLNG on a firm basis, valid until April 2028. To address the shortfall in long-term domestic gas/RLNG supply, NTPC procures Spot RLNG on a limited tender basis from domestic suppliers and on a 'Single Offer' basis from public sector gas marketing companies, with contracts based on a 'Reasonable Endeavour' basis to avoid penalties for short supply or short off-take. Additionally, NTPC has been procuring Spot RLNG on a commitment basis since March 2020, subject to the consent of beneficiary DISCOMs, and maintains adequate stocks of liquid fuel to meet grid requirements. NTPC also began procuring gas through the Indian Gas Exchange (IGX) in November 2023. Gas consumption for FY 2023-24 was approximately 913 MMSCM for NTPC plants, with an additional 86 MMSCM of LTRLNG gas diverted to RGPPL.

Break up of Gas Sourcing (MMSCM)

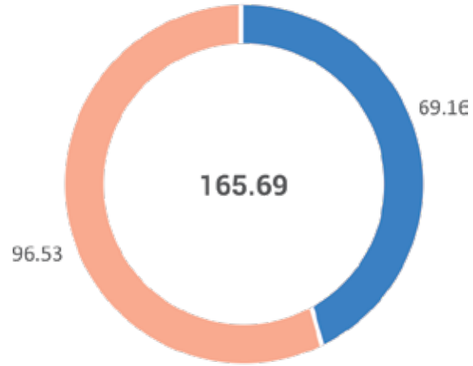


Biomass Sourcing

NTPC has become the first company in India to commercialize biomass co-firing, integrating up to 10% agro-residue-based biofuel with coal. This initiative aims to reduce carbon emissions and discourage crop residue burning by providing economic value to crop residue, thereby generating additional income for farmers and creating employment in rural areas. Biomass co-firing leverages existing coal-based power plant infrastructure to produce renewable energy. Biomass is a carbon-neutral fuel recognized by the UNFCCC for reducing greenhouse gas emissions.

Following the successful demonstration of biomass co-firing at the Dadri plant, NTPC has scaled up commercial biomass co-firing at other stations. NTPC has awarded contracts for 5.285 million MT of biomass pellets for 20 NTPC stations and one joint venture (APCPL-Jhajjar), with a total receipt of 256,801 MT of biomass pellets at 13 NTPC stations and APCPL-Jhajjar till date.

Break up of Biomass Sourcing (MMT)



Strategy for scaling-up Biomass Use

- Short-Term
  - Orders have been placed for 837,200 MT of biomass under various short-term contracts.
  - Benchmark prices have been established for the NCR, Northern and Western regions.
  - Work is in progress for procurement of biomass pellets at benchmark prices for eight stations in the Western region.
- Long-Term
  - A long-term contract (4 years) for 408,800 MT for the Dadri plant was awarded.
  - NIT published for long-term procurement of biomass pellets for all 25 stations

Renewable Energy

India's energy landscape is undergoing a shift towards non-fossil energy, and NTPC is at the forefront of this transition. We are committed towards ensuring equitable access to clean energy, saving precious water and gradually reducing India's dependence on fossil fuels.

We're aiming to commission 60 GW capacity by 2032 through our group of companies including subsidiaries NTPC Green Energy Limited (NGEL), NTPC Renewable Energy Limited (NREL), THDC and NEEPCO. These subsidiaries are developing a diverse portfolio of renewable energy projects, including large-scale solar, floating solar and wind projects, Ultra Mega Renewable Energy Power Parks (UMREPPs), energy storage, green hydrogen hubs and applications like green mobility, green chemicals, etc. NTPC group has invested ₹ 5203 crore in various RE projects and ₹ 3247 Crore in Hydro projects in FY 2023-24.

NTPC group has commissioned 3.5 GW of renewable energy capacity which comprises of 3.3 GW of solar, 213 MW of wind and 32 MW of Small Hydro capacity. A snapshot of our present portfolio is tabulated below:

Break-up of NTPC group projects (MW) is shown below:

Capacity (MW)	NTPC	NGEL	NTPC REL	THDC & NEEPCO	NTPC Group
Commissioned	**411**	**2725**	**200**	**192**	**3528**
Solar	403	2675	150	55	3283
Wind	0	50	50	113	213
Small Hydro	8	0	0	24	32
Under Execution	**1034**	**1394**	**5702**	**300**	**8430**
Solar	1034	1086	4550	300	6970
Wind	0	308	1152	0	1460
Under Tendering	**82**	**200**	**8773**	**300**	**9355**
Solar	82	200	3183	300	3765
Wind	0	0	5590	0	5590
Total	**1527**	**4319**	**14675**	**792**	**21313**

NTPC REL has already established a land bank with ISTS connectivity for 6 GW of future projects. These projects include a 2 GW of project at Bikaner I, 2 GW at Bikaner II, and 2 GW capacity for projects at fatehgarh.

We are exploring ways to add various Ultra Mega Renewable Energy Power Parks (UMREPP) with cumulative capacity of 36 GW in different states of the country. Currently, UMREPP at Gujarat (4.8 GW), DVC (.7 GW) and Madhya Pradesh (0.6 GW) are in the advance stages of development.

NTPC is presently operating floating solar capacity at five locations comprising 262 MW, out of which 100 MW capacity at Telangana is the biggest such setup in India. We are executing another 316 MW of Floating solar capacity at NTPC stations and another 1 GW of capacities are in the pipeline.

In addition to developing RE capacities by NTPC group of companies, parallel capacity addition through outsourcing mode has been adapted successfully by NTPC. More than 5 GW of solar capacity has been established in this mode while more than 3 GW is under execution and 9.5 GW is under tendering.

NTPC is actively pursuing energy storage, which has become a necessity in view of inherent variability in RE sources of power generation. In addition to pumped storage systems and battery energy storage, hydrogen energy storage is also being explored. NTPC REL is executing a 500kW solar based off-grid power generation system coupled with a 250kW/1200kWh BESS system to provide construction power to under execution solar project in Khavda region, avoiding DG sets in totality. Hydrogen as an energy storage system is being developed in off-grid remote areas to provide RE-RTC. NTPC REL has issued tenders for 4 GW/24 GWh capacity energy storage solutions with the following break up:

S. No	Energy Storage Type	Capacity (MW/MWh)
1	BESS	500 MW/ 3000 MWh
2	BESS	1500 MW/ 9000 MWh
3	PSP	2000 MW/ 12000 MWh

Besides above 4 GW capacity, NTPC and its other Subsidiaries are adding additional 2 GW of pump storage hydro system.

NTPC is one of the four Renewable Energy Implementing Agencies (REIAs) (other are SECI, NHPC & SJVN). We have successfully achieved our target of issuing tenders for a cumulative capacity of 15 GW, aligning with the MNRE bidding trajectory of REIA.



Partial list of MoUs in RE domain

1. NGEL and UPRVUNL (Uttar Pradesh Rajya Vidyut Utpadan Nigam Limited) for development of RE projects in Uttar Pradesh
2. NGEL and ONGC (Oil and Natural Gas Corporation Limited) for Renewable Energy Projects
3. NREL and Government of Gujarat for development of 15 GW RE Parks
4. NGEL and Government of Maharashtra for Pump Storage and RE
5. NGEL and HMEL (HPCL Mittal Energy Limited) for development of RE projects
6. NGEL and RVUNL (Rajasthan Rajya Vidyut Utpadan Nigam Ltd.) for development of 25 GW RE Project and ESS

* *NGEL: NTPC Green Energy Limited*
* *NREL: NTPC Renewable Energy Limited*

Roof Top Solar Projects

NTPC, through its subsidiary NVVN, has also ventured into small-scale renewable projects which are integral to the Company's strategy of energy diversification and sustainability. To fast track the implementation of roof top solar projects and ground mounted solar projects, we have finalized empanelment for small scale solar projects on pan-India basis. NVVN has been designated as "Expert PSU" by the Ministry of New & Renewable Energy (MNRE) for providing Consultancy services for the implementation of Roof Top Solar PV Projects at the institutes under various ministries. Besides MNRE has been allocated 16 Central Ministries for saturation of government buildings with roof top solar projects. During this financial year, 2.5 MW solar capacity has been successfully implemented.

National Solar Mission

The Government of India designated NTPC (through its subsidiary NVVN) as the Nodal Agency for Phase I of the National Solar Mission (NSM), aimed at establishing India as a global leader in

solar energy. This initiative, which is part of the National Action Plan on Climate Change, mandates NTPC to purchase power from solar projects and sell it bundled with power from NTPC coal stations to Distribution Utilities. The total commissioned capacity under Phase I of NSM is 733 MW. During FY 2023-24, NTPC supplied 5524 MUs of bundled total power, including 916 MUs of solar power, to various states and utilities. This effort enhances national energy security, promotes environmental sustainability, and aligns with global climate goals by diversifying NTPC's energy portfolio and reducing its carbon footprint.

International Solar Projects

NTPC has been actively engaged in various international solar projects, showcasing its expertise and contributions to the renewable energy sector. Further, NTPC is associated as a Corporate Partner with International Solar Alliance (ISA) and has been awarded the following Project Management Consultancy (PMC) projects abroad:

- ISA Solar Parks: NTPC was appointed as PMC (under the aegis of ISA Program 06) for 100 MW solar project in Republic of Guinea in the current financial year, thereby enabling cumulative capacity of such PMC assignments to reach 6620MW. The projects are in different stages of implementation. More countries are being approached for assignments on similar lines.
- ISA Rooftop Solar Projects: NTPC was appointed as PMC for implementation of 100kW Roof Top Solar Project in Ethiopia and Sao Tome under ISA Prog-04.
- ISA 27 Solar Demonstration Projects: NTPC was appointed as PMC for implementation of solarization projects in 10 countries viz. Seychelles, Senegal, Djibouti, Cuba, Ethiopia, Suriname, Burundi, Mozambique, Malawi and Uganda, across three themes: (i) Solarization of building roof-top/ ground mounted PV installation, (ii) Solar based Cold Storages and (iii) Solar PV based Water Pumping Systems. Your Company has also prepared the DPRs for such projects in 21 different countries under the same ISA initiative.

Projects in 5 countries (Seychelles, Cuba, Malawi, Uganda, and Ethiopia) have been successfully commissioned. Projects in other 5 countries are in various stages of implementation.

Overall, NTPC's involvement in international solar projects spans project management, capacity building, and technical assistance. This demonstrates its commitment to promoting renewable energy globally and supporting the objectives of the International Solar Alliance.

Achievements

I. **First Project Commissioned: NTPC REL's maiden 50 MW/150 MW wind farm began operation at Dayapar, Gujarat on November 4, 2023.**

II. **Solar Expansion: A 150 MW solar plant in Chhatargarh, Rajasthan, came online with 70 MW commissioned on 21.02.2024 and 80 MW on 29.03.2024, marking NTPC REL's official foray into solar power generation.**

III. **Record-Breaking Speed: A 14 MW solar project in Ayodhya, Uttar Pradesh, achieved completion in a remarkable duration of 4 months, and was commissioned on January 27, 2024.**

IV. **Power Purchase Agreements: PPAs for 2.8 GW capacity were signed.**

V. **Solar Module Procurement: Three separate 2.5 GW solar module packages were awarded for five projects.**

VI. **Green Hydrogen Milestone: Regulatory approval from PNGRB was received for 8% v/v green hydrogen-PNG blending on November 3, 2023, following successful operation and testing.**

VII. **Fuel Cell Vehicle Testing: Field trial of a fuel cell electric vehicle (FCEV) bus in Leh was completed on August 17, 2023.**

VIII. **Financial Backing: NGEL and NTPC REL secured green term loan agreements**

Green Hydrogen and Chemicals

NTPC has been exploring the use of hydrogen as a substitute for fossil fuel. This is to achieve energy security and decarbonization of the energy sector. To achieve these objectives a number of pilot projects have been launched. These cover concentrated use like power generation to distributed use like mobility and household cooking purpose.

Below are some of the key Initiatives:

i) NTPC has setup up India's first Green Hydrogen Blending facility to blend green hydrogen in Piped Natural Gas (PNG) network at Kawas, Gujarat. It was commissioned in Jan'23 and is currently operating with 8% v/v of green hydrogen blending, which is the highest so far achieved in India.

ii) Green Hydrogen Mobility project of production capacity 80 kg/day is under execution at Leh, Ladakh. The Project involves 5 number of FCEVs for intracity travel in Leh. This is being powered by a 1.7 MW co-located solar plant. This project is located at an elevation of 3500 m above MSL, a first of its kind globally. The trial run of one bus has already been successfully demonstrated.

iii) Green Hydrogen fuelling station is being setup at Greater Noida, U.P. with a capacity of 260 kg/day and 5 number of FCEVs for intracity travel in Delhi NCR.

iv) A Solar-hydrogen storage system is planned to provide round-the-clock RE power supply (RE-RTC) at an elevation of 4500 m above MSL.

v) A green hydrogen hub spreading over 1200 acres is being developed in the state of Andhra Pradesh focusing on production of green chemicals like methanol, ammonia and setting up allied manufacturing facilities.

vi) Techno-economic feasibility study for deployment of green hydrogen-based locomotive for operation within NTPC is under process.



Partial list of MoUs in Hydrogen domain

1. NGEL and GPPL (Gujarat Pipavav Port Limited) for land in Pipavav Port for Green Ammonia Project
2. NGEL and SCI (Shipping Corporation of India), for supply of green Methanol
3. NGEL and GSPC (Gujarat State Petroleum Corporation) for H2 blending in NG network and green mobility
4. NGEL and Nayara Energy for Production of Green Hydrogen
5. NGEL and HMEL (HPCL Mittal Energy Limited) for development of Green Hydrogen derivatives
6. NGEL and Government of Maharashtra for Green Hydrogen
7. NREL and Government of Gujarat for development of 5 GW GH2 technologies
8. NGEL and RVUNL (Rajasthan Rajya Vidyut Utpadan Nigam Ltd.) for development of Green Hydrogen and its derivatives

**NGEL: NTPC Green Energy Limited*

Nuclear Power

To accelerate the transition to clean energy, NTPC has diversified its business portfolio to include nuclear energy. NTPC has already established a Nuclear Cell in Mumbai to maintain regular interactions with DAE departments and develop nuclear capability. A joint venture company of NPCIL (Nuclear Power Corporation of India Limited) and NTPC, i.e. ASHVINI (Anu Shakti Vidyut Nigam Limited) has been formed with equity partnership of 51:49 respectively. Currently, Mahi Banswara Rajasthan Atomic Power Project (MBRAPP 4x700 MW) is under transfer from NPCIL to ASHVINI. A joint team of NTPC and NPCIL executives are actively involved in pre-project activities of MBRAPP project to expedite regulatory approvals and simultaneously enhance their technical capability.

Furthermore, NTPC board has approved the proposal for formation of wholly owned subsidiary of NTPC for nuclear energy business. NTPC subsidiary company shall explore the available technologies like SMR, PWR, EPR, FBR, Fuel etc. with suitable tie up.

For supply of nuclear fuel, NTPC board has approved the draft MOU with UCIL for joint techno-commercial due diligence of overseas Uranium assets for possible acquisition.



Coal Mining

NTPC has been allocated six coal blocks by the Ministry of Coal: Pakri-Barwadih, Chatti-Bariatu & Chatti-Bariatu (South), Kerandari, Dulanga, Talaipalli, and Badam. Additionally, the Banhardih coal block is allocated to M/s. Patratu Vidyut Utapadan Nigam Ltd. (PVUNL), a JV of NTPC. NTPC Mining Limited (NML) was declared the successful bidder for the North Dhadu (eastern part) coal mine in September 2023, with an allotment agreement signed later that month. The estimated extractable reserves of these blocks is approximately 2.80 billion tonnes, with a combined mining capacity of 86 million tonnes per annum, positioning NTPC to become one of the largest captive coal mining companies in India. In FY 2023-24, NTPC achieved its highest-ever coal production of 34.39 MMT, marking a 48% increase over the previous fiscal year. The highest-ever coal dispatch of 34 MMT in FY 2023-24 represented a 55.50% growth over the previous year. Since inception, these mines have delivered over 103 million MT of coal to more than 22 NTPC thermal plants by March 2024. The coal from these captive mines is highly valued for its consistent quality, size, and absence of impurities.

Projects	Coal Production (Million Tonne)		
	FY 22-23	FY 23-24	Growth (%)
Pakri-Barwadih	13.22	16.31	23.37
Dulanga	7.00	7.00	--
Talaipalli	2.40	7.54	212.50
Chatti-Bariatu	0.58	3.30	469.00
Kerandari	0	0.24	--
Total	**23.20**	**34.39**	**48.23**

Waste to Energy

With commitment to a clean and green environment and in support of the Swachh Bharat Mission (SBM), NTPC has actively pursued several waste-to-energy (WtE) projects. These initiatives convert waste materials into valuable products like green charcoal, promoting both waste management and green energy production goals. Through these indigenous WtE projects, NTPC strives to realize the vision of "Atmanirbhar Bharat," emphasizing self-reliance and independence. The green charcoal produced from municipal solid waste (MSW) reduces reliance on fossil fuels, enhances energy security, and fosters sustainable development. NTPC completed the 600 TPD Waste to Charcoal project in Varanasi, inaugurated by the Hon'ble Prime Minister in February 2024, producing 500 MT of green charcoal during testing, with 200 MT transported to NTPC Tanda for co-firing trial runs. This project will divert waste from landfills, reduce greenhouse gas emissions by approximately 1.7 lakh MT of CO_2 annually, and prevent groundwater contamination, while also creating job opportunities and supporting local economies. NTPC has awarded EPC contracts for WtE plants in MSW to torrefied charcoal plant at Bhopal (400TPD), Hubballi Dharwad (200TPD), Noida-Greater Noida (900TPD) and Gorakhpur (500TPD). The company has signed MOUs with various urban bodies, including the Urban Development Department of Uttar Pradesh and Haldwani-Kathgodam Nagar Nigam, to further expand these initiatives. Discussions are also ongoing with municipal corporations in Lucknow, Bareilly, Meerut, Ghaziabad, Gurgaon, and Delhi.



Energy Trading

In the reporting year, 13894 MU of energy was traded on the Power Exchange, including cross-border transactions.

Cross Border Trading

The Government of India has designated NTPC (through subsidiary NVVN) as the Nodal Agency for cross-border power trading with Bangladesh, Bhutan, and Nepal, entrusting it with a pivotal role in the development of this market. NTPC has signed a PPA with the Bangladesh Power Development Board (BPDB) for the supply of 250 MW power for 25 years from NTPC stations. Additionally, the agreement with BPDB for the supply of 160 MW power has been extended until March 2026, with a back-to-back Power Sale Agreement (PSA) signed with Tripura State Electricity Corporation Limited (TSECL). Furthermore, a PPA was signed in September 2018 with BPDB for supplying 300 MW Round-the-Clock (RTC) power from Damodar Valley Corporation to Bangladesh, totaling 710 MW supplied to BPDB. In the financial year 2023-24, 5341 MUs of energy was supplied to BPDB. Additionally, a PPA with Nepal Electricity Authority (NEA) was signed for the supply of up to 200 MW power from 07.04.2023 to 31.05.2023 under bilateral mode. NTPC is also involved in Cross Border Electricity Trade (CBET) through power exchange platforms, trading power for NEA through the Day Ahead Market and Real-Time Market platforms. The Power Trading Agreement with NEA for sale/purchase of power through Power Exchange has been extended till 2030. During this financial year, 2867 MUs of energy was traded for NEA through these platforms. Also, Ministry of Power, GoI, has nominated NTPC as Settlement Nodal Agency (SNA) for settlement of Grid operation related charges with neighbouring countries

Domestic Power Trading

NTPC (through subsidiary NVVN) has excelled in expanding its customer base, selling captive power, and engaging in power trading and banking arrangements across India. The customer base now exceeds 100, including state government utilities, private power utilities, Independent Power Producers (IPPs), industrial customers, and captive power generators. An agreement has been signed with Haryana for supply of power 200 MW and 300 MW power from Nepal Electricity Authority and Kameng HEP respectively. The Company has successfully implemented the Government of India's scheme to supply power from gas-based plants during peak periods from April to June 2023 and issued NIT for procuring up to 1215 MW of power from Gas-Based Plants (GBP) for March to June 2024. As of March 2024, the Company has been appointed as the BESS Implementing Agency by the Ministry of Power for a 4000MWh BESS capacity project. Additionally, your Company acquired a 5% stake in Power Exchange of India Ltd. (PXIL) in January 2022, enhancing its strategic position in the power trading market. In the reporting year, 13894 MU of energy was traded on the Power Exchange, including cross-border transactions.

Consultancy Services

In 2023-24, we executed 93 active consultancy assignments across various sectors, including thermal and solar power projects, environmental compliance, O&M and R&M services, distribution, IT, and more. Major projects included Project Management Consultancy (PMC) for THDC and SJVN, pre and post-award services for several thermal projects, consultancy for NCL and CCL solar projects, and FGD installations. As Project Implementing Agency (PIA) for RDSS in J&K, we awarded 7 out of 9 packages. Notably, we secured new orders for Amarkantak TPS expansion, HTPS Korba USC Plant, and DPR preparation for OPGC and DVC Mejia. We also provided HR services to CSPGCL and IT solutions like the DREAMS system. Our consultancy services cater to central and state governments, private companies, and NTPC subsidiaries.

EV Ecosystem

Our Company has ventured into the e-mobility sector, providing zero-emission vehicles and comprehensive turnkey solutions across various vehicle segments, particularly addressing the needs of public transport. Embracing green transport solutions, your Company has supplied 40 E-buses to the Department of Transport in Andaman & Nicobar Islands and 90 E-buses to the Bengaluru Metropolitan Transport Corporation.



The E-buses in Andaman & Nicobar Islands have been in commercial operation for the past three years, collectively logging approximately 6 million kilometres. Meanwhile, the E-buses in Bengaluru have also been in commercial operation, covering over 10 million kilometres as of March 31, 2024. These initiatives underscore our commitment to sustainable transportation and our role in reducing carbon emissions.

Ash Management

Ash, a by-product of coal-fired thermal power plants, is increasingly recognized as a valuable resource in civil engineering. Efforts at various levels have led to significant achievements in ash utilization. NTPC emphasizes sustainable ash utilization, implementing an Ash Policy that addresses the entire lifecycle of ash, from generation to end product. This policy aims to maximize productive ash use while fulfilling social and environmental responsibilities, protecting the environment, and promoting sustainability.

During Financial Year 2023-24, approximately ~95 million tons of ash was generated by NTPC Group stations and ~92 % i.e., ~88 million tons of ash had been gainfully utilized in various areas such as issue to industries for cement, concrete, bricks/ blocks making, road embankment construction, mine filling, land development works etc. Seventeen stations have achieved 100% ash utilization.

Efforts to Maximize Utilization of Fly Ash

- Supplying Fly Ash to the Cement Industry
- Use of Fly Ash Bricks
- Supply of Bottom/ Pond Ash for Road/ Flyover Construction Projects
- Landfills and low-lying area development
- Use of Ash in Reclamation of Mine Voids
- Ash-based light weight building materials
- Use of Ash in Agriculture
- Export to other contries for infrastructure development

Further, NTPC is dedicatedly working towards increasing the Ash utilization through sustainable ways mainly through products that includes Ash-based coarse aggregate, Ash-based fine aggregate (sand), Ash bricks, Ash-based paver blocks, other Ash-based precast elements etc. For manufacturing coarse aggregate, four technologies are being worked upon: Nano Concrete Aggregate (NACA), Geopolymer Coarse Aggregate (GPCA), Light Weight Aggregate (LWA) & Fly Ash Lime Gypsum (FAL-G). They are in various stages of production / development. The products are being marketed under the brand name “VIKALP”.





Boundary Wall using wall blocks



Ash-based Park bench



LWA Plant at NTPC Sipat



Use of Ash in agriculture

Gypsum Utilisation

This year, we began selling Flue Gas Desulfurization (FGD) gypsum from our thermal stations, aligning with our environmental sustainability goals. FGD gypsum, a by-product of removing sulfur dioxide from flue gases, reduces waste, promotes recycling, and opens new revenue streams in agriculture, construction, and cement industries. By providing FGD gypsum, we aim to eliminate the cement industry's reliance on imported gypsum, ensuring a consistent and reliable supply while enhancing our sustainability efforts and reducing their costs. During this financial year we have awarded contract for sale of 2.58 lakh MT of FGD gypsum from NTPC stations.

Installed Capacity and Gross Generation of FY'24 for Group Stations

STATE / UT	Station	Source	Installed Gross Capacity (MW)	GROSS GEN(MU)
NR				
Uttar Pradesh	Singrauli	Coal	2000	15756
	Rihand	Coal	3000	23400
	Unchahar	Coal	1550	8465
	Tanda	Coal	1760	10397
	Dadri	Coal	1820	9983
	Auraiya	Gas	663	698
	Dadri	Gas	830	921
	Dadri	Solar	5	5.81
	Unchahar	Solar	10	13.00
	Auraiya	Solar	20	29.47
	Bilhaur	Solar	225	451.67
	Auraiya (FS)	Solar	20	38.85
	Ayodhya	Solar	14	4.75
	THDC Dhukwan (Subs)	Hydro	24	74.9
	MUNL- Meja (JV)	Coal	1320	8276
TOTAL Uttar Pradesh			**13261**	**78514**
Uttarakhand	THDC Tehri (Subs)	Hydro	1000	3249
	THDC Koteshwar (Subs)	Hydro	400	1193
TOTAL UttUttarakhand			**1400**	**4442**
Himachal Pradesh	Koldam	Hydro	800	2952.01
Haryana	Faridabad	Gas	432	137
	Faridabad	Solar	5	6.10
	APCPL-Jhajjar (JV)	Coal	1500	8285
TOTAL Haryana			**1937**	**8428**
Rajasthan	Anta	Gas	419	354
	Bhadla	Solar	260	424
	Jetsar	Solar	160	351
	Fatehgarh	Solar	296	758
	Kolyat	Solar	400	1016
	Devikot	Solar	240	580
	Nokhra	Solar	300	698
	Chhattargarh	Solar	150	19
TOTAL Rajasthan			**2225**	**4201**
NR TOTAL			**19623**	**98537**
Maharastra	Mouda	Coal	2320	14909
	Solapur	Coal	1320	7181
	RGPPL (Subs)	Gas	1967	1228
	Solapur	Solar	10	17.74
TOTAL Maharastra			**5617**	**23336**
Gujarat	Kawas	Gas	656	630
	Gandhar	Gas	657	683
	Rojmal	Wind	50	102
	Devbhumi (Subs)	Wind	63	140
	Patan (Subs)	Wind	50	77
	Dayapar	Wind	50	19

STATE / UT	Station	Source	Installed Gross Capacity (MW)	GROSS GEN(MU)
	Kawas	Solar	56	94.22
	Gandhar	Solar	20	35.63
TOTAL Gujrat			**1602**	**1781**
Chhattisgarh	Korba	Coal	2600	20517
	Sipat	Coal	2980	22359
	Lara	Coal	1600	11752
	BHILAI PP II (Captive)(JV)	Coal	74	418
	BHILAI PP III (JV)	Coal	500	3876
TOTAL Chhattisgarh			**7754**	**58921**
Madhya Pradesh	Vindhyachal	Coal	4760	37387
	Gadarwara	Coal	1600	9996
	Khargone	Coal	1320	7686
	Rajgarh	Solar	50	70.20
	Mandsaur	Solar	250	364.2
	Singrauli	Solar	15	20.53
	Singrauli small Hydro	Hydro	8	38.3
	Jhabua (JV)	Coal	600	3597.0
TOTAL Madhyapradesh			**8603**	**59159**
WR TOTAL			**23576**	**143198**
West Bengal	Farakka	Coal	2100	13784
	Durgapur(Captive) (JV)	Coal	120	895
	Durgapur PP3(Captive) (JV)	Coal	40	47
TOTAL West Bengal			**2260**	**14726**
Bihar	Kahalgaon	Coal	2340	16555
	Barh	Coal	2640	14601
	Barauni	Coal	500	3152
	Kanti	Coal	390	2906
	BRBCL (Subsidiary)	Coal	1000	6944
	NPGCL	Coal	1980	14412
TOTAL Bihar			**8850**	**58570**
Odisha	Talcher Kaniha	Coal	3000	22625
	Talcher Thermal	Coal		
	Darlipalli	Coal	1600	12055
	Talcher	Solar	10	12.54
	Rourkela (Captive)(JV)	Coal	120	605
	Rourkela (Captive)(JV)	Coal	250	1144
TOTAL Odisha			**4980**	**36442**
A & N Islands	**Andaman & Nicobar**	**Solar**	**5**	**6.09**

STATE / UT	Station	Source	Installed Gross Capacity (MW)	GROSS GEN(MU)
Jharkhand	Patratu (Subsidiary)	Coal		
	North Karanpura	Coal	1320	5488
Total Jharkhand			**1320**	**5488**
ER TOTAL			**17415**	**115232**
Assam	Bongaigaon	Coal	750	5058
	Assam GBP (Subs)	Gas	291	1697
	Kopili (Subs)	Hydro	200	286
	Kopili Stage-II (Subs)	Hydro	25	150
	Kopili Khandong (Subs)	Hydro	50	0
TOTAL Assam			**1316**	**7190**
Tripura	NEEPCO Agartala (Subs)	Gas	135	640
	Tripura GBP (Subs)	Gas	101	661
	TGBPP (Subs)	Solar	5	6
TOTAL Tripura			**241**	**1306**
Arunachal pradesh	Ranganadi HEP (Subs)	Hydro	405	1177
	Pare HEP (Subs)	Hydro	110	449
	Kameng HEP (Subs)	Hydro	600	2652
TOTAL Arunachal pradesh			**1115**	**4278**
Nagaland	Doyang HEP (Subs)	Hydro	75	165
Mizoram	Turial HEP (Subs)	Hydro	60	119
NER TOTAL			**2807**	**13059**
Telangana	Ramagundam	Coal	2600	16949
	Telangana	Coal	1600	3428.2
	Ramagundam	Solar	10	10.57
	Ramagundam(F)	Solar	100	196.1
TOTAL Telangana			**4310**	**20584**
Andhra Pradesh	Simhadri	Coal	2000	11639
	Ananthapuram	Solar	250	389.5
	Simhadri (F)	Solar	25	51.6
TOTAL Andhra Pradesh			**2275**	**12080**
Kerala	Kayamkulam	Naphtha	360	0.00
	Kasargod (Subs)	solar	50	97.30
	Kayamkulam (F)	solar	92	216.97
Total Kerala			**502**	**314.27**
Karnataka	Kudgi	Coal	2400	12092
Tamil Nadu	NTECL-Vallur (JV)	Coal	1500	6623
	Ettayapuram	Solar	230.0	495
Total Tamil Nadu			**1730**	**7119**
SR TOTAL			11217	52190
NTPC Group			**74638**	**422215.9**

Natural Capital

Management Approach

NTPC prioritizes environmental sustainability as a cornerstone of its long-term growth strategy. Our company continually invests in improving our systems to exceed global environmental standards, adhering to best practices, and showcasing responsible stewardship. This commitment is deeply embedded in our core value of fostering sustainable production and consumption of natural resources.

Key Highlights

3.85%

(Y-o-Y) Reduction in specific NO_x emission

8.56%

(Y-o-Y) Increase in avoided GHG emissions

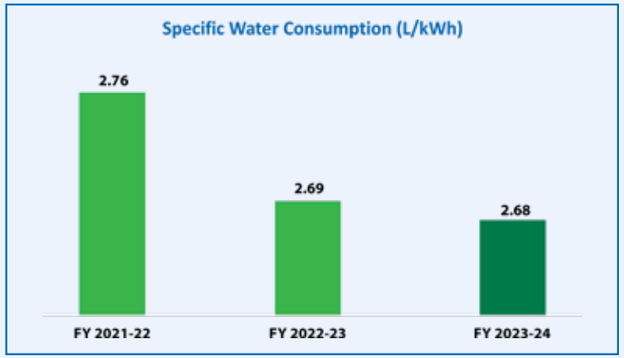
10.74%

(Y-o-Y) Increase in energy savings

1 MN+

Trees planted

Data Trends



Mapping with SDGs



Material Topic (s)
[3] [4] [6] [8] [12] [16]

NGRBC Principle
[2] [6] [9]



Overview

At NTPC, environmental risk management is a top priority, and we are committed to preserving our natural surroundings. Our comprehensive Environmental Impact Assessment (EIA) studies are the cornerstone of our Environmental Management Plans, implemented across all our stations. Our environmental policy emphasizes the efficient use of natural resources, waste reduction through recycling and reusing, the adoption of cutting-edge technologies, and the enhancement of older units for greater efficiency with minimal environmental impact. We continuously improve our environmental performance through practical engineering solutions and strict adherence to regulatory standards. NTPC stations[1] are certified with ISO: 14001 for robust environmental management systems and practices. Moreover, we have established an environmental grievance redressal mechanism to ensure the prompt resolution of issues and thorough documentation of all concerns and complaints.



Water & Effluent Management[2]

NTPC acknowledges the essential role of water as a resource for life and remains committed to its sustainable management. Through vigilant monitoring, we aim to optimize water usage following the 3R principle: reduce, reuse, and recycle. Nearly all our thermal power plants utilize closed-cycle cooling systems with cooling towers to minimize environmental impact. By adopting the latest technologies and maintaining regular upkeep, we ensure minimal water loss primarily due to evaporation, drift, and blowdown. To further improve water efficiency, we are increasing the cycles of concentration (COC) and reusing high-TDS blowdown water in other processes. Additionally, we have implemented zero liquid discharge (ZLD) across almost all stations, with exception of few stations where interconnecting infrastructure is being installed. Our current water discharges, including treated effluents and runoff, adhere to established norms and conditions, ensuring no significant impact on water bodies or related habitats.

Our efforts to enhance the reuse and recycling of effluents have successfully reduced the need for freshwater withdrawal over time. However, the increasing integration of variable renewable energy sources into the power grid is causing our thermal units to operate at lower plant load factors (PLFs), leading to higher per-unit water consumption. The installation of wet flue gas desulfurization (FGD) systems across all stations also poses challenges in reducing water consumption. Despite these challenges, our water conservation initiatives have enabled us to maintain specific water consumption at our thermal units below the prescribed norm of 3 liters/kWh.

Our stations draw water from a variety of sources, including rivers, reservoirs, canals, and seawater for coastal plants. As most of our stations are equipped with closed-loop systems and ZLD, resulting in minimal water withdrawal and effluent discharge into water bodies, bio-diversity and ecosystems are duly protected.. In cases where non-ZLD plants are present, the discharge of treated effluent into natural watercourses strictly complies with regulatory standards.

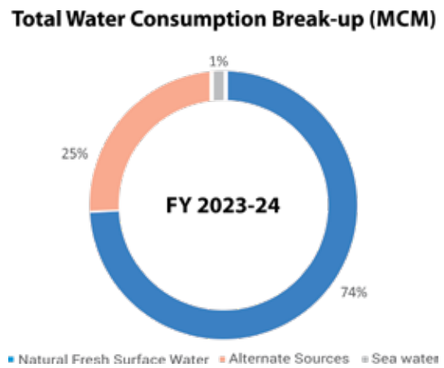
[1] List of certifications can be accessed from NTPC website.
[2] GRI 303-3 and GRI 303-4





Water Consumption[3]

Our freshwater consumption accounts for the volume of water extracted from natural sources, excluding the amount returned to the environment after being treated to meet safety and compliance standards. In the Financial Year 2023-24, we achieved some reduction in specific water consumption compared to Financial Year 2022-23.



[3] GRI 303-5

Reduce-Reuse-Recycle

As part of our ongoing commitment to sustainability, we have successfully reduced our specific water consumption to levels below the norms set by the MoEF&CC through a variety of water efficiency initiatives. Central to these efforts is our Rainwater Harvesting policy, which involves constructing rainwater harvesting systems at all our facilities. These systems help decrease our dependence on freshwater resources by replenishing groundwater and storing surface water. During the reporting period, we effectively collected and utilized rainwater at our plants to support operational needs.



Additionally, NTPC has implemented an Ash Water Recirculation System (AWRS) to efficiently use both decanted ash slurry water and Toe drain water recirculation system for reusing seepage water from ash dyke. We have also adopted Zero Liquid Discharge (ZLD) practices across our stations (with exception of few stations) using a cascaded water usage approach to optimize water quality for various applications.

Efficient effluent management is achieved through our Liquid Waste Treatment Plant (LWTP), which treats liquid waste from various plant sources. The treated effluent, meeting specified standards, is used for operational needs such as coal handling, ash handling, and service water, promoting resource conservation. Any surplus treated effluent not utilized in non-ZLD plants is discharged responsibly, adhering to discharge standards and reinforcing our commitment to sustainable practices.

We have implemented Sewage Treatment Plants for sewage effluent treatment and reuse. Effluent quality is consistently monitored, and the treated wastewater is utilized for horticulture and other activities within the NTPC premises. In the reporting year, 99.94% of generated wastewater was effectively recycled, reducing the need for fresh water consumption.

Waste Management

We are committed to managing and disposing of all on-site waste in an eco-friendly, socially responsible, and economically viable manner. Our comprehensive approach encompasses waste collection, segregation, transportation, processing, recycling, and disposal of various waste types. Our primary focus is on optimizing resource usage while minimizing waste generation. When disposal becomes inevitable, we strictly adhere to all rules and regulatory obligations in managing hazardous and non-hazardous waste from our power plants, following the NTPC Waste Management Guideline.

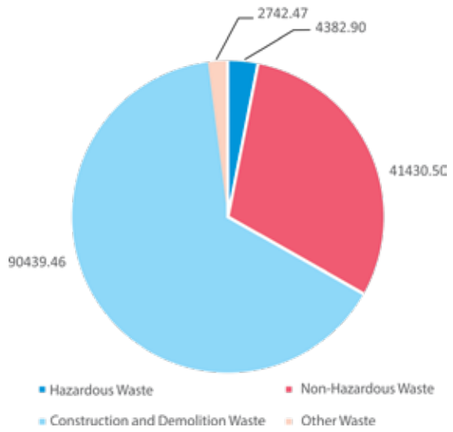




Hazardous, Non-Hazardous, and Other Waste[4]

Our operating facilities generate hazardous wastes, including used lubricating oil, transformer oil, and spent resins, which are disposed of through authorized agencies following the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and their subsequent amendments Non-recyclable waste undergoes appropriate treatment and disposal at a Treatment, Storage & Disposal Facility (TSDF) as mandated by the HWM Rules 2016. Our operations are now free from Polychlorinated Biphenyl (PCBs), in compliance with the Basel Convention. We uphold strict adherence to this international agreement, refraining from the import or export of hazardous waste or materials, further ensuring our commitment to sustainability.

Waste Generated (MT) in FY 2023-24



Waste type	Disposal Methods[5]
Used Lube oil	Sold to registered recyclers
Used Transformer oil	
Containers of hazardous wastes	CPCB/SPCB-approved facilities
Used Batteries	Sold to manufacturers under a buy-back policy
Bio-Medical Waste	Disposed through approved agencies authorized by CPCB/SPCB
Insulation Waste	Disposed through approved agencies e.g. TSDF
FO Sludge	Disposed through approved agencies e.g. TSDF

Hazardous & Non Hazardous Waste



[4] GRI 306-3
[5] GRI 306-5

Waste type	Disposal Methods6
Ferrous Scrap	Disposed through E-Auction
Non-Ferrous Scrap	
Municipal solid waste including plastic	Bio-degradable waste is composted/vermicomposted into manure, while non-biodegradable and plastic waste are managed through local traders/collectors and also sent for co-processing.
E-Waste	Via authorized recyclers/dismantlers endorsed by CPCB/SPCB

The successful execution of "Project PRADIP" has led to significant paper savings and has also improved decision-making, transparency, and efficiency. Additionally, we successfully enforced a ban on single-use plastic across all our facilities, further enhancing our sustainability efforts.

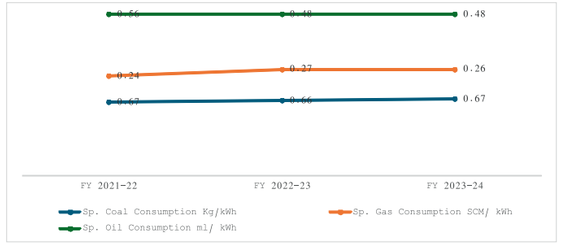
~9 % (Y-o-Y) reduction in Hazardous Waste

~3 % (Y-o-Y) reduction in Non Hazardous Waste

Resource Efficiency and Material Management

Material Consumed[7]

NTPC is committed to resource efficiency and regularly assesses consumption intensity to prioritize sustainability. Our approach includes measurement, monitoring, and conservation plans to enhance efficiency. In thermal power generation, the input materials except water which are mainly fuels i.e. coal, biomass, and natural gas are fully utilized in the boiler, making recycling not required.



For treatment of water to achieve desired quality, we utilize many chemicals and the same is fully consumed in our operations. Also, we have implemented various measures to enhance power cycle efficiency, leading to overall efficiency improvements and significant fuel savings per unit of energy produced. By adopting larger units with higher steam parameters and co-firing biomass with coal. we have improved design and operational efficiency, thereby reducing specific coal consumption. During the Financial Year 2023-24, NTPC utilized approximately 1.7 Lakh metric tonnes of biomass pellets, underscoring our commitment to sustainability. The accompanying graph illustrates the trends in specific coal and oil consumption performance parameters. We are dedicated to maximizing the efficient use of these resources.

[7] GRI 301-1

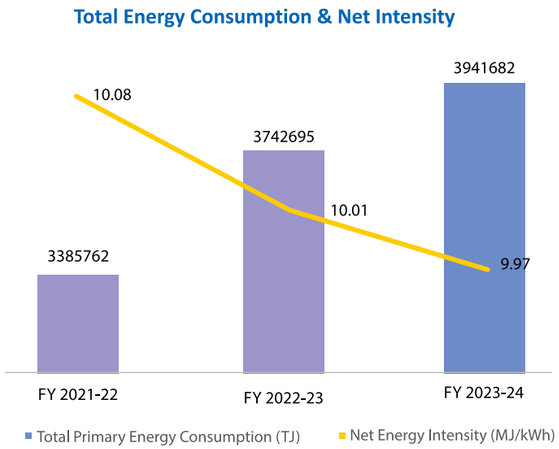


Energy & Efficiency Management

At NTPC, energy conservation is a cornerstone of our sustainable consumption strategy, extending far beyond simple cost savings. It is essential to our mission to preserve the nation's energy reserves and reduce the environmental impact of our operations. Through various initiatives, we strive to optimize energy usage and foster a more sustainable future. Incorporating larger units and successfully increasing efficiency of older thermal fleets has resulted in a significant decrease in coal consumption per unit. To further strengthen our commitment, we are actively pursuing agro-residue co-firing, implementing an Energy and Efficiency Management System, and reducing auxiliary power consumption. These combined efforts contribute significantly to a substantial reduction in our overall energy consumption. By prioritizing energy conservation and adopting sustainable practices, we are actively working towards a more environmentally responsible and energy-efficient future.

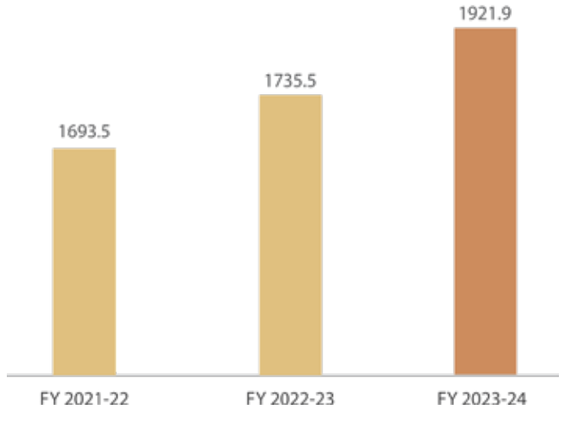
Energy Intensity[8]

During the Financial Year 2023-24, the Group maintained a Net Energy Intensity of 9.97 MJ/kWh, which signifies enhanced operational and energy efficiency and reduced dependence on fossil fuels. The accompanying graph illustrates the overall progress of total primary energy consumption and energy intensity across the NTPC group.



Energy Saving[9]

Through a range of initiatives, we consistently enhance the energy efficiency in our plants including our auxiliary power consumption (APC). The trend of energy saving at NTPC plants have been depicted below:





[8] GRI 302-3
[9] GRI 302-1

Our Energy Conservation Highlights[10]

Energy Audits

- Conducted mandatory energy audits in 6 stations per BEE regulations
- Performed Auxiliary Power Consumption Audits at all stations

Thermal Energy Savings

- Repair of HP Heater Parting Plane
- Insulation of HPT & IPT Ceramic Pads
- High Pressure Jet Cleaning of Condenser

Auxiliary Power Consumption Savings

- Installed grid-connected rooftop Solar PV systems
- Replaced inefficient BFP cartridges with high specific energy consumption
- Replaced tube mill liners
- Optimized Bottom Ash De-ashing process
- Installed energy-efficient ash slurry pumps
- Applied energy-efficient coatings on pump internals of cooling water and other large pumps
- Used BFP scoop for drum level control
- Replaced ceiling fans with BLDC fans
- Replaced old compressors with screw compressors
- Upgraded to energy-efficient motors
- Optimized the number of auxiliaries like mills, ARCW, CW pumps, and fans during prolonged partial loading of units

Performance on PAT (Perform, Achieve, and Trade)

- Overview : Part of the National Mission on Enhanced Energy Efficiency (NMEEE), PAT is a market-based mechanism designed to improve energy efficiency in energy-intensive large industries.
- Mechanism : Enhances cost-effectiveness by allowing the trading of Energy Savings Certificates (ESCerts) achieved through improvements in Net Heat Rate

NTPC's Achievements in PAT

- Cycle-III Success: Barh and Mouda stations surpassed their Net Heat Rate improvement targets.
- Current ESCerts: NTPC holds a total of 2,28,725 ESCerts, including those from previous cycles.
- Future ESCerts: Verification for PAT cycles IV and V is complete, with additional ESCerts earned and awaiting notification.

[10] GRI 302-4



Air (Non-GHG) Emissions Management[11]

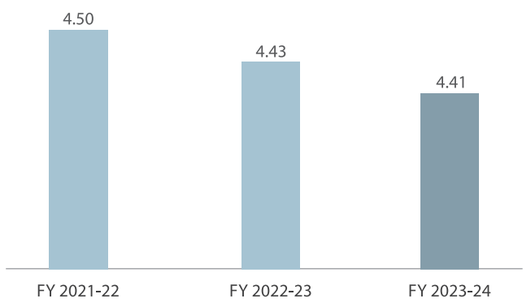
NTPC is dedicated to mitigating air emissions by leveraging advanced technologies and monitoring systems, setting a benchmark in the power sector for compliance with the Ministry of Environment, Forests, and Climate Change's (MoEF&CC) new emission standards and NTPC's Brighter Plan. To ensure real-time monitoring of particulate matter, sulfur dioxide, and nitrogen oxides, Continuous Emission Monitoring Systems (CEMS) are installed across all operational units. Additionally, NTPC employs offline stack monitoring and online ambient air quality monitoring systems.

The company has equipped its stations with highly efficient Electrostatic Precipitators (ESPs) that achieve over 99.8% effectiveness in controlling particulate matter emissions. These systems are continually improved through renovation and modernization efforts.

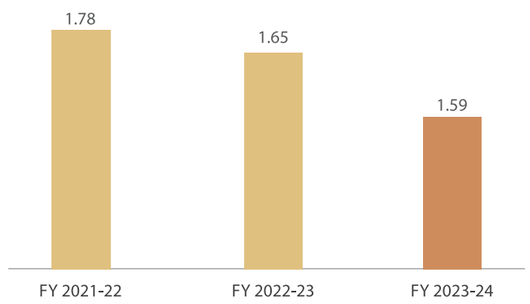
To address sulfur dioxide emissions, NTPC has installed lime-based wet flue gas desulfurization (FGD) systems and dry sorbent injection (DSI) based FGD in 23 units, with ongoing implementation in 119 units. To reduce nitrogen oxide (NOx) emissions to below 450 mg/Nm3, various De-NOx techniques and modifications have been applied in 49 units, with additional execution underway for 1 unit.

Ozone-depleting substances (ODS) emissions are consistently monitored, and mercury emissions are kept below the minimum detectable limit (MDL). Furthermore, NTPC has completely phased out the use of PCBs across all operations, underscoring its commitment to sustainability.

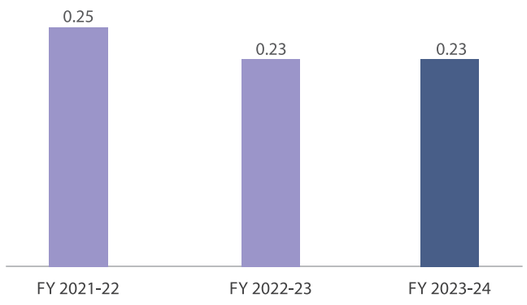
Specific SOx (gm/kWh)



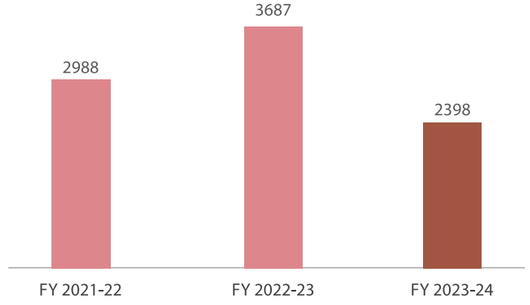
Specific NOx (gm/kwh)



Specific Particulate Matter PM (gm/kwh)



CAPEX on Environment* (₹ Cr)



[11] GRI 305-6, GRI 305-7

*Standalone

Our Group's Overview | Innovating for Sustainability | Statutory Disclosures | Statutory and Financial Results

GHG Emission

We, at NTPC are continuously expanding the scope of GHG measurement and monitoring.



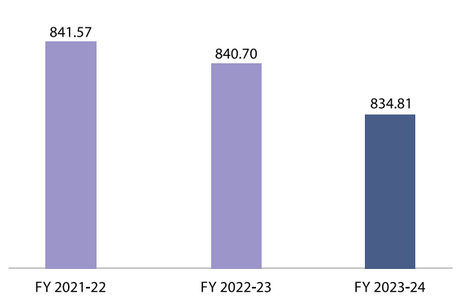
GHG Emissions – Scope 1[12]

As India's leading power sector organization, we recognize the importance of monitoring our direct greenhouse gas (GHG) emissions, which primarily result from fossil fuel consumption at our facilities. In line with our commitment to sustainability, NTPC is actively working to reduce these emissions. While the total Scope 1 emissions have increased due to the addition of thermal capacity, the specific Scope 1 emissions and overall energy intensity have decreased over the years.

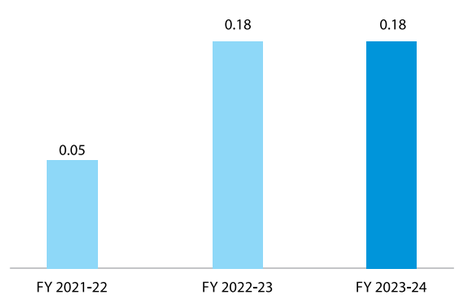
GHG Emissions – Scope 2[13]

At NTPC, we actively address our indirect emissions resulting from electricity consumption across our facilities and offices. It also includes grid electricity consumption by a few of our gas & hydro plants during reserve shutdown. Our commitment to sustainability is reflected in the implementation of robust mechanisms to effectively track and monitor these emissions. Additionally, we continuously strive to reduce our indirect emission footprint through various initiatives and efforts..

Sp. GHG Emission Scope 1 (gm/kWh)



Sp. GHG Emission Scope 2 (gm/kWh)

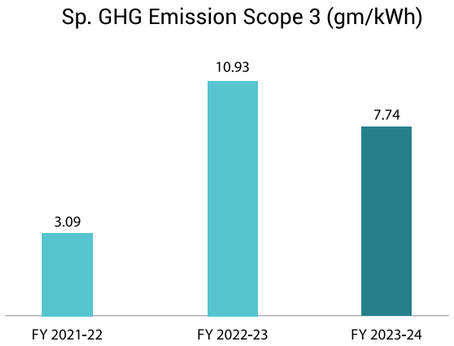


[12] GRI 305-4, [13] GRI 305-4



GHG emissions – Scope 3[14]

We have strategically embraced a long-term vision to mitigate our scope 3 GHG footprint, recognizing the potential to transform climate challenges into advantageous prospects. Our comprehensive approach entails proactive collaboration with our scope 3 stakeholders, fostering mutual engagement and harnessing collective efforts towards sustainability goals. The decrease in total emissions is on account of emissions decreased due to coal imports.



Climate Change Mitigation

As India's leading power generator, we recognize the critical importance of sustainable practices in addressing the global challenge of climate change. We embrace our ethical responsibility to support the country's efforts in reducing greenhouse gas (GHG) emissions and mitigating the adverse impacts of climate change. It is deeply embedded in our core values and our recognition of the vital role we play in shaping a sustainable future.

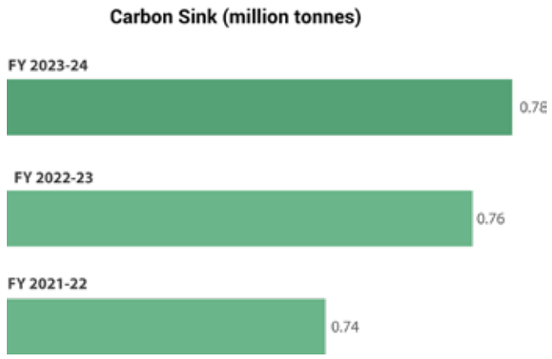
By embracing sustainability as a guiding principle, we aim to be at the forefront of India's transition towards a low-carbon economy, playing a crucial role in securing a sustainable future for generations to come.

We at NTPC are taking various measures to mitigate GHG emissions and climate change. These measures include diversifying our operation into green energy generation such as Renewable Energy, Nuclear Energy, Green Hydrogen, and Biofuels.

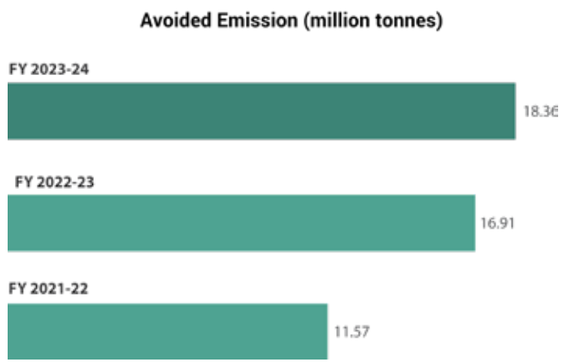
In addition to this, we are also cognizant of the role of Nature-based removals and are committed to building carbon sinks through tree plantations.

Carbon Sink Development

Our afforestation initiatives in India serve a dual purpose: enhancing the country's green cover and oxygen supply, while also acting as 'sinks' for pollutants emitted by our stations and other sources. Since 2016, we have aimed to plant at least 1 million saplings annually. To date, we have successfully planted over 39 million trees.



Avoided Emissions[15]



[14] GRI 305-4, [15] GRI 305-5

Carbon Offset projects (Under regulatory & Compliance market)

NTPC is a pioneer in proactively addressing climate change and recognizes the significant role of carbon offsets. We have initiated several Carbon Credit Projects in the power sector. Currently, NTPC has 8 (108 MW) renewable energy (RE) projects registered under the Clean Development Mechanism (CDM), with 3 (35 MW) of these through the CDM Programme of Activities (PoA) route. Additionally, we have 4 (610 MW) RE projects registered under the Verra-Verified Carbon Standard (VCS). Also, the registration activity of Waste to Energy plant at Varanasi is under progress with Verified Carbon Standard (VCS).

Registration work is under progress for 200 MW capacity of 250 MW Anantpur solar Power project under GCC Program. Also, the registration activity of 800 MW Koldam Hydro Power Station is under progress with International Carbon Registry (ICR). Moreover, 32 other RE projects, with a combined capacity of 6,702 MW, are under registration with the Global Carbon Council (GCC), potentially generating 70,99,887 ACCs.

NTPC is implementing Carbon Capture & Utilization projects (20 TPD- NTPC Vindhyachal & 25 TPD- NTPC Lara) and Green Hydrogen Mobility Projects (Leh - 80 kg/day & Greater Noida - 260 kg/day) which fall under activities finalized under Article 6.2 mechanism of Paris Agreement. Host country approval for above projects is being explored from MOEF&CC.

Prior Consideration notification under Article 6.4 of Paris Agreement crediting mechanism for the 75 nos. (21,118 MW – RE, 2,600 TPD- WTE, 45 TPD- Carbon Capture & 340 KPD Green Hydrogen) of projects (already commissioned projects and upcoming projects) of NTPC and its subsidiaries have been submitted to UNFCCC secretariat and MoEF&CC.





Biodiversity Conservation

At NTPC, we recognize that sustainable growth and environmental protection are intrinsically linked. We firmly believe that achieving our economic goals requires a commitment to ecological responsibility. Our aim is to make a positive impact on nature by giving back more than we take, dedicating sincere efforts to preservation and restoration of ecology. Our NTPC Biodiversity Policy, initially established in 2018 and updated in 2022, guides our initiatives to conserve, restore, and enhance biodiversity. As an active participant in the Indian Business and Biodiversity Initiative, we take immense pride in promoting environmental stewardship and demonstrating our dedication to protecting the planet's biodiversity

Our Biodiversity Strategy

We are implementing following activities across NTPC units:

- Mapping of Biodiversity Interfaces including Assessment of biodiversity risks and opportunities.
- Preparation and Implementation of Biodiversity Conservation/ Management Plan for Protected Areas/ Areas of High Bio-Diversity Values including issues related to Man Animal conflicts (if applicable);
- Enrichment of greenbelt for Biodiversity;
- Enhancing Awareness and Capacity Building on biodiversity (Workshops & Training Programmes, Internal & External Seminars, Leaflets, Pamphlets, Posters, Video Clips, Quizzes and competitions, Campaigns and Awards etc.);
- Considering the impacts of business decisions on biodiversity and inclusion of the applicable biodiversity aspects in the environment management systems;
- Setting objectives and targets for biodiversity management;
- Implementation of Monitoring and Reporting System;
- Engaging in policy advocacy and dialogue with local communities, organisations, regulatory agencies and research institutes of national/ international repute, government, NGOs and academia;
- Designating individuals within the organization as biodiversity champion;
- Participation in International and National Conferences/ Workshops/ Seminars/ Symposium on Biodiversity Conservation & Management.

NTPC has ensured that none of its thermal project sites are located within protected areas or near the areas of high biodiversity outside the protected areas, thereby avoiding any potential impact on IUCN Red List species or national conservation list species.

We actively engage in multiple biodiversity conservation projects, as outlined in the table below[16]

Species	IUCN Red List	Location	
Wildlife			
Sloth bear (Melursus ursinus)	Vulnerable	Raigarh	
Black Buck (Antilope cervicapra)	Least Concern	Meja	
Gangetic Dolphin (Platanista gangetica)	Endangered	Kahalgaon	
Cheer Pheasant (Catreus wallichii)	Vulnerable	Koldam	
Elephant (Elephas maximus)	Endangered	North Karanpura	
Great Indian Bustard (Ardeotis nigriceps)	Critically endangered	Solapur	
Olive Ridley Turtle (Lepidochelys olivacea)	Vulnerable	Simhadri	
Snow Trout Fishes (Schizothorax richardsonii)	Vulnerable	Vishnugad Pipalkoti	
Plant			
Lagerstroemia minuticarpa	Endangered	Pare, Arunachal Pradesh	

Habitats	Type	Location
Ecopark	Urban Environment	Dadri
Ecopark	Urban Environment	Badarpur
Biodiversity conservation	Terrestrial & Riverine ecosystem	Khargone
Biodiversity conservation	Terrestrial ecosystems	Talaipalli
Marshlands and Bird Sanctuary	Wet zones	Unchahar

[16] GRI 304-4

All thermal power plants developed by NTPC were strategically located beyond eco-sensitive zones, including protected areas and regions with significant biodiversity, ensuring minimal environmental impact, and safeguarding critical habitats.

However, in the case of the following power projects, wildlife sanctuaries were declared after the project was accorded Environmental Clearance (EC) or constructed:

- **Kahalgaon Super Thermal Power Station**, located in Bhagalpur (Bihar)- the stretch of Ganga river adjacent to plant was declared as Vikramshila Gangetic Dolphin Sanctuary. However, the plant is situated outside the sanctuary and its eco-sensitive zone, except for the water intake structure.
- **Feroz Gandhi Unchahar Thermal Power Station** in Rae Bareli, Uttar Pradesh-Samaspur Bird Sanctuary was established Nearby after plant construction. However, all its components are situated outside the sanctuary and its eco- sensitive zone.
- **Bongaigaon Thermal Power Station**, situated in Kokrajhar (Assam), is located outside the Chakrasila Wildlife Sanctuary. However, due to the recent declaration of the sanctuary's eco- sensitive zone by the State Government in 2021, certain portions of the project now fall within the eco-sensitive area. The Wildlife clearance for these areas is currently being processed.
- **Koldam HEPP**- The submergence area overlaps with a portion of the Majathal Wildlife Sanctuary, specifically affecting the habitat of the vulnerable Cheer Pheasant (Catreus wallichii) listed on the IUCN Red List. This submergence area accounts for approximately 4% of the total area of the sanctuary, amounting to 124.054 Ha.[17] All necessary approvals from the State Forest Department and the Ministry of Environment, Forest, and Climate Change (MoEF&CC) have been successfully acquired for the project[18].

The establishment and functioning of power plants and related infrastructure do not have any discernible effects, whether direct or indirect, on biodiversity.

Habitats protected or restored[19]

NTPC's dedication to environmental stewardship is demonstrated through its significant financial contributions and active collaborations for conservation initiatives.

24 ha of Mangrove afforestation in NTECL land

₹ 7.78 Cr of expenditure on Wildlife conservation and afforestation

Moreover, NTPC collaborates with the State Forest Departments on sustainable projects such as the Compensatory Afforestation Plan, Catchment Area Treatment Plan etc. These initiatives aim to restore and enhance wildlife habitats, underscoring NTPC's commitment to biodiversity and ecological balance

NTPC's substantial investments in sustainability initiatives highlight its dedication to environmental and social responsibility, showcasing a holistic approach to preserving the natural environment.



[17] GRI 304-1
[18] GRI 304-2

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In addition, NTPC has also undertaken the following activities for the protection of habitats at other sites.

01 Wildlife conservation and monitoring plan for the protection of Great Indian Bustard (GIB) at Maldhok Sanctuary Solapur, Maharashtra

02 Wildlife Conservation Plan for Lara STPP for Conservation of Sloth Bear for MGR Rail Corridor (35.413ha) from Otarliya to NTPC Lara. The total amount of ₹ 2.53 Crore has been spent under this plan.

03 Mapping of Biodiversity Interfaces, Including Assessment & Inventorisation of Biodiversity at Vindhayachal Super Thermal Power Station, is completed. Till date, ₹ 6.5 lakhs have been spent towards this study.

04 Wildlife Conservation Plan for Dulanga Coal Mine Project, Sundargargh, Odisha, is being implemented with Odisha State Forest Department. The total expenditure of ₹ 4.49 Crore has been deposited with the state government for carrying out the biodiversity conservation at the Dulanga Coal mine area.

05 Studies on Dolphin Biodiversity monitoring in Vikramshila Gangetic Dolphin Sanctuary for preparation of conservation plan

06 The Wildlife Conservation Plan for the conservation of Black Buck at Meja STPP has been prepared in consultation with the UP State Forest Department and implemented. A total Budget of ₹ 2.92 Crore so far has been spent for various conservation activities under this plan.

07 Conservation of Olive Ridley Sea Turtles along the coast of Andhra Pradesh in collaboration with AP Forest Department is being done. NTPC Simhadri has signed a five-year agreement with the Andhra Pradesh Forest Department to partner in conservation efforts in the nine coastal districts of Andhra Pradesh, covering 732 km out of the total 972 km of Andhra Pradesh's coastline. An amount of ₹ 4.6 Crore has been spent till date.

Biodiversity of Offset Habitats

Since NTPC's thermal project sites are not situated within protected areas, no offset habitats were developed, making any comparison inapplicable. However, the hydropower project at Kol Dam involved the creation of an offset habitat through collaboration with the State Forest Department.

Afforestation

NTPC has proactively engaged in extensive afforestation endeavors to combat the impact of greenhouse gases, bolstering India's green cover and oxygen reserves while serving as a vital carbon sink for emissions stemming from power stations and other origins. NTPC has successfully planted more than



39 million trees since its inception. Complementing these initiatives, NTPC has set up nurseries within its facilities and townships to facilitate the cultivation of seeds and seedlings, supporting internal plantation and horticulture operations. This collaborative effort with State Forest Departments, formalized through MOUs, effectively delineates crucial aspects such as the plantation timeline, maintenance duration, funding arrangements, and survival targets.

NTPC has implemented Guidelines for Afforestation serving as the basis for afforestation across its projects. The plantation activities can be categorized into the following:

- **Development of Green Belts Around Plants**: NTPC has established green belts around all operational stations and is developing them at new sites. These green belts capture particulates, reduce noise, act as carbon sinks, lower surrounding temperatures, and increase atmospheric oxygen content.
- **Afforestation Initiatives**: Each year, NTPC undertakes large-scale afforestation efforts, planting approximately 1 million trees annually.
- **Distribution of Fruit-Bearing Trees**: NTPC provides local farmers and township residents with free saplings of fruit-bearing, flowering, and vegetable plants, encouraging individual landholders to engage in planting. Additionally, NTPC promotes tree planting among its employees and their families on various occasions.

These initiatives reflect NTPC's commitment to enhancing environmental quality and promoting sustainable practices within and beyond its operational areas.

Green Credit Programme

NTPC is actively participating in GoI's Green Credit Programme. We are working to enhance India's forest and tree cover on degraded forest lands through Forest departments.

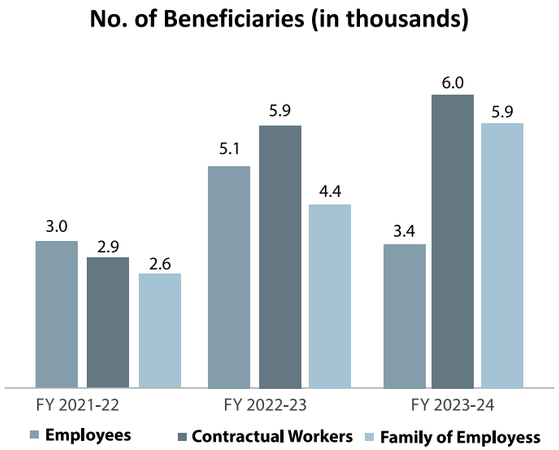
All NTPC stations are certified for ISO 14001 which are being renewed regularly. They also have dedicated environmental cells. Regular inspections, audits, and compliance assessments of the Environment Management Systems are conducted by regulatory agencies, NGOs, and ISO certification bodies, both internally and externally. NTPC ensures full adherence to environmental laws and regulations mandated by statutory agencies, showcasing its unwavering commitment to achieving 100% compliance.

The company promptly responds to directives from regulators by implementing feasible engineering solutions within specified timelines. To meet stringent environmental standards, NTPC undertakes renovation and modernization (R&M) of pollution control technologies in older operating units, ensuring compliance with all legal requirements through R&M activities.

Environment Training

We conduct capacity-building programs on environmental subjects for various stakeholders, including employees, the contract workforce, and communities, aiming to enhance knowledge and awareness. These programs cover topics such as waste management, water conservation, biodiversity protection, and more.







Human Capital

Management Approach

Our workforce is the foundation of our organisation, our most valuable asset. We prioritize their growth, well-being, and skill development, considering them essential to our success. By fostering a positive work culture and prioritizing employee career advancement and overall health, we have achieved remarkable levels of satisfaction. This dedication has propelled our growth and contributed significantly to our achievements.

Key Highlights

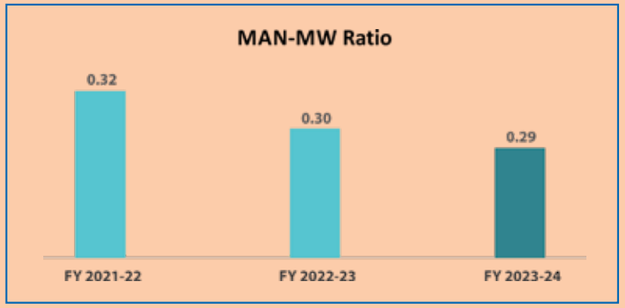
42 hrs/employee
of Learning Opportunities

4.42 million
man-hours of Safety Training

₹6592.03 Cr
spent on Employee Benefits

₹ 54.82* Cr
spent on Training & Development

Data Trends



Mapping with SDGs

Material Topic (s)
[1] [2] [7] [10] [15]

NGRBC Principles
[3] [5] [4] [6] [8]



* NTPC Standalone

Overview

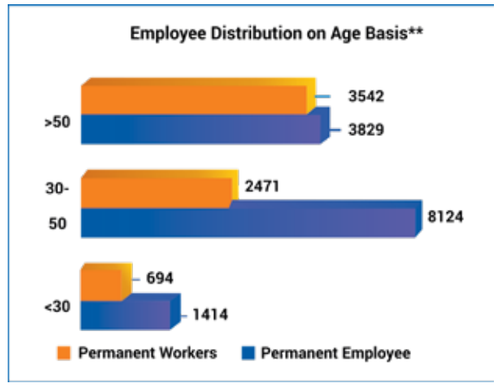
At NTPC, our success is propelled by our highly skilled and dedicated professionals who serve as the driving force. We prioritize the attraction, nurturing, and retention of top talent, which has resulted in an exceptionally low attrition rate. Our HR vision cultivates a culture where employees form a closely-knit family of outstanding professionals, collectively propelling NTPC towards its aspiration of becoming a learning organization. Through the empowerment of our workforce, we forge a sustainable future where NTPC delivers clean and reliable power while minimizing environmental impact. Rooted in a people-centric approach, our HR strategy is built on four pillars:



Our Dynamic Workforce[1]

Our commitment to human capital extends beyond effective management to create a supportive and inclusive work environment that empowers our workforce. Evaluating employee productivity and financial metrics like sales per employee and value added per employee provide insights into workforce efficiency. We use the Man-MW ratio to measure employee productivity and optimize manpower planning. In Financial Year 2023-24, the ratio stands at 0.29 for the NTPC group.

Our workforce is a vibrant mix of seasoned professionals and emerging talents, fostering a harmonious blend of perspectives, skills, and experiences. With representation from across India, our diverse workforce empowers us to leverage a multitude of strengths and viewpoints. This diversity serves as a catalyst for our innovation, market agility, and overall organizational excellence.



Through our commitment to nurturing a supportive work culture, we enable our employees to thrive, resulting in reduced turnover and heightened job satisfaction. We have implemented a dynamic Performance Management System (PMS) to proactively recognize and reward employee contributions to our organization's growth.

The "System of Weekly Planner – A Tool for Continuous Assessment and Feedback" was introduced in PMS in the year 2020 to promote a culture of planning, continuous assessment and feedback, reduce recency effect, bring transparency and objectivity in the system by making it data driven and provide timely support by Managers to their subordinates to bridge the gap between actual and desired level of performance. Based on the feedback/suggestions received after the implementation of the Weekly Planner System, it was decided to introduce the system of Monthly Assessment by Reporting Officers in the Year 2021. In this system, the Reporting

[1] GRI 404-3

** NTPC Group



Officers (ROs) are required to give Monthly Rating against each subordinate every month on a scale of 1 to 10. This system provides a structured framework for assessing employee performance and delivering constructive feedback. Through the PMS, we have established a mechanism for acknowledging and rewarding employees based on their actual contributions.



Fostering Equality, Embracing Diversity, and Promoting Inclusion[2]

At NTPC, we are deeply committed to fostering an inclusive work environment that celebrates and respects diversity in all its forms. We greatly value individuals from diverse cultures, backgrounds, and orientations, creating a workplace atmosphere that is both welcoming and equitable. Upholding our dedication to diversity and inclusion requires ongoing efforts, including initiatives such as diverse recruitment and training programs designed to address unconscious bias.

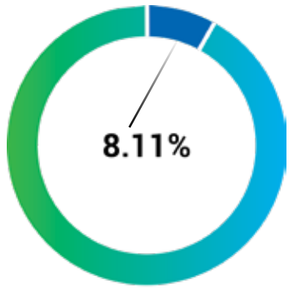
We prioritize open communication, mutual respect, and prompt resolution of any issues or concerns that may arise. Our objective is to ensure employee diversity, prevent discrimination, and promote equal treatment, thereby nurturing a strong organizational culture that acknowledges and embraces the individuality of each and every employee.

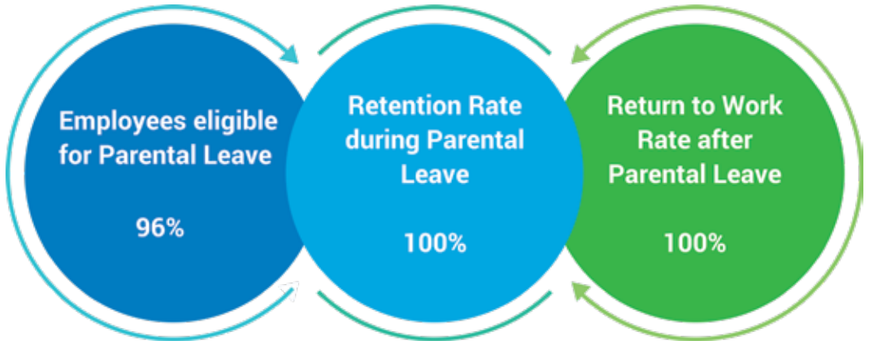
Providing Best Employee Benefits[3]

NTPC offers a comprehensive array of benefits to its full-time employees, aimed at promoting employee well-being, fostering a healthy work-life balance, and providing long-term support. From paid childcare leave to extensive medical coverage, education assistance, housing support, social security benefits, and post-retirement medical care, our benefits package is designed to address various aspects of our employees' lives. Additionally, we provide provisions for sabbatical periods of up to five years, ensuring job security upon return.

"Equal Renumeration for all employees"

Share of Female Employees in the workforce**





Demonstrating our commitment to shared parental responsibilities, we provide parental leave to all employees, irrespective of gender. This inclusive policy not only promotes gender equality but also empowers employees in their journey of parenthood, resulting in a 100% rate of return to work and retention. In addition to complying with regulatory mandates like maternity leave, we also provide additional facilities like paid childcare leave of two years to female employees as well as single male employees and special childcare leave for adoption/ surrogacy.

Major Employee Benefits



In the reporting year, we invested ₹6592.03 Crores in our comprehensive employee benefits program, reaffirming our commitment to supporting our workforce.

In order to have an integrated approach encompassing various aspects of health and wellness including physical, mental, emotional, social, financial, and environmental well-being, a comprehensive policy - NTPC Health & Wellness Policy – "AHWAHAN" (All-inclusive Health & Wellness Approach for Happy & Aspirational NTPCians) - covering various aspects of health and wellbeing including a structural framework for effective functioning of the scheme has been rolled out in the year 2023-24.



[2] GRI 406-1
[3] GRI 401-2

Employee Benefits Commitments

We are deeply committed to prioritizing the well-being and financial security of our employees through a robust compensation and benefits program.

At NTPC, we offer a post-employment benefit plan with fixed contributions to the provident fund. These contributions are meticulously invested in permitted securities by a separate trust, with related expenses duly recorded in our profit or loss statement. NTPC ensures adherence to fixed contributions and minimum returns stipulated by the Government of India. Additionally, we manage separate trusts for gratuity and pension schemes, providing essential retirement benefits and financial stability to our employees.

Sr. No	Benefits	Regular Employess	Temporary Employees (Fixed-Term Employees)
1	Provident Fund Benefit	Y	Y
2	Gratuity	Y	N
3	Pension Benefit	Y	N
4	Post Retirement Medical Scheme	Y	N
5	Leave	Y	Y
6	Insurance Coverage	Y	Y
7	Medical Facilities	Y	Y

Enhancing Employee-Management Collaboration and Engagement[4]

Our commitment to human rights, individual dignity, and professional conduct is crucial to our operations. Our adherence to international standards and guidelines, such as the United Nations Universal Declaration of Human Rights, the 10 (UN) Global Compact Principles, and the International Labor Organization Core Conventions, serves as a foundation for ethical business practices. Respecting the rights of employees, including their freedom of association, is essential to fostering a positive work environment. NTPC recognizes the freedom of workmen (non-executive) employees to associate themselves with various unions, facilitating collective bargaining agreements.[5]

Through our PRMS (Post-Retirement Medical Facilities) Scheme, retired employees and their spouses receive access to medical facilities in company hospitals or empaneled hospitals. As per the DPE (Department of Public Enterprises) guidelines, the company contributes up to 30% of Basic Pay plus DA (Dearness Allowance) as superannuation benefits towards Provident Fund (PF), Gratuity, Post-Retirement Medical Benefits, and Pension. Employees contribute 12% of Basic Pay plus DA towards PF as per the EPF (Employees' Provident Funds) Act, 1% of Basic Pay plus DA towards the company's Pension Scheme, and the PRMS Membership Fee Amount as per the PRMS Scheme of the company.

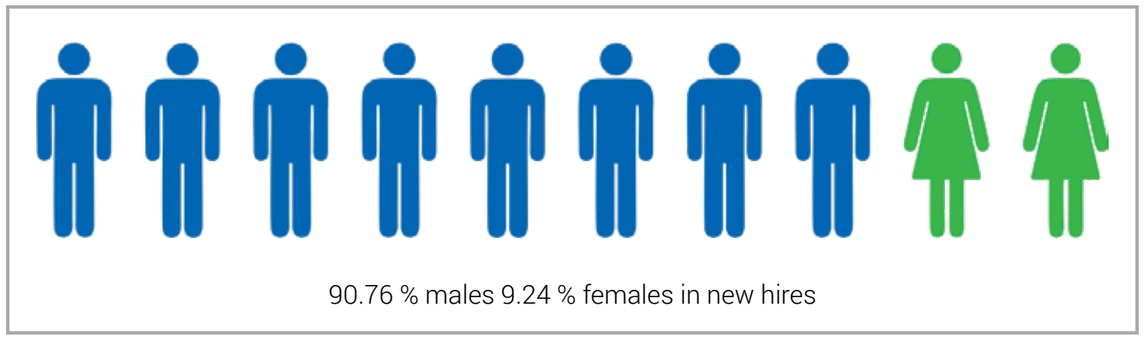
Sr. No	Benefits	Contractual Workers
1	Minimum Wages as per statutory provisions	Y
2	Benefits of PF, Pension and Insurance as per statutory provisions	Y
3	Bonus as per statutory provisions	Y
4	Paid Leaves as per statutory provisions	Y
5	Medical and Accidental Insurance Coverage as per statutory provisions	Y
6	Additional Social Security Assistance for accident (by NTPC)	Y
7	Free Annual Medical Check-up	Y

There is no operational entity where manpower and suppliers face risk related to the right to freedom of association and collective bargaining, child labour and forced or compulsory labor.[6]

To ensure smooth transitions during significant operational changes like location transfers, terminations, or resignations, a minimum notice period ranging from 4 to 12 weeks is required.[7]

Creating a safe workplace, particularly for women, is crucial for maintaining a secure and inclusive culture. We establish Internal Complaints Committees at operational locations to handle complaints of sexual harassment, promoting a proactive approach to addressing and preventing such issues. These committees are reconstituted every three years, and resolutions are provided. During the reporting period, 4 cases of sexual harassment were reported and resolved with only one pending case as of now.

Each NTPC project has its own Grievance Redressal Mechanism to address employee grievances promptly. We use various forums, such as communication meetings and organizational climate surveys, to capture and address these concerns. NTPC complies with statutory and regulatory requirements concerning payment of wages and benefits. We ensure that employees' rights are not violated and provide statutory benefits like Provident Fund and medical facilities.



Promoting Human Rights Awareness and Education

All employees and contractors are sensitized on Human Right related topics through structured training programmes. We prioritize transparency and address human rights issues for external stakeholders, including Project Affected Families (PAF), through consultation and participation. Our policies specifically mention provisions for marginalized groups, ensuring comprehensive community development. We have established institutional mechanisms for grievance redressal, demonstrating our commitment to resolving stakeholder concerns in a timely and fair manner. To safeguard human rights, all significant investment agreements and contracts include clauses that minimize the risk of violations. We conduct regular monitoring to ensure compliance with regulations and internal policies. During the reporting year, no complaints regarding human rights issues such as child or forced labor at the workplace were reported.

10,398
Man Hours Spent On Human Rights Training

Enhancing Security Measures[8]

NTPC places utmost importance on workplace security and maintains a safe working environment across all its station. To ensure personnel and asset security, NTPC deploys Central Industrial Security Force (CISF) at all its units, in compliance with the Ministry of Home Affairs regulations. They are provided training on Human rights in their induction training by the concerned govt. department.

In addition, NTPC also collaborates with ex-servicemen security agencies in non-core areas such as project townships, headquarters, and offices. These agencies adhere to the norms established by the Directorate General of Resettlement, under the Ministry of Defence. These security personnel undergo rigorous training and refresher courses provided by the Government of India, encompassing security systems and human rights aspects.

To enhance security measures, NTPC is upgrading surveillance systems at all projects and stations by installing state-of-the-art security systems. The introduction of the Contract Labor Information Management System (CLIMS), a biometric labour attendance system, improves security and facilitates the

[4] GRI 402-1
[5] GRI 407-1
[6] GRI 408-1, GRI 409-1
[7] GRI 402-1
[8] GRI 410-1





monitoring and execution of labour payments and benefits. This initiative complements the upgrades in surveillance systems at all projects/stations.

Prioritizing People over PLF

At NTPC, human resources policies are centered around prioritizing the welfare of employees, guided by the principle of 'People before PLF (Plant Load Factor)'. NTPC management maintains multiple levels of contact with employees through whom they seek feedback and suggestions. Surveys (internal/external) are considered to be an important source of employee feedback in NTPC.

73%
Satisfaction index for FY 2023-24

These surveys empower employees to contribute insights for enhancing various systems within the organization. NTPC acknowledges the evolving needs of its workforce, striving to foster an environment conducive to employee well-being and productivity.

In addition to satisfaction surveys, NTPC Corporate Safety conducts separate safety perception surveys among both employees and agency workers to derive future strategies for Implementation of actions based on these deliverables is carried out at each station.

Nurturing Human Capital: Empowering Our Talent

Our commitment to employee growth is demonstrated through holistic development, aligning with emerging business trends, and fostering a culture of continuous learning. With "Learning at the Speed of Business," our agile initiatives empower employees to excel.

In Financial Year 2023-24, we invested ₹ 54.82 crore in training (on standalone basis), showcasing our dedication to comprehensive learning opportunities.

74%
of total workforce underwent training

We utilize platforms like NTPC Power Management Institute (PMI), Apex Learning and Development (L&D) Centre, 7 Regional Learning Institutes (RLIs), and Employee Development Centers (EDCs) to create an effective learning grid. We prioritize international training and partner with renowned institutions like Harvard and Wharton Business School. Collaborations with organisations like the ISHA Foundation and Art of Living promote holistic development. Our objective is to inspire excellence in employees and their families, both professionally and personally.

9,24,611
Man-hours of Training

Enhancing Employee Development: Training and Skill-Building Initiatives

Learning and development are paramount to us, and we boast a robust training infrastructure that encompasses various facilities, including the Power Management Institute (PMI), seven Regional Learning Institutes (RLIs), a Safety Academy, Employee Development Centers (EDCs), and Simulator training facilities. Our dedicated Learning and Development (L&D) team concentrates on technology, business acumen, and leadership skills to equip employees for future challenges. The PMI offers a contemporary learning environment conducive to skill enhancement.

Our Executive Trainee (ET) program delivers comprehensive training through a blend of on-the-job experience, simulator sessions, and skills modules. We conduct multiple ET batches regularly, supplemented by structured interventions such as the Foundation Course, Enhancing Managerial Competence (EMC), and Advanced Management Program (AMP). Prioritizing safety, we provide extensive training to both employees and contract workers, offering certificate courses across the organization. Moreover, the NTPC School of Business (NSB), operating under the NTPC Education and Research Society (NEARS), delivers AICTE-approved management programs with academic support from IIM Ahmedabad.

Through our unwavering commitment to learning and training, we aim to equip our employees with the necessary skills to excel and contribute effectively to the growth and sustainability of our organization.

Empowering Talent

We prioritize continuous skill development for our employees, empowering them to excel and achieve our strategic objectives. Our investment in enhancing their capabilities not only strengthens our human capital but also boosts employee satisfaction, resulting in enhanced performance. We extend our support to employees nearing retirement by providing skill development opportunities and facilitating a seamless transition from work to retirement. This steadfast commitment to valuing and supporting our employees throughout their career journey remains unwavering.

Hours per employee of learning Opportunities

Skill Upgradation Initiatives

NTPC employs three primary types of training interventions:

Planned Interventions

These in-house training programs are designed according to a standardized course template. They are executed with the aim of enhancing employee competencies on a grade/level/category-wise basis. The focus is on improving specific skill sets and knowledge areas as identified by the organization. Planned Interventions provide a structured approach to skill development, ensuring employees are equipped with the necessary capabilities. These trainings include Foundation Course, Enhancing Managerial Competence, Advanced Mangement Program, LEAD Program, 10X Leadership Program, Executive Trainees Program (onboarding) etc

Need-based Programmes

This type of training is meticulously crafted based on identified developmental needs for specific employees. The programme's design and content are tailored to address the exact requirements indicated in the Training Needs Form. Need-based Programme are finely tuned to bridge skill gaps and align employee growth with organizational objectives. These trainings include Competency Development Programme, SAMARTH Programme (Role Felicitation), Gender Sensitivity, Women Leadership, Safety Certification, BOE Certification etc

Emerging Technology Programmes

These interventions encompass external or in-house training programmes that aren't part of Planned Interventions or Need-based programmes. These interventions target specific competencies deemed vital by the organization. The focus is on addressing particular areas of improvement to meet current or future business challenges effectively. These trainings include Energy Trainsition programmes namely Carbon Trading Certification, Energy Storage, Pump Storage, Wind Energy, Offshore wind , Future Skills Certification Programs,Virtual Reality, Augmented Reality etc

Transition assistance programmes

Transition assistance programmes are essential for facilitating continued employability and managing career endings resulting from retirement of employment. NTPC has a robust framework to support its employees during these transitions.

Financial and Health Preparedness

Planned Interventions NTPC emphasizes the importance of financial planning for retirement. Programmes are designed to help employees analyze investment scenarios, make sound





investment decisions, and examine post-superannuation benefits. This financial readiness helps employees manage their future financial challenges.

Health Preparedness Emphasis is placed on taking up challenges related to health post-retirement. Programmes may include health awareness workshops and wellness initiatives.

Continuous Learning and Skill Development

Certification Programmes NTPC promotes continuous upgradation of competencies through certification schemes. Examples include the Qualified Project Management Professional certification by the International Project Management Association (IPMA) through its Indian affiliate, Project Management Association (PMA).

Higher Qualification Incentives The NTPC Incentive Scheme encourages employees to acquire higher or additional qualifications. This is facilitated through part-time or correspondence courses, enhancing employees' professional competence.

Higher Studies and Professional Development

Company Sponsorship for Higher Studies NTPC sponsors various higher study programs, including IPMA Certification, Energy Auditors Course, Certification for Project Management Professionals, Management Programmes, and Nuclear Operations Courses.

Grant of Study Leave and Sabbatical Scheme Employees are rovided with study leave for higher studies and sabbaticals for self-development pursuits like training or higher education.

Our Group's Overview | Innovating for Sustainability | Statutory Disclosures | Statutory and Financial Results

Counseling Offering guidance and counseling services to help employees plan for their post-employment life.

Retirement Workshops Conducting workshops that cover financial planning, health management, and lifestyle adjustments for retirees.

Outplacement Services Providing services to help superannuated employees find new employment opportunities if found suitable.

By providing a comprehensive suite of transition assistance programs, NTPC ensures that its employees are well-prepared for retirement or any career transitions. The training enables employees to manage their career endings effectively and continue to lead fulfilling lives post-employment.

Workplace Wellness and Safety[9]

NTPC prioritizes the safety, health, and well-being of its employees and contractors as a core value that guides all operations. We have implemented a comprehensive set of procedures, safety rules, and internationally recognized safety management systems across all our plants and locations. Adherence to these measures is mandatory for all employees and contractors, aiming for a workplace with zero incidents.

37 of our thermal power stations were incident free in FY 2023-24

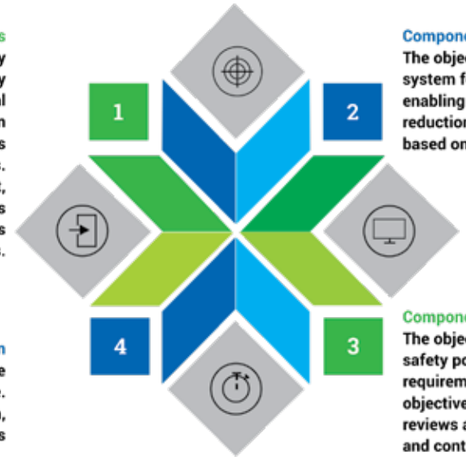


We are proud to have received numerous prestigious awards and accolades for our outstanding safety performance. **Eighteen of our stations** were honoured with the **International Safety Award 2024** by the **British Safety Council**, with Sipat and Vindhyachal stations recognized in distinction category.

Four NTPC stations received **Safety Innovation Award 2023 from SQF, Institution of Engineers, India**. Additionally, NTPC Khargone was awarded with **SURAKSHA PURASKAR NSCI Safety Awards 2023: (Manufacturing Sector)** by National Safety Council of India and **10th FICCI Safety Systems Excellence Award in 2023 (Platinum category)** for exceptional performance in occupational safety and health. Talcher Thermal has been honored with prestigious **Golden Peacock Award** for excellence in occupational Health and Safety in power sectorfor the year 2024.

Overview of Safety Framework

Component 1: Safety Policy and Objectives
The Chairman & Managing Director periodically reviews and issues the Safety Policy to clearly state the company's stance on occupational health & safety. This policy forms the foundation of NTPC's Safety Framework, guiding its Components and Elements.
Goals and objectives at the business unit, functional, and individual employee levels are aligned with the organization's overall objectives.



Component 2: Safety Risk Management
The objective is to establish a formal system for identifying hazards, enabling the avoidance, acceptance, reduction, sharing, or transfer of risks based on the specific circumstances.

Component 4: Safety Promotion
The objective is to promote safety as a core value and cultivate a strong safety culture. This includes activities such as communication, training, and promotional initiatives

Component 3 : Safety Assurance
The objective is to ensure compliance with safety policy, rules, procedures, and legal requirements in achieving safety targets and objectives. Regular inspections, audits, and reviews are conducted to ensure the effectiveness and continual improvement of the safety framework.. This component also covers contractor management to ensure the effective achievement of safety policy objectives.

[9] GRI 403-1



To ensure the well-being of our workforce, we have established a robust management system that covers all aspects of safety and compliance with legal, regulatory, and safety requirements. Our safety framework and comprehensive safety manual provide guidance, instructions, policies, participative forums, checklists, statutory documents, and procedures to promote safe practices in the workplace, including the operation of equipment, machinery, chemicals, and tools.



We regularly assess the safety of our operations through internal and external safety audits. Internal safety audits are conducted annually by a team of Safety Officers, while external audits are carried out by reputable organisations as per statutory requirements. We also conduct special audits to assess adherence to procedures and rules. NTPC has a pool of certified auditors, including National Occupational Safety Association (NOSA) certified auditors and ISO 45001 certified lead/internal auditors, ensuring quality audits. In Financial Year 2022-23, we initiated an additional expert safety audit for all NTPC stations for internal benchmarking purposes. This was completed for 37 stations / projects of NTPC during FY 2023-24. For more information, please refer to NTPC's safety policy.

Prioritizing Health and Safety[10]

Managing Emergencies: Ensuring Preparedness and Response

To align with our objectives, NTPC has implemented effective engineering controls and comprehensive emergency plans at all stations. Clear responsibilities are assigned for handling emergencies, and regular mock drills are conducted to assess the systems. Suggestions from these drills are reviewed and implemented. The NTPC Disaster Management Cell formulates policies and action plans, collaborating with regional offices and stations.

Safety Indicators and Business Unit Head (BUH) review

NTPC maintains a robust safety observation and incident reporting system using proactive lead indicators. Business Unit Heads conduct monthly safety metric reviews, examining lead and lag indicators. The review report is shared with the Corporate safety team and discussed in meetings with Top Management.

Safety Indicators	
Lead Indicators	**Lag Indicators**
Deviations	Fatal
Near Miss	Fire Incidents
Training	First-Aid
Pep Talk	Non-Reportable
Reward and Recognition	Reportable

[10] GRI 403-2, 403-3

Mitigating Work-Related Hazards: Prioritizing Employee Safety

NTPC has developed centralized Hazard Identification, Risk Assessment, and Control (HIRAC) documents for its stations. Station-specific HIRAC documents address site-specific risks and establish tailored control procedures. Capacity building and training programs ensure competency. Historical accident and incident data are collected to enhance hazard identification.

Promoting a Culture of Safety and Worker Participation

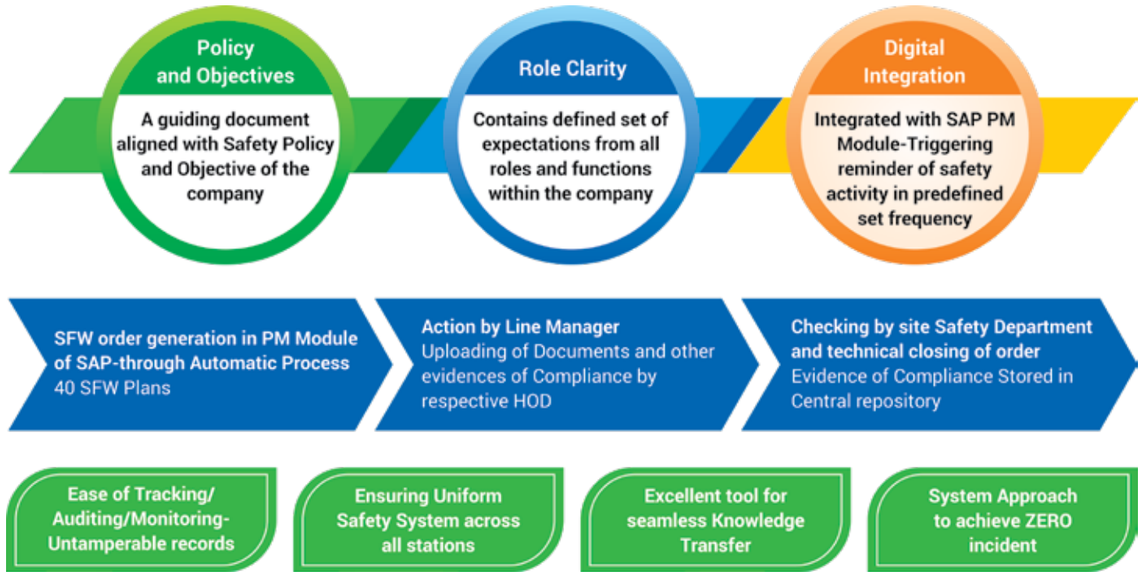
Workers at NTPC have processes to report work-related hazards, encouraging reporting and protecting against reprisals. NTPC has policies and processes for workers to remove themselves from potentially harmful work situations. Clear guidelines and procedures protect workers from reprisals.

Thorough Investigation and Continuous Enhancement

NTPC emphasizes a thorough investigation process for work-related incidents, analysing incidents, identifying hazards, and assessing risks. Valuable recommendations for corrective actions and enhancements are generated. Adhering to the NTPC Safety Manual 2015 guidelines, a hierarchy of controls is followed to determine appropriate corrective measures. The knowledge gained from incidents is integrated into the ongoing improvement of the occupational health and safety management system.



SAP Integrated Safety Framework



Occupational Health Services[11]

NTPC prioritizes employee health, safety, and well-being through various measures. Our NTPC hospitals provide round-the-clock medical care for employees and their dependents. We have partnerships with over 250 specialized hospitals in 25 cities for specialized treatments. Power plants are equipped with ambulances featuring Advanced Life Support systems for emergencies. Medical facilities include First Aid Centers, Ambulance rooms, and qualified staff.

Annual health check-ups are conducted, and personal health information is securely managed. Preventive checkups are mandatory, promoting proactive health management. We organize lectures, camps, and awareness programs on medical and lifestyle topics. Holistic employee welfare includes spiritual, mental, and physical healing through programs like Snehal, Kshitiz, Sparsh, etc. Activities include yoga, meditation, therapies, counseling, and promoting work-life balance, healthy habits, and ergonomics.

Corporate safety launched the mobile app "Suraksha" for reporting work-related injuries and incidents. It is regularly updated for user experience and new features. Over 12,000 employees have downloaded and used this app, providing real-time data for analysis and preventive actions.

Regular workplace monitoring mitigates risks related to dust, gas, illumination, and noise levels. Trend analysis indicates improvements. Sessions educate employees and contract workers about hazards, diseases, and lifestyle modifications. These measures foster a culture of safety and well-being.

Development of Safety Culture[12]

We promote a collaborative and participative approach by fostering employee participation, consultation, and communication on health and safety aspects. To be able to effectively carry forward and institutionalize such a participatory approach across all levels and functions, training programs for our employees and contract workers are conducted regularly.

Safety Task Force for O&M

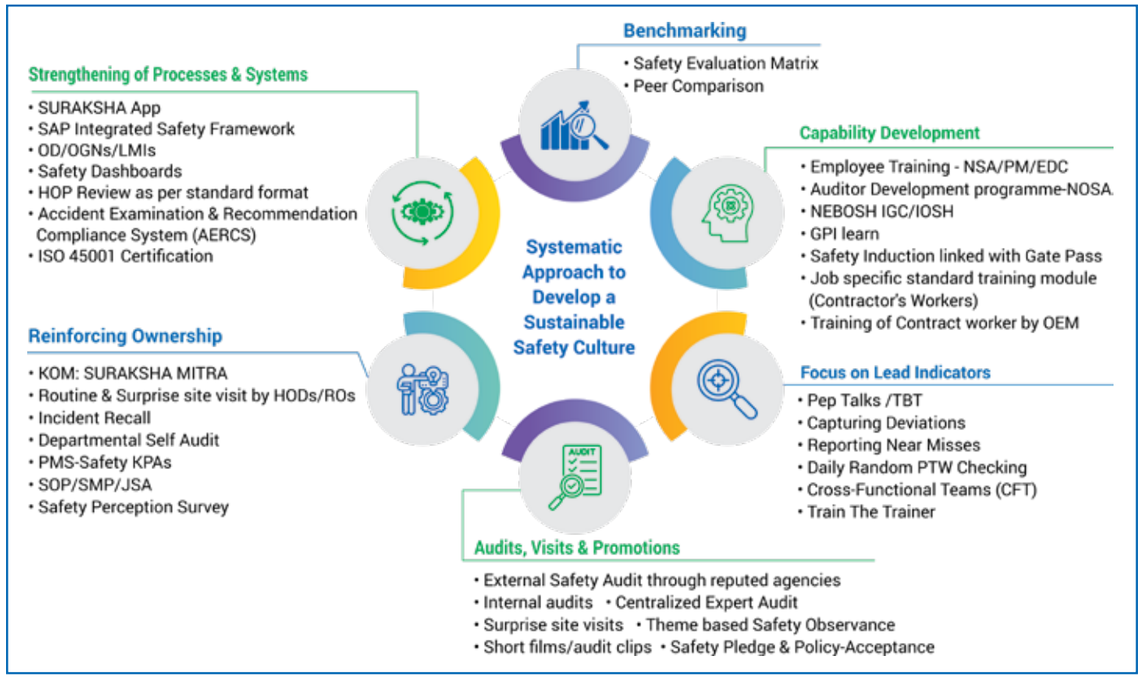
Safety Task Force is constituted on rotation on weekly basis for O & M area at each station. They are given specific terms of reference along with powers to stop work in case any unsafe act or condition is detected.

Safety Committee

A Safety Committee at each of our operating stations has been constituted as per the Factories Act. Workers' participation in safety management as per Section 41 of the Factories Act is ensured along with management representatives. The Safety Committee meeting is held on quarterly basis to discuss the safety and health issues of station and measures to mitigate these issues.



[11]GRI 403 - 8
[12]GRI 403 - 4



Enhancing Safety through Training Initiatives[13]

All the agency workers are given safety induction training during their initial employment. In addition, 23 job-specific training modules on hazard awareness are also prepared, and the agency workers are given the training as per their job requirements. Every year, efforts are made to ensure that all our workforce undergo this safety training.

The training programs cover topics concerning work-related hazards and risks for our business, apart from topics about general operations and best practices on occupational health and safety.

To develop competency in safety management, among our employees and stakeholders, we have established NTPC Safety Academy at Unchahar. Our employees and stakeholders are provided hands-on training on safety and emergencies through physical mode as well as on a virtual platform. Power Management Institute of NTPC also organizes safety training for employees for different certification courses as well as topics as per requirement.

[13]GRI 403 - 5

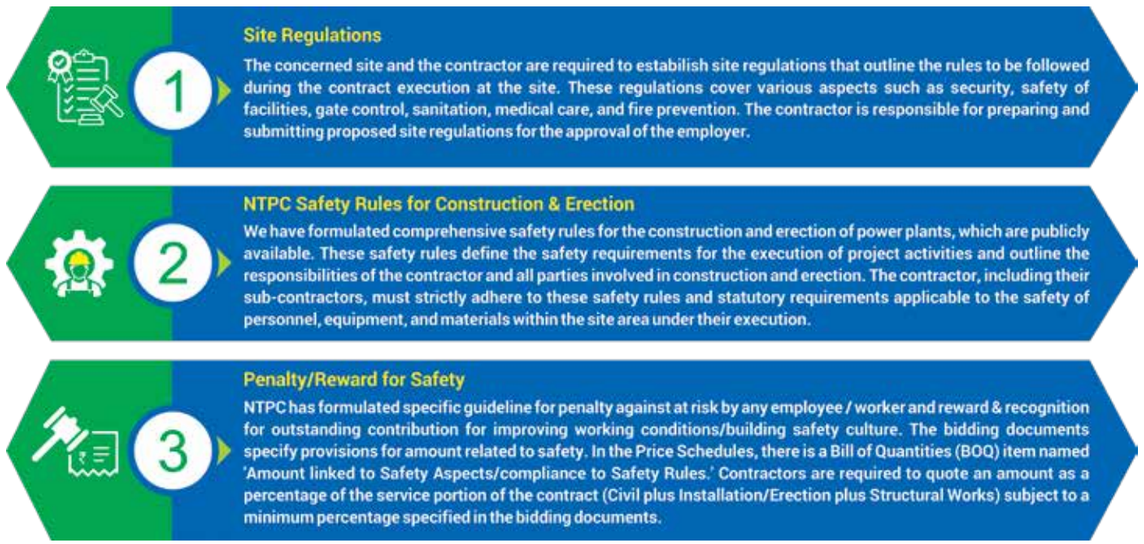
Contractor Safety: Promoting Collaboration and Safety Practices



Safety is a crucial aspect of our tender processes, and the performance of contractors is closely monitored throughout the contract execution. We have implemented several control processes and tools to assess and evaluate the safety performance of our suppliers and contractors.

Any violation of the contractual conditions will produce specific penalties up to termination of the contract and/or suspension of qualification. The dedicated guideline has been shared at our tender website https://ntpctender.ntpc.co.in/.

To further fortify safety protocols and ensure a secure environment during project execution at NTPC, the following measures have been integrated into the Bidding Documents:



Enhancing Training Opportunities for Contractor Workers

A comprehensive safety induction training module is implemented across NTPC to ensure uniformity. This mandatory training is conducted for individuals before they are granted access to the plant.

NTPC has developed job-specific training modules to address safety requirements for various roles and tasks in the plants.

To ensure the competency of agency workers, a Worker Role Competence Matrix is developed at the beginning of each contract, identifying specific training needs based on job nature and associated hazards. Regular training programs are conducted at all NTPC sites for contractor employees, covering various occupational health and safety topics. "Train the trainer" programs are organized by Corporate Safety to empower trainers for the effective delivery of job-specific training.

Before starting a job, a Job Safety Analysis (JSA) is performed to identify hazards and mitigation measures. The area engineer or supervisor delivers toolbox talks to workers, highlighting safety points mentioned in the JSA.

The CLIMS system serves as a crucial gate pass system for accessing the site, ensuring that only personnel with valid photo identity cards are allowed entry. This measure enhances site security and helps in maintaining a record of the individuals present on-site, contributing to better overall management and accountability. In FY 2023-24, another initiative of integration of safety training need analysis of workers in CLIMS has been initiated.

Periodic mass pep talks on general safety topics are conducted to create awareness and reinforce safety practices among workers. Incident Recall Talks are designed to refresh workers' learning from past incidents, reducing the likelihood of similar incidents and improving risk perception. Presentations developed by Corporate Safety are shared with stations for Incident Recall Talks at the site.

Ensuring Worker Safety and Well-being: Minimizing Injuries and Promoting Health[14]

Throughout the reporting year, NTPC had no incidents of work-related ill health, occupational diseases, legal cases, or risks affecting public health and safety. We regularly monitor the workplace to identify and address potential hazards related to work-related ill health, such as dust/coal dust, gas or vapour, and noise levels. These monitoring activities are well-documented, and appropriate measures are taken to mitigate the identified hazards.

In case of work-related injuries, we adhere to the NTPC Safety manual's accident reporting system. Accidents undergo thorough investigation following the prescribed procedure. Summaries of fatal and reportable accidents are shared on the Safety intranet, and details are communicated in project meetings, enabling the sharing of causes and recommendations. Work-related injuries are promptly reported to senior personnel through a mobile application, facilitating immediate corrective actions, and ensuring workforce safety and well-being.



[14] GRI 403 - 7, GRI 403-10



Social Capital

Management Approach

NTPC's management approach is rooted in prioritizing partnerships over profits as our guiding principle. We firmly believe that people are the cornerstone of our success, placing them at the forefront of our strategy. Our commitment lies in fostering a people-centric and people-driven approach that promotes balanced, inclusive, and sustainable growth. We strive to create a mutually beneficial environment that uplifts our communities, customers, suppliers and other stakeholders, promoting equity and overall well-being for all involved.

Key Highlights

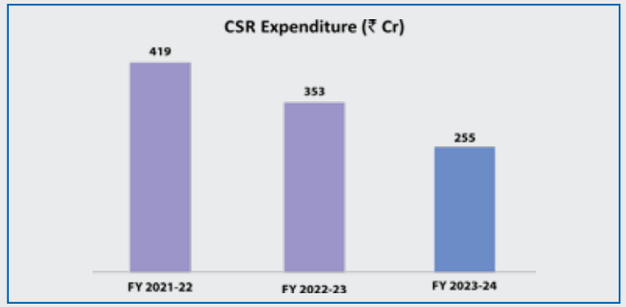
51.64 %
procurement from MSEs

96.89%
Customer Satisfaction Score

₹254.62 Cr
spent towards group CSR activities

16.3 Lakh
lives touched through CSR work

Data Trends



Mapping with SDGs

Material Topic (s)
[9] [13] [11]

NGRBC Principles
[3] [5] [7] [8] [9]

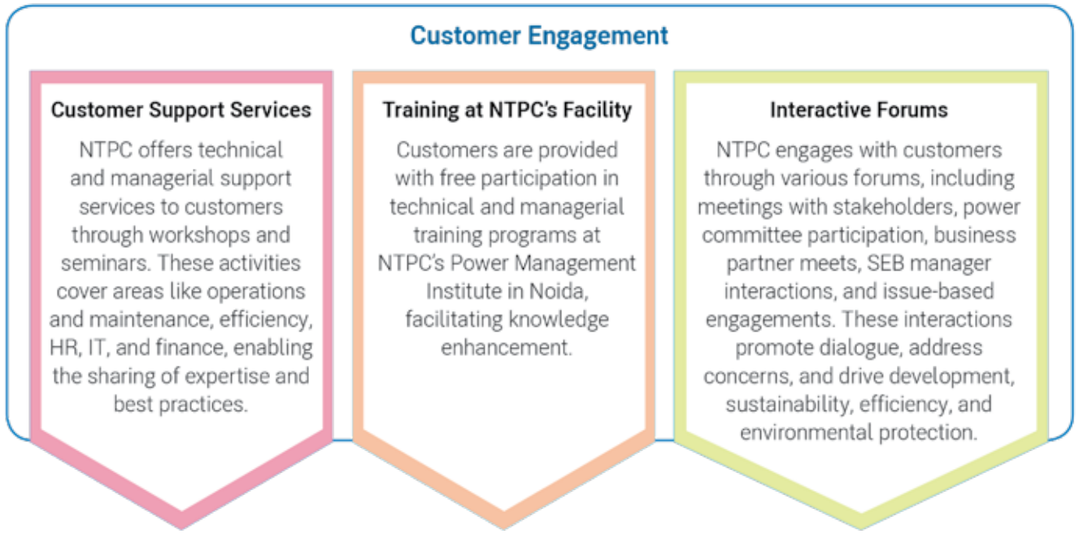


Overview

Social capital is diverse within NTPC, manifesting in shared values, robust social networks, community engagement, and reliable support systems. Its significance lies in fostering unity, resilience, and collective endeavors, empowering individuals and communities linked with NTPC to access opportunities, resources, and supportive networks vital for their well-being, growth, and societal advancement. NTPC acknowledges the pivotal role of social capital in cultivating a sustainable, inclusive culture that positively impacts both employees and local communities. We actively cultivate, nurture, and sustain meaningful bonds with our stakeholders, spanning suppliers, customers, and community members. Through collaboration and involvement, we aim to cultivate trust and understanding, nurturing enduring social connections that underpin the success and longevity of our endeavors.

Customer Engagement

Customer Focus is a foundational value deeply rooted in NTPC's culture, highlighting its paramount importance in cultivating and nurturing strong relationships with its esteemed clientele. Reflecting this dedication, NTPC has implemented a comprehensive Customer Relationship Management (CRM) framework, meticulously crafted to enhance customer engagement and interaction. This holistic CRM approach comprises a range of strategic endeavors, including customer support services, customized training initiatives, dynamic interactive platforms, and ongoing stakeholder dialogues. Through these integrated efforts, NTPC aims not only to share essential knowledge and insights but also to actively address customer needs while fostering an environment conducive to collaborative partnerships.



NTPC proactively participates in Regional Power Committee (RPC) meetings and Technical Coordination Committee gatherings to engage with customers and gather insightful feedback regarding their requirements. These dialogues encompass critical topics such as merit order operations, generation flexibility, and environmental compliance. Additionally, we work closely with regulatory authorities and governmental entities at both central and state levels to address concerns and protect the welfare of our stakeholders. Through these collaborative endeavors, we aim to bolster cooperation, meet customer needs, comply with regulatory standards, and advance sustainability goals.





Engagement with Central and State Governments

Central Government

NTPC engages with the central government on policy issues, providing suggestions and views to shape the power sector's policy framework.

State Governments

Continuous engagement with state governments is undertaken for new project development, issue resolution related to payment by DISCOMs (distribution companies), and policy advocacy. NTPC collaborates with state governments on matters relevant to their jurisdiction.

Demand-Side Management

NTPC is not in the business of Power Distribution. Hence Demand Side Management does not directly pertain to NTPC. However, NTPC offers free seats for beneficiary DISCOMs to participate in Demand Side Management Programmes conducted at training centres of NTPC.

Special Workshops at customer end are also conducted with eminent faculties to educate beneficiary DISCOMs in this area under Customer Relationship Management activity. To further strengthen customer relationship, NTPC sponsored 10 officials of beneficiaries / DISCOMs for the PGDM (Executive) program of the NTPC School of Business for the year 2023-24 as a capacity building initiative of power sector personnel equipping them with managerial and leadership skills.

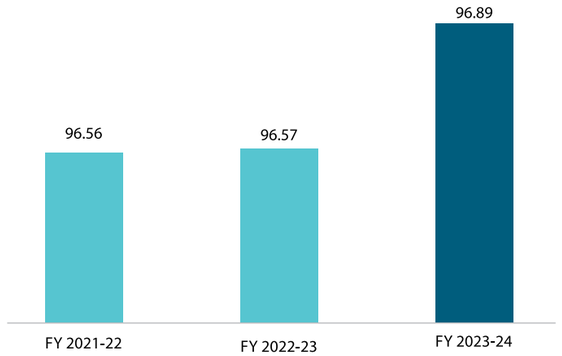


Customer Data Privacy[1]

NTPC retrieves energy billing data from Monthly Regional Energy Accounts accessible through the RPC website. Tariff details for NTPC stations are set by CERC, while DISCOM officials' contact information is available on DISCOM websites. As this information is publicly available, data privacy is not a concern. Energy bills are generated using ERP SAP software and transmitted to authorized DISCOM personnel in accordance with the Power Purchase Agreement (PPA). There were no reported incidents of customer data breaches, leaks, thefts, or losses during the Financial Year 2023-24.

[1]GRI 418-1

Customer Satisfaction Score (%)



Health and Safety Impacts of Our Product[2]

NTPC supplies electricity generated from its power stations to DISCOMs via the grid managed by central and state utilities like POWERGRID, which is then distributed to end consumers. While not directly engaged in transmission and distribution activities, NTPC extends technical and managerial support services to its clients. We offer comprehensive customer assistance, including health and safety guidance through workshops and seminars, with safety instructions presented in local languages.

Given the inherent nature of electricity, it can not be labelled like other tangible products. NTPC adheres to relevant Grid Codes and Standards, both domestically and internationally. Throughout the lifecycle of our offerings, there were no instances of non-compliance with regulations or voluntary standards concerning health and safety impacts.

Marketing Strategy[3]

Our marketing strategy is primarily overseen by the Commercial Function for our Power Generation business, while the Consultancy and Business Development Wing manages other avenues. The Commercial Function evaluates the demand-supply dynamics in the region and promotes power from our new proposed projects.

To expand our market presence, we engage with all State Power Distribution Utilities to secure power requisitions for the new proposed stations, which serve as a basis for further project viability assessments. Upon receiving consent, we proceed to sign Power Purchase Agreements with the State Power Utilities. The Ministry of Power, Government of India, manages the allocation of power from the new Generating Station to the respective customers (State Utilities).

Recognizing the growing demand for clean and sustainable energy, we are redirecting our strategy to offer renewable energy solutions. Our focus is on reducing reliance on coal and gas by integrating renewable power.

To optimize resource utilization, surplus power not requisitioned needs redirection. The Commercial Function ensures this surplus power is available to other consumers through Power Exchanges or bilateral agreements. It is sold on both Day Ahead Market (DAM) and Real Time Market (RTM) platforms.

[2]GRI 416-1, 416-2
[3]GRI 417-1, 417-2, 417-3

Integrated Day Ahead Market (I-DAM)

Any power not scheduled by DISCOMs is offered first in the Day Ahead Market (10:00 hrs - 11:00 hrs of the previous day). Besides selling URS power based on DISCOMs' requests, power from merchant floating solar plants is sold in the I-DAM market. Relinquished power from gas stations is sold in the HP-DAM and bilateral markets. NTPC also sells regulated power from DISCOMs due to unpaid dues when opportunities arise.

Real Time Market (RTM)

The main objective of the RTM is to allow generating stations to sell surplus power and DISCOMs to buy power for contingent needs. RTM operates through 48 half-hourly auctions on the delivery date, enabling price-sensitive bidding. Generators can sell URS power without beneficiary consent in the RTM

NTPC has been participating in both the I-DAM and the RTM for selling any URS power in the Power Exchange through its trading arm NVVN. Besides selling the URS power, it has also been selling any regulated power, merchant power, relinquished gas power, infirm power in the Power Exchanges. In the FY 2023-24, record 3,278 million units of power worth Rs. 1,774 Crores has been sold in the various segments (plural) of power exchanges by NTPC.

Corresponding gains for this sale have been shared with the beneficiaries as per the extant regulatory provisions.

To streamline transactions and enhance customer convenience, we have developed an online portal that directly connects customers/beneficiaries with the Regional Load Dispatch Centers (RLDC). Stakeholders of the Commercial Function include regulators such as the Central Electricity Regulatory Commission (CERC), State Electricity Regulatory Commissions (SERCs), and the Appellate Tribunal for Electricity (APTEL). Customers/beneficiaries are also a key stakeholder group, including State Power Distribution Utilities with whom we engage for power requisitions and sign Power Purchase Agreements. The Central Government and State Governments are involved in policymaking and providing a conducive environment for power generation, transmission and distribution. The Regional Power Committee (RPC) and Load Dispatch Centers (NLDC, RLDCs, and SLDCs) play a crucial role in ensuring efficient power dispatch and coordination within their respective regions.

The description of basis of identification and selection of stakeholders can be referred from below link:

https://ntpc.co.in/sustainability/stakeholder-management



Supplier Engagement

NTPC operates with a business model focused on establishing assets, sourcing raw materials, and delivering power to end-users through intermediate customers. Our key goal is to improve supply chain sustainability and minimize adverse impacts. We follow a triple bottom line approach, giving priority to environmental, social, and governance considerations in our decision-making process. Additionally, we actively advocate for the adoption of commendable environmental, social, and governance practices among our supply chain partners.

8,034
Total Vendor Base for Financial Year 2023-24

Supplier Enlistment[4]

NTPC places a strong emphasis on transparency and equity in its procurement procedures, encompassing supplier enlistment and vendor oversight. Our vendor onboarding process entails thorough pre-qualification assessments to ensure qualifications, capabilities, and adherence to health, safety, and environmental standards, along with statutory obligations including human rights. We conduct regular performance appraisals and transparent feedback mechanisms to support vendor enhancement efforts. Vendor enlistment is valid for three years, with periodic updates to align with market dynamics.

Supplier Groups	Total Applications Received	Total Vendors Enlisted
Goods/ Materials	616	395
Services	2611	956
Total	3227	1351

To enhance efficiency and coordination with suppliers and contractors, NTPC operates a centralized Shared Services Centre (SSC) that consolidates goods and services requirements. This centralized approach enables cost efficiencies and favorable terms while ensuring better governance and policy compliance, including rigorous vendor screening for environmental and social impacts. Only vendors who meet the screening criteria are considered for procurement opportunities.

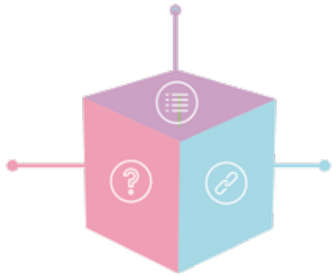
NTPC incorporates human rights provisions in bidding documents to prevent instances of child labor, forced labor, and compulsory labor. We establish robust policies and frameworks to safeguard the human rights of local and indigenous communities across our supply chain.

TReDS On-boarding

NTPC joined all three RBI-approved Trade Receivables Discounting System (TReDS) platforms, providing liquidity to MSMEs by connecting them with attractive interest rates and early payment options

Vendor Payment Portal

NTPC launched a dedicated portal for suppliers and contractors to track and manage their bills, ensuring transparency and smoother payment processes



Digital Invoice Submission

NTPC implemented guidelines for 100% digital invoice submission in line with the Digital India initiative, enhancing efficiency, accuracy, and transparency in invoice management.

We value vendor feedback and actively seek continuous improvement in our vendor management systems, fostering stronger partnerships. Additionally, we have implemented measures to streamline payment processes, embrace digital innovations, and forge closer collaborations with our vendors.

Indigenous Focus

At NTPC, we actively promote Indian bidders and suppliers by integrating provisions for price preference and deemed export benefits into our bidding documents. This encourages the utilization of indigenous goods and enhances the value of our local purchases. Since the Financial Year 2017-18, majority of our total purchases have originated from indigenous sources, underscoring our dedication to bolstering local industries and fostering economic advancement in India. Furthermore, we prioritize local suppliers in accordance with the 'Public Procurement (Preference to Make in India) Guidelines', aligning with the 'Make in India' Initiative and bolstering the growth of

[4]GRI 414-1, 411-1



domestic businesses. These initiatives fortify the domestic supply chain, bolster self-reliance, and contribute to the overall development of the Indian economy.

Sustainable Supply Chain[5]

At NTPC, we've established a Sustainable Supply Chain Management System to identify and address supply chain risks effectively. This system encompasses Suppliers' Sustainability Performance Assessment and Sustainable Supply Chain Guidelines. To evaluate suppliers, we've developed a comprehensive 'Sustainability Performance Evaluation Framework' in collaboration with a third party.

Additionally, we organized 26 capacity-building workshops on Environmental, Social, and Governance (ESG) topics for approximately 1300 suppliers through various Vendor Development Programs (VDPs). These workshops aimed to enhance their practices in alignment with Sustainable Supply Chain Guidelines. Through these concerted efforts, NTPC is committed to continually enhancing sustainability performance throughout its supply chain.

Procurement Practices

In our ongoing efforts to promote economic growth and inclusivity, we maintain a steadfast focus on procuring from Micro and Small Enterprises (MSEs). Our Public Procurement Policy underscores this commitment by establishing an annual procurement target for MSEs. To encourage participation from local and small manufacturers, including MSEs, we offer various incentives such as exemption from Earnest Money Deposit (EMD), waiver of tender document fees, a purchase preference of 15% for MSEs, and the reservation of 385 items exclusively for MSE procurement.

Moreover, recognizing the significance of supporting marginalized and vulnerable groups, we prioritize procurement from these sectors as part of our social responsibility. By engaging with regulators, we ensure that these groups have opportunities to participate in our procurement processes, thereby contributing to their economic empowerment.

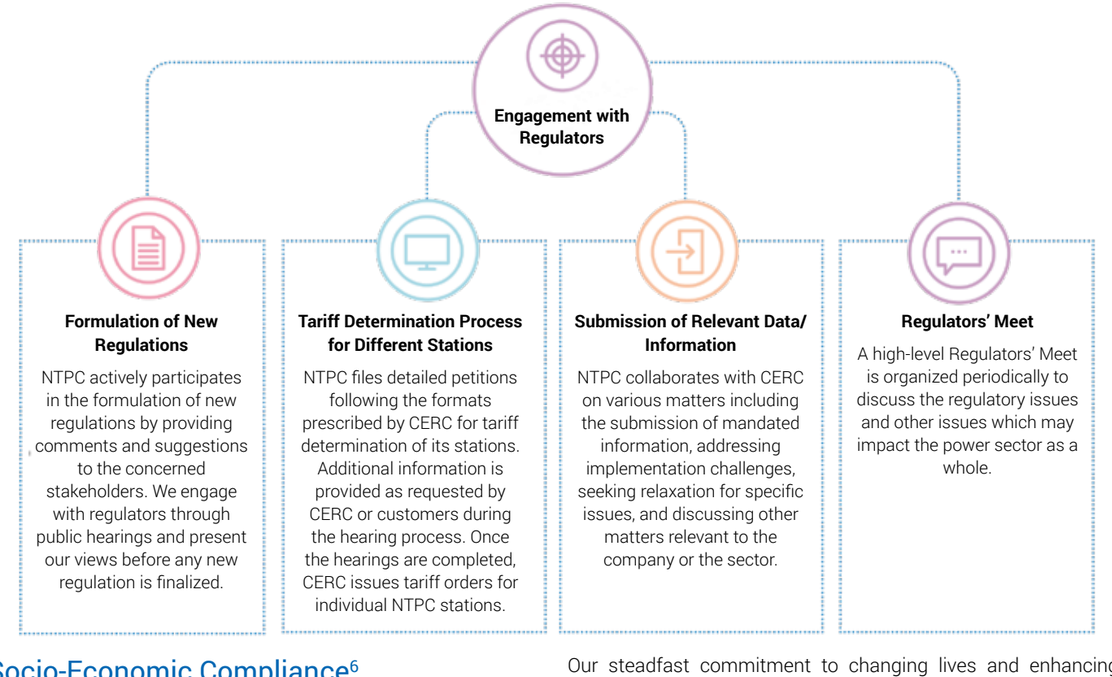
Sr. No.	Period	Total Eligible Procurement (₹ crore)	MSEs %	SC/ST %	Women %
1	FY 2021-22	6,498.56	42.95	0.32	0.63
2	FY 2022-23	10,287.27	40.06	0.17	0.40
3	FY 2023-24	19076.19	51.64	0.13	0.34

Regulator Engagement

As a centralized institution, our policy framework aligns with Government of India guidelines. We operate under the regulatory oversight of the Central Electricity Regulatory Commission (CERC), which sets electricity tariffs for our stations. Through regular Regulators' Meets, we engage in discussions on issues, opportunities, and policies aimed at fostering both our organization's growth and the national economy simultaneously. These meetings are essential for ensuring alignment with regulatory standards and advancing our strategic objectives in the electricity sector. We are committed to complying with all regulatory compliances. In Financial Year 2023-24 we have had no cases of significant fines, penalties or warnings against us for non-compliance with government regulations. Our management bodies ensure that our power distribution partners and clients follow and stand at par with our commitment towards sustainability



[5]GRI 414-2



Socio-Economic Compliance[6]

No significant non-compliance with laws and/or regulations in the social and economic area were identified during Financial Year 2023-24. There were no legal actions for anti-competitive behaviour, anti-trust, and monopoly practices in the reporting year.

Public Policy[7]

We do not support, in cash or in-kind, any political party or their members and related institutions.

Community Engagement

At NTPC, we view our operations as an avenue for creating meaningful societal impact, reflecting our ethos of caring and sharing ingrained in our vision and mission statement. Our organization attributes its success to the people of India and is committed to contributing to their sustainable development. We're proud to highlight that 100% of our operational stations have implemented local community engagement, impact assessments, and/or development programs.[8]

Our steadfast commitment to changing lives and enhancing communities is evident through our continuous engagement with local communities across various geographical locations. Corporate Social Responsibility (CSR) is deeply intertwined with our core business values. Under our Resettlement & Rehabilitation (R&R) Policy, we prioritize Community Development (CD) activities, initiating them as soon as a new project is conceptualized. We undertake extensive community and peripheral development endeavors in tandem with project development efforts. For more details about our approach towards community initiatives, following link may be referred:

https://ntpc.co.in/about-us/corporate-functions/corporate-citizenship

Corporate Social Responsibility (CSR)

NTPC upholds a strong commitment to Corporate Social Responsibility (CSR) practices, guided by the Companies Act 2013 and DPE Guidelines. Our CSR and R&R policies prioritize active engagement with local communities through mechanisms like Village Development Advisory Committees (VDAC) and Public Information Centres (PIC). Collaborating with stakeholders such as Panchayat officials, District Administration, Civil Society,

[6]GRI 206-1
[7]GRI 415-1
[8]GRI 413-1



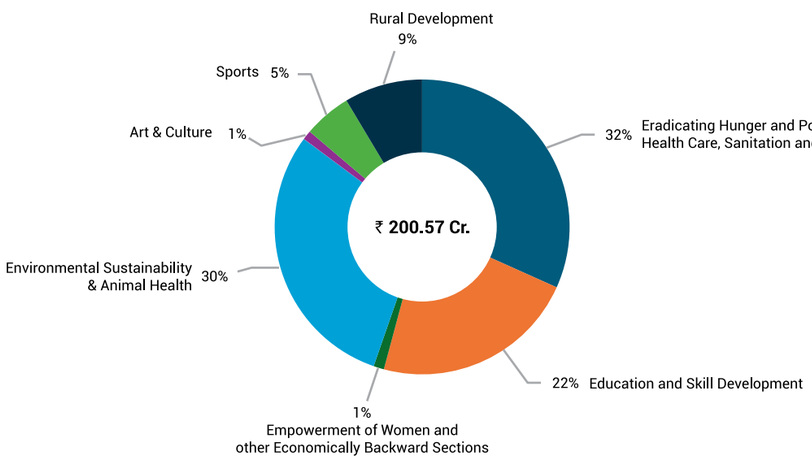
Community members, and Public representatives, we adopt a combination of top-down and bottom-up approaches for planning and executing community development activities.

Regular Need Assessment Surveys (NAS) and feedback from local stakeholders ensure that initiatives are tailored to community needs and continuously improved. A which policy is this? not available on website enhances interaction, allowing communities to submit suggestions and grievances, which are promptly addressed to build trust. Periodic Social Impact Evaluations (SIE) by external agencies assess the effectiveness of these initiatives, ensuring a positive impact on communities. Assets created are handed over to local authorities and Gram panchayats for maintenance, ensuring sustainable community development.

NTPC has a Board-level CSR and Sustainability Committee that formulates an annual action plan for CSR activities, recommending it to the Board for approval. The Board-approved CSR Policy also outlines the implementation process and mechanisms. In FY 2023-24, NTPC (Standalone) spent ₹200.57 cr on CSR against an obligation of ₹112.79 cr. Of this, ₹122.86 cr (61.26%) was aligned with the DPE's annual theme of "Health & Nutrition," exceeding the prescribed 60%. Through our holistic CSR approach, NTPC is dedicated to making a lasting and positive impact on society, promoting inclusive growth, environmental sustainability, and enhanced well-being.

None of our operating entities witnessed any significant actual or potential negative impacts on local communities in reporting year.[9]

CSR Expenditure Break-Up



NTPC Foundation

NTPC Foundation, established to serve and empower the differently abled and economically weaker sections, including women, undertakes projects addressing socio-economic concerns. Key programs include the Girl Empowerment Mission (GEM), Utkarsh Scholarships, and Disability Rehabilitation Centers (DRCs). NTPC Foundation, a charitable trust, is registered with the central government (CSR-1 certification) for CSR activities under the revised Companies (CSR Policy) Rules, 2021.



[9]GRI 413-2

Girl Empowerment Mission : Empowering Girl Children through Residential Workshop

A summer residential workshop for 4 weeks is organized for girl children in the age group of 10-12 years selected from various Govt. Schools of villages in the vicinity of NTPC Projects/Stations including NTPC Joint Ventures & Subsidiaries. The workshop aims at empowerment/upliftment of girl children through various interventions to make girls self-reliant and confident in all walks of life and become a catalyst in transforming their lives, the lives of their family and bring positive changes in the community they live and the nation at large. The entire cost of the program including boarding & lodging in a safe & secure environment for these girl children is borne by NTPC. In the year 2023-24, the said programme has been conducted at 41 NTPC Projects / Stations/ JV & Subsidiaries where about 2720 girls have participated. Cumulatively NTPC has groomed more than 7000 girls in the said since inception.



Significant Indirect Economic Impacts

NTPC's initiatives have made a significant impact on reducing poverty and enhancing the overall prosperity of neighboring communities. Through our interventions, underdeveloped areas have experienced remarkable progress, including improvements in village infrastructure, education and healthcare facilities, access to clean drinking water, and better road networks. These benefits are accessible to all community members, irrespective of their socio-economic background. NTPC places a strong emphasis on supporting individuals from low-income backgrounds through scholarships and vocational training opportunities, thereby promoting education and skill development. Prior to commencing our power projects, we conduct thorough social impact assessments and environmental impact assessments, ensuring that our initiatives are aligned with the needs and concerns of the community. Detailed information regarding these assessments is available on the relevant government website.

Grievance Redressal: Ensuring Fairness in CSR Implementation

NTPC ensures active stakeholder engagement in CSR activities through a consultative mechanism within the project's vicinity. This involves the participation of Panchayats, local communities, and authorities in all phases of planning, implementation, and monitoring. We actively seek feedback on CSR initiatives to ensure community acceptance and support, addressing any concerns raised. Key issues are deliberated upon in consultations and regular meetings, with a dedicated focus on addressing community feedback.

NTPC's Stakeholder Engagement Policy outlines a clear grievance redressal mechanism. An apex committee at each station, including the Business Unit Head, HR, O&M, Technical Services, Medical Officer, and CSR/R&R officer, regularly interacts with the community to address grievances and suggestions. The CSR Nodal Officer records and compiles these inputs, submitting them to the Head of HR for the apex committee's review. A drop box is available for community members to submit grievances, which are tracked and resolved within 60 days. Grievances pending for over 30 days are escalated to the apex committee for expedited resolution.

Any grievances from project-affected villages or individuals are handled in accordance with policy provisions. This mechanism effectively minimizes and addresses grievances throughout the implementation of CSR activities..



01 Monitoring

- Ensures timely completion of activities to achieve deliverables.
- Regular reviews at the Unit Level identify and address bottlenecks through remedial measures.
- Periodic management information system (MIS) reports provide status updates and address issues in CSR and Sustainability activities. Regional level reviews support Senior Management.
- Corporate-level reviews evaluate company-wide CSR and Sustainability activities, and budget utilization.

02 Evaluation

- Effectiveness of CSR and Sustainability Programme is assessed through internal and external evaluations
- Internal audits verify implementation effectiveness, while external agencies conduct Social Impact Evaluations (SIE) to gauge the impact of CSR and Sustainability initiatives.
- Findings from the SIE inform corrective actions and future scheme/planning.

03 Reporting

- Our CSR and Sustainability activities are communicated to stakeholders through the Company's Annual Report, Sustainability/Business Responsibility Reports
- Communication on the progress of the Global Compact by uploading on UNGC Website.
- These reports are uploaded on our website and are available to the public.

Empowering Communities through our CSR Endeavors

Education

NTPC's educational initiatives have significantly enhanced the learning environment and infrastructure in underserved regions, from establishing Smart Classes and STEM Labs to supporting tribal and marginalized students. Through strategic investments in school facilities, digital resources, and financial aid, NTPC continues to contribute to the holistic development of education, ensuring equitable access and fostering future leaders across the nation.

- **Support for Tribal Education**
  - **Baiga Tribal Students:** Sponsored education for Baiga Tribal students seeking admission into engineering and medical colleges through Commissioner, Tribal Welfare, Chhattisgarh.
  - **Pahadi Korwa Students:** Provided holistic education support from class VI to XII in NTPC Korba, an aspirational district.
- **Infrastructure Development**
  - **Chapki, Sonebhadra:** Supporting construction of facilities for a tribal school.
  - **Shree Ramakrishna Ashram, M. Rampur:** Established an English Medium School.
  - **GHSS Munderi, Kerala:** Supported development, renovation, and advancement projects.
  - **Vidyabharati Bharatiya Siksha Sankul Samiti, Chiplun:** Supported construction of a new ground floor.
  - **Malleeswara Vidyaniketan School, Kerala:** Supported the construction of a second floor.
- **Upgradation of Facilities**
  - **Ladakh Constituency:** Upgrading educational, health facilities, and living conditions in Demchok, Koyul, Korjok, Hanley, and Chushul.
  - **Akal Academy, Punjab:** Installed solar power plants with necessary infrastructure.
  - **Vivekananda Kendriya Vidyalayas, Arunachal Pradesh:** Supported the upgradation of computer laboratories, libraries, and construction of school buildings.
- **Support for School Building Projects**
  - **Netaji Subhash Chandra Bose Military Academy, Silvassa:** Supported construction efforts.
  - **Sri Gavisiddeshwara Matha, Koppal:** Supported construction of a PU Residential College for girls.
  - **Osmania College of Engineering:** Provided financial support for infrastructure development in the Mining department.
  - **Government English Medium Model College, Mahasamund:** Supported renovation and infrastructure improvement.
- **Digital and Educational Resources**
  - **Digital Smart Classrooms and STEM Labs:** Established Smart Classrooms and STEM Labs in 19 government schools near NTPC Plants and Stations.
  - **Mathematics Learning Kits:** Provided kits for secondary and higher secondary schools in Hardoi Parliamentary Constituency, UP.
  - **Digital Libraries:** Augmented rural educational infrastructure by digitalizing libraries in five government colleges in Assam.
- **Scholarships and Financial Support**
  - **Vidyarthi Vikas Yojana:** Supported meritorious students from economically weaker sections in Maharashtra.
  - **Study Material & Uniforms:** Distributed to underprivileged children ensuring their right to education.
  - **Jaipur, Rajasthan:** Provided financial support for running 60 small single-teacher schools in slum areas.



Health, Water and Sanitation

NTPC's comprehensive health, water, and sanitation initiatives have made a significant impact on community well-being. From providing quality healthcare services and supporting major hospital projects to ensuring access to clean water and promoting sanitation, NTPC remains committed to improving the quality of life in the regions where it operates. Through strategic investments and community-focused projects, NTPC continues to drive positive change and enhance health and hygiene standards.

- **Healthcare Services and Infrastructure**
  - **Primary and Secondary Care:** NTPC hospitals provide quality primary, secondary, and referral care, serving over 300,000 patients annually.
  - **Health Camps:** Organized general and specialized health camps, including eye care, respiratory diseases, and cancer detection, performing approximately 3,000 surgeries each year.
  - **Mobile Health Clinics:** Offered outreach services through mobile health clinics to extend primary care to remote areas.
  - **Health Infrastructure Support:** Extended support to PHCs, CHCs, and District Hospitals near NTPC Projects/ Stations.
- **Major Healthcare Projects**
  - **Chinmaya Mission Hospital, Bengaluru:** Supported the installation of a Neuro Operation theatre with necessary equipment.
  - **National Cancer Institute, Nagpur:** Contributed to the construction and equipping of the 3rd floor and diagnostic labs.

- **AIIMS, New Delhi:** Supported setting up a Tele-Recording Room and patient attendant shelter.
- **Tata Memorial Hospital, Mumbai:** Provided equipment to enhance diagnostic capabilities.
- **Dayanand Medical College & Hospital, Ludhiana:** Supported the purchase of a Mobile Clinic Van.
- **Osmania General Hospital:** Provided medical equipment to improve hospital facilities.
- **Indian Red Cross Society:** Procured ultra-modern diagnostic equipment for NABL Laboratory & Research Center, Ahmedabad, and Veraval, Gujarat.
- **Indira Gandhi Institute of Medical Sciences, Patna:** Supported the procurement of a computerized ECG machine.
- **Kai Wamanrao Oka Blood Centre, Thane:** Supported the procurement of blood bank equipment.

▸ **Disease Management**

- **Sickle Cell Disease:** Addressed the prevalence of Sickle Cell Disease in the Tribal and Scheduled Caste community in Bargaon, Madhya Pradesh.

▸ **Water Accessibility and Sanitation**

- **Water Supply Initiatives:** Installed hand pumps, piped drinking water systems, RO water plants, and water ATMs. Provided water filters, coolers, and set up water booths and tankers during extreme summers.
- **Pond Rejuvenation:** Revitalized ponds near NTPC Plants to improve groundwater levels.
- **Energy Efficient Pump Systems:** Installed 8,125 energy-efficient pump systems for farmers in 22 districts of UP.
- **Domestic Water Security:** Supported the water security project in Sirvel Mahadev cluster, Khargone District, Madhya Pradesh.

▸ **Sanitation Projects**

- **Swachh Bharat Mission:** Constructed over 24,000 toilets in 15,500 schools across 83 districts, with repair and maintenance for around 19,000 toilets.
- **MSW Plant and Sweeping Projects:** Revived the MSW Plant at Varanasi and implemented mechanized sweeping and waste collection. Varanasi improved its Swachh Survekshan ranking from 428th in 2014 to 1st among cleanest cities along the Ganga in 2023.
- **Nukkad Natak and Awareness Campaigns:** Organized various awareness programs, including debates, competitions, and walkathons to promote sanitation and hygiene.
- **Toilet Construction:** Built individual household and public toilets in villages and public places to create an open defecation-free society.
- **Sundargarh Sanitation Program:** Supported procurement of machinery for sanitation initiatives by NTPC Darlipali.



Our Group's Overview | Innovating for Sustainability | Statutory Disclosures | Statutory and Financial Results

Skill Development and Income Generation

NTPC's commitment to skill development and income generation is fostering economic empowerment and enhancing livelihoods. By establishing ITIs, supporting vocational training infrastructure, and offering targeted skill development programs, NTPC is equipping individuals with the skills needed for better employment opportunities and entrepreneurial success. These initiatives are driving positive change in communities and contributing to sustainable economic growth.

▸ **Industrial Training Institutes (ITIs)**

- **Mentorship and Establishment:** Mentored 18 ITIs and established 8 new ITIs at various locations to provide vocational training and enhance technical skills.

▸ **Vocational Training Infrastructure**

- **Auditorium Construction:** Supporting the construction of an auditorium at Rajkot, Gujarat, to develop educational and vocational training infrastructure.

▸ **Agricultural and Livestock Training**

- **Capacity Building for Farmers:** Provided training programs, exposure visits, and expert guidance on:
  - **Drip Irrigation:** Techniques for efficient water use to increase crop yields.
  - **Milk Yield Improvement:** Enhancing breed quality through artificial insemination.
  - **Fodder Crops:** Cultivation of nutrient-rich and rapidly growing fodder crops to improve livestock productivity.

▸ **IT and ITES Skill Development**

- **Rural Youth Training:** Collaborated with JP Foundation to provide IT and ITES skill development programs for rural youth, enhancing their employability in the digital economy.

▸ **Entrepreneurial and Vocational Training**

- **Skill Development Programs:** Offered training in various vocational skills, including:
  - Electrical Repairing
  - Mobile Repairing
  - Motor Rewinding
  - Welding
  - Car Driving (including LMV driving license)
  - Computer Training



Women Empowerment

NTPC's women empowerment initiatives are transforming lives by providing essential skills, fostering entrepreneurship, and creating sustainable livelihoods. Through targeted training programs and support for women-led enterprises, NTPC is driving significant socio-economic improvements and enabling women to achieve greater independence and success in their communities.

- **Skill, Livelihood and Entrepreneurship Development**
  - **Textile and Home Furnishing:** Provided skill and livelihood generation training to approximately 1,250 women through NTPC Foundation in collaboration with the Apparel Made-ups & Home Furnishing Sector Council.
- **Sustainable Livelihoods through Agriculture**
  - **Mushroom Cultivation:** Supported rural women in Loni and Bhandegaon villages in cultivating oyster mushrooms, creating sustainable livelihoods and enhancing local income.
- **Entrepreneurship Development**
  - Offered Entrepreneurship Development Training Programs and handholding support at five strategically chosen NTPC locations to help women establish and manage their own entrepreneurial units.
- **Community Support and Infrastructure**
  - **Old Age Home Construction:** Supported the construction of Mata Hausabai Bandhu Athawale Old Age Home in Mevali Village, District Fatehpur, Uttar Pradesh, providing a safe and supportive environment for the elderly.
- **Vocational and Skill Training**
  - **Training Programs:** Conducted various training sessions for women on:
    - Embroidery
    - Dress Designing
    - Cutting and Stitching
    - Tailoring (including providing sewing machines)
    - Beautician Services
    - Food Preservation and Processing
    - Nursing



Sports

NTPC's promotion of sports initiatives is fostering talent, improving infrastructure, and elevating India's presence in the international sports arena. Through strategic partnerships and support for grassroots development, NTPC is making significant contributions to the growth of sports in India, providing opportunities for young athletes to shine and enhancing local sports facilities for community engagement.

- **Archery Support and Development**
  - **Collaboration with SAI:** Partnered with the Sports Authority of India (SAI) to support archery, focusing on scouting talent from remote areas and providing coaching camps to enhance India's international presence in the sport.
  - **Achievements:** From November 2018 to March 2024, Indian archers have won 241 medals including:
    - Gold: 103
    - Silver: 75
    - Bronze: 63
  - **Tournaments:** Medals won at prestigious events such as the Asian Archery Championships, Asia Cup World Ranking Tournaments, Para Archery World Ranking Tournaments, World Cup Stages I-IV, World Archery Para Championships, Asian Para Games, World Games, and Tokyo Paralympics.
- **Grassroots Development in Archery**
  - **Partnerships:** Collaborating with the Ministry of Youth Affairs and Sports (NSDF), SAI, and Archery Association of India (AAI) to develop archery sports at the grassroots level.
- **Water Sports Infrastructure**
  - **NTPC-SAI Water Sports Centre:** Provided infrastructure support for the NTPC-SAI Water Sports Centre at Koldam, Himachal Pradesh.
  - **Sports Supported:** Kayaking, Rowing, and Canoeing.
- **Local Sports Infrastructure**
  - **Playground Construction:** Supported the construction of playgrounds in village Khangora and Sidhipur, enhancing sports facilities for local communities.



Rural Infrastructure Development & Preservation of Heritage

NTPC's diverse CSR initiatives in rural infrastructure development and protection of national heritage are driving significant improvements in local communities. By enhancing public amenities, supporting sustainable development, and preserving historical sites, NTPC is contributing to the overall socio-economic growth and cultural preservation of the regions it serves.

- **Solar Lighting Projects**
  - **LED Solar Street Lights & High Mast Lights:** Installed in various locations including Talcher (Odisha), Gorakhpur (UP), Ambedkar Nagar (UP), Rohania (UP), Ayodhya (UP), Satna (MP), Ahmedabad West (Gujarat), Vizianagaram (AP), Siddharth Nagar (UP), Kairana (UP), Sidhi (UP), Sitapur (UP), Misrikh (UP), Balia (UP), Chatra (Jharkhand), and areas adjoining NTPC Stations & Projects.
- **Redevelopment Projects**
  - **Shri Badrinath Dham:** Committed to the construction and redevelopment of Shri Badrinath Dham town as a spiritual smart hill town.
  - **Ramna Maidan and Collectorate Chhath Ghat:** Developing areas of historical importance from the First War of Independence (1857) in Ara.
  - **Dharhara Canal Redevelopment:** Supporting the redevelopment of Dharhara Canal at Arrah from Dharhara Pul to Railway Crossing.
- **Community Infrastructure**
  - **Community Halls and Centres:** Constructing community halls in Machilipatnam Parliamentary Constituency, Krishna District, Andhra Pradesh, and ten community centres in Siddharthnagar District, Uttar Pradesh.
  - **YMA Hall Extension:** Supporting the vertical extension of Chaltlang Branch YMA Hall in Chaltlang, Mizoram.
- **Rural Electrification and Sustainable Development**
  - **Rural Electrification Project:** Supporting electrification in Mandsaur district, Madhya Pradesh.
  - **Sustainable Irrigation and Agriculture:** Implementing sustainable irrigation systems and agricultural improvement programs in Nandurbar District of Maharashtra and Natavad cluster, Nundarbar district of Maharashtra.
- **Technological Support and Renewable Energy**
  - **Battery Testing Laboratory:** Financial support for setting up a battery testing laboratory at Bhat GIDC, Gujarat.
  - **Solar PV System:** Providing financial support for the installation of a 200KW Solar Photovoltaic system in Utthan Village, Bhayander (West), Thane District, Maharashtra.
- **Sports Infrastructure**
  - **Samal Stadium:** Supporting the construction of dressing rooms and toilets in Samal Stadium, Odisha.
- **Basic Infrastructure Development**
  - **Infrastructure Development:** Supporting the development of essential infrastructure such as roads, bridges, culverts, bus shelters, community centers, schools, health centers, and electrical infrastructure to meet the basic needs of local communities and enhance their quality of life.



Relief during Natural Calamity

NTPC's proactive disaster relief initiatives are pivotal in rebuilding and restoring disaster-affected areas, particularly in Uttarakhand. By reconstructing essential infrastructure and supporting long-term redevelopment projects, NTPC is helping communities recover, build resilience, and return to normalcy after devastating natural calamities

- **Financial Support for Reconstruction**
  - **Uttarakhand State Disaster Management Authority (USDMA):** NTPC is providing financial support to USDMA for the reconstruction and restoration of government schools and health centers in various districts of Uttarakhand.
- **Redevelopment Initiatives**
  - **Kedarnath Town Redevelopment:** Supporting the redevelopment of Kedarnath town and its surrounding areas, which were devastated by the natural calamity of 2013.
- **Emergency Response and Relief Supplies**
  - **Provision of Necessary Supplies:** NTPC has provided essential supplies and support to affected communities during various natural disasters.



Resettlement & Rehabilitation

We strive to avoid disagreements with our communities and address social issues at the exploratory stage of the projects itself. As a part of our decision-making process, we have developed an R&R policy. Our Resettlement & Rehabilitation (R&R) policy covers community development (CD) activities- which are initiated as soon as a project is conceived. The CD activities are also initiated under ICD (Initial Community Development) Policy. We are sensitive towards the needs and aspirations of the Project Affected Persons (PAPs) and have always tried for the best possible R&R package. We have established Public Information Centres/ R&R Offices to disseminate useful information sought by the villagers. Other useful information is also communicated through notices, pamphlets, letters, etc.

In the last 10 years up to FY 2023-24, more than Rs. 2462 Cr worth of expenditure were incurred by NTPC towards Community Development (CD) works by various Projects under R&R Plans.

Land compensation and R&R grants disbursement was in active mode mainly in Darlipali, Lara, Nabinagar, North Karanpura and Tanda Super Thermal Power Projects and Pakri- Barwadih, Kerandari, Dulanga, Chattibariatu and Talaipalli Coal mining projects in FY 2023-24.

NTPC takes utmost care of the natives and Project Affected Families (PAF) due to its projects and there is no incident of violation involving rights of indigenous peoples.[10]

Proactive Measures to Minimize R&R Issues

- **Initial Exploration:** Address R&R concerns proactively at the project exploration stage to avoid significant displacement.
- **Optimized Layouts:** Redesign plant layouts to minimize the acquisition of homesteads and agricultural land, thereby reducing land requirements.
- **Commitment to Adequate Relocation:** When physical displacement is unavoidable, ensure adequate relocation and minimize the transition period and its impacts.

Grievance Redressal System

- **Dedicated R&R Groups:** Operate at project sites, regional headquarters, and the corporate center to address grievances of PAPs.
- **Grievance Channels:** Grievances are received through various channels, including RTI, and are resolved in a time-bound manner.
- **Impact Mitigation:** As a result of these efforts, no significant negative impacts on local communities were identified or reported, and no grievances about societal impacts or violations of indigenous rights were filed during the reporting period.

R & R Policy 2017

- **Guiding Framework:** The policy aligns with 'The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013'.
- **Minimum Entitlements**: Mandates minimum R&R entitlements and compensation, ensuring fair treatment of affected families.
- **Social Impact Mitigation Plan:** Requires studying the impacts of proposed land acquisition and formulating a plan to assess if the project serves a public purpose before initial land acquisition notification.

Packages for Project Affected Persons

- **Best Possible R&R Package:** Provide comprehensive compensation for loss of assets and livelihood to help Project Affected Families (PAFs) regain at least their previous standard of living.
- **Categorization and Eligibility:** Ensure that all PAFs receive compensation according to their categorization and policy provisions.

[10]GRI 411-1

Initial Community Development (ICD) Policy

- **Early Actions:** Initiate community development actions as soon as land and water commitments are received from state governments.
- **Social Impact Evaluation:** Conduct evaluations through professional agencies to assess and implement R&R plans effectively.

Comprehensive Community Development Plan

- **Stakeholder Consultation:** Formulate development plans in consultation with stakeholders and district administration.
- **Public Information Centres (PICs):** Establish centers and Village Development Advisory Committees (VDACs) to facilitate participation and transparency.
- **Stakeholder Engagement Policy:** Maintain continuous interaction with neighboring communities to ensure effective participation and consultation.



Resettlement Colony of Dulanga Coal Mining project



Dulanga- Individual Houses



Lara- Rejuvenation of Ponds



Lara- Primary Health Centre and Solar Water Pump

Intellectual Capital

Management Approach

NTPC's management approach for intellectual capital involves aligning R&D efforts with its business portfolio, recognizing the significance of embracing emerging technologies and enhancing existing ones in the global energy industry. By leveraging intellectual capital, NTPC aims to drive innovation, efficiency, and sustainability while delivering long-term value to stakeholders

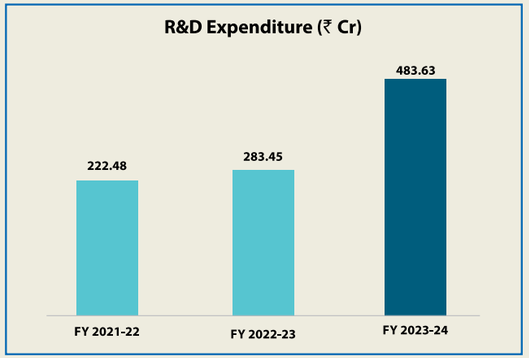
Key Highlights

47
patents granted to NTPC

70.60% (Y-O-Y)
increase in R&D expenditure

5 Awards
in 5th edition of CII Digital Transformation (DX) Awards

Data Trends



Material Topic
[5] [14] [17]

UNGC
[9]

Mapping with SDGs





Overview

Our intellectual capital represents our invaluable intangible assets and resources that drive the value and competitive advantage of NTPC. Our commitment to research and development solidifies this financial asset, transforming knowledge into tangible outcomes. It encompasses our cutting-edge methodologies, intellectual property including patents, trademarks, and copyrights, along with our extensive advisory services, educational facilities, and initiatives geared towards fostering innovation and sustainable practices. By nurturing and harnessing our intellectual capital, we pave the way for continued growth and success, driving positive impact and resilience within our organization and beyond.

Research and Development

Our company acknowledges the significance of research and development (R&D) in the ever-changing energy sector. We firmly believe that the assimilation and conversion of knowledge into technologies will be the key differentiator in the future for enhancing the country's energy security, economic growth and environmental sustainability, and determining the company's competitiveness in the national and international market.

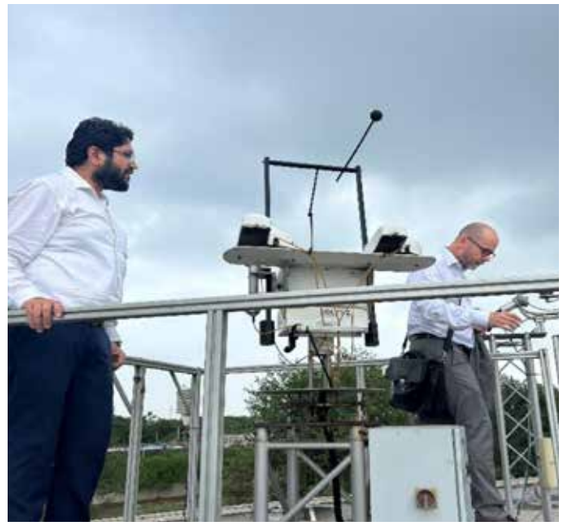
NTPC fully recognizes R&D as the cornerstone of technological advancement. Therefore, R&D has been incorporated into our long-term vision and strategy for the benefit of the company and society. We have been assigning more than 2% of PBT (Profit before Tax) consistently for R&D-related activities.

As we look toward the future, it is of paramount importance that NTPC, as a power generation company, adapts to counter emerging challenges in the power sector. Simultaneously, we aim to increase our presence across the entire energy value chain, and R&D is a vital step to achieve this. NTPC has always committed to incorporating innovative technologies to enhance the safety, reliability, and efficiency of power plants through a prudent mix of development, adoption, and adaptation of frontier technologies. Through our R&D center, NETRA (NTPC Energy Technology Research Alliance), we are constantly making efforts to address the major concerns of the power sector and explore potential opportunities.

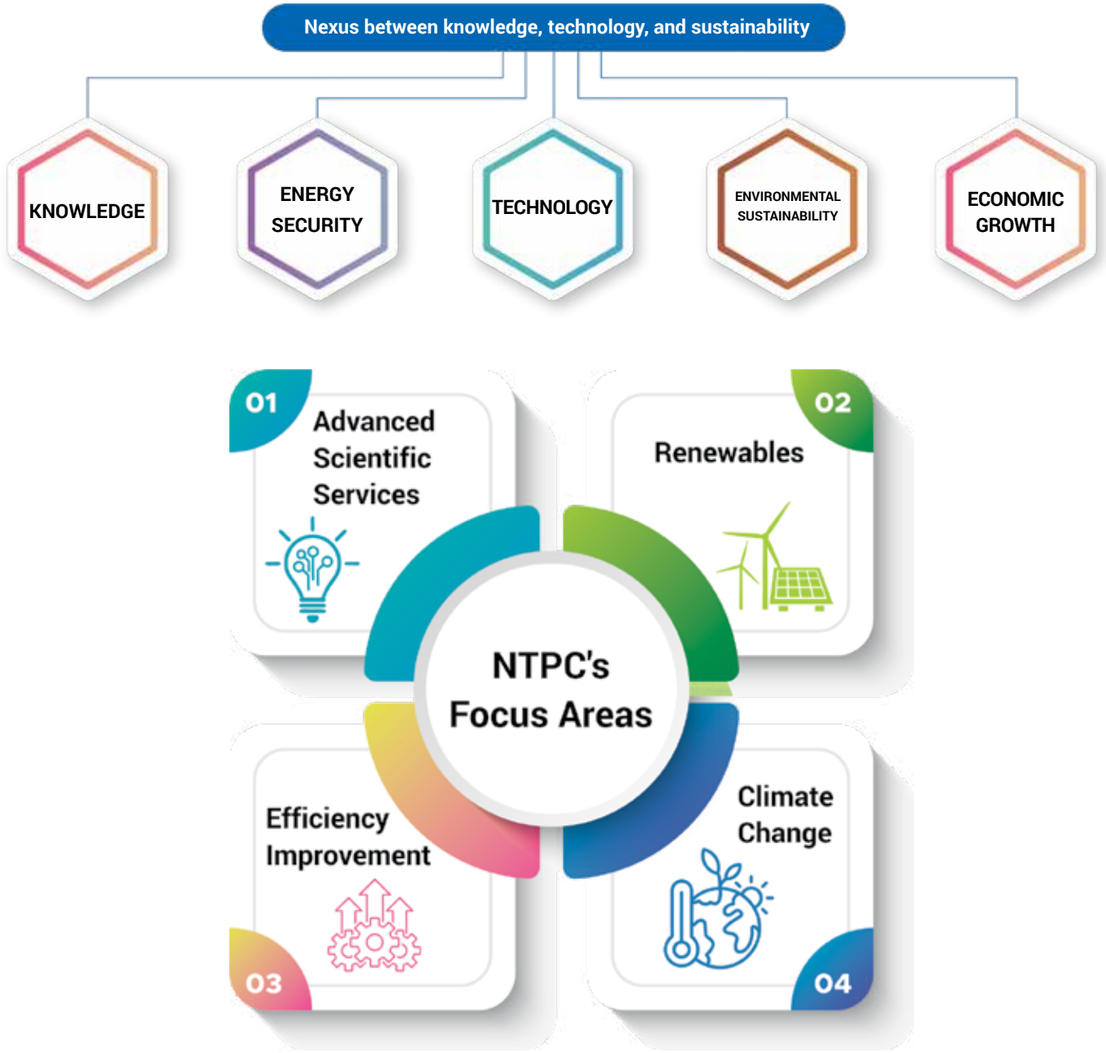
NETRA's Role and Capabilities

Established in 2009, NETRA is a state-of-the-art center for research, technology development, and scientific services. NETRA collaborates with leading institutes, technology players, and service providers both nationally and internationally. A Research Advisory Council (RAC) comprising eminent scientists and experts from India and abroad has been constituted to steer NETRA for high-end research. Additionally, an in-house Scientific Advisory Council (SAC) provides directions for improving plant performance and reducing the cost of generation.

The focus areas of NETRA are continuously evolving in response to the dynamic nature of the power sector. Our current R&D focus includes Green Hydrogen carbon capture and utilization technologies, ash utilization technology, waste to energy, and water technology. This is in addition to our ongoing focus on efficiency improvement and cost reduction, new and renewable energy, climate change, and environmental protection, which includes water conservation and waste management.







R&D Expenditure[1]

The R&D expenditure of NTPC for Financial Year 2023-24 has witnessed a noteworthy surge, reaching ₹483.62 crore, which marks an impressive increase of 70.62% compared to the previous financial year. This substantial growth exemplifies NTPC's unwavering dedication towards fostering innovation and embracing sustainable practices. By investing significantly in research and development, NTPC continues to demonstrate its proactive approach towards driving positive change and establishing itself as a leading force in the pursuit of a sustainable future.

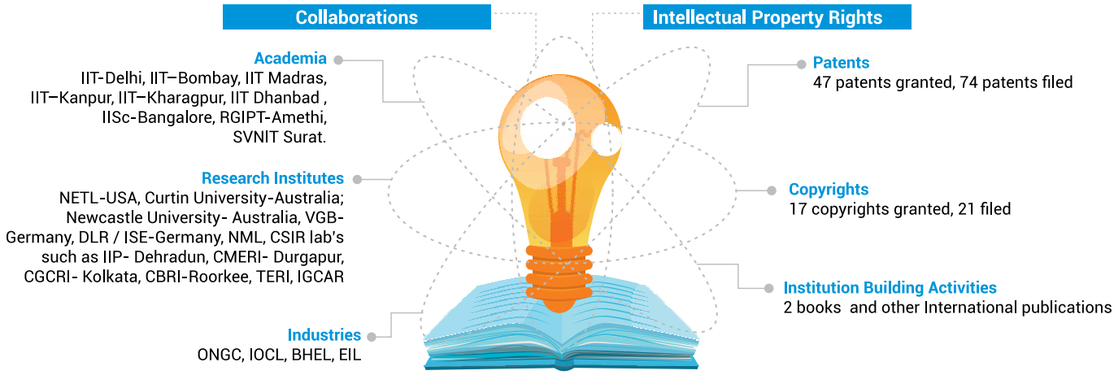
[1]GRI 203-1

Our Group's Overview | Innovating for Sustainability | Statutory Disclosures | Statutory and Financial Results

Driving Innovation and Knowledge Sharing

NTPC's knowledge network showcases diverse collaborations and Intellectual Property Rights ownership, underscoring our commitment to foster innovation and knowledge sharing.

NTPC's Knowledge and Innovation System



Key Project Areas

NETRA's initiatives encompass a diverse range of activities demonstrating our expertise and commitment in the following areas:

Carbon Capture and Utilization Technology

- 10 TPD 'CO_2 to Methanol' Demo Plant at NTPC- Vindhyachal
- 10TPD 'CO_2 to Ethanol ' Demo plant at NTPC-Lara
- Indigenous development of Catalyst & Reactor for conversion of CO_2 to Methanol in parallel
- Pre-feasibility assessment of CO2 storage potential in Cat-1 Fields of India- with NCOE-CCUS and IIT-Bombay.

Hydrogen Technology

- Sea Water based Green Hydrogen (1 TPD Plant at NTPC Simhadri)
- Development of High Temperature Steam Electrolyser
- Green Hydrogen from STP Water (150 Kg/Day Plant at NETRA Campus)

Water Technology

- 240 TPD Non Thermal Forward Osmosis based high recovery system
- 3600 TPD Electrocoagulation system at NTPC Solapur
- 4 MLD Activated Filter Media Plant at NTPC Dadri

Ash-Technology

- Fly Ash based Light Weight Aggregate Pilot Plant Setup at NTPC-Sipat
- Set up of 100 m3/day fly ash based angular shaped coarse aggregates plant on Fly Ash Lime Gympsum (FALG) technology

Waste to Energy

- Set up of a 10 TPD Plant Torrefied Biomass Pellet (through 'Start Up' initiative)

Other areas

- AC Microgrid at Netra (4 MWp & 1 MWh)
- RSA (Residual Stress Analyzer): Evaluation of Ferritic & Austenitic Steel, Ni, Al, Cu tubes



Unlocking the Value of Research & Technology Development

NETRA has undertaken significant projects to address concerns related to the environment, climate change, reliability, efficiency improvement, and renewable energy. It is actively working on reducing carbon footprint through carbon capture and utilization, specifically through pilot projects that aim to capture CO_2 from a thermal plant and convert it into valuable products like methanol, ethanol, carbonated coarse aggregates, etc. It has also taken up research and development projects for hydrogen technology, water technologies such as desalination, and innovative ash utilization processes.

NETRA is dedicated towards enhancing reliability and efficiency through advanced scientific services like non- destructive evaluation, CFD analysis, and metallurgy and failure analysis. They are also involved in cutting- edge technologies like robotic solutions for inspections, asset digitization and monitoring through drones, and the development of novel sensors. NETRA's activities have been instrumental in analysing failures and implementing preventive measures at power stations, including regeneration treatments, chemical cleaning, and corrosion control. The majority of our projects involve the development and demonstration of new technologies, with technological trials being an integral part of their work.

Scientific Services Support to NTPC Stations on Continuous Basis[2]

NETRA, the R&D arm of NTPC, provides state-of- the-art scientific support to NTPC stations and other utilities in various critical domains such as Non- Destructive Examination (NDE), Metallurgy & Failure analysis, Oil/water chemistry, Environment, Electrical, and Computational Fluid Dynamics (CFD). With a steadfast commitment to specialized expertise, NETRA excels in these areas, empowering power utilities with enhanced efficiency and sustainable energy solutions. By leveraging extensive knowledge and proficiency, NETRA plays a pivotal role in strengthening the capabilities of power utilities, ensuring efficient and reliable performance. Details of specific projects can be accessed from NETRA page at NTPC website. (https://www.ntpc.co.in/about-us/corporate-functions/netra/about-netra)



New Products & Technologies Developed[3]

1. 24 TPD Electro-Dialysis Reversal (EDR) System for treatment of STP water
2. 20 TPD CO_2 capture block of 10 TPD CO_2 to Methanol plant at NTPC -Vindhyachal
3. MSW 400 KWe MSW-RDF Enhanced Steam Gasification plant
4. Development of Sea Water Electrolyzer in collaboration with RGIPT, Amethi

[2,3]GRI 203-1

20 TPD Flue Gas CO_2 to 10 TPD Methanol Plant at NTPC Vindhyachal

Salient Strengths

- **Liquid Fuel Production:** Conversion of CO_2 captured from fossil-fired power plants into methanol, a liquid fuel.
- **Versatility of Methanol:** Methanol can be further reformed into Di-methyl Ether (DME), which serves as an equivalent to diesel and LPG.
- **Reduced Greenhouse Gas Emissions:** This process contributes to lower GHG emissions.
- **New Business Opportunities:** Opens potential new avenues for NTPC in the energy and chemical sectors.

Project Brief

The project is structured into three interconnected blocks:

1. **20 TPD Carbon Capture Block**
   - **Process Overview:** CO_2 is captured from flue gas downstream of the Flue Gas Desulphurization (FGD) Plant.
   - **Components:** The plant features two main sections:
     - CO_2 Absorption Section: Uses Modified Tertiary Amine as a solvent to absorb CO_2 from the flue gas.
     - CO_2 Stripping Section: Strips the CO_2 gas from the absorber solution.

   Status: Commissioned
2. **2 TPD Hydrogen Generation Block**
   - **Technology:** Utilizes Proton Exchange Membrane (PEM) Electrolyser for hydrogen production.
   - **Advantages:** PEM water electrolysis is highly sustainable and has a high 'turn-down ratio' and 'ramp-rate', making it well-suited for integration with renewable energy sources.
   - **Status:** Under Commissioning
3. **10 TPD Methanol Synthesis Block**
   - **Production Process:** Methanol is synthesized through catalytic hydrogenation.
   - **Quality:** The methanol produced will be of Grade-A purity.
   - **Status:** Under Commissioning



25 TPD CO_2 to 10 TPD Ethanol Plant at NTPC Lara

Salient Strengths

- **Land Efficiency:** No additional land is required for the plant's operation.
- **Reduced Greenhouse Gas Emissions:** Significant reduction in GHG emissions through CO_2 utilization.
- **Sustainable Aviation Fuel:** Production of ethanol, which can be used to create Sustainable Aviation Fuel (SAF).
- **New Business Opportunities:** Potential to explore new markets for both ethanol and aviation fuel.

Project Brief

The "CO_2 to Ethanol" plant at NTPC Lara will be a pioneering global initiative, transforming CO_2 from flue gas of a coal-fired power plant into 4G-Ethanol using a biological synthesis route. The plant comprises three main blocks:

1. **CO_2 Capture Block**
   - **Process Overview:** CO_2 is extracted from the flue gas of the power plant using chemical sorbents.
   - **Capacity:** 25 TPD
   - **Technology:** Tertiary Amine Solvent
   - **Objective:** Capture CO_2 with a purity of >99% (dry basis).
2. **Hydrogen Generation Block**
   - **Process Overview:** Hydrogen is produced through electrolytic processes.
   - **Capacity:** 3 TPD
   - **Technology:** PEM / Alkaline Electrolyzer
   - **Objective:** Generate green hydrogen with a purity of >99.9% (dry basis).
3. **Ethanol Synthesis Block**
   - **Process Overview:**
     - **Conversion:** CO_2 is converted to CO via reverse water gas shift reaction.
     - **Biological Synthesis:** Syngas (a mixture of CO, CO_2, and H_2) is used to produce ethanol.
     - **Purification:** Ethanol is purified to meet the required quality.
   - **Capacity:** 10 TPD
   - **Technology:** Bio-catalytic process
   - **Objective:** Produce ethanol with purity as per IS 15464: 2022.

Leveraging Decades of Knowledge Base[4]

NTPC's learning initiatives are endowed with sophisticated training centres like the Power Management Institute (PMI), Regional Learning Institutes (RLIs), the Safety Academy, Employee Development Centres (EDCs), and Simulator Facilities. Learning and Development (L&D) is focused on future roles, technology advancements, business acumen, and leadership in the VUCA world. Training is conducted through hybrid mode leveraging classrooms, simulators, online platforms, VR, and e-Learning.

Executive Trainees undergo a year-long program with on- the-job, simulator, technical, managerial, and soft skills training. Planned Interventions such as the Foundation Course, Enhancing Managerial Competence (EMC) and Advance Management Program (AMP) are provided at three identified stages of career to the Executives. Job rotations, and transfers offer additional experiential learning.

Our Consultancy Services[5]

NTPC's Consultancy Division leverages its extensive experience and expertise to support the Indian power industry. It offers a wide range of services for large power stations, including engineering, operations and maintenance, project management, contracts and procurement, renovation and modernization, quality and inspection, training and development, human resources, information technology, and solar/renewable power projects. These services also ensure compliance with environmental regulations.

NTPC's consultancy services extend internationally, including projects in various countries and members of the International Solar Alliance (ISA). Overall, NTPC's Consultancy Division supports the power industry domestically and internationally, promoting sustainable practices and contributing to global energy initiatives. More information on these projects can be found on NTPC's website.

Business Development[6]

With nearly five decades of experience in energy value chain, NTPC is pioneering adoption and commercialisation of new technologies through its Business Development route. Some of the major initiatives undertaken are:

Bamboo-Based Bio-Refinery at Bongaigaon

NTPC is actively exploring innovative approaches to set up a Bamboo-Based Bio-Refinery at Bongaigaon Thermal Power Station. This 2G Bio-Refinery will leverage locally available bamboo resources. The project aims to produce 2G bioethanol from bamboo, which will not only contribute to renewable energy production but also generate bio-coal as a by-product. This bio-coal is planned for use as a blended fuel with coal in the Bongaigaon power plant, thereby optimizing fuel use and reducing greenhouse gas emissions. An important milestone in this endeavor was the signing of a non-binding Memorandum of Understanding (MoU) with Chempolis on April 10, 2023, to explore the feasibility of this project.

Hydrogen Hub at Pudimadaka

NTPC is spearheading the establishment of a Green Hydrogen Hub at Pudimadaka, located near Vishakhapatnam, Andhra Pradesh. This ambitious project envisions the creation of a comprehensive facility for the production and export of green hydrogen, ammonia, and green chemicals. The initiative also includes setting up a manufacturing facility for hydrogen-related equipment. A detailed proposal for the Hydrogen Hub was submitted to the Andhra Pradesh Government on January 11, 2023, and received approval on February 24, 2023. NTPC Green Energy Ltd (NGEL), NTPC's dedicated green energy arm, has taken significant steps towards this project by executing the land lease deed with Andhra Pradesh Industrial Infrastructure Corporation (APIIC) on February 20, 2024. This development aligns with NTPC's strategic goal of advancing sustainable energy solutions and expanding its footprint in the green energy sector.

Initiatives for Start-Up Ecosystem

In a bid to foster innovation and explore cutting-edge solutions, NTPC is developing a robust Innovation and Start-Up Ecosystem. This initiative aims to address NTPC's existing challenges through innovative and unconventional approaches. As part of this effort, NTPC launched a Grand Energy Challenge in collaboration with Startup India, presenting three problem statements related to its business. Additionally, NTPC has approved the procurement of biomass pellets on a pilot basis for its Mouda and Solapur sites via the Biomass Marketplace. The auction for biomass procurement at the Mouda site has been successfully completed through this digital platform, marking a significant step towards integrating innovative biomass solutions into NTPC's operations and enhancing its sustainability practices.

[4]GRI 404-1, GRI 404-2
[5,6]GRI 201-1



Driving Sustainable Digital Transformation

NTPC's Journey

At NTPC, we embrace digital transformation as a continuous practice to redefine customer interactions, streamline business processes, and shape our organizational culture. The Indian power sector is undergoing a transformative shift due to emerging technologies, digital advancements, and innovative business models, revolutionizing the industry. Aligned with our corporate vision, we strategically integrate IT to make data-driven decisions, gain a competitive edge and achieve goals. We are traversing through the following steps, as we progress in our journey of digital transformation.



At NTPC, Core Technology Layers are the foundation for extensive transformation. We operate four organizational platforms: ERP (SAP), ECM (PRADIP), M365-Virtual Office, and Web/Mobile Apps. By adopting an enterprise-wide platform approach, we ensure scalability and efficient resource utilization, minimize duplication, enable rapid expansion, and optimize total cost. These layers empower our departments, functions, and units for time and financial optimization, scalability, integration, and innovation. We're steadily progressing towards our digital transformation goal.

Key Initiatives by NTPC

NTPC has undertaken a series of strategic initiatives aimed at transforming its business operations, integrating advanced technologies, and promoting environmental sustainability. Below are some of the significant measures:

Strategic Business Transformation

- **Bringing Business Closer to Technology:** NTPC is undergoing a strategic business transformation to align its operations more closely with technological advancements, ensuring greater efficiency and competitiveness.

Digital Strategy

- **Cloud and Mobile Integration:** Implementing a comprehensive digital strategy that includes cloud computing, mobile technologies, IT strategy, and cybersecurity to maximize customer reach and enhance user experience.

Data Analytics and Automation

- **Effective Data Analytics:** Supporting IT/OT integration and automation projects through a robust data analytics strategy.
- **Disruptive Technologies:** Leveraging disruptive technologies such as Artificial Intelligence (AI), Machine Learning (ML), Digital Twin, Virtual Reality (VR), Augmented Reality (AR), and Robotic Process Automation (RPA) to drive innovation and efficiency.

Information Security

- **Comprehensive Security Measures:** Implementing key security measures including a Security Operation Centre (SOC), cloud-based WAAP solutions, Zero Trust Network Access, and unified End Point Vulnerability and Security Management Solutions.
- **Security Operation Center (SOC):** The SOC operates 24x7, analyzing over 15 billion events monthly, enabling real-time monitoring of external attack, integrating security solutions like SIEM, NGFW, and NGAV for quick analysis and reporting.



Intellectual Property Rights (IPR)

- **Real Time Market (RTM) System:** NTPC has obtained IPR for the RTM system, providing an organized platform for real-time energy trade. Key features include:
  - Half-hourly markets with a gap of 15 minutes.
  - Right to recall/revision of schedule up to the 7th & 8th blocks.
  - Gate Closure concept, and double-sided bidding for both supply and demand.
- **Drawing Review and Engineering Approval Management System (DREAMS 2.0):** This system facilitates the review and approval of engineering drawings/documents, offering features such as:
  - Revision control, annotations, and reporting
  - Responsive design for mobile and tablet access
  - Audit trail for annotations and comments
  - Secure locking feature for final released document

Moreover, the budget proposed for multiple Digital Initiatives Platform to timely and successfully achieve the Digital Initiative Implementation, Low Code No Code Platform, SAP S4 HANA implementation, M365 deployment on Cloud Integration, Advance Pattern Recognition, Drone Technology, Cyber Security, Network Operation Centre (NOC) implementation is in the tune of Rs. 550 Crores for next two years

Web & Mobile Apps as Part of Digital Initiatives

With the new digital initiatives underway, NTPC intends to become a fully digitalized organization both for its core and non-core functions, and also act as a role model for the industry. NTPC has launched various digital initiatives through web and mobile apps designed to streamline operations and enhance efficiency. The **Strategic Initiative Management System** helps plan, execute, and evaluate strategic targets, providing management with a dashboard to track progress. The **Mobile App for NETRA** offers a unified view of NTPC's R&D activities and knowledge base. The **Sangam Portal** provides access to all intranet-based non-ERP applications through Single Sign-On (SSO) and facilitates the creation of new intranet websites. **IDEATHON** fosters innovation by nurturing new ideas and start-ups, promoting an entrepreneurial mindset among employees. The **CERC Tariff Petition System** automates petition submission processes, while **Engineering Calculator 2.0** aids in engineering calculations and understanding energy market scenarios. The **Contractors Performance Feedback and Evaluation System** monitors and assesses contractor performance, ensuring transparency and effective project management. The **Employee Personnel File Management System** securely stores and manages personnel files, accessible only to authorized HR employees.



Performance Snapshot

GRI 303-3 Water Withdrawal by Source

KPI	UOM	FY 2022-23		FY 2023-24	
		All Areas	Water Stressed Area	All Areas	Water Stressed Area
Surface water (Rivers,lakes, reservoir, Wetland)					
- freshwater (≤ 1,000 mg/l Total Dissolved Solids)	MCM	5478.26	5390.70	6015.03	5924.94
- other water (> 1,000 mg/l Total Dissolved Solids)	MCM	0.00	0.00	0.00	0.00
Collected Rain water (Artifical reservoir))					
- freshwater (≤ 1,000 mg/l Total Dissolved Solids)	MCM	4.10	0.07	5.85	4.13
- other water (> 1,000 mg/l Total Dissolved Solids)	MCM	0.00	0.00	0.00	0.00
Ground water					
- freshwater (≤ 1,000 mg/l Total Dissolved Solids)	MCM	0.00	0.00	0.36	0.36
- other water (> 1,000 mg/l Total Dissolved Solids)	MCM	0.00	0.00	0.00	0.00
Water from thirdparty					
- freshwater (≤ 1,000 mg/l Total Dissolved Solids)	MCM	0.55	0.24	0.46	0.46
- other water (> 1,000 mg/l Total Dissolved Solids)	MCM	0.00	0.00	0.00	0.00
Withdrawal from non scarce source:					
Sea water	MCM	0.00	0.00	0.00	0.00
- freshwater (≤ 1,000 mg/l Total Dissolved Solids)	MCM	0.00	0.00	0.00	0.00
- other water (> 1,000 mg/l Total Dissolved Solids)	MCM	179.10	0.00	168.76	168.76
Total Water Withdrawal	**MCM**	**5662.01**	**5391.01**	**6190.45**	**6098.28**

GRI 303-4 Water Discharge

KPI	UOM	All Areas	All Areas
Water Discharge by Destination & Level of Treatment		FY 2022-23	FY 2023-24
Total Surface water (wetlands, lakes, rivers)	MCM	4410.97	4889.80
No treatment	MCM	4401.83	4889.29
Primary treatment	MCM	0.01	0.17
Secondary treatment	MCM	9.13	0.34
Groundwater	MCM	**0.0**	**0.0**
Third party water	MCM	0.0	0.0
Seawater	MCM	117.34	155.26
No treatment	MCM	117.34	155.26
Total Water Discharge	**MCM**	**4528.31**	**5045.06**
Water Discharge by Technology			
Discharge of water used for once through cooling system	MCM	4519.17	5044.54
Other surface water discharge	MCM	9.14	0.51
Water discharge by freshwater and other water	**MCM**	**4528.31**	**5045.06**
- freshwater (≤ 1,000 mg/l Total Dissolved Solids)	MCM	4410.97	4889.80
- other water (> 1,000 mg/l Total Dissolved Solids)	MCM	117.34	155.26

GRI 303-5 Water Consumption

KPI	UOM	All Areas	All Areas
Water Consumptions		FY 2022-23	FY 2023-24
Natural Fresh Surface water	MCM	1068.36	1125.73
Sea water (Desalinated)	MCM	4.58	4.72
Rain Water (Harvested)	MCM	0.85	2.30
Sea water	MCM	57.18	8.78
Total Fresh Water Consumption	**MCM**	**1073.79**	**1132.75**

GRI 303-4 Water Requirement Reduction as per NTPC's 3R

KPI	UOM	All Areas	All Areas
Rain Water		FY 2022-23	FY 2023-24
Surface water storage	MCM	4.10	5.85
Ground water Recharge	MCM	0.48	0.52
Waste Water Reuse & Recycling			
Waste Water Generated	MCM	354.23	380.03
Waste Water Reused (No Treatment)	MCM	273.14	323.90
Waste Water Treated			
Primary treatment	MCM	0.08	5.87
Secondary treatment	MCM	80.83	51.96
Tertiary treatment	MCM	0.19	0.09
Waste Water Recycled			
Primary treatment	MCM	0.06	4.56
Secondary treatment	MCM	71.70	51.25
Tertiary treatment	MCM	0.19	0.09
Waste Water (Treated) Discharged	MCM	9.14	0.51
Percentage of recycled and reused water	**%**	**97.42**	**99.94%**

GRI 301-1 Material (Non-Energy) used

Input Materials	Chlorine	Ammonia	Alum	HCl	H2SO4	NaOH	Lube OIL	Transformer Oil
UOM	MT	MT	MT	MT	MT	MT	KL	KL
Consumption	3949.88	1315.40	19116.46	39530.98	42231.32	8042.49	4479.06	245.12

GRI 302-1 Material & Energy consumption inside of the organization

		FY 2021-22	FY 2022-23	FY 2023-24
Coal	MMT	226.54	250.20	264.52
	Kcal/Kg	3487.62	3522.76	3489.08
	TJ	3305688.84	3687815.61	3861577.046
Natural Gas	MMSCM	2029.40	1386.95	1991.21
	Kcal/SCM	9320.97	9279.31	9334.19
	TJ	79144.42	53847.76	77765.35
Naptha	MT	8923.00	16355.58	304.86
	Kcal/Kg	11353.00	11361.41	11382.77
	TJ	423.85	777.48	14.51
LDO	KL	139853.77	144360.29	147859.70
	Kcal/KL	9384.69	8870.84	9422.33
	TJ	5.49	5.36	5.82
LSHS	KL	-	-	9961.06
	Kcal/KL	-	-	9740.15
	TJ	-	-	0.405
HFO	KL	49821.36	38087.07	34714.04
	Kcal/KL	9761.40	9249.86	9239.55
	TJ	2.03	1.47	1.34
HSD	KL	18177.57	28835.93	65.15
	Kcal/KL	9054.00	9033.86	9044.20
	TJ	0.69	1.09	0.0025
Biomass	MT	40386.00	20034.00	171719.04
	Kcal/Kg	2943.00	2943.00	3226.18
	TJ	497.29	246.69	2317.92

GRI 302-1 Auxilary Power Consumption

Energy Consumption: Auxilary Power Consumption			
Type	**UOM**	**FY 2022-23**	**FY 2023-24**
Coal Stations	MU	25114.09	26533.80
	%	6.68	6.73
Gas Stations	MU	187.11	285.21
	%	3.61	3.72
Hydro	MU	71.48	67.00
	%	0.56	0.54
Small Hydro	MU	2.13	2.36
	%	1.87	2.09

Energy Consumption: Auxilary Power Consumption			
Type	**UOM**	**FY 2022-23**	**FY 2023-24**
Solar	MU	81.12	124.70
	%	1.81	1.92
Wind	MU	2.75	2.52
	%	0.85	0.74
Total	MU	25458.68	27015.58
	%	6.38	6.42

GRI 302-4 Reduction of energy consumption

Name of Indicator	Unit	FY 2022-23	FY 2023-24
Electrical Energy	MU	139.61	142.71
Heat Energy (Eq. MT of coal)	MT	23022	36140
Heat Energy (Eq. MCM of Gas)	MCM	0	0
Total Energy Saved	TJ	1735.5	1921.9

GRI 306 Waste

Hazardous Waste

Type of Waste (MT)	GRI 306-3	GRI 306-4			GRI 306-5		
	Waste Generated	Waste diverted from disposal			Waste diverted to disposal		
	Total	Re-used	Recycled	Other Recovery Options	Incineration	Landfilling	Other Disposal Option
PCB	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Spent Resins	133.04	0.00	0.00	0.00	64.64	0.00	16.36
Used Oil	1221.90	709.50	721.62	0.00	11.95	0.00	131.00
Discarded Containers	1110.37	474.80	263.31	4.28	0.00	0.00	1.20
Insulation Waste	1860.59	0.00	0.00	0.00	91.38	1392.13	10.40
FO Sludge	57.00	0.00	50.00	0.00	12.28	0.00	0.63
Total Hazardous Waste Generation	**4382.90**	**1184.30**	**1034.93**	**4.28**	**180.25**	**1392.13**	**159.59**

Non-Hazardous Waste

Type of Waste (MT)	GRI 306-3	GRI 306-4			GRI 306-5		
	Waste Generated	Waste diverted from disposal			Waste diverted to disposal		
	Total	Re-used	Recycled	Other Recovery Options	Incineration	Landfilling	Other Disposal Option
Ferrous	29795.49	33.27	23821.48	900.00	0.00	0.00	4485.70
Non-Ferrous	3295.41	0.00	1325.91	0.00	0.00	0.00	597.08
Municipal Solid Waste Biodegradable	5070.04	240.99	1389.46	181.39	0.00	1933.30	1324.91
Municipal Solid Waste Non-Biodegradable	2883.77	0.00	279.63	105.10	83.00	1637.08	920.97
Plastic Waste	385.79	70.00	52.38	43.00	22.32	0.00	264.59
Total Non-Hazardous Waste Generation	**41430.50**	**344.26**	**26868.85**	**1229.49**	**105.32**	**3570.38**	**7593.25**

Other Waste

Type of Waste (MT)	GRI 306-3	GRI 306-4			GRI 306-5		
	Waste Generated	Waste diverted from disposal			Waste diverted to disposal		
	Total	Re-used	Recycled	Other Recovery Options	Incineration	Landfilling	Other Disposal Option
BMW	211.06	0.00	0.00	0.00	205.03	2.11	4.92
E-Waste	873.37	0.00	57.29	760.00	0.00	0.00	28.26
Batteries	1658.05	10.48	44.20	36.07	0.00	0.00	26.76
Construction and Demolition Waste	90439.46	12835.76	924.00	2.00	0.00	56155.50	20391.00
Radioactive Waste	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Other Waste Generation	**93181.93**	**12846.24**	**1025.49**	**798.07**	**205.03**	**56157.61**	**20450.94**

GRI 305-7, 305-6 Air (Non GHG Emissions)

Type	UOM	FY 2021-22	FY 2022-23	FY 2023-24
SO2 emissions	Ton	1621349	1767481.60	1863639.27
NOx emissions	Ton	640419	657376.38	671807.38
Particular Matter	Ton	91115	89294.96	96752.02
Hg emissions	Ton	7.23	7.00	8.53
Specific emissions				
SO2 emissions	g/kWh	4.50	4.43	4.41
NOx emissions	g/kWh	1.78	1.65	1.59
Particular Matter	g/kWh	0.25	0.23	0.23
Hg emissions	g/kWh	0.00	0.00	0.00

GHG Mitigation

Type	UOM	FY 2021-22	FY 2022-23	FY 2023-24
Carbon Sink Created	mil t	0.74	0.76	0.78
Avoided emissions	mil t	13.91	16.91	18.36

GRI 305-1 GHG Emission - Scope 1

Type	UOM	FY 2021-22	FY 2022-23	FY 2023-24
CO2 emissions from the electricity production	mil t	304.08	336.46	353.25
Emissions from coal electricity gen.	mil t	300.10	333.69	349.40
Emissions from gas electricity gen.	mil t	3.98	2.78	3.85
Other CO2eq emissions due to electricity production and other activities	mil teq	0.06	0.02	0.04
of which: emission from losses of SF6 from energy production	ton_{eq}	57360.00	20250.47	43084.53
of which: emission from losses of HFCs from energy production	ton_{eq}	1048.80	210.64	43.08
Total direct emissions (Scope 1)	mil teq	304.14	336.48	353.29
SCOPE 1 Emissions (after adjustment)	mil teq	303.40	335.70	352.47

GRI 305-2 GHG Emission - Scope 2

	UOM	FY 2021-22	FY 2022-23	FY 2023-24
Emission due to power consumption by Building and Offices	Ton	16400.34	15810.22	16971.33
Emission due to power consumption by Hydro/ Gas Plants during Shutdown	Ton	-	69933.22	57829.17

GRI 305-3 GHG Emission - Scope 3

	UOM	FY 2021-22	FY 2022-23	FY 2023-24
Transport of coal by Road	Ton			70,898.00
Transport of coal by sea	Ton	4,92,900.00	34,51,606.00	22,68,941.00
Transport of coal by train	Ton	6,06,841.98	8,91,322.31	8,91,703.00
Commute to workplaces by Employees	Ton	12,034.30	17,421.13	29,654.51
Business Travels by Employees	Ton	2,103.62	4,202.26	5,025.23
Total indirect emissions (Scope 3)	Ton	11,13,879.89	43,64,552.04	3266221.74



GRI 405-1 Diversity of governance bodies and employees

Employee Profile (NTPC Only)

	Employee Categories	Age Group						Total		Vulnerable Group			
		<30		30-50		>50		Male	Female	Specially Abled Employees		OBC/SC/ST Employees	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Permanent employee	Board of Directors and KMP*					6		6	0				
	Top/ Senior management					42	3	42	3			6	
	Middle management			2293	115	1540	75	3833	190	38		1490	58
	Lower/Junior management	1191	126	4369	455	1163	51	6723	632	159	13	3753	314
Permanent workers	Workmen	563	49	1772	127	2206	214	4541	390	249	38	2506	176
	Total NTPC Employees	**1754**	**175**	**8434**	**697**	**4957**	**343**	**15145**	**1215**	**446**	**51**	**7755**	**548**
Other than permanent employee	Trainees	1046	72	84	9			1130	81	17	2	678	48
	Employees	194	55	319	13	11		524	68	4		275	32
Other than permanent worker	Contractual Workers	37771	357	60961	1416	10972	292	109704	2065	495	13	38463	1004

**Excludes Govt. Nominee & Independent Directors*

Employee Profile (NTPC Group)

	Employee Categories	Age Group						Total		Vulnerable Group			
		<30		30-50		>50		Male	Female	Specially Abled Employees		OBC/SC/ST Employees	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Permanent employee	Board of Directors and KMP*	0	0	0	0	6	0	6	0	0	0	0	0
	Top/ Senior management	0	0	2	0	63	5	65	5	0	0	6	0
	Middle management	0	0	2475	123	1895	94	4370	217	52	3	1641	75
	Lower/Junior management	1273	141	5007	517	1677	89	7957	747	170	14	4234	367
Permanent workers	Workmen	639	55	2243	228	3171	371	6053	654	287	47	3242	358
	Total NTPC Group Employees	**1912**	**196**	**9727**	**868**	**6812**	**559**	**18451**	**1623**	**509**	**64**	**9123**	**800**
Other than permanent employee	Trainees	1296	90	119	13	0	0	1415	103	19	2	908	62
	Employees	318	74	378	17	13	0	709	91	6	0	331	38
Other than permanent worker	Contractual Workers	37771	357	71400	1750	10972	292	120143	2399	495	13	38463	1004

**Excludes Govt. Nominee & Independent Directors*

GRI 401-1 New employee hires and employee turnover

Employees Hired during Financial Year 2023-24

Employee Categories	Age Group						Total	
	<30		30-50		>50		Male	Female
	Male	Female	Male	Female	Male	Female		
Board of Directors and Key Managerial Personnel	0	0	0	1	2	0	2	1
Top/ Senior management	0	0	0	0	0	0	0	0
Middle management	0	0	1	2	2	0	3	2
Lower/Junior management	40	7	169	12	1	0	210	19
Workmen	0	1	13	1	6	0	19	2
Trainees	1321	91	76	7	0	0	1397	98
Other than Permanent Employees	229	39	210	4	0	0	439	43

Employees Separated during Financial Year 2023-24

Employee Categories	Age Group						Total	
	<30		30-50		>50		Male	Female
	Male	Female	Male	Female	Male	Female		
Board of Directors and Key Managerial Personnel	0	0	0	0	3	0	3	0
Top/ Senior management	0	0	0	0	34	0	34	0
Middle management	0	0	9	0	341	14	350	14
Lower/Junior management	75	6	43	17	308	13	426	36
Workmen	2	0	6	2	510	43	518	45
Trainees	137	7	8	0	0	0	145	7
Other than Permanent Employees	75	19	32	1	1	0	108	20

Turnover Rates for Employees Separated during Financial Year 2023-24

		Male	Female	total
Total employee turnover rate %	Permanent employee	6.55%	5.16%	6.45%
	Permanent workers	8.56%	6.88%	8.39%
Voluntary employee turnover rate %	Permanent employee	6.53%	5.16%	6.43%
	Permanent workers	8.51%	6.88%	8.35%
Involuntary employee turnover rate %	Permanent employee	0.02%	0.00%	0.01%
	Permanent workers	0.05%	0.00%	0.04%

GRI 401-3 Parental leave related data for Financial Year 2023-24

S. No	Category	Unit	Permanent Employees		Permanent Workers	
			Male	Female	Male	Female
1	Employees entitled for parental leave	No.	11619	894	5378	444
2	Employees that took parental leave	No.	732	173	193	31
3	Employees that returned to work in the reporting period after parental leave ended	No.	732	173	193	31
4	Employees that returned to work after parental leave ended that were still employed 12 months after their return to work	No.	732	173	193	31
5	Rate of Return to work that took parental leave	%	100	100	100	100
6	Retention rates of employees that took parental leave	%	100	100	100	100

GRI 405-2 Remuneration

Employee Categories	Ratio of basic salary of women to men	Ratio of total remuneration of women to men
Board of Directors and Key Managerial Personnel	1	1
Top/ Senior management	1	1
Middle management	1	1
Lower/Junior management	1	1
Workmen	1	1
Trainees	1	1
Other than Permanent Employees	1	1

GRI 404-1 Average hours of training per year per employee**

Employees Training for the year 2023-24

BRSR Categorisation	Employee Categories	No. of employee trained		Man hours		Avg man hour per employee	
		Male	Female	Male	Female	Male	Female
Permanent employee	Board of Directors and KMP	2	0	36	0	6	0
	Top/ Senior management	54	3	1240	36	19	7
	Middle management	3994	184	196014	9662	45	45
	Lower/Junior management	6896	664	353432	35566	44	48
Permanent workers	Workmen	4469	392	109485	9780	18	15
Other than permanent employee	Trainees	1029	81	183740	9294	130	90
	Employees	409	68	14874	1452	21	16

** NTPC Group

Training on Human Rights *

BRSR Categorisation	Employee Categories	Number of employees covered	Man-hours	% covered
Permanent employee	Executive	923	6174	8.10%
Permanent workers	Workmen	442	2730	8.21%
Other than permanent employee	Trainees	190	1176	17.46%
	Employees	50	318	20.58%

Program for upgrading employee skills and transition assistance program*

Employee Categories	No of employees who attended skill development trainings		Average hours of training	
	Male	Female	Male	Female
Permanent employee	263	63	7.48	6.86
Permanent workers	113	113	8.39	9.43
Total NTPC Employees	376	70	7.94	8.15

Program for Health & Safety*

Employee Categories	No of employees who attended skill development trainings		Average hours of training	
	Male	Female	Male	Female
Permanent employee	3019	182	12.92	13.05
Permanent workers	1514	151	10.85	10.37
Total NTPC Employees	4533	333	11.89	11.71

Training on Ethics, Bribery and Corruption*

Employee Categories	No of employees who attended skill development trainings		Average hours of training	
	Male	Female	Male	Female
Permanent employee	287	36	6.52	6.17
Permanent workers	48	3	6.38	6.00
Total NTPC Employees	335	39	6.45	6.09

* Only NTPC Regular Employees

Training on Supply Chain*

Employee Categories	No of employees who attended skill development trainings		Average hours of training	
	Male	Female	Male	Female
Permanent employee	4	0	18	0
Permanent workers	0	0	0	0
Total NTPC Employees	4	0	9	0

Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings*

Program name	No. of employee trained	Man hours	Avg Man hour per employee
Advance Management Program	196	12858	65.60
Enhancing Managerial competence	254	16818	66.21
Foundation Course in General Management	158	10848	68.66
Health Care and Ergonomics	670	4488	6.70
Healthy Mind in a Healthy Body	549	3630	6.61

Safety Training Modules

	Induction
1	Caught in caught by
2	Heavy Vehicle Safety
3	Work at Height
4	Electrical Safety
5	Confined Space
6	Struck by
7	Hand tools
8	Power tools
9	Fire Prevention
10	Hot work
11	Work on or near water
12	Work Permit System Module
13	PPE
14	Manual Handling
15	Excavation Safety
16	Hazardous Substances
17	Ergonomics
18	General Safety and Hygiene for Office
19	Demolition
20	Slips and Trips
21A	Material Handling
21B	Material Handling 2
22	CHP Housekeeping Workers of General Safety

GRI 403-1 Occupational health and safety management system

Safety Training for Financial Year 2023-24

Type	No. of Prog.			Man hours			No. of persons trained			Avg man hour per employee		
	FY 2021-22	FY 2022-23	FY 2023-24	FY 2021-22	FY 2022-23	FY 2023-24	FY 2021-22	FY 2022-23	FY 2023-24	FY 2021-22	FY 2022-23	FY 2023-24
Employees	1603	2484	1748	66198	132702	134446.77	11789	16224	17399	5.62	8.18	7.73
Contract Workers	9701	29452	48486	1297452	2465392	4291683.682	214097	616348	1073434	6.06	4.00	4.00
Total	11304	31936	50234	1363650	2598094	4426130.452	225886	632572	1090833	6.04	4.11	4.06

* Only NTPC Regular Employees



Work-related injuries

Type	No. of Persons employed			Man hours			Incidents					
							First-Aid			Beyond First-Aid		
	FY 2021-22	FY 2022-23	FY 2023-24	FY 2021-22	FY 2022-23	FY 2023-24	FY 2021-22	FY 2022-23	FY 2023-24	FY 2021-22	FY 2022-23	FY 2023-24
Employees	18817	17995	16252	47423470	42439035	41134988	19	326	239	3	5	2
Contract Workers	106662	89278	93101	264912380	222837888	232258633	400	0	4	35	15	13
Total	125479	107273	109353	312335850	265276923	273393621	419	326	243	38	20	15

Type	Reportable Incidents						Total Man Days Lost		
	Fatal			Non-Fatal					
	FY 2021-22	FY 2022-23	FY 2023-24	FY 2021-22	FY 2022-23	FY 2023-24	FY 2021-22	FY 2022-23	FY 2023-24
Employees	1	1	0	3	5	3	6147	9183	114
Contract Workers	4	4	5	18	11	15	36962	28718	144
Total	5	5	5	21	16	18	43109	37901	258

Type	Fatality Frequency Rate			Lost Time Injury Freqency Rate (LTIFR)			Incident Rate (IR)			Recordable Injury Rate		
	FY 2021-22	FY 2022-23	FY 2023-24	FY 2021-22	FY 2022-23	FY 2023-24	FY 2021-22	FY 2022-23	FY 2023-24	FY 2021-22	FY 2022-23	FY 2023-24
Employees	0.021	0.024	0.000	0.08	0.141	0.073	0.21	0.333	0.185	0.15	0.26	0.12
Contract Workers	0.015	0.018	0.022	0.08	0.067	0.086	0.21	0.168	0.215	0.22	0.13	0.14
Total	0.016	0.019	0.018	0.08	0.079	0.084	0.21	0.196	0.210	0.20	0.15	0.14

Type	No. of High Consequences Injuries			Rate of High Consequences Injuries			No. of Near Misses		
	FY 2021-22	FY 2022-23	FY 2023-24	FY 2021-22	FY 2022-23	FY 2023-24	FY 2021-22	FY 2022-23	FY 2023-24
Employees	0	0	0	0.00	0.00	0.00	2129	16225	21312
Contract Workers	1	1	0	0.00	0.00	0.000			
Total	1	1	0	0.00	0.00	0.000	2129	16225	21312

Work-related ill health

Type	No.of cases of recordable work-related ill health			Fatalities due to ill health			Occupational Disease Rate		
	FY 2021-22	FY 2022-23	FY 2023-24	FY 2021-22	FY 2022-23	FY 2023-24	FY 2021-22	FY 2022-23	FY 2023-24
Employees	0	0	0	0	0	0	0	0	0
Contract Workers	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0

Enforcement of Safety aspects in Contracts and Procurement Aspects

The aforesaid minimum percentage shall be specified by the Package Coordinator (C&M executive handling the Contract Package) based on the estimated value (without taxes and duties) of package as under:

Packages having estimated value (excluding taxes and duties)	Minimum percentages to be specified for Safety Aspects/Compliance to safety rules
Supply cum Erection/Supply cum Erection cum Civil Packages	
More than ₹ 3,000 crore	1.00%
More than ₹1,000 crore but less than or equal to ₹300 crore	1.50%
More than ₹ 500 crore but less than or equal to ₹ 1,000 crore	2.00%
More than₹100 crore but less than or equal to ₹ 500 crore	2.50%
Less than or equal to ₹ 100 crore	5.00%
Civil Packages/Services Contracts	
More than ₹ 100 crore but less than or equal to ₹ 500 crore	1%
Less than or equal to ₹ 100 crore	2%

GRI 406-1 Incidents of discrimination and corrective actions taken
GRI 408-1 Operations and suppliers at significant risk for incidents of child labor
GRI 409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor

S. No.	No. of cases reported /pending	Unit	FY 2023-24	
			Cases reported	Cases Pending
			No. of complaints filed during the FY 23-24	No. of complaints pending as on 31-03-2024
1	Bribery & Corruption	No.	0	0
2	Anti- competitive practice	No.	0	0
3	Sexual Harassment	No.	1	0
4	Child Labour	No.	0	0
5	Forced Labour/Involuntary Labour	No.	0	0
6	Wages	No.	0	0
7	Discrimination at workplace	No.	0	0
8	Other human rights related issues	No.	0	0

GRI 205 Number of bribery/ corruption cases

S. No.	Bribery & Corruption cases related to	Unit	FY 2023-24			
			Cases reported	Cases Finalized after investigation	Confirmed incidents of corruption.	No. of people against which disciplinary Action was Taken by any law enforcement agency
1	Employees- Executives	No.	83	71	Nil	Nil
2	Employees-Non Executives	No.	4	3	Nil	Nil
3	Suppliers/ Vendors	No.	19	17	Nil	Nil

Task Force on Climate-Related Financial Disclosures (TCFD)

TCFD was established by the Financial Stability Board with the aim of developing a framework for companies to disclose information on their climate-related risks and opportunities. The task force is composed of representatives from financial institutions, businesses, and other relevant stakeholders, who work together to provide recommendations and guidance on climate-related disclosures.

NTPC recognizes that by following the TCFD recommendations, we can provide more transparent and consistent information to our investors, lenders, insurers, and other stakeholders about the climate-related risks and opportunities. TCFD will help enhance our climate-related disclosures and improve the management and reporting of climate related risks, while facilitating our investors towards informed decision-making and supports the transition to a more sustainable and low-carbon economy.

Governance

NTPC's has instituted governance systems and structures including the oversight of responsibilities with respect to climate change risks at multiple levels ranging from operations to Board of Directors:

- Oversight & Committees:
- Board of Directors
- Board level CSR & Sustainability Committee
- Corporate level Sustainability Steering Committee
- Dedicated Departments:
- Sustainability Department
- CenPEEP - Centre for Power Efficiency &
- Environmental Protection

Strategy

NTPC's has form its Brighter Plan 2032 strategy to integrate and improve the overall ESG parameters across its operation. In addition to this, we also undertake analysis of climate change impacts on NTPC's all business segments.

- For more details, please refer following sections:
- Materiality Assessment at Page no. 32
- Natural Capital at Page no. 66
- Financial Capital at Page no. 44

Risk

NTPC's regularly assess the risk and impact over its operation and is cognizant of the Climate change and its associated physical and transitional risks.

- The same has been included in company's overall risk management framework.
- For more details, please refer following sections:
- Risk Management at Page no. 36

Metrics & Targets

NTPC's understands that by accurately and timely disclosing metrics and targets, we can help our investors and stakeholders in making informed decisions.

NTPC has been periodically reporting annually its absolute and specific carbon emissions through Annual and Sustainability Reports.

For more details, please refer following sections:

- Natural Capital at Page no. 66



Our Group's Overview | Innovating for Sustainability | Statutory Disclosures | Statutory and Financial Results

World Economic Forum-Stakeholder Capitalism Matrix

People

Theme	Core Metric	Key performance Indicator	2024	2023	Reference in report
Dignity and Equality	Diversity and Inclusion	Ratio of women to total employees	8.11%	8.15%	Performance Snapshot
	Pay Equality	Remuneration Equality	100%	100 %	
	Wage Level	CEO Pay Ratio			Corporate Governance
	Risk for incidents of child, forced or compulsory labor	Supply Chain Labor Compliance Evaluation	100%	100%	Human Rights
Health and Wellbeing	Health and Safety	Fatal accidents	5	5	Human Capital
		Fatalities frequency rate	0.018	0.019	
		"Life changing injury"	0	1	
		Life changing injury frequency rate	0.000	0.004	
Skills for the future	Training Provided	Average hours of training per employee (hour/emp)	42	43	Performance Snapshot
		Employees Training costs (₹Cr)	54.82	42.82	Talent Management

Planet

Theme	Core Metric	Key performance Indicator	2024	2023	Reference in report
Climate Change	Greenhouse Gas Emissions	Direct Green House Gas emissions - Scope 1 (MMT)	352.47	335.72	GHG Emissions
		Indirect Green House Gas Emission - Scope 2 - Purchased electricity from the Grid (Location Based) (MMT)	0.07	0.07	
		Indirect Green House Gas Emission - Scope 2 - Purchased electricity from the Grid (Market Based) (MMT)			
		Indirect Green House Gas Emission - Scope 3 (MMT)	3.26	4.36	
	TCFD Implementation				TCFD
Nature Loss	Land Use and Ecological Sensitivity	Hectares Restored	-	20	Biodiversity conservation
Fresh Water Availability	Water Consumption and withdrawal in water stress area	Water withdrawal (Mn m3)	6098.28	5753.36	Water
	Water withdrawal in "Water stressed area"		98%	95.27%	
	Total Fresh water consumption (Mn m3)		1,132.75	1,073.79	
	Water Consumption in water stressed area		92%	92%	

People

Theme	Core Metric	Key performance Indicator	2024	2023	Reference in report
Employment and Wealth Generation	Absolute number and rate of employment	People Hired	2,232	1,053	Performance Snapshot
		Hiring rate	9.97%	4.84%	
		People Separated	1,705	1,781	
		Turnover	7.42%	8.19%	
	Economic Contribution	Direct Economic Value Generated and Distributed	-	-	Financial Capital
		Total Investment (₹cr)	34,943	35,204	Consolidated Financial Statement
	Financial Investment Contribution	Purchase of own shares			
		Dividends paid	7272.50	7,030.08	
Innovation in better products and services	Total R&D Expenses	Investment in research and Development (₹cr)	483.62	283.45	Intellectual Capital
Community and Social Vitality	Total Tax Paid	Total tax paid (₹cr)	3642.86	4075.65	Consolidated Financial Statement

Governance

Theme	Core Metric	Key performance Indicator	2024	2023	Reference in report
Governing Purpose		People Hired			Management discussion and Analysis
Quality of Governing Body	Governance body composition	Women in BOD	1	1	Performance Snapshot
Stakeholder Engagement	Material Issues impacting stakeholders				Stakeholder Engagement and materiality analysis
Ethical Behavior	Anti-Corruption	Employees who received training about anti-corruption policies and procedures	374	2,581	Performance Snapshot
	Protected Ethics advice and reporting mechanisms	Ascertained violations related to conflict of interest corruption	0	0	Vigilance
		Reports received related to Violation of the code of ethics	0	0	
Risk and Opportunity Oversight	Integrating risks and opportunity into business process				Risk Management

Directors' Report

Dear Members,

On behalf of the Board of Directors, it is our privilege to present the 48th Annual Report and 5th Integrated Annual Report of NTPC Limited ('NTPC" or Company) for the Financial Year ended 31st March 2024 along with Audited Standalone and Consolidated Financial Statements for the Financial Year ended 31st March 2024, the Auditors' report, and comments of the Comptroller and Auditor General (CAG) of India on the financial statements thereon.

During the Financial Year 2023-24, our commitment to sustainable energy solutions continued to lead our strategic initiatives. Adaptability and agility within our organizational structure enabled us to respond swiftly to market changes and opportunities.

The following is a summary of your Company's exceptional performance, emphasizing the noteworthy achievements made in the reporting year.

Major Highlights of your Company for the financial year 2023-24 are briefly mentioned here to give an overview of accomplishments on all fronts:

- Your Company at group level added 3,924 MW of commercial capacity to its portfolio. As on 31st March 2024, the commercial capacity of your company stood at 59,078 MW on standalone basis and 75,958 MW on consolidated basis.
- Your Company registered growth of 5% (Standalone) and 6% (at group level) in power generation.
- Average Plant Load Factor (PLF) of your Company's coal stations was 77.25% as against the National Average of 69.49%, a spread of 8%. 4 coal stations of NTPC viz. Korba, Singrauli, Vindhyachal and Rihand were among the top 10 performing stations in the country in terms of PLF.
- Your Company's captive coal production increased by 48% to 34.39 MMT.
- Your Company's total Income was ₹ 1,65,707 crore and Profit After Tax (PAT) was ₹ 18,079 crore. Your Company's total Income at group level was ₹ 1,81,166 crore and PAT was ₹ 21,332 crore.
- Your Company received dividend income of ₹ 1,639 crore from all its Subsidiary and Joint Venture Companies.
- Your company successfully commissioned an operational Renewable Energy (RE) capacity of 3.5 GW and the total RE capacity in the pipeline exceeds 24 GW.
- For ensuring a substantial reduction in SOx emissions, 66.8 GW capacity of Flue Gas Desulfurization (FGD) projects have been undertaken, out of which 8.9 GW is already commissioned.
- Your Company successfully conducted first-ever Biomass Pellet auction through a digital marketplace selected through a Startup India Grand Innovation Challenge for the consistent supply of biomass pellets for co-firing in power plants and resulted in a significant seller response.
- Your Company achieved a new milestone by successfully and safely demonstrating co-firing of 20% torrefied biomass in Unit #4 Stage-I of NTPC Tanda Plant on 30th March 2024. The initiative is the first of its kind in the Indian power sector, which may go a long way in decarbonising the existing coal-fired fleet and achieving the Net Zero Emission targets.
- Your Company has been certified as a Top Employer in India by the Brandon Hall Group and has also been conferred with the various prestigious award like "Sportstar Ace Award -2024" in the category "Best PSU for the promotion of Sports" for contributing significantly to Archery Sport in the Country and the "Excellence in Corporate Social Responsibility" award in the prestigious 18th CII-ITC Sustainability Awards 2023.



Our Group's Overview | Innovating for Sustainability | Statutory Disclosures | Statutory and Financial Results

1. FINANCIAL HIGHLIGHTS:

₹ Crore

Financial Results	Standalone		Consolidated	
Particulars	**2023-24**	**2022-23**	**2023-24**	**2022-23**
Income				
Revenue from operations (including energy sales, sale of energy through trading, consultancy fee etc.)	1,61,985.03	1,63,769.77	1,78,500.88	1,76,207.18
Other income	3,722.24	3,954.64	2,664.98	1,769.21
Total income	**1,65,707.27**	**1,67,724.41**	**1,81,165.86**	**1,77,976.39**
Expenses				
Fuel cost	94,037.49	96,851.50	98,311.96	1,00,655.78
Electricity purchased for trading	3,881.66	3,656.26	5,682.79	5,324.95
Employee benefits expense	5,670.10	5,559.03	6,592.03	6,528.34
Finance costs	10,250.82	9,979.23	12,048.21	11,156.06
Depreciation, amortisation and impairment expenses	13,943.15	13,136.71	16,203.63	14,792.27
Other expenses	15,213.43	14,474.59	16,821.39	15,968.17
Total expenses	**1,42,996.65**	**1,43,657.32**	**1,55,660.01**	**1,54,425.57**
Profit before exceptional items, tax, regulatory deferral account balances and Share of profit of Joint ventures accounted for using equity method	**22,710.62**	**24,067.09**	**25,505.85**	**23,550.82**
Share of profits of joint ventures accounted for using equity method	-	-	1,635.60	779.77
Profit before exceptional items, tax and regulatory deferral account balances	**22,710.62**	**24,067.09**	**27,141.45**	**24,330.59**
Exceptional Items	834.55	-	-	-
Profit before tax and regulatory deferral account balances	**23,545.17**	**24,067.09**	**27,141.45**	**24,330.59**
Tax expense	6,600.03	6,279.27	6,809.20	6,796.12
Profit for the year before regulatory deferral account balances	**16,945.14**	**17,787.82**	**20,332.25**	**17,534.47**
Net movement in regulatory deferral account balances (net of tax)	1,134.25	(591.09)	1,000.20	(413.12)
Profit for the year	**18,079.39**	**17,196.73**	**21,332.45**	**17,121.35**
Dividend paid during the year	7,272.50	7,030.08	7419.43*	7247.91*
(* includes dividend of non-controlling interest)				
Earning per share-(basic and diluted) (in ₹) (including net movement in deferral account balances)	**18.64**	**17.73**	**21.46**	**17.44**
Earning per share-(basic and diluted) (in ₹) (excluding net movement in deferral account balances)	**17.48**	**18.34**	**20.43**	**17.87**

2. CONSOLIDATED FINANCIAL RESULTS

In accordance with the provisions of the Companies Act 2013, and the Accounting Standards issued by the Institute of Chartered Accountants of India, the Company has prepared the Consolidated Financial Statement for the group, including subsidiaries, joint venture entities, and associate companies, which forms part of the Integrated Report.

A statement containing the salient feature of the financial statement of your Company's Subsidiaries, Associate and Joint Ventures Companies as per first proviso of section 129(3) of the Companies Act, 2013 is included under AOC-1 in the consolidated financial statements. The detailed financial results are available in the Financial Statement section of the report under the Standalone Financial Statement and Consolidated Financial Statement.

3. ISSUE OF SECURITIES/CHANGES IN SHARE CAPITAL

During the financial year 2023-24, the Company issued 7.35% NTPC Series-80 - 2026 Unsecured, Non-Cumulative, Non-Convertible Redeemable Debentures of face value of ₹1,00,000 each aggregating to ₹ 3,000 crore and 7.48% NTPC Series-81 - 2026 Unsecured, Non-Cumulative, Non-Convertible Redeemable Debentures of face value of ₹1,00,000 each aggregating to ₹ 1,500 crore on private placement basis. The funds were utilized for the purpose for which they were raised, and there were no deviations or variations in the utilization.

4. DIVIDEND

For the financial year 2023-24, your company has paid first & second interim dividends of ₹ 2,181.75 crore each (at the rate of ₹ 2.25 per share) in the month of November 2023 and February 2024, respectively. Furthermore, the Board of Directors has recommended to pay a final dividend of ₹ 3,151.42 crore (at the rate of ₹ 3.25 per share) which shall be declared subject to approval of Shareholders at the ensuing Annual General Meeting (AGM). With the proposed final dividend, the total dividend payout shall be ₹ 7,514.92 crore (at the rate of ₹ 7.75 per share). This is the 31st consecutive year of dividend declaration by your company with dividend payout ratio during the last five year as under:

S.No.	Financial Year	Dividend Pay-out Ratio
1	2023-24	41.57%
2	2022-23	40.88%
3	2021-22	42.13%
4	2020-21	43.31%
5	2019-20	30.82%

In terms of Regulation 43A of the Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015, ('SEBI (LODR) Regulations, 2015'), the Board of the Company has formulated a Dividend Distribution Policy. The policy is available on the website of the Company at:
https://ntpc.co.in/sites/default/files/inline-files/DividendDistributionPolicyofNTPCLimited.pdf

5. INTEGRATED REPORT

Securities and Exchange Board of India (SEBI) vide circular no. SEBI/HO/CFD/CMD/CIR/P/2017/10 dated 6th February 2017 advised that the Top 500 listed companies, which are required to prepare a Business Responsibility and Sustainability Report (BRSR), may consider using integrated reporting framework for annual reporting.

Your Company being one of the top 500 companies in the Country in terms of market capitalization, has voluntarily provided Integrated Report, which encompasses both financial and non-financial information to enable the Members to take well informed decisions and have a better understanding of the Company's long-term perspective. This Report also touches upon aspects such as organization's strategy, governance framework, performance and prospects of value creation based on the six forms of capital viz. financial capital, manufactured capital, intellectual capital, human capital, social and relationship capital and natural capital.

6. PERFORMANCE HIGHLIGHTS

6.1 Operational Performance

During the financial year 2023-24, your Company added 2,930 MW (2,782 MW added in FY 2022-23) to its installed capacity. With this, installed capacity of your company stands as 59,078 MW as on 31st March 2024 (56,368 MW as on 31st March 2023). At group level, 3,924 MW added to its installed capacity and Group capacity stands as 75,958 MW as on 31st March 2024 (72,254 MW as on 31st March 2023)

With the installed capacity of 59,078 MW (75,958 MW including JVs, Subsidiaries & Foreign JVs), your Company achieved the record power generation of 361.7 BUs (422.22 BUs including JVs & Subsidiaries) during financial year 2023-24, which translates to a Y-o-Y growth of 4.91%. Generation at group level was 422 billion units in the financial year 2023-24 as compared to 399 billion units in in the financial year 2022-23, representing a 5.74 % year-over-year growth.

During financial year 2023-24, average Plant Load Factor (PLF) of NTPC coal stations was 77.25% as against the National Average of 69.49%, a spread of ~8%. 4 coal stations of NTPC viz. Korba, Singrauli, Vindhyachal and Rihand were among the top 10 performing stations in the country in terms of PLF.

6.2 Commercial Capacity

During the financial year 2023-24, your Company achieved significant growth by adding 2,930 MW of commercial capacity. This expansion boosted your Company's total commercial capacity to an impressive 59,078 MW. Additionally, when considering the collective efforts of your company and its joint ventures, the aggregate commercial capacity was further augmented by 3,924 MW resulting in an overall commercial capacity of 75,958 MW as per detail given below:-

Description	Capacity (MW)
Owned by your company	
Coal based projects	53,850
Gas based projects	4,017
Renewable Energy Projects (Including Singrauli small hydro)	411
Hydro Projects	800
Sub-total	**59,078**
Joint Ventures & Subsidiaries	
Coal based projects	8,344
Gas based projects (Including NEEPCO-527 MW)	2,494
Hydro Projects of THDCL (1,424 MW) & NEEPCO (1525 MW)	2,925
Renewable Energy Projects including THDCL (163 MW) & NEEPCO (5 MW)	3,117
Sub-total	**16,880**
Total	**75,958***

*220 MW (2x110 MW) at Barauni has been retired from Commercial as well as installed capacity of your company w.e.f 31.03.2024 hence excluded.

6.3 Project Management

Your Company has adopted an integrated system for the planning, scheduling, monitoring and controlling of approved projects under implementation. To co-ordinate and synchronize all the support functions of project management, the Issuer relies on a three-tiered project management system known as the Integrated Project Management Control System (IPMCS), which integrates its engineering management, contract management and construction management control centers. The IPMCS addresses all stages of project implementation, from concept to commissioning.

Your Company has established a state-of-the-art IT enabled Project Monitoring Centre (PMC) for facilitating fast track project implementation. PMC has advanced features like Project Review and Internal Monitoring System (PRIMS), etc. PMC facilitates monitoring of key project milestones and also acts as decision support system for the management.

PMC is an integrated enterprise-wide collaborative system to facilitate consolidation of project related issues and their resolution. Features like real time video capture, storage and retrieval facility and video conference facility are extensively utilized for project tracking, issues resolutions and management interventions. PMC has helped in providing effective coordination between the agencies and has provided enhanced/ efficient monitoring of the projects leading to better and faster project implementation.

In addition to above, in order to make monitoring of projects more effective, Your Company is now adopting an Integrated Software monitoring tool for integrating progress of Engineering, Supplies and Erection at one place, and capturing progress online. Features like mobile app based updation of progress and role-based access make the tool more user-friendly which will result into regular updation of progress. It will help in taking timely remedial actions. This tool has been included in the bid documents of EPC packages of upcoming projects of your company and included in recently awarded projects.

In a changing global scenario, your company has added various other project management tools which are Online CAPEX monitoring system/ Digital Hindrance register/ Digital Chronology register/Issue Monitoring System etc.

6.4 Billing and Realisation

During financial year 2023-24, your Company has successfully realized 100% of its dues. The target set by the Government of India (GoI), for realization of dues for energy supply in the financial year 2023-24 has also been achieved. Most of the beneficiaries have made timely payments and availed the applicable rebates.

Your Company has in place a robust payment security mechanism in the form of Letters of Credit (LC) backed by the Tri-Partite Agreement (TPA) signed amongst the State Government(s), Government of India (GoI) and Reserve Bank of India (RBI). As per the TPA, any default in payment by the State owned Discoms can be recovered directly from the State's account in RBI. The TPAs signed during the FY 2000-01 were valid up to 31st October 2016. Subsequently these TPAs have been extended for a further period of 10 to 15 years.

As of now, 29 out of total 31 States/UTs have signed the TPAs extension documents. The signing of TPAs extension by remaining States is being taken up.

6.5 Power Trading in Power Exchange

Your Company has been participating in both the Integrated Day Ahead Market (I-DAM) and the Real Time Market (RTM) for selling any un-requisitioned surplus (URS) in the Power Exchange through its trading arm- NTPC Vidyut Vyapar Nigam Limited (NVVN). Besides selling the URS power, it has also been selling any regulated power, merchant power, relinquished gas power, infirm power in the Power Exchanges. In the financial year 2023-24, a record 3,278 million units of power worth of ₹ 1,774 crore has been sold in the various segment of power exchanges by your Company. Corresponding gains for this sale have been shared with the beneficiaries as per the extant regulatory provisions.

6.6 Strengthening Customer Relationship

Customer focus is one of the core values of your Company (ICOMIT). In line with this, your Company has taken up several initiatives targeting its external customers. Customer Relationship Management (CRM) and Customer Satisfaction Index (CSI) are two important aspects of this program. As part of the CRM, your Company has been implementing several structured activities with the objective of sharing its experiences and best practices with the customers, capturing their feedback and expectations, and also addressing their issues. Some of these activities are described below:

- Your Company has established a Customer Satisfaction Index (CSI) Survey scheme, to gather the feedback from customer through a survey and respond to their requirements. This CSI survey was conducted in financial year 2023-24 and the score falls under Excellent category.
- To further strengthen customer relationships, your Company has sponsored 12 officials of beneficiaries / Discoms to the PGDM (Executive) program of the NTPC School of Business in the financial year 2023-24. This initiative aims to build capacity in the power sector by equipping personnel with managerial and leadership skills.

The details of the various initiatives taken by your company for strengthening its customer relationships is available in the Social Capital section of the report, on the page no. 100.

6.7 Capacity Expansion Program

6.7.1 Projects under Implementation:

Various projects of your Company having aggregate capacity of 20,245 MW including 12,560 MW being undertaken by Joint Venture and Subsidiary companies are under implementation. Total Capacity under Construction comprises of 9,560 MW of Coal (Including 3,720 MW being undertaken by Joint Venture and subsidiary companies), 2,255 MW of Hydro (Including 1,444 MW being undertaken by Joint Venture and subsidiary companies) and 8,430 MW of Renewable projects (Including 7,396 MW being undertaken by subsidiary company). The details of such projects are as under:

Ongoing Projects as on 31.03.2024		State	Capacity (MW)
I	**Owned by your company**		
I.	(A) Coal Based Projects		
	Barh-I (3x660 MW)*	Bihar	660
	North Karanpura (3x660 MW)*	Jharkhand	660
	Talcher-III (2x660 MW)	Odisha	1320
	Lara-II (2x800 MW)	Chhattisgarh	1600
	Singrauli-III (2x800 MW)	Uttar Pradesh	1600
	Sub Total (A)		**5,840**
I.	(B) Hydro Electric Power Projects (HEPP)		
	Tapovan Vishnugad (4x130 MW)	Uttarakhand	520#
	Lata Tapovan (3x57 MW)	Uttarakhand	171@
	Rammam Hydro (3x40 MW)	West Bengal	120
	Sub Total (B)		**811**
I.	(C) Renewable Energy Projects		
	Anta	Rajasthan	90
	Nokh	Rajasthan	735
	Rihand	UP	20
	Solapur	Maharashtra	13
	Ramagundam	Telangana	176
	Sub-Total (C)		**1,034**
	Total Projects under construction by Your Company (I.A+I.B+I.C)		**7,685**
II	**Projects under JVs & Subsidiaries**		
II	**(A) Coal Based Projects**		
	Patratu STPP, Stage-I (3 x800 MW) under JV with JBVNL	Jharkhand	2,400
	THDCL - Khurja (2x660 MW)	Uttar Pradesh	1,320
	Sub Total (A)		**3,720**



Ongoing Projects as on 31.03.2024		State	Capacity (MW)
II (B)	**Hydro Projects**		
	THDCL -Tehri PSP	Uttarakhand	1,000
	THDCL – Vishnugad Pipalkoti	Uttarakhand	444
	Sub Total (B)		**1,444**
II (C)	**Renewable Projects**		
a)	**NGEL**		
	Shambhu Ka Burj-II	Rajasthan	150
	Ayodhya	Uttar Pradesh	26
	Sub-total (a)		**176**
b)	**NTPC REL**		
	Bhensada	Rajasthan	320
	Bhadla-II	Rajasthan	500
	Shajapur	MP	325
	Kankachiyala, Rupakheda, Sadla	Gujarat	200
	Limbdi, Mesanka, Radhanpur	Gujarat	150
	Khavda-I	Gujarat	1,255
	Khavda-II	Gujarat	1,200
	Khavda-III	Gujarat	300
	Nakhatrana	Gujarat	300
	Dayapar-I	Gujarat	100
	Dayapar-II	Gujarat	200
	Dayapar-III	Gujarat	150
	Jamjodhpur, Jamnagar	Gujarat	546
	Vanki, Kachchh	Gujarat	156
	Sub-total (b)		**5,702**
c)	**INGEL**		
	Bhuj	Gujarat	600
	Kalyanpur, Dwarka	Gujarat	308
	Sub-total (c)		**908**
d)	**GVREL**		
	Tilaya	Jharkhand	155
	Panchet I	Jharkhand	75
	Panchet II	Jharkhand	80
	Sub-total (d)		**310**
e)	**NEEPCO**	Anywhere in India	**300**
	Sub Total (C) = [a+b+c+d]		**7,396**
	Total II (A)+(B)+(C)		**12,560**
	Total On-Going Projects as on 31.03.2024 (I)+(II)		**20,245**

*Two units are already commissioned and under commercial operation.

Note:

1. @Work of Lata Tapovan HEPP stopped as per orders of the Hon'ble Supreme Court dated 07.05.2014.
2. # Construction work stopped at site w.e.f. 05.01.2023 as per order of Distt Admin (ADM, Joshimath).

In addition to furthering Capacity Addition through Coal based power projects, your Company has been pursuing enhancement of its power generation portfolio through Hydro and Renewable Energy projects. Your company has been actively seeking ways to enhance its capacity through diversified fuel mix with a goal to achieve 130 GW of installed capacity by 2032 and has developed a capacity expansion strategy for the same. Out of the 130 GW, your company aims to add 60 GW of renewable energy capacity by 2032, with renewable energy sources constituting nearly 50% of overall power generation capacity. The objective is to accelerate the renewable energy growth of your company and increase the green footprint across the country, offshore, and overseas.

In the financial year 2023-24, your Company installed 2,930 MW of capacity. On the group level your Company achieved an overall capacity addition of 3,924 MW during the financial year 2023-24. NTPC Green Energy Limited, Wholly Owned Subsidiary of your Company, is currently focused on developing an impressive 14,300 MW of renewable energy portfolio expansion.

The details of the same is available in the Manufacturing Capital and Intellectual capital section of the report on page no. 50 & 120 respectively.

6.7.2 Capacity addition through Subsidiaries and Joint Ventures (JVs):

Besides adding capacities on its own, your Company develops power projects through its subsidiary and joint venture Companies, both in India and abroad. The information of Indian Subsidiaries and JV (Joint Ventures) Companies along with details of partners of Joint Venture Companies engaged in power generation is given below:

Name of Company	JV Partner(s) (in case of JV)	Details
NTPC Green Energy Ltd. **(NGEL)**	A wholly owned subsidiary of NTPC.	NGEL was incorporated on 7th April 2022. Under approved Asset Monetization Scheme for monetization of Renewable Energy (RE) Assets, NTPC transferred 15 RE assets aggregating 2,861 MW (previously on NTPC's balance sheet), to NGEL through a Business Transfer Agreement and also transferred its stake in NTPC Renewable Energy Limited (NREL) to NGEL through a Share Purchase Agreement on 28th February 2023. NGEL is undertaking large Solar, Wind and Hybrid Projects all over the country and developing Gigawatt scale Renewable Energy Parks and Projects in different states under Ultra Mega Renewable Energy Power Park (UMREPP) scheme of Government of India. In addition to this, Green Hydrogen based Mobility projects are also being pursued. The total commissioned capacity is 2,925 MW and 6,596 MW is under construction. In FY 2023-24, total generation by NGEL was 5.74 BUs.
North Eastern Electric Power Corporation Limited (**NEEPCO**)	A wholly owned subsidiary of NTPC.	NEEPCO was 100% GOI held Mini-Ratna Category I Central Public Sector Enterprise. Your Company executed a Share Purchase Agreement with GoI and acquired 100% equity stake in NEEPCO on 27th March 2020. NEEPCO is primarily engaged in the business of generation and sale of electricity in the north-eastern region of India. NEEPCO operates 6 Hydro, 3 Gas and 1 solar power stations with a combined installed capacity of 2,057 MW. During FY 2023-24, NEEPCO generated 8000.87 MU with 41.89 % PLF for Hydro and 64.75 % PLF for Gas plants and availability factor of 88.60% for Hydro and 72.76% for Gas plants. NEEPCO paid dividend of ₹ 250 crore for FY 2023-24 to your Company.
Bhartiya Rail Bijlee Company Ltd. (**BRBCL**)	Ministry of Railways	BRBCL is a subsidiary of your Company (74%) and a Joint venture Company with Ministry of Railways, Government of India (26%). Presently, it is setting up power project of 1,000 MW (4X250 MW) capacity at Nabinagar in Bihar. All units are under commercial operation. During FY 2023-24, BRBCL generated 6944.42 MU at PLF 79.06% and 91.57% Availability Factor. BRBCL paid a dividend of ₹ 277.50 crore for FY 2023-24 to your Company.

Name of Company	JV Partner(s) (in case of JV)	Details
NTPC- SAIL Power Co. Ltd. **(NSPCL)**	Steel Authority of India Ltd. (SAIL)	NSPCL is a Joint Venture between your Company (50%) and Steel Authority of India Ltd (SAIL) (50%). It owns and operates at a capacity of 1,104 MW Captive Power Plants of SAIL at Durgapur (2x20+2x60 MW), Rourkela (1x250+ 2x60 MW) and Bhilai (2x250+2x 30 + 1x14 MW). During FY 2023-24, NSPCL generated 6983.83 MU at 73.33% PLF and 92.36% Availability Factor. NSPCL has paid dividend of ₹ 75 crore for FY 2023-24 to your Company.
NTPC Tamil Nadu Energy Co. Ltd. **(NTECL)**	Tamilnadu Generation and Distribution Corporation Limited (TANGEDCO)	NTECL is a Joint Venture between your Company (50%) and Tamil Nadu Generation and Distribution Corporation Limited (50%). It has commissioned 3x500 MW coal-based power project at Vallur, Tamil Nadu. During FY 2023-24. NTECL generated 6623 MUs at 50.27 % PLF and 63.57% Availability Factor. NTECL paid ₹ 275.21 crore as dividend in FY 2023-24 to your Company.
Aravali Power Company Pvt. Ltd. **(APCPL)**	Indraprastha Power Generation Company Ltd. (IPGCL) and Haryana Power Generation Corporation Ltd. (HPGCL).	APCPL is a Joint venture of your Company (50%) & Indraprastha Power Generation Company Ltd. (25%) and Haryana Power Generation Corporation Ltd (25%). Presently. It is operating 3x500 MW coal-based Indira Gandhi Super Thermal Power Project. During FY 2023-24, APCPL generated 8284.82 MU at 62.88% PLF and 93.68% Availability factor. APCPL has paid dividend of ₹ 375 crore for FY 2023-24 to your company.
Meja Urja Nigam Pvt. Ltd. **(MUNPL)**	Uttar Pradesh Rajya Vidyut Utpadan Nigam Ltd. (UPRVUNL)	MUNPL is a Joint venture of your Company and Uttar Pradesh Rajya Vidyut Utpadan Nigam Ltd. (UPRVUNL) with equity shareholding in the ratio of 50:50. MUNPL commissioned 1,320 MW (2x660 MW) coal-based power project in Uttar Pradesh. SJVA-1 signed on 13.09.2023 for the establishment of MUNPL Stage-II units, Obra-D 2x800 MW & Anpara-E 2x800 MW units. During FY 2023-24, MUNPL generated 8275.82 MU at 71.37% PLF and 87.77% Availability Factor.
Ratnagiri Gas and Power Pvt. Ltd.**(RGPPL)**	MSEB Holding Co. Ltd.	RGPPL owns and operates Gas Based Power Project of 1,967 MW (1x640 MW + 2x663.5 MW) in Ratnagiri district of Maharashtra. Your Company's shareholding in RGPPL is 86.49%. During FY 2023-24, RGPPL generated 1228.07 MU at 7.11 % PLF and 52.46 % Availability Factor.
Anushakti Vidyut Nigam Ltd. **(ASHVINI)**	Nuclear Power Corporation of India Ltd. (NPCIL)	ASHVINI is a joint venture company of your company (49%) and NPCIL (51%). The JV company was formed to set up Nuclear Power Project as may be mutually discussed and agreed between the parties, subject to establishment of techno-commercial viability. Supplementary Joint Venture Agreement (JVA) was signed between NTPC and NPCIL on 1st May 2023 subject to approval of Department of Atomic Energy (DAE) to align JVA in line with Atomic Energy (Amendment) Act, 2016 so that ASHVINI can initiate the process for setting up of nuclear power projects. Chutka Madhya Pradesh Atomic Power Project (2x700MW) & Mahi Banswara (4x700MW) Rajasthan Nuclear Power Projects of NPCIL are identified for transfer to ASHVINI.
Patratu Vidyut Utpadan Nigam Limited **(PVUNL)**	Jharkhand Bijli Vitran Nigam Limited (JBVNL)	PVUNL is a subsidiary of your Company (74%) and a joint venture with Jharkhand Bijli Vitaran Nigam Ltd (26%). PVUNL plans to set up 4,000 MW Coal-based power projects in two phases. PVUNL is currently executing its Phase-I expansion project with a capacity of 2,400 MW (3 X 800 MW) along with Banhardih Captive Coal Mine.
THDC India Ltd.	Government of Uttar Pradesh	THDC India Ltd. was a joint venture of the Government of India (74.496%) and the Government of Uttar Pradesh (25.504%) and a Mini-Ratna Category-I CPSE. Your Company executed a Share Purchase Agreement with GoI and acquired 74.496% equity stake in THDCIL on 27th March 2020. THDC is now a subsidiary Company of NTPC. Presently, THDCIL has a portfolio of 9 projects (Hydro, Thermal, Wind & Solar), with a total capacity of 4,351 MW comprising of 1,587 MW operational plants and 2,764 MW are under construction projects and balance under feasibility studies. Cumulative generation of THDC for FY 2023-24 is 4830.6 MU at Cumulative PAF (Tehri HPP & KEHP): 77.20%. Cumulative CUF of Wind Power Plants: 21.83%. CUF of Kasargod SPP: 23.05% & PLF of Dhukwan Small Hydro Electric Project: 35.53%. THDCIL has paid ₹ 351.21 crore as dividend in FY 2023-24 to your Company.
Jhabua Power Ltd. (JPL)	Secured Financial Creditors	Jhabua Power Ltd (JPL) is your Company's first acquisition through National Company Law Tribunal (NCLT) route. JPL is a Joint Venture between your Company (50%) and Secured Financial Creditors (50%) with an operational coal fired thermal power plant of 1 x 600 MW capacity located in Seoni, Madhya Pradesh. During FY 2023-24, JPL generated 3597.02 MUs at 68.25% PLF and 93.14% Availability Factor.

6.8 Strategic Diversification

In order to strengthen its competitive advantage in power generation business, your Company has diversified its portfolio to emerge as an integrated power major, with presence across entire power value chain through backward and forward integration into areas such as coal mining, power equipment manufacturing & power trading distribution. Your Company continuously explores business opportunities through market scanning and adopts new business plans accordingly.

During the financial year 2023-24, NTPC board has cleared the proposal of formation of wholly owned subsidiary of NTPC for nuclear energy business. Development of SMR can be done either indigenously with BARC or through foreign collaboration. Subsidiary company may go for implementation of large reactors either through collaboration with foreign technology partners (PWR/EPR etc.) or implementation of FBR with IGCAR. For Nuclear fuel tie-up, NTPC board has approved the draft MOU with UCIL for joint techno-commercial due diligence of overseas Uranium assets for possible acquisition. In the meanwhile, DAE has asked to include NPCIL in this MOU, same is under process with UCIL

a. The details of Subsidiary Companies engaged in business other than in power generation are as under:

NTPC Vidyut Vyapar Nigam Limited (NVVN), a wholly owned subsidiary, is engaged in the business of power trading. NVVN has a trading License under Category I (highest category). It undertakes sale and purchase of electric power, to effectively utilize installed capacity and thus enable reduction in the cost of power. NVVN has been nominated as the Settlement Nodal Agency (SNA) for settlement of Grid operation related charges with neighboring countries, namely, Bangladesh, Bhutan, Nepal and Myanmar. NVVN is undertaking various other Business activities such as e-mobility segment including providing vehicles and related services in various vehicle segments, Roof top Solar, Waste to Wealth etc. Under E-mobility project of NVVN, 90 number of E- buses in Bengaluru & 40 number of E-buses in Andaman are under commercial

operation. The first MSW to Charcoal plant at Varanasi of 600 TPD (tons per day) capacity was inaugurated by Hon'ble Prime Minister on 23.02.2024 and Contracts awarded to EPCs for MSW to charcoal Projects at NOIDA-GNIDA (900 TPD), Bhopal (400 TPD), Hubballi (200 TPD), and Gorakhpur (500 TPD). In addition, NVVN has started trading of gas for NTPC stations in IGX from 31st October 2023. During the financial year 2023-24, NVVN traded 35 billion units (BUs).

As of 31st March 2024, the paid-up equity share capital of the Company amounted to ₹ 30 crore. NVVN paid a dividend of ₹ 25.20 crore for the financial year 2023-24.

NTPC Electric Supply Company Limited (NESCL), a wholly owned subsidiary, was incorporated for the distribution business and later started deposit and consultancy works. Although currently, NESCL does not have any business operations in retail distribution, the same will be taken up at an appropriate time when the opportunity becomes visible.

NTPC Mining Limited (NML), a wholly owned subsidiary, was incorporated on 29th August 2019 for handling its mining business. It is expected that this arrangement would result in timely development of mines with efficient handling of contracts by dedicated team. This will ultimately achieve substantial efficiency and increased competitiveness. NTPC and NML signed a Business Transfer Agreement (BTA) on 17th August 2023 for transfer of coal mining business from NTPC to NML. The Ministry of Coal has amended the allotment orders of all coal mines of NTPC in favour of NML. Presently, the clearances/permissions/consents related to coal mines of NTPC are under transfer. The transfer of mines is anticipated to be finalized by March 2025.

NML has received highest credit rating of AAA from CRISIL & CARE for long term & A1+ for short term. NML won its 1st commercial coal block of North Dadhu (Eastern Part) through competitive bidding held on 02nd August 2023. Vesting order issued by MoC on 14th Dec 2023. Geological report submitted to MoC on 10th April 2024. Other Development activities such as DGPS Survey, Environment Clearance, Forest Clearance, Preparation of Mining Plan, Collection of land revenue records etc. are under progress.

During the financial year 2023-24 Mine Developer cum Operator (MDO) contract is awarded for Badam & Talaipalli (East Pit). With this all 6 NTPC coal mining projects (Total PRC- 70 MMT) are now having MDO contracts. During financial year 2023-24, it registered a stellar performance with coal production of 34.39 MMT & dispatch of 34.15 MMT, demonstrating exponential YoY growth of 48.21 % & 55.50% respectively. All 5 operational coal mines exceeded their coal production targets individually.

Integrated Coal Management System (ICMS) has been implemented first time in NTPC, in PB CMP, Dulanga CMP, TL CMP & CB CMP. Geo Fencing track of dumper movement system has been implemented in Pakri Barwadih, Talaipalli and Chatti Bariatu CMPs. Further implementation of system in other mines is under progress.

NTPC EDMC Waste Solutions Private Limited (NEWS), a JV Company with East Delhi Municipal Corporation (EDMC) was incorporated to develop & operate state of art/modern integrated waste management and energy generation facility using municipal solid waste. However, due to non-availability of clear land site and Power Purchase Agreement, Waste to energy project could not be materialized. NTPC has taken up with EDMC to transfer EDMC's stake in NEWS to NTPC or its subsidiary. In-principle approval has been given by Municipal Corporation Delhi (as EDMC merged in MCD) for transfer of MCD's equity stake (26%) in NEWS to NTPC.

b. The details of other JV companies incorporated in India which are engaged in business other than in power generation are as under:

Name of Company	JVPartner(s)	Activities Undertaken
Hindustan Urvarak & Rasayan Limited **(HURL)**	Coal India Ltd. (CIL), Indian Oil Corporation Limited (IOCL), Fertilizer Corporation of India Limited (FCIL) and Hindustan Fertilizer Corporation Limited (HFCL)	Your company has a stake of 33.33 % in JVC. HURL was incorporated on 15th June 2016 to establish and operate new fertilizer and chemicals complexes (urea, ammonia, and associated chemicals) at Gorakhpur, Sindri and Barauni and market its products. All three plants at Gorakhpur, Sindri and Barauni are operational. During financial year 2023-24 HURL has produced 20.27 lakh MT of Ammonia and 35.51 lakh MT of Urea. Your Company is considering monetizing this asset since fertilizer is not the core business area of NTPC.
NGSL (NTPC GE Power Services Private Limited)	GE Power India Limited (GEPIL)	NTPC GE Power System GmbH is a 50:50 Joint Venture between your company and GE Power India Ltd (erstwhile Power Systems GmbH) and formed for taking up R&M jobs of Coal based Power plants in India. GE Power System GmbH has transferred its entire stake to its affiliate GE Power India in April 2021. NGSL has diversified to take up new business assignments in the areas of FGD, Ash Utilization, O&M, WTE and RE.
Energy Efficiency Services Ltd. **(EESL)**	Power Grid Corporation of India Limited (PGCIL), Power Finance Corporation (PFC) and REC Limited	In the JV Company, your Company has a stake of 39.25%. The JV company has been formed on 10th December 2009 under the name "Energy Efficiency Services Limited" with Power Finance Corporation Ltd., PowerGrid Corporation of India Ltd. and Rural Electrification Corporation Ltd. to carry on and promote the business of energy efficiency and climate change, including manufacture and supply of energy efficiency services and products. The Company is taking up different energy efficiency improvement related works like replacement of normal bulbs with LED bulbs, Street Light National Programme (SLNP), & other new business areas like Electric Vehicle (EV), Electric Charging Infrastructure, Smart meters etc.
National High Power Test Laboratory Pvt. Ltd. **(NHPTL)**	NHPC Limited, Power Grid Corporation of India Limited (PGCIL), Damodar Valley Corporation (DVC) and Central Power Research Institute (CPRI)	The JV Company was formed to establish a research and test facility for the power sector such as "Online High-Power Test Laboratory" for short circuit testing facility for transformers.HVTR test Laboratory set up at Bina, M.P. was declared Commercial w.e.f. 1st July 2017.Due to challenging financial condition of NHPTL, meeting regarding way forward for revival of NHPTL was held on 15th September 2022 under the Chairmanship of Secretary (Power) and proposed revival plan was accepted by all Promoters. Revival plan is under implementation. During the year, your company has converted the loan given to NHPTL, into equity amounting to ₹ 18.40 crore and unpaid interest on the loan amounting to ₹ 2.31 crore has been waived off. The related activities of restructuring plan were under implementation as at 31st March 2024. Further, pursuant to agreement entered on 23rd April 2024 with the promoters of NHPTL, the shareholding of the company in the Joint venture is reduced to 12.50%.
NTPC-BHEL Power Projects Pvt. Limited **(NBPPL)**	Bharat Heavy Electricals Limited	A 50:50 JVC was incorporated for taking up activities of engineering, procurement, and construction (EPC) of power plants and manufacturing of Power sector and components.Due to financial health of NBPPL, meeting under the chairmanship of Hon'ble Minister of Power, on NBPPL issues was held on 3rd October 2022. It was decided that the process of winding up of NBPPL be taken up by both the promoters BHEL and NTPC after the completion of balance work at Unchahar and sharing of liabilities by both Promoters. Since, Unchahar work is nearing completion, reconciliation of accounts among NBPPL, BHEL & NTPC is in progress.
BF-NTPC Energy Systems Limited **(BFNESL)**	Bharat Forge Limited	Your Company has a stake of 49% in JVC. This Company was incorporated to manufacture castings, forgings, fittings, and high-pressure piping required for power projects and other industries. However, since the project could not take off, it has been decided to wind up BFNESL. Liquidator has been appointed and voluntary liquidation of the company is in progress.

Name of Company	JVPartner(s)	Activities Undertaken
Transformers and Electricals Kerala Limited **(TELK)**	Govt. of Kerala (GoK)	Your Company has a stake of 44.6% in JVC. The Company deals in manufacturing and repair of Power Transformers. Your company has accorded in-principle approval for the withdrawal of your company from TELK. The Government of Kerala (GoK) has in principally agreed to NTPC's exit subject to valuation of NTPC's share based on up-to-date audited results of TELK, TELK has been requested to expedite audited results.
International Coal Ventures Private Limited **(ICVPL)**	Coal India Limited (CIL), Steel Authority of India Limited (SAIL), Rashtriya Ispat Nigam Ltd. (RINL) and New Delhi Municipal Corporation (NDMC)	Your Company has a stake of 0.11% in JVC. ICVPL was formed under Ministry of Steel for acquisition of stake in coal mines/ blocks/ companies overseas for securing coking and thermal coal supplies. In view of lack of suitable commercially viable opportunities for thermal coal, your company has decided to exit from ICVPL. Modalities for exit are being discussed with ICVPL and other Promoters.
CNUPL (CIL NTPC Urja Private Limited	Coal India Ltd. (CIL)	A 50:50 JVC was incorporated on 27th April 2010 between your company and CIL to undertake the Development of Brahmini and Chichro-Patsimal coal mines. In June'2011, GoI has de-allocated these coal blocks.CNUPL is exploring new business areas. CNUPL is presently coordinating as a service provider for execution of 70 MW (50 MW + 20 MW) Solar Project of NLC & CCL resp. NTPC is the PMC for this project.
UPL (Utility Powertech Ltd.)	Reliance Infrastructure Limited	A 50:50 JVC takes up assignments of construction, erection and supervision of business in power sector and other sectors like O&M services, Residual Life Assessment Studies, non-conventional projects etc.

6.9 Asset Monetization

Under the broad contours of the National Monetization Pipeline (NMP), your Company has been allotted a monetization target of ₹ 15,000 Cr. to be achieved in tranches over FY22 to FY25. In this regard, NTPC has proposed monetization of its identified RE portfolio.

6.9.1 Monetization of RE Assets:

For better marketability, your Company has incorporated NTPC Green Energy Ltd. ("NGEL") as a wholly owned subsidiary of your company for consolidation of the identified RE portfolio in which RE assets of NTPC were transferred to NGEL. A payment of ₹ 3,410 crore was made by NGEL to NTPC against the balance outstanding liability of RE assets transferred from NTPC to NGEL. Stake sale Up to 20 % of NGEL through Initial Public Offer mode is expected to be completed by December 24.

6.9.2 Monetization of NTPC's Coal Mines Asset:

NTPC coal mines are being developed under Mine Developer cum Operator (MDO) route. The Capex incurred by appointed MDOs in development of coal Mines have been considered for Asset Monetization under the ambit of National Monetization Pipeline. NTPC monetized ₹ 2,010 Crore by awarding MDO contracts for Chatti Bariatu and Kerandari coal mine during financial year 2021-22 and financial year 2022-23.

During financial year 2023-24, NTPC awarded the MDO contracts for Talaipalli & Badam coal mine and achieved asset monetization of ₹ 4,890 crore. Hence, an amount aggregating to ₹ 6,900 Cr is monetized through the award of MDO contracts for coal mine till end of financial year 2023-24.

6.10 New Business Areas:

6.10.1 Bamboo based Bio Refinery at Bongaigaon:

Your Company is currently pursuing a Techno economic Feasibility Study through Engineers India Limited (EIL) to set up a Bamboo based 2G Bio-Refinery project at Bongaigaon Thermal power station. Through this project, NTPC aims to extract 2G BIO ethanol from naturally available bamboo in the region and use the by-product produced i.e., Bio coal as a fuel for blending with coal to fire in Bongaigaon power plant. A non-binding MoU with Chempolis was signed on 10th April 2023 for exploring the feasibility of setting up an integrated bamboo based biorefinery with NTPC Bongaigaon project. The detailed feasibility report for the project, incorporating various inputs from NTPC and Chempolis, is under finalization by consultant EIL.

6.10.2 Hydrogen Hub at Pudimadaka:

Your Company has conceptualized the setting up of a Green Hydrogen Hub at Pudimadaka near Vishakhapatnam, AP. The Project shall involve the establishment of a manufacturing facility for Hydrogen related equipment's, production & export of Green Hydrogen/Ammonia/Green Chemicals. A detailed proposal was submitted to the Government of Andhra Pradesh on 11th January 2023 for development of a Hydrogen Hub at Pudimadaka and Govt order of approval received on 24th February 2023. NTPC Green Energy Ltd (NGEL), the green arm of NTPC, shall be setting up the proposed Green Hydrogen Hub and has already executed the Pudimadaka land lease deed on 20th February 2024 with Andhra Pradesh Industrial Infrastructure Corporation (APIIC).

6.10.3 Initiatives for Start Up Eco-System:

To look for innovative and out of the box solutions to its existing problems, your Company is working towards developing a holistic Innovation and Start-Up Ecosystem in NTPC. In this context a Grand Energy Challenge for NTPC was launched by Startup India at their portal for three problem statements related to NTPC Business.

Further, the purchase of biomass pellets via the Biomass Marketplace for NTPC Mouda and Solapur sites has been approved as a Pilot Project. The auction for the purchase of Mouda through the digital Biomass Marketplace platform has successfully concluded.

The Manufacturing Capital and Social Capital section contains information about these initiatives in depth, on page no. 50,100.

6.10.4 Opportunities with States and CPSEs:

Your Company signed two investment proposals in February 2023 at UP Global Investors Summit. Under this, subject to feasibility, statutory clearance, and equity infusion by Government of Uttar Pradesh, MUNPL (a joint venture between NTPC and UPRVUNL) will expand with Stage-II units. Additionally, MUNPL and UPRVUNL will jointly take up setting up 2X800 MW supercritical Thermal Power plants at Obra and Anpara.

Your Company signed MOU with NALCO on 16th February 2024 for exploring the possibilities of adding 1,200 MW capacity (Thermal and/or renewable) to NALCO Captive Power Plant (CPP). National Aluminium Company Limited (NALCO) needs 1,200 MW uninterrupted power after five years for its upcoming expansion of Smelter Plant at Angul, Odisha.

Your Company and Rajasthan Rajya Vidyut Utpadan Nigam Ltd (RVUNL) signed an MOU on 10th March 2024 to explore capacity expansion opportunities and collaborated for performance improvement in existing units (4x250 + 2x660 MW) at Chhabra. This MOU aims to explore the possibilities of annuity-based R&M of other units of RVUNL.

The Manufacturing Capital and Social Capital section contains information about these initiatives in depth, on page no. 50 & 100 respectively.

6.10.5 Decarbonization of thermal power:

NTPC is pioneer in utilizing agro-residue for power generation, which is a carbon neutral fuel. NTPC has successfully demonstrated co-firing of 20% of torrefied biomass at Tanda Stage-I unit on 30.03.2024 and enhanced capability of biomass co-firing in the thermal power plant.

7. GLOBAL INITIATIVES

7.1.1 Bangladesh-India Friendship Power Company Private Limited (BIFPCL), Bangladesh:

BIFPCL (A 50:50 JV between NTPC & Bangladesh Power Development Board, Bangladesh) has implemented a 1,320 MW coal-based thermal power project in Bangladesh. The 1st and 2nd units of 660 MW are under commercial operation since December 2022 and March 2024 respectively.

7.1.2 Trincomalee Power Company Limited (TPCL), Sri Lanka:

TPCL is a JV between NTPC (50%) and Ceylon Electricity Board (CEB), Sri Lanka (50%). Presently, it is developing a 50 MW (extendable to 120 MW) solar power project at Sampur, Sri Lanka, for which JVSHA has been signed on 11th March 2022.

The Cabinet of Ministers of Sri Lanka approved the proposal for implementation of the Sampur Solar Power Project in March 2023. TPCL secured environmental clearance from the Central Environment Authority (CEA) for the 50 MW (Phase-I) Sampur solar project in June 2023. An on-grid renewable Energy Permit was obtained by TPCL from Sri Lanka Sustainable Energy Authority (SLSEA) in July 2023.

CEB provided the RFP documents for the Phase-I of Sampur Solar Project to TPCL. Pursuant to which, the clarifications and finalisation of the agreements are in progress.

7.1.3 Other Opportunities

Further your Company is associated as a corporate partner with International Solar Alliance (ISA) and has been awarded



the following Project Management Consultancy (PMC) jobs abroad:

- ISA Solar Park PMC assignment: Appointed as PMC (under the aegis of ISA Program 06) for 100 MW solar project in Republic of Guinea in the current financial year, thereby cumulative capacity of such PMC assignment reaching to 6,620 MW. The projects are in different stages of implementation. More countries are being approached for assignments on similar lines.
- ISA Rooftop Solar Projects PMC assignment: Appointed as PMC for implementation of 100kW Roof Top Solar Project in Ethiopia & Sao Tome under ISA Prog-04. Selection of EPC Agency for execution of the Roof Top Solar Project, Ethiopia is underway.
- ISA 27 Solar Demonstration Projects: Appointed as PMC for implementation of solarization projects in 10 countries viz. Seychelles, Senegal, Djibouti, Cuba, Ethiopia, Suriname, Burundi, Mozambique, Malawi & Uganda, across three themes: (i) Solarization of building roof-top/ground mounted PV installation, (ii) Solar based Cold Storages and (iii) Solar PV based Water Pumping Systems. Your Company has also prepared the DPRs for such projects in 21 different countries under the same ISA initiative.

Projects in 5 countries (Seychelles, Cuba, Malawi, Uganda, and Ethiopia) have been successfully commissioned. Projects in other 5 countries are in various stage of implementation.

Your Company is also exploring business opportunities in the areas of power generation, PMC, O&M contracting, R&M of power plants, capability building etc. in the regions such as Middle East, Southeast Asia, CIS regions, Latin America and Africa.

8. CONSULTANCY SERVICES

The consultancy wing of your Company plays a vital role in supporting the Indian Power Industry by leveraging its extensive experience and expertise. It offers an extensive array of consultancy services that cover the entire spectrum of power station operations, from the initial concept phase to commissioning and even beyond. These services encompass diverse areas such as engineering, operations and maintenance (O&M), project management, contracts and procurement, renovation and modernization, quality and inspection, training and development, human resources, IT, solar and renewable power projects, and compliance with environmental norms for power stations.

NTPC- Consultancy is further exploring business opportunities in emerging areas such as providing consultancy services in the area of flexible operation of Thermal Power Plants, Sustainability Advising, Hydro & Pump Storage, RDSS in the distribution sector, and HR related services in addition to our conventional business areas covering PMC for Owner's Engineer services for Green field/brownfield power projects, implementation of new environmental norms e.g. FGD, ZLD, DNOx & ESP R&M, development of Solar & Renewable power projects, O&M and performance improvement of Thermal Power Plants and IT services e.g. ERP implementation, PRADIP, Dreams 2.0, PI systems, CLIMS etc.

The MDA and Manufacturing capital section of the report contains highlights of consultancy services, on the page no. 176 & 50 respectively.

9. FINANCING OF NEW PROJECTS

Group Capital Expenditure (CAPEX) including CAPEX of JV/ subsidiaries of your Company for the financial year 2023-24 was ₹ 35,385.08 crore and on stand-alone basis was ₹ 19,443.53 crore (provisional) on cash basis.

To finance its capacity addition programs, your Company adheres to specific debt to equity ratios depending on the type of projects. For thermal and hydro projects, the debt-to-equity ratio is generally set at 70:30, while for solar/wind projects, it is set at 80:20. Your directors are confident that the internal accruals of the Company will be sufficient to finance the equity component of the new projects. With a low-geared capital structure and strong credit ratings, your Company is well-positioned to raise the necessary borrowings.

Your Company is actively exploring both domestic and international borrowing options, including seeking overseas development assistance from bilateral agencies. These efforts are aimed at mobilizing the debt required for the planned capacity expansion program.

Furthermore, your Company consistently engages in debt swapping for domestic loans, taking advantage of cheaper loans to repay older loans with higher interest rates. This strategy enables your Company to repay loans without incurring any repayment penalties to the bank. By optimizing its debt management, your Company strives to reduce borrowing costs and enhance financial efficiency.

The detail of funding is available in the MDA Report which forms part of this Annual Report, on the page no. 176

10. FIXED DEPOSITS

Effective from 11th May 2013, your Company has ceased accepting new deposits and renewing existing deposits under the Public Deposit Scheme. Consequently, there are no deposits that are non-compliant with the provisions outlined in Chapter-V of the Companies Act, 2013.

The details relating to deposits, as per the Companies Act, 2013 are as under:

a	Accepted during the financial year 2023- 24	Nil
b	Remained unpaid or unclaimed as at the end of financial year	6 deposits amounting to 15.91 lakh*
c	Whether there has been any default in repayment of deposits or payment of interest thereon during the financial year and if so, number of such cases and the total amount involved:	
	(i) At the beginning of the financial year	NIL
	(ii) Maximum during the financial year	NIL
	(iii) At the end of the financial year	NIL

* Pending for completion of legal formalities/ restraint orders/ non-receipt of claims.

11. RENOVATION AND MODERNIZATION

The Renovation and Modernization (R&M) of various units of your Company, particularly those that have completed 25 years of commercial operation, is considered crucial for achieving several objectives. These objectives include ensuring the safe operation of the units, complying with the latest statutory norms and revised environmental norms, as well as adhering to the IEGC (Indian Electricity Grid Code).

The R&M process also focuses on recovering and improving the efficiency of the units, enhancing their reliability, enabling flexible operations to accommodate the integration of renewables on a large scale, sustaining operations in light of equipment health assessments conducted over the past 2 to 3 years, and addressing constraints arising from current operating conditions such as changes in coal quality, water supply arrangements, and changes in laws and regulations.

By undertaking R&M activities, your Company aims to optimize the performance and longevity of its units while aligning with evolving industry standards and operational requirements.

12. HUMAN RESOURCE MANAGEMENT

Your Company is proud of its people who are its most important asset and its sole differentiating factor of competitive advantage, driving desired business outcomes. In furtherance of its Employee Value Proposition (EVP) of "People before PLF", your Company has been investing in Competence, Commitment, Culture and Systems Building. These are the four pillars of its constantly evolving HR strategy.

For building competence for current / future roles and areas of diversification and sustaining an enabling Performance Culture, your Company has institutionalized the following initiatives :

(i) Comprehensive onboarding.

(ii) Need based training which includes curated learning paths for all O&M executives.

(iii) Contemporary ERP enabled PMS focusing on continuous feedback and assessment made possible through weekly planning and feedback and monthly assessment. This is in addition to the annual assessment at the end of the assessment year.

(iv) Planned interventions at different stages of career for team building, leadership development and succession planning.

(v) Job-rotation preceded by Job-rotation facilitation training.

(vi) Putting in place a promotion policy which puts a premium on performance.

(vii) Business Simulation Games for honing decision-making and critical thinking skills.

(viii) Tie-ups with external experts for bringing in niche expertise and outside perspective.

(ix) Coaching for selected Business Unit Heads.

(x) Actualization of Individual Development Plan (IDP) has been enabled by :

a. Making IDP, a mandatory KPA index of the PMS.

b. Facilitating formulation of IDPs through customized individual reports of Competency, Potential and Value (CPV) assessments and Assessment Development Centres (ADCs) undertaken.

c. 360-degree feedback as a developmental input, has also been implemented for selected grades.

The L&D interventions are bolstered through contemporary pedagogy, time and location agnostic e-learning modules and leveraging immersive technology (Simulation, VR and AR).

For commitment building, your Company provides attractive compensation, best in class benefits and facilities (which includes medical facility), superannuation benefits (which includes post-retiral medical facilities) and rewards (both monetary and non-monetary). Your Company also focuses on listening by implementing a comprehensive Communication Matrix and putting in place a system of Internal and External Surveys. To further facilitate employee engagement, your Company has started leveraging the power of AI for better understanding employee sentiment for effecting appropriate interventions.

Your Company has embraced technology and digitalization and put in place enabling Systems, for providing superior employee experience. These include ERP, ECM (paperless office), HR Unified Shared Service (HRUSS), an analytics based HR decision support system (DELPHI), Contract Labour

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Information Management System (CLIMS), AI based chatbots, Medical Smart Card, Recruitment portal, Policy portal and Ex-Employee portal, etc.

Your Company's HR initiatives for achieving its HR Vision ("To enable our people to be a family of committed world class professionals, making NTPC a learning organization"), has been recognized by several awards in the talent management and development space. These include Forbes 2023 World's Best Employers 2023 (4th rank amongst Indian companies), 2024 ATD Best Award (3rd rank globally), recognition of "Top Employer 2024", by the Top Employers Institute, Brandon Hall HCM Awards for leadership development, learning and development and leveraging technology, SHRM HR Excellence Awards etc.

The details of the same is available in the Human capital section of this report, on the page no. 84.

13. SUSTAINABLE DEVELOPMENT

Sustainable development is at the core of your Company's business development strategy. Your company firmly believes in the idea that progress should not come at the expense of the environment and natural ecosystems. To promote sustainability, we are driven by two key motives:

a) To become the most sustainable energy producer by making fundamental changes in the operating methods

b) Increase transparency through timely disclosure of social, environmental, and economic results

Your Company has developed an Environmental, Social and Governance Management System (ESG-MS) that outlines ESG management principles for your Company and provides guidance for managing ESG risks and opportunities in our operations. It consists of an ESG policy statement, measurement and reporting of material indicators, target settings. There is also a dedicated ESG and Climate Change Committee to assist the board in setting the Company's general strategy with respect to ESG and climate change issues.

Your Company is also implementing "The Brighter Plan 2032", a comprehensive sustainability strategy aimed at becoming the most sustainable power producer. This plan focuses on key aspects of sustainability such as reducing carbon emissions and controlling air emissions, water conservation, biodiversity protection, health and safety, circular economy, community development, finance and ethics, and sustainable supply chain. Through this strategy, strategic approaches and actions in each of these areas are formulated to ensure the long-term sustainability of your business.

Your Company employs a three-pronged approach and considers people, planet and profit as the main pillars of business sustainability. This approach emphasizes the importance of balancing social, environmental, and economic responsibility. By focusing on these interrelated aspects, the goal is to achieve a harmonious integration of sustainable practices, increase the well-being of communities, protect the environment, and ensure long-term economic prosperity.

The further detail of our sustainable initiatives and disclosures is available in the Natural and Social capital section of the report, on the page no. 66 & 100 respectively.

14. CORPORATE SOCIAL RESPONSIBILITY

Corporate Social Responsibility (CSR) has always been integral to your Company's core business of power generation. The spirit of caring and sharing is embedded in your Company's mission statement. Your Company has a comprehensive Resettlement & Rehabilitation (R&R) policy covering community development (CD) activities, which has been revised and updated from time to time. CD activities in green field area are initiated as soon as project is conceived followed by extensive community and peripheral area development activities alongside the project development. CSR Policy originally formulated in July 2004 and revised from time to time as is known as "NTPC Policy for CSR and Sustainability" in line with Companies Act, 2013 and Department of Public Enterprises (DPE) Guidelines for CSR. It covers a wide range of activities including implementation of a few key Programmes taken through NTPC Foundation- a charitable trust set up by your Company to serve and empower the Physically Challenged and Under Privileged Sections of the Society & women.

Your Company's focus areas of CSR activities are Health, Sanitation, Safe Drinking Water and Education. Moreover, Capacity Building of the youth, Women Empowerment, Social Infrastructure Development, livelihood creation through support for implementation of innovative agriculture & livestock development, support to Physically Challenged Person (PCPs), and for the activities contributing towards Environment Sustainability have also been taken up. Your Company is committed to contribute to the society, discharging its Corporate Social Responsibilities through initiatives that have positive impact on the society, especially the community in the neighborhood of its operations by improving the quality of life of the people, promoting inclusive growth and environmental sustainability.

Preference for CSR & Sustainability activities is being given to local areas around Company's operations, ensuring that majority CSR funds are spent for activities in local areas. However, considering Inclusive Growth and Environment Sustainability and to supplement Government efforts, activities are also taken up in other parts of the country. During the year, 581 villages and more than 558 schools have been benefitted by Your Company's various CSR initiatives at different locations. Your Company's CSR initiatives have touched, in one way or the other, the lives of around 16 lakhs people residing at remote locations.

Apart from the CSR activities undertaken in and around stations to improve the living conditions of the local communities, other CSR initiatives undertaken pan-India are mentioned in the Annual Report on CSR activities annexed with this Report.

Your Company spent ₹ 200.57 crore during the financial year 2023-24 towards various CSR initiatives, against the CSR obligation of ₹ 112.79 crore.

The CSR Policy, which provides comprehensive guidelines for conducting CSR activities, is available on our Company's website : https://ntpc.co.in/sites/default/files/policy-documents/NTPC%20Policy%20for%20CSR%202022-Revised%20%281%29.pdf Furthermore, the Annual Report on CSR & Sustainability activities, in compliance with Section 135 of the Companies Act, 2013, and the Companies (Corporate Social Responsibility Policy) Rules, 2014, is placed as per **Annexure-VI**, is appended to this report, forming an integral part of it

- **NTPC Foundation**

  NTPC Foundation, funded by your Company, is engaged in serving and empowering the differently abled and economically weaker sections of the society.

  The details of expenditure incurred, and initiatives undertaken by your Company under CSR are covered in Annual Report on CSR and is annexed to this Report.

15. REHABILITATION AND RESETTLEMENT (R&R)

Your Company is committed to helping the population affected on account of land acquisition. The Company has been making efforts to improve the Socio-economic status of the Project Affected Families (PAFs). As a part of its decision-making process, your Company has had an R&R Policy since the year 1993 which has been amended from time to time to keep abreast of the Government guidelines. Your Company's latest R&R Policy-2017 (RR Policy) is in line with the extant Land Acquisition Act - The RFCTLARR Act, 2013 (The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013).

R&R activities are initiated at your Company's projects by undertaking need-based community development activities in the areas of health & sanitation, education, drinking water, capacity building, infrastructure, solar electrification, etc. by formulating the 'Initial Community Development (ICD) Plan' in consultation with concerned Panchayats, District Administration and other Stakeholders. Your Company addresses the R&R issues in line with the extant RR Policy / Central Government/ State Government / extant Land Acquisition Act, with an objective, that after a reasonable transition period, the conditions of PAFs improve or at least they regain their previous standard of living, earning capacity, and production levels.

As per your Company's RR Policy, which has been aligned with the 'The RFCTLARR Act 2013', State Governments are required to conduct a Social Impact Assessment (SIA)/Census Survey during the process of land acquisition for the project, so as to collect detailed demographic data of the area. This shall form the basis for the preparation of the 'Rehabilitation and Resettlement (R&R) Scheme' by the 'Appropriate Government'. The R&R Scheme consists of measures for Rehabilitation & Resettlement and need-based CD infrastructure in Resettlement Colony (RC).

Additionally, Your Company has retained the good practices of the Company on the Community Development (CD) activities which are primarily aimed at socio-economic development in the PAVs (Project Affected Villages) and the Project's vicinity. This is to ensure that the displaced families in the RC or the affected families settling in the neighboring villages may secure for themselves a reasonable standard of community life.

Expenditure on implementation of the R&R Plan is part of the capital cost of the project. The Plan is implemented in a time-bound manner so as to complete it by the time of the project's commissioning. Upon completion of the R&R Plan implementation, a Social Impact Evaluation (SIE) is conducted by a professional agency to know the efficacy of the R&R Plan implementation for future learning & corrective actions, if any.

15.1 R&R achievements during the financial year:

- **Rehabilitation and Resettlement (R&R) Plan:**

  R&R activities were implemented at the Greenfield / Brownfield Thermal Power projects - Barh, Darlipali, Gadarwara, Kanti, Khargone, Kudgi, Lara, Meja, North-Karanpura, NSTPS, Patratu, Solapur, Tanda-II, Telangana, Hydro projects–Tapovan- Vishnugad & Rammam-III and Coal Mining Projects at Pakri-Barwadih, Chatti-Bariatu, Kerendari, Dulanga and Talaipalli as per the R&R / CD Plans, which were finalized earlier in consultation with the stakeholders and approved by the State Government.

  The R&R CD works have been successfully completed at NTPC VSTPS-Stage IV & V and NTPC Bongaigaon and Social Impact Evaluations have indicated a positive impact on the community. Further, community development works in the vicinity areas of these projects would be taken under CSR as per the provisions of the Companies Act, 2013.

  Re-appropriations in cost provisions of R&R / CD Plans, as required on a case-to-case basis, for specific activities in view of the request/ needs of stakeholders/ district



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administration, were also approved to take care of the local needs & requirements.

- **Focus areas for Community Development activities:**

  Community Development (CD) activities are generally initiated by your Company under ICD (Initial Community Development) Policy and subsequently under the R&R/ CD Plan of the Project. Your Company is sensitive to the needs and aspirations of the Project Affected Families (PAFs). Your Company also provides Stakeholder's Participation through its Public Information Centers/ R&R Offices/ Village Development Advisory Committee (VDAC) Meetings to disseminate useful information sought by the villagers. Other useful information is also communicated through notices, pamphlets, letters, etc. from time to time.

  In the last 10 years up to financial year 2023-24, more than 2,462 crore worth of expenditure were incurred by your Company towards Community Development (CD) works by various Projects under R&R Plans.

- **Drinking water** – Planning and implementation of activities towards access to drinking water for 100% coverage of all Project Affected Villages are undertaken. Your Company's Policy- Jal Jyoti Mission embarks upon ensuring safe drinking water and rejuvenation of ponds in its project-affected villages.
- **Capacity building / Skill up-gradation** – Training programs were conducted by various projects towards the skill enhancement of youths. The specific focus was on imparting training to the villagers on modern farming methods. The support to dependents of PAFs for ITI training was also extended to increase their employability.
- **Education** – Financial assistance was extended towards up-gradation of infrastructure and other basic amenities in the neighbouring schools and educational institutions of NTPC projects including for development of Educational Institutes in the technical and medical domain.

  Company has the Policy on Improving Learning Outcomes & Quality of Education for children studying in Government Schools of its project-affected villages.
- **Health** - For the benefit of PAFs and neighboring populations, medical outreach through Mobile Health Clinics & Medical Camps/ NTPC's own Hospital set-ups is ensured. Support is extended by the projects in augmenting the existing health- care infra in the vicinity of various projects. Your Company has the Policy on Maternal and Child Health Care to provide 650 days of antenatal/prenatal & postnatal preventive health care to expectant & new mothers and new-born babies.

16. NTPC ENERGY TECHNOLOGY RESEARCH ALLIANCE (NETRA)

Your Company is dedicated to incorporating innovative technologies in our power plants to enhance safety, reliability, and efficiency. We strategically develop, adopt, and adapt frontier technologies to address major concerns in the power sector while exploring potential opportunities. In 2009, we established the NTPC Energy Technology Research Alliance (NETRA) as a state-of-the-art research centre. NETRA collaborates with leading institutes, technology players, and service providers at the national and international levels. We are guided by a Research Advisory Council (RAC) comprising eminent scientists and experts, while our in-house Scientific Advisory Council (SAC) provides directions for improving plant performance and reducing costs.

NETRA's collaborative approach and focus on research and development demonstrate your Company's commitment to staying at the forefront of technological advancements. By embracing innovation, your Company aims to drive continuous improvement, overcome challenges, and unlock new opportunities in the power sector. Through the prudent mix of development, adoption, and adaption of frontier technologies, your Company ensures the safety, reliability, and efficiency of its power plants. NETRA plays a crucial role in driving high-end research, supported by the expertise of the RAC and SAC. This consolidated effort positions your Company as a leader in incorporating innovative technologies and pursuing a more sustainable and efficient energy future.

NETRA continuously adapts its focus areas to meet the evolving needs of the power sector. Currently, our R&D efforts are centered on carbon capture and utilization technologies, ash utilization technology, waste-to-energy solutions, water technology, as well as efficiency improvement, cost reduction, new and renewable energy, climate change, and environmental protection. Our laboratories, which are ISO 17025 accredited, provide advanced scientific services in areas such as nondestructive examination, metallurgy, failure analysis, oil/water chemistry, environment, electrical systems, and computational fluid dynamics. Recognized as a Remnant Life Assessment Organization, NETRA ensures efficient and reliable performance in our power plants while upholding the highest safety and quality standards.

The further details of the NETRA's performance highlights is available in the Intellectual capital section of the report, on the page no. 120.

17. IMPLEMENTATION OF OFFICIAL LANGUAGE

NTPC has taken several initiatives for the progressive use of Hindi in the day-to-day official work and implementation of official language policy of the Union of India in your company. The compliance of official language policy in your projects and regional headquarters was inspected and need based suggestions were given to the respective heads of offices in this regard. Quarterly meetings of official language implementation committee were held in which extensive discussions took place on progressive use of Hindi and the ways and means to bring about further improvements.

Hindi Divas was celebrated on 14th September 2023 and Hindi Fortnight was organized from 15th to 29th September 2023 at the Corporate Centre as well as regional headquarters and projects/stations to create awareness among the employees, Associates, and their family members. Our biannual Hindi magazine 'Vidyut Swar' published (in digitized from) to promote creative writing in Hindi. Employees were motivated to use Hindi in official work by organizing Hindi workshops, Unicode Hindi Computer Training along with Hindi e-tools and popularization of Hindi incentive schemes. Hindi webpage was updated with improvement important information of Rajbhasha for employees.

NTPC was honoured an Excellence Award by Hon'ble Cabinet Minister of Power and New & Renewable Energy Shri R.K. Singh for Implementation of Official Language policy in Hindi Advisory Committee's meeting. Also, NTPC provides 'NTPC Rajbhasha Shield' to the PSUs and institutions of Ministry of Power for remarkable achievements in implementation of Official Language policy. The second sub-committee of Parliament on official Language had inspected our units; reviewed the progress of Official Language implementation and appreciated our efforts. NTPC's website also has a facility of operating in a bilingual form, in Hindi as well as in English.

18. WEB BASED CONTRACTORS' LABOUR INFORMATION AND MANAGEMENT SYSTEM (CLIMS

Your Company has successfully implemented a web-based in-house solution called 'Contractors' Labour Information Management System (CLIMS),' which operates on a captive private cloud. This system helps in streamlining various labour management processes and ensures pre-deployment health checkup, safety training and coverage of the contractors' workers under various statutory social security and welfare legislations. The system uses a fully biometric access control mechanism, thus providing real-time information on the availability of workers in various jobs and at the same time, augmenting the security of the power plant. The system also offers convenient worker management solutions to the contracting agencies by providing them digitised database of their workers for efficient administration of wage and other statutory benefits.

CLIMS incorporates a range of features to enhance worker management. This comprehensive system enables you to effectively monitor and manage your workforce, promote transparency, efficiency, and ensure coverage of the workers for statutory social security measures. By adopting CLIMS, your Company has improved the overall labour management process, facilitating timely and accurate provision of wages and benefits to your workers while ensuring their well-being and safety.

19. VIGILANCE

To ensure transparency, objectivity and quality of decision making in various operations, the Company has a Vigilance Department headed by Chief Vigilance Officer. The Vigilance set up in the Company consists of Vigilance Executives in Corporate Centre as well as at sites. In sites, the Vigilance Executives report to the Project Head in administrative matters and they report to the Chief Vigilance Officer in functional matters.

Corporate Vigilance Department consists of four Cells as under:

1. Vigilance Investigation and Processing Cell
2. Departmental Proceedings Cell
3. Technical Examination Cell
4. MIS Cell

These cells deal with various facets of vigilance mechanism. The vigilance works have been assigned region-wise to Vigilance officers at Corporate Centre (Regional Vigilance Executives) for speedier disposal. Senior officials of Vigilance Department comprising ED (Vigilance), Regional Vigilance Executives and Head of DPC/MIS Cell meet regularly to discuss common issues to ensure uniform working in all Regions. This facilitates transparency, efficiency, and effectiveness of Vigilance functionaries by making use of collective knowledge, experience and wisdom of Vigilance Executives as well as breaking of compartmentalization and abridging of strengths & weaknesses. Vigilance setup of company is accredited with ISO-9000:2015 certificate since 2021. The policy on Vigil Mechanism/Whistle-Blower can be accessed on the Company's website at:
https://ntpc.co.in/sustainability/policies/governance.

The detail of your Company vigilance work is available in the Ethics and Vigilance section of our report., on the page no. 41.

20. REDRESSAL OF PUBLIC GRIEVANCES

Your Company is committed for resolution of public grievance in efficient and time bound manner. Executive Director (HR) has been designated as Director (Grievance) to facilitate earliest resolution of public grievances received from President Secretariat, Prime Minister's Office, Ministry of Power etc.



In order to facilitate resolution of grievances in transparent and time bound manner, Department of Administrative Reforms & Public Grievances, Department of Personnel & Training, Government of India has initiated web-based monitoring system at www.pgportal.gov.in.

As per directions of GOI, public grievances are to be resolved within a period of 30 days. If it is not possible to resolve the same within this period, an interim reply is to be given. Your company is making all efforts to resolve grievances in the above time frame.

21. RIGHT TO INFORMATION (RTI)

Your company recognizes the importance of providing information to citizens and maintaining transparency and accountability. In accordance with the Right to Information Act 2005 (RTI Act). Your company has implemented the necessary mechanisms to facilitate this. It has appointed individuals such as the Central Public Information Officers, An Appellate Authority and Assistant Public Information Officers (APIOS) at all sites and offices.

During financial year 2023-24, your Company received a total number of 1893 applications under the RTI Act, which includes 122 pending applications from the previous fiscal year. Among these, 1838 applications have been responded to, while 55 applications are still awaiting resolution. Additionally, your Company has voluntarily made disclosures under section 4(1) (b) of the RTI Act, and these disclosures have been audited by NPTI Faridabad.

By adhering to the provisions of the RTI Act, Your Company strives to ensure that citizens have access to information and that transparency is upheld in all its operations.

22. USING INFORMATION AND COMMUNICATION TECHNOLOGY FOR PRODUCTIVITY ENHANCEMENT

Information and Communication Technology (ICT) is playing a pivotal role in enhancing productivity in your company by streamlining processes, improving communication and collaboration, leveraging data insights, and adapting to the changing work environments.

Your Company is pursuing the Digital First strategy by taking definitive steps towards permeating Digitalization in all aspects of business apart from greener environment. Various new Digital initiatives projects implemented during financial year 2023-24 like Advance Analytics Package, Hire to Retire in SAP, VR based Training, Ash Dyke Mobile App, Paperless Movement for Ex-Employees, RFID based Stores Management and Cloud Infrastructure and Unified ABT system. Safety being an important area, a dedicated safety app is developed and is integrated with Plants Safety Data in Power BI for Joint Ventures companies.

Your Company has been designated as CERT-Thermal for coordinating Cyber Security activities for Thermal Generation utilities in India. Your Company has taken various initiatives in Information Security measuring itself on key areas of Security, Security Operation Centre (SOC), Cloud based WAAP Solution, Zero Trust based Secure Access, unified End Point Vulnerability and Security Management Solution, Web and Mobile Applications Development, Analytics, & Vendor Management, to identify the gaps & plug them.

Your Company plants and offices across India, are connected to Corporate Office and main Data Centre (DC) through 2x34/45/68/155 Mbps high-speed MPLS links at each site to facilitate seamless communication. The DC and DR (Disaster Recovery) site is connected with high bandwidth 2x400 Mbps MPLS links for data replication. Both the Data Centers at Noida & Hyderabad are ISO 27001 complaint.

Some of the highlights of the progress in IT/ERP area during the year 2023-24 are as follows:

- ***Digitization*** – The digitization initiative in the form of Project PRADIP resulted in implementation e-Office, digitization of documents and paperless processes for different functions. Several enhancements have been made in USSC-C&M, Finance, e-Office module etc. to optimize the resources and to enhance the performance. PRADIP has been made more secure through implementing Multi-Factor Authentication and Single Sign-On technology.
- ***ERP*** – Several new modules were introduced in ERP as part of process improvements such as Incorporation of SG-AGC (Schedule Generation -Automatic Generation Control) in BW Hydro Performance report, Integration of Job Safety Analysis (JSA) with PTW process, Enhancement in Generation loss report to allow unit level view, Development of Compensation and MOPA (Monthly Operating Pattern Adjustment) rates for Committed Gas, Enhancement in Domestic coal- MGR process related to Coal Quality Parameters (third party sampling) etc.
- **M365 Implementation**- A Comprehensive Cloud based SaaS solution implemented across NTPC including JVs for mail and messaging services, Teams, Share Point, Powe App, Power BI etc. along with Single Sign On (SSO).
- ***Security*** – No major security breach was observed during the financial year 2023-24. A 24x7 Cyber Security Operation Centre (CSOC) is in operation analyzing more than 15 billion events per month and reporting findings and coordinating closure. It also enables Real-time Monitoring of External Attack Surface by coordinating with Cyber Swachhta Kendra to help identify security gaps and Comprehensive integration of disparate security solutions such as SIEM, NGFW and NGAV solutions ensuring quick analysis and reporting.

Launch of various Web & Mobile apps as part of its digital initiatives.

- **Strategic Initiative Management System:** It is designed to enable NTPC to plan, execute and evaluate its strategic targets like Management Agenda, MoU Target, CMD initiatives, directions of the GOI etc. The application provides a dashboard to the management to track and evaluate the progress of these vital initiatives and to achieve the corporate goals.
- **Mobile App for NETRA**: It provides a unified view of all facets of NTPC's R&D wing, NETRA, and activities undertaken by it. The app acts as a single window to the repository of NETRA's vast knowledge base using PRADIP, eGyan Knowledge Management Portal and the lab reports anytime, anywhere controlled through authorization and roles.
- **Sangam Portal (CC Intranet Portal):** This portal provides access to all the intranet-based non-ERP applications of the organization through SSO (Single Sign On). It also provides the facility to create new websites through its plug-and-play features. This is a very handy tool which can be used to launch an intranet website with only some simple configurations.
- **IDEATHON:** NTPC Business Incubation initiative, 'NTPC-Ideation' is a step towards identifying the Young Thought Leaders-Intrapreneurs. It is an enabling platform intended to nurture, incubate, and mentor new ideas, foster start-ups, and helping to grow them into successful Start-ups for Power sector. It also aims to create an entrepreneurial mind-set, bring in agility and Innovative thinking amongst executives. It provides them with an opportunity to develop their leadership skills, increasing risk appetite, improving decision making skills, collaboration, networking while exploring dynamic growth and inspiring change.
- **CERC Tariff Petition System**: The whole process of petition submission is now automated as an independent application in SAP, comprising of different modules for Data Preparation, Approval, and generation of Tariff forms. This Application is configurable, modular, scalable, flexible and Role Based; designed to take care of frequent changes in CERC reporting requirement in the most optimum manner.
- **Engineering Calculator 2.0**: This Version 2.0 of the app has been prepared with additional modules for engineering thumb rule calculations and understanding dynamic energy market scenarios. The Modules added in Version 2.0 of the app include:
  - Biomass co-firing Module
  - Hydrogen Generation Emission Calculator Module
  - Imported Coal and RLNG Generation cost and CO2 emission comparison.
- **Contractors Performance Feedback and Evaluation System**: It is a comprehensive framework designed to monitor and assess contractor performance for NTPC's REL's Projects. The system automatically calculates Monthly Scores and Weighted Average Scores based on predefined formulas, which are communicated to vendors through autogenerated emails. The system aims to minimize subjectivity, ensure transparency and fairness in assessments, reduce dependence on sites for non-performing cases, and prioritize activities crucial for project implementation, thus ensuring effective contractor performance evaluation and project management.
- **Employee Personnel File Management System**: This PRADIP based process allows creation of personnel file for new employee and addition of documents to Personnel file for Existing employees. It provides secured and access-controlled storage of Personnel files and are only accessible to HR Employees based on their access rights. It is also available anywhere-anytime with High Availability and no single point of failure; safety of data is also ensured by scheduled backups of the system.
- **IT Consultancy assignments for 5.16Cr towards power sector improvement –**
  - SAP support in JV companies of NTPC.
  - M365 support in JV companies of NTPC.
  - PI System implementation in OPGC
  - Dreams 2.0 Implementation in UPPTCL

23. GROUP COMPANIES: SUBSIDIARIES AND JOINT VENTURES

As of 31st March 2024, your Company has 15 subsidiary companies (including 5 Step Down Subsidiary Companies) and 16 joint venture companies (including 2 foreign companies) engaged in specific business activities. Out of 10 direct Subsidiary Companies, 5 are wholly owned by your Company. The list of JV and Subsidiary Companies of your company has been provided under Note 59 of the Notes to the Accounts of Standalone Financial Statement of the Company for the financial year 2023-24.

In addition to the aforesaid ventures, there are two more Joint Venture Companies namely International Coal Ventures Private Ltd and BF-NTPC Energy Systems Ltd, from which your Company has decided to exit. For International Coal Ventures



Private Limited, the decision to exit was made due to the lack of commercially viable opportunities for thermal coal. Additionally, with the approval from the Ministry of Power, the winding-up process has commenced for BF-NTPC Energy Systems Limited, and a liquidator has been appointed for the voluntary liquidation of this joint venture company.

Your company is also considering monetizing its investment in Hindustan Urvarak & Rasayan Limited (HURL) since fertilizer is not the core business area of your Company. Your Company is also looking forward to exiting from TELK and is in discussion with Government of Kerala. Your company is also considering exit; from PTC India Ltd. (Current shareholding 4.05% only)

A statement containing the salient feature of the financial statement of your Company's Subsidiaries, Associate Companies and Joint Ventures as per first proviso of section 129(3) of the Companies Act, 2013 is included under AOC-1 in the consolidated financial statements.

24. INFORMATION PURSUANT TO STATUTORY AND OTHER REQUIREMENTS

Information required to be furnished as per the Companies Act, 2013 and as per SEBI (LODR) Regulations, 2015 and any amendments thereto are as under:

24.1 Statutory Auditors

The Statutory Auditors of your company are appointed by the Comptroller & Auditor General of India. Joint Statutory Auditors for the financial year 2023-24 were (i) M/s. Vinod Kumar & Associates, Chartered Accountants, New Delhi (ii) M/s. Goyal Parul & Co., Chartered Accountants, New Delhi (iii) M/s. M C Bhandari & Co., Chartered Accountants, Hyderabad (iv) M/s. J K S S & Associates, Chartered Accountants, Jaipur and (v) M/s. Agasti & Associates, Chartered Accountants, Bhubaneshwar and (vi) M/s. S. N. Kapur & Associates, Chartered Accountants, Kanpur.

24.2. Cost Auditors

As prescribed under the Companies (Cost Records and Audit) Rules, 2014, the Cost Accounting records are being maintained by all stations and Coal mines of your Company.

The firms of Cost Accountants appointed under Section 148(3) of the Companies Act, 2013 for the financial year 2023-24 were i) M/s Datta Ghosh Bhattacharya & Associates, Kolkata; ii) M/s BVS & Co., Hyderabad; iii) M/s Paliwal & Associates, Lucknow; iv) M/s S. Dhal & Co., Bhubaneshwar; v) M/s Narasimha Murthy & Co., Hyderabad; vi) M/s B.G. Chowdhury & Co, Kolkata; vii) M/s Diwanji And Associates, Vadodara; viii) M/s M. Krishnaswamy & Associates, Namakkal, Tamil Nadu; and ix) M/s H. Tara & co., Delhi.

The due date for filing consolidated Cost Audit Report in XBRL format for the financial year ended 31st March 2023 was up to 28th August 2023 and the Consolidated Cost Audit Report for your Company was filed with the Central Government on 25th August 2023.

The Cost Audit Report for the financial year ended 31st March 2024 shall be filed within the prescribed time period under the Companies (Cost Records & Audit) Rules, 2014.

24.3 Secretarial Auditors

In pursuant to the provisions of Section 204 of the Companies Act, 2013 and Regulation 24A of the SEBI (LODR) Regulations, 2015, the Board of Directors has appointed M/s Amit Agrawal & Associates, Company Secretary in practice as the Secretarial Auditor for conducting Secretarial Audit of the Company for the financial year 2023-24.

24.4 Management comments on Statutory Auditors' Report

The Statutory Auditors of the Company have given an un-qualified report on the accounts of the Company for the financial year 2023-24. However, they have drawn attention under 'Emphasis of Matter' to the following notes of the Standalone Financial Statements:

(i) Note No. 50 with respect to one of the projects under construction, wherein by the order dated 5th January 2023 of Additional District Magistrate, Chamoli, construction activities are stopped till further orders.

(ii) Note No. 59 (f) (i) in respect of related party transactions executed during the year pertaining to the assignments awarded till the financial year 2022-23 to M/s Utility Powertech Ltd., a Joint Venture of the Company, which have been approved by the Board of Directors.

(iii) Note No. 63(iii)(b) with respect to appeal filed by the company with the Hon'ble High Court of Delhi in the matter of Arbitral award pronounced against the Company and the related provision made/disclosure of contingent liability as mentioned in the said note.

(iv) Note No. 65(B)(v) with respect execution of Business Transfer Agreement (BTA) with NTPC Mining Ltd., a wholly owned Subsidiary of the Company, for hiving of coal mining business, which shall become effective on completion of conditions precedent mentioned in the BTA.

Further, in addition to the above, they have drawn attention under 'Emphasis of Matter' to the following note of the Consolidated Financial Statements:

(v) Note No. 52(d) with respect to postponement of revenue due to uncertainty of ultimate collection by M/s Ratnagiri Gas and Power Ltd., a Subsidiary of the Company.

The issues have been adequately explained in the respective Notes referred to by the Auditors.

24.5 Review of accounts by Comptroller & Auditor General of India (C&AG)

The Comptroller & Auditor General of India, through letter dated 01.08.2024, has given a Comment on the Standalone Financial Statements of your Company for the year ended 31 March 2024 after conducting supplementary audit under Section 143 (6) (a) of the Companies Act, 2013.

The Comptroller & Auditor General of India, through letter dated 01.08.2024, has also given a Comment on the Consolidated Financial Statements of your Company for the year ended 31 March 2024 after conducting supplementary audit under Section 143 (6) (a) read with Section 129 (4) of the Companies Act, 2013.

As advised by the Office of the Comptroller & Auditor General of India (C&AG), a comment of C&AG alongwith Management reply for both the standalone and consolidated financial statements of your Company for the year ended 31 March 2024 are being placed with the report of Statutory Auditors of your Company elsewhere in this Annual Report.

24.6 Secretarial Audit Report and Management Response thereto.

The "Secretarial Audit Report" from the secretarial auditor in Form MR-3 as required under Section 204 of the Companies Act, 2013 read with rule 9 of the Companies (Appointment and Remuneration of Managerial Personnel) Rules, 2014 forms part of this report as per **Annexure-X**. The Management Response on the qualification in the Secretarial Auditor Report is mentioned below: -

Observations	Management's Comments
The Company is not in compliance with the provisions of Regulation 17 and 25(6) of SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015 regarding the requirements of having at least half of the Board of Directors as the Independent Directors and filling the vacancy of the Independent Directors within Specified Period. Further half of the Board of the Company was not "non-executive" for a certain period.	During the financial year 2023-24, Independent Director was less than the required limit. As per Articles of Association of the Company, the power to appoint Directors vests with the President of India. The Company had requested Ministry of Power, Government of India, being administrative ministry for appointment of Independent Director from time to time in order to comply with the said regulations.
The Company was not in Compliance with Regulation 17(10) of Securities and Exchange Board of India (Listing Obligations related to evaluation of the Independent Directors of the Company by the entire Board of Directors of the Company.	Refer Para 24.8 and 24.9

24.7 Risk Management

Your Company has an elaborate Enterprise Risk Management (ERM) framework, including risk management policy for risk identification and its mitigation, in place. As per SEBI (LODR) Regulations, 2015 the Company has a Board Level Risk Management Committee, which as on March 31, 2024, comprised of Director (Projects), Director (Operations), Independent Director and Chief Risk Officer.

The primary mandate of the RMC encompasses the identification and thorough review of potential risks, followed by the development of robust action plans and strategic initiatives aimed at mitigating these risks effectively. During financial year 2023-24, the RMC has identified 26 risks, out of which 9 risks have been rated as top risks for the company as listed below:

- Threats to safety & security of people & property
- Sustaining efficient plant operations
- Compliance of emission, ash utilization and regulatory norms
- Legal risks
- Risks related to coal mining.
- Difficulties in acquisition of land
- Delay in execution of projects
- Risks pertaining to hydro projects.
- Inadequate fuel supply

The RMC meets regularly and monitors the top risks through reporting of key risk indicators, prepare mitigation plans and monitors their implementation. The risk assessment and the progress of the mitigation measures are reported regularly to the Board of Directors. Moreover, the RMC seamlessly coordinates its functions with other committees as necessary. Notably, NTPC's Enterprise Risk Management (ERM) framework aligns with the globally recognized ISO 31000:2018 standards, ensuring a robust and internationally compliant approach to risk.

Your Company is exposed to foreign exchange risk in respect of contracts denominated in foreign currency for purchase of plant and machinery, spares and fuel for its projects/

stations and foreign currency loans. In terms of its Exchange Risk Management Policy, during financial year 2023-24, your Company has entered into derivative contracts amounting to JPY 3,729.80 million, USD 178.74 million and EUR 12.47 million in respect of foreign currency loans exposure.

24.8 Policy for Selection and appointment of Directors' and their remuneration

Your Company being a Government Company, the provisions of Section 134(3)(e) of the Companies Act, 2013 do not apply in view of the Gazette notification dated 05.06.2015 issued by Government of India, Ministry of Corporate Affairs.

24.9 Performance Evaluation of the Directors and the Board

Ministry of Corporate Affairs (MCA), through General Circular dated 5th June 2015, has exempted Government Companies from the provisions of Section 178 (2) of the Companies Act, 2013 which requires of performance evaluation of every director by the Nomination & Remuneration Committee. The aforesaid circular of MCA further exempted Govt. Companies from provisions of Section 134(3)(p) of the Companies Act, 2013 which requires mentioning the manner of formal evaluation of its own performance by the Board and that of its Committees and Individual Director in Board's Report, if directors are evaluated by the Ministry or Department of the Central Government which is administratively in charge of the company, or, as the case may be, the State Government as per its own evaluation methodology.

Further, as per MCA Notification dated 5th July 2017, in case the matters of performance evaluation are specified by the concerned Ministries or Departments of the Central Government or as the case may be, the State Governments and such requirements are complied with by the Government companies, provisions of Schedule IV w.r.t. performance evaluation of Directors are exempted for the Government Companies.

In this regard, Department of Public Enterprises (DPE) has already laid down a mechanism for performance appraisal of all functional directors DPE has also initiated evaluation of Independent Directors

Your Company enters into a Memorandum of Understanding (MOU) with Government of India each year, demarcating key performance parameters for the company. The performance of the Company is evaluated by the Department of Public Enterprises vis-à-vis MOU entered into with the Government of India.

(In terms of Regulation 25 of SEBI (LODR) Regulations, 2015, the performance of the Board as a whole and non-independent directors including Chairman & Managing Director were evaluated by the Independent Directors in a separate Meeting held by them on 14th March 2024.

24.10 Declaration by Independent Directors

During the year, all the Independent Directors have met the requirements specified under Section 149(6) of the Companies Act, 2013 for holding the position of 'Independent Director' and necessary declaration from each Independent Director under Section 149 (7) of the Companies Act, 2013 was received. Also, declaration under Regulation 25 of SEBI (LODR) Regulations, 2015 and Rule 6 of the Companies (Appointment and Qualification of Directors) Rules, 2014 are also obtained from all the Independent Director of your Company.

24.11 Management Discussion and Analysis Report

The Management Discussion and Analysis (MDA) Report, as per Regulation 34(2)(e) read with Schedule-V to the SEBI (LODR) Regulations, 2015 and DPE Guidelines, is placed as per **Annexure-I** and forms part of this Directors' Report.

24.12 Corporate Governance Report

In accordance with Regulation 34(3) of SEBI (LODR) Regulations, 2015, a detailed report on Corporate Governance along with a certificate on Compliance of conditions of Corporate Governance under the SEBI Regulation and DPE Guidelines on Corporate Governance are placed as per **Annexure-II** and forms part of the Directors' Report.

24.13 Business Responsibility and Sustainability Report

The "Business Responsibility and Sustainability Report" in compliance with the provisions of Regulation 34 of the SEBI (LODR) Regulations, 2015 and Certificate on Reasonable Assurance of BRSR Core as specified by the SEBI Circular SEBI/HO/CFD/CFD-SEC-2/P/CIR/2023/122 dated July 12, 2023, form part of the Report and placed as per **Annexure-IX**.

24.14 Investor Education and Protection Fund (IEPF)

Number of Equity Shares due for transfer to IEPF and details of unclaimed dividend as on March 31, 2024, are available on the website of the Company, and this is also disclosed in the Corporate Governance report placed at **Annexure-II**, which forms part of the Directors' Report.

24.15 Particulars of contracts or arrangements with related parties

During the period under review, your Company had not entered into any material transaction with any of its related parties. The Company's major related party transactions are generally between NTPC and its Group Companies. In line with the Statutory enactments, Policy on Materiality of Related Party Transactions and also on Dealing with Related Party Transactions of the Company has been revised and approved by the Board during the year 2023-24 and is uploaded on the Company's website under the 'Investors' section at www.ntpc.co.in.

In pursuance to Section 134(3)(h) of the Companies Act, 2013 and Rule 8(2) of the Companies (Accounts) Rules, 2014, the "Disclosure of particulars of contracts / arrangements entered by the Company with related parties including certain arms-length transactions" are disclosed in Form AOC-2 and is annexed to this Report as **Annexure-VIII.**

24.16 Significant and material orders passed by the regulators or courts or tribunals impacting the going concern status and company's operations in future.

No significant and material orders were passed by any regulator or court or tribunal impacting the going concern status and company's operations during the financial year 2023-24.

24.17 Adequacy of internal financial controls with reference to the financial reporting

Your Company has in place adequate internal financial controls with reference to financial reporting. During the year, such controls were regularly tested and no reportable material weakness in the design, implementation and operation effectiveness was observed.

24.18 Particulars of Loans, Guarantees or Investments

The details of investments made, loans granted, and guarantees extended by the Company during the financial year 2023-24 under Section 186 of the Companies Act, 2013 are disclosed at Note 59 to the standalone financial statements for the financial year 2023-24.

24.19 Prevention, Prohibition and Redressal of Sexual Harassment of Women at Workplace

Your company has a comprehensive policy in place to address the Prevention, Prohibition, and Redressal of Sexual Harassment of Women at the Workplace, in accordance with the Sexual Harassment of Women at Workplace (Prevention, Prohibition & Redressal) Act, 2013. This policy is applicable to all female employees, including those who are regular, contractual, temporary, or trainees.

To ensure effective implementation and handling of complaints, Internal Committees (ICs) have been established at all projects and locations of your company. These committees are responsible for addressing and resolving complaints related to sexual harassment.

During the financial year 2023-24, one case was reported to IC of NTPC Barh, which was disposed of during the year financial year 2023-24. Further, one more case was disposed of during the financial year 2023-24, which was reported to NTPC Bongaigaon in the Financial year 2022-23.

24.20 Procurement from Micro and Small Enterprises (MSEs) and Procurement through GEM

The Government of India has notified a Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012 notified by the Ministry of Micro, Small and Medium Enterprises (Ministry of MSME) under section 11 of Micro, Small and Medium Enterprises Development Act, 2006.

During the financial year 2023-24, the Company has procured 36,448.19 crore (Including GST) through GEM portal. Further, the Company has procured items valuing ₹ 10,109.55 Crore from MSE vendors which was 49.94% of the total procurement* of ₹ 20,241.53 crore against the minimum threshold of 40% as stipulated in the Public Procurement Policy for Micro and Small Enterprises (MSMEs) Order. Out of which, the procurement percentage from MSEs owned by SC/ST and Women Entrepreneurs was 0.13% and 0.51% respectively.

Your Company has conducted 26 Vendor Development Programs (VDPs), including 17 Special VDPs for MSEs owned by SC/ST and Women Entrepreneurs across the company.

Annual procurement plan from MSEs is uploaded on https://ntpc.co.in/procurement-plan

**Excluding Primary fuel, Secondary fuel, steel, cement, project procurement including Renovation & Modernization and procurement from Original Equipment Manufacturer (OEM)/ Original Equipment Supplier (OES)/ Proprietary Article Certificate (PAC) as per Order of the Development Commissioner, Ministry of MSME vide letter No. F. No. 21(9)/ 2017-MA(Pt-I) (E-17230) dated 31-08-2021.*

24.21 Particulars of Employees

As per provisions of Section 197(12) of the Companies Act, 2013 read with Rule 5 of the Companies (Appointment and Remuneration of Managerial Personnel) Rules, 2014, every listed company is required to disclose the ratio of the remuneration of each director to the median employee's remuneration and details of employees receiving remuneration exceeding limits as prescribed from time to time in the Directors' Report.

However, as per notification dated 5th June 2015 issued by the Ministry of Corporate Affairs, Government Companies are exempted from complying with provisions of Section 197 of the Companies Act, 2013. Therefore, such particulars have not been included and do not form part of this Directors' Report.

24.22 Extract of Annual Return

Annual Return pursuant to Section 92 (3) of the Companies Act, 2013, read with Section 134(3)(a) and rule 12(1) of the Company (Management & Administration) Rules, 2014 for the Financial Year ended 31st March 2024 is available on the Company's website i.e www.ntpc.co.in/compliances



24.23 Credit Rating

Your Company's financial discipline and prudence is reflected in the strong credit ratings ascribed by rating agencies. The details of credit ratings are disclosed in the Management Discussion and Analysis Report, which forms part of the Annual Report.

24.24 Reporting of frauds by Auditors

According to the information and explanations given to us and as represented by the Management and based on our examination of the books and records of the Company and in accordance with generally accepted auditing practices in India, no case of material fraud by the Company or on the Company has been noticed or reported during the year.

During the year under review, neither the statutory auditors nor the secretarial auditor has reported to the audit committee, under Section 143 (12) of the Companies Act, 2013, any instances of fraud committed against your Company by its officers or employees, the details of which would need to be mentioned in the Director's report.

24.25 Compliance with Secretarial Standards

Your Company is in compliance with the applicable Secretarial Standards issued by the Institute of Company Secretaries of India and approved by the Central Government under Section 118(10) of the Companies Act, 2013.

24.26 Key Financial Ratios

Key Financial Ratios for the financial year ended 31st March 2024, have been provided under Note 76 of the Notes to the Accounts of the Standalone Financial Statement and in the Management Discussion Analysis Report placed at **Annexure-I** and forming a part of the Directors' Report.

24.27 Consumption of Imported Goods (On consolidated basis)

The consumption of imported goods for your Group companies is as follows:

Import Consumption	FY 2023-24 (₹ Crore)	FY 2022-23 (₹ Crore)
Coal	12,771.30	25,056.19
Others Spares	94.29	78.01
Total Import	**12,865.59**	**25,134.20**

24.28 Government of India (GoI) Memorandum of Undertaking (MoU) 2023-24 Achievements

GoI MoU is an agreement between the management of the Central Public Sector Enterprises (CPSEs) and the Government of India. MoU is a major policy initiative of the Government of India to undertake regular performance evaluation of CPSEs and enhancing the performance levels of the CPSEs.

GoI MoU 2023-24 was signed between NTPC and Ministry of Power on consolidated basis. The key achievements against the targets of MoU 2023-24 are as under:

- **Revenue from Operations**: Your Group company has achieved highest ever Revenue from operations of ₹ 1,78,501 crore during financial year 2023-24.
- **Power Generation:** Your company has registered a generation of 3,88,451 MUs (including generation from NTPC Subsidiaries and excluding NTPC JV companies) with a growth of 6.3%. NTPC generation mix includes generation from Thermal, Hydro and RE sources.
- **Financial Ratios:** Your Company has strong financial systems in place. It believes in prudent management of its financial resources and strives to reduce the cost of capital. It has robust financials leading to strong cash flows which are being progressively deployed in generating assets. Your Company has a strong balance-sheet coupled with low gearing and healthy coverage ratios. As a result, your Company has been able to raise resources for its expansion projects at very competitive interest rates in domestic as well international market. With respect of GoI MoU your company has achieved following ratios.

EBITDA as a percentage of Revenue	Return on Capital Employed	Asset Turnover Ratio
30.58%	11.03%	37.73%

- **CAPEX:**

  Your company has incurred a CAPEX of ₹ 35,971 crore including CAPEX of JVs and Subsidiaries of your company for the year 2023-24 on accrual basis.

- **TReDS Portal:**

  Your Company has onboarded Trade Receivable electronic Discounting System (TReDS) portals. TReDS is an institutional mechanism set up in order to facilitate the discounting of trade receivables of MSMEs from corporate buyers through invoice discounting by multiple financiers avoiding any procedural time lag, on acceptance of invoice by corporate buyers. Being a responsible company, it is ensured that payments to MSEs are prompt, and hence only a few MSE vendors uploaded their bills in TReDS portal for processing. The Acceptance/ Rejection of invoices of Goods & Services of the same were ensured for 99.17% of the invoices within the stipulated timeline in the portal.

- **Procurement from GeM:** Your company has registered a procurement of Goods & Services worth ₹ 14,716.07 crore from GeM Portal (including procurement by NTPC Subsidiaries). This excludes the one-time procurement of ₹ 22,360 crore through GeM for MDO packages of Talaipalli and Badam Coal Mines.

- **Trade Receivables:** As on 31st March 2024, trade receivables amounted to ₹ 34,637.22 crore. Trade receivables include unbilled revenue amounting to ₹ 15,177.77 crore billed, to the beneficiaries after 31st March 2024. Excluding the unbilled revenue, trade receivables are equivalent to 40 days of Revenue from Operations as on 31st March 2024.

  Expenditure on Research & Development/ Innovations Initiatives: Your Company understands the importance of Research and Development (R&D) in the ever-changing dynamics of the energy sector coupled with energy transition. In this regard, Your Company is focused on research and development of innovative solutions in the domain of CCUS, Green Fuel, Green Fertilizer & Energy Storage. This will help the company to steer itself on the pathway of green energy transition. The total expenditure on R&D/ Innovations Initiatives during the financial year stands at ₹ 483.63 crore.

- **Performance on Stock Exchanges:** Your company has outperformed BSE 500 index during the financial year. The Market Capitalisation on BSE exchange improved during the financial year from ₹ 1,69,934.07 crore to ₹ 3,25,759.50 crore. Your company has paid a total of ₹ 7,272.50 crore as dividends to the shareholders. Further Interest and redemption on Bonus debenture paid to shareholders during the financial year was ₹ 4,818.94 crore.

- **Asset Monetization**: The asset monetization target given to your company is of ₹ 15,000 crore to be achieved by FY25. A total of 15 RE assets of 2,861 MW capacity have been hived-off from NTPC's Balance Sheet and balance outstanding liability of 15 RE assets transferred to NGEL has been repaid by NGEL to NTPC to the extent of ₹ 3,410 crore during financial year 2023-24.

  Further, NTPC coal mine developed under Mine Developer and Operator (MDO) route and awarded to MDO for operation and development of coal Mines have been considered as Asset Monetization under the ambit of National Monetization Pipeline. Hence, MDO contracts awarded for Talaipalli and Badam mines of NTPC during financial year 2023-24 worth ₹ 4,890 crore are also considered under the total monetization target of your company.

- **Procurement from MSEs:** The Government of India has notified the Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012. Your company has registered a procurement of Goods & Services worth ₹ 10,109.55 crore from MSE vendors out of which procurement from SC/ ST MSE vendors was ₹ 25.91 crore and Woman MSE vendors was ₹ 102.33 crore. Total Procurement* during the financial year 2023-24 by NTPC & its subsidiaries stands at ₹ 20,241.53 crore.

  **Excluding Primary fuel, Secondary fuel, steel, cement, project procurement including Renovation & Modernization and procurement from Original Equipment Manufacturer (OEM)/ Original Equipment Supplier (OES)/ Proprietary Article Certificate (PAC) as per Order of the Development Commissioner, Ministry of MSME vide letter No. F. No. 21(9)/2017-MA(Pt-I) (E-17230) dated 31.08.2021.*

  Symposium/ conference on health issues for employees: Occupational health and safety at workplace is one of the prime concerns for your company. Utmost importance is given to provide safe working environment and to inculcate safety awareness among the employees. There were a total of 6 different conferences and symposiums organized on health-related issues and awareness for NTPC employees and their families during the financial year.

- **Centralized Expert Safety Audit and Internal Benchmarking of NTPC:** Your company has conducted a centralized Expert audit in 37 NTPC operating stations during the financial year 2023-24. This coupled with an internal benchmarking completed by 25th January 2024, provided insight of Safety Management across these Stations seen through common lens and fostered a culture of competitive improvement in safety standards among NTPC stations.

24.29 Proceeding pending under the Insolvency and Bankruptcy Code, 2016

During the year under review, no application was made or any proceeding pending under the Insolvency and Bankruptcy Code, 2016 during the financial year 2023-24.

24.30 One-time Settlement and Valuation

During the financial year 2023-24, no event has taken place that give rise to reporting of details w.r.t. difference between amount of the valuation done at the time of onetime settlement and the valuation done while taking loan from the Banks or Financial Institutions.

24.31 Information on Differently Abled persons & Statistical information on persons belonging to Scheduled Caste / Scheduled Tribe categories.

Pursuant to DPE guidelines, information required on Differently Abled persons & Statistical information on persons belonging to Scheduled Caste / Scheduled Tribe categories are given as per **Annexure-IV & V.**

24.32 Other Information

Information on Number of Meetings of the Board held during the year, composition of committees of the Board and their meetings held during the year, a chart or a matrix setting out



the skills/expertise/competence of the board of directors, Total fees for all services paid by the listed entity and its subsidiaries, on a consolidated basis, to the statutory auditor and all entities in the network firm/network entity of which the statutory auditor is a part, Details of utilization of funds raised through preferential allotment or qualified institutions placement as specified under Regulation 32(7A), if any, establishment of vigil mechanism/ whistle blower policy and web-links for familiarization/ training policy of directors, Policy on Materiality of Related Party Transactions and also on Dealing with Related Party Transactions and Policy for determining 'Material' Subsidiaries have been provided in the Report on Corporate Governance, which forms part of the Directors Report at **Annexure-II.**

24.33 Change in Board of Directors & Key Managerial Personnel (KMP)

During the financial year 2023-24, the following changes occurred in the Board / Key Managerial Personnel of the Company: -

1. Shri Shivam Srivastava (DIN: 10141887) was appointed as Director (Fuel) w.e.f. 30th April 2023.
2. Shri K. Shanmugha Sundaram (DIN: 10347322) has been appointed as Director (Projects) w.e.f. 1st December 2023.
3. Shri Ujjwal Kanti Bhattacharya (DIN: 08734219) ceased to be Director (Projects) of the Company w.e.f. 30th November 2023 on attainting the age of Superannuation.
4. Shri Ashish Upadhyaya (DIN: 06855349) ceased to be Govt. Nominee Director of the Company w.e.f. 31st December 2023 due to Change in nomination by Ministry of Power.
5. Shri Ramesh Babu V. (DIN: 08736805) ceased to be Director (Operations) of the Company w.e.f. 31st January 2024 on attainting the age of Superannuation.
6. Shri Ravindra Kumar (DIN: 10523088) has been appointed as Director (Operations) w.e.f. 26th February 2024.
7. Shri Arun Kumar ceased to be the Company Secretary of the Company on 29th January 2024. Ms. Ritu Arora was appointed as Company Secretary & Compliance Officer w.e.f. 29th January 2024.

After the closure of financial year 2023-24 Shri Dillip Kumar Patel (DIN: 08695490) ceased to be Director (HR) of the Company w.e.f. 30th April 2024 on attainting the age of Superannuation.

The Board wishes to place on record its deep appreciation for the valuable services rendered by Shri Ujjwal Kanti Bhattacharya, Shri Ashish Upadhyaya, Shri Ramesh Babu V. and Shri Dillip Kumar Patel during their association with the Company.

The Board welcomes Shri K. Shanmugha Sundaram and Shri Ravindra Kumar on the Board of your Company.

24.34 Energy Conservation, Technology Absorption and Foreign Exchange Earnings and Outgo

Energy conservation is a top priority in the Company's operations. Continuous monitoring of all units ensures ongoing performance assessments, and efforts are made to achieve continuous improvement by integrating the latest technologies and global best practices. Throughout the financial year, various energy conservation measures were implemented across the power plants and stations, resulting in significant energy and monetary savings.

In accordance with the provisions of the Companies Act, 2013, and rules notified thereunder, the details relating to Energy Conservation, Technology Absorption and Foreign Exchange Earnings and Outgo are annexed as **Annexure-III** to the Report.

25. MATERIAL CHANGES AND COMMITMENTS AFFECTING FINANCIAL POSITION BETWEEN THE END OF THE FINANCIAL YEAR AND DATE OF THE REPORT.

There have been no material changes and commitments which affect the financial position of the Company, that have occurred between the end of the financial year to which the financial statements relate and the date of this report.

26. DIRECTORS' RESPONSIBILITY STATEMENT

As required under Section 134(3)(c) & 134(5) of the Companies Act, 2013, your Directors confirm:

1. that in the preparation of the annual accounts for the financial year ended 31st March 2024, the applicable accounting standards had been followed along with proper explanation relating to material departures.
2. that such accounting policies were selected and applied them consistently and such judgments and estimates were made that are reasonable and prudent so as to give a true and fair view of the state of affairs of the company as at 31st March 2024 and of the profit of the company for the financial year ended on that date;
3. that the proper and sufficient care has been taken for the maintenance of adequate accounting records in accordance with the provisions of the Companies Act, 2013, for safeguarding the assets of the company and for preventing and detecting fraud and other irregularities;
4. that the Annual Accounts have been prepared on a going concern basis.
5. that internal financial controls to be followed by the company had been laid down and that such internal financial controls are adequate and were operating effectively; and
6. that the proper system has been devised to ensure compliance with the provisions of all applicable laws and that such systems were adequate and operating effectively.

27. ACKNOWLEDGEMENT

The Directors of your Company extend their sincere appreciation for the cooperation received from the Government of India, especially the Prime Minister's Office, the Ministry of Power, the Ministry of New & Renewable Energy, the Ministry of Finance, the Ministry of Environment, Forests & Climate Change, the Ministry of Coal, the Ministry of Petroleum & Natural Gas, the Ministry of Railways, the Ministry of Corporate Affairs, the Ministry of Labour and Employment, the Central Board of Direct Taxes, the Central Board of Indirect Taxes and Customs, GST authorities, the Department of Public Enterprises, the Department of Investment and Public Asset Management, the Central Electricity Authority, the Central Electricity Regulatory Commission, the Comptroller & Auditor General of India, the Appellate Tribunal for Electricity, State Governments, Regional Power Committees, State Utilities, Stock exchanges, governments of various countries, and the Office of the Attorney General of India. Their active support has been instrumental in achieving the Company's successes during the financial year under review.

The Directors also express their gratitude to the shareholders, as well as to various international and Indian banks and financial institutions, for their continued confidence in the Company.

The Board appreciates the valuable contributions of contractors, vendors, and consultants in the implementation of various Company projects.

We also acknowledge the constructive suggestions received from the Office of the Comptroller & Auditor General of India, the Statutory Auditors, and the Cost Auditors.

Furthermore, we extend our heartfelt appreciation to the entire NTPC family for their tireless efforts and contributions at all levels, ensuring the Company's continued growth and excellence.

For and on behalf of the Board of Directors

Sd/-
(Gurdeep Singh)
Chairman & Managing Director

Place: New Delhi
Date : 2 August 2024

The Particulars of annexure forming part of this report areas are as under:

Particulars	Annexure
Management Discussion & Analysis Report	I
Report on Corporate Governance	II
Information on conservation of energy, technology absorption and foreign exchange earnings and outgo	III
Statistical information on persons belonging to Scheduled Caste / Scheduled Tribe categories	IV
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Annexure - I to Directors' Report

Management Discussion and Analysis Report

ECONOMIC AND SECTOR OUTLOOK

The global economy remains uncertain, marked by ongoing wars, conflicts, and the emergence of new flashpoints around the world, which cast a shadow on the macroeconomic outlook. Despite this global uncertainty, the Indian economy has performed remarkably well in recent years. India remained the fastest growing large economy with GDP growth at 8.2%, 8.1%, 8.4% and 7.8% during Q1, Q2, Q3 and Q4 of FY24 respectively. Yearly GDP growth rate during FY24 stood at 8.2%, as compared to 7% in FY23. International Monetary Fund (IMF) has made mild growth projection for most of the economies across the world, however it expects India to show strong growth of 6.8% in FY25 and 6.5% in FY26.

Based on the Indices of Industrial Production (IIP), electricity sector has shown a growth of 7.1% over the last fiscal. This growth is higher when compared to IIP for manufacturing of 5.5% but is slightly lower when compared to mining which registered a growth of 7.5%.

FY24 has seen India's Power Sector achieving new milestones and meeting the aspirations of a rapidly growing nation. While peak demand touched 243 GW (13% higher than FY23), peak demand met almost touched a new high of 240 GW. With the gross generation of 1739 BUs (7% growth), peak shortage has reduced to 1.4% (3340 MW) from 4.0% (8657 MW) in the previous year. Aided by addition of more than 18 GW of RE capacity, India continued its stride in the Renewables. The share of RE capacity crossed 43% (including large Hydro) of the total installed capacity in FY24.

Amid these developments, universal access to affordable and consistent power supply remains the primary goal for the Power Sector. To meet this goal, fuel security and affordability remains the prime challenge on the supply side, whereas financial health of the DISCOMS and demand side management remains the prime challenge on the delivery side.

The government has implemented proactive measures and policy initiatives to ensure sufficient fuel stocks. These include modifications to the SHAKTI Policy and strategic imports. Introduction of Time-of-Day tariff, smart metering, and Revamped Distribution Sector Scheme (RDSS) are also gathering pace. However, further efforts are required for modernisation of the distribution sector through rapid adoption of smart grid technologies and digitalization of processes & customer interface. Additionally, ever increasing share of renewable energy into the grid, posed the challenge of grid stability.

To meet these challenges and move ahead with the decarbonization of the economy, Government of India has taken several initiatives in FY24, key among them are:

Power Sector Reforms

- Indian Electricity Grid Code Regulations (IEGC), 2023
- Introduction of Time-of-Day tariff
- Guidelines to promote development of Pump Storage Projects (PSP)
- Electricity (Late Payment Surcharge and Related Matters) (Amendment), 2024
- Phasing plan for implementation of flexible operation of coal-based units.
- Electricity (Rights of Consumers) Amendment Rules, 2023

Renewable Energy Promotion

With a commitment to increase non-fossil fuel-based energy capacity to 500 GW by 2030, India added 18 GW of renewable energy in FY24 showcasing a 20% YoY growth over 15 GW RE capacity installed in FY23, 360 BUs of power was generated from renewable energy sources (including large hydro) present across India to cater to increasing renewable power demand. Coupled with technology improvement and enabling government initiatives, growth of RE for India is expected to be exponentially high. CEA in its National Electricity Plan has projected India's RE based requirement to be 336 GW by FY27 and around 596 GW by FY32. As of FY24 end, renewable energy was contributing around to 21% of total power production in India. As India has committed to achieve Net Zero by 2070, it has laid out corresponding policies to create synergic effect which in turn will increase renewable energy demand. With providing Viability Gap Funding (VGF) for BESS and laying out pathway for green Hydrogen and offshore wind, GOI is increasing the possibilities of large-scale capacity growth of renewable power, helping the renewable sector and related organizations.

GOI has taken the following new initiatives to promote RE capacity addition:

- RE Bidding trajectory - As per the Bidding trajectory finalized by the Ministry of New and Renewable Energy (MNRE), 50 GW of RE bids shall be issued each year from FY24 to FY28, consisting of at least 10GW of Wind energy capacity. The plan is in line with India's target of 500 GW of installed electricity capacity from non-fossil fuel (renewable energy and nuclear) sources by 2030.
- Strategic Interventions for Green Hydrogen Transition (SIGHT) Programme to stimulate the growth of the green hydrogen value chain in India. This includes:
  - SIGHT I - Incentive scheme for electrolyser manufacturing
  - SIGHT II - Incentive scheme for green hydrogen production
- Green National Repowering & Life Extension Policy for Wind Power Projects - 2023
- Waiver of the ISTS charges on offshore wind, green hydrogen, and ammonia projects
- Introduction of Green Hydrogen Standard for India
- MOP draft Notification on Renewable Generation Obligation
- Viability Gap Funding for development of Battery Energy Storage Systems (BESS)
- Offshore Wind Energy Lease Rules, 2023
- Allocation of CPSU to States/UTs for Rooftop Solar implementation

INDUSTRY STRUCTURE AND DEVELOPMENTS

The power sector is one of the key enablers of India's economic growth. Electricity contributes ~22% in the final energy consumption of India. The sector with its three pillars: Generation, Transmission, and Distribution, is crucial to India's infrastructure and economic growth. The global stature of the Indian Power Sector is depicted well by its positioning in terms of generation capacity.

India is ranked 3rd in the world in terms of electricity generation and 4th in terms of total renewable capacity installed after China, US, and Brazil. Our world ranking in Wind, Solar and Hydro installed capacity is 4th, 5th and 6th respectively as reported by international agencies like IEA, Statista, IRENA etc. The achievements and various issues/ challenges faced by the Power Sector and key initiatives taken by the Ministry of Power are discussed in the following paragraphs.

SNAPSHOT 2023-24

- Gross generation of the country (including imports from Bhutan) increased from 1624 BUs in the previous year to 1739 BUs, registering a growth of about 7%.
- Generation from Renewable sources increased by about 11% from 203 BUs to 226 BUs, (excluding Large Hydro) while generation from conventional sources (Thermal, Nuclear and Large Hydro including Bhutan import) increased by about 6.5% from 1421 BUs to 1513 BUs.
- Conventional capacity addition was 7426 MW during FY24 as compared to 1580 MW during the previous year.
- With the addition of 18485 MW, the renewable energy capacity has reached 190 GW (including large hydro) at the end of FY24, an increase of about 10% over the previous year.
- With an addition of 14203 Ckms of transmission lines, total installed transmission capacity reached 485544 Ckms as on FY24 end.
- 70728 MVA of transformer capacity was added during FY24 as against 75902 MVA in FY23.
- PLF of coal and lignite-based stations increased to 69.49% in FY24 from 64% in FY23.
- The energy deficit stands at 0.3% lower than previous year deficit of 0.5%. Further, peak demand deficit has also decreased to 1.2% from 4% on YoY basis.
- For FY24, Peak demand met registered a growth of 13% at 239931 MW, as compared to 211856 MW in FY23. While Maximum energy demand met stood at 5224 MUs, as compared to 4722 MUs achieved in FY23.

Existing Installed Capacity

The total installed capacity (including renewables) in the country as on 31 March 2024 was 441970 MW with the Private Sector contributing 52% of the installed capacity while both State and Central Sector contributing 24% each.

Sector	Total Capacity (MW)	% Share
Private	229847	52%
State	107670	24%
Central	104453	24%
Total	**441970**	**100%**

Source-wise installed capacity in the country as of 31 March 2024 is as under:

Mode	Total Capacity (MW)	% Share
Thermal	243217	55%
Nuclear	8180	2%
Hydro	46928	11%
RES (Renewables)	143645	32%
Total	**441970**	**100%**



Capacity Utilization and Generation

Sector-wise PLF in % (Coal-based)

Sector	2023-24	2022-23
Central	75.86	74.93
State	65.35	62.30
Private	64.17	61.61
Private IPP	67.68	55.56
All India	**69.49**	**64.00**

Generation

Sector-wise and fuel-wise break up of conventional generation (BUs) for FY24 is detailed as under:

Sector	Thermal	Hydro	Nuclear	Total
Central	472	58	48	**578**
State	404	62	—	**466**
Private	450	14	—	**464**
Bhutan Import	—	—	—	**5**
Total	**1326**	**134**	**48**	**1513**

Sector-wise share in conventional installed capacity vis-a-vis share in conventional generation:

Sector	Share in installed capacity (%)	Share in generation (%)
Central	24%	38%
State	24%	31%
Private	52%	31%

Electricity Consumption

The per capita consumption of power in India has reached 1327 units in FY23. It is still well below 50% of the global average, providing enough room for growth.

Major end-users of power are broadly classified into 6 categories: Agricultural, Commercial, Domestic, Industrial, Traction, and others. Their shares of electricity consumption, during FY23, were approximately 17.2%, 7.5%, 27.2%, 42.7%, 1.8% and 5.7%, respectively. During FY24, although absolute consumption of all the sectors has increased, the share of agriculture and domestic consumption in the total consumption has increased whereas for other sectors it has decreased slightly.

Transmission

The total inter-regional transmission capacity of the country has increased to 112340 MW as on 31 March 2024. This augmentation of the national grid is essential for supporting the higher injection of renewable energy into the grid for the transfer of power from RE-rich states to other states.

Further, to meet the power evacuation requirement of over 500 GW RE Capacity planned by 2030, connectivity of RE generators to the load centres through Inter-State Transmission System (ISTS), is essential. It is estimated that the length of the transmission lines and sub-station capacity required under ISTS for integration of additional wind and solar capacity by 2030 will be 50890 Ckms and 433575 MVA respectively.

Distribution

Distribution is the key link in realizing the Government of India's vision of supplying reliable 24x7 Power for All. In this regard, the financial health of distribution companies is of prime importance, enabling them to efficiently discharge their functions and responsibilities. However, their poor financial health has remained a matter of concern. To reverse this trend, reduction of AT&C losses and ACS (Average Cost of Supply) - ARR (Average Revenue Realization) gap are critical factors. With these intentions, Revamped Distribution Sector Scheme (RDSS) has been launched to reinvigorate the DISCOMS. Important objectives of RDSS are:

- Reduction of AT&C losses to pan-India levels of 12-15% by 2024-25.
- Reduction of ACS-ARR gap to zero by 2024-25.
- Improvement in the quality, reliability, and affordability of power supply to consumers through a financially sustainable and operationally efficient distribution sector.

This results-linked scheme, launched in July 2021, has pushed the utilities and states to address performance gaps, and chart action plans to avail the benefits worth ₹300,000 crore. The outlay includes an estimated Government Budgetary Support (GBS) of ₹97,631 crore. The Scheme is comprised of two components:

- Part A: Financial support for Prepaid Smart Metering, System Metering, and Up-gradation of Distribution Infrastructure; and
- Part B: Training and capacity building and other enabling and supporting activities.

Under this scheme Action Plans for 46 DISCOMs (28 States/UTs) have been approved where around 20.46 crore pre-paid smart consumer meters, 54 Lakh smart DT meters and 1.98 Lakh smart feeder meters have been sanctioned.

The impact of these initiatives is reflected in the finding of the 12th Integrated Rating & Ranking of Power Distribution Utilities. The key indicators of the improvement of Discoms performances are as below:

- In FY23, performance of 32 Discoms have improvement over the last fiscal.
- Cash Adjusted ACS-ARR gap per unit reduced from 79 paise/kWh in FY20, to 55 paise/kWh in FY23.
- AT&C losses have reduced from 16.2% in FY22 to 15.4% in FY23.

Power Trading

In India, power is transacted largely through long-term Power Purchase Agreements (PPAs), entered between generating companies and the distribution utilities. A small portion is transacted through various short-term (contract period<1 Year) mechanisms. This includes Day Ahead Market and Real-Time Market (RTM), followed by bilateral contracts (through trades, term-ahead contracts on power exchanges, and directly between DISCOMs) and through Deviation Settlement Mechanism (DSM). Around 88% of the power generated in the country is transacted through the long-term PPA route and about 12% of the power is transacted through short-term trading mechanisms.

KEY INITIATIVES/REFORMS & REGULATORY CHANGES IN THE POWER SECTOR

SECTORAL REFORMS

1. CERC Tariff Regulations, 2024-29

In March 2024, Central Electricity Regulatory Commission (CERC) notified (Terms and Conditions) of Tariff Regulations, 2024-29. The salient features of these Regulations are:

a. **Rate of return on equity** for thermal stations retained at 15.5%.

b. **Normative availability for recovery of Annual Fixed Charges (NAPAF) and Normative Annual Plant Load Factor (NAPLF)** for incentive for coal stations completing 30 years from COD as on 31 March 2024 reduced to 83% from 85%.

c. **Capacity charges** to be recovered in two parts, namely, capacity charges for peak hours (4 hours in a day) and capacity charges for off-peak hours (20 hours in a day). High Demand & Low Demand season criteria for capacity charge recovery removed.

d. **Incentive payable to thermal station on ex-bus scheduled energy** - During peak hours @ 75 paise/kWh and during off peak hours @55 paise/kWh corresponding to the scheduled energy in excess of ex-bus energy corresponding to NAPLF achieved on cumulative basis.

e. **Incentive for primary frequency response** - Thermal station shall be allowed an Incentive up to 1% of Annual Fixed Charges for providing primary frequency response.

f. **Station Heat Rate Norm for coal-based units:**

- **200 MW & 500 MW units** - Reduced by 15 Kcal/kWh as compared to 2019-24 tariff period (New norms 200 MW/500 MW 2415/2375 kcal/kWh).
- **Stations achieving COD on or after 1 April 2009** - 200 MW units 5% margin over design heat rate. 500 MW & above units - Margin of 4.5% over design heat rate. Minimum boiler efficiency retained at 86%.

g. **Auxiliary Energy Consumption (AEC) Norms** - 200 MW units - 8.5% (no change from 2019-24 tariff period), 500 MW and above - 5.25% (reduced by 0.5% as compared to 2019-24 tariff period).

h. **Gross Calorific Value (GCV) of Coal**: GCV on 'as received' basis along with margin of 85 Kcal/ Kg retained with third party sampling by agency to be appointed by generating company as per guidelines issued by the Central Government. In the absence of third-party sampling, GCV as billed by coal company to be considered. In case of coal from captive/integrated mine, the GCV of coal received at the end use generating station shall be adjusted by 15 Kcal/Kg from the GCV measured at the mine end for every 100 km distance beyond 200 km, or actual whichever is lower, subject to the condition that such an adjustment in aggregate shall not exceed 300 Kcal/Kg.

Other changes:

- Normative transit loss of 1% introduced for multi modal transportation of coal by Road Cum Rail, Rail Ship Rail mode.
- Interest rate on working capital reduced by 0.25%.
- Specific Fuel oil consumption of 1.0 ml/kWh for front/rear/side fired boilers.

2. Electricity (Late Payment Surcharge and Related Matters) (Amendment) 2024

MOP, vide notification in February 2024 amended LPS Rules 2022. As per amendment, the generating company, shall offer, any un-requisitioned surplus power (including the capacity under reserve shutdown), in the real-time market if such power offered is not cleared in the day ahead market. Such offer of power shall be at a price not exceeding 120% of its energy charges. Provided also that if the generating company fails to do so, the un-requisitioned surplus power to the extent not offered in the power exchange up to the declared capacity shall not be considered as available for the payment of fixed charges.

3. Indian Electricity Grid Code Regulations (IEGC) 2023

CERC notified IEGC-2023 in May 2023 and same has been



implemented w.e.f. 1 October 2023. Subsequently, CERC has issued orders for removal of difficulties in the implementation of IEGC 2023.

The salient provisions of the new Grid Code Regulations are:

- **Reference Frequency** - 50.000 Hz (Resolution of 0.001 Hz against existing 0.01 Hz). The allowable band of frequency has been kept 49.900-50.050 (same as in earlier regulation).
- **Minimum Turndown Level** - For a unit of a regional entity thermal generating station shall be 55% of Maximum Continuous Rating (MCR) or such other minimum power level as specified in the CEA Regulations as amended from time to time.
- **Reserve Maximization** - To maximize the reserves in the grid, concept of Security Constrained Unit Commitment (SCUC) is introduced, which provides that, some of the units which have received schedule less than Minimum Turndown Level may be committed by NLDC for running under SCUC based on its merit order. The generating stations or units identified under SCUC, but not brought on bar under SCUC, shall have the option to operate at a level below the minimum turn down level or to go under Unit Shut Down (USD). In case a generating station, or unit thereof, opts to go under USD, it shall fulfil its obligation to supply electricity to its beneficiaries who had made requisition from the said generating station prior to it going under USD by arranging supply either:
  a. by entering a contract(s) covered under the Power Market Regulation; or
  b. by arranging supply from any other generating station or unit thereof owned by such generating company; or
  c. through Security Constrained Economic Dispatch (SCED).

  If a generator wants to retain its Declared Capability (DC) in the event of forced outage of a unit, the generating company owning the generating unit shall fulfil its supply obligation to the beneficiaries which made requisition from such generating unit.
- **Mandated to provide Primary Reserve Ancillary Service -** The generating units thereof with governors shall be under Free Governor Mode of Operation (FGMO).
- **Commercial settlement for reactive power -** As per the provisions specified, the regional entity (including generating station) shall be paid for VAr return when voltage is below 97% and for VAr drawal when voltage is above 103%. The charge for VArh shall be at the rate of 5 paise/kVArh escalated at 0.5 paise/kVArh per year thereafter.
- **Revision of DC shall be allowed on account of forced outage, only in case of bilateral transactions and not in case of collective transaction, as per following conditions:**

Unit Type	Max daily revisions in DC	Monthly	Reason to be recorded in writing
Coal Plants	4	60	Partial outage of the unit or variation of fuel quality or any other technical reason
Lignite, Gas based	6	120	Partial outage of the unit, fuel quality or variations in supply of gas or any other technical reason
Hydro	6	120	Water availability & Partial outage

4. National Electricity Plan (NEP)

Notified by CEA, for the period of 2022-32, it includes a detailed plan for the next five years (2022-27) and the prospective plan for the subsequent five years (2027-32). According to the NEP, the projected all India peak electricity demand and electrical energy requirement is 277 GW and 1908 BU for the year 2026-27 and 366 GW and 2474 BU for the year 2031-32.

5. Scheme for Operation of Gas Based Power (GBP) during peak crunch period (10 April 2023 to 16 May 2023)

The scheme envisaged power generation from gas stations on RLNG fuel and to be sold through Power Exchange with shortfall between the cost of generation and revenue received from Power exchange to be reimbursed from Power System Development Fund (PSDF). CEA was made nodal agency for operationalisation of scheme. Earlier CERC vide order dated 16 February 2023 in Petition No. 359/MP/2022, had introduced HP-DAM for gas-based generators, imported coal-based generators and Battery Energy storage systems.

6. Guidelines for Resource Adequacy planning framework of India

MOP released guidelines for resource adequacy framework of India on 28 June 2023, the salient features of guidelines are:

- DISCOMs to supply 24 X 7 reliable power to its consumers. All DISCOMs are duty bound to tie up sufficient capacity to meet the demand of its consumers. If any DISCOM does not do so, it is failing in its duty.
- Compliance to the Resource adequacy norms and Guidelines shall ensure that DISCOMs tie up sufficient capacity to meet the demand of the area they are licensed to serve.
- The capacity which the DISCOMs tie up shall be a judicious mix of long/medium and short-term contracts to ensure security of supply to their consumers at least cost.
- The resource adequacy framework lays down the optimal capacity mix required to meet the projected demand at minimum cost. New generation capacities, energy storage and other flexible resources needed to reliably meet future demand growth at optimal cost to the system will be timely assessed.
- Guidelines provide for an institutional mechanism for Resource Adequacy ranging from National level to DISCOM level such that the availability of resources to meet the demand is ensured at each level.

7. Electricity (Amendment) Rules 2024: MOP has notified Electricity Amendment Rules 2024 in January 2024. The salient features are:

- **Establishment, operation and maintenance of dedicated transmission lines:** A generating company or a person setting up a captive generating plant or an Energy Storage System or a consumer having load of not less than twenty-five Megawatt in case of Inter State Transmission System and ten Megawatt in case of Intra-State Transmission System shall not be required to obtain license under the Act for establishing, operating or maintaining a dedicated transmission line to connect to the grid.
- **Charges for using network of State Transmission Utilities:** The charges for using State Transmission Utility network by the consumers availing short-term open access or Temporary-General Network Access (GNA), as the case may be, shall not be more than one hundred ten per cent of the charges levied on consumers using State Transmission Utility network on long-term basis or on General Network Access basis, as the case may be.
- **Additional Surcharge:** The additional surcharge levied on any Open Access Consumer shall not be more than the per unit fixed cost of power purchase of the distribution licensee.
- **Gap between approved Annual Revenue Requirement and estimated annual revenue from approved tariff:** The tariff shall be cost reflective and there shall not be any gap between approved Annual Revenue Requirement and estimated annual revenue from approved tariff except under natural calamity conditions.

8. Electricity (Rights of Consumers) Amendment Rules, 2023

MOP in June 2023 amended Electricity (Rights of Consumers) Rules, 2020. Key points of the amendment to rules are given below:

- **Smart metering** - All types of smart meters shall be read remotely at least once in a day instead of month. After the installation of smart meters, no penalty shall be imposed on the consumer, based on the maximum demand recorded by the smart meter, for the period before the installation date. In case maximum demand recorded by the smart meter exceeds the Sanctioned Load in a month, the bill, for that billing cycle, shall be calculated based on the actual recorded maximum demand.
- **Time of the Day Tariff** - The Time of the Day tariff introduced for Commercial and Industrial consumers having maximum demand more than 10 KW made effective from a date not later than 1 April 2024 and for other consumers except agricultural consumers, the Time of the Day tariff shall be made effective not later than 1 April 2025. Time of the Day tariff shall be made effective immediately after installation of smart meters, for the consumers with smart meters.

FUEL RELATED REFORMS

1. MOP modifies coal allocation methodology under SHAKTI Policy

According to the modification, all power plants which do not have PPAs, shall be allowed coal linkage for a period of minimum 3 months to maximum 1 year, provided further that the power generated through that linkage is sold through any product in power exchanges or in short term through a transparent bidding process through DEEP portal.



2. Directions regarding import of coal

To ensure uninterrupted power supply across the country, in view of constantly rising power demand, MOP in October 2023 gave directions to all GENCOs including Independent Power Producers (IPPs) for timely import of coal for minimum blending @ 6% (by weight) till March 2024. Later this advisory was extended till June 2024.

3. CERC issues Order on Blending of imported coal with domestic coal to mitigate the domestic coal shortage.

Ministry of Power vide letter dated 9 January 2023, directed the Central GENCOs, State GENCOs and IPPs to take necessary action and immediately plan to import coal through a transparent competitive procurement for blending at the rate of 6% by weight so as to have coal stocks at their power plants for smooth operation till September 2023, provided that in such case, prior permission from beneficiaries shall not be a precondition for blending up to 6% by weight, unless otherwise agreed specifically in the power purchase agreement.

4. Empanelment of Third-party sampling agency

M/s CSIR-CIMFR discontinued the works of Third-Party Sampling at loading and unloading end w.e.f. 11 November 2023. To have additional third-party agencies other than CIMFR, Ministry of Power has empaneled 11 parties (through two rounds of empanelment) for sampling and testing of coal at the loading end, with the choice of Coal Consumer for taking services from the empaneled agencies.

5. Notification for Agro-residue Utilization by TPP Rules, 2023

The Ministry of Power (MOP) has issued revised biomass policy in June 2023, which mandates that all thermal power stations must co-fire 5% biomass pellets from FY25 & 7% from FY26. These guidelines also have a provision of benchmark price notification by MOP. Accordingly, MOP announced benchmark price for NCR, WR & NR region in August & November 2023 respectively. Failure to meet the set targets will result in the imposition of Environmental Compensation at the specified rate outlined in the regulations starting from FY25.

RENEWABLE ENERGY RELATED REFORMS

1. Waiver of the ISTS charges on offshore wind, green hydrogen and ammonia projects. Notified in May 2023, GOI announced for Waiver of the ISTS charges for:

a) Offshore wind power projects commissioned on or before 31 December 2032 and established via PPAs or merchant basis, shall be granted exemption from payment of ISTS Charges for 25 years, starting from the date of commissioning of the project.

b) **Green Hydrogen/Green Ammonia Plants** commissioned on or before 31 December 2030, and which utilize renewable energy from Solar, Wind or Large Hydro, commissioned after 8 March 2019, or Energy Storage Systems (ESS) (such as Pump Storage Plants or Battery Energy Storage Systems) or any hybrid combination of aforementioned technologies, for the production of Green Hydrogen or Green Ammonia, shall be granted exemption from the payment of ISTS Charges for a period of 25 years, starting from the date of commissioning of the project. Further, Plants commissioned after the above-mentioned dates shall be levied ISTS charges as per the trajectory specified.

c) To promote the development of pump storage plants (PSP), the criteria for availing the complete waiver of ISTS charges for PSP projects has now been linked to the date of award of the project instead of commissioning of the project. Waiver shall be applicable in certain cases.

2. MOP mandates Renewable Generation Obligation for coal and lignite-based power stations

In October 2023 MOP issued a draft notification on Renewable Generation Obligation for coal and lignite-based power stations. The obligations vary depending on the station's commercial operations start date.

Commercial Operation Date of coal/lignite based generating station	Minimum RGO (%)	Due Date for RGO compliance
On or before 31 March 2023	6%	1 April 2026
	10%	1 April 2028
1 April 2023 to 31 March 2025	10%	1 April 2025
1 April 2025 onwards	10%	From COD of coal/ lignite based generating station

Generators can meet RGO by establishing renewable capacity or procuring and supplying renewable energy. There will be a penalty in case of a shortfall of RGO compliance.

3. National Repowering & Life Extension Policy for Wind Power Projects - 2023

In December 2023, MNRE floated a new policy which allows developers to extend the lifespan of following wind turbines:

- Non-compliant turbines (failing to meet quality control standards).
- Turbines reaching the end of their certified design life.
- Turbines with a rated capacity below 2 MW (regardless of age).
- Turbines after 15 years of operation (considered on a commercial or voluntary basis).

The estimated capacity of turbines is to increase by 1.5 times or above after repowering.

4. Viability Gap Funding for development of Battery Energy Storage Systems (BESS)

In December 2023, the Union cabinet approved scheme for development of BESS which envisages development of 4 GWh of BESS projects by FY31, with financial support of up to 40% of the total capex of project in the form of VGF. In June 2021, GOI had introduced PLI scheme with an outlay of ₹18,100 crore for manufacturing of Advanced Chemistry Cell (ACC) battery storage of 50 GWh capacity, out of which 30 GWh has been allocated via competitive bidding process.

5. Offshore Wind Energy Lease Rules, 2023

Ministry of External Affairs (MEA) notified rules for leasing the seabed for offshore wind power projects with the lease being valid for 3 years for resource measurement, which can be further extended by an additional period for two years. For the construction and operation of offshore wind energy farms, the lease period will be for 35 years, which can be extended further on a case-to-case basis. The area covered under a lease shall ordinarily be 25 sq. km to 500 sq. km and the same may vary depending on the size of the project.

6. Electricity Rules 2024 to speed up connections to promote EVs & Solar PV Systems.

In February 2024, Electricity Rules 2024 were issued providing amendments to the Electricity (Rights of Consumers) Rules, 2020, aiming to simplify processes for new electricity connections and rooftop solar installations. Changes include defining terms "Owner" and "Resident Welfare Association", setting timeframes for connection provision, and streamlining procedures for rooftop solar. These adjustments prioritize consumer convenience and promote renewable energy adoption.

7. MNRE issued a scheme guideline for setting up hydrogen hubs in India

MNRE issued guidelines for setting up of green hydrogen hubs, the scheme acts as an extension of Green Hydrogen Mission. The main objective of the scheme is to identify and develop regions capable of supporting large scale production and/ or utilization of hydrogen as green hydrogen hubs.

8. Strategic Interventions for Green Hydrogen Transition (SIGHT)

- **SIGHT I** focuses on incentivizing domestic manufacturing of electrolyzers. With a budget of ₹4,440 crore spread over five years, this scheme aims to bridge the gap between the cost of imported and domestically produced electrolyzers.
- **SIGHT II** directly targets green hydrogen production in India. This component boasts a larger budget of ₹13,050 crore. It aims to maximize green hydrogen and its derivatives production, making it cost-competitive with fossil fuel-based alternatives.

9. Green Hydrogen Standard for India

To provide a clearer prospective on definition of Hydrogen and derivatives for National Green Hydrogen Mission to enable production of 5 MMT per annum by 2030, the standard redefined "Green Hydrogen" as, Hydrogen produced from renewable energy, including:

- Production through electrolysis, where Green-house gas emission from water treatment, electrolysis gas purification, drying and compression of Hydrogen shall not be greater than 2 kg CO_2 eq. per kg of H_2 produced.
- Production from biomass conversion given that GHG emission footprint in the entire production process shall not be greater than 2 kg CO_2 eq. per kg of H_2 produced.

OPPORTUNITIES AND THREATS/CHALLENGES

OPPORTUNITIES

India has been a key economic growth engine for the world, contributing 16% to the global growth in 2023. As per the Vision India @2047, Government has set a goal of making India a USD 30 trillion economy with per capita income moving to the developed economy zone (USD 18,000-20,000). Hence the economy is poised to grow at a rapid pace. As electricity is key input for all sectors of the economy, the demand for electricity is expected to grow proportionally.

Additionally, the growth will be driven by increased urbanization and electrification of other sectors. According to CEA estimates, demand for electricity is expected to grow at 6.7% till FY27 and at 5.3% till FY32.

To meet this growing demand and parallelly addressing the climate concerns, India has set an ambitious target to install 500 GW of non-fossil energy by 2030, which includes 280 GW of solar power and 140 GW of wind power projects. This requires an average annual addition of installed capacity of about 40-50 GW till 2030, providing a huge opportunity for capacity expansion. In alignment with this, your Company



has set a target to increase its installed RE Capacity to 60 GW by 2032. Along with clean power, the demand for the Green Chemicals and energy storage system like Battery and Pumped Hydro Storage will also rise rapidly, presenting huge opportunity in this space.

While RE capacity addition is rapidly increasing, the seasonality, intermittent availability, and storage constraints limit the actual generation and hence there is ample space for thermal capacity addition as well. As per Government estimates, an addition of around 80 GW of thermal capacity is required by FY32 to meet the power demand and provide energy security to the nation. However, these capacities must be based on high efficiency and low emission technologies. At present, NTPC has around 10 GW of thermal capacity under construction.

Presently bulk of the power is purchased through the long term PPA, but there is an increasing shift towards short term power procurement from power markets, OTC and bilateral agreements by the DISCOMs. Hence power trading is also expected to grow at a brisk pace both domestically and across the borders and your Company has a significant presence in this area. These opportunities coupled with the supportive policy framework in Renewable Energy Sector, Green chemical and fuels, E-mobility, Power trading, is leading to new business development domestically as well as internationally, as elaborated below.

1. Renewable Energy

a. Solar Technologies

Solar PV modules technology has shifted from poly crystalline to mono crystalline modules having higher efficiency and wattage and now with advent of Topcon modules with even higher efficiency, it is possible to generate more power in same footprint area enabling further growth of solar parks and utility scale projects. Further increasing use of Bi-facial modules and solar tracker, has reduced the inherent variations in solar power generation which has been the biggest drawback for solar power. The inverter capacity per block has increased to 4.4 MW, enabling, higher conversion ratios and reducing capital expenditure. Government has allocated, around 40 GW of domestic Solar PV module manufacturing capacity under PLI (Tranche-II) in March 2023. This shall boost domestic module availability and support capacity addition programme.

b. Green Hydrogen Technologies

With advancements in Green Hydrogen production technology, in various Electrolyzers (PEM, AEM, alkaline, and Solid Oxide), Hydrogen from biomass etc. value to cost of production of Green Hydrogen is decreasing. Further increasing thrust in Green Hydrogen/Green Chemicals utilization is leading to an increased demand of renewable power.

NTPC is implementing pilots for green hydrogen blending with Piped Natural Gas (PNG) network. Green mobility projects are aimed at finding the techno-economic feasibility of Hydrogen buses for short & long haul. Further, Green Hydrogen based microgrid project and locomotive(s) are at an advanced stage of planning.

c. Energy Storage

In National Electricity Plan, CEA has projected energy storage capacity of 82.37 GWh by FY27 and 411.4 GWh (including PSP) by FY32. Advancement in BESS technology (Li-ion, Na-ion, Ni-Cd, Flow batteries etc.) and introduction of other potential storage methods like Hydrogen and Thermal storage can potentially catapult the RE sector for further growth. The global energy storage market has seen growth in 2023, nearly tripling to 45GW/97GWh.

d. C&I customer for RE-RTC

With increase in demand of renewable energy, C&I customer preference is shifting towards RE-RTC (Round the Clock) power. With advent of domestic cloud storage as well as AI, there shall be a high demand for RE power from data centers. NTPC has also tied up with C&I Customers for supply of RE-RTC.

2. Carbon Capture and Utilization, Green Chemicals and Green Fuels

Your Company is exploring opportunities in the domain of carbon capture and utilization, green hydrogen, green fuel, and green chemicals. Salient projects in these areas are listed below:

a. Carbon Capture & Utilization (CCU)

The projects undertaken under CCU are as follows:

- 10 TPD Flue Gas CO_2 to Methanol plant at NTPC Vindhyachal
- 10 TPD Flue Gas CO_2 to Ethanol plant at NTPC Lara
- Study on CO_2 Geological Storage Potential in Cat-1 Coal Fields
- CO_2 based Carbonated Coarse Aggregate Project

b. Green Hydrogen technology

The projects undertaken for producing green hydrogen are as follows:

- Set up of 25KWe Green Hydrogen Grid at NETRA
- Setup of 1 TPD Sea Water to Green Hydrogen Plant at NTPC Simhadri

c. Water technology

The projects being undertaken for producing clean water from wastewater and to subsequently produce hydrogen are as follows:

- Set up of 240 TPD Non-Thermal Forward Osmosis plant at NTPC Mouda
- Set up of 200 TPH Electrocoagulation System at NTPC Solapur

d. Ash Technology

- Set up of 30,000 M^3/Year Fly Ash based FALG Aggregate Plant at NTPC Korba
- Light Weight Aggregate Plant at NTPC Sipat

3. E-Mobility

Your Company envisions to provide zero emission mobility solutions for public transport which includes providing vehicles based on various technologies. Your Company's subsidiary NVVN has supplied 40 E-buses to the Department of Transport Andaman & Nicobar (A&N) and 90 E-buses to Bengaluru Metropolitan Transport Corporation. The buses in A&N are under commercial operation for last 3 years and have logged approximately 6 million kms. Buses in Bangalore are also under commercial operation and have travelled more than 10 million kms till 31 March 2024.

Towards achieving Carbon-Neutral Ladakh, your Company is setting up Hydrogen Fuelling Station, Solar Plant and providing five Fuel Cell buses for operation on intracity routes of Leh. The first-of-its-kind Green Hydrogen Mobility Project at 11562 ft. is co-located with dedicated Solar plant of 1.7 MW for providing renewable power. A unique feature of this project is that the fuel cell buses are designed for operation in sub-zero temperatures in rarefied atmosphere, which is typical for high altitude locations. A similar Green Hydrogen Mobility Project is under implementation at Greater Noida for supplying green hydrogen for running five FCEVs for long haul transport.

4. Cross Border Power Trading

The guidelines issued by MOP, and CERC regulations for cross-border trading of power have opened opportunities to export power to neighbouring countries. Presently, India exports electricity to Nepal, Bangladesh, and Myanmar. India imports power from Nepal and Bhutan but exports power during the lean hydro season. Your Company's subsidiary NVVN has been assigned the role of Nodal Agency for cross-border trading of power by GOI. NVVN has also been nominated as Settlement Nodal Agency (SNA) for the settlement of Grid operation-related charges with neighbouring countries, Bangladesh, Bhutan, Nepal, and Myanmar. Following this, NVVN has signed an SNA agreement with Nepal Electricity Authority and with Druk Green Power Corporation, Bhutan. SNA agreement with Bangladesh Power Development Board shall be signed shortly.

NVVN has signed various Power Purchase Agreements with Bangladesh aggregating up to 742 MW power. NVVN is also supplying 200 MW power to Haryana from Nepal Electricity Authority. NVVN is exploring possibilities for sale of power from NEA hydro power stations to BPDB through Indian Grid.

NVVN has also been trading power with Nepal Electricity Authority (NEA). NVVN has commenced the Cross-Border Electricity Trade (CBET) in power exchange platform by supplying power to Nepal Electricity Authority through day ahead market platform of Power Exchange. This is a first of its kind initiative that helped NVVN to further expand its cross-border portfolio. NEA through NVVN had started export of hydro power to India through power exchange market.

5. International Business

Your Company, building on the proven project management and O&M experience with an expanding power generation portfolio, has made a global presence in various countries as below:

a. Project Development

Bangladesh-India Friendship Power Company Private Limited: This 50:50 joint venture company, formed with the Bangladesh Power Development Board (BPDB), commissioned a coal-based power plant of 1,320 MW capacity at Rampal (Khulna) christened as 'Maitree Super Thermal Power Plant'. The first unit of 660 MW is under commercial operation since December 2022. The second unit was declared COD w.e.f. 12 March 2024.

Trincomalee Power Company Limited (TPCL): TPCL (A 50:50 JV between NTPC Ltd and Ceylon Electricity Board (CEB), Sri Lanka) is developing a 50 MW (extendable to 120 MW) solar power project at Sampur, Sri Lanka, for which JVSHA has been signed on 11 March 2022.

b. PMC consultancy work with International Solar Alliance

Your Company is associated as a corporate partner with International Solar Alliance (ISA) and has been awarded the following Project Management Consultancy (PMC) jobs abroad:

- **ISA Solar Park PMC assignment (ISA Program-06)**

  Appointed as PMC consultant for implementation of 6.6 GW Projects in various countries, NTPC's



mandate is to structure projects, tendering for selection of developers on behalf of the countries and oversee the construction activities till successful commissioning. More countries are being approached for assignments on similar lines.

Country	Capacity
Togo	250 MW
Mali	500 MW
Malawi	100 MW
Niger	50 MW
Cuba	1150 MW
Paraguay	500 MW
Ethiopia	410 MW
Zambia	400 MW
Venezuela	2000 MW
Guinea Bissau	60 MW
DR Congo	1000 MW
Nicaragua	100 MW
Republic of Guinea	100 MW
Total	**6620 MW**

Cuba: Post identification of L1 developer, Negotiations for the Phase-I of 60 MW Solar PV Park Project in Cuba (extendable to 360MW), between L1 developer and UNE (Cuban Govt appointed entity for the project), is underway.

- **Rooftop Solar Projects (ISA Program-04)**

  Your Company is providing PMC services for implementation of 100kW Roof Top Solar Project in Ethiopia & Sao Tome. Selection of EPC Agency for execution of the Roof Top Solar Project, Ethiopia is underway.

- **ISA 27 Demonstration Projects:**

  Your Company has been appointed as Project Management Consultant (PMC) for implementation of solarization projects in 10 countries (Viz. Seychelles, Senegal, Djibouti, Cuba, Ethiopia, Suriname, Burundi, Mozambique, Malawi & Uganda) across three themes:

  (i) Solarization of building roof-top/ground mounted PV installation,

  (ii) Solar based Cold Storages, and

  (iii) Solar PV based Water Pumping Systems.

  Projects in 5 countries (Seychelles, Cuba, Malawi, Uganda, and Ethiopia) have been successfully commissioned. Projects in other 5 countries are in various stages of implementation.

c. Other Consultancy assignments secured:

Your Company has secured several consultancy assignments through competitive bidding which are in various stages of development.

- **Mauritius**: Execution of a consultancy assignment for 2 MW Floating Solar PV Plant at Tamarind Falls Reservoir in Mauritius by CEB Mauritius is underway. 1st phase of the assignment has been completed and PMC services for 2nd phase are in progress.

  Your Company won the consultancy assignment of a 30 MW Floating Solar Project in Mauritius through International Competitive Bidding (ICB) in February 2024. The assignment includes the Feasibility Report preparation and Conceptual Design Report for 30 MW Floating Solar PV at Tamarind Falls Reservoir and a Grid Integration study of a Floating Solar, Wind and Battery Storage System.

- **Kuwait:** Your Company (in Consortium with Local Party) has emerged L1 during the financial bid opening of the Ministry of Electricity, Water and Renewable Energy's (MEWRE) tender for comprehensive maintenance of Sabiya Stage-1 CCGT, Kuwait. The proposal is currently under evaluation with Central Agency for Public Tenders (CAPT), Kuwait.

- **Jordon/Togo:** Your Company has provided O&M audit services to AMEA Power for 66 MWp Solar PV plant in Jordan and 50 MWp Solar PV in Togo. The assignments have been successfully completed.

- **Oman:** Your Company has provided Pre-bid engineering support services in Oman for A'Saffa Poultry's 7 MW Solar Project and Solar Wadi's 86 MW Solar Project. The assignment has been successfully completed.

- **Nepal:** Your Company has been awarded three contracts for vetting of Detailed Project Reports (DPR) of transmission line and substation projects through Exim Bank's GOI supported Line of Credit (GOI-LOC) of USD 750 Mn. to the Government of Nepal in July 2023 and the findings on the DPRs has been submitted to EXIM Bank.

d. International MOU

Your Company has signed two MOUs:

- MOU with ESB-Ireland in November 2023 to promote clean energy technologies by way of promoting R&D and innovation.

- MOU with Nepal Electricity Authority (NEA), Nepal in January 2024 for the co-operation in the renewable power projects including Hydro power plants and capacity building initiatives.

e. Training and Capability Building Programs

Your Company is actively engaged with stakeholders across the globe to run capability building programs for the power sector officials. Such training programs are strategic in nature as these shall not only create increased outreach and goodwill for your Company but also may generate various business prospects through people-to-people networking.

Your Company has provided training to over 250 power sector professionals from various countries (including Myanmar, Cambodia, Maldives, Sri Lanka, Costa Rica, Mongolia, Mauritius, Guyana, Peru, Vietnam, Kenya, Nigeria, Kyrgyzstan etc.) under the aegis of Indian Technical and Economic Cooperation Program (ITEC), Ministry of External Affairs, GOI.

In February 2024, Your Company has secured assignment for the Capacity Building Program on Combined Cycle Power Plant (CCPP) for the power sector professionals of the Nigerian National Petroleum Corporation Limited (NNPCL). Training of the 1st batch has been successfully completed in April 2024.

In February 2024, Your Company has been awarded the contract against RFP for "Hiring of Agency for Delivering in-person training in Bangladesh", by the International Solar Alliance (ISA). The assignment consists of delivering four training programs on topics including "Small-scale Solar Rooftop systems" and "Mini grids".

f. Other Initiatives

Your Company is also exploring investment opportunities in the Renewable Energy and consultancy opportunities in the areas of PMC, O&M services, R&M of power plants, capability building, etc. in the regions such as the Middle East, Southeast Asia, CIS regions, Latin America, and Africa.

6. Efficiency improvement

Your Company has laid major stress on the efficient utilization of resources and the use of technological advancements for improving energy efficiency. Till March 2024, your Company along with its JVs, including foreign and Subsidiaries, has implemented 24640 MW capacity based on Super Critical technology. Your Company has commissioned two of the country's most efficient power plants based on the Ultra-Super Critical (USC) technology at Khargone (2x660MW) and Telangana (2x800 MW).

Your Company aims to enhance the overall efficiency of its coal plants, thereby achieving a substantial reduction in CO_2 emissions. Adoption of USC parameters shall result in substantial reduction of CO_2 emission when compared to conventional subcritical power plants for every unit of electricity generated.

7. Consultancy

NTPC's wealth of knowledge, experience, expertise, and brand image in the entire value chain of power generation business positions us as the preferred Consultant for providing consultancy services in power generation and related areas. NTPC Consultancy offers comprehensive services in conventional and renewable power generation, providing value-added solutions tailored to the specific needs of its clients within the power sector and beyond.

NTPC Consultancy provides a range of offerings, including:

- **Owner's Engineer Services:** NTPC Offers concept to commissioning services through Owner's Engineer Assignment in conventional as well as renewable energy systems, encompassing:
  - Prefeasibility, feasibility studies, Pre-award services including Bid process management and post award engineering services including inspection.
  - Project Management, Site Supervision, assistance in commissioning and PG Test
- **Quality Assurance & Inspection Services:** NTPC's stringent Quality Management System, Vendor assessment process, inspection offices all over India and capability to undertake inspections abroad with experienced professionals help client to achieve high quality standards.
- **Operation & Maintenance of Power Plants:** NTPC offers a bouquet of O&M services including:
  - O&M advisory services of power plants including comprehensive O&M services and O&M management services like Technical Audits, Performance Improvement Services, O&M Management System, Efficiency Management etc.
  - Environmental Audits
  - Renovation & Modernization - NTPC offers solutions for R&M of old plants for enhancement of performance and life cycle from its extensive experience in system restoration, efficiency improvement and R&M of old thermal power projects.



- Technical Due Diligence - NTPC supports lenders in management of stressed assets through technical due diligence.

- **Implementation of New Environment norms**: NTPC also provides Owner's Engineer Consultancy service from Concept to commissioning for Flue Gas Desulphurization (FGD) systems, and SPM control and reduction in water consumption.
- **Renewable Energy Transition:** Recognizing the imperative to transition towards renewable energy sources, we actively support clients in their journey towards sustainable power generation. Through Owner's Engineer Services, we facilitate the development and commissioning of renewable energy projects, including wind and solar power plants, pump storage hydro projects etc. Our efforts in this domain contribute to reducing reliance on fossil fuels and promoting a greener energy mix.
- **IT and HR Services**: NTPC offers IT services including some of its flagship home-grown products such as DREAMS (Drawing Review and Management System), CLIMS (Contract Labour Management Information System), Implementation of ERP, Plant Information (PI) System etc. NTPC conducts Organizational restructuring studies, policy framing and system formation.
- **Distribution:** NTPC has been appointed as Project Implementing Agency (PIA) for implementation of loss reduction works under GOI Revamped Reforms-Based and Results-linked, Distribution Sector Scheme (RDSS scheme) in 9 districts of UT of J&K.

THREATS/CHALLENGES/CONCERNS

1. RE Capacity Growth

The following factors will increase the input cost leading to challenges for the fast-paced growth of RE Capacity:

a. Supply Chain Disruptions: Renewable power projects rely on a complex supply chain for equipment, materials, and components necessary for renewable energy projects. Disruptions in the supply chain, whether due to geopolitical tensions, trade disputes, or natural disasters or force majeure conditions could lead to delays in project execution and cost overruns.

b. Infrastructure Constraints: Developing renewable energy infrastructure, such as offshore wind farms and energy storage facilities, requires substantial investment in land, transmission lines, and grid integration. Challenges related to land acquisition, regulatory approvals, and grid reliability can delay project timelines and increase costs heavily.

c. Technology Adoption: Adopting solar, wind and green hydrogen production requires significant technological expertise and investment. Organizations may face challenges in adopting and scaling up these technologies efficiently, especially if there are delays or setbacks in research and development or if the technologies prove to be economically unviable in the long run due to rapid technological advancements in the field.

d. Environmental and Social Concerns: The development of renewable energy projects, particularly large-scale installations like Solar projects and wind farms, may face opposition from local communities, environmental groups, and indigenous people due to concerns about land use, biodiversity conservation, and cultural heritage.

e. Green Hydrogen growth: Cost of green hydrogen is a major impediment for growth in India or elsewhere. Cost of renewable energy amounts to nearly 60-70% cost of green hydrogen and chemicals resulting into at least twice the cost of traditional green chemicals. It is expected that in coming decades cost of green hydrogen shall come down with sizable scale of domestic Electrolyser production and RE component manufacturing based in India. Till such time green hydrogen production is likely to be dormant.

f. Policy and Regulatory Uncertainty: Changes in policies, regulations, and incentives can create uncertainty for investors and project developers. Delays in project approvals can add on to the business risk and hinder the growth of the renewable energy sector.

Efforts are made to obtain all statutory clearances and ensure land availability before the commencement of the projects. Timely tie up for power evacuation and expediting the installation of associated transmission system is helping in mitigating the grid capacity constraints. Further, GOI has planned the enhancement of the transmission capacity to meet 500 GW renewable capacity by 2030.

2. Flexible operation of Thermal Units

To integrate variable RE into the grid, coal-based power plants must regulate their generation to maintain grid balance. Therefore, the influx of more RE power in the grid would require many coal-based plants to operate at technical minimum capacity, frequent load fluctuations, and two-shift operations. This will result in lower efficiency at partial load, leading to a higher cost of generation. Other factors like the cost of balancing services, and reduced life due to flexible operation of the thermal plant would also adversely affect the cost of generation. Most of the NTPC plants have achieved the ramping rate required for flexible operation and policy advocacy for compensating the additional cost and incentivising the flexible operation is also being taken up at various levels.

3. Environmental Concerns

As per new environment norms, all plants must achieve 100% ash utilization within a 'compliance period' of 3 to 5 Years based on their level of Ash utilization during FY22. Various initiatives have been undertaken for the development of new products and processes such as use of Bottom Ash in place of Sand and because of novel technologies & products such as Nano Concrete Aggregate (NACA), precast elements, paver blocks etc. using NACA has been successfully developed and implemented.

4. Non-availability of Gas

GOI has accorded higher priority for allocation of domestic gas to CGD (City Gas Distribution) sector. Due to the diversion of allocated gas to the CGD sector as per MOP&NG guidelines, allocated domestic gas (APM/ Non-APM) supplies to your Company became Nil w.e.f. 16 June 2021. Further, due to high reserve prices and onerous terms & conditions, the Power sector is not able to tie up new domestic gas from the KG basin. Gas stations are dependent upon costlier RLNG for declaring capacity/generation, however, the generation schedule on RLNG is not available on a sustained basis.

OUTLOOK FOR THE COMPANY

Strategic focus of the Company

As India is expected to grow at a fast pace in the *'Amrit kaal'*, your Company's priority is to support this pace of economic development by providing accessible, affordable, and reliable power to the consumers. The demand for power registered a growth of 7% in FY24 due to the post pandemic economic recovery and an abnormally hot summer. Under these testing circumstances your Company has not only catered to this surge in demand, but also did it more efficiently. This is reflected in the generation touching 422 BUs for the first time and average PLF of your Company's coal stations reaching 77.25%, way higher than the country average of 69.49%. In terms of market share, your Company supplied more than 24% of the Country's power demand while having around 17% of installed capacity thus maintaining its leadership position in power generation. This has been made possible with a diversified portfolio and an integrated supply chain from coal mining to power trading.

The stature of your Company is well depicted by its worldwide rankings such as 1st Independent Power Producer (IPP) in the PLATTS IPP and Energy Trader Ranking (2022), 14th in Fortune India 500 companies (2023) and 10th largest among Indian companies (Global rank-372) in Forbes Global 2000 companies (2024).

The focus of your Company is to fulfil the ever-increasing power requirements of the country, critical for meeting the growth aspirations. While doing this, it is of cardinal importance to be a major contributor in the energy transition fostering the achievement of net zero milestone.

In this regard, your Company has an ambitious plan to reach a total installed capacity of 130 GW+ by 2032. In Renewable space, the target is to achieve 60 GW by 2032. Capacity addition is planned through Ultra Mega Renewable Energy Power Projects (UMREPPs), collaborating with other companies, partnering with State Governments and through competitive bids. To focus on RE business, your Company has consolidated its RE portfolio under its wholly owned subsidiary NTPC Green Energy Limited (NGEL).

To ensure the optimal utilization of the vast renewable capacity planned, energy storage solutions will be of vital importance. In this regard, it is planned to develop substantial storage capacity. GOI has indicated power CPSEs for development of Pump storage projects across the country. Under this Pump Storage Projects totalling to 11.5 GW have been indicated for your Company, we are taking up with State Governments for implementing these. NTECL, your Company's JV with TANGEDCO has been allotted Upper Bhavani Pumped Storage Project (4X250 MW) in Nilgiri District of Tamilnadu by Government of Tamilnadu.

Considering the high level of variable Renewable electricity infusion, it is important to provide Base load support to the grid, to ensure grid stability. For this purpose, a thermal capacity of around 10 GW through brown field projects is also under construction.

Further, for its maiden foray into nuclear power, your Company is collaborating with Nuclear Power Corporation of India (NPCIL). NTPC has signed a Supplementary Joint Venture Agreement (SJVA) with NPCIL for development of Nuclear Power Projects. Initially it is planned to develop one project with capacity of 2.8 GW. This will also help the country in meeting the net zero emission target by 2070.

It is also planned to foray into the Hydrogen ecosystem for production of Green Chemicals and fuels (Methanol & Ammonia) supported by research & development and collaboration with OEM/OES, research institutes, etc.

To expand its RE-C&I (Commercial and Industrial) portfolio, your Company has also entered into agreements with various companies for supply of RE-RTC (Round the Clock) power.

Further, your Company envisages enhancing its current presence in consultancy services, power trading, and ancillary services and has targeted a 25% market share in ancillary services and storage by 2032 under its long-term plan.



Fuel security is of critical importance for the thermal portfolio; therefore, your Company's focus is on increasing the captive coal production through NTPC Mining Limited (NML). Efforts are being made for acquisition of new coal & other mineral blocks through participation in auctioning of coal blocks by Ministry of Coal (MOC)/other mineral blocks by Ministry of Mines or by Individual State Governments.

Your Company has embraced digitalization as a fundamental component of its strategy. By extensively implementing digital tools and technologies, we enhance operational efficiency and optimize resource utilization. This approach enables us to achieve our commitment to high productivity while supporting sustainable growth and resource conservation.

Power and carbon credit trading scheme has the potential to fundamentally affect all the sectors of the economy and can play a substantial role in India's efforts to mitigate climate change. As the government is putting enabling policies and regulations in place, your Company is gearing up to be a major player in this domain. In power trading, NVVN, a wholly owned subsidiary of your Company traded more than 35 BUs in FY24.

Growth Outlook

Your Company is looking for opportunities to expand and diversify its business in new areas both domestically and globally by working in close coordination with the Indian and global energy community. Some of the key growth opportunities identified by your Company are discussed below.

Renewable Energy

1. Solar and wind power

As on 31 March 2024, your Company has a group commissioned RE capacity of 3.5 GW. NTPC is already having the largest portfolio of floating solar projects of 262 MW. The expertise and the experience gained is being deployed for executing number of floating solar projects in the country. UMREPP at Gujarat (4.8 GW), DVC (0.7 GW), and Madhya Pradesh (0.6 GW) are being developed by NTPC. These parks shall attain full capacity within next three years. A number of MOUs have been signed with various state governments to undertake more UMREPPs, totalling to over 50 GW capacity. Under NSM, 5.25 GW of RE projects have been commissioned and 3.3 GW of RE projects are under implementation as of March 2024. MNRE has accorded approval to NTPC to act as a renewable energy implementing agency (REIA) and issue tenders for setting up renewable power projects (wind and solar) under developer mode. In FY24 RE capacity of 15 GW, comprising vanilla solar and wind, hybrid and FDRE (Firm and Dispatchable Renewable Energy) have been tendered out.

2. Green Hydrogen

Green Hydrogen Blending Project at Kawas: Operational since last 15 months, this pilot has succeeded in blending 8% v/v green hydrogen in November 2023 after satisfying all regulatory approvals. With this NTPC's engineering and project management capabilities are amply demonstrated.

Mobility Project at Leh and Greater Noida: Two green mobility projects one at Leh and another at Greater Noida are at advanced stage of execution. The project at Leh is aimed at finding the techno-economic feasibility of Hydrogen buses for short haul (less than 200 km), while in project at Greater Noida long haul operation (more than 600 km) is being tried out.

Future Hydrogen Technologies: Green Hydrogen based microgrid project of 200 kW RE-RTC and locomotive(s) are at the advanced stage of planning which are to be put into regular use by FY26. Two Green Hydrogen based microgrid projects of 25 kW each based on AEM and PEM have been commissioned which shall be used for research studies.

3. Offshore Wind

With the GOI's notification of Offshore Wind Lease Rules (2023), developers are allowed to lease areas between 25 and 500 square km for offshore wind projects. This opens a potential field for NTPC and other renewable energy developers in India. NTPC is pursuing collaborations with global partners to leverage expertise and experience in developing offshore wind energy projects. Your Company is actively participating in all relevant tenders for offshore wind projects.

4. Energy Storage

NTPC is actively pursuing different forms of energy storage, e.g., Pumped Hydro, BESS (Battery Energy Storage System) and Thermal energy storage. In addition to previously mentioned technologies, usage of Hydrogen as storage solution is being explored. As a first, NTPC REL is executing a 500-kW solar based off-grid power generation system coupled with 250kW/1200kWh BESS system, to provide construction power for under execution solar project in Khavda region, avoiding DG sets. NTPC REL has already issued tenders for 4 GW/24 GWh capacity energy storage solutions.

Diversification and New Business Area Initiatives

Your Company is exploring new business opportunities in different areas as summarised below:

1. Nuclear Energy

Joint venture for development of nuclear power projects: NTPC has signed a Supplementary Joint Venture Agreement (SJVA-1) with Nuclear Power Corporation of India Ltd. (NPCIL) for development of Nuclear Power Projects. Initially, one project has been identified for transfer from NPCIL to the JV Company, ASHVINI (Anu Shakti Vidyut Nigam Limited), i.e., Mahi Banswara Rajasthan Atomic Power Project (MBRAPP 4X700 MW).

Development of SMR (Small Modular Reactor): SMR is reactor with power output from 10MWe to 300MWe with passive cooling and walkaway safe feature. This can be utilized for generation of clean Hydrogen, Industrial heating, desalination, repurposing of coal plant etc. NTPC is under discussion with BARC for development of indigenous SMR technology.

Fuel security: For reliable generation from nuclear power plants, uninterrupted nuclear fuel supply needs to be ensured. Given the magnitude of future power generation projections, indigenous sources of fuel supply may not be sufficient. NTPC is in discussion with UCIL (Uranium Corporation of India Ltd.) on due diligence for acquisition of overseas Uranium assets.

Capability development: In association with NPCIL design team, your Company is building inhouse capacity in nuclear technology, for this we have tied up with BARC for one-year OCES (Orientation Course in Engineering graduates and Science Post-Graduates) course for its executives.

2. Hydrogen Hub at Pudimadaka

Your Company has conceptualised setting up of a Green Hydrogen Hub at Pudimadaka near Vishakhapatnam. Spread over 1200 acres, the Project shall involve establishment of manufacturing facilities for Hydrogen related equipments, production & export of Green Hydrogen. When fully developed it shall consume 5 GW of RE power while exporting about 2 MMTPA of green ammonia and green methanol. It is well connected to major transportation hubs covering road, rail and sea. Many international potential off-takers have shown interest in setting up production units.

A detailed proposal was submitted to Andhra Pradesh Government for development of this Hydrogen Hub at Pudimadaka. The State Investment Promotion Board (SIPB) and State Cabinet has cleared NTPC's proposal and Government Order received in February 2023. NTPC's green arm NGEL has been identified for setting up the proposed Green Hydrogen Hub at Pudimadaka. Accordingly, NGEL has executed the Pudimadaka land lease deed in February 2024 with Andhra Pradesh Industrial Infrastructure Corporation (APIIC).

3. Bamboo-based Bio-Refinery at Bongaigaon

Your Company is currently pursuing a techno-economic Feasibility Studies through consultant M/s EIL to setup a Bamboo based 2G Bio-Refinery project at Bongaigaon Thermal Power Station. Through this project, NTPC aims to extract valuable bio-chemicals from naturally available bamboo in the region and use the by-product i.e., Bio coal as a fuel for blending with coal to fire in Bongaigaon power plant. Based on EIL's global EOI findings, MOU with technology licenser M/s Chempolis, was signed for exploring setting up an integrated bamboo based biorefinery at NTPC Bongaigaon project. The draft DPR is under discussion.

4. Commercial operation of Desalinated Distillate/Mineral Water generated at NTPC Simhadri

NETRA had developed the "FLASH DESALINATION TECHNOLOGY (FDT)" for production of Quality water (desalinate/ distilled) from sea / brackish water utilizing the heat from flue gas of power plant. A facility for production of 120 ton per day of desalinated water using FDT technology was set up by NETRA at NTPC Simhadri. Subsequently, for commercial utilisation of desalinated water a MOA was signed with IRCTC for setting up RAIL NEER packaged drinking water bottling facility at NTPC Simhadri. RAIL NEER plant has been commissioned & declared commercially operative.

5. Collaboration with State Governments/CPSEs

Uttar Pradesh

Your Company has signed following proposals for investments in UP Power Sector in February 2023 during UP Global Investors Summit:

- Expansion of MUNPL (a JV of NTPC & UPRVUNL) with Stage-II units, subject to feasibility, statutory clearance, and equity infusion by Govt. of UP.
- Jointly setting up 2X800 MW supercritical Thermal Power plants at Obra and Anpara with UPRVUNL through the JV MUNPL.

Rajasthan

Your Company and Rajasthan Rajya Vidyut Utpadan Nigam Ltd signed an MOU in March 2024.

- The purpose of MOU is to explore capacity expansion opportunities and collaborate for performance improvement in existing units (4x250 + 2x660 MW) at Chhabra.
- The MOU also aims to explore the possibilities of annuity-based R&M of other units of RVUNL.



NALCO

Your Company and NALCO signed an MOU in February 2024. The purpose of MOU is to explore various options such as Thermal, Solar, Wind, Energy storage or any combination of same to supply round the clock uninterrupted power to cater the requirement of NALCO for expansion of its smelter plant capacity at Angul, Odisha.

FUEL SECURITY

To focus on the mining business, NTPC Mining Ltd. (NML), a wholly owned subsidiary, was formed. While Ministry of Coal (MOC) approved transfer of Pakri-Barwadih mine in December 2020, permission of transfer of other mines were accorded in March 2023. Following which Business Transfer Agreement was executed and Deed of Adherence (DOA) among NTPC, NML & MOC was signed in September 2023. Amended Allotment Agreement for all coal mines was received in January 2024. Asset transfer and clearances are ongoing.

With five operational mines namely, Pakri-Barwadih, Dulanga, Talaipalli, Chatti-Bariatu & Kerandari, coal production in FY24 stands at 34.39 MMT with a growth of 48% over previous year. Cumulative production reached 103.99 MMT in March 2024. Kerandari mine commenced production in January 2024. Additionally, development of the Badam mine is underway, with a Mine Developer cum Operator (MDO) appointed in December 2023. Similarly, development activities and process of obtaining statutory clearances are in progress for Banhardih mine, allocated to Patratu Vidyut Utapadan Nigam Ltd. (PVUNL), a Subsidiary of Your Company in joint venture with Government of Jharkhand. In addition, Amelia Mine owned by NTPC's subsidiary THDCIL produced 1.25 MMT of Coal taking the total captive production of the group to 35.64 MMT for FY24.

NML won its 1st commercial coal block of North-Dhadu (East), through competitive bidding in August 2023. Subsequently, Coal block development & production agreement (CBDPA) signed with MOC in September 2023. The vesting order has been received from MOC and site office has been opened in December 2023. Geological report submitted to the Ministry in April 2024. Efforts are being made for acquisition of new coal & other blocks through participation in auctioning of coal blocks by Ministry of Coal (MOC)/other mineral blocks by Ministry of Mines or by Individual State Governments.

REALISATION

Your Company has in place a robust payment security mechanism in the form of Letters of Credit (LC) backed by the Tri-Partite Agreement (TPA). Apart from the LCs, payment is secured by the Tri-Partite Agreements (TPAs) signed amongst the State Government(s), Government of India (GOI) and Reserve Bank of India (RBI). As per the TPA, any default in payment by the State owned Discoms can be recovered directly from the State's account in RBI. The TPAs signed during 2000-01 were valid up to 31 October 2016. Subsequently these TPAs have been extended for a further period of 10 to 15 years. As of now, 29 out of total 31 States/ UTs have signed the TPAs extension documents. The signing of TPAs extension by remaining States is being taken up.

During FY24, your Company has realized 100% of its dues. The target set by the Government of India (GOI), for realization of dues for energy supply in FY24 has also been achieved. Most of the beneficiaries have made timely payments and availed the applicable rebates.

Power Trading in Power Exchange - Your Company has been participating, both in the Integrated Day Ahead Market (I-DAM) and Real time Market (RTM) for selling any URS power in the Power Exchange through its trading arm NVVN. Besides selling the URS power, it has also been selling any regulated power, merchant power, relinquished gas power, infirm power in the Power Exchanges. In FY24, record 3278 MUs of power has been sold in the various segment of power exchanges by NTPC. Corresponding gains for this sale have been shared with the beneficiaries as per the extant regulatory provisions.

Leveraging on Strengths for Delivering Better Future Performance

Your Company derives its competitive edge from its strengths and is confident of meeting future challenges.

Project Management

Your Company has adopted an integrated system for the planning, scheduling, monitoring and control of approved projects under implementation. To co-ordinate and synchronise all the support functions of project management, Company relies on a three-tiered project management system known as the Integrated Project Management Control System (IPMCS), which integrates its engineering management, contract management and construction management control centres. The IPMCS addresses all stages of project implementation, from concept to commissioning.

Your Company has established state-of-the-art IT enabled Project Monitoring Centre (PMC) for facilitating fast track project implementation. PMC has advanced features like Project Review and Internal Monitoring System (PRIMS), etc. PMC facilitates monitoring of key project milestones and also acts as decision support system for the management.

PMC is an integrated enterprise-wide collaborative system to facilitate consolidation of project related issues and their resolution. Features like real time video capture, storage and retrieval facility and video conference facility are extensively utilized for project tracking, issue resolutions and management interventions. PMC has helped in providing effective coordination between the agencies and has provided enhanced/ efficient monitoring of the projects leading to a better and faster project implementation.

In addition to above, in order to make monitoring of projects more effective, your Company is now adopting Integrated Software monitoring tool for integrating progress of Engineering, Supplies and Erection at one place, and capturing progress online. Features like mobile app based updation of progress and role-based access make the tool more user-friendly which will result into regular updation of progress. It will help in taking timely remedial actions. This tool has been included in the bid documents of EPC packages of upcoming projects of NTPC and included in recently awarded projects.

In a changing global scenario, your Company has added various other project management tools which are Online CAPEX monitoring system/ Digital Hindrance register/ Digital Chronology register/Issue Monitoring System etc.

Operational Efficiency

The operating performance of your Company has been consistently above the national average. Over the years, your Company has consistently operated at much higher operating efficiency as compared to All India operating performance.

In order to achieve cost-competitive, environment friendly, efficient & reliable power generation, your Company has adopted following strategies:

- To improve reliability of the units and to reduce the forced outages, close monitoring of start-ups & shutdowns and root cause analysis of all the outages is carried out and an action plan is generated to mitigate the outages.
- Continuous real time monitoring of critical parameter deviations (both reliability & efficiency related) and implementation of action plan to mitigate the deviations.
- Optimizing planned outage period through implementation of Overhaul Preparedness Index (OPI), ensuring all quality checks and time bound monitoring of each activity.
- Improvement in Heat Rate & Auxiliary Power Consumption achieved by parametric optimization, specially at part loads by operation of units in sliding pressure mode & optimizing excess air.
- To minimize efficiency losses in stations, Plant Information (PI) system-based applications for real time efficiency & loss calculations.
- Structured & regular energy audits to identify potential areas of improvement in APC reduction and Implementation of action plans.
- To reduce cost of generation steps have been taken to reduce Energy Charge Rate (ECR) by swapping of coal supplies and optimizing operations.
- Use of a Comprehensive Performance Evaluation Matrix (PEM) for relative evaluation of the performance of various power plants to create an environment of in-house challenge and competition. The parameters are reviewed annually to include new parameters commensurate with market dynamics and developments in power sector.
- Adopting advanced technologies in new units e.g., commissioning of super critical units, which improves system efficiency & reduces carbon footprint and retrofits of DeNOx & DeSOx technologies in older units.
- Renovation & modernization for reduction of greenhouse gas emissions, effective modernized control systems for environment friendly economic generation and particulate emission control.
- Water conservation measures like increasing the Cycle of Concentration (CoC) of circulating water and ash water recirculation, implementation of zero effluent discharge, high concentration ash-slurry discharge, dry evacuation of ash, and Air-Cooled Condensers (ACC) etc.
- Strict compliance of Grid Code, ancillary services for ensuring grid stability.

Human Resources

Your Company has a highly talented team of committed professionals and has been able to induct, develop and retain the best talent. Your Company has a very low executive attrition rate. Your Company is deeply passionate about ensuring the holistic development of all its employees as distinct individuals and good citizens. Competence building, Commitment building, Culture building, and Systems building are the four pillars on which HR Systems of your Company are based. Your Company has been conferred with various HR Awards over the years by reputed institutions and consistently features among the "Great Places to Work for". The commitment of the employees is also reflected in consistent improvement of financial parameters such as sales per employee, value added per employee etc.

Sound Corporate Governance

Your Company's corporate governance practices have been recognised and awarded at several forums. Your Company believes in following the highest standards of transparency, integrity and accountability. It enjoys the confidence of all



stakeholders alike. Your Company not only believes in adopting best practices but also includes public interest in its corporate priorities and has developed extensive social outreach programmes. NTPC's consistent commitment to high standards of corporate governance is recognized by the Gold Award for its Annual Report at the "Corporate Governance Disclosures Competition 2022," organized by the South Asian Federation of Accountants (SAFA).

Robust Financials and Systems

Your Company has strong financial systems in place. It believes in prudent management of its financial resources and strives to reduce the cost of capital. Your Company enjoys highest credit-rating assigned by CRISIL, ICRA, CARE and India Ratings. The foreign ratings by Fitch, S&P & Moody's are at par with sovereign ratings. It has robust financials leading to strong cash flows which are being progressively deployed in generating assets. Your Company has a strong balance-sheet coupled with low gearing and healthy coverage ratios. As a result, your Company has been able to raise resources for its capital expansion projects at very competitive interest rates in domestic as well international markets.

Internal Control

To ensure regulatory and statutory compliances as well to provide highest level of corporate governance, your Company has robust internal systems and processes in place for smooth and efficient conduct of business and complies with relevant laws and regulations. A comprehensive delegation of powers exists for smooth decision making which is periodically reviewed to align it with changing business environment and for speedier decision making. Elaborate guidelines for preparation of accounts are followed consistently for uniform compliance. To ensure that all checks and balances are in place and all internal control systems are in order, regular and exhaustive internal audits are conducted by experienced firms of Chartered Accountants in close co-ordination with the Company's own Internal Audit Department. Besides, your Company has two committees of the Board viz. Audit Committee and Committee on Management Controls to keep a close watch on compliance with Internal Control Systems.

A well-defined internal control framework has been developed identifying key controls. The supervision of operational efficiency of designed key controls is done by Internal Audit. The framework provides an elaborate system of checks and balances based on self-assessment as well as audit of controls conducted by Internal Audit at the process level. Gap tracking report for operating efficiency of controls is reviewed by the management regularly and action is taken to further strengthen the Internal Control System by further standardizing systems & procedures and implementing process changes, wherever required, keeping in view the dynamic environment in which the Company is operating.

The Internal Control Framework system presents a written assessment of effectiveness of Company's internal control over financial reporting by the process owners to facilitate certification by CEO and CFO and enhances reliability of assertion.

Depicting strong Internal Control, your Company's Internal Audit department was honoured with the "Internal Auditor of the Year" award at the 5th Audit and Risk Summit & Awards (UBS Forums).

FINANCIAL DISCUSSION AND ANALYSIS

A detailed discussion and analysis on financial statements is furnished below. Reference to Note(s) in the following paragraphs refers to the Notes to the standalone financial statements for the financial year 2023-24 placed elsewhere in this Annual Report.

A. Financial position

The items of the Balance Sheet are as discussed under:

1. Property, plant & equipment (PPE), Capital work-in-progress, Investment property, Intangible assets and Intangible assets under development (Note-2 to Note-6)

The PPE, Capital work-in-progress, Investment property, Intangible assets and Intangible assets under development of the Company are detailed as under:

₹ Crore

Particulars	As at March 31		% Change
	2024	2023	
Gross block of PPE (Note-2)	2,98,418.18	2,69,166.05	11%
Net block of PPE (Note-2)	2,11,323.43	1,96,441.71	8%
Capital work-in-progress (Note-3)	47,153.81	61,743.88	(24)%
Investment property (Note-4)	859.90	465.18	85%
Net block of Intangible assets (Note-5)	427.69	454.17	(6)%
Intangible assets under development (Note-6)	3.19	44.92	(93)%

During the year, total gross block of PPE has increased by 11% while capital work-in-progress has decreased by 24% mainly due to addition of new commercial capacity.

2. Non-current financial assets (Note-7 to Note-11)

(a) Equity investments in subsidiaries and joint ventures (Note-7)

The break-up of equity investments in subsidiaries and joint ventures is as follows:

₹ Crore

Particulars	As at March 31	
	2024	2023
Subsidiaries	22,177.16	19,661.63
Joint ventures	10,228.79	9,427.04
Total	**32,405.95**	**29,088.67**

During the year, equity investments in subsidiaries and joint ventures increased by 11%. The increase/ (decrease) is as under:

₹ Crore

Name of Company	Amount
NTPC Green Energy Limited	1,000.00
Patratu Vidyut Utpadan Nigam Ltd.	526.93
Energy Efficiency Services Ltd.	383.00
Hindustan Urvarak and Rasayan Ltd.	347.04
Bangladesh-India Friendship Power Co. Pvt. Ltd.	162.00
NTPC Mining Ltd.	154.05
Meja Urja Nigam Private Ltd.	41.92
NTPC Tamil Nadu Energy Company Ltd.	30.00
National High Power Test Laboratory Private Ltd.	18.40
Trincomalee Power Company Ltd.	0.44
Total investments during the year	**2,663.78**
Add: Provision for impairment made in earlier years written back during the year	
Ratnagiri Gas & Power Private Ltd.	834.55
Less: Provision for impairment made during the year	
Transformers and Electricals Kerala Ltd.	25.87
National High Power Test Laboratory Private Ltd.	6.08
Energy Efficiency Services Ltd.	149.10
Net increase in investments	**3,317.28**

(b) Other Non-current financial assets (Note-8 to Note-11)

Other Non-current financial assets mainly comprise of investment in equity and debt instruments, loans to related parties, employees & others, share application money, claims recoverable, finance lease receivables and mine closure deposit.

₹ Crore

Particulars	As at March 31		% Change
	2024	2023	
Other investments (Note-8)	701.98	631.08	11.23%
Loans (Note-9)	800.66	1,233.47	(35.09)%
Trade receivables (Note-10)	1,168.10	2,399.78	(51.32)%
Other financial assets (Note-11)	627.98	922.93	(31.96)%
Total	**3,298.72**	**5,187.26**	**(36.41)%**

Other investments mainly comprise of investment in equity instruments of PTC India Ltd. and debt instruments of Jhabua Power Limited.

Outstanding dues of the beneficiaries have been rescheduled up to a maximum period of 48 months in the manner prescribed in the Electricity (Late Payment Surcharge and Related Matters) Rules, 2022 and accordingly presented at their fair value under Non-current Trade Receivables.

Other financial assets include share application money pending allotment in subsidiaries and joint ventures, claims recoverable, finance lease receivables and mine closure deposit.

₹ Crore

Other financial assets (Note-11)	As at March 31		% Change
	2024	2023	
Share application money pending allotment	-	137.93	(100)%
Claims recoverable	485.07	517.28	(6)%
Finance lease receivables	-	201.56	(100)%
Mine closure deposit	142.91	66.16	116%
Total	**627.98**	**922.93**	**(32)%**

Claims recoverable includes amounts outstanding as recoverable from GOI of ₹483.37 crore (31 March 2023: ₹517.28 crore), the cost incurred in respect of Loharinag-pala hydro power project, the construction of which has been discontinued on the advice of the Ministry of Power (MOP), GOI and it is expected that the same will be compensated in full by the GOI.

The Company had ascertained that the Power Purchase



Agreement (PPA) entered into for Stage-I of Tanda thermal power station with the beneficiary falls under the definition of finance lease. The PPA is expiring in the next financial year and accordingly the balance lease recoverable has been included under 'Current assets - Other financial assets' (Note-19).

3. Other non-current assets (Note-12)

The changes in other non-current assets during the year are as follows:

₹ Crore

Other non-current assets	As at March 31		% Change
	2024	2023	
Capital advances	6,089.11	6,026.69	1%
Security deposits	303.05	306.87	(1)%
Advances to contractors and suppliers (other than capital advances)	1,666.51	1,810.82	(8)%
Advance tax and tax deducted at source (net of provision for tax)	2,194.06	2,476.02	(11)%
Deferred foreign currency fluctuation asset	1,486.57	1,565.41	(5)%
Others	199.40	167.83	19%
Total	**11,938.70**	**12,353.64**	**(3)%**

4. Current assets (Note-13 to Note-20)

The changes in the current assets during the year are as follows:

₹ Crore

Particulars	As at March 31		%
Current assets	**2024**	**2023**	**Change**
Inventories (Note-13)	17,369.83	13,679.75	27%
Investments (Note-14)	50.00	50.00	-
Trade receivables (Note-15)	27,347.52	26,028.64	5%
Cash and cash equivalents (Note-16)	197.16	3.13	6,199%
Bank balances other than cash and cash equivalents (Note-17)	4,403.34	3,738.60	18%
Loans (Note-18)	415.85	312.45	33%
Other financial assets (Note-19)	11,664.94	11,273.81	3%
Other current assets (Note-20)	10,907.50	10,726.15	2%
Total current assets	**72,356.14**	**65,812.53**	**10%**

(a) Inventories (Note-13)

Inventories mainly comprise of coal and stores & spares, which are maintained for operating stations. Value of coal inventory has increased from ₹5,064.63 crore as at 31 March 2023 to ₹7,560.67 crore as at 31 March 2024. Further, stores and spares inventory has increased from ₹6,231.13 crore as at previous year end to ₹7,148.84 crore, mainly on account of addition of new commercial capacity.

(b) Investments (Note-14)

Current investments comprise of current maturities of debt instruments held in Jhabua Power Limited.

(c) Trade receivables (Note-15)

As on 31 March 2024, current trade receivables amounted to ₹27,347.52 crore (including doubtful debts which have been provided for) and the corresponding trade receivables as on 31 March 2023 were ₹26,028.64 crore. Trade receivables include unbilled revenue for the month of March amounting to ₹13,326.46 crore (31 March 2023: ₹11,176.95 crore) billed, net of advance, to the beneficiaries after 31 March. Based on arrangements between Company, banks and beneficiaries, the bills of the beneficiaries have been discounted. Trade receivables include bills discounted amounting to ₹1,824.71 crore (31 March 2023: ₹1,287.19 crore) pursuant to opinion of EAC of ICAI. Trade receivables for previous period has also been restated. Non-current trade receivables amounted to ₹1,168.10 crore as on 31 March 2024 (31 March 2023: ₹2,399.78 crore).

Excluding the unbilled revenue and bills discounted, trade receivables are equivalent to 31 days of sales as on 31 March 2024 in comparison to 36 days of sales as on 31 March 2023.

(d) Cash and cash equivalents (Note-16) & Bank balances other than cash and cash equivalents (Note-17)

Cash and cash equivalents & Bank balances other than cash and cash equivalents have increased from ₹3,741.73 crore as at 31 March 2023 to ₹4,600.50 crore as at 31 March 2024. The main reason for change is increase in deposits representing unutilized amount of External Commercial Borrowings from ₹145.64 crore as at 31 March 2023 to ₹832.76 crore as at 31 March 2024.

(e) Other financial assets (Note-19)

Other current financial assets have increased by ₹391.13 crore. This is mainly due to net effect of increase in Contract assets by ₹3,586.08 crore and decrease in advances (Unsecured) to related parties by ₹3,174.38 crore, which mainly represented recoverable from NGEL consequent to transfer of RE assets in the previous year, settled during the year.

Contract Assets represent Company's right to consideration in exchange for goods and services that the Company has transferred / provided to customers when that right is conditioned on matters, other than passage of time, like receipt of income tax assessment orders, truing up orders from CERC etc. and are net of credits to be passed to customers.

(f) Other current assets (Note-20)

Other current assets comprise of security deposits, advances to related parties, employees, contractors and suppliers, claims recoverable etc.

₹ Crore

Particulars	As at March 31		% Change
	2024	2023	
Security deposits (unsecured)	1,863.76	2,322.88	-20%
Advances	4,804.97	4,426.26	9%
Claims recoverable	4,030.67	3,852.26	5%
Others	208.10	124.75	67%
Total	**10,907.50**	**10,726.15**	**2%**

Other current assets have increased mainly due to increase in Advances to contractors and suppliers by ₹287.10 crore. Advances to contractors and suppliers mainly include payment made to coal companies amounting to ₹3,420.89 crore (31 March 2023: ₹3,143.51 crore) for supply of coal to various stations of the Company.

Claims recoverable includes claims against Railways amounting to ₹1,962.65 crore (31 March 2023: ₹2,023.76 crore) mainly towards diversion of coal rakes and claims amounting to ₹1,725.37 crore (31 March 2023: ₹1,615.66 crore) made against coal companies towards various issues such as credit notes to be received as per referee results for grade slippages, supply of stones, claims under settlement through AMRCD, surface transportation charges, etc.

5. Assets held for sale (Note-21)

Land, Building, Plant and equipment and Other assets which have been identified for disposal has been classified as Assets held for sale. These assets are expected to be disposed within the next twelve months. Assets held for sale has decreased from ₹120.52 crore as at 31 March 2023 to ₹117.19 crore as at 31 March 2024.

6. Regulatory deferral account debit/credit balances (Note-22 & Note-39)

Expense/income recognized in the Statement of Profit & Loss to the extent recoverable from or payable to the beneficiaries in subsequent periods as per CERC Tariff Regulations are recognized as 'Regulatory deferral account balances'. Regulatory deferral account balances are adjusted from the year in which the same become recoverable from or payable to the beneficiaries. The regulatory assets recognized in the books are as follows:

₹ Crore

Particulars	Regulatory deferral account debit/ credit balance
A. Opening balance as on 1 April 2023	**11,961.97**
B. Additions during the year	1,539.05
C. Amount realized/recognised during the year	(164.67)
D. Regulatory deferral account balances recognized in the statement of profit and loss (B+C)	1,374.38
E. Adjustments during the year	(206.86)
F. Closing balance as on 31 March 2024 (A+D+E)	**13,129.49**

Closing balance as at 31 March 2024 comprises of Regulatory deferral account debit balances of ₹13,409.81 crore (Note-22) and Regulatory deferral account credit balances of ₹280.32 crore (Note-39).

Refer **Note-70** of financial statements for detailed disclosures.

7. Total equity (Note-23 & Note-24)

The total equity of the Company at the end of financial year 2023-24 increased to ₹1,49,885.02 crore from ₹1,38,889.88 crore in the previous year, an increase of 8%. Major reasons for the same are tabulated below:

₹ Crore

Particulars	Total Equity
Opening balance	**1,38,889.88**
Profit for the year	18,079.39
Other comprehensive income	15.26
Increase in Fly ash utilization reserve fund	172.99
Dividend paid during the year	(7,272.50)
Closing balance	**1,49,885.02**

The President of India, acting through the Ministry of Power, holds 495,53,46,251 shares constituting 51.10% of total equity shares and balance 474,13,19,883 i.e., 48.90% equity shares are publicly held.

The increase in total equity resulted in book value per share rising to ₹154.57 from ₹143.23 as at the end of previous year.

8. Non-current and current liabilities (Note-25 to Note-37)

a. Non-current financial liabilities-Borrowings (Note-25):

Details of non-current borrowings including current maturities are as under:

₹ Crore

Particulars	As at March 31	
	2024	2023
Non-current financial liabilities-Borrowings (Note-25)	1,46,159.07	1,56,315.69
Current maturities of non-current borrowings included in current financial liabilities -Borrowings (Note-31)	22,355.46	17,172.23
Total borrowings	**1,68,514.53**	**1,73,487.92**

Total non-current borrowings have decreased by 3% over the previous financial year. Debt amounting to ₹16,334.16 crore was raised during the financial year 2023-24. The amount raised through term loans, non-convertible debentures (NCDs) and foreign currency borrowings is used for capital expenditure, refinancing, recoupment of capital expenditure and other general corporate purposes.

Details in respect of proceeds and repayment of borrowings for the financial year 2023-24 are as under:

₹ Crore

Source (Principal Amount)	Debt raised	Repayment	Net
Rupee term loans	7,705.00	8,316.37	(611.37)
Domestic NCDs	4,500.00	10,605.50	(6,105.50)
Foreign borrowings	4,129.16	1,126.97	3,002.19
Total	**16,334.16**	**20,048.84**	**(3,714.68)**
FERV on foreign borrowings			(1,279.33)
Transaction costs			20.62
Total			**(4,973.39)**

Rupee Term loans: Banks and domestic financial institutions continued to support the capex program of the Company by extending term loans for financing the on-going capacity expansion plans. During the financial year 2023-24, agreements for term loans of ₹5,000 crore were entered into with various banks. An amount of ₹7,705 crore was drawn from domestic banks & financial institutions during the year and an amount of ₹8,316.37 crore was repaid during the year. The undrawn balance available under various sanctioned loans from domestic banks and financial institutions was ₹3,008.58 crore as at 31 March 2024.

Domestic bonds: During the financial year 2023-24, Company raised ₹4,500 crore through private placement of domestic bonds. Bonds amounting to ₹10,605.50 crore were redeemed during the year.

Foreign borrowings: During the financial year 2023-24, the Company has drawn ₹4,129.16 crore and repaid ₹1,126.97 crore of foreign currency borrowings. The undrawn balance available under foreign currency borrowings was ₹5,456.75 crore as at 31 March 2024.

The Company continues to enjoy highest credit ratings for its NCDs and borrowings from banks, while Company's International Ratings are at par with sovereign ratings as detailed hereunder:

Credit Rating Agency	Rating	Remarks
Domestic		
CRISIL	CRISIL AAA/Stable	Highest ratings
ICRA	[ICRA] AAA (Stable)	
CARE	CARE AAA; Stable	
INDIA Ratings	IND AAA/Stable	
International		
S&P	BBB-/Stable	Equivalent to sovereign ratings
Fitch	BBB-/Stable	
Moody's	Baa3/Stable	

The maturity profile of the principal amount of borrowings (excluding unamortized transaction costs and interest accrued) of the Company is as under:

₹ Crore

Particulars	Domestic Borrowings	Foreign Borrowings	Total
Up to 1 year	13,250.26	9,105.20	22,355.46
Beyond 1 and within 3 years	27,315.59	13,181.64	40,497.23
Beyond 3 and within 5 years	20,482.61	14,260.62	34,743.23
Beyond 5 and within 10 years	48,185.79	9,428.66	57,614.45
Beyond 10 years	13,293.39	334.56	13,627.95
Total	**1,22,527.64**	**46,310.68**	**1,68,838.32**

b. Non-current financial liabilities - Lease liabilities (Note-26) & Other financial liabilities (Note-27)

Lease liabilities have increased from ₹815.44 crore as at 31 March 2023 to ₹824.52 crore as at 31 March 2024. The lease liabilities are repayable in instalments as per the terms of the respective lease agreements, generally over a period of more than 1 year and up to 99 years.

Other financial liabilities primarily consist of liabilities for capital expenditure and Contractual obligations representing security deposit and retention money deducted from vendors at present value. Other financial liabilities have decreased from ₹505.81 crore as at 31 March 2023 to ₹465.60 crore as at 31 March 2024.

c. Non-current liabilities - Provisions (Note-28):

Non-current provisions consist of amounts provided towards employees' benefits as per actuarial valuation, which are expected to be settled beyond a period of 12 months from the Balance Sheet date. Non-current provisions also consist of Mine closure obligations and Stripping activity adjustments. Non-current provisions as at 31 March 2024 were ₹1,898.03 crore as compared to ₹1,727.78 crore as at 31 March 2023.

d. Non-current liabilities - Deferred tax liabilities (net) (Note-29)

Deferred tax liabilities (net) have increased from ₹10,614.07 crore as at 31 March 2023 to ₹13,066.53 crore as at 31 March 2024. The increase in deferred tax liabilities (net) during the year is mainly due to capitalization of new units during the year.

e. Other non-current liabilities (Note-30)

Other non-current liabilities have increased from ₹70.64 crore as at 31 March 2023 to ₹83.27 crore as at 31 March 2024.

f. Current liabilities (Note-31 to Note-37)

The break-up of current liabilities is as under:

₹ Crore

Particulars	As at March 31		%
Current assets	2024	2023	Change
Borrowings (Note-31)	39,059.55	29,969.15	30%
Lease liabilities (Note-32)	162.87	170.79	(5)%
Trade payables (Note-33)	9,474.66	9,598.10	(1)%
Other financial liabilities (Note-34)	21,970.54	23,634.04	(7)%
Other current liabilities (Note-35)	1,260.33	1,212.97	4%
Provisions (Note-36)	6,376.21	7,470.25	(15)%
Current tax liabilities (net) (Note-37)	-	62.97	(100)%
Total	**78,304.16**	**72,118.27**	**9%**

Borrowings (Note-31) comprise of short-term borrowings and current maturities of long-term borrowings. In order to finance the mismatches in the short-term fund requirement, short-term borrowings in the form of Bills discounting, commercial papers, short-term working capital loan from Banks and cash credit were resorted to by the Company. Short-term borrowings outstanding as on 31 March 2024 were ₹16,704.09 crore as against ₹12,796.92 crore as on 31 March 2023.

Current financial liabilities - Lease liabilities (Note-32) comprise of current maturities of lease liabilities. The same has decreased from ₹170.79 crore as at 31 March 2023 to ₹162.87 crore as at 31 March 2024.

Trade payables (Note-33) mainly comprise amount payable towards supply of goods & services etc. Trade payables have decreased by ₹123.44 crore. Refer **Note-54** of financial statements for restatement of trade payables.

Other current financial liabilities (Note-34) mainly comprise of interest accrued but not due on borrowings and payables towards capital expenditure. The details of other current financial liabilities are as under:

₹ Crore

Particulars	As at March 31	
	2024	2023
Interest accrued but not due on borrowings	2,449.72	2,523.78
Payables for capital expenditure	13,972.92	15,375.83
Other payables - Contractual obligations	2,454.81	2,409.24
Others	3,093.09	3,325.19
Total	**21,970.54**	**23,634.04**

Other current financial liabilities have decreased mainly due to decrease in payables for capital expenditure by ₹1,402.91 crore.

Other current liabilities (Note-35) mainly consist of advances from customers & others and statutory dues. Other current liabilities have increased by ₹47.36 crore.

Current liabilities - Provisions (Note-36) mainly comprises of provisions for employee benefits, obligations incidental to land acquisition, tariff adjustments, arbitration awards and others. During the year current liabilities-provisions have decreased by ₹1,094.04 crore. The main reason for the same is decrease in provision for arbitration awards by ₹625.32 crore and provision for obligations incidental to land acquisition by ₹567.73 crore. However, same is offset to some extent by increase in the provision for employee benefits by ₹122.12 crore.



Current tax liabilities (net) (Note-37) denotes the excess of current tax for the year over advance tax paid amounting to ₹Nil (31 March 2023: ₹62.97 crore).

9. Deferred revenue (Note-38)

Deferred revenue consists of income from foreign currency fluctuation detailed as under:

₹ Crore

Deferred revenue on account of	As at March 31	
	2024	2023
Income from foreign currency fluctuation	2,328.01	2,616.87

Foreign exchange rate variation (FERV) on foreign currency loans and interest thereon is recoverable from/payable to the customers in line with the Tariff Regulations. Keeping in view the opinion of the EAC of ICAI, the Company is recognizing deferred foreign currency fluctuation asset by corresponding credit to deferred income from foreign currency fluctuation in respect of the FERV on foreign currency loans adjusted in the cost of property, plant and equipment, which is recoverable from the customers in future years as provided in accounting policy. This amount will be recognized as revenue corresponding to the depreciation charge in future years. The amount does not constitute a liability to be discharged in future periods and hence, it has been disclosed separately from equity and liabilities.

B. Results from operations

1. Total Income (Note-40 & Note-41)

₹ Crore

Sl. No.	Particulars	2023-24	2022-23	% Change
	Revenue			
1	Energy sales (including electricity duty)	1,56,155.82	1,57,762.43	(1.02)%
2	Sale of energy through trading	3,990.52	3,753.48	6.32%
3	Consultancy & other services	170.59	154.08	10.72%
4	Lease rentals on assets on operating lease	19.58	19.58	-
		1,60,336.51	**1,61,689.57**	**(0.84)%**
	Other operating revenues			
5	Interest from beneficiaries	1,512.58	1,609.33	(6.01)%
6	Energy internally consumed	77.90	92.04	(15.36)%
7	Interest income on assets under finance lease	23.81	32.53	(26.81)%
8	Recognized from government grants	4.00	94.88	(95.78)%
9	Provision written back-others	16.48	242.98	(93.22)%
10	Income from Trading of ESCerts	13.75	8.44	62.91%
		1,648.52	**2,080.20**	**(20.75)%**
	Revenue from operations	**1,61,985.03**	**1,63,769.77**	**(1.09)%**
11	Other income	3,722.24	3,954.64	(5.88)%
	Total income	**1,65,707.27**	**1,67,724.41**	**(1.20)%**

The income of the Company comprises of income from energy sales, sale of energy through trading, consultancy and other services, operating lease rentals on assets, interest and surcharge received from the beneficiaries, interest earned on investments such as term deposits with banks, interest on loan to employees & subsidiary companies, interest on other investment in joint venture companies, interest income on non-current trade receivables and dividend from equity investments in subsidiary, joint venture and other companies. The total income for financial year 2023-24 is ₹1,65,707.27 crore as against ₹1,67,724.41 crore in the previous year registering a decrease of 1.20%. The main reasons for decrease in total income are decrease in the energy sales, decrease in interest from beneficiaries, interest income on non-current trade receivables and provisions written back-others.

The major revenue comes from energy sales. The tariff for computing energy sales is determined in terms of CERC Regulations as notified from time to time, which are briefly discussed below:

Tariff for computation of sale of energy

CERC vide notification dated 7 March 2019 notified the Tariff Regulations 2019, effective for the period 2019-24. Further, CERC vide notifications dated 25 August 2020 and 19 February 2021 notified the CERC (Terms and Conditions of Tariff) First Amendment Regulations, 2020 and Second Amendment Regulations, 2021, respectively.

Sales have been provisionally recognized based on principles enunciated in Tariff Regulations, 2019. CERC has issued provisional tariff orders in respect of thirty-nine stations for the tariff period 2019-24. As per Regulation 10(4) of Tariff Regulations 2019, pending issue of provisional/final tariff orders in respect of balance stations with effect from 1 April 2019, capacity charges are billed to beneficiaries in accordance with the tariff approved and applicable as on 31 March 2019. In the case of new projects, which got commercialized from 1 April 2019 onwards and projects where tariff approved and applicable as on 31 March 2019 is pending with CERC, billing is done based on capacity charges as filed with CERC in tariff petition. Energy charges are billed as per the operational norms specified in Regulations 2019.

Capacity charges

As per Tariff Regulations 2019, the capacity charges shall be recovered under two segments of the year, i.e., High Demand Season (period of three months) and Low Demand Season (period of remaining nine months), and within each season in two parts viz., Capacity Charge for Peak Hours of the month and Capacity Charge for Off-Peak Hours of the month.

Energy charges

The energy charges cover the primary and secondary fuel cost and limestone consumption cost (where applicable). Energy charges for coal-based station are to be calculated based on normative heat rate, normative APC, weighted average landed price of primary fuel & secondary fuel and weighted average GCV of coal on 'as received' less 85 Kcal/kg on account of variation during storage & weighted average GCV of secondary fuel respectively as per the Tariff Regulations 2019.

Energy charges for gas-based station have been calculated based on normative heat rate, weighted average landed price of primary fuel and weighted average GCV of primary fuel.

Other charges

Besides the capacity and energy charges, the other elements of tariff are:

- Special Allowance: For the financial year 2023-24, special allowance has been considered for units which have completed 25 years as on 31 March 2023 in terms of Tariff Regulations 2019.
- Sharing of gains due to variation in norms: As per Regulation 60, financial gains on account of controllable parameters - station heat rate, auxiliary consumption, and secondary fuel oil consumption, have been accounted for to be shared with the beneficiaries on annual basis in the ratio of 50:50.
- Sharing of Non-Tariff Income: As per Regulation 62, non-tariff income from rent of land or building, sale of scrap and advertisements has been shared with beneficiaries on annual basis, in the ratio of 50:50.
- Compensation for degradation: Compensation for degradation of heat rate, APC and secondary fuel consumption due to part load operations and multiple start/stop of units are being accounted as per CERC order relating to operating procedures and the compensation mechanism in terms of Grid Code.
- Incentive: As per Regulation 49(B)(a), incentive to be accounted for ex-bus schedule energy corresponding to scheduled generation in excess of ex-bus energy corresponding to 85% PLF.

Elements of Total income are discussed below:

Energy sales (including electricity duty)

Your Company sells electricity to bulk customers, mainly electricity utilities owned by State Governments as well as private DISCOMs operating in States. Sale of electricity is generally made pursuant to long-term Power Purchase Agreements (PPAs) entered into with the beneficiaries.

Income from energy sales (including electricity duty) for the financial year 2023-24 was ₹1,56,155.82 crore constituting 94% of the Total income. The income from energy sales (including electricity duty) has decreased by 1.02% over the previous year's income of ₹1,57,762.43 crore.

Capacity charges provisionally billed to beneficiaries for the year ended 31 March 2024 is ₹51,405.34 crore (31 March 2023: ₹47,631.73 crore). Energy and other charges are billed as per the operational norms specified in the Regulations 2019. The amount billed for the year ended 31 March 2024 is ₹96,337.27 crore (31 March 2023: ₹97,042.05 crore).

Capacity charges for the year ended 31 March 2024 have been provisionally recognized considering the provisions of CERC Tariff Regulations amounting to ₹54,458.51 crore (31 March 2023: ₹49,832.28 crore). Energy and Other charges for the year ended 31 March 2024 have been recognized at ₹98,307.09 crore (31 March 2023: ₹1,00,306.61 crore) as per the operational norms specified in the Regulations 2019.

Capacity charges for the year ended 31 March 2024 include ₹1,661.51 crore (31 March 2023: ₹1,829.50 crore) pertaining to earlier years on account of impact of CERC orders and other adjustments. Energy and other charges for the year ended 31 March 2024 include ₹327.76 crore (31 March 2023: ₹3,206.12 crore) pertaining to earlier years on account of

revision of energy charges due to grade slippages and other adjustments. Other adjustments during previous year include an amount of ₹3,097.04 crore on account of adjustment of 'Net movement in regulatory deferral account balances (net of taxes)' relating to reimbursement of ash transportation cost.

Sales for the year ended 31 March 2024 also include Nil (31 March 2023: ₹262.97 crore) on account of income tax recoverable from the beneficiaries as per Regulations, 2004 and ₹124.70 crore (31 March 2023: ₹87.51 crore) on account of deferred tax materialized which is recoverable from beneficiaries as per Regulations, 2019. Energy sales include electricity duty amounting to ₹1,668.20 crore (31 March 2023: ₹1,516.71 crore).

The average tariff for the financial year 2023-24 is ₹4.61/kWh as against ₹4.89/kWh for the previous year. The average tariff includes adjustments pertaining to previous years. If the impact of such adjustments were to be excluded, the average tariff would be ₹4.55/kWh in the financial year 2023-24 as against ₹4.73/kWh in the previous year.

Sale of energy through trading

Your Company is purchasing power from the developers and selling it to the DISCOMs on principal-to-principal basis. During the financial year, your Company has accounted sales of energy purchased from solar power plants set up under National Solar Mission of ₹3,990.52 crore (31 March 2023: ₹3,753.48 crore).

Consultancy and other services

During the financial year 2023-24, Consultancy, project management and supervision fees amounted to ₹170.59 crore as against ₹154.08 crore in the previous financial year.

Lease rentals on assets on operating lease

The Power Purchase Agreements (PPA) signed in respect of one of the power stations was operative initially for a period of five years with the beneficiary which may be extended, renewed or replaced as the parties mutually agree. The Company has continued to classify this arrangement with its customers as lease based on the practical expedient provided in Appendix C of Ind AS 116. Accordingly, recovery of capacity charges towards depreciation, interest on loan capital & return on equity (pre-tax) components from the beneficiary are considered as lease rentals on assets on operating lease. Accordingly, lease rentals amounting to ₹19.58 crore has been recognised in the financial year 2023-24 (31 March 2023: ₹19.58 crore).

Sale of captive coal

CERC vide notification dated 19 February 2021, notified the Second amendment to Tariff Regulations 2019, which inter alia includes mechanism for determination of transfer price of coal from integrated coal mines to generating stations and are effective for the period 2019-24. Coal extracted from Company's captive mines and supplied to generating stations have been accounted considering these Regulations.

Interest from beneficiaries

CERC Regulations provides that where after the truing-up, the tariff recovered is less/more than the tariff approved by the Commission, the generating Company shall recover from /pay to the beneficiaries the under/over recovered amount along-with simple interest. Accordingly, the interest recoverable from the beneficiaries amounting to ₹1,512.58 crore (31 March 2023: ₹1,609.33 crore) has been recognised during the year as Interest from beneficiaries.

Energy internally consumed

Energy internally consumed relates to own consumption of power for construction works at station(s), township power consumption, etc. It is valued at variable cost of generation and is shown in 'Revenue from operations' with a debit to corresponding expense head under power charges. The value of energy internally consumed during the financial 2023-24 was ₹77.90 crore as compared to ₹92.04 crore in the previous financial year.

Interest income on assets on finance lease

The Company had ascertained that the PPA entered into for Stage-I of a power station with the beneficiary falls under the definition of finance lease. Accordingly, recovery of capacity charges towards depreciation (including AAD), interest on loan capital & return on equity (pre-tax) components from the beneficiary are being adjusted against FLR. Accordingly, an amount of ₹23.81 crore has been recognised in the financial year 2023-24 as compared to ₹32.53 crore in the previous financial year.

Provision written back

Provision amounting to ₹16.48 crore has been written back during the financial year 2023-24 mainly on account of tariff adjustments. During the financial year 2022-23, Provision was written back towards water conservation fund at few projects of the Company amounting to ₹242.98 crore.

Other income (Note-41)

The break-up of other income is as under:

₹ Crore

Particulars	2023-24	2022-23
Interest from		
Advance to contractors and suppliers	113.65	166.02
Non-current trade receivables	155.96	149.88
Loan to subsidiary companies	94.29	81.45
Loan to employees	62.98	61.92
Deposits with banks	218.40	67.76
Income tax refunds	296.71	1.13
Others	107.38	94.61
Dividend from subsidiaries, joint ventures and other investments	1,639.08	2,342.54
Other non-operating income		
Surcharge from beneficiaries	303.42	429.82
Provisions written back	215.47	124.06
Sale of scrap	180.60	148.67
Others	354.47	343.05
Total	**3,742.41**	**4,010.91**
Less: Transferred to EDC (net)/ development of coal mines	20.17	56.27
Net other income	**3,722.24**	**3,954.64**

Other income has decreased by ₹232.40 crore mainly due to decrease in dividend income & surcharge from beneficiaries. However, same is offset to some extent by increase in Interest from deposits with banks and income tax refunds.

2. Expenses (Statement of Profit & Loss and Note-42, 43, 44, 45 & 46)

2.1 Expenses related to operations

FY	2023-24		2022-23	
Commercial generation (MUs)	3,60,596		3,43,959	
Expenses	**₹ Crore**	**₹ per kWh**	**₹ Crore**	**₹ per kWh**
Fuel cost	94,037.49	2.61	96,851.50	2.82
Employee benefits expense	5,670.10	0.16	5,559.03	0.16
Other expenses	15,213.43	0.42	14,474.59	0.42
Total	**1,14,921.02**	**3.19**	**1,16,885.12**	**3.40**

Expenses indicated above includes expenses of consultancy and coal mining.

The expenditure incurred on fuel, employee benefits and other expenses for the financial year 2023-24 was ₹1,14,921.02 crore as against the expenditure of ₹1,16,885.12 crore incurred during the previous year. In terms of expenses per unit of power produced, it was ₹3.19 per unit in the financial year 2023-24 as against ₹3.40 per unit in the previous year. These components are discussed below.

2.1.1 Fuel cost (Note-42)

Expenditure on fuel was ₹94,037.49 crore in the financial year 2023-24 in comparison to ₹96,851.50 crore in the financial year 2022-23. The fuel-wise break-up of fuel cost is detailed as under:

₹ Crore

Fuel Type	2023-24	2022-23	% Change
Coal	87,985.99	92,081.38	(4.45)%
Gas	4,604.50	3,052.30	50.85%
Naphtha	2.91	158.43	(98.16)%
Oil	1,285.57	1,495.00	(14.01)%
Biomass pellets	158.52	64.39	146.19%
TOTAL	**94,037.49**	**96,851.50**	**(2.91)%**

Includes the cost of captive coal ₹4,383.95 crore (FY 2022-23: ₹3,039.06 crore) & adjustment due to Intra company elimination by (-) ₹5,579.79 crore (FY 2022-23: (-) ₹3,980.12 crore). Includes adjustment related to earlier years, (-) ₹4.88 crore (FY 2022-23: ₹55.64 crore).

The expenditure towards fuel has decreased by 12.32% due to price variation mostly on account of lesser quantity of Imported Coal purchased. However, there is an increase in fuel cost by 9.47% because of quantity variation as a result of increased commercial generation in coal & gas plants. There is also a decrease of 0.06% due to decrease in previous year fuel cost. These expenses account for 82% of operational expenditure in the financial year 2023-24.

2.1.2 Employee benefits expense (Note-43)

Employee benefits expense includes salaries & wages, bonus, allowances, benefits, contribution to provident & other funds and welfare expenses. Employee benefits expense have marginally increased to ₹5,670.10 crore in the financial year 2023-24 from ₹5,559.03 crore in the financial year 2022-23. However, in terms of expenses per unit of generation, it remains unchanged at ₹0.16 in the financial year 2023-24. These expenses account for approximately 5% of operational expenditure in the financial year 2023-24.

2.1.3 Other expenses (Note-46)

Other expenses primarily consist of the expenses for repair and maintenance of plant & equipment, buildings, water charges, security expenses, CSR expenses, electricity duty,

travelling, power charges, insurance, loss on fair valuation of non-current trade receivables at amortised cost, interest to beneficiaries, ash utilization and marketing expenses, training and recruitment and provisions. Other expenses increased to ₹15,213.43 crore in the financial year 2023-24 from ₹14,474.59 crore in the financial year 2022-23. However, in terms of expenses per unit of generation, it remains unchanged at ₹0.42 in the financial year 2023-24 as compared to previous year. These expenses account for 13% of operational expenditure in the financial year 2023-24.

Other expenses for the year also include an amount of ₹77.09 crore being the amount appropriated by Ministry of Coal for non-adherence to certain parameters in respect of Talaipalli and Chatti Bariatu coal mines. May also refer to Note 46 - 'Other expenses' of the financial statements explaining reasons for significant items of expenses.

2.2 Energy purchased for trading

Company has incurred expenditure of ₹3,881.66 crore in the financial year 2023-24 as compared to ₹3,656.26 crore in the previous year on purchase of energy for trading from solar power plants set up under National Solar Mission.

2.3 Finance costs (Note-44)

The finance costs for the financial year 2023-24 are ₹10,250.82 crore in comparison to ₹9,979.23 crore in the financial year 2022-23. The details of interest and other borrowing costs are tabulated below:

₹ Crore

Particulars	2023-24	2022-23
Finance costs on financial liabilities measured at amortized cost		
Borrowings-Domestic/Foreign -Bonds/Loans/Notes	11,434.38	11,490.32
Cash credit, Commercial papers and unwinding of discount on vendor liabilities/provisions	868.93	780.68
Sub-total	**12,303,.31**	**12,271.00**
Exchange differences regarded as an adjustment to borrowing costs	82.90	457.54
Others	42.77	36.64
Finance costs before EDC	**12,428.98**	**12,756.18**
Less: Transferred to		
Expenditure during construction period (net)	1,993.72	2,589.03
Development of coal mines	184.44	196.92
Total Finance costs	**10,250.82**	**9,979.23**

Finance costs has increased by 3% over previous financial year mainly due to increase in the average cost of borrowings from 6.40% to 6.67% on account of higher rate of interest on new/ existing borrowings.

2.4 Depreciation, amortization and impairment expense (Note-45)

The depreciation, amortization and impairment expense charged to the Statement of Profit and Loss during the financial year 2023-24 was ₹13,943.15 crore as compared to ₹13,136.71 crore in the financial year 2022-23, registering an increase of 6%. This is mainly due to increase in the gross PPE by ₹29,252.13 crore in the financial year 2023-24 over the previous year.

2.5 Exceptional items in the Statement of Profit and Loss (Note-51)

The Company has an investment of ₹834.55 crore in Ratnagiri Gas & Power Pvt. Ltd. (RGPPL). The entire investment was considered impaired and provided for in the earlier years based on the financial position of the Subsidiary. During the year, fair valuation of investments in RGPPL was carried out and as per the valuation, the provision made in the earlier years has been written back and disclosed as an Exceptional item in the Statement of Profit and Loss. Refer **Note-51** of financial statements for detailed disclosure.

3. Profit before tax & Regulatory deferral account balances

The profit of the Company before tax & Regulatory deferral account balances is tabulated below:

₹ Crore

Particulars	2023-24	2022-23
Total Income	1,65,707.27	1,67,724.41
Less:		
Expenditure related to operations	1,14,921.02	1,16,885.12
Electricity purchased for trading	3,881.66	3,656.26
Finance costs	10,250.82	9,979.23
Depreciation, amortisation and impairment expense	13,943.15	13,136.71
Add:		
Exceptional items	834.55	-
Profit before tax and regulatory deferral account balances	**23,545.17**	**24,067.09**

4. Tax expense (Note-55)

Provision for current tax

A provision of ₹3,941.73 crore has been made towards current tax for the financial year 2023-24 as against the provision of ₹4,499.91 crore made for the financial year 2022-23. Current tax provision is mainly lower because of lower PBT in the financial year 2023-24 and due to reversal of tax provision of ₹152.63 crore pertaining to earlier years' income as against additional tax of ₹206.35 crore on receipt of orders pertaining to earlier years during previous year.

Provision for deferred tax

Net increase in deferred tax liability during the year amounting to ₹2,658.30 crore (previous year: ₹1,779.36 crore) has been debited to the Statement of Profit and Loss.

Details of tax expense

₹ Crore

Particulars	2023-24	2022-23
Provision for current year	4,094.36	4,293.56
Adjustments for earlier years	(152.63)	206.35
Current tax	**3,941.73**	**4,499.91**
Deferred tax liability	4,093.09	4,532.62
MAT Credit	(1,434.79)	(2,753.26)
Deferred tax	**2,658.30**	**1,779.36**
Total Tax expense	**6,600.03**	**6,279.27**

5. Net movement in regulatory deferral account balances (net of tax) (Note-70)

Net movements in regulatory deferral account balances (net of tax) for the financial year 2023-24 is ₹1,134.25 crore in comparison to (-) ₹591.09 crore for the financial year 2022-23 as detailed below:

₹ Crore

Particulars	2023-24	2022-23
Exchange differences	(1,262.44)	960.93
Pay Revision	(6.56)	(0.49)
Deferred tax	2,808.05	1,650.50
Ash transportation cost	-	(3,090.42)
Sub-total (i)	**1,539.05**	**(479.48)**
Amount realized/ recognized		
during the year (ii)	(164.67)	(236.75)
Net movement in regulatory deferral account balances (i)+(ii) (I)	**1,374.38**	**(716.23)**
Tax on net movements in regulatory deferral account balances (II)	240.13	(125.14)
Total amount recognized in the statement of profit and loss [I-II]	**1,134.25**	**(591.09)**

Refer **Note-70** of financial statements for detailed disclosures.

6. Profit after tax

The profit of the Company after tax is tabulated below:

₹ Crore

Particulars	2023-24	2022-23
Profit before tax and regulatory deferral account balances	23,545.17	24,067.09
Less: Tax expense	6,600.03	6,279.27
Add: Net movement in regulatory deferral account balances (net of tax)	1,134.25	(591.09)
Profit after tax	**18,079.39**	**17,196.73**

7. Other comprehensive income

The other comprehensive income net of tax for the financial year 2023-24 is ₹15.26 crore in comparison to (-) ₹75.70 crore for the financial year 2022-23. For the financial year 2023-24, net actuarial loss on defined benefit plans is (-) ₹128.00 crore, while net gain on fair value of equity instruments is ₹120.90 crore as against net actuarial loss on defined benefit plan and net gain on fair value of equity instrument amounting to (-) ₹96.09 crore and ₹3.60 crore respectively in the previous year.

C. Cash flows

Statement of cash flows comprises of cash flows from operating activities, investing activities and financing activities. Net cash generated from operating activities decreased to ₹34,830.91 crore during the financial year 2023-24 as compared to ₹42,351.34 crore in the previous year majorly due to working capital changes amounting to ₹7,594.15 crore.

Cash outflows on investing activities arise from expenditure on setting up power projects, acquisition of power plants, investments in joint ventures & subsidiaries and tax outflow on income from investing activities. Cash inflows arise from interest from banks and dividend income from joint ventures and subsidiaries. Cash invested on purchase of fixed assets increased from ₹17,320.53 crore in financial year 2022-23 to ₹17,444.27 crore in financial year 2023-24. Cash inflow on account of dividend received has decreased from ₹1,992.54 crore in previous year to ₹1,765.59 crore in the financial year 2023-24. Considering all the investing activities, the net cash used in investing activities was ₹15,118.16 crore in the financial year 2023-24 as compared to ₹14,100.69 crore in the previous year.

During the financial year 2023-24, the Company had an inflow of ₹16,334.16 crore from non-current borrowings as against ₹16,257.48 in the previous year and net inflow of ₹3,907.17 crore from current borrowings as against outflow of ₹2,511.28 crore in the previous year. Cash used for repayment of non-

current borrowings during the financial year 2023-24 was ₹20,048.84 crore as against ₹22,371.86 crore repaid in the previous year. Interest paid during the year was ₹12,383.23 crore as compared to ₹12,557.58 crore during the previous year. Cash used for paying dividend was ₹7,272.50 crore. Thus, from financing activities during the year, the Company has an outflow of ₹19,518.72 crore as against an outflow of ₹28,365.00 crore in the previous year.

Cash, cash equivalents and cash flows on various activities is summarized below:

₹ Crore

Particulars	2023-24	2022-23
Opening cash & cash equivalents	**3.13**	**117.48**
Net cash from operating activities	34,830.91	42,351.34
Net cash used in investing activities	(15,118.16)	(14,100.69)
Net cash inflow/(outflow) from financing activities	(19,518.72)	(28,365.00)
Change in cash and cash equivalents	**194.03**	**(114.35)**
Closing cash & cash equivalents	**197.16**	**3.13**

FINANCIAL SUMMARY OF SUBSIDIARY COMPANIES

The Company has 10 subsidiary companies as on 31 March 2024, out of which 5 (NESCL, NVVN, NML, NEEPCO & NGEL) are wholly owned by the Company. A summary of the financial performance of the subsidiary companies during the financial year 2023-24 is given below:

₹ Crore

Sl. No.	Company	NTPC's investment in equity	Total Income	Profit/ (Loss) for the year
1	NTPC Electric Supply Company Ltd.	0.08	1.18	0.04
2	Bhartiya Rail Bijlee Company Ltd.	1,774.12	3,721.22	517.01
3	NTPC Vidyut Vyapar Nigam Ltd.	30.00	5,351.06	160.94
4	Patratu Vidyut Utpadan Nigam Ltd.	2,164.55	0.11	(0.01)
5	NTPC Mining Limited	154.10	0.24	(3.42)
6	North-Eastern Electric Power Corporation Ltd.	4,000.00	4,264.23	548.14
7	THDC India Ltd.	7,500.00	2,012.61	596.97
8	NTPC Green Energy Limited	5,719.61	2,037.66	342.86
9	NTPC EDMC Waste Solutions Pvt. Ltd.	0.15	-	(0.02)
10	Ratnagiri Gas & Power Pvt. Ltd.	834.55	3,095.31	1,734.23
	Total	**22,177.16**	**20,483.62**	**3,896.74**

FINANCIAL SUMMARY OF JOINT VENTURE COMPANIES

Proportion of ownership and financial performance of the joint venture companies for the financial year 2023-24 are given below:

₹ Crore

Sl. No.	Company	NTPC's Ownership (%)	NTPC's Investment in equity	Total Income	Profit/ (Loss) for the year (NTPC Share)
A.	**Joint venture companies incorporated in India**				
1	Utility Powertech Ltd.	50.00	1.00	571.24	(2.88)
2	NTPC-GE Power Services Pvt. Ltd.	50.00	3.00	511.36	6.34
3	NTPC-SAIL Power Co. Ltd.	50.00	490.25	3,870.59	217.92
4	NTPC Tamil Nadu Energy Co. Ltd.	50.00	1,466.40	4,381.41	293.41
5	Aravali Power Co. Pvt. Ltd.	50.00	1,433.01	5,463.41	376.92
6	Meja Urja Nigam Pvt. Ltd.	50.00	1,826.33	4,283.31	174.05
7	NTPC-BHEL Power Project Pvt. Ltd.	50.00	-	20.00	-
8	National High Power Test Laboratory Pvt. Ltd.	21.63	12.32	46.11	(6.08)
9	Transformers and Electricals Kerala Ltd.	44.60	5.47	131.21	(1.94)
10	Energy Efficiency Services Ltd.	39.25	697.51	1,856.33	(49.36)
11	CIL NTPC Urja Pvt. Ltd.	50.00	0.08	0.06	0.02
12	Anushakti Vidyut Nigam Ltd.	49.00	0.05	-	-
13	Hindustan Urvarak and Rasayan Ltd.	29.67	2,642.99	14,987.43	392.98
14	Jhabua Power Limited	50.00	325.00	1,977.06	(55.30)
15	Trincomalee Power Company Ltd., Sri Lanka	50.00	1.36	0.05	(0.16)
16	Bangladesh-India Friendship Power Company Private Ltd., Bangladesh	50.00	1,324.02	3,313.78	289.68
	Total		**10,228.79**	**41,413.35**	**1,635.60**

Consolidated financial results

A brief summary of the financial results on a consolidated basis is given below:

₹ Crore

Particulars	2023-24	2022-23
Total income	1,81,165.86	1,77,976.39
Profit before tax and regulatory deferral account balances	27,141.45	24,330.59
Tax Expense	6,809.20	6,796.12
Profit before regulatory deferral account balances	20,332.25	17,534.47
Net movement in regulatory deferral account balances (net of tax)	1,000.20	(413.12)
Profit for the year	21,332.45	17,121.35
Other comprehensive income (net of tax)	(24.61)	(203.00)
Total comprehensive income for the year	21,307.84	16,918.35

CAUTIONARY STATEMENT

Statements in the Management Discussion and Analysis and in the Directors' Report, describing the Company's objectives, projections and estimates, contain words or phrases such as "will", "aim", "believe", "expect", "intend", "estimate", "plan", "objective", "contemplate", "project" and similar expressions or variations of such expressions, are "forward-looking" and progressive within the meaning of applicable laws and regulations. Actual results may vary materially from those expressed or implied by the forward-looking statements due to risks or uncertainties associated therewith depending upon economic conditions, government policies and other incidental factors. Readers are cautioned not to place undue reliance on these forward-looking statements.

For and on behalf of the Board of Directors

Sd/-
(Gurdeep Singh)
Chairman & Managing Director

Place: New Delhi
Date: 2 August 2024



Annexure - II to Directors' Report

Report on Corporate Governance

Corporate governance is a set of rules, controls and policies put in place to ensure greater accuracy and transparency in management and control, ultimately building trust in the company's ability to maximize value for all stakeholders.

In the age of rapid evolution, where environmental and regulatory compliances are escalating, corporate governance has become more pervasive. Corporate Governance is viewed as both the structure and the relationship which determine corporate direction and performance. The Board of Directors is central to Corporate Governance and the Board of our company is accountable, fair, and conscious in strengthening highest quality standards of corporate governance.

This report is prepared in accordance with the provisions of SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015 ('SEBI LODR') and Guidelines on Corporate Governance for Central Public Sector Enterprises 2010 issued by Department of Public Enterprises ('DPE'), Ministry of Finance, Government of India., highlighting corporate governance methodology at NTPC Limited.

1. NTPC's Corporate Governance Philosophy

OUR CORPORATE GOVERNANCE PHILOSPHY

"As a good corporate governance citizen, our company is committed to sound corporate practices based on conscience, openness, fairness, professionalism and accountability besides building confidence in its various stakeholders, thereby paving the way for the long term success."

The essence of corporate governance is to stimulate and maintain integrity, transparency, and accountability in the higher management's performance. It is all about maintaining a valuable relationship with all the stakeholders and hence we are committed to maximising shareholder's value to the best possible extent be it Distribution Companies (DISCOMs), Employees, Investors & Shareholders and Government & Regulatory Authorities.

Our numerous initiatives in fostering and maintaining the highest standards of corporate governance are detailed in this report.

2. The Board of Directors

The Board of Directors is the apex body constituted by shareholders and plays a crucial role in the overall functioning, strategic decision making and leadership of the company. It provides strategic direction and leadership and oversees the management policies and their effectiveness, looking at the long-term interests of shareholders and other stakeholders.

The Board performs key functions by fulfilling the responsibilities for achieving economy, efficiency and effectiveness for the Company vis-à-vis shareholders' value creation. It has ultimate responsibility for the development of strategy, management, general affairs, direction, performance and long-term success of the business as a whole.

The Board functions in accordance with the powers delegated under the Companies Act, 2013, SEBI (LODR), Memorandum & Articles of Association, Maharatna Guidelines issued by DPE and other guidelines issued by the Government of India from time to time, as may be applicable to the Company.

2.1 Size & Composition of the Board

NTPC Limited ('NTPC' or 'the Company') is a Government Company within the meaning of Section 2(45) of the Companies Act, 2013. As mandated by the Articles of Association of the Company, all Directors on Board are appointed by the President of India. Presently, the sanctioned composition of the Board is as under:

(i) Six (6) Functional Directors including the Chairman & Managing Director,

(ii) Two (2) Government Nominee Directors, and

(iii) Eight (8) Independent Directors, including one-woman Independent Director as per the requirements of the SEBI (LODR).

However, against the sanctioned strength, as on 31st March 2024 the Board of Directors of the Company comprise of:

(i) Six (6) Functional Directors,

(ii) One (1) Government Nominee Director, and

(iii) Four (4) Independent Directors.

The number of Independent Directors were less than 50% of total number of Directors during the financial year 2023-24. Additionally, from 1st January 2024 to 31st March 2024, Non-Executive Directors also constituted less than 50% of the total number of Directors. As NTPC is a Government Company, the request for the appointment of requisite number of independent directors and Non-Executive Director (other than Independent Director) has been made to the Administrative Ministry i.e. Ministry of Power from time to time.

The Board composition and other directorship details of each Director, as on 31st March 2024, are detailed here under:

Sl. No	Director	Designation	DIN	No. of Directorships in Other Companies	Directors in other Listed Entities & Category	No. of Committee Memberships in other Companies	
						As Chairman	As Member
1	Shri Gurdeep Singh	Chairman & Managing Director	00307037	1	-	-	-
2	Shri Dillip Kumar Patel[4]	Director (Human Resources)	08695490	9	-	1	-
3	Shri Jaikumar Srinivasan	Director (Finance)	01220828	7	-	-	5
4	Shri Shivam Srivastava[1]	Director (Fuel)	10141887	2	-	-	-
5	Shri K. Shanmugha Sundaram[2]	Director (Projects)	10347322	7	-	-	-
6	Shri Ravindra Kumar[3]	Director (Operations)	10523088	4	-	-	-
7	Shri Piyush Singh	Director (Govt. Nominee)	07492389	1	-	-	-
8	Shri Vidyadhar Vaishampayan	Independent Director	02667949	-	-	-	-
9	Shri Vivek Gupta	Independent Director	08794502	1	-	-	-
10	Shri Jitendra Jayantilal Tanna	Independent Director	09403346	-	-	-	-
11	Smt. Sangitha Varier	Independent Director	09402812	-	-	-	-

1. Appointed as Director on 30.04.2023
2. Appointed as Director on 01.12.2023
3. Appointed as Director on 26.02.2024
4. Ceased to be director on 30.04.2024

None of the directors on Board is a member of more than 10 Committees or Chairperson of more than 5 Committees across all the public companies in which they are a Director as prescribed under Regulation 26 of SEBI (LODR).

None of Directors of the Company is inter-se related to other directors of the Company.

2.2. Tenure of Directors

The Chairman & Managing Director and other whole-time Directors are generally appointed for a period of five years from the date of taking over the charge or until the date of superannuation or until further orders from the Government of India, whichever event occurs earliest. The tenure of the whole-time director can be extended further by the Government of India till the age of superannuation i.e. 60 years. Independent Directors are appointed by the Government of India generally for a tenure of three years. Government Nominee Directors are appointed on ex- officio basis during their tenure in Ministry of Power (MOP).

2.3. Resume of Directors

Brief resume of directors seeking appointment or re-appointment at the Annual General Meeting is appended to the Notice calling the Annual General Meeting.

2.4. Core competencies of Directors

The Board comprises qualified members who bring in the required skills, competence and expertise to effectively contribute in deliberations at Board and Committee meetings.



The Board of Directors, in its 251st meeting held on 25th November 2003, had approved the job description, qualification and experience for Board level posts including that of the Chairman & Managing Director. The desirable qualification and experience of the incumbents are as per the requirements in the functional areas. At the time of recruitment of the Functional Directors, job description, desirable qualification & experience of candidates are sent to the Public Enterprise Selection Board through the Administrative Ministry for announcement of vacancy and recruitment of candidates.

Further, Board of Directors, in 288th meeting held on 26th June 2006, had deliberated on the areas of expertise of Independent Directors required on the Board of the Company. In the above Board meeting, the Board decided that the Independent Directors, to be nominated by the Government of India on the Board of NTPC should be having expertise in the diverse areas like Economics, Human Resources Management, Regulatory Framework, Management Consultant, Research and Development, Academics, Energy & Power Sector, Finance & Banking etc.

The matrix given below summarizes a mix of skills, expertise and competencies possessed by Directors. It is pertinent to mention that being a Government Company, appointment of Director is made by the Government of India in accordance with the DPE Guidelines.

Name of Director	Designation	Area of Skill/Expertise/Competence								
		Technical/ Engineering	Energy & Power	Finance & Banking	Economics	Human Resource	Regulatory Framework	Management	Environment	Academics	Research & Development
Shri Gurdeep Singh	Chairman & Managing Director	✓	✓					✓			
Shri Dillip Kumar Patel[1]	Director(HR)	✓	✓			✓		✓			
Shri Jaikumar Srinivasan	Director(Finance)		✓	✓			✓	✓			
Shri Shivam Srivastava[2]	Director (Fuel)	✓	✓					✓			
Shri K. Shanmugha Sundaram[3]	Director (Projects)	✓	✓						✓		
Shri Ravindra Kumar[4]	Director (Operation)	✓	✓						✓		
Shri Piyush Singh	Nominee Director	✓	✓				✓				
Shri Vidyadhar Vaishampayan	Independent Director	✓		✓	✓						
Shri Vivek Gupta	Independent Director			✓			✓	✓			
Shri Jitendra Jayantilal Tanna	Independent Director			✓	✓		✓	✓			
Smt. Sangitha Varier	Independent Director					✓				✓	

1. Ceased to be director on 30.04.2024
2. Appointed as Director on 30.04.2023
3. Appointed as Director on 01.12.2023
4. Appointed as Director on 26.02.2024

2.5 Board Meetings during the Year

During the financial year ended 31st March 2024, fifteen (15) meetings of the Board were held on 12th April 2023, 6th May 2023, 19th May 2023, 24th June 2023, 29th July 2023, 16th August 2023, 19th August 2023, 29th August 2023, 7th October 2023, 28th October 2023, 29th November 2023 (continued on 2nd December 2023), 30th December 2023, 29th January 2024, 3rd March 2024 and 30th March 2024. Details of attendance of Directors in the Board meeting held during FY 2023-24 are as under:

Directors	Designation	Other Details	No. of Meetings held during the FY/Tenure	No. of meetings Attended	Whether attended AGM held on 30.08.2023
Shri Gurdeep Singh	Chairman & Managing Director	-	15	15	Yes
Shri Dillip Kumar Patel	Director (HR)	Ceased to be Director on 30.04.2024	15	15	Yes
Shri Ramesh Babu V	Director (Operations)	Ceased to be Director on 31.01.2024	13	13	Yes
Shri Ujjwal Kanti Bhattacharya	Director (Projects)	Ceased to be Director on 30.11.2023	11	11	Yes
Shri Jaikumar Srinivasan	Director (Finance)	-	15	15	Yes
Shri Shivam Srivastava	Director (Fuel)	Appointed on 30.04.2023	14	14	Yes
Shri K Shanmugha Sundaram	Director (Projects)	Appointed on 01.12.2023	5	5	NA
Shri Ravindra Kumar	Director (Operations)	Appointed on 26.02.2024	2	2	NA
Shri Ashish Upadhyaya	Govt. Nominee Director	Ceased to be Director on 31.12.2023	12	12	Yes
Shri Piyush Singh	Govt. Nominee Director	-	15	14	Yes
Shri Vidyadhar Vaishampayan	Independent Director	-	15	15	Yes
Shri Vivek Gupta	Independent Director	-	15	15	Yes
Shri Jitendra Jayantilal Tanna	Independent Director	-	15	15	Yes
Smt. Sangitha Varier	Independent Director	-	15	15	Yes

2.6 Board Independence

All the Independent Directors have given the declaration that they meet the criteria of independence to the Board of Directors as per the provisions of the Companies Act, 2013 and SEBI (LODR). Terms and conditions of appointment of independent directors are hosted on the website of the Company at
https://www.ntpc.co.in/sites/default/files/inline-files/Commontermsandconditionsofappointmentofindependentdirectors.pdf

2.7 Performance Evaluation of Board Members

Ministry of Corporate Affairs (MCA) vide General Circular dated 5th June 2015 has exempted Government Companies from the provisions of Section 178 (2) which provides about manner of performance evaluation of Board of Directors, Committee of Board of Directors and Director by the Nomination & Remuneration Committee. The aforesaid circular of MCA further exempted listed Govt. Companies from provisions of Section 134(3)(p) which requires mentioning the manner of formal evaluation of its own performance by the Board and that of its Committees and Individual Director in Board's Report, if directors are evaluated by the Ministry or Department of the Central Government which is administratively in charge of the company, or, as the case may be, the State Government as per its own evaluation methodology. In this regard, DPE has already laid down a mechanism for performance appraisal of all functional directors. In case of Government Nominee Directors, their evaluation is done by the Ministry or Department of the

Central Government which is administratively in charge of the company as per the procedure laid down by them. DPE has also initiated evaluation of Independent Directors. In view of above, as per requirement of Regulation 17(10) of the SEBI (LODR), evaluation of Independent Director was not made by the Board of Directors. Further, as Directors are appointed by the Government of India, succession planning at the Board level was not done by the Company.

The Company enters Memorandum of Understanding (MoU) with Ministry of Power (MoP) every year wherein Company is evaluated on various financial and non-financial parameters. The performance of the Company & Board of Directors is evaluated by the Department of Public Enterprises in terms of MoU entered with MoP.

2.8 Meeting of Independent Directors

In conformity with Regulation 25(3) of SEBI(LODR) separate meeting of Independent Directors was held during the financial year. In the meeting Independent Directors reviewed and assessed the performance of the non-independent Directors and the Board as a whole, the quality, quantity, and timeliness of flow of information between the Company management and the Board necessary for effective and reasonable performance of their duties including the performance of the Chairman & Managing Director.

2.9 Information Provided to the Board

Access to information is of vital importance to assess the value of company's assets and deploy or redeploy capital towards the opportunities with growth prospects and attractive returns.

Our Company has a sound framework and integration of all departments and units to ensure seamless and timely flow of information both vertically and horizontally. The Board has absolute access to all data, documents, reports to enable the Board to make timely and informed decisions and exercise control over the organisation. Information provided to the Board generally includes:

- Annual operating plans and budgets and any updates.
- Capital Budgets and any updates.
- Quarterly financial results.
- Financial Statements and Board's Report (including the Annexures thereto).
- Major investments, formation of subsidiaries and Joint Ventures or collaboration agreement, Strategic Alliances etc.
- Details of amount borrowed by the Company.
- Minutes of meetings of Audit Committee, Board meetings and other Committees of the Board.
- Minutes of meetings of Board of Directors of subsidiary companies.
- Fatal or serious accidents, dangerous occurrences, etc.
- Operational highlights and substantial non-payment for goods sold by the Company.
- Award of large value contracts.
- Disclosure of Interest by Directors about directorships and committee positions occupied by them in other companies.
- Declaration of independence by Independent Directors.
- Quarterly Report on foreign exchange exposures.
- Quarterly status of investors complaints.
- Quarterly Report on Foreign Travel of Chairman & Managing Director, Functional Directors and Employees.
- Quarterly Report on Short Term Deposits and Investments.
- Report on Contract awarded on nomination basis.
- Quarterly Report on Reconciliation of Share Capital Audit.
- Quarterly Report on Business Activities of various Joint Venture Companies and Subsidiaries of NTPC.
- Quarterly Report on Compliance of various laws including show cause demand, prosecution notices.
- Quarterly Report on Compliance with Corporate Governance norms.
- Non-compliance of any regulatory, statutory or listing requirements and shareholders services such as non-payment of dividend, delay in share transfer, etc.
- Appointment of Key Managerial Personnel and information on recruitment and promotion of senior officers to the level of Executive Director which is just below the Board level including appointment and removal of Chief Financial Officer and Company Secretary.
- Any significant development in Human Resources/ Industrial Relations like signing of wage agreement, implementation of Voluntary Retirement Scheme, etc.
- Sale of investments, subsidiaries, assets which are material in nature and not in normal course of business Information relating to major legal disputes.
- Highlights of important events from last meeting to the current meeting.
- Any other information as may be required to be presented to the Board for information or approval.

The important decisions taken at the Board/Committee meetings are communicated to the concerned departments promptly.

3. Board Committees

With a view to ensure effective decision making, the Board of Directors has constituted various Statutory and Non-Statutory Committees to have focused attention on crucial issues. The details of such committees are given below.

3.1 Audit Committee

The composition, quorum, scope, etc. of the Audit Committee are in line with the Companies Act, 2013, SEBI (LODR) and DPE Guidelines on Corporate Governance.

Composition, Meetings & Attendance

The details of the Audit Committee constitution as on 31st March 2024, meeting held during FY 2023-24 and attendance thereat are as under:

Sl. No.	Names	Designation	Total No. of Meetings Held	Total No. of Meetings Attended
1	Shri Jitendra Jayantilal Tanna	Chairman	11	11
2	Shri Ashish Upadhyaya*	Member	7	7
3	Shri Vivek Gupta	Member	11	11
4	Shri Vidyadhar Vaishampayan	Member	11	11
5	Smt. Sangitha Varier	Member	11	11

*Ceased to be a director on 31.12.2023

During the FY 2023-24, eleven (11) meetings of the Audit Committee were held. The meetings of Audit Committee were held on 5th May 2023, 19th May 2023, 28th July 2023, 16th August 2023, 29th August 2023, 28th October 2023, 29th November 2023, 16th January 2024, 29th January 2024, 2nd March 2024 and 29th March 2024.

Director (Finance) is the permanent invitee to the Audit Committee meetings. Head of Internal Audit Department and Senior Executives are invited to the Audit Committee Meetings for interacting with the members of the Committee, if required. The Joint Statutory Auditors and Cost Auditors of the Company are also invited to the meetings of the Audit Committee while discussing financial statements/ financial results and Cost Audit Reports respectively.

The Company Secretary acts as the Secretary to the Committee.

Scope of Audit Committee

The scope of Audit Committee is as under:-

1. To conduct detailed discussions during pre and post commencement audit meetings with auditors on scope of audit and potential areas of concern for process and functional improvements.
2. Facilitate communication for important information dissemination among the independent auditors, internal auditors, and the Board of Directors.
3. Approval or any subsequent modification of transactions of the Company with related parties.
4. Scrutiny of inter-corporate loans and investments.
5. Reviewing with the management, the quarterly financial results before submission to the Board for approval.
6. Reviewing, with the management, the annual financial statements and draft auditor's report thereon before submission to the board for approval, with particular reference to:
   a. Matters required to be included in the Director's Responsibility Statement to be included in the Board's report in terms of clause (c) of sub-section 3 of section 134 of the Companies Act, 2013;
   b. Changes, if any, in accounting policies and practices and reasons for the same;
   c. Major accounting entries involving estimates based on the exercise of judgment by management;
   d. Significant adjustments made in the financial statements arising out of audit findings;
   e. Compliance with listing and other legal requirements relating to financial statements;
   f. Disclosure of related party transactions;
   g. Qualifications in the draft audit report
   h. modified opinion(s) in the draft audit report.



7. Noting the appointment and removal of independent auditors. Recommending audit fee of independent auditors and also approval for payment for any other service.
8. Recommending to the Board the appointment and remuneration of the cost auditors of the Company.
9. Review of observations of C&AG including status of Government Audit paras.
10. Reviewing with the management, statement of uses/ application of funds raised through an issue (public issue, rights issue, preferential issue etc.), statement of funds utilised for purposes other than those stated in the offer documents/prospectus/notice and the report submitted by the monitoring agency monitoring the utilisation of proceeds of a public or rights issue, and making appropriate recommendations to the board to take up steps in this matter.
11. Valuation of undertakings or assets of the company, wherever it is necessary.
12. Evaluation of internal financial controls and risk management systems.
13. To look into the reasons for substantial defaults in the payment to the depositors, debenture holders, shareholders (in case of non-payment of declared dividends) and creditors.
14. To review the functioning of the Whistle Blower mechanism.
15. Reviewing the findings of any internal investigations by the internal auditors into matters where there is suspected fraud or irregularity or a failure of internal control systems of a material nature and reporting the matter to the Board.
16. To review the follow up action taken on the recommendations of Committee on Public Undertakings (COPU) of the Parliament.
17. Review of:
    a. Management discussion and analysis of financial condition and results of operations;
    b. Management letters/ letters of internal control weaknesses; issued by the statutory auditors
    c. Internal Audit Reports relating to internal control weaknesses.
18. Oversight of the company's financial reporting process and the disclosure of its financial information to ensure that the financial statement is correct, sufficient and credible.
19. Review with the independent auditor the co-ordination of audit efforts to assure completeness of coverage, reduction of redundant efforts and the effective use of all audit resources.
20. Reviewing the adequacy of internal audit function, if any, including the structure of the internal audit department, staffing and seniority of the official heading the department, reporting structure coverage and frequency of internal audit.
21. Consider and review the following with the independent auditor and the management:
    a) The adequacy of internal controls including computerized information system controls and security, and
    b) Related findings and recommendations of the independent auditors and internal auditors, together with the management responses.
22. Consider and review the following with the management, internal auditor and the independent auditor:
    a) Significant findings during the year, including the status of previous audit recommendations.
    b) Any difficulties encountered during audit work including any restrictions on the scope of activities or access to required information.
23. Review of appointment and removal of the Internal Auditors.
24. Reviewing, with the management, the performance of the internal auditors and of the independent auditors and effectiveness of the audit process.
25. Review of internal audit observations outstanding for more than two years.
26. Reviewing the utilization of loans and/ or advances from/ investment by the holding company in the subsidiary exceeding rupees 100 crore or 10% of the asset size of the subsidiary, whichever is lower including existing loans / advances / investments.
27. To review compliance with the provisions of SEBI Insider Trading Regulations at least once in a financial year
28. To verify that the systems for internal control are adequate and are operating effectively.
29. To consider and comment on rationale, cost-benefits and impact of schemes involving merger, demerger, amalgamation etc., on the listed entity and its shareholders.
30. Any matter referred to it by the Board or any other terms of reference as amended by the Companies Act, 2013 & rules made thereunder, SEBI (LODR) and DPE Guidelines.

3.2. Stakeholders Relationship Committee

This Committee has been constituted in line with the provisions of SEBI (LODR) and Companies Act, 2013.

Composition, Meeting & Attendance

The details of constitution of the Stakeholders' Relationship Committee as on 31st March 2024, meeting details held during FY 2023-24 and attendance thereat are as under:

Sl. No.	Names	Designation	Total No. of Meetings Held	Total No. of Meetings Attended
1	Shri Vivek Gupta	Chairman	2	2
2	Shri Ashish Upadhyaya*	Member	2	0
3	Shri Vidyadhar Vaishampayan	Member	2	2
4	Shri Jaikumar Srinivasan	Member	2	2

* Ceased to be Director on 31.12.2023

Name & Designation of Compliance Officer

The Board of Directors has appointed Ms. Ritu Arora, as the Company Secretary & Compliance Officer of NTPC Limited in terms of Regulation 6 of SEBI (LODR) w.e.f 29th January, 2024. Prior to this, Mr. Arun Kumar was the Company Secretary & Compliance Officer of NTPC upto 29th January 2024.

Scope of the Committee

The scope of the Stakeholders' Relationship Committee is as under:-

a) To specifically look into various aspects of interest of shareholders, debenture holders and other security holders.
b) Resolving the grievances of the security holders of the listed entity including complaints related to transfer/ transmission of shares, non-receipt of annual report, non-receipt of declared dividends, issue of new/ duplicate certificates, general meetings etc.
c) Review of measures taken for effective exercise of voting rights by shareholders.
d) Review of adherence to the service standards adopted by the listed entity in respect of various services being rendered by the Registrar & Share Transfer Agent.
e) Review of the various measures and initiatives taken by the listed entity for reducing the quantum of unclaimed dividends and ensuring timely receipt of dividend warrants/annual reports/statutory notices by the shareholders of the company.

Investor Grievances

The Company has always valued its investors' relationship. During the financial year ended on 31st March 2024, the Company has attended its investors grievances expeditiously except for the cases constrained by disputes or legal impediments. The details of the requests/queries/complaints received, resolved and disposed of during the year under review are as under:

Sl. No.	Particulars	Opening Balance	Received	Resolved	Pending
	Complaints relating to				
1	Equity Shares	0	880	880	0
2	Bonus Debentures	0	838	838	0
3	Public Issue of Bonds	0	138	138	0
4	Private Placement of Bonds	0	0	0	0

3.3. Nomination and Remuneration Committee including PRP

As per the requirements of Section 178 of the Companies Act, 2013, Regulation 19 of SEBI (LODR) and DPE Guidelines, a Nomination & Remuneration Committee (NRC) including Performance Related Pay (PRP) has been constituted.

Scope of the Committee

The scope of Nomination and Remuneration Committee including PRP is as under:

a) Decide the annual bonus/variable pay pool and policy for its distribution across the executives and non-unionized supervisors, within the prescribed limits



b) Formulation of the criteria for determining qualifications, positive attributes and independence of a director and recommend to the board of directors a policy relating to, the remuneration of the directors, key managerial personnel and other employees'

c) Formulation of criteria for evaluation of performance of independent directors and the board of directors

d) Devising a policy on diversity of board of directors

e) Identifying persons who are qualified to become directors and who may be appointed in senior management in accordance with the criteria laid down, and recommend to the board of directors their appointment and removal

f) Whether to extend or continue the term of appointment of the independent director, on the basis of the report of performance evaluation of independent directors.

g) Recommend to the Board, all remuneration, in whatever form, payable to senior management.

Being a Government Company, as per the Articles of Association, all Directors including the Chairman & Managing Director are appointed by the Government of India. Their tenure and remuneration (excluding sitting fee for the Independent Directors) are also fixed by the Government of India. Accordingly, evaluation of Directors including Independent Directors is done by the Government of India. It may also be noted that Ministry of Corporate Affairs (MCA) vide notification dated 5th June, 2015, has exempted Government Companies from the provisions of section 178(2), (3) and (4) which requires formulation of criteria for determining qualifications, positive attributes, independence and annual evaluation of Directors & policy relating to remuneration of Directors. In view of above, Nomination & Remuneration Committee including PRP has not formulated criteria for evaluation of performance of independent directors and the board of directors as required under Regulation 19 read with Schedule II Part D of the SEBI (LODR).

Members, Meetings & Attendance

The details of the constitution of Nomination and Remuneration Committee as on 31st March 2024, meeting details held during FY 2023-24 and attendance thereat are as under:

Sl. No.	Names	Designation	Total No. of Meetings Held	Total No. of Meetings Attended
1	Smt. Sangitha Varier	Chairperson	8	8
2	Shri Ashish Upadhyaya*	Member	5	3
3	Shri Jitendra Jayantilal Tanna	Member	8	8
4	Shri Vidyadhar Vaishampayan	Member	8	8
5	Shri Vivek Gupta	Member	8	8

*Ceased to be Director on 31.12.2023

3.4. Corporate Social Responsibility and Sustainability Committee

This Committee has been constituted in line with the provisions of Section 135 of the Companies Act, 2013 and DPE guidelines on Sustainability (SD).

Scope of the Committee

This Committee is constituted

- to formulate and recommend to the Board, Corporate Social Responsibility Policy as per Schedule VII of the Companies Act, 2013 as amended from time to time;
- to recommend the amount of expenditure to be incurred on the activities specified in the CSR Policy;
- to monitor the Corporate Social Responsibility Policy of the company from time to time; and
- any other matter as the Board may delegate from time to time.

Members, Meetings & Attendance

The details of constitution of the Corporate Social Responsibility and Sustainability Committee as on 31st March 2024, meeting details held during FY 2023-24 and attendance thereat are as under:

Sl. No.	Names	Designation	Total No. of Meetings Held	Total No. of Meetings Attended
1	Shri Dillip Kumar Patel*	Chairman	6	6
2	Shri Ramesh Babu V**	Member	6	6
3	Smt. Sangitha Varier	Member	6	6
4	Shri Jitendra Jayantilal Tanna	Member	6	6
5	Shri Vivek Gupta	Member	6	6
6	Shri Ravindra Kumar***	Member	0	0

* Ceased to be Director on 30.04.2024 **Ceased to be Director on 31.01.2024
***Appointed as Director on 26.02.2024

3.5. Risk Management Committee

Risk Management has been constituted in line with the provisions of Regulation 21 of the SEBI (LODR).

The scope of the Risk Management Committee is as under:-

a) To formulate a detailed risk management policy which shall include:

   i. A frame work for identification of internal and external risks specifically faced by the listed entity, in particular including financial, operational, sectoral, sustainability (particularly, ESG related risks), information, cyber security risks or any other risks as may be determined by the Committee.

   ii. Measures for risk mitigation including systems and processes for internal controls of identified risks.

   iii. Business continuity plan.

b) To ensure that appropriate methodology, processes and systems are in placed to monitor and evaluate risks associated with the business of the Company;

c) To monitor and oversee implementation of the risk management policy, including evaluating the adequacy of risk management system;

d) To periodically review the risk management policy, at least once in two years, including by considering the changing industry dynamics and evolving complexity;

e) To keep the board of directors informed about the nature and content of its discussions, recommendations and actions to be taken;

f) The appointment, removal and terms of remuneration of the Chief Risk Officer (if any) shall be subject to review by the Risk Management Committee.

Details on risk management mechanisms are given in the Management Discussion and Analysis report annexed with the Directors' Report.

Composition, Meetings & Attendance

The details of constitution of the Risk Management Committee as on 31st March 2024, meetings details held during FY 2023-24 and attendance thereat are as under:

Sl. No.	Names	Designation	Total No. of Meetings Held	Total No. of Meetings Attended
1	Shri Ujjwal Kanti Bhattacharya[1]	Chairman	1	1
2	Shri K Shanmugha Sundaram[2]	Chairman	1	1
3	Shri Ramesh Babu V[3]	Member	2	2
4	Shri Ravindra Kumar [4]	Member	0	0
5	Shri Vidyadhar Vaishampayan	Member	2	2
6	Ms. Sangeeta Kaushik[5]	Member	1	1
7	Shri H K Dash[6]	Member	1	1

1. ceased w.e.f. 30.11.2023 2. Appointed w.e.f. 01.12.2023 3. Ceased w.e.f. 31.01.2024
4. Appointed w.e.f. 26.02.2024 5. Ceased w.e.f. 02-01-2024 6. Appointed w.e.f. 02.01.2024

The scope of the committee is in line with the requirement of SEBI (LODR).



3.6. Other Committees of the Board of Directors

S. No.	Name of the Committee	Role & Responsibilities in brief	Members (As on 31.03.2024)
1.	Committee on Management Controls	Review of significant deviations in project implementation and construction, operation and maintenance budgets etc.	1. Shri Jaikumar Srinivasan 2. Shri Ravindra Kumar* 3. Shri Vivek Gupta 4. Smt. Sangitha Varier
2.	Projects Sub-Committee	To examine and give recommendations to the Board on proposals for Investment in New/ Expansion Projects and approves Feasibility Reports of new projects.	1. Shri K Shanmugha Sundaram** 2. Shri Jaikumar Srinivasan 3. Shri Ravindra Kumar* 4. Shri Vivek Gupta 5. Shri Vidyadhar Vaishampayan 6. Shri Jitendra Jayantilal Tanna
3.	Committee of Functional Directors for Contracts	Award of works or purchase contracts or incurring of commitments exceeding ₹300 crore but not exceeding ₹500 crore.	1. Shri Gurdeep Singh 2. Shri Jaikumar Srinivasan 3. Shri Dillip Kumar Patel# 4. Shri Shivam Srivastava*** 5. Shri K Shanmugha Sundaram** 6. Shri Ravindra Kumar*
4.	Contracts Sub-Committee	Award of works or purchase contracts or incurring commitments of value exceeding ₹500 crore but not exceeding ₹1000 crore, Consultancy assignments including foreign consultancy assignments exceeding ₹10 crore each and Appointment of Sponsor/ Agents for Overseas Consultancy Assignments involving sponsorship/ agency commission exceeding ₹10 crore each.	1. Shri Gurdeep Singh 2. Shri Jaikumar Srinivasan 3. Shri K Shanmugha Sundaram** 4. Shri Piyush Singh 5. Shri Jitendra Jayantilal Tanna 6. Smt. Sangitha Varier
5.	Committee for Allotment and Post-Allotment Activities of NTPC's Securities	To approve allotment, issue of Certificate(s)/Letter of allotment(s), transfer, transmission, re-materialisation, issue of duplicate certificate(s), consolidation/ split of NTPC's domestic and foreign Securities.	1. Shri Dillip Kumar Patel# 2. Shri Shivam Srivastava***/ Shri K. Shanmugha Sundaram** 3. Shri Ravindra Kumar*/ Shri Jaikumar Srinivasan
6.	Committee for Vigilance Matters	To examine all the petitions which are submitted before the Board as appellate/ reviewing authority in terms of CDA rules. It also reviews other major complaints as referred to it from time to time other than complaints registered under whistle blower mechanism under purview of Chief Vigilance Officer.	1. Shri Piyush Singh 2. Shri Dillip Kumar Patel# 3. Shri Vidyadhar Vaishampayan 4. Smt. Sangitha Varier
7.	Exchange Risk Management Committee	To review the foreign currency loan portfolio, hedged and un-hedged exposures and effectiveness of hedging strategy, approve amendments in Exchange Risk Management Policy, new derivative instruments, etc.	1. Shri Jaikumar Srinivasan 2. Shri Shivam Srivastava*** 3. Shri Vivek Gupta
8.	Committee for Guiding Acquisition of Power Assets	To guide the process of acquisition of power assets and to make recommendation to the Board	1. Shri Jitendra Jayantilal Tanna 2. Shri Jaikumar Srinivasan 3. Shri Shivam Srivastava*** 4. Shri K. Shanmugha Sundaram** 5. Shri Vivek Gupta 6. Smt. Sangitha Varier
9.	Committee of Directors on Fuel Management and Development & Operation of Coal Blocks	To examine proposals for appointment of MDO, review of availability of fuel at NTPC Stations and to recommend measures for improvement etc.	1. Shri Vidyadhar Vaishampayan 2. Shri Jaikumar Srinivasan 3. Shri Ravindra Kumar* 4. Shri Shivam Srivastava*** 5. Shri Piyush Singh 6. Shri Vivek Gupta 7. Shri Jitendra Jayantilal Tanna 8. Smt. Sangitha Varier
10.	Committee for Considering the Proposal Having Financial Implication Beyond Provisions of the Contract	For considering the proposal having Financial Implication beyond provisions of the Contract	1. Shri Jitendra Jayantilal Tanna 2. Shri Jaikumar Srinivasan 3. Shri K. Shanmugha Sundaram** 4. Shri Vidyadhar Vaishampayan 5. Smt. Sangitha Varier
11.	Sub-Committee of the Board of Directors for Business Development	For giving in-principle approval for new business initiatives/ Pilot Projects etc.	1. Shri Vidyadhar Vaishampayan 2. Shri Jitendra Jayantilal Tanna
12.	Standing committee of the Board regarding wholesome compliance with rules and regulations of Govt. of India	To monitor compliance with rules and regulations issued by the Govt. of India from time to time	1. Shri Dillip Kumar Patel# 2. Shri Shivam Srivastava*** 3. Shri Piyush Singh

* Appointed as Director on 26.02.2024 ** Appointed as Director on 01.12.2023 *** Appointed as Director on 30.04.2023
# Ceased to be director on 30.04.2024

3.7. Remuneration of Directors

The remuneration of Functional Directors and employees of the Company is fixed as per extant guidelines issued by DPE, from time to time. The Part time Non- official Independent Directors are paid sitting fees for attending Board and Committee meetings. As per the norms of Government of India, the Government Nominee Directors are not entitled to get any remuneration/sitting fee from the Company.

Sitting fee of ₹40,000/- is payable to Independent Directors for attending each meeting of the Board and ₹30,000/- for attending each meeting of the Committee.

No stock option was given to any Director during the financial year 2023-24.

Details of remuneration of Functional Directors for the financial year 2023-24 are given below:-

(In ₹)

S. No.	Name of CMD & Directors	Designation	Salary	Benefits	Performance Linked Incentives	Total
1	Shri Gurdeep Singh	Chairman & Managing Director	78,18,840	36,62,405	44,27,490	1,59,08,735
2	Shri Dillip Kumar Patel[1]	Director (HR)	52,29,546	28,24,497	28,83,120	1,09,37,163
3	Shri Ramesh Babu V[2]	Director (Operation)	44,62,702	98,10,785	29,62,430	1,72,35,917
4	Shri Ujjwal Kanti Bhattacharya[3]	Director (Projects)	40,42,352	82,17,624	29,34,520	1,51,94,496
5	Shri Jaikumar Srinivasan	Director (Finance)	40,37,737	19,67,849	15,89,364	75,94,950
6	Shri Shivam Srivastava[4]	Director (Fuel)	45,39,405	16,22,922	20,97,922	82,60,249
7	Shri K. Shanmugha Sundaram[5]	Director (Projects)	17,74,176	5,34,345	-	23,08,521
8	Shri Ravindra Kumar[6]	Director (Operations)	4,89,051	1,17,981	-	6,07,032

1. Ceased to be Director w.e.f. 30.04.2024
2. Ceased to be Director w.e.f. 31.01.2024
3. Ceased to be Director w.e.f. 30.11.2023
4. Appointed on 30.04.2023
5. Appointed on 01.12.2023
6. Appointed on 26.02.2024

Note:-

1. Performance linked incentives paid are based on the Performance Related Pay scheme of the Company, framed in line with DPE.
2. Besides above, Functional Directors are also entitled for medical benefit as per the applicable rules of the company.
3. Benefits include the retirement benefits paid to the superannuated Directors.

Details of payments towards sitting fees, for attending Board/Committee meetings, to Independent Directors during the financial year 2023-24 are given below:

(In ₹)

Sl No.	Members	Designation	Sitting Fees (Excluding GST)
1	Shri Vivek Gupta	Independent Director	19,10,000
2	Shri Jitendra Jayantilal Tanna	Independent Director	18,50,000
3	Smt Sangitha Varier	Independent Director	16,60,000
4	Shri Vidyadhar Vaishampayan	Independent Director	17,30,000

5. Material Subsidiary

In accordance with Regulation 16(1)(c) of SEBI (LODR), the Company has a Policy for determining 'Material Subsidiaries' which is available at the weblink:

https://ntpc.co.in/sites/default/files/inline-files/policy-determining-material.pdf

In the financial year 2023-24, the Company had no 'Material Subsidiary' as defined under Regulation 16(1)(c) of SEBI (LODR).

6. Directors Familiarizations Programme

Directors are imparted training organised from time to time by the Company and other agencies/ institutions with a view to augment leadership qualities, knowledge and skills. The training also enables them to get a better understanding of sector as well as the Company. Directors are also briefed from time to time about changes/developments in Indian as well as international corporate and economic scenario including Legislative/ Regulatory changes.

At the time of induction, new Directors undergo a familiarization programme which highlights organisation structure, subsidiaries/ joint ventures, business model of the company, risk profile of the business etc.

7. General Body Meetings

Annual General Meetings

Date, time and location where the last three Annual General Meetings along with details of Special Resolutions passed are as under:

Date	28th September, 2021	30th August, 2022	30th August, 2023
Time	10:30 A.M.	10:30 A.M.	10:30 A.M.
Venue	NTPC Bhawan, SCOPE Complex, Lodi Road, New Delhi 110003 through Video Conferencing/ Other Audio Visual Means	NTPC Bhawan, SCOPE Complex, Lodi Road, New Delhi 110003 through Video Conferencing/ Other Audio Visual Means	NTPC Bhawan, SCOPE Complex, Lodi Road, New Delhi 110003 through Video Conferencing/ Other Audio Visual Means
Special Resolution	i) To increase borrowing powers of the Company from ₹2,00,000 Crore to ₹2,25,000 Crore. ii) Authorization to Board to mortgage or create charge over the movable and immovable properties of the Company in favour of lenders in connection with the borrowings of the Company. iii) Authorization to Board to raise funds upto ₹18,000 Crore through issue of Bonds/Debentures on Private Placement basis.	i) To appoint Shri Vivek Gupta as an Independent Director of the Company ii) To appoint Shri Jitendra Jayantilal Tanna as an Independent Director iii) To appoint Shri Vidyadhar Vaishampayan as an Independent Director iv) To appoint Smt. Sangitha Varier as a Woman Independent Director v) Authorization to Board to raise funds up to ₹12,000 Crore through issue of Bonds /Debentures on Private Placement basis	i) To raise funds up to ₹12,000 Crore through issue of Bonds/ Debentures on Private Placement basis.

47th Annual General Meeting of the Company was held on 30th August, 2023 through Video Conferencing/Other Audio Visual Means in line with the Ministry of Corporate Affairs ("MCA") circular dated May 5, 2020 read together with other circulars issued from time to time. Meeting was attended by the partner/authorised representative of four statutory auditors firms. Meeting was also attended by the Scrutiniser appointed by the Board for Remote e-voting/ e-voting at AGM and Secretarial Auditor of the Company.

In accordance with Regulation 44 of the SEBI (LODR) and Section 108 of Companies Act 2013, remote e-voting facility was provided to the shareholders, in respect of resolutions passed at the AGM held on 30th August, 2023. In addition to above, facility of voting during the AGM was also provided to those shareholders who did not, cast their vote through remote e-voting through link appearing in their log-in.

Special Resolution passed through Postal Ballot

No special resolution was passed during last year through postal ballot. There is no immediate proposal for passing any special resolution through Postal Ballot.

8. Disclosures

(a) Related Party Transaction: -

The Company has formulated a Related Party Transaction (RPT) Policy containing criterion of deciding Materiality of Related Party Transactions and dealing with Related Party Transactions. The details of Related Party Transactions are given in form AOC-2 forming part of Board's Report.

During the FY 2023-24, NTPC has entered into Related Party Transactions with its Joint Ventures and subsidiaries pertaining to consultancy, contribution to Employees' benefit Trust, transfer of spares equity investment and renting of premises etc.

(b) The Company has complied with the Guidelines on Corporate Governance for Central Public Sector Enterprises issued by DPE, Ministry of Finance, Government of India.

(c) The Company had received notices for payment of fine from the NSE and BSE for non-compliance with the

provisions of Regulation 17 (1) of the SEBI (LODR) due to insufficient numbers of Independent Director in respect of Q1, Q2, Q3 and Q4 of 2020-21, 2021-22, 2022-23 and 2023-24. During Q3 of 2023-24, fine was imposed for non-compliance with provisions of Regulation 17(1) as 50% of the Board of Directors was not comprise of Non-Executive Directors. In respect of Q3 of 2021-22 fines have also been imposed under Regulation 17 (2A), Regulation 18 (1), Regulation 19 (1), Regulation 20(2) and Regulation 21(2) for not having sufficient numbers of Independent Directors in the quorum for Board and insufficient numbers of the Independent Directors in Audit Committee, Nomination & Remuneration Committee, Stakeholders' Relationship Committee and Risk Management Committee. As powers of appointment of independent directors are vested with the Government of India and compliance was not within the powers of the Board of Directors, request was made to the Stock Exchanges for waiver of fine. BSE has waived fines imposed for the Q2 and Q3 of 2018-19 and Q2 of 2020-21.

The Company had received notices for payment of fine from the NSE and BSE for non-compliance with the provision of Regulation 29 of the SEBI LODR in respect of prior intimation of Board meeting for approval for raising funds up to ₹15,000 Crore though private placement of Bonds. As the proposal was subject to approval of Shareholders in AGM held on 24th September 2020, it was informed to the stock exchanges along with the notice of the AGM. Request for waiver of penalty had been made to the Stock Exchanges.

NSE had imposed penalty of ₹70,000/- under Para.8.4 of Chapter XVII of SEBI Operational Circular for delay in certificate of confirming fulfilment of payment obligation. However, penalty was waived vide letter dated 19th June 2023.

Except mentioned above, there were no penalties or strictures imposed on the Company by any statutory authorities for non-compliance on any matter related to Indian capital markets, during the last three years.

(d) The Company has complied with corporate governance requirements specified in Regulations 17 to 27 and clauses (b) to (i) of sub-regulation (2) of Regulation 46 of SEBI (LODR), except to the extent specifically mentioned in this report and in the Secretarial Audit Report. The discretionary requirements as specified in Part E of Schedule II adopted by the Company are at Annexure-1 of the Report.

(e) No Presidential Directive were issued during the financial year 2023-24 and during last three years preceding the financial year 2023-24

(f) Credit Ratings:

Domestic Credit Instruments:

Instruments	CRISIL	ICRA	CARE	India Ratings
Long Term Loans	CRISIL AAA/Stable	ICRA AAA/Stable	CARE AAA/Stable	IND AAA/Stable
Domestic Bonds	CRISIL AAA/Stable	ICRA AAA/Stable	CARE AAA/Stable	IND AAA/Stable
Commercial Papers	CRISIL A1+	ICRA A1+	CARE A1+	IND A1+
Bank Guarantees	CRISIL A1+	ICRA A1+	CARE A1+	IND AAA/Stable/IND A1+
Letter of Credit	CRISIL A1+	ICRA A1+	CARE A1+	IND AAA/Stable/IND A1+
Cash credit/ STWCL/ WCDL/Bill Discounting	CRISIL AAA/Stable	ICRA AAA/Stable	CARE AAA/Stable	IND AAA/Stable/IND A1+

There has not been any revision in credit rating of above-mentioned domestic credit instruments during the relevant financial year.

International Credit Instruments:

Instruments	S&P	Moody's	Fitch
Company Rating/Outlook	BBB-/Stable	Baa3/Stable	BBB-/Stable

There has not been any revision in the credit rating of above-mentioned international credit instruments. Further, Fitch Ratings has upgraded the outlook from "Negative" to "Stable".

(g) Disclosure under the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act 2013 are given in the Directors' Report of the Company for the FY 2023-24.

(h) Dis-qualification of Directors:

M/s A. Kaushal & Associates, Company Secretaries certified that none of the Directors on the Board of the Company have been debarred or disqualified from being appointed or continuing as Directors of the Companies by the SEBI/Ministry of Corporate Affairs/ any such authority as on 31st March, 2024. Copy of certificate is enclosed as Annexure-2.

(i) During the year 2023-24, there was no Preferential Allotment / Qualified Institutional Placement of Shares which is required to be reported under Regulation 32(7A) of the SEBI (LODR).

(j) During the year 2023-24, there was no instance where the recommendation of the Committee of the Board was not accepted by the Board, which was mandatorily required.

(k) During the year 2023-24, total fee of ₹6.41 Crore (including fee for other services) was paid to the Statutory Auditors by the Company. Further, the statutory auditors of the company have not carried out any work of subsidiary companies.

(l) During the FY 2023-24, there were following changes in the Whole time Directors and Senior Management Personnel

a. Shri Shivam Srivastava was appointed as Director (Fuel) w.e.f. 30.04.2023

b. Shri Ujjwal Kanti Bhattacharya ceased to be Director (Projects) w.e.f. 30.11.2023.

c. Shri K Shanmugha Sundaram was appointed as Director (Projects) w.e.f. 01.12.2023

d. Shri Ashish Upadhyaya ceased to be Govt. Nominee Director w.e.f. 31.12.2023

e. Shri Ramesh Babu V., ceased to be Director (Operations) w.e.f. 31.01.2024.

f. Shri Ravindra Kumar was appointed as Director (Operations) w.e.f. 26.02.2024

g. Shri Arun Kumar ceased to be Company Secretary and Compliance Officer w.e.f. 29.01.2024.

h. Ms. Ritu Arora was appointed as Company Secretary & Compliance officer w.e.f. 29.01.2024.

i. Changes in Executive Directors i.e. one level below functional directors are as under:

Appointed during the Year:

Names	Names
Ms. Sangeeta Kaushik	Shri Umakant Haribhau Gokhe
Shri Virendra Malik	Shri Prasenjit Pal
Shri Harjit Singh	Shri Subhra Kumar Ghosh
Shri C Kumar	Shri R Sarangapani
Shri Ratnesh	Shri Ashish Kundu
Ms. Shoba Pattabhiraman	Shri Kedar Ranjan Pandu
Shri Santosh Kumar Takhele	Shri Baru Rama Rao
Shri Vijay Prakash	Shri S Govindarajan
Shri Shaswattam	Shri Animesh Jain
Shri Masood Akhtar Ansari	Shri Asesh Kumar Chattopadhyay
Shri Manohar Krishna Asthana	Shri Apelagunta Kama Manohar
Shri Bishnu Charan Polai	Shri Ravindra Kumar
Shri Gampa Brahmaji Rao	Shri Karunakar Das
Shri Jasbir Singh Ahlawat	Shri Rajiv Gupta
Shri Vijay Goel	Shri Kamlesh Soni
Shri E Satya Phani Kumar	Shri Anil Kumar
Shri Dilip Kumar Dubey	

Retirements/Superannuation during the Year:

Names	Names
Shri Achal Kumar Arora	Shri Debasish Chattopadhyay
Shri Ajay Kumar Chhabra	Shri Karunakar Das
Shri Sital Kumar	Shri Jasbir Singh Ahlawat
Shri Naresh Anand	Shri Praveen Saxena
Shri Sanjay Kumar Singh	Shri Sunil Kumar
Shri Ratnesh	Shri Asit Dutta
Shri Ashim Kumar Goswami	Shri Bishnu Charan Polai
Shri Adesh	Shri DSGSS Babji
Shri Basuraj Goswami	Shri Ajit Kumar Bishoi
Shri Partha Mazumder	Shri Ravi Prakash
Shri Subrata Mandal	Shri Velivala Sudharshanbabu



Names	Names
Shri Suvash Chandra Naik	Shri Baru Rama Rao
Shri Atanu Dutta	Shri Manish Kumar Srivastava
Shri Muthyala Venkat Ramana Reddy	Shri Sandeep Aggarwal
Shri Mohit Bhargava	Shri Abhay Kumar Samaiyar
Shri Ashwini Kumar Tripathy	Shri Rajesh Kumar Kanojia
Shri Ashish Kundu	

9. CEO/CFO Certification

As required under Regulation 17(8) of SEBI (LODR), the certificate duly signed by Chairman & Managing Director and Director (Finance) was placed before the Board of Directors at the meeting held on 24th May 2024 and the same is annexed to the Corporate Governance Report.

10. Means of Communication

The Company communicates with its shareholders through its Annual Report, General Meetings and disclosures through Stock Exchanges & its own Website. The Company also communicates with its institutional shareholders through a combination of analysts briefing and individual discussions and also participation in investor conferences from time to time. Annual analysts and investors meet is held normally during the month of August where Board of the Company interacts with the investing community. Financial results are discussed by way of conference calls regularly after approval of financial results of each quarter.

In compliance with the provisions of Regulation 44(6) of the SEBI (LODR), the Company provides live webcast of proceedings of AGM on the website of the Company.

Information, latest updates and announcements regarding the Company can be accessed at company's website: www.ntpc.co.in including the following:-

- Quarterly/ Annual Financial Results
- Quarterly Shareholding Pattern
- Quarterly Corporate Governance Report
- Transcripts of conferences with analysts
- Corporate Disclosures made from time to time to the Stock Exchanges

The Company's official news releases, other press coverage, presentations made to institutional investors or to the analysts are also hosted on the Website.

In addition to this, web links of various matters referred in this report are as under:

Particulars	Website links
Reports	
Quarterly, Half-yearly and Annual Financial Results	https://ntpc.co.in/investors/financial-results
Presentation to investors and analysts	https://ntpc.co.in/sites/default/files/inline-files/NTPC_IP_28.07.2024.pdf
Annual Report	https://ntpc.co.in/investors/annual-reports
Sustainability Reports	https://ntpc.co.in/index.php/sustainability/reports-and-publications
Policies	
Code of Conduct	https://ntpc.co.in/sites/default/files/inline-files/Code-of-Conduct-for-Board-Members-and-Senior-Management-Personnel.pdf
Dividend Distribution Policy	https://ntpc.co.in/sites/default/files/inline-files/DividendDistributionPolicyofNTPCLimited.pdf
Whistle Blower Policy	https://ntpc.co.in/sites/default/files/inline-files/WhistleBlowerPolicy.pdf
Policy on Determination and Disclosure of Materiality of Events and Information	https://ntpc.co.in/sites/default/files/inline-files/policy-determining-material.pdf
Policy for preservation of Documents	https://ntpc.co.in/sites/default/files/inline-files/Document%20Preservation%20Policy.pdf
Policy on Materiality of Related Party Transactions and on dealing with Related Party Transactions	https://ntpc.co.in/sites/default/files/inline-files/Revised%20policy%20on%20RPT.pdf
Policy for determining Material Subsidiaries	https://ntpc.co.in/sites/default/files/inline-files/policy-determining-material.pdf
Training Policy for Directors	https://ntpc.co.in/sites/default/files/inline-files/training-policy-directors-ntpc.pdf
Familiarisation Programme for Independent Directors	https://ntpc.co.in/corporate-governance/familiarisation-program-directors
Shareholders' Information	
Composition of Board of Directors and Profile of Directors	https://ntpc.co.in/board-directors
Composition of various Committees of the Board and their terms of reference	https://ntpc.co.in/corporate-governance/Committees-of-the-Board
Details of unpaid dividend and details of shares transferred to IEPF	https://ntpc.co.in/iepf-details
Investor Contacts	https://ntpc.co.in/investor-updates/investors-contact

The Company's official news releases, other press coverage, presentations made to institutional investors or to the analysts are also hosted on the Website.

During 2023-24, Quarterly Results have been published as per details given below

Q1	Q2	Q3	Q4
Published on 30.07.2023 & 31.07.2023	**Published on 30.10.2023 & 31.10.2023**	**Published on 30.01.2024 & 31.01.2024**	**Published on 25.05.2024**
Economic Times (English), Mint (English), Hindustan (Hindi).	Economic Times (English) Financial Express (English) Jansatta (Hindi)	Jansatta (Hindi), Mint (English), Financial Express (English), Economic Times (English).	Economic Times (English) Mint (English) Hindustan (Hindi)

11. Code of Conduct

The Company has in place Code of Conduct for Directors and Senior Management Personnel (Code) with a view to enhance ethical and transparent process in managing the affairs of the Company. This code is applicable to all the Board Members including Government Nominee(s) & the Independent Director(s) and the Senior Management Personnel of the Company.

Declaration as required under Regulation 34 (3) Schedule V of the SEBI (LODR) Regulations, 2015

The members of the Board and Senior Management Personnel have affirmed compliance of the Code of Conduct for Board Members & Senior Management Personnel for the financial year ended on 31st March, 2024.

Sd/-
(Gurdeep Singh)
Chairman & Managing Director

New Delhi
27 July 2024



12. Code of Internal Procedures & Procedures for Prevention of Insider Trading

Pursuant to Regulation 9(1) of SEBI (Prohibition of Insider Trading) Regulations, 2015 as amended by the SEBI (Prohibition of Insider Trading) (Amendment) Regulations, 2018, the Board has laid down Internal Code of Conduct for Prevention of Insider Trading in dealing with Securities of NTPC Limited (Insider Trading Code).

To strengthen the internal controls for monitoring & enforcing compliance with the Insider Trading Code, an IT enabled system has been installed with the objective to maintain structural digital database for UPSI and also to aim at mapping of designated employees, monitor compliance with the provisions of the Insider Trading Code by the designated employees, dissemination of information etc.

13. Whistle Blower Policy

The Company has a Board approved 'Whistle Blower Policy' for directors and employees to report to the management, concerns about unethical behaviour, actual or suspected fraud or violation of the company's code of conduct or ethics policy. It also provides adequate safeguard against victimization of employees, who avail the mechanism and direct access to the Chairman of the Audit Committee, if required.

No personnel of the Company had been denied access to the Chairman of audit committee.

14. Directors and Officers Insurance

As per approval accorded by the Board of Directors in its 263rd meeting, NTPC is taking Directors and Officers insurance Policy (D&O Policy) every year. Present D&O Policy is for ₹100 Crore and it also covers Independent Directors. The Board had delegated power to decide extent of coverage, settle terms and conditions etc. to the Chairman & Managing Director or Director (Finance).

15. Secretarial Audit

Secretarial Audit Report, given by a Company Secretary in Practice for the FY 2023-24 is enclosed with the Directors' Report.

16. Security holders Information

i) Annual General Meeting

For details, please refer to the Notice of this AGM.

Financial Calendar for FY 2024-25

Particulars	Date
Accounting Period	1st April 2024 to 31st March 2025
Unaudited Financial Results for the first three quarters	Announcement within stipulated period under SEBI (LODR)
Fourth Quarter Results	Announcement within stipulated period under SEBI (LODR)
AGM (Next year)	August 2025 (Tentative)

ii) Payment of Dividend and Record Date

The Board of Directors of the Company has recommended payment of final Dividend of ₹3.25 per share (32.50%) on the paid-up share capital, for the financial year ended 31st March 2024 in addition to the Interim Dividend of ₹4.5 per share (45%) on the paid-up share capital. The date of payment/dispatch of interim dividend were November 23, 2023 and February 22, 2024.



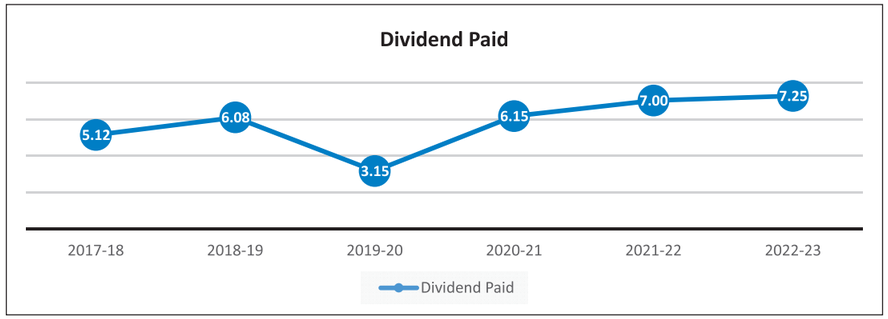
The Company has fixed Wednesday, 7th August, 2024 as record date for payment of final dividend. The final dividend on equity shares, if declared at the Annual General Meeting, will be paid on Wednesday, 11th September, 2024 to the Members whose names appear on the Company's Register of Members on record date.

iii) Dividend History

DETAILS OF DIVIDENDS PAID

Year	Total Paid Up Capital (₹ in cr)	Dividend Paid/ Share (₹)	Total Dividend Paid (₹ in cr)	Date of BOD in which Interim Dividend was declared	Date of Payment of Interim Dividend	Date of AGM in which Final Dividend was Declared	Date of Payment of Final Dividend
2017-18	8245.46	5.12	4221.68	31.01.2018	15.02.2018	20.09.2018	10.10.2018
2018-19	9894.56#	6.08	5425.52	30.01.2019	14.02.2019	21.08.2019	03.09.2019
2019-20	9894.56	3.15	3116.79	19.03.2020	31.03.2020	24.09.2020	03.10.2020
2020-21	9696.67$	6.15	5963.45	04.02.2021	26.02.2021	28.09.2021	08.10.2021
2021-22	9696.67	7.00	6787.67	29.01.2022	21.02.2022	30.08.2022	12.09.2022
2022-23	9696.67	7.25	7030.08	28.01.2023	24.02.2023	30.08.2023	12.09.2023
2023-24	9696.67	2.25* 2.25*	4363.50	28.10.2023 29.01.2024	23.11.2023 22.02.2024	-	-

Paid up share capital was increased from ₹ 8245.46 Crore to ₹ 9894.56 Crore due to Bonus Issue
$ Paid up share capital was reduced subsequent to Buyback of shares
* Interim Dividend for FY 2023-24



iv) Listing On Stock Exchange

NTPC equity shares are listed on the following Stock Exchanges:

National Stock Exchange of India Limited (NSE)

- Address: Exchange Plaza, Plot No. C/1, G Block, Bandra (E), Mumbai - 400051
- Scrip Code of NTPC: NTPC EQ

BSE Limited (BSE)

- Address: Phiroze Jeejeebhoy Towers, Dalal Street, Mumbai - 400001
- Scrip Code of NTPC: 532555

Stock Code : ISIN – INE733E01010

Details of Listing of Domestic Bonds

Listed on National Stock Exchange of India (NSE)

- Bond Series:
- 32, 34 to 36, 38 to 46, 53, 74, 76, 78 & 80

Listed on BSE Limited (BSE)

- Bond Series:
- 73, 75, 77, 79 & 81

Listed on NSE & BSE

- Bond Series:
- 50, 51, 54 to 57, 60 to 64, 67, 69, 71 & 72

The Annual Listing Fee for FY 2024-25 has been paid to NSE and BSE.

v) Details of Listing of Bonds Outstanding as at 31.03.2024 Issued Under the MTN Programme:

Sr. No.	Series	ISIN No.	Name of Bond	Listed on Stock Exchanges
1	Euro Bond-IV	XS1143390679	USD 500 million 4.375% Notes due 2024	SGX, India INX & NSE IFSC
2	Euro Bond-V	XS1372846003	USD 500 million 4.25% Notes due 2026	SGX, India INX & NSE IFSC
3	Euro Bond-VII	XS1551677260	EUR 500 million 2.75% Notes due 2027	SGX, FSE, India INX & NSE IFSC
4	Euro Bond-IX	XS1792122266	USD 400 million 4.50% Notes due 2028	SGX, LSE, India INX & NSE IFSC
5	Euro Bond-X	XS1967614469	USD 450 million 3.75% Notes due 2024	SGX, India INX & NSE IFSC

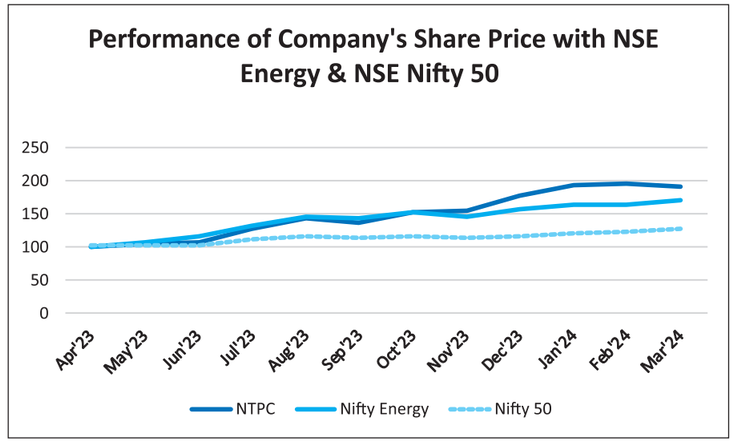
SGX	**Singapore Exchange Ltd.,SGX Centre Office, 2 Shenton Way, #02-02, SGX Centre 1, Singapore 068804**
India INX	INDIA INTERNATIONAL EXCHANGE (IFSC) LTD 1st Floor, Unit No. 101, The Signature, Building no. 13B, Road 1C, Zone 1, GIFT SEZ, GIFT City, Gandhinagar, Gujarat – 382355
NSE IFSC	NSE IFSC Limited Unit No. 1201, Brigade International Financial Centre, 12th floor, Block-14, Road 1C, Zone -1, GIFT SEZ, Gandhinagar, Gujarat – 382355
LSE	London Stock Exchange 10 Paternoster Square, London EC4M 7LS, United Kingdom
FSE	Deutsche Börse AG, 60485 Frankfurt/Main

Listing fee to the above exchanges in respect of the securities was paid (wherever applicable) at the time of the listing of the securities.

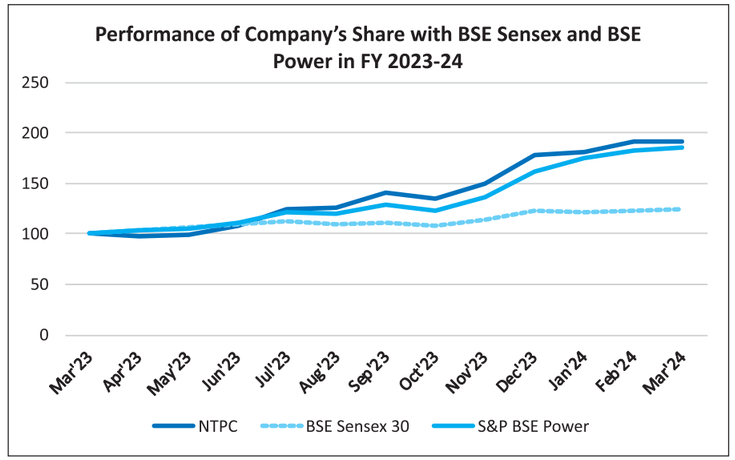
vi) Market Price Data

Month	NTPC on BSE				NTPC on NSE				INDEX	
	High Price (in ₹)	Low Price (in ₹)	Close Price (in ₹)	Volume (No. in Lakhs)	High Price (in ₹)	Low Price (in ₹)	Close Price (in ₹)	Volume (No. in Lakhs)	BSE SENSEX	NSE NIFTY 50
Apr'23	179.75	166.65	171.55	131.31	179.75	166.80	172.00	1,937.90	61,112.44	18065.00
May'23	179.95	171.95	173.95	102.47	180.00	171.95	173.85	2,148.51	62,622.24	18534.40
Jun'23	191.65	171.90	189.15	123.37	191.65	171.85	189.15	2,344.49	64,718.56	19189.05
Jul'23	218.90	184.75	218.45	202.18	218.95	184.75	218.35	3,187.19	66,527.67	19753.80
Aug'23	226.60	211.85	219.95	185.70	226.65	211.80	220.30	3,336.29	64,831.41	19253.80
Sep'23	251.50	216.55	245.65	178.60	251.50	216.15	245.55	3577.67	65,828.41	19638.30
Oct'23	247.15	227.75	235.85	99.22	247.20	227.75	235.80	2,521.63	63,874.93	19079.60
Nov'23	261.75	232.20	261.30	144.50	261.65	232.10	261.30	1,955.71	66,988.44	20133.15
Dec'23	315.65	261.85	311.15	166.62	315.50	261.75	311.15	3,802.73	72,240.26	21731.40
Jan'24	325.70	296.55	317.55	195.39	325.75	296.55	317.50	4,125.84	71,752.11	21725.70
Feb'24	347.85	314.55	335.45	139.45	348.05	314.50	335.60	3,297.50	72,500.30	21982.80
Mar'24	360.35	305.80	335.95	195.56	359.95	305.75	335.80	3,495.51	73,651.35	22326.90

vii) Comparison of performance of Company's Share Price with NSE NIFTY 50 and NSE ENERGY in FY 2023-24



viii) Comparison of performance of Company's Share Price with BSE Sensex and BSE Power in FY 2023-24



ix) Registrar and Transfer Agent Details:

For Equity Shares & Bonds (For Series: 32 to 49, 51 to 53, 55, 57 to 81)

Beetal Financial & Computer Services Pvt. Ltd.
99, Madangir, Near Dada Harsukh Das Mandir,
New Delhi-110062.

Phone No: 011-29961281, 011-29961282
Fax: 011-29961284
Email: ntpc@beetalfiancial.com

Tax Free Bonds (Series 50) and Bonus Debentures (Series 54) and Tax Free Bonds 2015 (Series 56)

KFin Technologies Limited,
Selenium Tower, B, Plot No. 31 & 32,
Gachibowli Financial District, Nanakramguda,
Serilingampally, Hyderabad-500008
Toll Free/ Phone Number: 1800 309 4001
WhatsApp Number: (91) 910 009 4099;
Fax: (91 40) 2343 1551
Email: einward.ris@kfintech.com

x) Share Transfer System

In terms of Regulation 40(1) of SEBI LODR, as amended, w.e.f. April 1, 2019 securities can be transferred only in dematerialized form, except in case of request received for transmission or transposition of securities. Members holding shares in physical form are requested to consider converting their holdings to dematerialized form. Transfers of equity shares in electronic form are affected through the depositories with no involvement of the Company.

As per SEBI circulars dated January 25, 2022 and February 24, 2022 request for effecting of issue of duplicate securities certificate, claim from unclaimed suspense account, renewal / exchange of securities certificate, endorsement, subdivision/ splitting of share certificate, consolidation of securities, transmission and transposition shall be issued in dematerialised mode only and no physical share certificate shall be issued. Form ISR-4 (for physical shareholders) has also made available on the website of the Company.

SEBI vide its circular dated March 16, 2023 mandated all listed companies to record PAN, Nomination and Contact details, Bank A/c details and specimen signature for their corresponding folio numbers of holders of physical securities. The Company has completed the process of sending letters through its RTA to the Members holding shares in physical form in relation to above referred SEBI Circular. Members holding shares in electronic form are requested to submit their details to their Depository Participant(s).

xi) Transfer of Unclaimed Amount of Dividend to Investor Education & Protection Fund (IEPF)

In accordance with Section 125 of the Companies Act, 2013 read with Regulation 61A of Securities and Exchange Board of India (LODR) (Fifth Amendment) Regulations, 2021, during the financial year 2023-24, an amount of ₹66.08 lakh pertaining to unclaimed interim dividend (2015-16), ₹88.56 lakh pertaining to unclaimed final dividend (2015-16), ₹24.86 lakh pertaining to first unclaimed interest on Tax Free Bonds 2015, ₹13.48 lakh pertaining to third unclaimed interest on Tax Free Bonds 2013 and ₹83.62 lakh pertaining to first unclaimed interest on Bonus Debentures 2015 have been transferred to Investor Education and Protection Fund.

The Company has uploaded the details of shareholders/ depositors of the Company containing information like name, address, amount due to be transferred to IEPF and due date of transfer of amount to IEPF on its website. The Company has been issuing notices in the newspapers from time to time in order to invite attention of the shareholders/depositors who have not preferred their claims, to submit their claims towards the unpaid and unclaimed dividend/interest.

xii) Transfer of Shares to IEPF

In terms of Section 124(6) of the Companies Act, 2013 and IEPF Authority (Accounting, Audit, Transfer and Refund) Rules, 2016 as amended from time to time (IEPF Rules), the shares in respect of which the dividend has not been paid or claimed for a consecutive period of seven years or more, is required to be transferred to Investor Education and Protection Fund (IEPF) Authority account.

In line with the provisions of Section 124(6) and rules made thereunder as well as in accordance with the circulars/notifications issued by the MCA from time to time, for the financial year 2023-24, 229890 shares of 2723 shareholders were transferred to the DEMAT Account of the IEPF Authority opened with CDSL. Details of the shareholders whose shares were transferred to the IEPF Account is available on the website at the following link: https://www.ntpc.co.in/iepf-details/iepf-account. Members may check their details on the aforesaid web-link.

xiii) Claim from IEPF Account

Any person, whose shares, unclaimed dividend, matured deposits, matured debentures, application money due for refund, or interest thereon, sale proceeds of fractional share, redemption proceeds of preference shares etc. has been transferred to the IEPF , may claim the shares under provision to sub-section (6) of section 124 or apply for refund under clause (a) of sub-section (3) of section 125 or under proviso to sub-section (3) of section 125, as the case may be, to the Authority by making an online application in Form IEPF-5. Detailed procedure regarding claiming shares from IEPF account is available on NTPC website at the following link:
https://ntpc.co.in/iepf-account/procedure-claiming-dividend-shares-iepf-authority.

xiv) Debenture Trustees for Various Series

For Series: 44 to 50 (TFB-2013), 53 to 55, 57 to 66

Vistra ITCL (India) Ltd. (Formerly known as IL&FS Trust Company Limited)
The IL&FS Financial Centre, Plot No. C-22,
G-Block, Bandra – Kurla Complex,
Bandra (East), Mumbai – 400051
Tel: (+91 22) 26533908
Fax: (+91 22) 26533297
E-mail: itclcomplianceofficer@ilfsindia.com
Website: www.vistraitcl.com

For Series: 27 to 43, 51 to 52, 56 (TFB-2015), 70 to 78

IDBI Trusteeship Services Limited
Asian Building, Ground Floor,
17, R. Kamani Marg, Ballard Estate,
Mumbai – 400 001
Tel : +91 22 4080 7000
Fax : +91 22 6631 1776
E-mail : itsl@idbitrustee.com
Website: www.idbitrustee.com

For Series 67 to 69

AXIS TRUSTEE SERVICES LTD.
Axis House, Bombay Dyeing Mills Compound,
Pandurang Budhkar Marg, Worli, Mumbai- 400 025
Email: debenturetrustee@axistrustee.com
Website: www.axistrustee.com

For Series: 79 to 81

BEACON TRUSTEESHIP LIMITED
4C & D Siddhivinayak Chambers, Gandhi Nagar,
Opp MIG Cricket Club, Bandra (East), Mumbai 400 051
Toll-Free No. 9555449955
Email: contact@beacontrustee.co.in
Website: www.beacontrustee.co.in

xv) Distribution of Shareholding

Shares held by different categories of shareholders and according to the size of holdings as on 31st March 2024 are given below:

A. On Basis of Size

Category	Cases	%	Shares	%
1-5000	1303121	93.516	94109528	0.97
5001-10000	50496	3.624	36155889	0.37
10001-20000	23055	1.654	32082819	0.33
20001-30000	6664	0.478	16598645	0.17
30001-40000	2738	0.196	9608249	0.10
40001-50000	1760	0.126	8094776	0.08
50001-100000	2924	0.210	20374948	0.21
100001-above	2722	0.195	9479641280	97.76
Total	**1393480**	**100**	**9696666134**	**100.00**

B. On Basis of Ownership

Category	As on 31.03.2023			As on 31.03.2024			
	No. of Shareholders	Total Shares	%	No. of Shareholders	Total Shares	%	Change (in %)
Govt. of India	1	4955346251	51.10	1	4955346251	51.10	0.00
Indian Financial Institutions/Banks	16	21189861	0.22	11	1294614	0.01	-0.21
Mutual Funds	36	1931200011	19.92	39	1740829563	17.95	-1.97
Foreign Portfolio Investors/FIIs	639	1512391505	15.60	738	1731587696	17.86	2.26
Resident Individuals	957296	200516135	2.06	1359000	242656520	2.50	0.44
Body Corporates	2270	39886160	0.41	3353	53603048	0.55	0.14



Category	As on 31.03.2023			As on 31.03.2024			
	No. of Shareholders	Total Shares	%	No. of Shareholders	Total Shares	%	Change (in %)
Insurance Companies	35	862598414	8.90	35	727510040	7.50	-1.40
Trusts	70	526362	0.01	75	503495	0.01	0.00
HUF	10815	6436047	0.07	13168	7035714	0.07	0.00
Others	12428	166575388	1.71	43486	235563479	2.45	0.74
Total	**983606**	**9696666134**	**100**	**1393480**	**9696666134**	**100**	**0.00**

A. Major Shareholders

Name of the Shareholder	No. of Shares	%	Category
President of India	4955346251	51.1	Indian Promoter
Life Insurance Corporation of India	441227974	4.55	Insurance Co.
ICICI Prudential Equity & Debt Fund	400997305	4.14	Mutual Fund
CPSE Exchange Traded Scheme (CPSE ETF)	347546498	3.58	Mutual Fund
HDFC Trustee Company Ltd. A/C HDFC Balanced Advantage Fund	212433941	2.19	Mutual Fund
SBI-ETF Nifty 50	166219034	1.71	Mutual Fund
NPS Trust- A/c Uti Retirement Solutions Pension Fund Scheme - State Govt	136412893	1.41	Pension Fund
Government Of Singapore	165239754	1.70	FPI-I

xvi) Dematerialisation of Shares & Liquidity

The shares of the Company are in compulsory dematerialised segment and are admitted with both the Depositories i.e. National Securities Depository Ltd. (NSDL) and Central Depository Services (India) Limited (CDSL).

In pursuance of Article 7 of the Articles of Association of the Company and as per Rule 6 of the Companies (Share Capital and Debentures) Rules, 2014, the Company has prescribed a fee of ₹50/- per share/ bond certificate on issue of certificates on splitting/ consolidation/ rematerialisation/ duplicate on loss of shares/ bonds.

Secretarial Audit Report for Reconciliation of the Share Capital of the Company obtained from Practising Company Secretary has been submitted to Stock Exchanges within stipulated time.

Details of shareholding in dematerialized and physical mode as on 31st March, 2024 are as under:

Holding Type	No. of Shares	Share %
Demat		
CDSL	400061131	4.126
NSDL	9296531406	95.873
Physical	73597	0.001
TOTAL	**9696666134**	**100**

xvii) Depository Details

National Securities Depository Ltd	Central Depository Services (India) Limited
• Trade World, 4th Floor Kamala Mills Compound Senapathi Bapat Marg, Lower Parel, Mumbai-400 013	• Marathon Futurex A-Wing, 25th floor, NM Joshi Marg, Lower Parel, Mumbai 400013

xviii) Demat Suspense Account

Details of shares/ debentures in the suspense accounts opened and maintained after Initial Public Offering, Further Public Offering of Equity Shares of NTPC and Bonus Debentures as on 31st March, 2024 is furnished below:

Demat Suspense Account Type	Opening Balance as on 01.04.2023		Requests disposed of during FY 2023-24		Closing Balance as on 31.03.2024	
	Cases	Shares	Cases	Shares	Cases	Shares/ Debentures
IPO Unclaimed Shares[1]	4	1050	0	0	4	1050
IPO- Unclaimed Bonus Debentures[1]	176	31197	0	0	176	31197
FPO- Unclaimed Shares[2]	6	1139	0	0	6	1139
FPO-Unclaimed Bonus Debentures[2]	23	2828	0	0	23	2828
Bonus Debentures-Unclaimed Debentures[3]	29	5474	0	0	29	5474
Unclaimed Securities Suspense Account[4]	1	1000	0	0	1	1000

1. Account opened and maintained after IPO
2. Account opened and maintained after FPO
3. Account opened and maintained after Issue of Bonus Debentures
4. Opened as per SEBI Circular dated 25.01. 2022.

xix) Outstanding GDRs/ ADRs/ Warrants or any Convertible instruments, conversion date and likely impact on equity

No GDRs/ ADRs/Warrants or any Convertible instruments has been issued by the Company.

xx) Commodity price risk or foreign exchange risk and hedging activities

The Company does not deal in commodities and hence the disclosure pursuant to SEBI Circular dated November 15, 2018 is not required to be given. For a detailed discussion on foreign exchange risk and hedging activities, please refer to Directors' Report and Management Discussion and Analysis Report.

xxi) Loans and advances in the nature of loans to firms/ companies

During the financial year 2023-24, no loan or advances in the nature of loan has been given to firms/companies in which directors are interested except loan provided to the subsidiary and joint venture companies.

xxii) Number of Shares held by the Directors

Name of Directors	No. of shares (as on 31.03.2024)
Shri Gurdeep Singh	5828
Shri Jaikumar Srinivasan	5
Shri Dillip Kumar Patel*	NIL
Shri Shivam Srivastava	270
Shri K. Shanmugha Sundaram	NIL
Shri Ravindra Kumar	5266
Shri Piyush Singh	NIL



Name of Directors	No. of shares (as on 31.03.2024
Ms. Sangitha Varier	NIL
Shri Vivek Gupta	NIL
Shri Jitendra Jayantilal Tanna	NIL
Shri Vidyadhar Vaishampayan	NIL

*Ceased to be Director w.e.f. 30.04.2024

xxiii)Location of NTPC Plants

THERMAL PROJECTS

Eastern Region I

i) Barh Super Thermal Power Project- Patna, Bihar

ii) Farakka Super Thermal Power Station – Distt. Murshidabad, West Bengal

iii) Kahalgaon Super Thermal Power Project- Distt. Bhagalpur, Bihar

iv) North Karanpura Super Thermal Power Project – Distt. Hazaribagh, Jharkhand

v) Barauni Thermal Power Project, Distt. Begusarai, Bihar

vi) Nabinagar Super Thermal Power Project,Dist-Aurangabad, Bihar

vii) Muzaffarpur Thermal Power Station (Kanti Bijli)- Dist. Muzaffarpur, Bihar

Eastern Region II

i) Talcher Super Thermal Power Station- Distt. Angul, Odisha

ii) Talcher Thermal Power Station- Distt. Angul, Odisha

iii) Bongaigaon Thermal Power Project, Distt. Kokrajhar, Assam.

iv) Darlipalli Super Thermal Power Project, Distt. Sundergarh, Jharsuguda, Odisha

Northern Region

i) Feroze Gandhi Unchahar Thermal Power Station – Distt. Raebareli, Uttar Pradesh

ii) Rihand Super Thermal Power Project – Distt. Sonebhadra, Uttar Pradesh

iii) Singrauli Super Thermal Power Station- Distt. Sonebhadra, Uttar Pradesh

iv) Tanda Thermal Power Station- Distt. Ambedkar Nagar, Uttar Pradesh

v) Vindhyachal Super Thermal Power Station- Distt. Singrauli, Madhya Pradesh

vi) National Capital Power Station-Gautam Budh Nagar, Uttar Pradesh

Southern Region

i) Ramagundam Super Thermal Power Station- Distt. Karimnagar, Telangana

ii) Simhadri Super Thermal Power Project- Distt. Vishakapatnam, Andhra Pradesh

iii) Telangana Super Thermal Power Project, Distt. Karimnagar, Telangana

iv) Kudgi Thermal Power Project, Distt. Bijapur, Karnataka

Western Region I

i) Solapur Super Thermal Power Project – Distt. Solapur, Maharashtra

ii) Mouda Super Thermal Power Project – Distt. Nagpur, Maharashtra

Western Region -II

i) Korba Super Thermal Power Station- Distt. Korba, Chhattisgarh

ii) Sipat Super Thermal Power Project-Distt. Bilaspur, Chattisgarh

iii) Gadarwara Super Thermal Power Project, Distt. Narsinghpur, Madhya Pradesh

iv) Lara Super Thermal Power Project, Distt. Raigarh, Chattisgarh

v) Khargone Super Thermal Power Project, Distt. Khargone, Madhya Pradesh

vi) Barethi Super Thermal Power Project, Distt. Chhatarpur, Madhya Pradesh

GAS PROJECTS

Northern Region

i) Auraiya Gas Power Project – Distt. Auraiya, Uttar Pradesh

ii) Faridabad Gas Power Project – Distt. Faridabad, Haryana

iii) National Capital Gas Power Station- Distt. Gautam Budh Nagar, Uttar Pradesh

Southern Region

i) Rajiv Gandhi Combined Cycle Power Project – Distt. Alappuzha, Kerala

Western Region -I

i) Jhanor Gandhar Gas Power Project- Distt. Bharuch, Gujarat

ii) Kawas Gas Power Project- Distt. Surat, Gujarat

iii) Anta Gas Power Project – Distt. Baran, Rajasthan

SOLAR PROJECTS

Eastern Region - II

i) 10MW Talcher Kaniha Solar Power Station, Distt. Angul, Odisha

Northern Region

i) 5MW, Dadri Solar Power Plant, Dadri, Distt. Gautam Budh Nagar, Uttar Pradesh

ii) 5MW, Faridabad Solar Power Plant, Distt. Faridabad, Haryana

iii) 10 MW Unchahar PV Solar Power Station, Distt. Raebareli, Uttar Pradesh

iv) 15 MW Singrauli Solar PV Power Stations, Distt. Sonebhadra, Uttar Pradesh

v) 20 MW Auraiya Solar Power Project – Distt. Auraiya, Uttar Pradesh

vi) 20 MW Auraiya Floating Solar Power Project – Distt. Auraiya, Uttar Pradesh

vii) 20 MW Rihand Solar Power Project – Distt. Sonebhadra, Uttar Pradesh

viii) 735 MW Nokh Solar Project- Dist. Jaisalmer, Rajasthan

ix) 5MW, Dadri Solar Power Plant, Dadri, Distt. Gautam Budh Nagar, Uttar Pradesh

x) 5MW, Faridabad Solar Power Plant, Distt. Faridabad, Haryana

Southern Region

i) 5 MW Solar PV Power Plant, Port Blair, A&N Islands

ii) 10 MW Ramagundam Solar Power Station, Distt. Karimnagar, Andhra Pradesh

iii) 25 MW Simhadri Floating Solar Power Station, Distt. Vishakapatnam, Andhra Pradesh

iv) 92 MW Kayamkulam Floating Solar Station, Distt. Alappuzha, Kerala

v) 100 MW Ramagundam Floating Solar Power Station, Distt. Karimnagar, Andhra Pradesh

Western Region -I

i) 20 MW Jhanor Gandhar Solar Power Project- Distt. Bharuch, Gujarat

ii) 56 MW Kawas Solar Power Project- Distt. Surat, Gujarat

iii) 90 MW Anta Solar Power Project – Distt. Baran, Rajasthan

iv) 23 MW Solapur Solar Power Project – Distt. Solapur, Maharashtra

NTPC SUBSIDARIES

Thermal Power Projects

1. Bhartiya Rail Bijlee Co. Ltd. : Nabinagar Thermal Power Project, Distt. Aurangabad, Nabinagar, Bihar (in JV with Railways)
2. Patratu Vidyut Utpadan Nigam Limited: Patratu Thermal Power Project, Patratu, Jharkhand
3. Ratnagiri Gas & Power Pvt. Ltd. : Ratnagiri Power Project - Maharashtra
4. THDC India Ltd, Ganga Bhawan, Pragatipuram, By-Pass Road Rishikesh-249201.
5. North Eastern Electric Power Corporation Limited, Brookland Compound, Lower New Colony, Shillong
6. **NTPC Green Energy Limited**

   Commissioned Solar Power Projects under NTPC Green Energy Limited:

Northern Region

i) 140 MW Bilhaur-I and 85 MW Bilhaur-II Solar Power Project, Dist. Kanpur, Uttar Pradesh

ii) 160 MW Jetsar Solar Power Project- Dist. Ganganagar, Rajasthan

iii) 296 MW Fatehgarh Solar Project- Dist. Jaisalmer, Rajasthan

iv) 150 MW Devikot-I & 90 MW Devikot-II Solar Project- Dist. Jaisalmer, Rajasthan

v) 250 MW Sambhu Ki Bhurj-I & 300 MW Sambhu Ki Bhurj-II Solar Project- Dist. Bikaner, Rajasthan

vi) 300 MW Nokhra Solar Project- Dist. Bikaner, Rajasthan

vii) 14 MW Ayodhya Solar Power Project, Ayodhya, Uttar Pradesh

Southern Region

i) 250 MW Anantapur Solar PV Project, Distt. Anantapur, Andhra Pradesh

ii) 230 MW Ettayapuram Solar Power Station, Distt. Thoothukudi, Tamil Nadu

Western Region -I

i) 260MW Bhadla Solar Power Project, Distt. Jodhpur, Rajasthan

ii) 150 MW Chattargarh Solar Power Projects, Rajasthan

Western Region -II

i) 50 MW Solar PV Power Plant, Rajgarh, Madhya Pradesh

ii) 250MW Mandsaur Solar Power Project, Distt. Mandsaur, Madhya Pradesh

WIND POWER PROJECT

i) Rojmal Wind (50 MW) Project, Gujarat

ii) Dayapar-I (50 MW), Gujarat

7. NTPC Renewable Energy Limited

Commissioned Solar Projects Under NTPC Renewable Energy Limited:

i) 320 MW Bhensada Solar Power Project, Distt. Jaisalmer, Rajasthan

ii) 150 MW Chhatargarh Solar Power Project- Distt. Bikaner, Rajasthan

iii) 200 MW Amreshwar Solar Power Project- Distt. Vadodara, Gujarat

iv) 150 MW Limdi, Mithapur, Mesanka Solar Power Project- Distt. Surendranagar, Gujarat

v) 150 MW Dayapar Wind Power Project- Distt. Kachchh, Gujarat

JOINT VENTURES

Thermal Power Stations

a. NTPC –SAIL Power Company Ltd.

i) Rourkela CPP-II - Distt. Sundargarh, Odisha

ii) Durgapur CPP-II - Distt. Burdwan, West Bengal

iii) Bhilai CPP - Bhilai (East), Chattisgarh

b. NTPC Tamil Nadu Energy Co. Ltd: Vallur Thermal Power Project – Chennai, Tamil Nadu

c. Aravali Power Co. Pvt. Ltd.: Indira Gandhi Super Thermal Power Project - Distt. Jhajjar, Haryana

d. Meja Urja Nigam Pvt. Ltd.: Meja Super Thermal Power Project – Tehsil Meja, Allahabad

e. Jhabua Power Limited: Jhabua, Madhya Pradesh

Overseas Joint Venture Projects

i) Trincomalee Power Co. Ltd. : Trincomalee Power Project, Trincomalee, Srilanka

ii) Bangladesh- India Friendship Power Company (Pvt) Ltd. : Maitree Power Project at Khulna, Bangladesh

COAL MINING SITES

i) Pakri Barwadih Coal Mining Project, Hazaribagh, Jharkhand

ii) Chatti-Bariatu Coal Mining Project, Hazaribag, Jharkhand

iii) Kerandari Coal Mining Project, Hazaribagh, Jharkhand

iv) Talaipalli Coal Mining Project, Raigarh, Chattisgarh

v) Dulanga Coal Mining Project, Sundargarh, Odisha

vi) Badam Coal Mining Project, Hazaribagh Jharkhand

JOINT VENTURE COAL MINES

i) Banhardih Coal Mining Project, Latehar, Jharkhand (in JV with JVBNL)

xxv) Address for Correspondence

NTPC Bhawan, Scope Complex, 7, Institutional Area, Lodi Road, New Delhi-110003

The phone numbers and e-mail reference for communication are given below:

Details	Telephone No.	Fax No.
Registered Office: NTPC Limited NTPC Bhawan, SCOPE Complex, 7 Institutional Area, Lodhi Road, New Delhi -110003	011-24387333	011- 24361018
Company Secretary & Compliance Officer Ms. Ritu Arora	011-24360959	011-2436 0241
E-mail id	csntpc@ntpc.co.in	
Chief Investor Relations Officer Mr. Aditya Dar Executive Director (Finance)	011-2436 7072	011-24361018
E-mail id	adityadar@ntpc.co.in	
Nodal officer for IEPF Director (Finance)	011- 24365552	011-24361018
E-mail id	isd@ntpc.co.in	
Dy. Nodal officer for IEPF Mr. Aditya Dar Executive Director (Finance)	011-24367072	011-24361018
E-mail id	isd@ntpc.co.in	
E-mail ID (exclusive) for redressal of investors complaints	isd@ntpc.co.in; csntpc@ntpc.co.in	

Awards & Recognitions

During the year NTPC has won various awards in recognition of its commitment towards achievements as a responsible corporate citizen. To mention among the few,

- NTPC has been conferred with the prestigious Corporate Governance and Sustainability Vision Awards 2024 by the Indian Chamber of Commerce, recognizing its exemplary contributions to Corporate Social Responsibility (CSR).
- NTPC has been conferred with the prestigious 10th PSU Awards by Governance Now in the category "Corporate Social Responsibility Commitment (Overall)".
- NTPC has been conferred with the prestigious Corporate Governance and Sustainability Vision Awards 2024 by the Indian Chamber of Commerce, recognizing its exemplary contributions to Corporate Social Responsibility (CSR).

For and on behalf of Board of Directors

Sd/-
(Gurdeep Singh)
Chairman & Managing Director

Place : New Delhi
Date : 2 August 2024

Annexure-1

DISCRETIONARY REQUIREMENTS

Besides the mandatory requirements, as mentioned in preceding pages, the status of compliance with the discretionary requirements under Regulation 27(1) of SEBI (LODR) are as under:

A. The Board: The Company is headed by an Executive Chairman.

B. Shareholder Rights: The quarterly financial results of the Company are published in leading newspapers as mentioned under heading 'Means of Communication' and also hosted on the website of the Company. These results are not separately circulated.

C. Modified opinion(s) in audit report: The Auditors' report is unmodified.

D. Separate Post of Chairperson and the Managing Director or Chief Executive Officer: The Company is headed by an Executive Chairman.

E. Reporting of Internal Auditor: The Internal Auditor reports to the Audit Committee of the Board.



Annexure-2

CERTIFICATE OF NON-DISQUALIFICATION OF DIRECTORS

(pursuant to Regulation 34(3) and Schedule V Para C clause (10)(i) of the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015)

To,
The Members of
NTPC LIMITED
NTPC Bhawan, SCOPE Complex,
7, Institutional Area, Lodhi Road,
New Delhi – 110 003

We have examined the relevant registers, records, forms, returns and disclosures received from the Directors of **NTPC Limited** having CIN: L40101DL1975GOI007966 and having registered office at NTPC Bhawan, SCOPE Complex, 7, Institutional Area, Lodhi Road, New Delhi – 110 003 (hereinafter referred to as 'the Company'), produced before us by the Company for the purpose of issuing this Certificate, in accordance with Regulation 34(3) read with Schedule V Para-C Sub clause 10(i) of the Securities Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015, for the Financial Year ending on 31st March, 2024 (hereinafter referred to as 'financial year under review').

In our opinion and to the best of our information and according to the verifications [including Directors Identification Number (DIN) status at the portal www.mca.gov.in as considered necessary and explanations furnished to us by the Company & its officers, we hereby certify that none of the Directors on the Board of the Company, as on the closure of the financial year under review, have been debarred or disqualified from being appointed or continuing as Directors of companies by the Securities and Exchange Board of India, Ministry of Corporate Affairs or any such other Statutory Authority.

Ensuring the eligibility for the appointment/continuity of every Director on the Board is the responsibility of the management of the Company. Our responsibility is to express an opinion on these based on our verification. This certificate is neither an assurance as to the future viability of the Company nor of the efficiency or effectiveness with which the management has conducted the affairs of the Company.

For A. Kaushal & Associates
Company Secretaries

CS Amit Kaushal
Mem. No.: F6230
C. P. No.: 6663
UDIN: F006230F000567615

Place: New Delhi
Date: 13 June 2024

Chief Executive Officer (CEO) & Chief Financial Officer (CFO) Certification

We, Gurdeep Singh, Chairman & Managing Director and Jaikumar Srinivasan, Director (Finance) of NTPC Limited, certify that:

(a) We have reviewed financial statements and the cash flow statement for the year ended March 31, 2024 (stand-alone and consolidated), and to the best of our knowledge and belief:

  (i) these statements do not contain any materially untrue statement or omit any material fact or contain statements that might be misleading;

  (ii) these statements together present a true and fair view of the Company's affairs and are in compliance with existing accounting standards, applicable laws, and regulations.

(b) To the best of our knowledge and belief, no transactions has been entered into by the Company during the year, which is fraudulent, illegal, or violative of the company's various code(s) of conduct.

(c) We are responsible for establishing and maintaining internal controls for financial reporting and we have evaluated the effectiveness of the internal control systems of the Company pertaining to financial reporting and have disclosed to the auditors and the Audit Committee, deficiencies in the design or operation of internal controls, if any, of which we are aware and the steps we have taken or propose to take to rectify these deficiencies.

(d) We have indicated to the Company's auditors and the Audit Committee of NTPC's Board of Directors:

  (i) significant changes, if any, in internal control over financial reporting during the year;

  (ii) significant changes, if any, in accounting policies during the year and the same have been disclosed in the notes to the financial statements; and

  (iii) instances of significant fraud of which we have become aware and the involvement therein, if any, of the management or an employee having a significant role in the company's internal control system over financial reporting.

Place : New Delhi
Date : 21 May 2024

Sd/-
(Jaikumar Srinivasan)
Director (Finance)

Sd/-
(Gurdeep Singh)
Chairman & Managing Director



Independent Auditors' Certificate on Compliance of Conditions of Corporate Governance

To
The Members of
NTPC Limited

1. This certificate is issued in accordance with the terms of our engagement letter dated 1st July 2024.
2. We have examined the compliance of conditions of Corporate Governance by NTPC Limited ('the Company') for the year ended 31st March, 2024 as stipulated in Regulations 17 to 27, clause (b) to (i) of regulation 46 (2) and paragraphs C and D of Schedule V of the Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015 ("the Listing Regulations") and as stipulated in the Guidelines on Corporate Governance for Central Public Sector Enterprises issued by Department of Public Enterprises (DPE), Government of India ("the DPE Guidelines").

Management's Responsibility for compliance with the conditions of Listing Regulations

3. The compliance with the terms and conditions contained in the corporate governance is the responsibility of the Management of the Company including the preparation and maintenance of all relevant supporting records and documents. This responsibility includes the design, implementation and maintenance of internal control and procedures to ensure the compliance with the conditions of Corporate Governance stipulated in the Listing Regulations and DPE Guidelines.

Auditor's Responsibility

4. Our examination is limited to procedures and implementation thereof adopted by the Company for ensuring the compliance of the conditions of Corporate Governance. It is neither an audit nor an expression of opinion on the financial statements of the Company.
5. Pursuant to the requirements of the Listing Regulations and DPE Guidelines, it is our responsibility to provide a reasonable assurance whether the Company has complied with the conditions of Corporate Governance as stipulated in the Listing Regulations and DPE Guidelines for the year ended 31st March, 2024.
6. We conducted our examination in accordance with the Guidance Note on Reports or Certificates for Special Purposes (Revised 2016) (the 'Guidance Note') issued by the Institute of Company Secretaries of India ('ICSI'). The Guidance Note requires that we comply with the ethical requirements of the Code of Ethics issued by ICSI.
7. We have complied with the relevant applicable requirements of the Standard on Quality Control (SQC) 1, Quality Control for Firms that Perform Audits and Reviews of Historical Financial Information, and Other Assurance and Related Services Engagements.

Opinion

8. In our opinion, and to the best of our information and according to explanations given to us, we certify that the Company has complied with the conditions of Corporate Governance as stipulated in the above-mentioned Listing Regulations and DPE Guidelines subject to the following:
   a. *The Company was not in compliance with the provisions of Regulation 17 and 25(6) of SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015 regarding the requirements of having at least half of the Board of Directors as the Independent Directors and filing the vacancy of the Independent Directors within Specified Period. Further, half of the Board of the Company was not "non-executive" for a certain period.*
   b. *The Company was not in compliance with the Regulation 17(10) of the SEBI (LODR) Regulations, 2015 related to the evaluation of the Independent Directors of the Company by the entire Board of Directors of the Company.*
9. We state that such compliance is neither an assurance as to the future viability of the Company nor the efficiency or effectiveness with which the management has conducted the affairs of the Company.

For Amit Agrawal & Associates
{Company Secretaries}

CS Amit Agrawal
Partner
M No. 5311, CP No-3647
UDIN:F005311F727219
Peer Review No..853/2020

Date: 12 June 2024
Place: Delhi



Annexure - III to Directors' Report

Energy Conservation, Technology Absorption and Foreign Exchange Earnings & Outgo

{PURSUANT TO SECTION 134(3)(m) OF THE COMPANIES ACT, 2013 READ WITH RULE 8(3) OF THE COMPANIES (ACCOUNTS) RULES, 2014}

A. CONSERVATION OF ENERGY:

a) Energy conservation measures taken:

Some of the key energy conservation measures implemented during the financial year 2023-24 in various areas are as under:

ENERGY AUDITS

During the financial year 2023-24, Mandatory Energy Audits were conducted at six stations in accordance with BEE regulations. All other NTPC stations have carried out Auxiliary Power Consumption Energy Audits, and eight stations have conducted water audits.

AUXILIARY POWER CONSUMPTION

Some of the actions undertaken to reduce auxiliary power consumption at various stations are:

- Replacement of inefficient Boiler Feed Pump (BFP) cartridges based on high Specific Energy Consumption (SEC).
- Replacement of tube mill liners.
- Replacement of Ash Slurry Pumps with energy-efficient pumps.
- Replacement of ceiling fans with Brushless DC (BLDC) fans.
- Installation of grid-connected rooftop solar PV systems.
- Application of energy-efficient coatings on the internals of cooling water and other large water pumps.
- Installation of scoop control for Boiler Feed Pumps (BFPs) for drum level control.
- Modification of Electrostatic Precipitator (ESP) ducts using Computational Fluid Dynamics (CFD) analysis.
- Replacement of existing motors with energy-efficient motors.
- Replacement of old compressors with screw compressors.
- Optimization of the numbers of running major equipment such as BFPs, CEPs, mills, CW pumps, and fans during extended periods of partial loading.

LIGHTING

The replacement of conventional lighting with LEDs wherever balance in various areas, including the main plant, off-sites, office buildings, street lighting and common facilities of the station and township, and residential units within the township were continued.

HEAT ENERGY

Some of the actions taken to optimize heat energy at various stations are:

- Complete replacement of Cooling Tower (CT) fill pack.
- Improving HP/IP Turbine cylinder efficiency during capital overhaul.
- Boiler modifications aimed at enhancing steam parameters and efficiency.
- Condenser jet cleaning and modification of cooling tower water nozzles to ensure proper water distribution.

b) Additional investments and proposals for reduction in consumption of energy:

Provision of ₹ 83.4 Cr has been kept in BE 2024-25 for different energy conservation schemes such as:

- Retrofitting VFD's in CEP's & LT drives
- Energy efficient air conditioners, LED & ceiling fans
- Grid-connected roof top Solar PV systems.
- Energy efficient LT motors
- Installation of high efficiency nozzles in CT
- Energy efficient slurry pumps.
- Various instruments for energy audits

c) Impact of measures taken for energy conservation:

Savings achieved during financial year 2023-24 on account of specific efforts for energy conservation: -

Sl No.	Area/Activities	Energy Unit	Savings Qty.	₹ Crore
1	Electrical	MU	142.71	40.98
2	Heat Energy (equivalent MT of coal)	MT	36140	15.34
	Grand Total			**56.32**

Savings achieved during financial year 2022-23 - ₹ 58.45 Crore.

B. TECHNOLOGY ABSORPTION

Efforts made towards technology absorption are contained in enclosed Form-B

C. FOREIGN EXCHANGE EARNINGS AND OUTGO

The Foreign Exchange earned in terms of actual inflow during the year and the Foreign Exchange Outgo during the year in terms of actual outflow as under:

Total Foreign Exchange Used/ Earned (2023-24)	(₹ Crore)
1. **Actual foreign exchange outgo on account of**	
- Procurement of capital goods, coal and spare parts	786.53
- Interest & Foreign currency loan/bond issue expenses	1,522.43
- Professional & consultancy fee	1.24
- Others	1.99
TOTAL	**2,312.19**
2. Actual foreign exchange earnings	**NIL**

FORM B

Form for disclosure of particulars with respect to Absorption of Technology

1. Specific areas in which NETRA (NTPC Energy Technology Research Alliance) have been carried out during financial year 2023-24

A. Major Projects:

Carbon capture and Utilization Technology

1. 10 TPD 'CO2 to Methanol' Demo Plant at NTPC-Vindhyachal
2. 10TPD 'CO2 to Ethanol ' Demo plant at NTPC-Lara
3. Indigenous development of Catalyst for conversion of CO2 to Methanol
4. Pre-feasibility assessment of CO2 storage potential in Cat-1 Fields of India- with NCOE-CCUS,IIT
5. CO2 based Carbonated Coarse Aggregate

Hydrogen Technology

1. Sea Water based Green Hydrogen (1 TPD Plant at NTPC Simhadri)
2. Development of High Temperature Steam Electrolyser
3. 150 Kg/Day Green Hydrogen from STP Water at Netra

Water Technology

1. Green Hydrogen from STP Water (150 Kg/Day Plant at Netra)
2. 240 TPD Non Thermal Forward Osmosis based high recovery system
3. 3600 TPD Electrocoagulation system at NTPC Solapur
4. 4 MLD Activated Filter Media Plant at NTPC Dadri

Ash-Technology

1. Fly Ash based Light Weight Aggregate Pilot Plant Setup at NTPC-Sipat
2. FALG technology: 100 cum/day fly ash based angular shaped coarse aggregates plant

Waste to Energy

1. Torrefied Biomass Pellet (10 TPD Plant thru 'Start Up')

Other areas:

1. AC Microgrid at Netra (4 MWp & MWHr BESS)
2. RSA (Residual Stress Analyzer): Evaluation of Ferritic & Austenitic Steel, Ni, Al, Cu tubes

B. Scientific Services Support to NTPC Stations on Continuous basis

NETRA also provides advanced scientific support to NTPC Stations and outside power utilities mainly in the following areas:

I. Health assessment and residual life assessments of power plant components for improving the reliability and availability of boiler, steam turbine, Gas turbines components by using different advanced NDE tools and techniques

II. Remote Inspection of boiler header using in-house developed robotic system, Evaluation of Post Weld Heat Treatment Quality of Ferromagnetic Steel Weld etc. using Magnetic Coercive Force Measurement

III. Implementation of Advance NDE Techniques such as Phased Array Ultrasonic Testing (PAUT) for inspection of



weld joints on Boiler Tubes, in-situ detection of hydrogen damage in water wall, in-situ detection of crack in root region of LP turbine blades, Time of Flight Diffraction (TOFD)

IV. Microstructural & chemical characterization of various alloys, stainless steels, super alloys and other advanced materials:

- Identification of damage mechanisms in pressure part components to reduce forced outages and thereby improve availability & reliability of components; and, suitable measures recommended to OS, QA and O&M departments
- Root cause analysis of boiler, turbine, generator and auxiliaries of power plant

V. Substitution of OEM on high end & costly health assessment of GT components

VI. Development of Chemical Formulations for Cooling Water Treatment for high COC, to reduce the specific water consumption of plant

VII. Quantitative and Qualitative analysis of deposit, solvent selection and post operational chemical cleaning recommendations for boilers and Condenser

VIII. Corrosion analysis, monitoring & its control in Power plants for Fire Fighting System and CW System.

IX. Specialized analytical support for characterizing the turbine, boiler, condenser, CT and De aerator deposits, corrosion products, heavy metals in effluents using state of art equipment's such as SEM, XRD, IC, TOC, particle count analyzer, AAS & ICPMS etc

X. Improvement in STP water quality by enhancing the performance of sewage treatment and by carrying out testing of organic matter, COD, BOD and TKN. Trace level Mercury testing's in Coal and Effluent

XI. Residual life assessment of ACF, Cation Exchange Resin, Anion Exchange Resin, MB-SAC resin, MB-SBA resin, CPU resin through analysis such as TEC, SSC, WRC, density.

XII. Particle size distribution and bead integrity of Cation Exchange, Anion Exchange, MB & CPU resin

XIII. Condition Monitoring of:

- High voltage transformers through tools such as Dissolve gas Analysis (DGA), FDS, SFR and Interfacial Tension (IFT).
- Super heater / re-heater tubes of ageing boilers through accelerated creep testing.
- Lubricating oils of rotating components using wear debris analysis
- Ion exchange resins & activated carbon for capacity enhancement and its kinetics

XIV. Advanced coal & ash characterization of samples of station to determine ash fusibility characteristics, slagging & fouling behavior of coal, elemental composition of coal & biomass, particle size analysis of fly ash, reactivity, abrasion behavior & grade determination of coal. Compositional analysis of fly ash using EDXRF. Estimation of mercury in coal in ppm/ppb level

XV. CFD services in power plant domain and other relevant areas

XVI. Scientific support for co-firing of torrefied & non torrefied biomass/MSW. Detailed evaluation of blends to determine technical suitability & compatibility with coal for co-firing in boiler.

2. Benefits derived as a result of above Research & Technology Development:

NETRA has taken up major projects for addressing concerns such as environment and climate change, reliability and efficiency improvement, new and renewable energy etc. NETRA has taken projects for reducing carbon footprints by means of carbon capture and utilization. 10 TPD CO_2 to Methanol project is aimed at capturing CO_2 from existing thermal plant and its utilization for production of valuable product such as Gen-4 Ethanol. CO_2 capture block has been commissioned in Aug'22. Work is going on for the indigenization of catalyst and reactor for conversion of CO_2 to Gen-4 Ethanol plant. The Hydrogen generation block and Methanol synthesis block are in advanced stages of completion. In addition, NETRA has taken up projects such as CO_2 to Gen-4 Ethanol at NTPC Lara. CO_2 shall be drawn from waste flue gas of a coal fired power plant and thereafter shall be synthesized to produce 4G-Ethanol. NETRA is also working on setting up a CO_2 to Urea plant.

In Hydrogen technology, R&D lab-scale and pilot-scale demonstration projects such as development of Sea water Electrolyser, Static hydrogen storage and Compression etc have been completed and development of High Temperature steam electrolysers is under progress. Sea water based green hydrogen project has been taken up at NTPC Simhadri.

NETRA is working on development of innovative water technologies such Non-Thermal Forward Osmosis, Electro-Dialysis Reversal, Electro Coagulation Desalination etc for the processing of STP and Sea water. Electro-Dialysis Reversal plant was commissioned in June'22, Activated Filter Media plant was commissioned in July'23 and NTFO was commissioned in March'24.

Continuous work is going on for the development of new products and processes for bulk Ash utilization and as a result novel technologies & products such as Light Weight Aggregate (LWA), CO_2 based Carbonated Coarse etc. have been successfully developed and implemented. FALG Aggregate from Fly Ash project has been taken up at NTPC Sipat. Through advance scientific services like Non-Destructive Evaluation, CFD analysis and Metallurgy & Failure Analysis, etc., NETRA is working constantly for improvement in reliability, efficiency and as well as for reduction in O&M cost by the diagnosis of faults. NETRA is also working on cutting-edge technologies such as development of robotics solutions for inspection of CW Duct & water pipeline, visual inspection of boiler headers, boiler 1st pass internal inspection. Asset Digitization & Monitoring through Drones, development of novel sensors to increase reliability, safety and to reduce inspection & monitoring time as well as manpower requirements.

NETRA activities have helped the stations in the analysis of failures and their prevention. Techniques developed by NETRA are implemented at stations wherever required. Regeneration treatments of resins, chemical cleaning/treatment and corrosion control measures supported the stations in improving the efficiency and availability of boilers and various heat exchangers/ cooling towers, etc. Majority of projects of NETRA involves development, implementation and demonstration of new technologies, so almost all projects mentioned in above section (Work carried out by NETRA in FY 2023-24) have technological trial component in it.

3. R&D Expenditure

R&D expenditure on consolidated basis for FY2023-24 is ₹ 483.63 crores.

4. Technology Absorption, Adaptation and Innovation:

Particulars of some of the important technology imported during last five (5) years are as follows:

Sl No.	Technology	Year	Stations
1.	Environmental norms compliance (SO_2 emission control by FGD & DSI)	2018-24	For SO_2 emission compliance, FGDs are under implementation in around 66000 MW and FGD/DSI in 8,930 MW are already under operation.
2.	Environmental norms compliance (NOx emission control by Combustion Modification i.e. installation overfired dampers and others)	2018-24	Combustion Modification in 50 units of around 21GW including units located in NCR i.e. 2 units of Dadri, 3 units of Jhajjar have already been completed.
3.	Early Warning System for Hydro Power Projects	2021-22	NTPC has developed and implemented state of art automatic Early Warning System at TVHPP (Tapovan Vishnugarh Hydro Power Project) based on measurement of Level and Velocity (mass flow) for warning and evacuation in case of catastrophic event.
4.	Air Cooled Condensers (ACC) for reduction of water footprint	2023-24	Presently, NTPC is implementing Air Cooled Condenser in North Karanpura STPP (3x660 MW) and Patartu STPP (3x800 MW) I.e. total 06 units. Air Cooled Condensers of Unit#1 (660 MW) and Unit#2 (660 MW) of North Karanpura STPP (3x660 MW) are already commissioned and both the units are under commercial operation. The remaining one unit of North Karanpura STPP (3x660 MW) and three units of Patratu STPP (3x800 MW) are currently in the execution phase.
5.	Dry Bottom Ash Handling System for reduction of water footprint	2022-23	To minimize water consumption, Dry Bottom Ash Handling System is adopted instead of conventional Wet Bottom Ash Handling System for Coal Based Thermal Power Project at BIFPCL (Bangadesh India Friendship Power Company), Patratu (3x800 MW). With extraction of bottom ash in dry form and requirement of meagre quantity of water for conditioning and dust suppression, water requirement will be practically eliminated for handling bottom ash.



Sl No.	Technology	Year	Stations
6.	Municipal Solid waste (MSW) to Charcoal	2022-23	200 Ton per day MSW to charcoal through torrefaction technology implemented in Ramna, Varanasi Plant. This Charcoal will be co-fired in Boiler.
7.	Decarbonisation of thermal power-Higher percentage of Torrefied Biomass Cofiring	2023-24	NTPC is pioneer in utilizing agro residue for power generation, which is a carbon neutral fuel. NTPC has successfully demonstrated co-firing of 20% of torrefied biomass at Tanda Stage-I unit on 30.03.2024 and enhanced capability of biomass co-firing in thermal power plant. Approx 500 Metric ton Torrefied Biomass Co-firing done at Tanda Stage-I.

For and on behalf of the Board of Directors

Sd/-
(Gurdeep Singh)
Chairman & Managing Director

Place: New Delhi
Dated: 2 August 2024

Annexure - IV to Directors' Report

Statistical Information on Reservation of SCs/STs/OBCs

Representation of SCs/STs/OBCs as on 01.01.2024:

Group	Employees on Roll	SCs	%age	STs	%age	OBCs	%age
A	11252	1713	15.2	749	6.7	2983	26.5
B	2117	349	16.5	182	8.6	327	15.4
C	2424	355	14.6	191	7.9	978	40.3
D	386	99	25.6	41	10.6	121	31.3
Total*	16179	2516	15.6	1163	7.2	4409	27.3

*The above data is inclusive of manpower posted at JVs, Subsidiaries and manpower of taken over projects .

Recruitment of SCs/STs/OBCs during the year 2023:

Group	Total Recruitment	SCs	%age	STs	%age	OBCs	%age
A	1393	218	15.6	89	6.4	338	24.3
B	0	0	0.0	0	0.0	0	0.0
C	33	2	6.1	4	12.1	2	6.1
D	22	1	4.5	1	4.5	2	9.1
Total	1448	221	15.3	94	6.5	342	23.6

Promotions of SCs/STs during the year 2023:

Group	Total Promotion	SCs	%age	STs	%age
A	1999	318	15.9	139	7.0
B	557	85	15.3	52	9.3
C	250	37	14.8	13	5.2
D	11	3	27.3	2	18.2
Total	2817	**443**	15.7	**206**	7.3

For and on behalf of the Board of Directors

Sd/-
(Gurdeep Singh)
Chairman & Managing Director

Place: New Delhi
Dated: 2 August 2024



Annexure - V to Directors' Report

Information on persons with benchmark disabilities (PwBD)

With a view to focus on its role as a socially responsible and socially conscious organization, NTPC has endeavored to take responsibility for adequate representation of physically challenged persons in its workforce. With this in view, total of 33 PwBD (Persons with Benchmark Disabilities) were recruited during the year 2023. As on 01.01.2024, 497(3.07%) PwBD (88 with Blindness and low vision, 109 with Deaf and Hard of Hearing and 300 with Locomotor Disabilities) are on the rolls of the company. Reservation has been provided as per rules/policy. Some of the other initiatives taken for the welfare of PwBD over the years by NTPC are as under:

- In compliance to RPwD Act 2016, NTPC has in place Equal Opportunity Policy under CHRC No.847/2018.
- Additional benefit of 4(four) days in the form of Special Casual leave in a calendar year for specific requirements relating to the disability of the employee has been provided to PwBD.
- Travelling Allowance in respect of Attendant/Escort for accompanying a Employee with Disabilities on travel during Tour/Training.
- Liaison Officer (PwBD) and Grievance Redressal Officer has been nominated at all Projects/stations/Regions.
- For individual needs of the VH employees, screen reading software and Braille shorthand machines are made available by the Projects. A website has been made DAP friendly, particularly for Low Vision Employees.
- Changes in the existing building have been/are being made to provide barrier free access to differently abled. Ramps have also been provided for unhampered movement of wheel chairs.
- At most of the NTPC Projects, wherever houses are located in multi-storied structures, allotments to PwBD has been made on the ground floor. Wherever required, gates/ door of the quarter has been widened.
- NTPC Medial Attendance and Treatment (MAT) rules provide reimbursement towards expenses incurred by the employees towards purchase/ replacement/ repair/ adjustment of artificial limbs/appliances for self and/or dependent family members and reimbursement towards Low Vision Aids for visually challenged employees and/ or their dependents and Hearing Aid for hearing impaired employees and/or their dependents
- Medical camps have been organized in various projects of NTPC for treatment and distribution of aids like artificial limbs, tricycles, wheelchairs, calipers etc.
- Shops have been allotted in NTPC Township to DAP(Differently abled Persons) so that they may earn their livelihood.
- Regular interactive meetings are being organized with PwBD.
- In order to encourage and motivate children and youth from neighborhood villages of NTPC Projects/Stations for higher studies, NTPC has in place 'NTPC Utkarsh'-Merit Scholarship under "NTPC Foundation" for students(including Physically Challenged) from the neighborhood of its projects / stations . The scheme benefits students from neighborhood communities pursuing X, XII, ITI, BE/B.Tech and MBBS studies.
- Physically challenged (Orthopedically Handicapped) employees have been allowed to purchase a three wheeler vehicle with a hand fitted engine against their normal entitlement (advance for scooter/ motorcycle/ moped) under NTPC conveyance Advance Rules.
- Relaxation in qualifying marks: Pass marks in lateral recruitment and 10% relaxation in Executive Trainees recruitment. 10% relaxation in written test and interview.
- The minimum performance level marks for promotions (in workman categories) within the cluster is relaxed by 3 marks in case of employees belonging to SC/ ST/ Physically Challenged category.

For and on behalf of the Board of Directors

Sd/-
(Gurdeep Singh)
Chairman & Managing Director

Place: New Delhi
Dated: 2 August 2024

Annexure - VI to Directors' Report

Annual Report on CSR activities

1. A brief outline of the Company's CSR policy, including overview of projects of programs proposed to be undertaken and a reference to the web – link to the CSR policy and projects or programs.

NTPC Limited, India's largest energy conglomerate, has been at the forefront of driving the country's energy needs while also emphasizing sustainable development and corporate social responsibility (CSR). The NTPC CSR Policy, revised in FY 2022, is a testament to the company's commitment in creating value for both business and society. This policy aligns with NTPC's vision to be the world's leading power company and its mission to provide reliable power and related solutions in an economical, efficient, and environmentally friendly manner.

NTPC's vision is to "be the World's Leading Power Company, Energizing India's Growth," while its mission focuses on providing "Reliable Power and Related Solutions in an Economical, Efficient and Environmentally Friendly Manner, Driven by Innovation and Agility." These guiding statements underline NTPC's dedication to not only power generation but also sustainable and responsible growth. The CSR policy is an extension of this vision, aiming to deliver business and environmental value through impactful projects.

The policy emphasizes focusing on four main areas: education, water, health, and sanitation. Further, other thematic areas like sports, women empowerment, vocational skill development etc. are also given due importance in the policy framework. To bring maximum value to society, the activities are selected based on need assessment surveys, inputs from various stakeholders, and alignment with Schedule VII of the Companies Act. It advocates for outcome-centric projects monitored for their impact and opportunities for improvement, thereby ensuring effective communication with stakeholders to instil confidence.

The policy is applicable across all NTPC stations in India, encompassing the formulation, implementation, monitoring, evaluation, documentation, and reporting of CSR activities undertaken by NTPC throughout the country. This ensures a unified and standardized approach to CSR across the organization.

NTPC's CSR efforts primarily focus on the local areas or immediate vicinities of its stations and locations. About 70% of CSR funds are allocated to these local areas, with the remaining 30% earmarked for activities outside these areas, including projects of national importance. The CSR committee has the authority to approve projects beyond this ratio based on specific requirements, such as natural calamities or key community needs.

The core principles that guide NTPC's CSR activities are:

- Self-Supported and Sustainable: Projects are designed for long-term viability, ensuring that communities can maintain the assets and systems created even after the project's completion.
- Low Cost - High Impact: The focus is on adopting cost-efficient and impactful solutions.
- Long-Lasting and Enduring: Priority is given to projects that offer sustainable and lasting benefits to the community.
- Strategic Alignment to Core Business: CSR activities are aligned with NTPC's strengths and capabilities to leverage the company's core competencies.
- Measurement and Feedback-Based Outcomes: All projects have defined measures for assessing their impact, with third-party assessments for high-impact projects to ensure objective evaluation and feedback.

NTPC's CSR activities are governed by a board-level CSR Committee comprising at least three directors, including one independent director. The governance structure includes a three-tier system at corporate, regional, and station levels, responsible for planning, implementation, monitoring, and reporting on CSR projects.

At the Corporate Level, responsibilities include policy formulation, strategic project selection, budget planning, monitoring, and capability development of CSR professionals. The Regional Level focuses on coordination and monitoring of state or region-level activities, while the Station Level handles project selection(regular), implementation, budget planning, and management information systems (MIS). The effectiveness of CSR projects is assessed through internal and external evaluations, periodic audits, and impact assessments.

The CSR annual action plans and budgets are proposed by stations, regions, and corporate CSR departments, consolidated, and approved by the CSR Committee and the Board.



2. The composition of the CSR Committee.

The CSR Committee consists of two functional directors and three Independent Directors. As on 31st March 2024, the composition of Board Level Corporate Social Responsibility & Sustainability Committee was as under:-

Sl. No	Name of Directors	Designation/nature of Directorship	Number of meetings of CSR Committee held during the year	Number of meetings of CSR Committee attended during the year
1	Shri Dillip Kumar Patel, Director (HR),	Chairman of the Committee*	6	6
2	Shri. Ramesh Babu V, Director (Operations),	Member (up to 31.01.2024)	6	6
3	Shri. Ravindra Kumar, Director (Operations),	Member (w.e.f 26.02.2024)	0	0
4	Smt. Sangitha Varier	Independent Director, Member	6	6
5	Shri Jitendra Tanna	Independent Director, Member	6	6
6	Shri Vivek Gupta	Independent Director, Member	6	6

*Note: Following the superannuation of Shri Dilip Kumar Patel on 30.04.2024, Shri Jaikumar Srinivasan, Director (Finance) with additional charge of Director (HR), is the current Chairman of the Committee at the time of preparing this report.

The committee recommends to the Board for approval, the CSR action plan as well as the amount of expenditure anticipated on the CSR activities and monitors from time to time the Policy for CSR and the proposals approved by the Board.

3. Provide the web-link where Composition of CSR committee, CSR Policy and CSR projects approved by the board are disclosed on the website of the company.

Web Link to the CSR Policy & Projects or programs

https://ntpc.co.in/about-us/corporate-functions/corporate-citizenship/corporate-social-responsibility

4. Provide the executive summary along with web link (s) of Impact Assessment of CSR projects carried out in pursuance of sub-rule (3) of rule 8 of the Companies (Corporate Social responsibility Policy) Rules, 2014, if applicable (attach the report): Nil

5. Average net profit of the company for last three financial years (as per Section 198): **(₹ Crore)**

(a)	Average net profit of the company as per sub-section (5) of section 135.	16898.80
(b)	Two percent of average net profit of the company as per section 135(5)	337.98
(c)	Surplus arising out of the CSR projects or programmes or activities of the previous financial years.	Nil
(d)	Amount required to be set off for the financial year, if any	225.19
(e)	Total CSR obligation for the financial year (b+c-d)	112.79

6. (a) Amount spent on CSR Projects (both Ongoing Project and other than Ongoing Project): ₹ 200.57 Crore

(b) Amount spent in Administrative overheads. Nil

(c) Amount spent on Impact Assessment, if applicable. Nil

(d) Total amount spent for the Financial Year [(a)+(b)+(c)]. ₹ 200.57 Crore

(e) CSR amount spent or unspent for the Financial Year:

Total Amount Spent for the Financial Year (in ₹ crore)	Amount Unspent (₹ Crore)				
	Total Amount transferred to Unspent CSR Account as per sub¬ section (6) of section 135		Amount transferred to any fund specified under Schedule VII as per second proviso to sub-section (5) of section 135		
	Amount	Date of transfer	Name of the Fund	Amount	Date of transfer
200.57	NIL	NA	NA	NA	NA

f) Excess amount for set-off, if any:

Sl. No.	Particular	Amount (₹ Crore)
(1)	(2)	(3)
i.	Two percent of average net profit of the Company as per section 135(5) of the Companies Act, 2013	337.98
ii.	*Total amount spent for the Financial Year	425.76
iii.	Excess amount spent for the Financial Year [(ii)-(i)]	87.78
iv.	Surplus arising out of the CSR projects or programmes or activities of the previous Financial Years, if any	Nil
v.	Amount available for set off in succeeding Financial Years [(iii)-(iv)]	87.78

(*Including excess amount of ₹ 225.19 crore spent during the previous FYs i.e. 2021-22, 2022-23 and 2023-24)

7. Details of Unspent CSR amount for the preceding three financial years

1	2	3	4	5	6		7	8
Sl. No.	Preceding Financial Year(s)	Amount transferred to Unspent CSR Account under subsection (6) of section 135 (in ₹)	Balance Amount in Unspent CSR Account under subsection (6) of section 135 (in ₹)	Amount Spent in the Financial Year (in Rs)	Amount transferred to a Fund as specified under Schedule VII as per second proviso to subsection (5) of section 135, if any		Amount remaining to be spent in succeeding Financial Years (in ₹)	Deficiency, if any
					Amount (in ₹)	Date of Transfer		
——————————————————————————— Nil ———————————————————————————								

8. Whether any capital assets have been created or acquired through CSR amount spent in the Financial Year: No, the Company has not created or acquired any capital asset through CSR amount spent during FY 2023-24.

9. Specify the reason(s), if the Company has failed to spend two per cent of the average net profit as per Section 135(5) of the Companies Act, 2013 – Not applicable.

Sd/-
(Gurdeep Singh)
Chairman & Managing Director

Sd/-
(Jaikumar Srinivasan)
Chairman, CSR Committee

Annexure - VII to Directors' Report

Project-wise ash produced and utilised

The quantity of ash produced, ash utilized and percentage of such utilization during the financial year 2023-24 from your company Stations is as under:

Sl. No.	Projects	Ash Produced Lakh MTs	Ash Utilization Lakh MTs	% Utilization %
1.	BARAUNI	9.84	8.70	88.41
2.	BARH SUPER	37.28	45.57	122.23
3.	BONGAIGAON	11.74	6.25	53.27
4.	DADRI	23.32	22.74	97.52
5.	GADARWARA	21.33	23.82	111.69
6.	KANTI TPS	8.5	10.25	120.59
7.	KHARGONE	17.65	21.05	119.25
8.	KUDGI	29.79	23.9	80.21
9.	MOUDA	39.24	35.35	90.07
10.	NPGC NABINAGAR	29.92	20.96	70.07
11.	SIMHADRI	31.1	36.77	118.23
12.	SOLAPUR	16.14	17.13	106.18
13.	TANDA	26.07	28.14	107.93
14.	UNCHACHAR	20.93	28.94	138.23
15.	DARLIPALLI	43.1	24.01	55.71
16.	FARAKKA	29.84	44.33	148.59
17.	KAHALGAON	45.95	82.89	180.4
18.	KORBA	52.68	31.91	60.57
19.	LARA	31.71	32.83	103.55
20	NORTH KARANPURA	14.87	1.00	6.72
21.	RAMAGUNDAM	45.49	39.24	86.26
22.	RIHAND	42.23	33.96	80.42
23.	SINGRAULI	30.33	12.21	40.27
24.	SIPAT	53.53	54.2	101.26
25.	TALCHER-KANIHA	68.71	46.76	68.04
26.	TELANGANA	6.81	0.00	0.00
27.	VINDHYACHAL	66.83	37.58	56.23
	NTPC Total	**854.93**	**770.49**	**90.12**

For and on behalf of the Board of Directors

Sd/-
(Gurdeep Singh)
Chairman & Managing Director

Place: New Delhi
Dated: 2 August 2024

Annexure - VIII to Directors' Report

Form No. AOC-2

(Pursuant to clause (h) of sub-section (3) of section 134 of the Act and Rule 8(2) of the Companies (Accounts) Rules, 2014)

Form for disclosure of particulars of contracts/arrangements entered into by the company with related parties referred to in sub-section (1) of section 188 of the Companies Act, 2013 including certain arm's length transactions under third proviso thereto.

1. Details of contracts or arrangements or transactions not at arm's length basis –

A)

a	Name(s) of the related party and nature of relationship	:	NTPC Mining Limited ('NML'), wholly owned subsidiary of NTPC Ltd.
b	Nature of contracts/arrangements/ transactions	:	Sale of Coal mine business by NTPC Ltd. to NML, consisting of 6 coal mines of the Company to NML at book value, through a business transfer agreement (BTA) dated 17th August 2023. The BTA shall become effective upon completion of the condition's precedent mentioned in the BTA.
c	Duration of the contract/ arrangements/ transactions	:	The transaction will take place as per terms & conditions of the BTA in FY 2024-25
d	Salient terms of the contracts or arrangements or transactions including the value, if any	:	Transfer of 6 Coal Mines from NTPC Ltd. to NTPC Mining Ltd. as going concern as a "Slump Sale" on "as is where is basis" for a total consideration of Rs. 7794.99 Crore
e	Date of approval of the Board, if any	:	29th July 2023
f	Amount paid as advances, if any	:	Nil

B)

a	Name(s) of the related party and nature of relationship	:	NTPC Vidyut Vyapar Nigam Limited, wholly owned subsidiary of NTPC Ltd
b	Nature of contracts/arrangements/ transactions	:	1. Trading of Un-Requisitioned Surplus (URS) / regulated / and Merchant power of NTPC Station on daily basis. 2. Power sale under National Solar Mission (NSM)-1 and cross border route on monthly basis.
c	Duration of the contract/ arrangements/ transactions	:	For financial year 2023-24
d	Salient terms of the contracts or arrangements or transactions including the value, if any	:	

S No.	Particulars	Value
1.	Trading of URS / regulated / and Merchant power of NTPC Station.	Trading margin @ 4 paise/KwHr for trading of URS/ regulated / and merchant power for NTPC Stations subject to maximum of Rs. 6 Lakh on daily basis with overall capping of Rs. 8 Crore p.a which was subsequently increased to Rs. 15 Crore p.a.
2.	Power sale under NSM-1 and cross border route on monthly basis.	Maximum value of Transaction shall be Rs. 300 Crore on monthly basis with overall capping of Rs. 3350 Crore p.a.

e	Date of approval of the Board, if any	:	29th July 2023 and 29th January 2024
f	Amount paid as advances, if any	:	Nil

C)

a	Name(s) of the related party and nature of relationship	:	NTPC School of Business – Under NTPC Education and Research Society
b	Nature of contracts/arrangements/ transactions	:	Sponsorship for PGDM Program for officials
c	Duration of the contract/ arrangements/ transactions	:	One year
d	Salient terms of the contracts or arrangements or transactions including the value, if any	:	Sponsoring 10 officials of Discoms/customers and other stakeholders for PGDM-E programme for the Financial year 2023-24 in NTPC School of Business (NSB). - Rs 1.50 Crore
e	Date of approval of the Board, if any	:	29th July 2023
f	Amount paid as advances, if any	:	Nil

2. Details of material contracts or arrangements or transactions at arm's length basis:

No material contracts or arrangements or transactions were entered by the Company with any Related Party, during the period under review.

For and on behalf of the Board of Directors

Sd/-
(Gurdeep Singh)
Chairman & Managing Director
DIN: 00307037

Place: New Delhi
Date: 2 August 2024

Annexure - IX to Directors' Report

Business Responsibility & Sustainability Report

SECTION A: GENERAL DISCLOSURES

I. Details of the listed entity

1.	Corporate Identity Number (CIN) of the Listed Entity:	L40101DL1975GOI007966
2.	Name of the Listed Entity:	NTPC LIMITED
3.	Year of incorporation:	1975
4.	Registered office address:	NTPC Bhawan, SCOPE Complex, 7, Institutional Area, Lodhi Road, New Delhi-110 003
5.	Corporate address:	NTPC Bhawan, SCOPE Complex, 7, Institutional Area, Lodi Road, New Delhi-110 003
6.	E-mail:	sustainability@ntpc.co.in
7.	Telephone:	011-24367333
8.	Website:	https://www.ntpc.co.in/
9.	Financial year for which reporting is being done:	2023-24
10.	Name of the Stock Exchange(s) where shares are listed:	NSE and BSE
11.	Paid-up Capital:	₹ 9,696.67 Crore
12.	Name and contact details (telephone, email address) of the person who may be contacted in case of any queries on the brsr report:	Ms. Ritu Arora (Company Secretary & compliance officer). Phone: 011-24360959 Email: csntpc@ntpc.co.in
13.	Reporting boundary - are the disclosures under this report made on a standalone basis (i.e. only for the entity) or on a consolidated basis (i.e. for the entity and all the entities which form a part of its consolidated financial statements, taken together):	Consolidated (Excluding Coal Mining)
14.	Name of assurance provider	Bureau veritas
15.	Type of assurance obtained	Reasonable/Limited

II. Products/services

16. Details of business activities (accounting for 90% of the turnover):

S. No.	Description of Main Activity	Description of Business Activity	% of Turnover of the entity
1	Generation of Electricity	Power Generation	94.19%

17. Products/Services sold by the entity (accounting for 90% of the entity's Turnover):

S. No.	Product/Service	NIC Code	% of total Turnover contributed
1	Power Generation from - Coal	35102	83.66
2	Power Generation from - Gas	35103	6.47
3	Power Generation from - Hydro	35101	2.76
4	Power Generation from - Solar	35105	1.22
5	Power Generation from - Wind	35106	0.08

Our Group's Overview | Innovating for Sustainability | Statutory Disclosures | Statutory and Financial Results

Operations

18. Number of locations where plants and/or operations/offices of the entity are situated:

Location	Number of plants	Number of offices	Total
National	93	17	110
International	1	2	3

19. Markets served by the entity:

a. Number of locations

Locations	Number
National (No. of States)	25 (State & UT)
International (No. of Countries)	2 Countries (Sri Lanka and Bangladesh)

b. What is the contribution of exports as a percentage of the total turnover of the entity?

0.76 %

c. A brief on types of customers:

NTPC supplies electricity to various bulk customers located throughout the country. Our customers include.

- State-owned Electricity Utilities like State Electricity Distribution Companies, SEB Holding Companies, State Power Departments
- Indian Railways
- Private distribution companies in Delhi
- Bangladesh Power Development Board (BPDB) and
- Nepal Electricity Authority (NEA)

Employees

20. Details as at the end of Financial Year: -

1. Employees and workers (including differently abled):

S. No.	Particulars	Total (A)	Male		Female	
			No. (B)	% (B / A)	No. (C)	% (C / A)
	EMPLOYEES					
1	Permanent (D)	13367	12398	92.75%	969	7.25%
2	Other than Permanent Employees (E)	2318	2124	91.63%	194	8.37%
3	Total employees (D + E)	15685	14522	92.59%	1163	7.41%
	WORKERS					
4	Permanent (F)	6707	6053	90.25%	654	9.75%
5	Other than Permanent Employees (E)	122542	120143	98.04%	2399	1.96%
6	Total workers (F + G)	129249	126196	97.64%	3053	2.36%

2. Differently abled Employees and workers:-

S. No.	Particulars	Total (A)	Male		Female	
			No. (B)	% (B / A)	No. (C)	% (C / A)
	DIFFERENTLY ABLED EMPLOYEES					
1	Permanent (D)	334	287	85.93%	47	14.07%
2	Other than Permanent (E)	27	25	92.59%	2	7.41%
3	Total differently abled employees (D + E)	361	312	86.43%	49	13.57%
	DIFFERENTLY ABLED WORKERS					
4	Permanent (F)	311	270	86.82%	41	13.18%
5	Other than permanent (G)	508	495	97.44%	13	2.56%
6	Total differently bled workers (F + G)	819	765	93.41%	54	6.59%

21. Participation/Inclusion/Representation of women

	Total (A)	No. and percentage of Females	
		No. (B)	% (B / A)
Board of Directors	11	1	9%
Key Management Personnel	7	1	14.28%

22. Turnover rate for permanent employees and workers

(Disclose trends for the past 3 years)

	FY 2023-24 (Turnover rate in current FY)			FY 2022-23 (Turnover rate in previous FY)			FY 2021-22 (Turnover rate in the year prior to the previous FY)		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Permanent Employees	6.55%	5.16%	6.45%	6.55%	7.67%	6.44%	7.73%	5.48%	7.57%
Permanent Workers	8.56%	6.88%	8.39%	8.56%	9.09%	6.41%	10%	4%	9%

Holding, Subsidiary and Associate Companies (including joint ventures)

23. (a) Names of holding / subsidiary / associate companies / joint ventures

S. No.	Name of the holding / subsidiary / associate companies / joint ventures (A)	Indicate whether holding/ Subsidiary/ Associate/ Joint Venture	% of shares held by listed entity	Does the entity indicated at column A, participate in the Business Responsibility initiatives of the listed entity? (Yes/No)
1	NTPC Electric Supply Company Ltd.	Subsidiary	100%	YES
2	NTPC Vidyut Vyapar Nigam Ltd.	Subsidiary	100%	YES
3	Bhartiya Rail Bijlee Company Ltd.	Subsidiary	74%	YES
4	Patratu Vidyut Utpadan Nigam Ltd.	Subsidiary	74%	YES
5	NTPC Mining Ltd.	Subsidiary	100%	YES
6	THDC India Ltd.	Subsidiary	74.49%	YES
7	North Eastern Electric Power Corporation Ltd.	Subsidiary	100%	YES
8	NTPC EDMC Waste Solutions Private Ltd.	Subsidiary	74%	YES



S. No.	Name of the holding / subsidiary / associate companies / joint ventures (A)	Indicate whether holding/ Subsidiary/ Associate/ Joint Venture	% of shares held by listed entity	Does the entity indicated at column A, participate in the Business Responsibility initiatives of the listed entity? (Yes/No)
9	Ratnagiri Gas & Power Private Ltd.	Subsidiary	86.49%	YES
10	NTPC Green Energy Ltd.	Subsidiary	100%	YES
11	Utility Powertech Ltd.	Joint Venture	50	YES
12	NTPC-GE Power Services Pvt. Ltd.	Joint Venture	50	YES
13	NTPC-SAIL Power Co. Ltd.	Joint Venture	50	YES
14	NTPC Tamil Nadu Energy Co. Ltd.	Joint Venture	50	YES
15	Aravali Power Company Pvt. Ltd.	Joint Venture	50	YES
16	Meja Urja Nigam Pvt. Ltd.	Joint Venture	50	YES
17	NTPC-BHEL Power Project Pvt. Ltd.	Joint Venture	50	YES
18	National High Power Test Laboratory Pvt. Ltd.	Joint Venture	21.63	YES
19	Transformers and Electricals Kerala Ltd.	Joint Venture	44.60	YES
20	Energy Efficiency Services Ltd.	Joint Venture	39.25	YES
21	CIL NTPC Urja Pvt. Ltd.	Joint Venture	50	YES
22	Anushakti Vidyut Nigam Ltd.	Joint Venture	49	YES
23	Hindustan Urvarak and Rasayan Ltd.	Joint Venture	29.67	YES
24	Jhabua Power Limited	Joint Venture	50	YES

CSR Details

24. (i) Whether CSR is applicable as per section 135 of Companies Act, 2013: YES

(ii) Turnover (in Rs.) (NTPC Standalone): Rs. 1,65,707.27 Crore

(iii) Net worth (in Rs.) (NTPC standalone): Rs. 1,49,885.02 Crore

Transparency and Disclosures Compliances

25. Complaints/Grievances on any of the principles (Principles 1 to 9) under the National Guidelines on Responsible Business Conduct:

Stakeholder group from whom complaint is received	Grievance Redressal Mechanism in Place (Yes/No) (If Yes, then provide web-link for grievance redress policy)	FY 2023-24 Current Financial Year			FY 2022-23 Previous Financial Year		
		Number of complaints filed during the year	Number of complaints pending resolution at close of the year	Remarks	Number of complaints filed during the year	Number of complaints pending resolution at close of the year	Remarks
Communities	Yes	112	9	• Infrastructure development • Quality of life • Employment opportunities • Land acquisition and R&R issues • Increased community involvement	347	53	• Infrastructure development • Quality of life • Employment opportunities • Land acquisition and R&R issues • Increased community involvement
Investors (other than shareholders)	Yes	976	0	• Improving RoI • Climate change & business sustainability • Risk and governance compliance • Increased disclosure on Environment, Social and Governance (ESG) aspects	621		• Complaints relate to non-receipt, and revalidation of warrants. • Cases wrt transmission and transfer of securities
Shareholders	Yes	880	0	• Complaints relate to non-receipt, and revalidation of warrants. • Cases wrt transmission and transfer of securities.	1011		• Complaints relate to non-receipt, and revalidation of warrants. • Cases wrt transmission and transfer of securities.



Stakeholder group from whom complaint is received	Grievance Redressal Mechanism in Place (Yes/No) (If Yes, then provide web-link for grievance redress policy)	FY 2023-24 Current Financial Year			FY 2022-23 Previous Financial Year		
		Number of complaints filed during the year	Number of complaints pending resolution at close of the year	Remarks	Number of complaints filed during the year	Number of complaints pending resolution at close of the year	Remarks
Employees and workers	Yes	8	0	• Professional growth • Work life balance • Health, safety and security • Timely resolution of grievances • Transparent appraisal and promotion cycle	05		• Professional growth • Work life balance • Health, safety and security • Timely resolution of grievances • Transparent appraisal and promotion cycle
Customers	Yes	22	0	• Resolving commercial issues • Resolving technical issues	19		• Resolving commercial issues • Resolving technical issues
Value Chain Partners	Yes	0	0	• Transparent dealings • Timely payments • Fair opportunities • Sustainable supply chain	0		• Transparent dealings • Timely payments • Fair opportunities • Sustainable supply chain
Other (please specify)					0		

26. Overview of the entity's material responsible business conduct issues

Please indicate material responsible business conduct and sustainability issues pertaining to environmental and social matters that present a risk or an opportunity to your business, rationale for identifying the same, approach to adapt or mitigate the risk along-with its financial implications, as per the following format.

S. No.	Material issue identified	Indicate whether risk or opportunity (R/O)	Rationale for identifying the risk / opportunity	In case of risk, approach to adapt or mitigate	Financial implications of the risk or opportunity (Indicate positive or negative implications)
1	Climate Change/ Energy Transition	Both	Increased focus on energy transition associated with climate change has opened many avenues for energy sector players in terms energy diversification such as RE, energy storage and ancillary services. Also, Influx of more variable renewable energy in the grid would require greater support of flexible operation of coal stations. Climate change is posing both physical and transition risks to all business entities including NTPC. The risks associated with the increase in sea levels, water stress situations, increased heat waves, erratic rainfall and frequent natural disasters may impact the business. Rising climate change concerns and threats may bring future policy and regulatory risks in terms of carbon tax and cess.	NTPC is diversifying its business portfolio in RE, Green Hydrogen, Power Trading, Consultancy and doing flexibilization of its coal fleet. As part of NTPC's preparedness against climate change related situations our power plants and infrastructure are designed to withstand cyclones and floods while our cooling systems are designed to withstand the increase in temperatures brought forth by climate change. To de-risk its business from transition risk, NTPC is making substantial progress towards decarbonization of energy through increasing penetration of renewables in its portfolio.	Positive
2	Water Security	Risk	Water is an essential resource for the NTPC, and hence water scarcity can significantly impact the operations of NTPC.	The proactive measures for water conservation include process improvements and technology adoption in all possible manners. Some of the key measures being adopted at power generating stations are: • Optimisation of cycles of concentration (COC) • Implementation of ZLD to reduce freshwater consumption, • Adoption of Air-Cooled Condenser (ACC) based cooling in water stressed locations etc. and planning to adopt the same at all future projects excluding only where technically not feasible. • Dry Ash Evacuation System (DAES) & High Concentration Slurry Discharge (HCSD) technology to minimize use of water in Ash handling.	Negative



S. No.	Material issue identified	Indicate whether risk or opportunity (R/O)	Rationale for identifying the risk / opportunity	In case of risk, approach to adapt or mitigate	Financial implications of the risk or opportunity (Indicate positive or negative implications)
3	Safety or Hazard Risk	Risk	With a large workforce involved in both operating stations as well as projects under construction, safety of people and property remains a potential risk.	To embed safety in all systems and processes, Safety policy has been revised and "SAP integrated Safety Framework" has been implemented across the organization to mitigate risks and eliminate hazards.	Negative
4	Digitalization	Opportunity	The dynamic business landscape is being driven through Digitalization. In this highly competitive era, digitalization is enabling faster decision making, reducing costs through automation and rendering long term competitive advantage.		Positive

SECTION B: MANAGEMENT AND PROCESS DISCLOSURES

This section is aimed at helping businesses demonstrate the structures, policies and processes put in place towards adopting the NGRBC Principles and Core Elements.

Disclosure Questions			P1	P2	P3	P4	P5	P6	P7	P8	P9
Policy and management processes											
			Businesses should conduct and govern themselves with integrity, and in a manner that is Ethical, Transparent and Accountable.	Businesses should provide goods and services in a manner that is sustainable and safe	Businesses should respect and promote the well-being of all employees, including those in their value chains	Businesses should respect the interests of and be responsive to all its stakeholders	Businesses should respect and promote human rights	Businesses should respect and make efforts to protect and restore the environment	Businesses, when engaging in influencing public and regulatory policy, should do so in a manner that is responsible and transparent.	Businesses should promote inclusive growth and equitable development	Businesses should engage with and provide value to their consumers in a responsible manner
1.	a.	Whether your entity's policy/policies cover each principle and its core elements of the NGRBCs. (Yes/No)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	b.	Has the policy been approved by the Board? (Yes/No)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	c.	Web Link of the Policies, if available	A, B, C, D, E, F, G, H, O, P, R, S, Z	I, J, K, L, Z	M, N, O, P, I, Z	J, N, R, S, Z	N	J, K, L, T, U, V, W, X, Y, Z	A, B, C, E, Z	L, R, S, Z	A, H, X, Z

Disclosure Questions	P1	P2	P3	P4	P5	P6	P7	P8	P9
	All policies relevant to external stakeholders are available on NTPC's website Policies specific to principals are. A. CDA rules B. Code of Conduct C. ABAC policy D. Fraud Prevention Policy E. Related Party Transaction F. Whistle Blower Policy G. Training Policy for Directors: H. Complaint Handling Policy I. Safety Policy J. NTPC Policy for CSR K. Ash Policy L. Sustainable Supply Chain Policy M. Placement and Transfer Policy N. Human Rights Policy O. Equal Opportunity Policy P. Career development & Succession planning policy Q. Recruitment Policy R. R&R Policy S. ICD policy T. Environmental Policy U. Biodiversity Policy V. E-Waste Policy W. Water Policy X. Integrate Plastic Management Policy Y. Waste Management Policy Z. ESG policy Our policies are available at https://www.ntpc.co.in/sustainability/policies									
2. Whether the entity has translated the policy into procedures. (Yes / No)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
3. Do the enlisted policies extend to your value chain partners? (Yes/No)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
4. Name of the national and international codes/ certifications/ labels/ standards (e.g. Forest Stewardship Council, Fairtrade, Rainforest Alliance, Trustea) standards (e.g. SA 8000, OHSAS, ISO, BIS) adopted by your entity and mapped to each principle.	SEBI LODR require-ment	ISO 9001 OSHAS 18001	ISO 45001 OSHAS 18001	Schedule II part D SEBI regulation 2015	Companies Act 2013, Schedule II part D SEBI regulation 2015	ISO 14001, ISO 50001 OHSAS 18001	SEBI LODR require-ment	Com-panies Act 2013	SDGs



Disclosure Questions	P1	P2	P3	P4	P5	P6	P7	P8	P9
5. Specific commitments, goals and targets set by the entity with defined timelines, if any.	Zero cases of adverse business ethics	At NTPC we are committed to reduce our fatality rate to zero	At NTPC we are committed to reduce our fatality rate to zero		We are comitted to ensuring No human rights violation througout our supply chain	We are committed to reduce our energy intensity by 12% by 2032, as well as reduce our specific water consumption from 3.81 to 2.5 l/kWh by 2032. We are also planning to plant 47 million tree sapling by 2032 from 2012 baseline			We are targeting to increase the Number of cumulative beneficiaries of our community development projects to 18 million people by 2032
6. Performance of the entity against the specific commitments, goals and targets along-with reasons in case the same are not met.	0 adverse cases in FY 23-24	5 fatalities reported in FY 23-24	5 fatalities reported in FY 23-24			5.20 % reduction in Net energy intensity/ 1 % reduction in specific water consumption and 39 million trees planted.			16.3 million people reached so far

Governance, leadership and oversight

7. Statement by director responsible for the business responsibility report, highlighting ESG related challenges, targets and achievements (listed entity has flexibility regarding the placement of this disclosure)

   The statement of CMD can be found at the page no 16 of our Integrated Annual Report 2023-24.

8. Details of the highest authority responsible for implementation and oversight of the Business Responsibility policy (ies).

DIN Number	00307037
Name	Gurdeep Singh
Designation	Chairman & Managing director
Telephone No	011-24360044
Email ID	cmd@ntpc.co.in

9. Does the entity have a specified Committee of the Board/ Director responsible for decision making on sustainability related issues? (Yes / No). If yes, provide details.

   Yes, we have the Board level Corporate Social Responsibility and Sustainability Committee along with Risk Management Committee. In addition, we also have a management level committee, named ESG and Climate Change Committee that operate under the Director (Operations).

   The detailed structure can be found at https://www.ntpc.co.in/sustainability/governance

10. Details of Review of NGRBCs by the Company:

Subject for Review	Indicate whether review was undertaken by Director / Committee of the Board/ Any other Committee									Frequency (Annually/ Half yearly/ Quarterly/ Any other - please specify)								
	P1	P2	P3	P4	P5	P6	P7	P8	P9	P1	P2	P3	P4	P5	P6	P7	P8	P9
Performance against Above policies and follow up action					Yes							Quarterly and as required.						
Compliance with statutory requirements of relevance to the principles, and, rectification of any non-compliances					Yes													

11. Has the entity carried out independent assessment/ evaluation of the working of its policies by an external agency? (Yes/No). If yes, provide name of the agency.

P 1	P 2	P 3	P 4	P5	P 6	P 7	P8	P 9

Yes, NTPC has undertaken Reasonable assurance of it Integrated Annual Report as per the GRI standards by Bureau Veritas.

The Details of the same can be found at page no 671

12. If answer to question (1) above is "No" i.e. not all Principles are covered by a policy, reasons to be stated:

The question is not applicable to the NTPC as all the NGRBC principles are covered under our policies.

SECTION C: PRINCIPLE WISE PERFORMANCE DISCLOSURE

This section is aimed at helping entities demonstrate their performance in integrating the Principles and Core Elements with key processes and decisions. The information sought is categorized as "Essential" and "Leadership". While the essential indicators are expected to be disclosed by every entity that is mandated to file this report, the leadership indicators may be voluntarily disclosed by entities which aspire to progress to a higher level in their quest to be socially, environmentally, and ethically responsible.

PRINCIPLE 1 Businesses should conduct and govern themselves with integrity, and in a manner that is Ethical, Transparent and Accountable.

Essential Indicators

1. Percentage coverage by training and awareness programs on any of the principles during the financial year:

Segment	Total number of training and awareness programs held	Topics / principles covered under the training and its impact	% age of persons in respective category covered by the awareness programs
Board of Directors	4	P1 & P7	18.18%
Key Managerial Personnel	4	P1 & P7	28.57%
Employees other than BoD and KMPs	3162	P1 to P9	88.23%
Workers	1616	P2 to P9	72.48%

* NTPC standalone data

2. Details of fines / penalties /punishment/ award/ compounding fees/ settlement amount paid in proceedings (by the entity or by directors / KMPs) with regulators/ law enforcement agencies/ judicial institutions, in the financial year, in the following format (Note: the entity shall make disclosures on the basis of materiality as specified in Regulation 30 of SEBI (Listing Obligations and Disclosure Obligations) Regulations, 2015 and as disclosed on the entity's website):



	NGRBC Principle	Name of the regulatory/ enforcement agencies/judicial institutions	Amount (in INR)	Brief of the Case	Has an appeal been preferred? (Yes/No)
Monetary					
Penalty/Fine	NIL	NIL	NIL	NIL	NIL
Settlement	NIL	NIL	NIL	NIL	NIL
Compounding Fee	NIL	NIL	NIL	NIL	NIL
Non-Monetary					
Imprisonment	NIL	NIL	NIL	NIL	NIL
Punishment	NIL	NIL	NIL	NIL	NIL

3. Of the instances disclosed in Question 2 above, details of the Appeal/ Revision preferred in cases where monetary or non-monetary action has been appealed.

No instances were reported in question 2 above, hence not applicable.

4. Does the entity have an anti-corruption or anti-bribery policy? If yes, provide details in brief and if available, provide a web-link to the policy.

Yes, NTPC has a Anti Bribery and Anit Corruption (ABAC) policy in place to ensure its business is conducted in accordance with the highest ethical standards. The same can be accessed through https://www.ntpc.co.in/sites/default/files/policy-documents/NTPC-ABAC-Policy-2023_0.pdf

5. Number of Directors/KMPs/employees/workers against whom disciplinary action was taken by any law enforcement agency for the charges of bribery/ corruption:

	FY 2023-24 (Current Financial Year)	FY 2022-23 (Previous Financial Year)
Directors	0	0
KMPs	0	0
Employees	0	0
Workers	0	0

6. Details of complaints with regard to conflict of interest:

	FY 2023-24 (Current Financial Year)		FY 2022-23 (Previous Financial Year)	
	Number	Remarks	Number	Remarks
Number of complaints received in relation to issues of Conflict of Interest of the Directors	0	NA	0	NA
Number of complaints received in relation to issues of Conflict of Interest of the KMP's	0	NA	0	NA

7. Provide details of any corrective action taken or underway on issues related to fines / penalties / action taken by regulators/ law enforcement agencies/ judicial institutions, on cases of corruption and conflicts of interest.

No corrective action was taken as no such issues were identified.

8. Number of days of accounts payables ((Accounts payable *365) / Cost of goods/services procured) in the following format:

	FY 2023-24 (Current Financial Year)	FY 2022-23 (Previous Financial Year)
Number of days of accounts payables*	30.62	30.38

*NTPC standalone

9. Open-ness of business provide details of concentration of purchases and sales with trading houses, dealers, and related parties along-with loans and advances & investments, with related parties, in the following format:*

Parameter	Metrics	FY 2023-24 (Current Financial Year)	FY 2022-23 (Previous Financial Year)
Concentration of Purchases	a. Purchases from trading houses as % of total purchases	0	0
	b. Number of trading houses where purchases are made from	0	0
	c. Purchases from top 10 trading houses as % of total purchases from trading houses	0	0
Concentration of Sales	a. Sales to dealers / distributors as % of total sales	99.92%	99.94%
	b. Number of dealers / distributors to whom sales are made	76	76
	c. Sales to top 10 dealers / distributors as % of total sales to dealers / distributors	60.09%	58.31%
Share of RPTs in	a. Purchases (Purchases with related parties / Total Purchases)	0.88%	1.50%
	b. Sales (Sales to related parties / Total Sales)	1.65%	1.62%
	c. Loans & advances (Loans & advances given to related parties / Total loans & advances)	11.04%	44.42%
	d. Investments (Investments in related parties / Total Investments made)	99.32%	99.64%

*NTPC standalone



Leadership Indicators

1. Awareness programs conducted for value chain partners on any of the principles during the financial year:

   We are in the process of developing a mechanism to collect data as required by BRSR format, during FY 23-24, We have conducted 43 capacity building workshops through various Vendor Development Programs.

2. Does the entity have processes in place to avoid/ manage conflict of interests involving members of the Board? **(Yes/No)** If yes, provide details of the same.

   Yes, NTPC has a robust system in place to avoid/ manage conflict of interests involving members of the Board.

PRINCIPLE 2 Businesses should provide goods and services in a manner that is sustainable and safe.

Essential Indicators

1. Percentage of R&D and capital expenditure (capex) investments in specific technologies to improve the environmental and social impacts of product and processes to total R&D and capex investments made by the entity, respectively.

	FY 2023-24 (Current Financial Year)	FY 2022-23 (Previous Financial Year)	Details of Improvements in environmental and social impacts
R&D	100%	100%	Green Hydrogen, CCU, etc.
Capex	31%	21%	FGD, RE, Hydro, Energy Conservation

2. a. Does the entity have procedures in place for sustainable sourcing?

No, sustainability is not a criterion for sourcing as of now. But almost all our procurement happens from big PSUs/ MNCs who are ESG compliant and disclose their sustainability performances in public domain.

b. If yes, what percentage of inputs were sourced sustainably?

Not Available

3. Describe the processes in place to safely reclaim your products for reusing, recycling, and disposing at the end of life, for (a) Plastics (including packaging) (b) E-waste (c) Hazardous waste and (d) other waste.

S. No.	Type	Reclaiming Process
1.	Fly Ash	Ash is being utilized to produce new products, and as a second supplementary materials for cement industry, road and bricks manufacturing.
2.	Used Lube Oil/Used Transformer Oil/ Containers of Hazardous Chemicals	Sold to registered recyclers
3.	Spent resin	CPCB/SPCB-approved facilities or nearby co-processors
4.	Used Batteries	Sold to manufacturers under a buy-back policy
5.	Bio-Medical Waste	By approved agencies authorized by SPCB
6.	E-Waste	Via authorized recyclers/dismantlers endorsed by CPCB/SPCB

4. Whether Extended Producer Responsibility (EPR) is applicable to the entity's activities (Yes / No). If yes, whether the waste collection plan is in line with the Extended Producer Responsibility (EPR) plan submitted to Pollution Control Boards? If not, provide steps taken to address the same.

EPR is applicable to only plastic packaging of imported items.

Leadership Indicators

1. Has the entity conducted Life Cycle Perspective / Assessments (LCA) for any of its products (for manufacturing industry) or for its services (for service industry)? If yes, provide details in the following format?

Presently, NTPC is in the process of finalizing the LCA of its product.

2. If there are any significant social or environmental concerns and/or risks arising from production or disposal of your products / services, as identified in the Life Cycle Perspective / Assessments (LCA) or through any other means, briefly describe the same along-with action taken to mitigate the same.

Presently, NTPC is in the process of finalizing the LCA of its product.

3. Percentage of recycled or reused input material to total material (by value) used in production (for manufacturing industry) or providing services (for service industry).

	Recycled or re-used input material to total material	
	FY 2023-24 (Current Financial Year)	FY 2022-23 (Previous Financial Year)
Waste Water	25%	30%

4. Of the products and packaging reclaimed at end of life of products, amount (in metric tons) reused, recycled, and safely disposed, as per the following format:

	FY 2023-24 (Current Financial Year)			FY 2022-23 (Previous Financial Year)		
	Re-used	Recycled	Safely Disposed	Re-used	Recycled	Safely Disposed
Plastics (including packaging)	70.0	95.38	286.91	0	53.15	164.96
E-Waste	0	817.29	28.26	0	83.14	2.92
Hazardous waste	1184.30	1039.21	1731.98	340.30	1705.49	1778.74
Other Waste	13120.50	29009.23	87767.36	13091.34	39619.07	51092.22

5. Reclaimed products and their packaging materials (as percentage of products sold) for each product category.

There is no scope for reclaiming packaging materials in Energy generation and transmission business.

PRINCIPLE 3 Businesses should respect and promote the well-being of all employees, including those in their value chains

Essential Indicators

1. a. Details of measures for the well-being of employees:

		% of employees covered by									
		Health Insurance		Accident Insurance		Maternity Benefits		Paternity Benefits		Day care facilities	
	Total (A)	Number (B)	% (C/A)	Number (C)	% (C/A)	Number (D)	% (D/A)	Number (E)	% (E/A)	Number (F)	% (F/A)
Permanent Employees											
Male	12398	12398	100%	12398	100%	0	0	12398	100%	12398	100%
Female	969	969	100%	969	100%	969	100%	0	0	969	100%
Total	13367	13367	100%	13367	100%	969	7.25%	12398	92.75%	13367	100%
Other than Permanent Employees											
Male	2124	2124	100%	2124	100%	0	0	0	0	2124	100%
Female	194	194	100%	194	100%	0	0	0	0	194	100%
Total	2318	2318	100%	2318	100%	0	0	0	0	2318	100%

b. Details of measures for the well-being of workers:

	% of workers covered by									
		Health Insurance		Accident Insurance		Maternity Benefits		Paternity Benefits		Day care facilities	
	Total (A)	Number (B)	% (C/A)	Number (C)	% (C/A)	Number (D)	% (D/A)	Number (E)	% (E/A)	Number (F)	% (F/A)
Permanent Workers											
Male	6053	6053	100%	6053	100%	0	0	6053	100%	6053	100%
Female	654	654	100%	654	100%	654	100%	0	0	654	100%
Total	6707	6707	100%	6707	100%	654	9.8%	6053	90%	6707	100%
Other than Permanent Workers											
Male	120143	120143	100%	120143	100%	0	0	0	0	0	0
Female	2399	2399	100%	2399	100%	0	0	0	0	0	0
Total	122542	122542	100%	122542	100%	0	0	0	0	0	0

c. Spending on measures towards well-being of employees and workers (including permanent and other than permanent) in the following format -

	FY 2023-24 (Current Financial Year)	FY 2022-23 (Previous Financial Year)
Cost incurred on wellbeing measures as a % of total revenue of the company	3.65%	3.68%

2. Details of retirement benefits, for Current FY and Previous FY.

Benefits	FY 2023-24 (Current Financial Year)			FY 2022-23 (Previous Financial Year)		
	No. of employees covered as a % of total employees	No. of workers covered as a % of total workers	Deducted and deposited with the authority (Y/N/N.A)	No. of employees covered as a % of total employees	No. of workers covered as a % of total workers	Deducted and deposited with the authority (Y/N/N.A.)
PF	100%	100%	Y	100%	100%	Y
Gratuity	100%	100%	Y	100%	100%	Y
ESI	100%	100%	Y	100%	100%	Y
Others-please specify	0	0	NA	0	0	0

3. Accessibility of workplaces

Are the premises / offices of the entity accessible to differently abled employees and workers, as per the requirements of the Rights of Persons with Disabilities Act, 2016? If not, whether any steps are being taken by the entity in this regard.

YES, all our offices are accessible to differently abled employees and workers, as per the requirements of the Rights of Persons with Disabilities Act, 2016.

4. Does the entity have an equal opportunity policy as per the Rights of Persons with Disabilities Act, 2016? If so, provide a web-link to the policy.

YES, our equal opportunity policy can be found at
https://www.ntpc.co.in/sites/default/files/policy-documents/Equal_Opportunity_Policy%202019.pdf

5. Return to work and Retention rates of permanent employees and workers that took parental leave.

Gender	Permanent employees		Permanent workers	
	Return to work rate	Retention rate	Return to work rate	Retention rate
Number of complaints received in relation to	0	NA	0	NA
Male	100%	100%	100%	100%
Female	100%	100%	100%	100%
Total	100%	100%	100%	100%

6. Is there a mechanism available to receive and redress grievances for the following categories of employees and worker? If yes, give details of the mechanism in brief.

	Yes/No (If yes, then give details of the mechanism in brief)
Permanent Workers	Yes, for addressing the grievances of employees, NTPC has a time bound Grievance Redressal Mechanism for all employees at each project. The employee grievances are also captured through different forums like participative forums, communication meetings, employee organizational climate survey etc.
Other than Permanent Workers Permanent	
Employees	
Other than Permanent Employees	

7. Membership of employees and worker in association(s) or Unions recognized by the listed entity:

Category	FY 2023-24 (Current Financial Year)			FY 2022-23 (Previous Financial Year)		
	Total employees/ workers in respective category (A)	No. of employees/workers in respective category, who are part of associations(s) or Union (B)	% (B/A)	Total employees/ workers in respective category (C)	No. of employees/workers in respective category, who are part of associations(s) or Union (D)	% (D/C)
Total Permanent Employees	13367	8180	61.19%	12,997	6905	53.12%
Male	12398	7712	62.20%	12074	6539	54.15%
Female	969	468	48.30%	923	366	39.6%
Total Permanent Workers	6707	6707	100.00%	7,255	7,255	100%
Male	6053	6053	100.00%	6,549	6,549	100%
Female	654	654	100.00%	706	706	100%



8. Details of training given to employees and workers:

Category	FY 2023-24 (Current Financial Year)					FY 2022-23 (Previous Financial Year)				
		On Health and safety measures		On Skill upgradation			On Health and safety measures		On Skill upgradation	
	Total (A)	No. (B)	% (B/ A)	No. (C)	% (C/A)	Total (D)	No. (E)	% (E / D)	No. (F)	% (F / D)
Employees										
Male	12398	3019	24.35%	263	2.12%	12,074	4,648	38.50%	9,661	80.01%
Female	969	182	18.78%	63	6.50%	923	318	34.45%	687	74.43%
Total	13368	3201	23.95%	326	2.44%	12,997	4,966	38.21%	10,348	79.62%
Workers										
Male	6053	1514	25.01%	113	1.87%	6,549	1,471	22.46%	3,744	57.17%
Female	654	151	23.09%	7	1.07%	706	137	19.41%	298	42.21%
Total	6707	1665	24.82%	120	1.79%	7,255	1,608	22.16%	4,042	55.71%

9. Details of performance and career development reviews of employees and worker:

Category	FY 2023-24 (Current Financial Year)			FY 2022-23 (Previous Financial Year)		
	Total (A)	No. (B)	% (B / A)	Total (C)	No. (D)	% (D / C)
Employees						
Male	12398	12398	100%	12074	12074	100%
Female	969	969	100%	923	923	100%
Total	13368	13368	100%	12,997	12,997	100%
Workers						
Male	6053	6053	100%	6,549	6,549	100%
Female	654	654	100%	706	706	100%
Total	6707	6707	100%	7,255	7,255	100%

10. Health and safety management system:

a. Whether an occupational health and safety management system has been implemented by the entity? ***(Yes/ No)***. If yes, the coverage of such system?

We have established a robust management system that covers all aspects of safety and compliance with legal, regulatory, and safety requirements. Our safety framework and comprehensive safety manual provide guidance, instructions, policies, participative forums, checklists, statutory documents, and procedures to promote safe practices in the workplace, including the operation of equipment, machinery, chemicals, and tools.

We regularly assess the safety of our operations through internal and external safety audits. Internal safety audits are conducted annually by a team of Safety Officers, while external audits are carried out by reputable organisations as per statutory requirements. We also conduct special audits to assess adherence to procedures and rules. NTPC has a pool of certified auditors, including National Occupational Safety Association (NOSA) certified auditors and ISO 45001 certified lead/internal auditors, ensuring quality audits. In Financial Year 2022-23, we initiated an additional expert safety audit for all NTPC stations for internal benchmarking purposes.

b. What are the processes used to identify work-related hazards and assess risks on a routine and non-routine basis by the entity?

In accordance with our safety principles, we have developed a comprehensive and centralized Hazard Identification, Risk Assessment and Control (HIRAC) document for our Coal, Gas, and Hydro stations. The hierarchy of controls of hazards followed in preparing this document is elimination of hazard, substitution of hazard, engineering controls, administrative controls and PPEs in respective order.

c. Whether you have processes for workers to report the work-related hazards and to remove themselves from such risks.

YES NTPC has launched app "Suraksha" for reporting work-related injuries and incidents. It is regularly updated for user experience and new features. Over 12,000 employees have downloaded and used this app, providing real-time data for analysis and preventive actions.

d. Do the employees/ worker of the entity have access to non-occupational medical and healthcare services?

YES, NTPC prioritizes employee health, safety, and well-being through various measures. Our NTPC hospitals provide round-the-clock medical care for employees and their dependents. We have partnerships with over 250 specialized hospitals in 25 cities for specialized treatments. Power plants are equipped with ambulances featuring Advanced Life Support systems for emergencies.

11. Details of safety related incidents, in the following format: -

Safety Incident/Number	Category	FY 2023-24 (Current Financial Year)	FY 2022-23 (Previous Financial Year)
Lost Time Injury Frequency Rate (LTIFR)	Employees	0.073	0.141
(per one million-person hours worked)	Workers	0.086	0.067
Total recordable work-related injuries	Employees	5	11
	Workers	33	30
No. of fatalities	Employees	0	1
	Workers	5	4
High consequence work-related injury	Employees	0	0
or ill-health (excluding fatalities)	Workers	0	1

12. Describe the measures taken by the entity to ensure a safe and healthy workplace.

The safety of our operations is regularly assessed through internal and external safety audits. Every year, internal safety audits are conducted by an inter station team of Safety Officers and External safety audits are carried out by reputed organizations as per statutory requirement for each Project/ Station. Apart from that, special audits are conducted from time to time to assess adherence to laid out procedures and rules. NTPC has developed a pool of NOSA certified auditors, certified lead / internal auditors as per ISO 45001 for ensuring quality audit. In Financial Year 2022-23, we initiated an additional expert safety audit for all NTPC stations for internal benchmarking purposes. This was completed for 37 stations / projects of NTPC during 23-24. Before starting a job, a Job Safety Analysis (JSA) is performed to identify hazards and mitigation measures. The area engineer or supervisor delivers toolbox talks to workers, highlighting safety points mentioned in the JSA. Periodic mass pep talks on general safety topics are conducted to create awareness and reinforce safety practices among workers.

13. Number of Complaints on the following made by employees and workers:

	FY 2023-24 (Current Financial Year)			FY 2022-23 (Previous Financial Year)		
	Filed during the year	Pending resolution at the end of year	Remarks	Filed during the year	Pending resolution at the end of year	Remarks
Working Conditions	0	0	NA	0	0	NA
Health & Safety	0	0	NA	0	0	NA

14. Assessments for the year:

	% of your plants and offices that were assessed (by entity or statutory authorities or third parties)
Health and safety practices	100%
Working Conditions	100%

*All our offices are OHSHA/ ISO certified

15. Provide details of any corrective action taken or underway to address safety-related incidents (if any) and on significant risks / concerns arising from assessments of health & safety practices and working conditions.

NTPC regularly monitor and engage to improve its working condition, and has developed centralized Hazard Identification, Risk Assessment, and Control (HIRAC) documents for its stations.

Leadership Indicators

1. Does the entity extend any life insurance or any compensatory package in the event of death of

(A) Employees: Yes

(B) Workers: Yes

2. Provide the measures undertaken by the entity to ensure that statutory dues have been deducted and deposited by the value chain partners.

We collect TDS from all our vendors to ensure the submission of the applicable taxes. In addition to this we also have clauses in our GCC to ensure that all the statutory dues and fines are collected as applicable.

3. Provide the number of employees / workers having suffered high consequence work- related injury / ill-health / fatalities (as reported in Q11 of Essential Indicators above), who have been rehabilitated and placed in suitable employment or whose family members have been placed in suitable employment:

	Total no. of affected employees/ workers		No. of employees/workers that are rehabilitated and placed in suitable employment or whose family members have been placed in suitable employment	
	FY 2023-24 (Current Financial Year)	FY 2022-23 (Previous Financial Year)	FY 2023-24 (Current Financial Year)	FY 2022-23 (Previous Financial Year)
Employees	0	1	0	0
Workers	5	5	5	5

1. Does the entity provide transition assistance programs to facilitate continued employability and the management of career endings resulting from retirement or termination of employment? (Yes/ No)

YES, for more details refer to human capital chapter at page 84.

2. Details on assessment of value chain partners:

	% of value chain partners (by value of business done with such partners) that were assessed
Health and safety practices	100%
Working Conditions	100%

** We have sustainability sourcing policies as well as sections in our GCC to ensure all our suppliers have relevant ISO and OHSAS certification*

3. Provide details of any corrective actions taken or underway to address significant risks / concerns arising from assessments of health and safety practices and working conditions of value chain partners.

Appropriate action has been taken against the contractors/ agencies who have been found guilty in cases of safety violations as per the policy.

PRINCIPLE 4: Businesses should respect the interests of and be responsive to all its stakeholders

Essential Indicators

1. Describe the processes for identifying key stakeholder groups of the entity.

Stakeholder engagement is a continuous process, encompassing interactions at various management levels and through diverse communication channels. To ensure the identification of key stakeholders, the NTPC has devised a detailed stakeholder engagement framework, as well as undertake stakeholder and materiality assessment exercise at a regular frequency. Our detailed methodology for stakeholder identification can be found at https://www.ntpc.co.in/sustainability/stakeholder-management.

2. List stakeholder groups identified as key for your entity and the frequency of engagement with each stakeholder group.

Stakeholder group	Whether identified as Vulnerable & Marginalized Group (Yes/no)	Channel of Communication (Email, SMS, Newspaper, Pamphlets, Advertisement, Community meetings, Notice board, website, others)	Frequency of engagement (Annually/ Half yearly/ Quarterly/ other-please specify)	Purpose and scope of engagement including key topics and concerns raised during such engagement
Government of India	No	• Secretary level review • Meeting with MoP, MoEFCC, MoC, DPE, Parliamentary committees, CEA, NITI AAYOG etc.	• Quarterly • Need based	• 24x7 affordable power to all • Maximizing infrastructure utilization • Social development • Climate Change & Environment conservation • Promote Govt. schemes (viz. Make in India, Skill India, Swachh Bharat Mission, etc.)
Regulators	No	• Public hearing • Statutory audits & inspection, Meeting for clearances, Consents and compliances	• Need based • As per statutory provisions	• Optimum electricity tariff • Compliance with changing business environment
Communities & NGO	Yes	• Public hearings • Village Development Advisory Committee (VDAC) • Public information centers • Project-based stakeholder meets	• Need based • Annually	• Infrastructure development • Quality of life • Employment opportunities • Land acquisition and R&R issues • Increased community involvement
Investors & Lenders	No	• Analyst and investors meeting • Annual general meeting • Review meets with bankers (Domestic and Foreign	• Quarterly • Annual • Regular	• Improving Return on Investment • Responses to Climate change & Business sustainability • Risk and governance compliance • Increased disclosure on Environment, Social and Governance (ESG) aspects

Stakeholder group	Whether identified as Vulnerable & Marginalized Group (Yes/no)	Channel of Communication (Email, SMS, Newspaper, Pamphlets, Advertisement, Community meetings, Notice board, website, others)	Frequency of engagement (Annually/ Half yearly/ Quarterly/ other-please specify)	Purpose and scope of engagement including key topics and concerns raised during such engagement
Employees	No	• Participative forums • Communication meetings • Employee surveys • Intranet and website • Trainings and workshops Internal magazines	• Defined frequency of concerned Fora • Need based	• Professional growth • Work life balance • Health, safety and security • Timely resolution of grievances • Transparent appraisal and promotion cycle
Customers	No	• Regional customer meets • Regional power committees (RPCs) • Commercial meetings/ interactions • Technical coordination committee • Operation coordination committee • Business partner meet • Customer support services	• Quarterly • Monthly • Yearly • Need Based	• Resolving commercial issues • Resolving technical issues
Suppliers	Yes, some of companies suppliers belong to marginalized group	• Pre-bid conference • Suppliers meet, Vendor enlisting • NTPC website	• Before tendering • Need based	• Transparent dealings • Timely payments • Fair opportunities • Sustainable Supply Chain
Media	No	• Press releases • Press conferences	• Need based • Event based	• Information sharing • Increased transparency

Leadership Indicators

1. **Provide the processes for consultation between stakeholders and the Board on economic, environmental, and social topics or if consultation is delegated, how is feedback from such consultations provided to the Board.**

   Yes, we have the Board level Corporate Social Responsibility and Sustainability Committee along with Risk Management Committee. In addition, we also have a management level committee, named ESG and Climate Change Committee that operate under the Director (Operations). The concerned committees meet regularly with CSO and take reviews of all ESG related issues.

2. **Whether stakeholder consultation is used to support the identification and management of environmental, and social topics (Yes / No). If so, provide details of instances as to how the inputs received from stakeholders on these topics were incorporated into policies and activities of the entity.**

   NTPC recognizes the importance of conducting stakeholder consultation and hence do materiality assessment, which form a core component of our Integrated Annual Report and enable us to gain understanding of the relative importance of specific environmental, social, and economic issues and their potential impact on value creation. We have adopted a structured methodology for conducting stakeholder consultation assessment using a dedicated materiality survey at a regular interval (3 to 4 years), in which we engage both internal and external stakeholders. the details of which can be found at https://ntpc.co.in/sustainability/materiality-analysis

3. **Provide details of instances of engagement with, and actions taken to, address the concerns of vulnerable/ marginalized stakeholder groups.**

   The details can be found on our website at https://www.ntpc.co.in/sustainability/stakeholder-management.

PRINCIPLE 5 Businesses should respect and promote human rights

Essential Indicators

1. **Employees and workers who have been provided training on human rights issues and policy(ies) of the entity, in the following format:**

Category	FY 2023-24 (Current Financial Year)			FY 2022-23 (Previous Financial Year)		
	Total (A)	No. of employees/ workers covered (B)	% (B/A)	Total (C)	No. of employees/ workers covered (D)	% (D/C)
Employees						
Permanent	13367	923	6.91%	12,997	283	2.17%
Other than Permanent	2318	240	10.35%	1,493	40	2.68%
Total Employees	15685	1163	7.41%	14,490	323	2.23%
Workers						
Permanent	6707	442	6.59%	7,255	298	4.11%
Other than Permanent	122542	0	0.00%	1,13,355	0	0
Total Workers	129249	442	0.37%	1,20,610	298	0.25%

2. **Details of minimum wages paid to employees and workers, in the following format:**

Category	FY 2023-24 (Current Financial Year)					FY 2022-23 (Previous Financial Year)				
		Equal to Minimum Wage		More than Minimum Wage			Equal to Minimum Wage		More than Minimum Wage	
	Total (A)	No. (B)	% (B/ A)	No. (C)	% (C/A)	Total (D)	No. (E)	% (E / D)	No. (F)	% (F / D)
Employees										
Permanent	13367	0	0%	13367	100%	12,997	0	0%	12,997	100%
Male	12398	0	0%	12398	100%	12074	0	0%	12074	100%
Female	969	0	0%	969	100%	923	0	0%	923	100%
Other than Permanent	2318	0	0%	2318	100%	1,493	0	0%	1,493	100%
Male	2124	0	0%	2124	100%	1,350	0	0%	1,350	100%
Female	194	0	0%	194	100%	143	0	0%	143	100%
Workers										
Permanent	6707	0	0%	6707	100%	7,255	0	0%	7,255	100%
Male	6053	0	0%	6053	100%	6,549	0	0%	6,549	100%
Female	654	0	0%	654	100%	706	0	0%	702	100%
Other than Permanent	122542	0	0%	122542	100%	113355	0	0%	113355	100%
Male	120143	0	0%	120143	100%	111457	0	0%	111457	100%
Female	2399	0	0%	2399	100%	1898	0	0%	1898	100%



3. Details of remuneration/salary/wages, in the following format:

a. Median remuneration / wages:

	Male		Female	
	Number	Median Remuneration/ salary/wages of respective category	Number	Median Remuneration/ salary/wages of respective category
Board of Directors (BoD)*	6	9638945	-	-
Key Managerial Personnel	7	9638945	1	1746606
Employees other than BoD and KMP	10598	4260958	824	3774683
Workers	4541	2126181	390	2297011

*Only functional directors)

b. Gross wages paid to females as % of total wages paid by the entity, in the following format:

	FY 2023-24 (Current Financial Year)	FY 2022-23 (Previous Financial Year)
Gross wages paid to females as % of total wages	6.60%	6.55

*NTPC Standalone

4. Do you have a focal point (Individual/ Committee) responsible for addressing human rights impacts or issues caused or contributed to by the business?

Yes, the Director (HR) is responsible for addressing human rights impacts or issues caused or contributed to by the business.

5. Describe the internal mechanisms in place to redress grievances related to human rights issues.

We have established institutional mechanisms for grievance redressal, demonstrating our commitment to resolving stakeholder concerns in a timely and fair manner. To safeguard human rights, all significant investment agreements and contracts include clauses that minimize the risk of violations. We conduct regular monitoring to ensure compliance with regulations and internal policies.

6. Number of Complaints on the following made by employees and workers:

	FY 2023-24 (Current Financial Year)			FY 2022-23 (Previous Financial Year)		
	Filed during the year	Pending resolution at the end of year	Remarks	Filed during the year	Pending resolution at the end of year	Remarks
Sexual Harassment	1	0	1 case pertaining to FY 2022-23 was resolved in FY 2023-24.	4	1	
Discrimination at workplace	0	0		0	0	
Child Labour	0	0		0	0	
Forced Labour/ Involuntary Labour	0	0		0	0	
Wages	0	0		0	0	
Other human rights related issues						

7. Complaints filed under the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013, in the following format:

	FY 2023-24 (Current Financial Year)	FY 2022-23 (Previous Financial Year)
Total complaints reported under Sexual harassment on of women at workplace (prevention, prohibition and redressal) act, 2013 (posh)	1	4
Complaints on posh as a % of Female employees / workers	0.06% (Considering female employees as on 31.03.2024)	0.30 % (considering female employees as on 31.03.2023)
Complaints on posh upheld	2	3

8. Mechanisms to prevent adverse consequences to the complainant in discrimination and harassment cases.

NTPC has formed the Internal Complaints Committees at our operational locations where complaints against sexual harassment can be registered, furthermore we have a dedicated complaint handling policy to safeguard the complainant. The link to our policy can be found at https://www.ntpc.co.in/sites/default/files/policy-documents/Complaint-Handling-Policy.pdf

9. Do human rights requirements form part of your business agreements and contracts?

YES

10. Assessments for the year:

	% of your plants and offices that were assessed (by entity or statutory authorities or third parties)
Child Labour	100%
Forced/Involuntary Labour	100%
Sexual Harassment	100%
Discrimination at workplace	100%
Wages	100%
Other-Please specify	100%

11. Provide details of any corrective actions taken or underway to address significant risks / concerns arising from the assessments at Question 9 above.

Appropriate action has been taken against the contractors/ agencies who have been found guilty in such cases.

Leadership Indicators

1. Details of a business process being modified / introduced as a result of addressing human rights grievances/complaints.

NTPC has implemented an in-house solution called 'Contractors' Labour Information Management System (CLIMS). This system has been implemented to streamline labour management processes, ensure the physical and social welfare of workers, comply with statutory requirements, and provide real-time information on the availability of workers. The system digitizes record-keeping, guaranteeing accurate disbursement of wages and other benefits to labourers deployed at your Company's plants.

2. Details of the scope and coverage of any Human rights due diligence conducted.

100%

3. Is the premise/office of the entity accessible to differently abled visitors, as per the requirements of the Rights of Persons with Disabilities Act, 2016?

YES

4. Details on assessment of value chain partners:

	% of value chain partners (by value of business done with such partners) that were assessments
Child Labour	100%
Forced/Involuntary Labour	100%
Sexual Harassment	100%
Discrimination at workplace	100%
Wages	100%
Other-Please specify	100%

* All the NTPC's vendor adheres to the Human rights policy which is covered under its GCC

5. Provide details of any corrective actions taken or underway to address significant risks / concerns arising from the assessments at Question 4 above.

No action was taken since no significant risk/ concern was identified.

PRINCIPLE 6: Businesses should respect and make efforts to protect and restore the environment

Essential Indicators

1. Details of total energy consumption (in Joules or multiples) and energy intensity, in the following format:

Parameter	FY 2023-24 (Current Financial Year) (TJ)	FY 2022-23 (Previous Financial Year) (TJ)
From Renewable Sources		
Total Electricity Consumption (A)	82.6	97
Total Fuel Consumption (B)	2317.92	246.7
Energy Consumption Through Other Sources (C)	-	-
Total Energy Consumed From Renewable Sources (A+B+C)	2400.52	343.7
From Non-Renewable Sources		
Total Electricity Consumption (D)	376.1	352.11
Total Fuel Consumption (E)	3939364.49	3742448.77
Energy Consumption Through Other Sources (F)	-	-
Total Energy Consumed From Non Renewable Sources (D+E+F)	3939740.6	3742800.9
Total Energy Consumed (A+B+C+D+E+F)	3942141.11	3743144.58
Energy Intensity Per Rupee of Turnover (Total Energy Consumed / Revenue From Operations) (KJ/Rs.)	2176	2103
Energy Intensity Per Rupee Of Turnover Adjusted For Purchasing Power Parity (PPP)(Total Energy Consumed / Revenue From Operations Adjusted For PPP) (KJ/USD)	49786	48120
Energy Intensity In Terms Of Physical Output (MJ/kWh)	9.97	10.01
Energy Intensity (Optional) - The Relevant Metric May Be Selected By The Entity		

Note: Indicate if any independent assessment/ evaluation/assurance has been carried out by an external agency? (Y/N) If yes, name of the external agency. Yes assurance has been carried out by M/S BUREAU VERITAS.

2. Does the entity have any sites / facilities identified as designated consumers (DCs) under the Performance, Achieve and Trade (PAT) Scheme of the Government of India? (Y/N) If yes, disclose whether targets set under the PAT scheme have been achieved. In case targets have not been achieved, provide the remedial action taken, if any.

Most of our stations have successfully met their PAT targets, and by the end of PAT cycle III, NTPC had a net surplus of 228,725 ESCerts. Additionally, two NTPC stations under PAT cycles IV and V have earned ESCerts, though the official notification is still awaited.

To achieve PAT targets, our stations implement various schemes and adopt best O&M practices aimed at improving the Net Heat Rate. These efforts, detailed under the "Energy Conservation" section, reflect our commitment to energy efficiency and sustainable operations.

3. Provide details of the following disclosures related to water, in the following format:

Parameter	FY 2023-24 (Current Financial Year)	FY 2022-23 (Previous Financial Year)
Water withdrawal by source (in kilolitres)		
(i) Surface water	6015033779	5478260000
(ii) Groundwater	359086*	
(iii) Third party water	455000	550000
(iv) Seawater / desalinated water	168757000	179100000
(v) Rainwater	5850000	41,00,000
Total volume of water withdrawal (in kilolitres) (i + ii + iii + iv + v)	6190454865	5662010000
Total volume of water consumption (in kilolitres)	1132753015	1073790000
Water intensity per rupee of turnover (Water consumed / turnover) (Ltr/Rs)	0.625	0.603
Water intensity (optional) - the relevant metric may be selected by the entity (Ltr/Kwh)	2.68	2.69

*Water Used by NEEPCO (Subsidiary) of NTPC.

Note: Indicate if any independent assessment/ evaluation/assurance has been carried out by an external agency? (Y/N) If yes, name of the external agency., Yes assurance has been carried out by M/S BUREAU VERITAS.

4. Provide the following details related to water discharged:

Parameter	FY 2023-24 (Current Financial Year)	FY 2022-23 (Previous Financial Year)
Water Discharge by Destination and Level of Treatment (In Kilolitres)		
(I) To Surface Water		
- No Treatment	4889288342	4410800000
- With Treatment - Primary & secondary treatment	512441	914400
(Ii) To Groundwater	0.00	0.00
- No Treatment		
- With Treatment - Please Specify Level of Treatment		
(Iii) To Seawater		
- No Treatment	155256459.9	117340000
- With Treatment - Please Specify Level Of Treatment	0	0



Parameter	FY 2023-24 (Current Financial Year)	FY 2022-23 (Previous Financial Year)
(Iv) Sent To Third-Parties		
- No Treatment		
- With Treatment - Please Specify Level Of Treatment		
(V) Others		
- No Treatment		
- With Treatment - Please Specify Level Of Treatment		
Total water discharged (in kilolitres)	5045057242.9	4529054400

5. Has the entity implemented a mechanism for Zero Liquid Discharge? If yes, provide details of its coverage and implementation.

YES, we have implemented Zero Liquid Discharge (ZLD) across all our stations except few JVs companies plants.

6. Please provide details of air emissions (other than GHG emissions) by the entity, in the following format:

Parameter	Please specify unit	FY 2023-24 (Current Financial Year)	FY 2022-23 (Previous Financial Year)
NOx	Metric tonnes	671807.38	657376.38
SOx	Metric tonnes	1863639.27	1767481.60
Particulate matter (PM)	Metric tonnes	96752.02	89294.96
Persistent organic pollutants (POP)	Metric tonnes	0	0
Volatile organic compounds (VOC)	Metric tonnes	0	0
Hazardous air pollutants (HAP) (Mercury)	Metric tonnes	8.53	7.00
Others -	Metric tonnes	0	0

Note: Indicate if any independent assessment/ evaluation/assurance has been carried out by an external agency? (Y/N) If yes, name of the external agency. **Yes assurance is being carried out by KPMG**

7. Provide details of greenhouse gas emissions (Scope 1 and Scope 2 emissions) & its intensity, in the following format:

Parameter	Unit	FY 2023-24 (Current Financial Year)	FY 2022-23 (Previous Financial Year)
Total Scope 1 emissions (Break-up of the GHG into CO2, CH4, N2O, HFCs, PFCs, SF6, NF3, if available)	Million Metric tonnes of CO2 equivalent	352.47	335.72
Total Scope 2 emissions (Break-up of the GHG into CO2, CH4, N2O, HFCs, PFCs, SF6, NF3, if available)	Million Metric tonnes of CO2 equivalent	0.07	0.07
Total Scope 1 and Scope 2 emissions per rupee of Turnover (Total Scope 1 and Scope 2 GHG emissions / Revenue from operations)	Tonnes/Rs	0.000188722	0.000194654
Total Scope 1 and Scope 2 emission intensity per rupee of turnover adjusted for Purchasing Power Parity (PPP) (Total Scope 1 and Scope 2 GHG emissions / Revenue from operations adjusted for PPP)	Tonnes/USD	0.000688157	0.000709791
Total Scope 1 and Scope 2 emission intensity in terms of physical output	gCO2/Kwh	834.81	840.75
Total Scope 1 and Scope 2 emission intensity (optional) - the relevant metric may be selected by the entity			

Note: Indicate if any independent assessment/ evaluation/assurance has been carried out by an external agency? (Y/N) If yes, name of the external agency: Yes, assurance has been carried out by Bureau Veritas.

8. Does the entity have any project related to reducing Green House Gas emission? If yes, then provide details.

Yes, we embrace our ethical duty to support the country's endeavors in reducing GHG emissions and mitigating climate change. We have adopted cleaner, more energy-efficient technologies to reduce GHG emissions per unit of electricity. We're transitioning from sub-critical to supercritical and ultra-supercritical technology. NTPC is an early adopter of supercritical and ultra-supercritical boilers in India, saving ~2% fuel per unit of power and reducing emission intensity by 8% compared to conventional subcritical plants. It also increases efficiency by around 8%.

In addition to this, we are also exploring cleaner energy avenues and are looking to increase the over RE percentage in our energy mix. We are also working carbon sink development, and has planted 39 million trees so far, with the target of planting at least 1 million tree saplings annually.

9. Provide details related to waste management by the entity, in the following format:

Parameter	FY 2023-24 (Current Financial Year)	FY 2022-23 (Previous Financial Year)
Total Waste generated (in metric tonnes)		
Plastic waste **(A)**	385.79	353.43
E-waste **(B)**	873.4	84.88
Bio-medical waste **(C)**	211.1	138.44
Construction and demolition waste **(D)**	90439.46	61052.50
Battery waste **(E)**	1658.0	887.28
Radioactive waste **(F)**	0	0
Other Hazardous waste. Please specify, if any *(spent resin, used lube oil, containers of hazardous waste, insulation waste, FO sludge).* ***(G)***	4382.9	4832.2435
Other Non-hazardous waste generated (H). *Please specify, if any.(ferrous, non-ferrous, municipal solid waste-biodegradable, municipal solid waste - non degradable)* (Break-up by composition i.e. by materials relevant to the sector)	41044.71	42029.83
Total (A+B + C + D + E + F + G + H)	138995.33	109378.60
For each category of waste generated, total waste recovered through recycling, re-using or other recovery operations (in metric tonnes)		
Category of waste		
Hazardous Waste		
(i) Recycled	1034.93	1703.3995
(ii) Re-used	1184.30	340.3
(iii) Other recovery operations	4.28	2.1
Total	2223.51	2045.80



Parameter	FY 2023-24 (Current Financial Year)	FY 2022-23 (Previous Financial Year)
Non-Hazardous Waste		
(i) Recycled	26868.85	39565.71
(ii) Re-used	344.26	238.84
(iii) Other recovery operations	1229.49	372.14
Total	28442.59	40176.69
Other Waste		
(i) Recycled	1025.49	186.07
(ii) Re-used	12846.24	12852.5
(iii) Other recovery operations	798.07	3.67
Total	14669.80	13042.24
For each category of waste generated, total waste disposed by nature of disposal method (in metric tonnes)		
Category of waste		
Hazardous Waste		
(i) Incineration	180.25	39.843
(ii) Landfilling	1392.13	1725.04
(iii) Other disposal operations	159.59	13.775
Total	1731.98	1778.66
Non-Hazardous Waste		
(i) Incineration	105.32	429.12
(ii) Landfilling	3570.38	2606.89
(iii) Other disposal operations	7593.25	184.97
Total	11268.95	3220.98
Other Waste		
(i) Incineration	205.03	129.66
(ii) Landfilling	56157.61	47904.3
(iii) Other disposal operations	20450.94	4.98
Total	76813.58	48038.94

Note: Indicate if any independent assessment/ evaluation/assurance has been carried out by an external agency? (Y/N) If yes, name of the external agency.

10. Briefly describe the waste management practices adopted in your establishments. Describe the strategy adopted by your company to reduce usage of hazardous and toxic chemicals in your products and processes and the practices adopted to manage such wastes.

We are dedicated to handling and disposing of all waste generated on our premises in an environmentally friendly, socially responsible, and commercially viable manner. Our comprehensive waste management approach includes collection, segregation, transportation, processing, recycling, and disposal of different types of waste. Our primary goal is to maximize resource utilization, minimizing the waste that must be disposed of. However, when disposal is necessary, we ensure full compliance with rules and regulatory requirements. Managing hazardous and non-hazardous waste generated by our power plants is governed by regulations and NTPC Waste Management Guideline. Furthermore, we have successfully eliminated Polychlorinated Biphenyl (PCBs) from our operation in an effort to reduce hazardous waste generation.

Our Group's Overview | Innovating for Sustainability | Statutory Disclosures | Statutory and Financial Results

11. If the entity has operations/offices in/around ecologically sensitive areas (such as national parks, wildlife sanctuaries, biosphere reserves, wetlands, biodiversity hotspots, forests, coastal regulation zones etc.) where environmental approvals / clearances are required, please specify details in the following format:

S. No.	Location of operations/offices	Type of operations	Whether the conditions of environmental approval/clearance are being complied with? (Y/N) If no, the reasons thereof and corrective action taken, if any.
1.	Bongaigaon	Power Generator	Conditions of EC are compiled. However, some of the components of projects (Ash Dyke) has come within the eco sensitive zone of the nearby Chakrashila Wildlife Sanctuary notified later. The approval wildlife clearance for the same is under process in MOEF&CC.
2.	Kahalgaon	Power Generator	Conditions of EC are compiled. However, in view of the declaration of Vikramshila Wildlife Sanctuary after commissioning of Stage - I and changes in regulations afterward, wildlife clearance to required and the same in under process.
3.	Tapovan Vishnugad	Under Combined	Conditions of EC are compiled. The project and its components are outside eco sensitive zone of Nanda Devi Biosphere Reserve. Hence wildlife clearance is not required.
4.	Korba	Power Generator	Conditions of EC are compiled. However, the EC for additional ash dyke (yet to be completed) stipulates the requirement of wildlife clearance which is being obtained. The Clearance shall be obtained before construction of additional dyke.
5.	Koldam	Power Generator	Yes, all the Clarence has been obtained & being complied.
7	Firoze Gandhi Unchahar Thermal Power Plant	Power Generation	Yes, All the Clearances have been obtained and conditions are being complied. The project is located in Raebarelli district of U.P. beyond the Eco-sensitive Zone of Samaspur Bird Sanctuary.

12. Details of environmental impact assessments of projects undertaken by the entity based on applicable laws, in the current financial year:

Yes, EIA assessment details for Financial Year 2023-24 are as follows.

Name and brief details of project	EIA Notification No.	Date	Whether conducted by independent External agency (Yes / No)	Results communicated in public domain (Yes / No)	Relevant Web link
Lara STPP Stage-II (2x800MW)	S.O.1533(E)	14.09.2006	Yes	Yes	Website of SPCB & MoEF&CC
Sipat STPP Stage-III (1x800MW)	S.O.1533(E)	14.09.2006	Yes	Yes	Website of SPCB & MoEF&CC
Darlipalli STPP Stage -II (1x800MW)	S.O.1533(E)	14.09.2006	Yes	Yes	Website of SPCB
Meja STPP Stage-II (3x800MW)	S.O.1533(E)	14.09.2006	Yes	Yes	Website of SPCB
Telangana STPP Phase -II (3x800MW)	S.O.1533(E)	14.09.2006	Yes	No	NA. Yet to be published
Nabinagar STPP Stage -II (3x800MW)	S.O.1533(E)	14.09.2006	Yes	No	NA. Yet to be published
Gadarwara STPP Stage-II (2x800MW)	S.O.1533(E)	14.09.2006	Yes	No	NA. Yet to be published

13. Is the entity compliant with the applicable environmental law/ regulations/ guidelines in India, such as the Water (Prevention and Control of Pollution) Act, Air (Prevention and Control of Pollution) Act, Environment protection act and rules thereunder (Y/N). If not, provide details of all such non-compliances, in the following format:

Yes, NTPC is compliant with the applicable environmental law/ regulations/ guidelines in India.

Leadership Indicators

1. Water withdrawal, consumption and discharge in areas of water stress (in kilolitres):

For each facility / plant located in areas of water stress, provide the following information:

(i) Name of the area: Barauni, Barh, Bongaigaon, Gadarwara, Kahalgaon, Korba, Kudgi, Mouda, Ramagundam, Solapur, Talcher Super Thermal, Tanda, Vindhayachal, NCPS- Dadri Coal & Gas, Lara, Auraiya, Faridabad, Kawas, RG CCCP, Kayamkulam, Jhanor Gandhar, Khargone, BRBCL, Nabinagar, Kanti, Jhajjar, NSPCL-Durgapur, NSPCL-Rourkela, Meja, North Karanpura, Telangana, Jhabua Power Limited, NSPCL-Bhilai, AGBPP, AGTCCPP, TGBPP

(ii) Nature of operations: Power Generation

(iii) Water withdrawal, consumption and discharge in the following format:

Parameter	FY 2023-24 (Current Financial Year)	FY 2022-23 (Previous Financial Year)
Water withdrawal by source (in kilolitres)		
(i) Surface water	5924938658	5570362775
(ii) Groundwater	359086	
(iii) Third party water	455000	550000
(iv) Seawater	168757000	179101800
(v) Rain Water	4130017	3351358
Total volume of water withdrawal (in kilolitres)	6098280676	5753365933
Total volume of water consumption (in kilolitres)	1043186029	987040310.1
Water intensity per rupee of turnover *(Water consumed / turnover)*	0.58	0.54
Water intensity *(optional)* - the relevant metric may be selected by the entity	-	
Water discharge by destination and level of treatment (in kilolitres)		
(i) Into Surface water		
- No treatment	4889800783	4410800000
- With treatment - Primary & secondary treatment	512441	914400
(ii) Into Groundwater	0	
- No treatment	0	-
- With treatment - please specify level of treatment	0	-
(iii) Into Seawater		
- No treatment	155256459.9	117340000
- With treatment - please specify level of treatment	0	0
(iv) Sent to third-parties	0	
- No treatment	0	-
- With treatment - please specify level of treatment	0	-
(v) Others		
- No treatment	-	
- With treatment - please specify level of treatment	-	
Total water discharged (in kilolitres)	5045057243.29	4529054400

2. Please provide details of total Scope 3 emissions & its intensity, in the following format:

Parameter	Unit	FY 2023-24 (Current Financial Year)	FY 2022-23 (Previous Financial Year)
Total Scope 3 emissions (Break-up of the GHG into CO2, CH4, N2O, HFCs, PFCs, SF6, NF3, if available)	Metric tonnes of CO2 equivalent	3266221.74	4359388.78
Total Scope 3 emissions per rupee of turnover	Metric tonnes of CO2/ (₹)	0	0
Total Scope 3 emission intensity (optional) - the relevant metric may be selected by the entity	gCO2/kWh	7.74	10.97

Note: Indicate if any independent assessment/ evaluation/assurance has been carried out by an external agency? (Y/N) If yes, name of the external agency.

Yes, assurance has been conducted by Bureau Veritas.

1. With respect to the ecologically sensitive areas reported at Question 10 of Essential Indicators above, provide details of significant direct & indirect impact of the entity on biodiversity in such areas along-with prevention and remediation activities.

All the power projects of NTPC have been provided with pollution control and environmental management system. Further, the activities of the projects have no direct interfaces with these areas. Hence, the impacts on biodiversity of such areas is insignificant.

2. If the entity has undertaken any specific initiatives or used innovative technology or solutions to improve resource efficiency, or reduce impact due to emissions / effluent discharge / waste generated, please provide details of the same as well as outcome of such initiatives, as per the following format:

Information on this topic can be found in the Integrated Annual Report under Natural Capital, or on the NTPC website.

3. Does the entity have a business continuity and disaster management plan? Give details in 100 words/ web link.

Our corporate plan 2032 is our business continuity plan. Same can be referred from the below link:
https://ntpc.co.in/diversified-growth

All NTPC plants have respective Disaster Management plan in place. Also, the NTPC Disaster Management Cell formulates policies and action plans, collaborating with regional offices and stations.

4. Disclose any significant adverse impact to the environment, arising from the value chain of the entity. What mitigation or adaptation measures have been taken by the entity in this regard.

NTPC recognizes the potential for significant adverse environmental impacts arising from its value chain, particularly in areas such as emissions, waste management, and resource consumption. To mitigate these impacts, NTPC has implemented a comprehensive environmental management system that includes rigorous monitoring and reporting of emissions, adoption of cleaner technologies, and promotion of sustainable practices among its suppliers and contractors. Specific measures include the use of high-efficiency equipment to reduce emissions, waste recycling programs, and the enforcement of stringent environmental standards for all value chain partners. Additionally, NTPC is actively investing in renewable energy projects and energy efficiency initiatives to reduce its overall carbon footprint. Through these efforts, NTPC is committed to minimizing its environmental impact and fostering sustainability across its value chain.

5. Percentage of value chain partners (by value of business done with such partners) that were assessed for environmental impacts.

0 %.



PRINCIPLE 7 Businesses, when engaging in influencing public and regulatory policy, should do so in a manner that is responsible and transparent

Essential Indicators

1. a. Number of affiliations with trade and industry chambers/ associations.

25

b. List the top 10 trade and industry chambers/ associations (determined based on the total members of such body) the entity is a member of/ affiliated to.

S. No.	Name of the trade and industry chambers/associations	Reach of trade and industry chambers/ associations (State/National)
1.	INSTITUTE OF INTERNAL AUDITORS	National
2.	WORLD ENERGY COUNCIL	National
3.	CONFERATION OF INDIAN INDUSTRY	National
4.	DELHI PRODUCTIVITY COUNCIL	National
5.	QUALITY COUNCIL OF INDIA	National
6.	NATIONAL SAFETY COUNCIL	National
7.	INDIAN CHAMBER OF COMMERCE	National
8.	STANDING CONFERENCE OF PUBLIC ENTERPRISE	National
9.	WORLD ECONOMIC FORUM	National
10.	S&P GLOBAL INC	National

2. Provide details of corrective action taken or underway on any issues related to anti- competitive conduct by the entity, based on adverse orders from regulatory authorities.

No action taken as there was no case of issues related to anti- competitive during the Financial Year 2023-24.

Leadership Indicators

1. Details of public policy positions advocated by the entity:

Not applicable.

PRINCIPLE 8 Businesses should promote inclusive growth and equitable development.

Essential Indicators

1. Details of Social Impact Assessments (SIA) of projects undertaken by the entity based on applicable laws, in the current financial year.

No SIA done during 2023-24 Final Year, as there is land acquisition done by District administration for NTPC project.

2. Provide information on project(s) for which ongoing Rehabilitation and Resettlement (R&R) is being undertaken by your entity, in the following format:

S. No.	Name of Project for which R&R is ongoing	State	District	No. of Project Affected Families (PAFs)	% of PAFs covered by R&R / paid	Amounts paid to PAFs in the FY (In ₹)
1	NTPC Lara, Raigarh, Chhattisgarh	Chhatisgarh	Raigarh	2449	100% / 100%	0.00
				17	100% / 100%	0.00
2	NTPC North Karanpura	Jharkand	Chatra	2963	100% /94.6%	12,65,19,584.00
				2963	100%/ 41%	
3	Nabinagar STPP	Bihar	Aurangabad	3000	100% / 51.16%	4,50,00,000.00
4	Rammam Hydro Power Project	West Bengal	Darjeeling	363	100% / 100%	0.00
5	Tanda STTPP	Uttar Pradesh	Ambedkar Nagar	1143	100% / 83.38%	4,85,00,000.00
				1238	100% / 68.90%	
6	Khargone	Madhya Pradesh	Khargone	1575	100% / 100%	0.00
7	Kanti	Bihar	Mujaffarpur	288	100 % / 100%	0.00
				174	100 % / 83%	0.00
8	Darlipali STPP	Odisha	Sundargarh	397	100% / 100%	0.00

2. Describe the mechanisms to receive and redress grievances of the community.

In order to facilitate resolution of grievances in transparent and time bound manner NTPC has developed an interactive grievance redressal mechanism which can be accessed through our website at https://www.ntpc.co.in/grievance In addition to this, a Grievance Redressal Officer is also nominated for at all Projects/ stations/ Regions, Further grievances are also received through RTI, which are answered in a time-bound manner.



3. Percentage of input material (inputs to total inputs by value) sourced from suppliers:

	FY 2023-24 (Current Financial Year)	FY 2022-23 (Previous Financial Year)
Directly sourced from MSMEs/small producers	51.64	40.06
Sourced directly from within the district and neighboring districts	<1%	<1%

4. Job creation in smaller towns - Disclose wages paid to persons employed (including employees or workers employed on a permanent or non-permanent / on contract basis) in the following locations, as % of total wage cost*

Location	FY 2023-24 (Current Financial Year)	FY 2022-23 (Previous Financial Year)
Rural	45.27	45.50
Semi-urban	5.07	5.55
Urban	42.41	41.47
Metropolitan	7.25	7.49

*NTPC standalone

Leadership Indicators

1. Provide details of actions taken to mitigate any negative social impacts identified in the Social Impact Assessments (Reference: Question 1 of Essential Indicators above):

No SIA done during 2023-24 Final Year, as there is land acquisition done by District administration for NTPC project.

2. Provide the following information on CSR projects undertaken by your entity in designated aspirational districts as identified by government bodies: -

S. No.	State	Aspirational District	Amount spent (In ₹)
1	Andhra Pradesh	Vishakhapatnam	239533
2	Andhra Pradesh	Vizianagaram	9550826
3	Bihar	Aurangabad	39321073
4	Bihar	Muzaffarpur	3902092
5	Chhattisgarh	Korba	64186567
6	Jharkhand	Chatra	782823
7	Jharkhand	Godda	626503
8	Jharkhand	Hazaribagh	1501414
9	Jharkhand	Ranchi	8003511
10	Jharkhand	Sahibganj	7302576
11	Madhya Pradesh	Mahasamund	8000000
12	Madhya Pradesh	Singrauli	55551757
13	Odisha	Kalahandi	4864785
14	Rajasthan	Baran	6492562
15	Uttar Pradesh	Siddharthnagar	2646000
16	Uttar Pradesh	Sonbhadra	59833369

3. (a) Do you have a preferential procurement policy where you give preference to purchase from suppliers comprising marginalized /vulnerable groups? (Yes/No)

Yes, NTPC is governed by The Government of India's Public Procurement

As per the Public Procurement Policy for MSEs Amendment Order dated November 9, 2018, every Central Ministry, Department, and PSU is required to set an annual target of 25% procurement from the MSE sector. Within this target, 4% should be earmarked for procurement from MSEs owned by SC/ST individuals and 3% for those owned by women. However, according to a letter from the DC (MSME) dated August 31, 2021, NTPC's target has been revised to a minimum of 40% procurement from MSE vendors, considering the exemptions.

(b) From which marginalized /vulnerable groups do you procure?

NTPC has procurement targets for marginalized communities of 4% from MSEs owned by Scheduled Castes or the Scheduled Tribes and 3% owned by Women entrepreneurs for the Goods and Services procured.

(c) What percentage of total procurement (by value) does it constitute?

MSME: 51.64%, SC/ST: 0.17%, Women entrepreneurs: 0.34%

4. Details of the benefits derived and shared from the intellectual properties owned or acquired by your entity (in the current financial year), based on traditional knowledge:

Data consolidation is still in progress.

5. Details of corrective actions taken or underway, based on any adverse order in intellectual property related disputes wherein usage of traditional knowledge is involved.

No action was taken since there was no adverse order in intellectual property related disputes wherein usage of traditional knowledge is involved.

6. Details of beneficiaries of CSR Projects:

S. No.	CSR Project	No. of persons benefitted from CSR Projects	% of beneficiaries from vulnerable and marginalized groups
1	Health	563946	~ 62.96%
2	Education	77805	~ 100.00%
3	Sanitation	417361	~ 90.22%
4	Water	111604	~ 62.99%
5	Rural Development	227356	~ 62.96%
6	Vocational Training & Women Empowerment	113561	~ 97.77%
7	PCP, Art & Culture, Sports & Others	117616	~ 64.12%
	Grand Total	1629249	

* NTPC's CSR interventions are primarily focused on the communities in the vicinity of its stations and projects, aiming to improve the quality of life for local residents. The majority of beneficiaries are underprivileged, marginalized, vulnerable, and belong to backward sections of society. These figures are based on the CSR activities where beneficiary categorization is available or derived from secondary sources such as publicly available information

PRINCIPLE 9 Businesses should engage with and provide value to their consumers in a responsible manner

Essential Indicators

1. Describe the mechanisms in place to receive and respond to consumer complaints and feedback.

We have an elaborate system of Customer Relationship Management (CRM), through which we reach out to our customers to collect their valuable feedback/ experiences/ expectations using regular structured interactions including support

services and training. In addition to this, we also have a grievance portal on our website, through which customers can share their grievances. The link for the same is https://www.ntpc.co.in/grievance

2. Turnover of products and/ services as a percentage of turnover from all products/service that carry information about:

	As a percentage to total turnover
Environmental and social parameters relevant to the product Safe and responsible usage	0
Recycling and/or safe disposal	0

3. Number of consumer complaints in respect of the following:

	FY 2023-24 (Current Financial Year)			FY 2022-23 (Previous Financial Year)		
	Received during the year	Pending resolution at end of year	Remarks	Received during the year	Pending resolution at end of year	Remarks
Data privacy	NIL	NIL	NIL	NIL	NIL	NIL
Advertising	NIL	NIL	NIL	NIL	NIL	NIL
Cyber-security	NIL	NIL	NIL	NIL	NIL	NIL
Delivery of essential services	NIL	NIL	NIL	NIL	NIL	NIL
Restrictive Trade Practices	NIL	NIL	NIL	NIL	NIL	NIL
Unfair Trade Practices	NIL	NIL	NIL	NIL	NIL	NIL
Other	NIL	NIL	NIL	NIL	NIL	NIL

4. Details of instances of product recalls on account of safety issues:

	Number	Reasons for recall
Voluntary recalls	NA	NA
Forced recalls	NA	NA

5. Does the entity have a framework/ policy on cyber security and risks related to data privacy? (Yes/No) If available, provide a web-link of the policy.

YES, our cyber security policy is available at https://www.ntpc.co.in/sites/default/files/policy-documents/CCIT-IMS-PLCY-CSP.pdf

6. Provide details of any corrective actions taken or underway on issues relating to advertising, and delivery of essential services; cyber security and data privacy of customers; re-occurrence of instances of product recalls; penalty / action taken by regulatory authorities on safety of products / services.

No action was taken since no significant issues relating to advertising, and delivery of essential services; cyber security and data privacy of customers; re-occurrence of instances of product recalls; penalty / action taken by regulatory authorities on safety of products / services was identified.

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7. Provide the following information relating to data breaches:

a. Number of instances of data breaches = 0

b. Percentage of data breaches involving personally identifiable information of customers = 0

c. Impact, if any, of the data breaches

Leadership Indicators

1. Channels / platforms where information on products and services of the entity can be accessed (provide web link, if available).

The information of our products and services can be found at our website https://www.ntpc.co.in/about-us

2. Steps taken to inform and educate consumers about safe and responsible usage of products and/or services.

We offer customer support in various areas, including health and safety through workshops and seminars, with safety instructions displayed in local languages.

3. Mechanisms in place to inform consumers of any risk of disruption/discontinuation of essential services.

NTPC has The Regional Power Committee (RPC) and Load Dispatch Centers (NLDC, RLDCs, and SLDCs) which ensure coordination within their respective regions.

4. Does the entity display product information on the product over and above what is mandated as per local laws? (Yes/ No/Not Applicable) If yes, provide details in brief. Did your entity carry out any survey with regard to consumer satisfaction relating to the major products / services of the entity, significant locations of operation of the entity or the entity as a whole? (Yes/No)

Not Applicable.

5. Provide the following information relating to data breaches:

(a) Number of instances of data breaches along-with impact: Zero

(b) Percentage of data breaches involving personally identifiable information of customers: Zero



SECRETARIAL AUDIT REPORT

Form No. MR-3

FOR THE FINANCIAL YEAR ENDED MARCH 31, 2024

[Pursuant to Section 204(1) of the Companies Act, 2013 and Rule No.9 of the Companies *(Appointment and Remuneration Personnel) Rules, 2014]*

To,
The Members,
NTPC Limited
NTPC Bhawan, Scope Complex, 7, Institutional Area
Lodhi Road, New Delhi -110003
CIN: L40101DL1975GOI007966

We have conducted the secretarial audit of the compliance of applicable statutory provisions and the adherence to good corporate practices by **NTPC Limited** (hereinafter referred to as "the Company") having its registered office at NTPC Bhawan, Scope Complex, 7, Institutional Area,Lodhi Road, New Delhi -110003. The Secretarial Audit was conducted in a manner that provided us a reasonable basis for evaluating the corporate conducts/statutory compliances and expressing my opinion thereon.

Based on our verification of the books, papers, minute books, forms and returns filed and other records maintained by the Company and also the information provided by the Company, its officers, agents and authorized representatives during the conduct of secretarial audit, we hereby report that in our opinion, the Company has, during the audit period covering the financial year ended on March 31, 2024, complied with the statutory provisions listed hereunder and also that the Company has proper Board-processes and compliance mechanism in place to the extent, in the manner and subject to the reporting made hereinafter:

We have examined the books, papers, minute books, forms and returns filed and other records maintained by NTPC Limited for the financial year ended on March 31, 2024 according to the provisions of:

(i) The Companies Act, 2013 (the Act) and the rules made thereunder;

(ii) The Securities Contracts (Regulation) Act, 1956 ('SCRA') and the rules made thereunder;

(iii) The Depositories Act, 1996 and the Regulations and Bye-laws framed thereunder;

(iv) Foreign Exchange Management Act, 1999 and the rules and regulations made thereunder to the extent of Foreign Direct Investment, Overseas Direct Investment and External Commercial Borrowings.

(v) The following Regulations and Guidelines prescribed under the Securities and Exchange Board of India Act, 1992 ('SEBI Act'):-

(a) The Securities and Exchange Board of India (Substantial Acquisition of Shares and Takeovers) Regulations, 2011;

(b) The Securities and Exchange Board of India (Prohibition of Insider Trading) Regulations, 2015;

(c) The Securities and Exchange Board of India (Issue of Capital and Disclosure Requirements) Regulations, 2018;

(d) Securities and Exchange Board of India (Share Based Employee Benefits) Regulations, 2014 and Securities and Exchange Board of India (Share Based Employee Benefits and Sweat Equity) Regulations, 2021; [Not applicable during the Review Period];

(e) The Securities and Exchange Board of India (Issue and Listing of Debt Securities) Regulations, 2008 Securities and Exchange Board of India (Issue and Listing of Non-Convertible Securities) Regulations, 2021;

(f) The Securities and Exchange Board of India (Registrars to an Issue and Share Transfer Agents) Regulations, 1993 regarding the Companies Act and dealing with client to the extent of Securities issued;

(g) The Securities and Exchange Board of India (Delisting of Equity Shares) Regulations, 2009; [Not applicable during the Audit Period];

(h) The Securities and Exchange Board of India (Buyback of Securities) Regulations, 2018; [Not applicable during the Audit Period]

(i) The Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015

(vi) Other laws:

1. Labour Laws:

(Central Act):

a. ESI Act

b. EPF Act

2. Industry Specific Laws:

a. Electricity Act, 2003.

b. Explosives Act, 1884.

c. Mines Act, 1952

d. Mines and Mineral (Regulation and Development) Act, 1957

We have also examined compliance with the applicable clauses of the following:

(i) Secretarial Standards issued by the Institute of Company Secretaries of India.

(ii) The Listing Agreements entered into by the Company with the National Stock Exchange Limited and BSE Limited in accordance with SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015.

During the period under review the Company has complied with the provisions of the Act, Rules, Regulations, Guidelines, Standards, etc. except the following observations:

a. The Company was not in compliance with the provisions of Regulation 17 and 25(6) of SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015 regarding the requirements of having at least half of the Board of Directors as the Independent Directors and filing the vacancy of the Independent Directors within Specified Period. Further, half of the Board of the Company was not "non-executive" for a certain period.

b. The Company was not in compliance with the Regulation 17(10) of the SEBI (LODR) Regulations, 2015 related to the evaluation of the Independent Directors of the Company by the entire Board of Directors of the Company.

We further report that:

In the absence of requisite number of Independent Directors, the Company has not complied with the requirement pertaining to the composition and Constitution of the Board and Committees thereof to be constituted as per the DPE Guidelines and SEBI (Listing Obligations & Disclosure Requirements) Regulations, 2015. The Changes in the composition of the Board of Directors that took place during the period were carried out in compliance with the provisions of the Act.

Adequate notice is given to all Directors to schedule the Board Meetings, agenda and detailed notes on agenda were sent at least seven days in advance, and a system exists for seeking and obtaining further information and clarifications on the agenda items before the meeting and for meaningful participation at the.

Majority decision is carried through while the dissenting members' views are captured and recorded as part of the minutes.

We further report that there are adequate systems and processes in the Company commensurate with the size and operations of the Company to monitor and ensure compliance with applicable laws, rules, regulations and guidelines.

We further report that during the period under review, the Company has not undertaken any specific events/actions that can have a major bearing on the Company's compliance responsibility in pursuance of the above referred laws, rules, regulations, guidelines, standards, etc.

For Amit Agrawal & Associates
(Company Secretaries)

CS Amit Agrawal
(Partner)
M. No. F5311, C.P. No. : 3647
UDIN: F005311F000727186

Place: Delhi
Date : 12 July 2024

This report is to be read with our letter of even date which is annexed herewith and marked as "Annexure A" and forms an integral part of this report.



STANDALONE BALANCE SHEET AS AT 31 MARCH 2024

₹ Crore

Particulars	Note	As at 31 March 2024	As at* 31 March 2023	As at* 1 April 2022
ASSETS				
Non-current assets				
Property, plant and equipment	2	**2,11,323.43**	1,96,441.71	1,95,084.07
Capital work-in-progress	3	**47,153.81**	61,743.88	73,519.11
Investment property	4	**859.90**	465.18	-
Intangible assets	5	**427.69**	454.17	486.47
Intangible assets under development	6	**3.19**	44.92	98.47
Financial assets				
Equity investments in subsidiary and joint venture companies	7	**32,405.95**	29,088.67	23,146.89
Other investments	8	**701.98**	631.08	102.48
Loans	9	**800.66**	1,233.47	1,288.50
Trade receivables	10	**1,168.10**	2,399.78	-
Other financial assets	11	**627.98**	922.93	1,017.98
Other non-current assets	12	**11,938.70**	12,353.64	12,355.11
Total non-current assets		**3,07,411.39**	3,05,779.43	3,07,099.08
Current assets				
Inventories	13	**17,369.83**	13,679.75	9,691.00
Financial assets				
Investments	14	**50.00**	50.00	-
Trade receivables	15	**27,347.52**	26,028.64	32,949.48
Cash and cash equivalents	16	**197.16**	3.13	117.48
Bank balances other than cash and cash equivalents	17	**4,403.34**	3,738.60	2,629.70
Loans	18	**415.85**	312.45	313.45
Other financial assets	19	**11,664.94**	11,273.81	4,599.61
Other current assets	20	**10,907.50**	10,726.15	9,101.70
Total current assets		**72,356.14**	65,812.53	59,402.42
Assets held for sale	21	**117.19**	120.52	18.09
Regulatory deferral account debit balances	22	**13,409.81**	11,961.97	12,822.88
TOTAL ASSETS		**3,93,294.53**	3,83,674.45	3,79,342.47
EQUITY AND LIABILITIES				
Equity				
Equity share capital	23	**9,696.67**	9,696.67	9,696.67
Other equity	24	**1,40,188.35**	1,29,193.21	1,18,970.85
Total equity		**1,49,885.02**	1,38,889.88	1,28,667.52
Liabilities				
Non-current liabilities				
Financial liabilities				
Borrowings	25	**1,46,159.07**	1,56,315.69	1,60,122.17
Lease liabilities	26	**824.52**	815.44	815.07
Other financial liabilities	27	**465.60**	505.81	900.09
Provisions	28	**1,898.03**	1,727.78	1,446.48
Deferred tax liabilities (net)	29	**13,066.53**	10,614.07	10,184.39
Other non-current liabilities	30	**83.27**	70.64	1,081.61

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STANDALONE BALANCE SHEET AS AT 31 MARCH 2024

₹ Crore

Particulars	Note	As at 31 March 2024	As at* 31 March 2023	As at* 1 April 2022
Total non-current liabilities		**1,62,497.02**	1,70,049.43	1,74,549.81
Current liabilities				
Financial liabilities				
Borrowings	31	**39,059.55**	29,969.15	32,674.46
Lease liabilities	32	**162.87**	170.79	168.01
Trade payables	33			
Total outstanding dues of micro and small enterprises		**538.52**	272.77	285.87
Total outstanding dues of creditors other than micro and small enterprises		**8,936.14**	9,325.33	8,235.21
Other financial liabilities	34	**21,970.54**	23,634.04	24,382.88
Other current liabilities	35	**1,260.33**	1,212.97	1,099.84
Provisions	36	**6,376.21**	7,470.25	7,171.31
Current tax liabilities (net)	37	**-**	62.97	134.17
Total current liabilities		**78,304.16**	72,118.27	74,151.75
Deferred revenue	38	**2,328.01**	2,616.87	1,973.39
Regulatory deferral account credit balances	39	**280.32**	-	-
TOTAL EQUITY AND LIABILITIES		**3,93,294.53**	3,83,674.45	3,79,342.47

*-Restated - Refer Note 54

Material accounting policy information 1

The accompanying notes 1 to 77 form an integral part of these financial statements.

For and on behalf of the Board of Directors

(Ritu Arora)	(Jaikumar Srinivasan)	(Gurdeep Singh)
Company Secretary	Director (Finance)	Chairman & Managing Director
	DIN: 01220828	DIN: 00307037

This is the Balance Sheet referred to in our report of even date

For Vinod Kumar & Associates	For Goyal Parul & Co	For M. C. Bhandari & Co.
Chartered Accountants	Chartered Accountants	Chartered Accountants
Firm Reg. No. 002304N	Firm Reg. No. 016750N	Firm Reg. No. 303002E
(Mukesh Dadhich)	(Parul Goyal)	(Amit Biswas)
Partner	Partner	Partner
M. No. 511741	M. No. 099172	M. No. 052296
For J K S S & Associates	For Agasti & Associates	For S.N. Kapur & Associates
Chartered Accountants	Chartered Accountants	Chartered Accountants
Firm Reg. No. 006836C	Firm Reg. No. 313043E	Firm Reg. No. 001545C
(Ram Babu)	(B. Agasti)	(S. N. Kapur)
Partner	Partner	Partner
M. No. 016151	M. No. 051026	M. No. 014335

Place: New Delhi
Dated: 24 May, 2024
Digitally signed by signatories



STANDALONE STATEMENT OF PROFIT AND LOSS FOR THE YEAR ENDED 31 MARCH 2024

₹ Crore

Particulars	Note No.	For the year ended 31 March 2024	For the year ended 31 March 2023
Income			
Revenue from operations	40	**1,61,985.03**	1,63,769.77
Other income	41	**3,722.24**	3,954.64
Total income		**1,65,707.27**	1,67,724.41
Expenses			
Fuel cost	42	**94,037.49**	96,851.50
Electricity purchased for trading		**3,881.66**	3,656.26
Employee benefits expense	43	**5,670.10**	5,559.03
Finance costs	44	**10,250.82**	9,979.23
Depreciation, amortization and impairment expenses	45	**13,943.15**	13,136.71
Other expenses	46	**15,213.43**	14,474.59
Total expenses		**1,42,996.65**	1,43,657.32
Profit before exceptional items, tax and regulatory deferral account balances		**22,710.62**	24,067.09
Exceptional items	51	**834.55**	-
Profit before tax and regulatory deferral account balances		**23,545.17**	24,067.09
Tax expense	55		
Current tax			
Current year		**4,094.36**	4,293.56
Earlier years		**(152.63)**	206.35
Deferred tax		**2,658.30**	1,779.36
Total tax expense		**6,600.03**	6,279.27
Profit before regulatory deferral account balances		**16,945.14**	17,787.82
Net movement in regulatory deferral account balances (net of tax)	70	**1,134.25**	(591.09)
Profit for the year		**18,079.39**	17,196.73
Other comprehensive income			
Items that will not be reclassified to profit or loss			
- Net actuarial gains/(losses) on defined benefit plans		**(128.00)**	(96.09)
- Net gains/(losses) on fair value of equity instruments		**120.90**	3.60
		(7.10)	(92.49)
Income tax on items that will not be reclassified to profit or loss	55		
- Net actuarial gains/(losses) on defined benefit plans		**22.36**	16.79
Other comprehensive income for the year, net of tax		**15.26**	(75.70)
Total comprehensive income for the year		**18,094.65**	17,121.03

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STANDALONE STATEMENT OF PROFIT AND LOSS FOR THE YEAR ENDED 31 MARCH 2024

₹ Crore

Particulars	Note No.	For the year ended 31 March 2024	For the year ended 31 March 2023
Earnings per equity share (Par value ₹ 10/- each)	61		
Basic & Diluted (₹) (including net movement in regulatory deferral account balances)		**18.64**	17.73
Basic & Diluted (₹) (excluding net movement in regulatory deferral account balances)		**17.48**	18.34
Material accounting policy information	1		

The accompanying notes 1 to 77 form an integral part of these financial statements.

For and on behalf of the Board of Directors

(Ritu Arora) Company Secretary	(Jaikumar Srinivasan) Director (Finance) DIN: 01220828	(Gurdeep Singh) Chairman & Managing Director DIN: 00307037

This is the Statement of Profit and Loss referred to in our report of even date

For Vinod Kumar & Associates Chartered Accountants Firm Reg. No. 002304N	For Goyal Parul & Co Chartered Accountants Firm Reg. No. 016750N	For M. C. Bhandari & Co. Chartered Accountants Firm Reg. No. 303002E
(Mukesh Dadhich) Partner M. No. 511741	(Parul Goyal) Partner M. No. 099172	(Amit Biswas) Partner M. No. 052296
For J K S S & Associates Chartered Accountants Firm Reg. No. 006836C	For Agasti & Associates Chartered Accountants Firm Reg. No. 313043E	For S.N. Kapur & Associates Chartered Accountants Firm Reg. No. 001545C
(Ram Babu) Partner M. No. 016151	(B. Agasti) Partner M. No. 051026	(S. N. Kapur) Partner M. No. 014335

Place: New Delhi
Dated: 24 May, 2024
Digitally signed by signatories



STANDALONE STATEMENT OF CHANGES IN EQUITY FOR THE YEAR ENDED 31 MARCH 2024

(A) Equity share capital

For the year ended 31 March 2024 — **₹ Crore**

Particulars	Amount
Balance as at 1 April 2023	**9,696.67**
Changes in equity share capital due to prior period errors	-
Restated balance as at 1 April 2023	**9,696.67**
Changes in equity share capital during the year	-
Balance as at 31 March 2024	**9,696.67**

For the year ended 31 March 2023 — ₹ Crore

Particulars	Amount
Balance as at 1 April 2022	9,696.67
Changes in equity share capital due to prior period errors	-
Restated balance as at 1 April 2022	9,696.67
Changes in equity share capital during the year	-
Balance as at 31 March 2023	9,696.67

(B) Other equity

For the year ended 31 March 2024 — **₹ Crore**

Particulars	Reserves & surplus						Equity instruments through OCI	Total
	Capital reserve	Capital redemption reserve	Bonds/ Debentures redemption reserve	Fly ash utilisation reserve fund	General reserve	Retained earnings		
Balance as at 1 April 2023	**50.08**	**197.89**	**5,014.61**	**729.82**	**96,147.17**	**26,963.34**	**90.30**	**1,29,193.21**
Profit for the year	-	-	-	-	-	**18,079.39**	-	**18,079.39**
Other comprehensive income	-	-	-	-	-	**(105.64)**	**120.90**	**15.26**
Total comprehensive income	-	-	-	-	-	**17,973.75**	**120.90**	**18,094.65**
Transfer to retained earnings	-	-	**(1,795.23)**	-	-	**1,795.23**	-	-
Accretion / (utilisation) in fly ash utilisation fund (net) (Note 24)	-	-	-	**172.99**	-	-	-	**172.99**
Final dividend paid for FY 2022-23 (Note 24)	-	-	-	-	-	**(2,909.00)**	-	**(2,909.00)**
Interim dividend paid for FY 2023-24 (Note 24)	-	-	-	-	-	**(4,363.50)**	-	**(4,363.50)**
Balance as at 31 March 2024	**50.08**	**197.89**	**3,219.38**	**902.81**	**96,147.17**	**39,459.82**	**211.20**	**1,40,188.35**

For the year ended 31 March 2023 — ₹ Crore

Particulars	Reserves & surplus						Equity instruments through OCI	Total
	Capital reserve	Capital redemption reserve	Bonds/ Debentures redemption reserve	Fly ash utilisation reserve fund	General reserve	Retained earnings		
Balance as at 1 April 2022- As restated	50.08	197.89	5,643.18	598.41	96,147.17	16,247.42	86.70	1,18,970.85
Profit for the year	-	-	-	-	-	17,196.73	-	17,196.73
Other comprehensive income	-	-	-	-	-	(79.30)	3.60	(75.70)
Total comprehensive income	-	-	-	-	-	17,117.43	3.60	17,121.03
Transfer to retained earnings	-	-	(628.57)	-	-	628.57	-	-
Accretion / (utilisation) in fly ash utilisation fund (net) (Note 24)	-	-	-	131.41	-	-	-	131.41
Final dividend paid for FY 2021-22 (Note 24)	-	-	-	-	-	(2,909.00)	-	(2,909.00)
Interim dividend paid for FY 2022-23 (Note 24)	-	-	-	-	-	(4,121.08)	-	(4,121.08)
Balance as at 31 March 2023	50.08	197.89	5,014.61	729.82	96,147.17	26,963.34	90.30	1,29,193.21

Note: Other comprehensive income adjusted in retained earnings amounting to **₹ 105.64 crore** (31 March 2023: ₹ 79.30 crore) represents remeasurement of defined benefit plans.

For and on behalf of the Board of Directors

(Ritu Arora)
Company Secretary

(Jaikumar Srinivasan)
Director (Finance)
DIN: 01220828

(Gurdeep Singh)
Chairman & Managing Director
DIN: 00307037

This is the Statement of Changes in Equity referred to in our report of even date

For Vinod Kumar & Associates
Chartered Accountants
Firm Reg. No. 002304N

(Mukesh Dadhich)
Partner
M. No. 511741

For Goyal Parul & Co
Chartered Accountants
Firm Reg. No. 016750N

(Parul Goyal)
Partner
M. No. 099172

For M. C. Bhandari & Co.
Chartered Accountants
Firm Reg. No. 303002E

(Amit Biswas)
Partner
M. No. 052296

For J K S S & Associates
Chartered Accountants
Firm Reg. No. 006836C

(Ram Babu)
Partner
M. No. 016151

For Agasti & Associates
Chartered Accountants
Firm Reg. No. 313043E

(B. Agasti)
Partner
M. No. 051026

For S.N. Kapur & Associates
Chartered Accountants
Firm Reg. No. 001545C

(S. N. Kapur)
Partner
M. No. 014335

Place: New Delhi
Dated: 24 May, 2024
Digitally signed by signatories



STANDALONE STATEMENT OF CASH FLOWS FOR THE YEAR ENDED 31 MARCH 2024

₹ Crore

Particulars	For the year ended 31 March 2024		For the year ended 31 March 2023
A. CASH FLOW FROM OPERATING ACTIVITIES			
Profit before tax and regulatory deferral account balances		**23,545.17**	24,067.09
Add: Net movements in regulatory deferral account balances (net of tax)		**1,134.25**	(591.09)
Add: Tax on net movements in regulatory deferral account balances		**240.13**	(125.14)
Profit before tax including movements in regulatory deferral account balances		**24,919.55**	23,350.86
Adjustment for:			
Depreciation, amortisation and impairment expense	**13,943.15**		13,136.71
Provisions	**844.27**		621.64
Impairment on investments	**181.05**		14.24
Exceptional item-provision written back	**(834.55)**		-
On account of government grants	**13.04**		234.28
Deferred foreign currency fluctuation asset	**78.84**		(84.69)
Deferred income from foreign currency fluctuation	**10.94**		915.67
Regulatory deferral account debit/(credit) balances	**(1,374.38)**		716.23
Fly ash utilisation reserve fund	**172.99**		131.41
Finance costs	**10,159.69**		9,915.66
Unwinding of discount on vendor liabilities	**91.13**		63.57
Interest income/Late payment Surcharge/Income on investments	**(819.33)**		(757.70)
Dividend income	**(1,639.08)**		(2,342.54)
Provisions written back	**(231.95)**		(367.04)
Profit on de-recognition of property, plant and equipment	**(29.74)**		(31.73)
Loss on de-recognition of property, plant and equipment	**215.46**		165.36
		20,781.53	22,331.07
Operating profit before working capital changes		**45,701.08**	45,681.93
Adjustment for:			
Trade receivables	**122.58**		4,464.08
Inventories	**(2,515.99)**		(2,921.65)
Trade payables, provisions, other financial liabilities and other liabilities	**(937.73)**		3,875.07
Loans, other financial assets and other assets	**(4,263.01)**		(5,011.81)
		(7,594.15)	405.69
Cash generated from operations		**38,106.93**	46,087.62
Income taxes (paid) / refunded		**(3,276.02)**	(3,736.28)
Net cash from/(used in) operating activities - A		**34,830.91**	42,351.34
B. CASH FLOW FROM INVESTING ACTIVITIES			
Purchase of property, plant and equipment, intangible assets and investment property	**(17,444.27)**		(17,320.53)
Proceeds of property, plant and equipment, intangible assets and investment property	**75.19**		97.01
Sale of investment in Subsidiaries companies	-		1,094.46
Investment in subsidiaries and joint venture companies	**(2,525.85)**		(7,788.41)
Redemption of Non convertible debentures	**50.00**		25.00
Loans and advances to subsidiaries	**3,465.91**		(3,106.13)

STANDALONE STATEMENT OF CASH FLOWS FOR THE YEAR ENDED 31 MARCH 2024

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
Interest income/Late payment Surcharge/Income on investments received	**517.72**	369.06
Dividend received	**1,765.59**	1,992.54
Income tax paid on income from investing activities	**(402.28)**	(388.54)
Bank balances other than cash and cash equivalents	**(620.17)**	(1,085.70)
Proceeds from sale of assets to Subsidiary	-	12,010.55
Net cash from/(used in) investing activities - B	**(15,118.16)**	(14,100.69)
C. CASH FLOW FROM FINANCING ACTIVITIES		
Proceeds from non-current borrowings	**16,334.16**	16,257.48
Repayment of non-current borrowings	**(20,048.84)**	(22,371.86)
Proceeds/repayments of current borrowings (Net)	**3,907.17**	(2,511.28)
Payment of lease obligations	**(55.48)**	(151.68)
Interest paid	**(12,383.23)**	(12,557.58)
Dividend paid	**(7,272.50)**	(7,030.08)
Net cash from/(used in) financing activities - C	**(19,518.72)**	(28,365.00)
Net increase/(decrease) in cash and cash equivalents (A+B+C)	**194.03**	(114.35)
Cash and cash equivalents at the beginning of the year	**3.13**	117.48
Cash and cash equivalents at the end of the year	**197.16**	3.13

Notes:

1 Statement of cash flows is prepared in accordance with the indirect method prescribed in Ind AS 7-'Statement of cash flows'.

2 Cash and cash equivalents consist of cheques, drafts, stamps in hand, balances with banks and deposits with original maturity of upto three months.

3 Reconciliation of cash and cash equivalents:

Cash and cash equivalents as per Note 16	**197.16**	3.13

4 Refer Note 67 for details of undrawn borrowing facilities that may be available for future operating activities and to settle capital commitments.

5 Refer Note 77 w.r.t. amount spent on CSR activities.

6 Reconciliation between the opening and closing balances in the balance sheet for liabilities arising from financing activities:

For the year ended 31 March 2024 ₹ Crore

Particulars	Non-current borrowings*	Finance lease obligations	Current borrowings	Bills discounted
Opening balance as at 1 April 2023	**1,75,974.86**	**986.23**	**11,509.73**	**1,287.19**
Cash flows during the year	**(16,097.91)**	**(55.48)**	**3,369.65**	**537.52**
Non-cash changes due to:				
- Acquisitions under finance lease	-	**56.64**	-	-
- Interest on borrowings	**12,282.52**	-	-	-
- Variation in exchange rates	**(1,279.33)**	-	-	-
- Transaction costs on borrowings	**20.62**	-	-	-
Closing balance as at 31 March 2024	**1,70,900.76**	**987.39**	**14,879.38**	**1,824.71**

STANDALONE STATEMENT OF CASH FLOWS FOR THE YEAR ENDED 31 MARCH 2024

For the year ended 31 March 2023 ₹ Crore

Particulars	Non-current borrowings*	Finance lease obligations	Current borrowings	Bills discounted
Opening balance as at 1 April 2022	1,79,853.77	983.08	7,106.17	8,202.03
Cash flows during the year	(18,671.96)	(151.68)	4,403.56	(6,914.84)
Non-cash changes due to:				
- Acquisitions under finance lease	-	154.83	-	-
- Interest on borrowings	12,679.18	-	-	-
- Variation in exchange rates	2,155.14	-	-	-
- Transaction costs on borrowings	(41.27)	-	-	-
Closing balance as at 31 March 2023	1,75,974.86	986.23	11,509.73	1,287.19

* Includes current maturities of non-current borrowings and interest accrued thereon, refer Note 25 and Note 31.

For and on behalf of the Board of Directors

(Ritu Arora)	(Jaikumar Srinivasan)	(Gurdeep Singh)
Company Secretary	Director (Finance)	Chairman & Managing Director
	DIN: 01220828	DIN: 00307037

This is the Standalone statement of Cash Flows referred to in our report of even date

For Vinod Kumar & Associates	For Goyal Parul & Co	For M. C. Bhandari & Co.
Chartered Accountants	Chartered Accountants	Chartered Accountants
Firm Reg. No. 002304N	Firm Reg. No. 016750N	Firm Reg. No. 303002E
(Mukesh Dadhich)	(Parul Goyal)	(Amit Biswas)
Partner	Partner	Partner
M. No. 511741	M. No. 099172	M. No. 052296
For J K S S & Associates	For Agasti & Associates	For S.N. Kapur & Associates
Chartered Accountants	Chartered Accountants	Chartered Accountants
Firm Reg. No. 006836C	Firm Reg. No. 313043E	Firm Reg. No. 001545C
(Ram Babu)	(B. Agasti)	(S. N. Kapur)
Partner	Partner	Partner
M. No. 016151	M. No. 051026	M. No. 014335

Place: New Delhi
Dated: 24 May, 2024
Digitally signed by signatories

Notes forming part of Standalone Financial Statements

Note 1. Company Information and Material Accounting Policy Information

A. Reporting entity

NTPC Limited (the "Company") is a Company domiciled in India and limited by shares (CIN: L40101DL1975GOI007966). The shares of the Company are listed and traded on the National Stock Exchange of India Limited (NSE) and BSE Limited (BSE) in India. The address of the Company's registered office is NTPC Bhawan, SCOPE Complex, 7 Institutional Area, Lodhi Road, New Delhi - 110003. The Company is primarily involved in the generation and sale of bulk power to State Power Utilities. Other business of the Company includes providing consultancy, project management & supervision, energy trading, oil & gas exploration and coal mining.

B. Basis of preparation

1. Statement of Compliance

These standalone financial statements are prepared on going concern basis following accrual system of accounting and comply with the Indian Accounting Standards (Ind AS) prescribed under Section 133 of the Companies Act, 2013 read with the Companies (Indian Accounting Standards) Rules, 2015 as amended, and other relevant provisions of the Companies Act, 2013 and the provisions of the Electricity Act, 2003 to the extent applicable.

These financial statements were approved for issue by the Board of Directors in its meeting held on 24 May 2024.

2. Basis of measurement

The financial statements have been prepared on the historical cost basis except for:

- Certain financial assets and liabilities (including derivative instruments) that are measured at fair value (refer serial no. C.22 of accounting policy regarding financial instruments); and
- Plan assets in the case of employees defined benefit plans that are measured at fair value.

The methods used to measure fair values are discussed in notes to the financial statements.

3. Functional and presentation currency

These financial statements are presented in Indian Rupees (₹) which is the Company's functional currency. All financial information presented in (₹) has been rounded to the nearest crore (up to two decimals), except when indicated otherwise.

4. Current and non-current classification

The Company classifies its assets and liabilities as current/non-current in the balance sheet as per the requirements of Ind AS 1 and considering 12 months period as normal operating cycle.

C. Material accounting policies

A summary of the material accounting policies applied in the preparation of the financial statements are as given below. These accounting policies have been applied consistently to all periods presented in the financial statements. It allows for an understanding as to how material transactions, other events and conditions are reported. It also describes: (a) judgements, apart from those involving estimations, that management makes in applying the policies that have the most significant effect on the amounts recognised in the Financial Statements; and (b) estimations, including assumptions about the future, that management makes in applying the policies.

The Company has elected to utilize the option under Ind AS 101-'First time adoption of Indian Accounting Standards' by not applying the provisions of Ind AS 16-'Property, plant and equipment'& Ind AS 38- 'Intangible assets' retrospectively and continue to use the previous GAAP carrying amount as a deemed cost under Ind AS at the date of transition to Ind AS i.e. 1 April 2015. Therefore, the carrying amount of property, plant and equipment and intangible assets as per the previous GAAP as at 1 April 2015, i.e. the Company's date of transition to Ind AS, were maintained on transition to Ind AS.



1. Property, plant and equipment

1.1. Initial recognition and measurement

An item of property, plant and equipment is recognized as an asset if and only if it is probable that future economic benefits associated with the item will flow to the Company and the cost of the item can be measured reliably.

Items of property, plant and equipment are initially recognized at cost. Subsequent measurement is done at cost less accumulated depreciation/amortization and accumulated impairment losses.

When parts of an item of property, plant and equipment that are significant in value and have different useful lives as compared to the main asset, they are recognized separately.

Deposits, payments/liabilities made provisionally towards compensation, rehabilitation and other expenses relatable to land in possession are treated as cost of land.

In the case of assets put to use, where final settlement of bills with contractors is yet to be effected, capitalization is done on provisional basis subject to necessary adjustment in the year of final settlement.

Assets and systems common to more than one generating unit are capitalized on the basis of engineering estimates/ assessments.

Items of spare parts, stand-by equipment and servicing equipment which meet the definition of property, plant and equipment are capitalized. Other spare parts are carried as inventory and recognized as expense in the statement of profit and loss on consumption.

The acquisition or construction of some items of property, plant and equipment although not directly increasing the future economic benefits of any particular existing item of property, plant and equipment, may be necessary for the Company to obtain future economic benefits from its other assets. Such items are recognized as property, plant and equipment.

Excess of net sale proceed of items produced while bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management is deducted from the directly attributable cost considered as part of an item of property, plant and equipment.

1.2. Subsequent costs

Subsequent expenditure is recognized in the carrying amount of the asset when it is probable that future economic benefits deriving from the cost incurred will flow to the enterprise and the cost of the item can be measured reliably.

Expenditure on major inspection and overhauls of generating unit is capitalized, when it meets the asset recognition criteria. Any remaining carrying amount of the cost of the previous inspection and overhaul is derecognized.

The cost of replacing major part of an item of property, plant and equipment is recognized in the carrying amount of the item if it is probable that the future economic benefits embodied within the part will flow to the Company and its cost can be measured reliably. The carrying amount of the replaced part is derecognized regardless of whether the replaced part has been depreciated separately. If it is not practicable to determine the carrying amount of the replaced part, the Company uses the cost of the replacement as an indication of what the cost of replaced part was at the time it was acquired or constructed. The costs of the day-to-day servicing of property, plant and equipment are recognized in the statement of profit and loss as and when incurred.

1.3. Decommissioning costs

The present value of the expected cost for the decommissioning of the asset after its use is included in the cost of the respective asset if the recognition criteria for a provision are met.

1.4. De-recognition

Property, plant and equipment is derecognized when no future economic benefits are expected from their use or upon their disposal. Gains and losses on de-recognition of an item of property, plant and equipment are determined as the difference between sale proceeds from disposal, if any, and the carrying amount of property, plant and equipment and are recognized in the statement of profit and loss.

1.5. Depreciation/amortization

Depreciation on the assets of the generation of electricity business, integrated coal mining and on the assets of Corporate & other offices of the Company, covered under Part B of Schedule II of the Companies Act, 2013, is charged on straight-line method following the rates and methodology notified by the Central Electricity Regulatory Commission (CERC) Tariff Regulations.

Depreciation on the assets of the oil & gas exploration, power plants not governed by CERC Tariff Regulations, investment properties and consultancy business is charged on straight-line method following the useful life specified in Schedule II of the Companies Act, 2013 except for the assets referred below.

Depreciation on the following assets is provided on their estimated useful lives, which are different from the useful lives as prescribed under Schedule II to the Companies Act, 2013, ascertained on the basis of technical evaluation/ assessment:

a)	Kutcha roads	2 years
b)	Enabling works - Enabling works - residential and non-residential buildings, including their internal electrification, water supply, sewerage & drainage works, railway sidings, aerodromes, helipads and airstrips	5-15 years
c)	Personal computers & laptops including peripherals	3 years
d)	Temporary erections including wooden structures	1 year
e)	Energy saving electrical appliances and fittings	2-7 years
f)	Solar/wind power plants which are not governed by CERC Tariff Regulations	25 years
g)	Furniture, Fixture, Office equipment and Communication equipment	5-15 years

Major overhaul and inspection costs which have been capitalized are depreciated over the period until the next scheduled outage or actual major inspection/overhaul, whichever is earlier.

Capital spares are depreciated considering the useful life ranging between 2 to 40 years based on technical assessment.

Right-of-use land and buildings relating to generation of electricity business governed by CERC Tariff Regulations are fully amortized on straight line method over the lease period or life of the related plant whichever is lower following the rates and methodology notified by the CERC Tariff Regulations.

Right-of-use land and buildings relating to generation of electricity business which are not governed by CERC tariff Regulations are fully amortized on straight line method over the lease period or life of the related plant whichever is lower.

Right-of-use land and buildings relating to corporate, and other offices are fully amortized on straight line method over lease period or twenty-five years whichever is lower following the rates and methodology notified by the CERC Tariff Regulations.

Land acquired under Coal Bearing Areas (Acquisition & Development) Act, 1957 and Other right-of-use land acquired for mining business are amortized on straight line method over the right of use period or balance life of the project whichever is lower.

In respect of integrated coal mines, the mines closure, site restoration and decommissioning obligations are amortized on straight line method over the balance life of the mine on commercial declaration.

Depreciation on additions to/deductions from property, plant and equipment during the year is charged on pro-rata basis from/up to the month in which the asset is available for use/sale, disposal or earmarked for disposal.

Where the cost of depreciable assets has undergone a change during the year due to increase/decrease in long-term liabilities (recognized up to 31 March 2016) on account of exchange fluctuation and price adjustment change in duties or similar factors, the unamortized balance of such asset is charged off prospectively over the remaining useful life determined following the applicable accounting policies relating to depreciation/amortization.



Where it is probable that future economic benefits deriving from the expenditure incurred will flow to the Company and the cost of the item can be measured reliably, subsequent expenditure on a property, plant and equipment along-with its unamortized depreciable amount is charged off prospectively over the revised useful life determined by technical assessment.

The residual values, useful lives and method of depreciation of assets other than the assets of generation of electricity business and integrated coal mines governed by CERC Tariff Regulations, are reviewed at each financial year end and adjusted prospectively, wherever required.

Depreciation of an asset ceases at the earlier of the date that the asset is classified as held for sale (or included in a disposal group that is classified as held for sale) in accordance with Ind AS 105 and the date that the asset is derecognised.

Refer policy no. C.16 in respect of depreciation/amortization of right-of-use assets other than land and buildings.

2. Capital work-in-progress

Cost incurred for property, plant and equipment that are not ready for their intended use as on the reporting date, is classified under capital work- in-progress.

The cost of self-constructed assets includes the cost of materials & direct labour, any other costs directly attributable to bringing the assets to the location and condition necessary for it to be capable of operating in the manner intended by management and the borrowing costs attributable to the acquisition or construction of qualifying asset.

Expenses directly attributable to construction of property, plant and equipment incurred till they are ready for their intended use are identified and allocated on a systematic basis on the cost of related assets.

Deposit works/cost plus contracts are accounted for on the basis of statements of account received from the contractors.

Unsettled liabilities for price variation/exchange rate variation in case of contracts are accounted for on estimated basis as per terms of the contracts.

The Company periodically reviews its Capital work-in-progress and in case of abandoned works, provision for unserviceable cost is provided for, as required, basis the technical assessment. Further, provisions made are reviewed at regular intervals and in case work has been subsequently taken up, then provision earlier provided for is written back to the extent the same is no longer required.

Net pre-commissioning income/expenditure is adjusted directly in the cost of related assets and systems.

3. Intangible assets and intangible assets under development

3.1. Initial recognition and measurement

Intangible assets that are acquired by the Company, which have finite useful lives, are recognized at cost. Subsequent measurement is done at cost less accumulated amortization and accumulated impairment losses.

3.2. Subsequent costs

Subsequent expenditure is recognized as an increase in the carrying amount of the asset when it is probable that future economic benefits deriving from the cost incurred will flow to the enterprise and the cost of the item can be measured reliably.

3.3. De-recognition

An intangible asset is derecognized when no future economic benefits are expected from their use or upon their disposal. Gain or loss on de-recognition of an intangible asset is determined as the difference between the net disposal proceeds, if any, and the carrying amount of intangible assets and are recognized in the statement of profit and loss.

3.4. Amortization

Cost of software recognized as intangible asset, is amortized on straight-line method over a period of legal right to use or 3 years, whichever is less.

The amortization period and the amortization method of intangible assets with a finite useful life is reviewed at each financial year end and adjusted prospectively, wherever required.

4. Regulatory deferral account balances

Expense/income recognized in the statement of profit and loss to the extent recoverable from or payable to the beneficiaries in subsequent periods as per CERC Tariff Regulations are recognized as 'Regulatory deferral account balances'.

Regulatory deferral account balances are adjusted in the year in which the same become recoverable from or payable to the beneficiaries.

Regulatory deferral account balances are evaluated at each balance sheet date to ensure that the underlying activities meet the recognition criteria and it is probable that future economic benefits associated with such balances will flow to the entity. If these criteria are not met, the regulatory deferral account balances are derecognized.

5. Development expenditure on coal mines

When proved reserves are determined and development of mines/project is sanctioned, exploration and evaluation assets are transferred to 'Development of coal mines' under 'Capital work-in-progress'.

Subsequent expenditure is capitalized only where it either enhances the economic benefits of the development/ producing asset or replaces part of the existing development/producing asset. Any remaining costs associated with the part replaced are expensed.

The development expenditure capitalized is net of value of coal extracted during development phase.

Date of commercial operation of integrated coal mines shall be determined on the occurring of earliest of following milestones as provided in CERC tariff regulations:

1) The first date of the year succeeding the year in which 25 % of the peak rated capacity as per the mining plan is achieved; or

2) The first date of the year succeeding the year in which the value of production exceeds the total expenditure in that year; or

3) The date of two years from the date of commencement of production;

The above is subject to commercial readiness to yield production on a sustainable basis (i.e. when the Company determines that the mining property will provide sufficient and sustainable return relative to its perceived risks and therefore it is considered probable that future economic benefits will flow to the Company).

On the date of commercial operation, the assets under capital work-in-progress are classified as a component of property, plant and equipment under 'Mining property'.

Gains and losses on de-recognition of assets referred above, are determined as the difference between the net disposal proceeds, if any, and the carrying amount of respective assets and are recognized in the statement of profit and loss.

5.1. Stripping activity expense/adjustment

Expenditure incurred on removal of mine waste materials (overburden) necessary to extract the coal reserves is referred to as stripping cost. The Company has to incur such expenses over the life of the mine as technically estimated.

Cost of stripping is charged on technically evaluated average stripping ratio at each mine with due adjustment for stripping activity asset and ratio-variance account after the mines are brought to revenue.

Net of the balances of stripping activity asset and ratio variance at the Balance Sheet date is shown as 'Stripping activity adjustment' under the head 'Non-current assets/Non-current provisions' as the case may be, and adjusted as provided in the CERC Tariff Regulations

5.2. Mines closure, site restoration and decommissioning obligations

The Company's obligations for land reclamation and decommissioning of structure consist of spending at mines in accordance with the guidelines from Ministry of Coal, Government of India. The Company estimates its obligations for mine closure, site restoration and decommissioning based on the detailed calculation and technical assessment of the amount and timing of future cash spending for the required work and provided for as per approved mine closure plan. The estimate of expenses is escalated for inflation and then discounted at a pre-tax discount rate that reflects current

market assessment of the time value of money and risk, such that the amount of provision reflects the present value of expenditure required to settle the obligation. The Company recognizes a corresponding asset under property, plant and equipment as a separate item for the cost associated with such obligation. Upon commercial declaration of mines, the mine closure, site restoration and decommissioning obligations are amortized on straight line method over the balance life of the mine.

The value of the obligation is progressively increased over time as the effect of discounting unwinds and the same is recognized as finance costs.

Further, a specific escrow account is maintained for this purpose as per approved mine closure plan. The progressive mine closure expenses incurred on year to year basis, forming part of the total mine closure obligation, are initially recognized as receivable from escrow account and thereafter adjusted with the obligation in the year in which the amount is withdrawn from escrow account after concurrence of the certifying agency.

6. Investment Property

Investment properties are properties held to earn rental or for capital appreciation or for both and are not intended to be used in the operations of the Company. Investment properties are measured initially at its cost, including transaction costs. Investment properties are subsequently measured at cost less accumulated depreciation and accumulated impairment losses, if any. Subsequent expenditure is capitalized to the asset's carrying amount only when it is probable that future economic benefits associated with the expenditure will flow to the Company and the cost of the item can be measured reliably. Investment properties are depreciated / amortised considering the material accounting policy no. C.1.5 and C.16.1.

A property shall be transferred to or from investment property when, and only when, there is change in use. A change in use occurs when the property meets, or ceases to meet the definition of investment property and there is evidence of the change in use.

An investment property is derecognized upon disposal or when the investment property is permanently withdrawn from use and no future economic benefits are expected from the disposal. Any gain or loss arising on de-recognition of the property (calculated as the difference between the net disposal proceeds and the carrying amount of the asset) is included in profit or loss in the period in which the property is derecognized.

7. Borrowing costs

Borrowing costs consist of (a) interest expense calculated using the effective interest method as described in Ind AS 109 – 'Financial Instruments' (b) interest expense on lease liabilities recognized in accordance with Ind AS 116– 'Leases' and (c) exchange differences arising from foreign currency borrowings to the extent that they are regarded as an adjustment to interest costs.

Borrowing costs that are directly attributable to the acquisition, construction/exploration/ development or erection of qualifying assets are capitalized as part of cost of such asset until such time the assets are substantially ready for their intended use. Qualifying assets are assets which necessarily take substantial period of time to get ready for their intended use or sale.

When the Company borrows funds specifically for the purpose of obtaining a qualifying asset, the borrowing costs incurred are capitalized. When Company borrows funds generally and uses them for the purpose of obtaining a qualifying asset, the capitalization of the borrowing costs is computed based on the weighted average cost of all borrowings that are outstanding during the period and used for the acquisition, construction/exploration or erection of the qualifying asset. However, borrowing costs applicable to borrowings made specifically for the purpose of obtaining a qualifying asset, are excluded from this calculation, until substantially all the activities necessary to prepare that asset for its intended use or sale are complete.

Income earned on temporary investment made out of the borrowings pending utilization for expenditure on the qualifying assets is deducted from the borrowing costs eligible for capitalization.

Capitalization of borrowing costs ceases when substantially all the activities necessary to prepare the qualifying assets for their intended use are complete.

Other borrowing costs are recognized as an expense in the year in which they are incurred.

The Company can incur borrowing costs during an extended period in which it suspends the activities necessary to prepare an asset for its intended use or sale. Such costs are costs of holding partially completed assets and is not eligible for capitalisation. However, the Company does not normally suspend capitalising borrowing costs during a period when it carries out substantial technical and administrative work. The Company also does not suspend capitalising borrowing costs when a temporary delay is a necessary part of the process of getting an asset ready for its intended use or sale.

8. Inventories

Inventories are valued at the lower of cost and net realizable value. Cost is determined on weighted average basis..

The diminution in the value of obsolete/ unserviceable/surplus stores and spares and non-moving unserviceable inventories is ascertained on review and provided for.

Transit and handling losses of coal as per Company's norms are included in cost of coal.

9. Government grants

Government grants are recognized when there is reasonable assurance that they will be received and the Company will comply with the conditions associated with the grant. Grants that compensate the Company for the cost of depreciable asset are recognized as income in statement of profit and loss on a systematic basis over the period and in the proportion in which depreciation is charged. Grants that compensate the Company for expenses incurred are recognized over the period in which the related costs are incurred and the same is deducted from the related expenses.

10. Fly ash utilization reserve fund

Proceeds from sale of ash/ash products along-with income on investment of surplus fund are transferred to 'Fly ash utilization reserve fund' in terms of provisions of gazette notifications issued by Ministry of Environment and Forests & Climate Change, Government of India, from time to time. The fund is utilized towards expenditure on development of infrastructure/facilities, promotion & facilitation activities for use of fly ash.

11. Provisions, contingent liabilities and contingent assets

A provision is recognized if, as a result of a past event, the Company has a present legal or constructive obligation that can be estimated reliably, and it is probable that an outflow of economic benefits will be required to settle the obligation. If the effect of the time value of money is material, provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the liability. When discounting is used, the increase in the provision due to the passage of time is recognized as a finance cost.

The amount recognized as a provision is the best estimate of the consideration required to settle the present obligation at reporting date, taking into account the risks and uncertainties surrounding the obligation.

When some or all of the economic benefits required to settle a provision are expected to be recovered from a third party, the receivable is recognized as an asset if it is virtually certain that reimbursement will be received and the amount of the receivable can be measured reliably. The expense relating to a provision is presented in the statement of profit and loss net of reimbursement, if any.

Contingent liabilities are possible obligations that arise from past events and whose existence will only be confirmed by the occurrence or non-occurrence of one or more future events not wholly within the control of the Company. Where it is not probable that an outflow of economic benefits will be required, or the amount cannot be estimated reliably, the obligation is disclosed as a contingent liability, unless the probability of outflow of economic benefits is remote. Contingent liabilities are disclosed on the basis of judgment of the management/independent experts. These are reviewed at each balance sheet date and are adjusted to reflect the current management estimate.

Contingent assets are possible assets that arise from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the Company. Contingent assets are disclosed in the financial statements when inflow of economic benefits is probable on the basis of judgment of management. These are assessed continually to ensure that developments are appropriately reflected in the financial statements.



Present obligations arising under onerous contracts are recognised and measured as provisions. An onerous contract is considered to exist where the Company has a contract under which the unavoidable costs of meeting the obligations under the contract exceed the economic benefits expected to be received from the contract.

12. Foreign currency transactions and translation

Transactions in foreign currencies are initially recorded at the functional currency spot exchange rates at the date the transaction first qualifies for recognition.

Monetary assets and liabilities denominated in foreign currencies outstanding at the reporting date are translated at the functional currency spot rates of exchange prevailing on that date. Exchange differences arising on settlement or translation of monetary items are recognized in the statement of profit and loss in the year in which it arises with the exception that exchange differences on long term monetary items related to acquisition of property, plant and equipment recognized up to 31 March 2016 are adjusted to the carrying cost of property, plant and equipment.

Non-monetary items denominated in foreign currency which are measured in terms of historical cost are recorded using the exchange rate at the date of the transaction. In case of advance consideration received or paid in a foreign currency, the date of transaction for the purpose of determining the exchange rate to use on initial recognition of the related asset, expense or income (or part of it), is when the Company initially recognizes the non-monetary asset or non-monetary liability arising from the payment or receipt of advance consideration.

13. Revenue

Company's revenues arise from sale and trading of energy, consultancy, project management & supervision services, income on assets under lease, supply of coal from integrated coal mines and other income. Revenue from other income comprises interest from banks, employees, contractors etc., dividend from investments in joint venture & subsidiary companies, dividend from mutual fund investments, surcharge received from beneficiaries for delayed payments, sale of scrap, other miscellaneous income, etc.

13.1. Revenue from sale of energy

The majority of the Company's operations in India are regulated under the Electricity Act, 2003. Accordingly, the CERC determines the tariff for the Company's power plants based on the norms prescribed in the tariff regulations as applicable from time to time. Tariff is based on the capital cost incurred for a specific power plant and primarily comprises two components: capacity charge i.e. a fixed charge that includes depreciation, return on equity, interest on working capital, operating & maintenance expenses, interest on loan and energy charge i.e. a variable charge primarily based on fuel costs. Tariff for Company's integrated coal mines are also determined by CERC based on the norms prescribed in the CERC Tariff Regulations.

Revenue from sale of energy is accounted for based on tariff rates approved by the CERC (except items indicated as provisional) as modified by the orders of Appellate Tribunal for Electricity to the extent applicable. In case of power stations where the tariff rates are yet to be approved/items indicated provisional by the CERC in their orders, provisional rates are adopted considering the applicable CERC Tariff Regulations. Revenue from sale of energy is recognized once the electricity has been delivered to the beneficiary and is measured through a regular review of usage meters. Beneficiaries are billed on a periodic and regular basis. As at each reporting date, revenue from sale of energy includes an accrual for sales delivered to beneficiaries but not yet billed i.e. contract assets/ unbilled revenue.

The incentives/disincentives are accounted for based on the norms notified/approved by the CERC as per principles enunciated in Ind AS 115 – 'Revenue from contracts with customers'. In cases of power stations where the same have not been notified/approved, incentives/disincentives are accounted for on provisional basis.

Part of revenue from energy sale where CERC tariff Regulations are not applicable is recognized based on the rates, terms & conditions mutually agreed with the beneficiaries and trading of power through power exchanges.

Exchange differences arising from settlement/translation of monetary items denominated in foreign currency to the extent recoverable from or payable to the beneficiaries in subsequent periods as per the CERC Tariff Regulations are accounted as 'Regulatory deferred account balances' and such balances are adjusted in the year in which the same becomes recoverable/payable to the beneficiaries.

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Exchange differences on account of translation of foreign currency borrowings recognized up to 31 March 2016, to the extent recoverable from or payable to the beneficiaries in subsequent periods as per the CERC Tariff Regulations are accounted as 'Deferred foreign currency fluctuation asset' with corresponding credit to 'Deferred income from foreign currency fluctuation'. Deferred income from foreign currency fluctuation account is amortized in the proportion in which depreciation is charged on such exchange differences and same is adjusted against depreciation expense. Fair value changes in respect of forward exchange contracts for derivatives recoverable from/payable to the beneficiaries as per the CERC Tariff Regulations, are recognized in sales.

Revenue from sale of energy through trading is recognized based on the rates, terms & conditions mutually agreed with the beneficiaries as per the guidelines issued by Ministry of New and Renewable Energy, Government of India.

Rebates allowed to beneficiaries as early payment incentives are deducted from the amount of revenue.

Revenue from sale of energy saving certificates is accounted for as and when sold.

13.2. Revenue from services

Revenue from consultancy, project management and supervision services rendered is measured based on the consideration that is specified in a contract with a customer or is expected to be received in exchange for the services, which is determined on output method and excludes amounts collected on behalf of third parties. The Company recognizes revenue when the performance obligation is satisfied, which typically occurs when control over the services is transferred to a customer.

Reimbursement of expenses is recognized as other income, as per the terms of the service contracts.

Contract modifications are accounted for when additions, deletions or changes are approved either to the contract scope or contract price. The accounting for modifications of contracts involves assessing whether the services added to an existing contract are distinct and whether the pricing is at the standalone selling price. Services added that are not distinct are accounted for on a cumulative catch up basis, while those that are distinct are accounted for prospectively, either as a separate contract, if the additional services are priced at the standalone selling price, or as a termination of the existing contract and creation of a new contract if not priced at the standalone selling price.

13.3. Other income

Interest income is recognized, when no significant uncertainty as to measurability or collectability exist, on a time proportion basis taking into account the amount outstanding and the applicable interest rate, using the effective interest rate method (EIR). For debt instruments measured either at amortized cost or at fair value through other comprehensive income (OCI), interest income is recognized using the EIR to the gross carrying amount of the financial asset and included in other income in the statement of profit and loss. For purchased or originated credit-impaired (POCI) financial assets interest income is recognized by calculating the credit-adjusted EIR and applying that rate to the amortized cost of the asset.

Insurance claims for loss of profit are accounted for in the year of acceptance. Other insurance claims are accounted for based on certainty of realization.

Revenue from rentals and operating leases is recognized on an accrual basis in accordance with the substance of the relevant agreement.

The interest/surcharge on late payment/overdue trade receivables for sale of energy is recognized when no significant uncertainty as to measurability or collectability exists.

Interest/surcharge recoverable on advances to contractors and suppliers as well as warranty claims wherever there is uncertainty of realization/acceptance are not treated as accrued and are therefore, accounted for on receipt/acceptance.

Dividend income is recognized in profit or loss only when the right to receive is established, it is probable that the economic benefits associated with the dividend will flow to the Company, and the amount of the dividend can be measured reliably.

14. Employee benefits

14.1. Defined contribution plans

A defined contribution plan is a post-employment benefit plan under which an entity pays fixed contributions to

separate entities and will have no legal or constructive obligation to pay further amounts. Obligations for contributions to defined contribution plans are recognized as an employee benefits expense in statement of profit and loss in the period during which services are rendered by employees. Prepaid contributions are recognized as an asset to the extent that a cash refund or a reduction in future payments is available. Contributions to a defined contribution plan that are due after more than 12 months after the end of the period in which the employees render the service are discounted to their present value.

For detailed disclosure on Company's defined contribution schemes, refer note no 56.

14.2. Defined benefit plans

A defined benefit plan is a post-employment benefit plan other than a defined contribution plan. The Company's liability towards gratuity, pension scheme at two of the stations in respect of taken over employees from the erstwhile state government power utility, post-retirement medical facility(PRMF), baggage allowance for settlement at home town after retirement, farewell gift on retirement and provident fund scheme to the extent of interest liability on provident fund contribution are in the nature of defined benefit plans.

For detailed disclosure on Company's defined benefit schemes, refer note no 56.

The Company's net obligation in respect of defined benefit plans is calculated separately for each plan by estimating the amount of future benefit that employees have earned in return for their service in the current and prior periods; that benefit is discounted to determine its present value. The fair value of any plan assets is deducted. The discount rate is based on the prevailing market yields of Indian government securities as at the reporting date that have maturity dates approximating the terms of the Company's obligations and that are denominated in the same currency in which the benefits are expected to be paid.

The actuarial calculation is performed annually by a qualified actuary using the projected unit credit method. When the calculation results in a benefit to the Company, the recognized asset is limited to the present value of economic benefits available in the form of any future refunds from the plan or reductions in future contributions to the plan. An economic benefit is available to the Company if it is realizable during the life of the plan, or on settlement of the plan liabilities. Remeasurement comprising of actuarial gain and losses, return on plan assets (excluding the amount included in net interest on the net defined liability) & effect of asset ceiling (excluding the amount included in net interest on the net defined liability) and the same are recognized in the Other Comprehensive Income (OCI) in the period in which they arise.

Past service costs are recognized in statement of profit and loss on the earlier of the date of the plan amendment or curtailment, and the date that the Company recognizes related restructuring costs. If a plan amendment, curtailment or settlement occurs, the current service cost and the net interest for the period after the re-measurement are determined using the assumptions used for the re-measurement.

14.3. Other long-term employee benefits

Benefits under the Company's leave encashment, long-service award and economic rehabilitation scheme constitute other long term employee benefits.

The Company's net obligation in respect of these long-term employee benefits is calculated separately for each plan by estimating the amount of future benefit that employees have earned in return for their service in the current and prior periods; that benefit is discounted to determine its present value and the fair value of any related assets is deducted. The discount rate is based on the prevailing market yields of Indian government securities as at the reporting date that have maturity dates approximating the terms of the Company's obligations and that are denominated in the same currency in which the benefits are expected to be paid.

The actuarial calculation is performed annually by a qualified actuary using the projected unit credit method. Remeasurement comprising actuarial gain and losses, return on plan assets (excluding the amount included in net interest on the net defined liability) & effect of asset ceiling (excluding the amount included in net interest on the net defined liability) and the same are recognized in statement of profit and loss account in the period in which they arise.

The obligations are presented as current liabilities in the balance sheet if the entity does not have an unconditional right to defer settlement for at least twelve months after the reporting period, regardless of when the actual settlement is expected to occur.

14.4. Short-term benefits

Short-term employee benefit obligations are measured on an undiscounted basis and are expensed as the related service is provided.

A liability is recognized for the amount expected to be paid under performance related pay if the Company has a present legal or constructive obligation to pay this amount as a result of past service provided by the employee and the obligation can be estimated reliably.

15. Income tax

Income tax expense comprises current and deferred tax. Current tax expense is recognized in statement of profit and loss except to the extent that it relates to items recognized directly in OCI or equity, in which case it is recognized in OCI or equity, respectively.

Current tax is the expected tax payable on the taxable income for the year computed as per the provisions of Income Tax Act, 1961, using tax rates enacted or substantively enacted by the end of the reporting period, and any adjustment to tax payable in respect of previous years.

Deferred tax is recognized using the balance sheet method, on temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the tax bases of assets and liabilities. Deferred tax is measured at the tax rates that are expected to be applied to temporary differences when they materialize, based on the laws that have been enacted or substantively enacted by the reporting date. Deferred tax assets and liabilities are offset if there is a legally enforceable right to offset current tax assets against the current tax liabilities, and they relate to income taxes levied by the same tax authority.

Deferred tax is recognized in statement of profit and loss except to the extent that it relates to items recognized directly in OCI or equity, in which case it is recognized in OCI or equity, respectively.

Deferred tax liability is recognized for all taxable temporary differences, except when the deferred tax liability arises from the initial recognition of goodwill or an asset or liability in a transaction that is not a business combination and, at the time of transaction, (i) affects neither accounting nor taxable profit or loss and (ii) does not give rise to equal taxable and deductible temporary differences.

A deferred tax asset is recognized for all deductible temporary differences to the extent that it is probable that future taxable profits will be available against which the deductible temporary difference can be utilized. Deferred tax assets are reviewed at each reporting date and are reduced to the extent that it is no longer probable that the sufficient taxable profits will be available in future to allow all or part of deferred tax assets to be utilized.

Deferred tax assets include Minimum Alternative Tax (MAT) paid in accordance with the tax laws in India, which is likely to give future economic benefits in the form of availability of set off against future income tax liability. MAT credit is recognized as deferred tax asset in the balance sheet when the asset can be measured reliably and it is probable that the future taxable profit will be available against which MAT credit can be utilized.

When there is uncertainty regarding income tax treatments, the Company assesses whether a tax authority is likely to accept an uncertain tax treatment. If it concludes that the tax authority is unlikely to accept an uncertain tax treatment, the effect of the uncertainty on taxable income, tax bases and unused tax losses and unused tax credits is recognized. The effect of the uncertainty is recognized using the method that, in each case, best reflects the outcome of the uncertainty: the most likely outcome or the expected value. For each case, the Company evaluates whether to consider each uncertain tax treatment separately, or in conjunction with another or several other uncertain tax treatments, based on the approach that best prefixes the resolution of uncertainty.

16. Leases

16.1. As lessee

The Company assesses whether a contract contains a lease, at inception of a contract. A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. To assess whether a contract conveys the right to control the use of an identified asset, the Company assesses whether: (1) the contact involves the use of an identified asset (2) the Company has substantially all of the economic benefits



from use of the asset through the period of the lease and (3) the Company has the right to direct the use of the asset.

The Company recognizes a right-of-use asset and a corresponding lease liability for all lease arrangements in which it is a lessee, except for leases with a term of twelve months or less (short-term leases) and leases for low value underlying assets. For these short-term and leases for low value underlying assets, the Company recognizes the lease payments as an operating expense on a straight-line basis over the term of the lease.

Certain lease arrangements include the options to extend or terminate the lease before the end of the lease term. Right-of use assets and lease liabilities include these options when it is reasonably certain that the option to extend the lease will be exercised/option to terminate the lease will not be exercised.

The right-of-use assets (other than land and buildings) are initially recognized at cost, which comprises the initial amount of the lease liability adjusted for any lease payments made at or prior to the commencement date of the lease plus any initial direct costs less any lease incentives. They are subsequently measured at cost less accumulated depreciation/amortization and impairment losses and adjusted for any reassessment of lease liabilities.

Right-of-use assets are depreciated/amortized from the commencement date to the end of the useful life of the underlying asset, if the lease transfers ownership of the underlying asset by the end of lease term or if the cost of right-of-use assets reflects that the purchase option will be exercised. Otherwise, Right-of-use assets are depreciated/ amortized from the commencement date on a straight-line basis over the shorter of the lease term and useful life of the underlying asset.

Right-of-use assets are evaluated for recoverability whenever events or changes in circumstances indicate that their carrying amounts may not be recoverable. For the purpose of impairment testing, the recoverable amount (i.e. the higher of the fair value less costs of disposal and the value-in-use) is determined on an individual asset basis unless the asset does not generate cash flows that are largely independent of those from other assets. In such cases, the recoverable amount is determined for the Cash Generating Unit (CGU) to which the asset belongs.

The lease liability is initially measured at amortized cost at the present value of the future lease payments. In calculating the present value, lease payments are discounted using the interest rate implicit in the lease or, if not readily determinable, using the incremental borrowing rate. Lease liabilities are re-measured with a corresponding adjustment to the related right-of-use asset if the Company changes its assessment whether it will exercise an extension or a termination option.

16.2. As lessor

At the inception of an arrangement, the Company determines whether such an arrangement is or contains a lease. A specific asset is subject of a lease if fulfillment of the arrangement is dependent on the use of that specified asset. An arrangement conveys the right to use the asset if the arrangement conveys to the customer the right to control the use of the underlying asset. Arrangements that do not take the legal form of a lease but convey rights to customers/ suppliers to use an asset in return for a payment or a series of payments are identified as either finance leases or operating leases.

When the Company is an intermediate lessor, it accounts for its interests in the head lease and the sub lease separately. It assesses the lease classification of a sub-lease with reference to the right-of-use assets arising from the head lease, not with reference to the underlying asset .

Accounting for finance leases

Where the Company determines a long term Power Purchase Agreement (PPA) to be or to contain a lease and where the off taker has the principal risk and rewards of ownership of the power plant through its contractual arrangements with the Company, the arrangement is considered a finance lease. Capacity payments are apportioned between capital repayments relating to the provision of the plant, finance income and service income. The finance income element of the capacity payment is recognized as revenue, using a rate of return specific to the plant to give a constant periodic rate of return on the net investment in each period. The service income element of the capacity payment is the difference between the total capacity payment and the amount recognized as finance income and capital repayments and recognized as revenue as it is earned.

The amounts due from lessees under finance leases are recorded in the balance sheet as financial assets, classified as 'Finance lease receivables', at the amount equal to the net investment in the lease.

Accounting for operating leases

Where the Company determines a long term PPA to be or to contain a lease and where the Company retains the principal risks and rewards of ownership of the power plant, the arrangement is considered an operating lease.

For operating leases, the power plant is capitalized as property, plant and equipment and depreciated over its economic life. Rental income from operating leases is recognized on a straight line basis over the term of the arrangement.

17. Impairment of non-financial assets

The carrying amounts of the Company's non-financial assets are reviewed at each reporting date to determine whether there is any indication of impairment considering the provisions of Ind AS 36 - 'Impairment of Assets'. If any such indication exists, then the asset's recoverable amount is estimated.

The recoverable amount of an asset or cash-generating unit is the higher of its fair value less costs of disposal and its value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. For the purpose of impairment testing, assets that cannot be tested individually are grouped together into the smallest group of assets that generates cash inflows from continuing use that are largely independent of the cash inflows of other assets or groups of assets (the 'cash-generating unit', or "CGU").

An impairment loss is recognized if the carrying amount of an asset or its CGU exceeds its estimated recoverable amount. Impairment losses are recognized in the statement of profit and loss. Impairment losses recognized in respect of CGUs are reduced from the carrying amounts of the assets of the CGU.

Impairment losses recognized in prior periods are assessed at each reporting date for any indications that the loss has decreased or no longer exists. An impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of accumulated depreciation or amortization, if no impairment loss had been recognized.

18. Operating segments

In accordance with Ind AS 108-'Operating segments', the operating segments used to present segment information are identified on the basis of internal reports used by the Company's management to allocate resources to the segments and assess their performance. The Board of Directors is collectively the Company's 'Chief Operating Decision Maker' or 'CODM' within the meaning of Ind AS 108. The indicators used for internal reporting purposes may evolve in connection with performance assessment measures put in place.

19. Business Combinations

(i)Business combinations are accounted for using the acquisition accounting method as at the date of the acquisition, which is the date at which control is transferred to the Company. The consideration transferred in the acquisition and the identifiable assets acquired and liabilities assumed are recognized at fair values on their acquisition date. Goodwill is initially measured at cost, being the excess of the consideration transferred over the net identifiable assets acquired and liabilities assumed. Where the fair value of net identifiable assets acquired and liabilities assumed exceed the consideration transferred, after reassessing the fair values of the net assets and contingent liabilities, the excess is recognized as capital reserve. Acquisition related costs are expensed as incurred.

(ii)Business combinations involving entities that are controlled by the Company are accounted for using the pooling of interests method wherein the assets and liabilities of the combining entities are reflected at their carrying amounts and no adjustments are made to reflect fair values, or recognise any new assets or liabilities. The only adjustments that are made are to harmonise accounting policies.

The financial information in the financial statements in respect of prior periods is restated as if the business combination had occurred from the beginning of the preceding period in the financial statements, irrespective of the actual date of the combination. However, where the business combination had occurred after that date, the prior period information is restated only from that date.



The balance of the retained earnings appearing in the financial statements of the transferor is aggregated with the corresponding balance appearing in the financial statements of the transferee. The identity of the reserves is preserved and the reserves of the transferor become the reserves of the transferee. The difference, if any, between the amounts recorded as share capital issued plus any additional consideration in the form of cash or other assets and the amount of share capital of the transferor is transferred to capital reserve and is presented separately from other capital reserves.

20. Dividends

Dividends and interim dividends payable to the Company's shareholders are recognized as changes in equity in the period in which they are approved by the shareholders and the Board of Directors respectively.

21. Material prior period errors

Material prior period errors are corrected retrospectively by restating the comparative amounts for the prior periods presented in which the error occurred. If the error occurred before the earliest period presented, the opening balances of assets, liabilities and equity for the earliest period presented, are restated.

22. Financial instruments

A financial instrument is any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity. The Company recognizes a financial asset or a financial liability only when it becomes party to the contractual provisions of the instrument.

22.1. Financial assets

Initial recognition and measurement

All financial assets are recognized at fair value on initial recognition, except for trade receivables which are initially measured at transaction price. Transaction costs that are directly attributable to the acquisition of financial assets, which are not valued at fair value through profit or loss, are added to the fair value on initial recognition.

Subsequent measurement

Debt instruments at amortized cost

A 'debt instrument' is measured at the amortized cost if both the following conditions are met:

(a) The asset is held within a business model whose objective is to hold assets for collecting contractual cash flows, and

(b) Contractual terms of the asset give rise on specified dates to cash flows that are solely payments of principal and interest (SPPI) on the principal amount outstanding.

After initial measurement, such financial assets are subsequently measured at amortized cost using the effective interest rate (EIR) method. Amortized cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the EIR. The EIR amortization is included in finance income in the statement of profit and loss. The losses arising from impairment are recognized in the statement of profit and loss. This category generally applies to trade and other receivables.

Debt instrument at FVTOCI (Fair value through OCI)

A 'debt instrument' is classified as at the FVTOCI if both of the following criteria are met:

(a) The objective of the business model is achieved both by collecting contractual cash flows and selling the financial assets, and

(b) The asset's contractual cash flows represent SPPI

Debt instruments included within the FVTOCI category are measured initially as well as at each reporting date at fair value. Fair value movements are recognized in the OCI. However, the Company recognizes interest income, impairment losses & reversals and foreign exchange gain or loss in the statement of profit and loss. On de-recognition of the asset, cumulative gain or loss previously recognized in OCI is reclassified from the equity to the statement of profit and loss. Interest earned whilst holding FVTOCI debt instrument is reported as interest income using the EIR method.

Debt instrument at FVTPL (Fair value through profit or loss)

FVTPL is a residual category for debt instruments. Any debt instrument, which does not meet the criteria for categorization as at amortized cost or as FVTOCI, is classified as at FVTPL.

In addition, the Company may elect to classify a debt instrument, which otherwise meets amortized cost or FVTOCI criteria, as at FVTPL. However, such election is allowed only if doing so reduces or eliminates a measurement or recognition inconsistency (referred to as 'accounting mismatch'). Debt instruments included within the FVTPL category are measured at fair value with all changes recognized in the statement of profit and loss. Interest income on such investments is presented under 'Other income'.

Business model assessment

The Company holds financial assets which arise from its ordinary course of business and investment property. The objective of the business model for these financial assets is to collect the amounts due from the Company's receivables and to earn contractual interest income on the amounts collected.

Investment in Equity instruments

All equity investments in entities other than subsidiaries and joint venture companies are measured at fair value. Equity instruments which are held for trading are classified as at FVTPL. For all other equity instruments, the Company decides to classify the same either as at FVTOCI or FVTPL. The Company makes such election on an instrument by instrument basis. The classification is made on initial recognition and is irrevocable.

If the Company decides to classify an equity instrument as at FVTOCI, then all fair value changes on the instrument, excluding dividends, are recognized in the OCI. There is no recycling of the amounts from OCI to statement of profit and loss, even on sale/ disposal of investments. However, the Company may transfer the cumulative gain or loss within equity on sale / disposal of the investments.

Equity instruments included within the FVTPL category are measured at fair value with all changes recognized in the statement of profit and loss. Dividend on such investments is presented under 'Other income'.

Equity investments in subsidiaries and joint ventures companies are accounted at cost less impairment, if any.

The Company reviews the carrying value of investments at each reporting date to determine whether there is any indication of impairment. If any such indication exists, then the recoverable amount of the investment is estimated. If the recoverable amount is less than the carrying amount, the impairment loss is recognized in the statement of profit and loss.

De-recognition

A financial asset (or, where applicable, a part of a financial asset or part of a Group of similar financial assets) is primarily de-recognized (i.e. removed from the Company's balance sheet) when:

- The rights to receive cash flows from the asset have expired, or
- The Company has transferred its rights to receive cash flows from the asset or has assumed an obligation to pay the received cash flows in full without material delay to a third party under a 'pass-through' arrangement~~ and either (a) the Company has transferred substantially all the risks and rewards of the asset, or (b) the Company has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.

The difference between the carrying amount and the amount of consideration received/receivable is recognized in the statement of profit and loss except for equity instruments classified as at FVTOCI, where such differences are recorded in OCI.

Impairment of financial assets

In accordance with Ind AS 109-'Financial instruments', the Company applies expected credit loss (ECL) model for measurement and recognition of impairment loss on the following financial assets and credit risk exposure:

(a) Financial assets that are debt instruments, and are measured at amortized cost e.g., loans, debt securities, deposits and bank balance.



(b) Financial assets that are debt instruments and are measured as at FVTOCI.

(c) Lease receivables under Ind AS 116.

(d) Trade receivables, unbilled revenue and contract assets under Ind AS 115.

(e) Loan commitments which are not measured as at FVTPL.

(f) Financial guarantee contracts which are not measured as at FVTPL.

For trade receivables and contract assets/unbilled revenue, the Company applies the simplified approach required by Ind AS 109 Financial Instruments, which requires lifetime expected losses to be recognized from initial recognition.

For recognition of impairment loss on other financial assets and risk exposure (other than purchased or originated credit impaired financial assets), the Company determines that whether there has been a significant increase in the credit risk since initial recognition. If credit risk has not increased significantly, 12-month ECL is used to provide for impairment loss. However, if credit risk has increased significantly, lifetime ECL is used. If, in a subsequent period, credit quality of the instrument improves such that there is no longer a significant increase in credit risk since initial recognition, then the entity reverts to recognizing impairment loss allowance based on 12 month ECL.

For purchased or originated credit impaired financial assets, a loss allowance is recognized for the cumulative changes in lifetime expected credited losses since initial recognition.

22.2. Financial liabilities

Initial recognition and measurement

Financial liabilities are classified, at initial recognition, as financial liabilities at fair value through profit or loss and financial liabilities at amortized cost, as appropriate. All financial liabilities are recognized initially at fair value and, in the case of liabilities subsequently measured at amortized cost net of directly attributable transaction cost. The Company's financial liabilities include trade and other payables, borrowings including bank overdrafts, financial guarantee contracts and derivative financial instruments.

Subsequent measurement

The measurement of financial liabilities depends on their classification, as described below:

Financial liabilities at amortized cost

After initial measurement, such financial liabilities are subsequently measured at amortized cost using the EIR method. Gains and losses are recognized in statement of profit and loss when the liabilities are derecognized as well as through the EIR amortization process Amortized cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the EIR. The EIR amortization is included in finance costs in the statement of profit and loss. This category generally applies to borrowings, trade payables and other contractual liabilities.

Financial liabilities at fair value through profit or loss

Financial liabilities at fair value through profit or loss include financial liabilities held for trading and financial liabilities designated upon initial recognition as at fair value through profit or loss. Financial liabilities are classified as held for trading if they are incurred for the purpose of repurchasing in the near term. This category also includes derivative financial instruments entered into by the Company that are not designated as hedging instruments in hedge relationships as defined by Ind AS 109. Separated embedded derivatives are also classified as held for trading unless they are designated as effective hedging instruments.

Gains or losses on liabilities held for trading are recognized in the statement of profit and loss.

Financial liabilities designated upon initial recognition at fair value through profit or loss are designated at the initial date of recognition, and only if the criteria in Ind AS 109 are satisfied. For liabilities designated as FVTPL, fair value gains/losses attributable to changes in own credit risk is recognized in OCI. These gains/losses are not subsequently transferred to profit and loss. However, the Company may transfer the cumulative gain or loss within equity on disposal. All other changes in fair value of such liability are recognized in the statement of profit and loss. The Company has not designated any financial liability as at fair value through profit and loss.

De-recognition

A financial liability is derecognized when the obligation under the liability is discharged or cancelled or expires. When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as the de-recognition of the original liability and the recognition of a new liability. The difference in the respective carrying amounts is recognized in the statement of profit and loss.

22.3. Interest rate benchmark reform

When the basis for determining the contractual cash flows of a financial asset or financial liability measured at amortised cost is changed as a result of interest rate benchmark reform, the Company updated the effective interest rate of the financial asset or financial liability to reflect the change that is required by the reform. A change in the basis for determining the contractual cash flows is required by interest rate benchmark reform if the following conditions are met:

– the change is necessary as a direct consequence of the reform; and

– the new basis for determining the contractual cash flows is economically equivalent to the previous basis – i.e. the basis immediately before the change.

When changes were made to a financial asset or financial liability in addition to changes to the basis for determining the contractual cash flows required by interest rate benchmark reform, the Company first updates the effective interest rate of the financial asset or financial liability to reflect the change that is required by interest rate benchmark reform and does not recognise a modification gain or loss in the profit & loss statement. After that, the Company applies the policies on accounting for modifications to the additional changes.

22.4. Financial guarantee contracts

Financial guarantee contracts issued by the Company are those contracts that require a payment to be made to reimburse the holder for a loss it incurs because the specified debtor fails to make a payment when due in accordance with the terms of a debt instrument. Financial guarantee contracts are recognized initially as a liability at fair value, adjusted for transaction costs that are directly attributable to the issuance of the guarantee. Subsequently, the liability is measured at the higher of the amount of loss allowance determined as per impairment requirements of Ind AS 109 - 'Financial Instruments' and the amount recognized less the cumulative amount of income recognized in accordance with the principles of Ind AS 115 'Revenue from Contracts with Customers'.

22.5. Derivative financial instruments

Initial recognition and subsequent measurement

The Company uses derivative financial instruments, such as forward currency contracts and interest rate swaps to hedge its foreign currency risks and interest rate risks of foreign currency loans. Such derivative financial instruments are initially recognized at fair value on the date on which a derivative contract is entered into and are subsequently re-measured at fair value. Derivatives are carried as financial assets when the fair value is positive and as financial liabilities when the fair value is negative. Any gains or losses arising from changes in the fair value of derivatives are taken to statement of profit and loss.

22.6. Offsetting of financial assets and financial liabilities

Financial assets and financial liabilities are offset and the net amount is presented in the balance sheet if there is a currently enforceable legal right to offset the recognized amounts and there is an intention to settle on a net basis, to realize the assets and settle the liabilities simultaneously.

23. Non -Current Assets Held for Sale

The Company classifies non-current assets and disposal groups as held for sale if their carrying amounts will be recovered principally through a sale rather than through continuing use and a sale is considered highly probable.

Management must be committed to the sale, which should be expected to qualify for recognition as a completed sale within one year from the date of classification as held for sale, and actions required to complete the plan of sale should indicate that it is unlikely that significant changes to the plan will be made or that the plan will be withdrawn.



Non-Current Assets held for sale and disposal groups are measured at the lower of their carrying amount and the fair value less cost of disposal.

Property, plant and equipment and intangible assets once classified as held for sale are not depreciated or amortized.

In circumstances, where an item of property, plant and equipment and intangible asset is permanently abandoned and retired from active use, however criteria of 'non-current assets held for sale' as above are not met, such items are not classified as held for sale and continued to be depreciated over their revised useful lives, as assessed. Such assets are evaluated for impairment in accordance with material accounting policy no. C.17.

D. Use of estimates and management judgements

The preparation of financial statements requires management to make judgments, estimates and assumptions that may impact the application of accounting policies and the reported value of assets, liabilities, revenue expenses and related disclosures concerning the items involved as well as contingent assets and liabilities at the balance sheet date. The estimates and management's judgments are based on previous experience & other factors considered reasonable and prudent in the circumstances. Actual results may differ from these estimates.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected.

In order to enhance understanding of the financial statements, information about significant areas of estimation, uncertainty and critical judgments in applying accounting policies that have the most significant effect on the amounts recognized in the financial statements is as under:

1. Formulation of accounting policies

The accounting policies are formulated in a manner that results in financial statements containing relevant and reliable information about the transactions, other events and conditions to which they apply. Those policies need not be applied when the effect of applying them is immaterial.

2. Useful life of property, plant and equipment and intangible assets

The estimated useful life of property, plant and equipment and intangible assets is based on a number of factors including the effects of obsolescence, demand, competition and other economic factors (such as the stability of the industry and known technological advances) and the level of maintenance expenditures required to obtain the expected future cash flows from the asset.

Useful life of the assets of the generation of electricity business and integrated coal mines (where tariff is regulated) is determined by the CERC Tariff Regulations in accordance with Schedule II of the Companies Act, 2013.

3. Recoverable amount of property, plant and equipment and intangible assets

The recoverable amount of property, plant and equipment and intangible assets is based on estimates and assumptions regarding in particular the expected market outlook and future cash flows associated with the power plants. Any changes in these assumptions may have a material impact on the measurement of the recoverable amount and could result in impairment.

4. Defined benefit plans and long-term employee benefits

Employee benefit obligations are measured on the basis of actuarial assumptions which include mortality and withdrawal rates as well as assumptions concerning future developments in discount rates, the rate of salary increases and the inflation rate. The Company considers that the assumptions used to measure its obligations are appropriate and documented. However, any changes in these assumptions may have a material impact on the resulting calculations.

5. Revenues

The Company records revenue from sale of energy based on tariff rates approved by the CERC as modified by the orders of Appellate Tribunal for Electricity, as per principles enunciated under Ind AS 115. However, in cases where tariff rates are yet to be approved, provisional rates are adopted considering the applicable CERC Tariff Regulations.

6. Leases not in legal form of lease

Significant judgment is required to apply lease accounting rules as per Ind AS 116 in determining whether an arrangement contains a lease. In assessing arrangements entered into by the Company, management has exercised judgment to evaluate the right to use the underlying asset, substance of the transactions including legally enforceable agreements and other significant terms and conditions of the arrangements to conclude whether the arrangement meets the criteria as per Ind AS 116.

7. Assets held for sale

Significant judgment is required to apply the accounting of non-current assets held for sale under Ind AS 105 - 'Non-current assets held for sale and discontinued operations'. In assessing the applicability, management has exercised judgment to evaluate the availability of the asset for immediate sale, management's commitment for the sale and probability of sale within one year to conclude if their carrying amount will be recovered principally through a sale transaction rather than through continuing use.

8. Regulatory deferral account balances

Recognition of regulatory deferral account balances involves significant judgments including about future tariff regulations since these are based on estimation of the amounts expected to be recoverable/payable through tariff in future.

9. Provisions and contingencies

The assessments undertaken in recognizing provisions and contingencies have been made in accordance with Ind AS 37-'Provisions, contingent liabilities and contingent assets'. The evaluation of the likelihood of the contingent events require best judgment by management regarding the probability of exposure to potential loss. Should circumstances change following unforeseeable developments, this likelihood could alter.

10. Impairment test of investments in Subsidiaries and Joint Venture Companies

The recoverable amount of investment in subsidiaries and joint venture companies is based on estimates and assumptions regarding in particular the future cash flows associated with the operations of the investee Company. Any changes in these assumptions may have a material impact on the measurement of the recoverable amount and could result in impairment.

11. Income taxes

Significant estimates are involved in determining the provision for current and deferred tax, including amount expected to be paid/recovered for uncertain tax positions.



2. Non-current assets - Property, plant and equipment

As at 31 March 2024 ₹ Crore

Particulars	Gross block				Depreciation, amortization and impairment				Net block
	As at 1 April 2023	Additions	Deductions/ adjustments	As at 31 March 2024	As at 1 April 2023	For the year	Deductions/ adjustments	Upto 31 March 2024	As at 31 March 2024
Land (including development expenses)									
Freehold	7,051.90	-	(393.69)	**6,658.21**	-	-	-	**-**	**6,658.21**
Right of use	2,561.66	34.94	(39.16)	**2,557.44**	408.51	110.58	(11.36)	**507.73**	**2,049.71**
Under submergence (refer footnote (d) below)	811.66	2.90	-	**814.56**	220.74	31.83	-	**252.57**	**561.99**
Right of use - Coal Bearing Area Land	4,248.80	273.57	-	**4,522.37**	451.08	144.30	-	**595.38**	**3,926.99**
Roads, bridges, culverts and helipads	2,083.75	376.99	(6.26)	**2,454.48**	421.44	93.94	(6.26)	**509.12**	**1,945.36**
Building									
Freehold									
Main plant	8,959.83	414.53	(8.70)	**9,365.66**	1,927.93	342.56	-	**2,270.49**	**7,095.17**
Others	7,103.12	722.48	(11.82)	**7,813.78**	1,464.21	312.19	(10.36)	**1,766.04**	**6,047.74**
Right of use	40.39	1.54	(3.10)	**38.83**	24.86	5.31	(3.10)	**27.07**	**11.76**
Temporary erections	34.06	0.77	(0.10)	**34.73**	32.49	1.10	(0.03)	**33.56**	**1.17**
Water supply, drainage and sewerage system	1,088.85	188.90	(0.98)	**1,276.77**	280.09	54.19	(0.61)	**333.67**	**943.10**
Hydraulic works, barrages, dams, tunnels and power channel	4,488.27	9.22	1.61	**4,499.10**	1,775.91	247.28	-	**2,023.19**	**2,475.91**
MGR track and signalling system	5,351.47	292.62	(0.23)	**5,643.86**	1,007.42	306.05	-	**1,313.47**	**4,330.39**
Railway siding	4,010.76	442.72	-	**4,453.48**	925.69	233.94	-	**1,159.63**	**3,293.85**
Earth dam reservoir	1,114.48	276.61	-	**1,391.09**	178.01	64.54	-	**242.55**	**1,148.54**
Plant and equipment									
Owned	2,13,374.50	26,475.95	(939.59)	**2,38,910.86**	61,463.30	13,086.62	(962.15)	**73,587.77**	**1,65,323.09**
Right of use	85.78	-	-	**85.78**	37.88	4.75	-	**42.63**	**43.15**
Mining Properties	1,365.07	823.71	(280.90)	**1,907.88**	203.69	35.70	(24.97)	**214.42**	**1,693.46**
Site restoration cost	253.46	190.07	(32.22)	**411.31**	22.61	9.49	-	**32.10**	**379.21**
Furniture and fixtures	918.28	104.39	(14.44)	**1,008.23**	344.65	69.68	(12.54)	**401.79**	**606.44**
Vehicles including speedboats /helicopter									
Owned	19.22	5.63	(1.16)	**23.69**	8.62	1.58	(0.69)	**9.51**	**14.18**
Right of use	56.32	1.76	(48.93)	**9.15**	18.48	4.35	(16.56)	**6.27**	**2.88**
Office equipment	501.62	115.89	(14.57)	**602.94**	249.98	74.06	(18.88)	**305.16**	**297.78**
EDP, WP machines and satcom equipment	557.18	133.06	(107.14)	**583.10**	410.05	82.18	(78.13)	**414.10**	**169.00**
Construction equipment	309.68	24.68	(3.92)	**330.44**	127.91	23.48	(3.78)	**147.61**	**182.83**
Electrical installations	2,328.86	178.08	(2.44)	**2,504.50**	539.46	137.49	(0.43)	**676.52**	**1,827.98**
Communication equipment	136.54	25.61	27.70	**189.85**	75.24	17.51	5.86	**98.61**	**91.24**
Hospital equipment	67.18	3.30	(0.09)	**70.39**	32.86	6.79	(0.06)	**39.59**	**30.80**
Laboratory and workshop equipment	243.36	12.34		**255.70**	71.23	12.97	-	**84.20**	**171.50**
Assets for ash utilisation	60.79	10.16		**70.95**	-			**-**	**70.95**
Less: Adjusted from fly ash utilisation reserve fund	60.79	10.16		**70.95**	-			**-**	**70.95**
Total	**2,69,166.05**	**31,132.26**	**(1,880.13)**	**2,98,418.18**	**72,724.34**	**15,514.46**	**(1,144.05)**	**87,094.75**	**2,11,323.43**

As at 31 March 2023 ₹ Crore

Particulars	Gross block				Depreciation, amortization and impairment				Net block
	As at 1 April 2022	Additions	Deductions/ adjustments	As at 31 March 2023	As at 1 April 2022	For the year	Deductions/ adjustments	Upto 31 March 2023	As at 31 March 2023
Land (including development expenses)									
Freehold	7,707.94	52.70	(708.74)	7,051.90	-	-	-	-	7,051.90
Right of use	2,830.07	170.43	(438.84)	2,561.66	499.53	123.10	(214.12)	408.51	2,153.15
Under submergence (refer footnote (d) below)	806.88	4.78	-	811.66	189.31	31.43	-	220.74	590.92
Right of use - Coal									
Bearing Area Land	4,022.04	226.76	-	4,248.80	330.09	120.99	-	451.08	3,797.72
Roads, bridges, culverts and helipads	1,884.85	226.17	(27.27)	2,083.75	345.02	79.12	(2.70)	421.44	1,662.31
Building									
Freehold									
Main plant	8,588.86	412.09	(41.12)	8,959.83	1,607.62	324.03	(3.72)	1,927.93	7,031.90
Others	6,415.87	775.89	(88.64)	7,103.12	1,214.91	274.59	(25.29)	1,464.21	5,638.91
Right of use	39.27	2.18	(1.06)	40.39	20.31	5.42	(0.87)	24.86	15.53
Temporary erection	38.55	3.87	(8.36)	34.06	36.95	3.39	(7.85)	32.49	1.57
Water supply, drainage and sewerage system	951.84	145.99	(8.98)	1,088.85	232.98	47.96	(0.85)	280.09	808.76
Hydraulic works, barrages, dams, tunnels and power channel	4,463.93	2.08	22.26	4,488.27	1,530.19	245.72	-	1,775.91	2,712.36
MGR track and signalling system	3,798.47	1,553.54	(0.54)	5,351.47	758.90	248.61	(0.09)	1,007.42	4,344.05
Railway siding	3,687.71	323.81	(0.76)	4,010.76	716.09	209.72	(0.12)	925.69	3,085.07
Earth dam reservoir	545.78	568.70	-	1,114.48	143.57	34.44	-	178.01	936.47
Plant and equipment									
Owned	2,04,396.12	24,541.79	(15,563.41)	2,13,374.50	51,899.35	12,324.27	(2,760.32)	61,463.30	1,51,911.20
Right of use	85.78	-	-	85.78	33.13	4.75	-	37.88	47.90
Mining Properties	1,285.97	79.10	-	1,365.07	133.48	70.21	-	203.69	1,161.38
Site restoration cost	253.46	-	-	253.46	15.80	6.81	-	22.61	230.85
Furniture and fixtures	848.06	77.47	(7.25)	918.28	286.61	64.08	(6.04)	344.65	573.63
Vehicles including speedboats /helicopter									
Owned	14.61	4.15	0.46	19.22	7.18	1.34	0.10	8.62	10.60
Right of use	26.58	49.25	(19.51)	56.32	22.23	15.40	(19.15)	18.48	37.84
Office equipment	424.29	91.70	(14.37)	501.62	205.59	55.54	(11.15)	249.98	251.64
EDP, WP machines and satcom equipment	506.99	90.68	(40.49)	557.18	376.81	73.31	(40.07)	410.05	147.13
Construction equipment	261.77	49.46	(1.55)	309.68	106.80	22.58	(1.47)	127.91	181.77
Electrical installations	2,058.29	282.21	(11.64)	2,328.86	416.58	127.31	(4.43)	539.46	1,789.40
Communication equipment	122.64	17.50	(3.60)	136.54	66.73	10.35	(1.84)	75.24	61.30
Hospital equipment	62.84	4.53	(0.19)	67.18	25.71	7.31	(0.16)	32.86	34.32
Laboratory and workshop equipment	234.54	8.92	(0.10)	243.36	58.46	12.81	(0.04)	71.23	172.13
Assets for ash utilisation	57.84	2.95	-	60.79	-	-	-	-	60.79
Less: Adjusted from fly ash utilisation reserve fund	57.84	2.95	-	60.79	-	-	-	-	60.79
Total	2,56,364.00	29,765.75	(16,963.70)	2,69,166.05	61,279.93	14,544.59	(3,100.18)	72,724.34	1,96,441.71



a) The conveyancing of the title to **10,194.85 acres** of freehold land of value **₹ 2,177.78 crore** (31 March 2023: 10,301.23 acres of value ₹ 2,218.50 crore), buildings and structures of value **₹ 4.97 crore** (31 March 2023: ₹ 4.97 crore) and also execution of lease agreements for **9,114.64 acres** of right of use land of value **₹ 814.19 crore** (31 March 2023: 6,487.36 acres of value ₹ 729.02 crore) in favour of the Company are awaiting completion of legal formalities.

b) Land includes **1,146.67 acres** of freehold land of value **₹ 22.13 crore** (31 March 2023: 1,295.40 acres of value ₹ 29.56 crore) and **377.71 acres** of right of use land of value **₹ 10.55 crore** (31 March 2023: 376.57 acres of value ₹ 3.07 crore) not in possession of the Company. The Company is taking appropriate steps for repossession of the same.

c) Land-freehold includes an amount of **₹ 263.92 crore** (31 March 2023: ₹ 263.92 crore) deposited with various authorities in respect of land in possession which is subject to adjustment on final determination of price.

d) Gross block of land under submergence represents **₹ 635.73 crore** (31 March 2023: ₹ 632.83 crore) of freehold land and **₹ 178.83 crore** (31 March 2023: ₹ 178.83 crore) of right of use land. The land has been amortized considering the rate of depreciation provided by the CERC in the tariff regulations and the fact that it will not have any economic value due to deposit of silt and other foreign materials.

e) Possession of land measuring **98 acres** (31 March 2023: 98.00 acres) consisting of **79 acres** of freehold land (31 March 2023: 79.00 acres) and **19 acres** of right of use land (31 March 2023: 19.00 acres) of value **₹ 0.21 crore** (31 March 2023: ₹ 0.21 crore) was transferred to Uttar Pradesh Rajya Vidyut Utpadan Nigam Ltd. (erstwhile UPSEB) for a consideration of ₹ 0.21 crore. Pending approval for transfer of the said land, the area and value of this land has been included in the total land of the Company. The consideration received from erstwhile UPSEB is disclosed under Note 34 - Current liabilities - Other financial liabilities.

f) During the previous year, the company entered into with a Business Transfer Agreement (BTA) with NTPC Green Energy Ltd, a wholly owned subsidiary of the company, for transfer of fifteen Renewable Energy (RE) assets of the Company. The assets were transferred as at the closing date of transfer being 28 February 2023 at book value pursuant to BTA. Further, approval for assignment / novation of ROU land pertaining to Rojmal project and Jetsar project , included in the above transferred RE Stations, are yet to be consented by the lessor and accordingly retained in the books of the Company, of area admeasuring 863.25 acres amounting to **₹ 18.56 crore** (31 March 2023: ₹ 19.43 crore) included above in the netblock of Land-right of use.

g) Operations of one of the thermal power station of the Company (460 MW-TTPS) was discontinued w.e.f. the end of 31 March 2021. Some of the assets have been classified as held for sale considering the requirements of Ind AS 105. Carrying value of remaining assets of the discontinued plant as at 31 March 2024 is **₹ 4.59 crore** (31 March 2023: ₹ 120.52 crore). It is expected that many of the assets are expected to be used in other power plants of the Company. Notwithstanding the above, the net realisable value of the assets of the station has been assessed which is more than its carrying value.

h) Operations of one of the thermal power station (220 MW-Kanti) of the Company was discontinued w.e.f. 8 September 2021. Carrying value of remaining assets of the station as at 31 March 2024 is **₹ 52.38 crore** (31 March 2023: ₹ 97.61 crore). The net realisable value of the assets of the station has been assessed which is more than its carrying value. Since the conditions precedent for classification of these assets as held for sale are not completed, these assets have been continued to be classified under Property, plant and equipment.

i) Operations of Stage-I (2X110 MW-Barauni) of one of the thermal power stations of the Company, along with auxiliary systems except Coal Handling Plant, Switch yard, Ash dyke and township, was discontinued w.e.f. 31 March 2024. Carrying value of remaining assets of the station as at 31 March 2024 is **₹ 20.31 crore.** These assets will be disposed or utilised at other locations of the Company, subsequent to decommissioning of the Units. The net realisable value of the assets of the station has been assessed which is more than its carrying value. Since the conditions precedent for classification of these assets as held for sale are not completed, these assets have been continued to be classified under Property, plant and equipment.

j) Refer Note 72 regarding property, plant and equipment under leases.

k) Spare parts of ₹ 5 lakh and above, stand-by equipment and servicing equipment which meet the definition of property, plant and equipment are capitalized.

l) Property, plant and equipment costing ₹ 5,000/- or less, are depreciated fully in the year of acquisition.

m) Refer Note 25 for information on property, plant and equipment pledged as security by the Company.

n) Refer Note 75 (C) (a) for disclosure of contractual commitments for the acquisition of property, plant and equipment.

o) Deduction/adjustments from gross block and depreciation and amortization for the year includes:

₹ Crore

Particulars	Gross block		Depreciation, amortization and impairment	
	For the year ended		For the year ended	
	31 March 2024	31 March 2023	**31 March 2024**	31 March 2023
Disposal of assets	**(96.83)**	(54.54)	**(92.40)**	(51.79)
Retirement of assets	**(1,179.31)**	(1,151.56)	**(922.83)**	(922.99)
Cost adjustments due to exchange differences	**(4.75)**	960.14	**-**	-
Assets capitalised with retrospective effect/ Write back of excess capitalisation	**(32.22)**	0.02	**-**	0.02
Transferred to Investment property-Note 4	**(408.42)**	(465.18)	**(12.84)**	-
Transferred to Assets held for sale-Note 21	**(110.45)**	(401.73)	**(96.56)**	(299.30)
Transfer of solar assets to NGEL as per BTA	**-**	(15,646.73)	**-**	(1,625.46)
Others	**(48.15)**	(204.12)	**(19.42)**	(200.66)
Total	**(1,880.13)**	(16,963.70)	**(1,144.05)**	(3,100.18)

p) Exchange differences capitalized in Capital work-in-progress (CWIP) are allocated to various heads of CWIP in the year of capitalisation. Exchange differences in respect of assets already capitalised are disclosed in the 'Deductions/Adjustments' column of Property, plant and equipment. Asset-wise details of exchange differences and borrowing costs included in the cost of major heads of CWIP and property, plant and equipment through 'Addition' or 'Deductions/Adjustments' column are given below:

₹ Crore

Particulars	For the year ended 31 March 2024		For the year ended 31 March 2023	
	Exchange differences included in PPE/CWIP	**Borrowing costs included in PPE/CWIP**	Exchange differences included in PPE/CWIP	Borrowing costs included in PPE/CWIP
Building - Freehold				
Main plant	**0.10**	**30.22**	1.80	39.83
Others	**-**	**42.84**	(0.08)	53.61
Hydraulic works, barrages, dams, tunnels and power channel	**1.61**	**288.10**	22.26	267.53
MGR track and signalling system	**-**	**0.08**	0.17	3.95
Railway siding	**-**	**23.05**	-	71.62
Plant and equipment	**8.58**	**1,608.23**	1,020.44	2,057.72
Others including pending allocation	**1.37**	**185.64**	103.81	291.69
Total	**11.66**	**2,178.16**	1,148.40	2,785.95

q) Gross carrying amount of the fully depreciated/amortised property, plant and equipment that are still in use:

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Land-Right of use	**30.87**	14.78
Roads, bridges, culverts and helipads	**55.18**	48.27
Main plant building	**186.68**	176.81
Other building	**373.00**	312.22
Water supply, drainage and sewerage system	**48.53**	47.40
MGR track and signalling system	**109.66**	107.45
Plant and equipment - Owned	**5,760.72**	4,068.02
Furniture and fixtures	**127.06**	89.77
Office equipment	**165.39**	107.97
EDP, WP machines and satcom equipment	**281.43**	280.13
Communication equipment	**66.03**	47.43
Others	**235.52**	170.01
Total	**7,440.07**	5,470.26

Others include temporary erections, railway sidings, earth dam reservoirs, construction equipment and electrical installations etc.

r) **Property, plant and equipment subject to operating lease**

The Power Purchase Agreements (PPA) signed in respect of one of the thermal power stations was operative initially for a period of five years with the beneficiaries which are extended, renewed or replaced as the parties mutually agree. The Company has continued to classify this arrangement with its customers as lease based on the practical expedient provided in Ind AS 116. The net carrying value of such leased assets included above are as under:

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Land- Free hold	**51.61**	51.61
Roads, bridges, culverts and helipads	**6.25**	7.81
Main plant building-Freehold	**5.91**	7.68
Other building-Freehold	**14.69**	19.85
Water supply, drainage and sewerage system	**3.70**	4.58
Plant and equipment - Owned	**160.92**	187.30
Railway siding	**0.57**	0.66
Electrical installation	**2.61**	2.86
Others	**1.96**	2.68
Total	**248.22**	285.03

3. Non-current assets - Capital work-in-progress

As at 31 March 2024

₹ Crore

Particulars	As at 1 April 2023	Additions	Deductions/ adjustments	Capitalized	As at 31 March 2024
Development of land	240.99	50.10	(197.65)	1.95	**91.49**
Roads, bridges, culverts and helipads	334.48	128.10	(51.08)	346.19	**65.31**
Piling and foundation	424.06	-	(286.81)	-	**137.25**
Buildings					
Freehold					
Main plant	821.27	162.04	(371.82)	394.57	**216.92**
Others	1,241.45	554.74	(139.01)	539.45	**1,117.73**
Temporary erections	20.01	1.94	(6.69)	0.37	**14.89**
Water supply, drainage and sewerage system	28.56	78.05	89.67	161.91	**34.37**
Hydraulic works, barrages, dams, tunnels and power channel	5,239.16	611.59	(36.71)	-	**5,814.04**
MGR track and signalling system	45.85	243.67	(192.32)	26.13	**71.07**
Railway siding	633.47	194.30	(140.51)	313.25	**374.01**
Earth dam reservoir	145.95	207.36	(11.78)	261.02	**80.51**
Plant and equipment - owned	46,828.50	12,498.15	(193.99)	23,747.92	**35,384.74**
Furniture and fixtures	3.18	9.65	7.37	15.34	**4.86**
Vehicles	-	-	-	-	**-**
Office equipment	26.30	10.47	0.13	7.47	**29.43**
EDP/WP machines and satcom equipment	6.55	2.00	(3.99)	3.51	**1.05**
Construction equipment	1.67	9.14	(4.49)	4.79	**1.53**
Electrical installations	231.78	118.15	(51.11)	174.47	**124.35**
Communication equipment	9.37	11.63	(4.54)	12.91	**3.55**
Hospital equipment	0.30	0.39	0.46	0.75	**0.40**
Laboratory and workshop equipment	0.55	0.68	(0.01)	0.27	**0.95**
Development of coal mines	1,752.34	358.43	(167.49)	823.71	**1,119.57**
	58,035.79	15,250.58	(1,762.37)	26,835.98	**44,688.02**
Expenditure pending allocation					
Survey, investigation, consultancy and supervision charges	77.19	(7.25)	(6.02)	-	**63.92**
Difference in exchange on foreign currency loans	745.72	3.30	(404.62)	-	**344.40**
Pre-commissioning expenses (net)	287.16	648.21	(934.05)	-	**1.32**
Expenditure during construction period (net)*	533.75	2,644.65	(44.23)	-	**3,134.17**
Other expenditure directly attributable to project construction	528.84	(28.31)	(87.83)	-	**412.70**



₹ Crore

Particulars	As at 1 April 2023	Additions	Deductions/ adjustments	Capitalized	As at 31 March 2024
Less: Allocated to related works	-	2,747.94	-	-	**2,747.94**
	2,172.66	512.66	(1,476.75)	-	**1,208.57**
Sub-total	60,208.45	15,763.24	(3,239.12)	26,835.98	**45,896.59**
Less: Provision for unserviceable works	509.65	117.32	(0.05)	-	**626.92**
Construction stores (net of provisions)	2,045.08	1,205.26	(1,366.20)	-	**1,884.14**
Total	**61,743.88**	**16,851.18**	**(4,605.27)**	**26,835.98**	**47,153.81**

As at 31 March 2023

₹ Crore

Particulars	As at 1 April 2022	Additions	Deductions/ adjustments	Capitalized	As at 31 March 2023
Development of land	288.66	32.16	(73.52)	6.31	240.99
Roads, bridges, culverts and helipads	350.33	127.74	82.58	226.17	334.48
Piling and foundation	404.97	19.09	-	-	424.06
Buildings					
Freehold					
Main plant	866.44	243.93	122.99	412.09	821.27
Others	1,505.27	639.44	(127.37)	775.89	1,241.45
Temporary erections	23.30	5.05	(4.47)	3.87	20.01
Water supply, drainage and sewerage system	102.94	36.16	(10.37)	100.17	28.56
Hydraulic works, barrages, dams, tunnels and power channel	4,740.78	501.60	(2.24)	0.98	5,239.16
MGR track and signalling system	69.58	450.19	(472.02)	1.90	45.85
Railway siding	1,936.13	480.04	(1,458.89)	323.81	633.47
Earth dam reservoir	481.04	193.64	39.97	568.70	145.95
Plant and equipment - owned	56,469.10	12,798.47	(2,267.29)	20,171.78	46,828.50
Furniture and fixtures	8.46	14.93	3.54	23.75	3.18
Vehicles	0.06	0.17	-	0.23	-
Office equipment	31.16	8.14	(0.65)	12.35	26.30
EDP/WP machines and satcom equipment	3.30	4.62	(0.21)	1.16	6.55
Construction equipment	0.08	3.09	(1.44)	0.06	1.67
Electrical installations	488.99	71.34	(146.26)	182.29	231.78
Communication equipment	36.13	12.35	(33.66)	5.45	9.37
Hospital equipment	0.20	0.79	-	0.69	0.30
Laboratory and workshop equipment	1.98	0.33	(0.08)	1.68	0.55
Development of coal mines	1,384.62	368.40	78.42	79.10	1,752.34
	69,193.52	16,011.67	(4,270.97)	22,898.43	58,035.79

₹ Crore

Particulars	As at 1 April 2022	Additions	Deductions/ adjustments	Capitalized	As at 31 March 2023
Expenditure pending allocation					
Survey, investigation, consultancy and supervision charges	116.24	(33.00)	(6.05)	-	77.19
Difference in exchange on foreign currency loans	715.09	141.25	(110.62)	-	745.72
Pre-commissioning expenses (net)	126.71	492.17	(331.72)	-	287.16
Expenditure during construction period (net)*	569.48	3,494.69	(312.57)	-	3,751.60
Other expenditure directly attributable to project construction	926.54	12.30	(410.00)	-	528.84
Less: Allocated to related works	-	3,217.85	-	-	3,217.85
	2,454.06	889.56	(1,170.96)	-	2,172.66
Sub-total	71,647.58	16,901.23	(5,441.93)	22,898.43	60,208.45
Less: Provision for unserviceable works	501.54	15.41	(7.30)	-	509.65
Construction stores (net of provisions)	2,373.07	1,019.15	(1,347.14)	-	2,045.08
Total	73,519.11	17,904.97	(6,781.77)	22,898.43	61,743.88

* Brought from expenditure during construction period (net) - Note 47

a) Construction stores includes material lying with contractors for construction works and are net of provision for shortages pending investigation amounting to **₹ 30.40 crore** (31 March 2023: ₹ 28.54 crore).

b) Pre-commissioning expenses for the year amount to **₹ 876.05 crore** (31 March 2023: ₹ 667.45 crore) and after adjustment of pre-commissioning sales of **₹ 227.84 crore** (31 March 2023: ₹ 175.28 crore) resulted in net pre-commissioning expenditure of **₹ 648.21 crore** (31 March 2023: ₹ 492.17 crore).

c) Additions to the development of coal mines include expenditure during construction period (net) of **₹ 1349.06 crore** (31 March 2023: ₹ 651.07 crore) - [Ref. Note 48] and after netting off the receipts from coal extracted during the development phase amounting to **₹ 990.63 crore** (31 March 2023: ₹ 282.67 crore).

d) Details of exchange differences and borrowing costs capitalised are disclosed in Note 2 (p).

e) Amount capitalised under development of coal mines is included in assets capitalised under 'Mining properties' and 'Site restoration cost' under Property, plant and equipment.

4. Investment property

As at 31 March 2024

₹ Crore

Particulars	Gross carrying amount				Depreciation and amortization				Net carrying amount
	As at 1 April 2023	Additions	Deductions/ adjustments	As at 31 March 2024	As at 1 April 2023	For the year	Deductions/ adjustments	Upto 31 March 2024	As at 31 March 2024
Land									
Freehold	465.18	367.78	-	**832.96**	-	-	-	-	**832.96**
Right of use	-	40.64	-	**40.64**	-	0.86	12.84	**13.70**	**26.94**
Total	465.18	408.42	-	**873.60**	-	0.86	12.84	**13.70**	**859.90**

As at 31 March 2023 ₹ Crore

Particulars	Gross carrying amount				Depreciation and amortization				Net carrying amount
	As at 1 April 2022	Additions	Deductions/ adjustments	As at 31 March 2023	As at 1 April 2022	For the year	Deductions/ adjustments	Upto 31 March 2023	As at 31 March 2023
Freehold land	-	465.18	-	465.18	-	-	-	-	465.18

a) Investment property has been valued as per material accounting policy no. C.6 (Note 1)

b) Freehold land includes freehold land pertaining to one of the RE stations admeasuring 1202.55 acres of value ₹ 465.18 crore which is leased pursuant to a Business Transfer Agreement (BTA) entered into between the Company and NTPC Green Energy Ltd. (NGEL), a wholly owned subsidiary of the Company, in the previous year. Freehold land also includes 2,773.41 acres of value ₹ 367.78 crore and Right of use land of 35.85 acres amounting to ₹ 40.64 crore pertaining land leased to NTPC Renewable Energy Limited (NREL), a subsidiary of NGEL for establishing Solar Power Plant.

c) The rental income arising out of leasing out of the property amounting to **₹ 5.93 crore** (31 March 2023: ₹ 0.19 crore) has been included in Note-41 - Other income. Disclosure on future rent receivable is included in Note 72. The direct operating expenses arising from the investment property are insignificant.

d) The company does not have any contractual obligation to purchase, construct or develop investment property or for repairs, maintenance or enhancements.

e) Investment property pledged as security is ₹ Nil in all the reported periods.

f) The fair value of the investment property as at the balance sheet date is ₹ 852.86 crore w.r.t. freehold land which is based on the valuation by registered valuers as defined under Rule 2 of Companies (Registered valuers and valuation) Rules,2017.

5. Non-current assets - Intangible assets

As at 31 March 2024 **₹ Crore**

Particulars	Gross block				Amortization				Net block
	As at 1 April 2023	Additions	Deductions/ adjustments	As at 31 March 2024	As at 1 April 2023	For the year	Deductions/ adjustments	Upto 31 March 2024	As at 31 March 2024
Software	126.38	8.81	(8.79)	**126.40**	113.83	9.22	(8.79)	**114.26**	**12.14**
Right to use - Land	174.02	0.54	-	**174.56**	43.16	7.50	-	**50.66**	**123.90**
- Others	427.87	-	-	**427.87**	117.11	19.11	-	**136.22**	**291.65**
Total	**728.27**	**9.35**	**(8.79)**	**728.83**	**274.10**	**35.83**	**(8.79)**	**301.14**	**427.69**

As at 31 March 2023 ₹ Crore

Particulars	Gross block				Amortization				Net block
	As at 1 April 2023	Additions	Deductions/ adjustments	As at 31 March 2024	As at 1 April 2023	For the year	Deductions/ adjustments	Upto 31 March 2024	As at 31 March 2024
Software	119.70	7.83	(1.15)	126.38	99.70	15.28	(1.15)	113.83	12.55
Right to use - Land	172.30	1.72	-	174.02	35.70	7.46	-	43.16	130.86
- Others	427.87	-	-	427.87	98.00	19.11	-	117.11	310.76
Total	719.87	9.55	(1.15)	728.27	233.40	41.85	(1.15)	274.10	454.17

a) The right to use of land and others are amortized over the period of legal right to use or life of the related plant, whichever is less.

b) Addition to intangible assets through internal development is Nil in all the reported periods.

c) Right to use - Others represents cost of acquisition of the right for drawl of water at three stations of the Company.

d) Deductions/adjustments from gross block and amortization for the year includes:

₹ Crore

Particulars	Gross block		Amortization	
	For the year ended		For the year ended	
	31 March 2024	31 March 2023	**31 March 2024**	31 March 2023
Retirements and other adjustments	**(8.79)**	(1.15)	**(8.79)**	(1.15)
Total	**(8.79)**	(1.15)	**(8.79)**	(1.15)

e) Gross carrying amount of the fully amortised intangible assets that are still in use :

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Software	**104.77**	91.16
Total	**104.77**	91.16

f) Refer Note 75 (C) (a) for disclosure of contractual commitments for the acquisition of intangible assets.

6. Non-current assets - Intangible assets under development

As at 31 March 2024 **₹ Crore**

Particulars	As at 1 April 2023	Additions	Deductions/ adjustments	Capitalized	As at 31 March 2024
Exploration and evaluation assets - coal mines	86.37	-	(41.58)	-	**44.79**
Exploratory wells-in-progress	7.64	-	-	-	**7.64**
Software	3.34	0.48	-	0.63	**3.19**
	97.35	0.48	(41.58)	0.63	**55.62**
Less: Provision for unserviceable works	52.43	-	-	-	**52.43**
Total	**44.92**	**0.48**	**(41.58)**	**0.63**	**3.19**

As at 31 March 2023 ₹ Crore

Particulars	As at 1 April 2022	Additions	Deductions/ adjustments	Capitalized	As at 31 March 2023
Exploration and evaluation assets - coal mines	142.05	8.52	(64.20)	-	86.37
Exploratory wells-in-progress	7.64	-	-	-	7.64
Software	1.21	2.15	-	0.02	3.34
	150.90	10.67	(64.20)	0.02	97.35
Less: Provision for unserviceable works	52.43	-	-	-	52.43
Total	98.47	10.67	(64.20)	0.02	44.92

a) Refer Note 65 w.r.t. exploration and evaluation of assets-coal mines.



7. Non-current financial assets -Equity investments in subsidiary and joint venture companies

₹ Crore

Particulars	Number of shares Current year/ (previous year)	Face value share in ₹ Current year/ (previous year)		As at 31 March 2024	As at 31 March 2023
Equity instruments - Unquoted (fully paid up - unless otherwise stated, at cost)					
Subsidiary companies					
NTPC Electric Supply Company Ltd.	80,910 (80,910)	10 (10)		**0.08**	0.08
NTPC Vidyut Vyapar Nigam Ltd.	3,00,00,000 (3,00,00,000)	10 (10)		**30.00**	30.00
Bhartiya Rail Bijlee Company Ltd.	1,77,41,21,538 (1,77,41,21,538)	10 (10)		**1,774.12**	1,774.12
Patratu Vidyut Utpadan Nigam Ltd.	2,16,45,54,000 (1,63,76,24,000)	10 (10)		**2,164.55**	1,637.62
NTPC Mining Ltd.	15,41,00,000 (50,000)	10 (10)		**154.10**	0.05
NTPC EDMC Waste Solutions Private Ltd.	1,48,000 (1,48,000)	10 (10)		**0.15**	0.15
Ratnagiri Gas & Power Private Ltd.	2,83,00,76,305 (2,83,00,76,305)	10 (10)	**834.55**		834.55
Less: Provision for impairment			-		834.55
				834.55	-
THDC India Limited	2,73,09,412 (2,73,09,412)	1,000 (1,000)		**7,500.00**	7,500.00
North Eastern Electric Power Corporation Limited	3,60,98,10,400 (3,60,98,10,400)	10 (10)		**4,000.00**	4,000.00
NTPC Green Energy Limited	5,71,96,11,035 (4,71,96,11,035)	10 (10)		**5,719.61**	4,719.61
				22,177.16	19,661.63
Joint venture companies					
Utility Powertech Ltd. (includes 10,00,000 bonus shares)	20,00,000 (20,00,000)	10 (10)		**1.00**	1.00
NTPC-GE Power Services Private Ltd.	30,00,000 (30,00,000)	10 (10)		**3.00**	3.00
NTPC-SAIL Power Company Ltd.	49,02,50,050 (49,02,50,050)	10 (10)		**490.25**	490.25
NTPC Tamil Nadu Energy Company Ltd.	1,46,63,96,112 (1,43,63,96,112)	10 (10)		**1,466.40**	1,436.40
Aravali Power Company Private Ltd.	1,43,30,08,200 (1,43,30,08,200)	10 (10)		**1,433.01**	1,433.01
NTPC BHEL Power Projects Private Ltd.	5,00,00,000 (5,00,00,000)	10 (10)	**50.00**		50.00
Less: Provision for impairment			**50.00**		50.00
				-	-
Meja Urja Nigam Private Ltd.	1,82,63,34,800 (1,78,44,09,800)	10 (10)		**1,826.33**	1,784.41
Transformers and Electricals Kerala Ltd.	1,91,63,438 (1,91,63,438)	10 (10)	**31.34**		31.34
Less: Provision for impairment			**25.87**		-
				5.47	31.34
National High Power Test Laboratory Private Ltd.	4,88,00,000 (3,04,00,000)	10 (10)	**48.80**		30.40
Less: Provision for impairment			**36.48**		30.40
				12.32	-
Energy Efficiency Services Ltd.	84,66,10,000 (46,36,10,000)	10 (10)	**846.61**		463.61
Less: Provision for impairment			**149.10**		-
				697.51	463.61
CIL NTPC Urja Private Ltd.	76,900 (76,900)	10 (10)		**0.08**	0.08
Anushakti Vidhyut Nigam Ltd.	49,000 (49,000)	10 (10)		**0.05**	0.05
Hindustan Urvarak and Rasayan Ltd.	2,64,29,85,000 (2,29,59,55,000)	10 (10)		**2,642.99**	2,295.95
Jhabua Power Limited	32,50,00,000 (32,50,00,000)	10 (10)		**325.00**	325.00
Trincomalee Power Company Ltd.(* Srilankan rupees)	34,86,061 (32,86,061)	100* (100)*	**15.64**		15.20
Less: Provision for impairment			**14.28**		14.28
				1.36	0.92
Bangladesh-India Friendship Power Company Private Ltd. (**Bangladeshi Taka)	16,00,00,000 (13,92,50,000)	100* (100)*		**1,324.02**	1,162.02
				10,228.79	9,427.04
Total				**32,405.95**	29,088.67
Aggregate amount of unquoted investments (net of provision for impairment)				**32,405.95**	29,088.67
Aggregate amount of impairment in the value of investments				**275.73**	929.23

a) Investments have been valued as per material accounting policy no. C.22.1 (Note 1).

b) The Company has an investment of **₹ 834.55 crore** (31 March 2023: ₹ 834.55 crore) in Ratnagiri Gas and Power Private Ltd. (RGPPL), a Subsidiary of the Company. The entire investment was considered impaired and provided for in the earlier years considering the financial position of the Subsidiary. During the year, fair valuation of investment in the Subsidiary was carried out and considering the same, the provision made in the earlier years has been written back and disclosed as an Exceptional item in the Statement of Profit and Loss. Also refer Note 51.

c) The Resolution Plan submitted by the company and approved by National Company Law Tribunal (NCLT), Kolkata bench in respect of Jhabua Power Limited (JPL) having installed and commercial capacity of 600 MW thermal power station, was implemented on 5 September 2022 for a total consideration of ₹ 925 crore, out of which ₹ 325 crore was contributed as equity (face value of ₹ 10 each) and ₹ 600 crore was paid for the allotment of 5,99,99,994 numbers of 8.5% Non-Convertible Debentures (NCDs) of face value of ₹ 100 each. Pursuant to above, NTPC has acquired 50% equity in the Company (JPL) in the previous year. Based on the shareholders agreement which provides for joint control over the company, the investment in the company is considered as joint venture and accounted for accordingly.

d) The Board of NTPC Ltd. in its meeting dated 29 October 2022 has accorded approval to the Supplementary JV Agreement of Anushakti Vidyut Utpadan Nigam Limited, a Joint Venture of the Company, to align the document in

line with Atomic Energy Act 2016 amendment so that the Joint Venture Company may initiate process for setting up of nuclear power projects. Accordingly, Supplementary JV Agreement was signed between NTPC and NPCIL on 1 May 2023 subject to approval of Department of Atomic Energy (DAE).

e) Promoters of National High Power Testing Laboratory Ltd. (NHPTL), a joint venture of the Company, in the meeting held on 15 September 2022, under the chairmanship of Secretary Power, MoP, has accorded approval of revival plan of NHPTL. Subsequently, Board of NTPC Limited has accorded approval to the restructuring plan on 11 March 2023. During the year, the Company has converted the loan given to NHPTL, into equity amounting to ₹ 18.40 crore and unpaid interest amounting to ₹ 2.31 crore on the loan has been waived off. The related activities of restructuring plan was under implementation as at 31 March 2024. Based on the un-audited accounts of NHPTL as at 31 March 2024, provision for impairment loss on the investment in the joint venture of **₹ 36.48 crore** (upto 31 March 2023: ₹ 30.40 crore) has been made.

Further, pursuant to agreement entered on 23 April 2024 with the promoters of NHPTL, the share holding of the company in the Joint venture will get reduced to 12.50% and activities related to the same are in progress.

f) The Board of Directors of the Company in its meeting held on 28 April 2016 accorded in principle approval for withdrawal from NTPC BHEL Power Projects Private Ltd. (NBPPL), a joint venture of the Company. A meeting was held on 3 October 2022 at MOP to discuss the way forward for NBPPL. In the meeting, it was decided that the process of winding up of NBPPL will be taken up by both the promoters after the completion of balance on going work at one of the projects of the Company. Pending withdrawal, provision for impairment loss on the entire investment in NBPPL of **₹ 50.00 crore** (upto 31 March 2023: ₹ 50.00 crore) has been made based on the un-audited accounts of NBPPL as at 31 March 2024.

g) The Board of Directors of the Company in its meeting held on 28 April 2016 accorded in principle approval for withdrawal from Transformers and Electricals Kerala Ltd. (TELK), a joint venture of the Company. GOI has accorded its approval for exit of NTPC from the joint venture. The decision of the Board of Directors of NTPC Limited and approval of GOI has been conveyed to the Government of Kerala (GoK) (JV Partner) & TELK vide letter dated 10.02.2017. GoK has in-principally agreed for the exit of the NTPC Ltd. subject to valuation of NTPC's share based on up-to-date audited results of TELK. The Company is following up with TELK for obtaining the updated audited results which are yet to be finalized. Pending the same, provision for impairment loss on the investment in TELK amounting to **₹ 25.87 crore** (upto 31 March 2023: ₹ Nil) has been made based on the un-audited accounts of TELK as at 31 March 2024.

h) In respect of Hindustan Urvarak and Rasayan Ltd.,(HURL) a joint venture of the Company, Department of Fertiliser (DoF) has communicated to explore possibility of disinvestment in HURL vide letter dated 12 October 2022. Consequently, approvals of Board and respective ministries have been obtained by all the three lead promoters (IOCL, NTPC & CIL) for disinvestment. HURL has sought clarification from DoF with respect to disinvestment of 10.99 % shareholding of fertilizer companies (FCIL / HFCL), who had provided land on lease to HURL, and the same is awaited.

i) NTPC EDMC Waste Solutions Private Limited (NEWS) was incorporated on 1 June 2020 to develop and operate integrated waste management and energy generation facility using municipal solid waste. However, due to non availability of suitable land and PPA, the project was dropped. NTPC vide letter dated 4 May 2022 has requested the consent of Municipal Corporation of Delhi (MCD)/East Delhi Municipal Corporation (EDMC) for transfer of MCD's equity stake (26%) in NEWS to NTPC or its affiliate Company. MCD vide their letter dated 24 January 2024 has communicated their in principle approval for the same. Modalities for transfer are being worked out.

j) The Company has an investment of **₹ 846.61 crore** (31 March 2023: ₹ 463.61 crore) in Energy Efficiency Services Ltd., a joint venture of the Company. During the year, impairment testing of the investment was carried out based on which a provision for impairment amounting to ₹ 149.10 crore has been made. Also refer Note 62.

k) The Company has an investment of **₹ 15.64 crore** (31 March 2023: ₹ 15.20 crore) in Trincomalee Power Company Ltd, a joint venture of the Company. A provision for impairment on the investments amounting to **₹ 14.28 crore** (31 March 2023 : ₹ 14.28 crore) has been maintained based on their unaudited financial statements for the year ended 31 March 2024.

l) Restrictions for the disposal of investments held by the Company and commitments towards certain subsidiary & joint venture companies are disclosed in Note 75 (C) (b) and (c).

m) Refer Note 62 w.r.t. impairment of investments made in subsidiary and Joint Venture Companies.

8. Non-current financial assets - Other investments

₹ Crore

Particulars	Number of instrument Current year/ (previous year)	Face value per instrument in ₹ Current year/ (previous year)	As at 31 March 2024	As at 31 March 2023
Equity instruments (fully paid up - unless otherwise stated)				
Quoted (designated at fair value through other comprehensive income)				
PTC India Ltd.	1,20,00,000 (1,20,00,000)	10 (10)	**223.20**	102.30
			223.20	102.30
Unquoted (measured at fair value through profit or loss)				
International Coal Ventures Private Ltd.	14,00,000 (14,00,000)	10 (10)	**1.40**	1.40
BF-NTPC Energy Systems Ltd.	68,48,681 (68,48,681)	10 (10)	**2.38**	2.38
			3.78	3.78
Co-operative societies			**#**	#
Debt instruments in Joint Venture Companies (fully paid up)				
Unquoted (measured at amortised cost)				
Jhabua Power Limited-8.5% Non convertible debentures - private placement -Redeemable in forty eight quarterly equal installments (Refer Note 14 for current portion of the instrument and Note 7(c) for details of transaction)	5,24,99,994 (5,74,99,994)	100 (100)	**475.00**	525.00
Total			**701.98**	631.08
Aggregate amount of quoted investments at cost			**12.00**	12.00
Aggregate market value of the quoted investments			**223.20**	102.30
Aggregate amount of unquoted investments at cost			**478.78**	528.78

#Equity shares of **₹ 30,200/-** (31 March 2023: ₹ 30,200/-) held in various employee co-operative societies.

a) Investments have been valued as per material accounting policy no. C.22.1 (Note 1).

b) The Board of Directors of NTPC Ltd in its meeting held on 28 April 2016 accorded in principle approval for withdrawal from PTC India Ltd. (PTC). As the Company was formed by a directive from the GOI, approval of the GOI was required for exit by NTPC. Ministry of Power has accorded permission for NTPC to exit from PTC on 22 February 2022. Further in line with the MOP directive that all the Promoter CPSEs along with DVC may exit together in one go from PTC, NTPC Board in its 529th meeting held on 19 May 2023 has accorded approval for exit of NTPC along with other CPSEs from PTC. NTPC is in discussion with other CPSEs & Merchant Banker to finalize the modalities of exit from PTC.

c) The Board of Directors of NTPC Ltd in its meeting held on 27 January 2012 accorded in principle approval for withdrawal from International Coal Ventures Private Ltd. (ICVPL). NTPC Board has accorded fresh approval for exiting from ICVPL on 20 May 2022. Department of Investment and Public Asset Management (DIPAM) of GoI vide OM dated 1 June 2022 has empowered Board of Directors of Public Sector Undertakings to exit from Joint Ventures and Subsidiaries and send proposal to DIPAM through administrative Ministry for approval. Communication sent to Steel Authority of India Ltd & ICVPL regarding DIPAM guidelines for consideration. Pending withdrawal, the Company had lost the joint control over the entity and accordingly, has classified the investment in ICVPL as 'Investment in unquoted equity instruments.Pending withdrawal, the Company had lost the joint control over the entity and accordingly, has classified the investment in ICVPL as 'Investment in unquoted equity instruments'.

d) The Board of Directors of NTPC Limited in its meeting held on 19 June 2014 accorded in principle approval for withdrawal from BF-NTPC Energy Systems Ltd. (BFNESL), a joint venture of the Company. As BFNESL was formed by a directive from the GOI, approval of the GOI was sought for exit by the Company. Ministry of Power, GoI conveyed its approval for winding up of BF-NTPC on 8 January 2018. Consequently, liquidator was appointed in the extra-ordinary general meeting of BFNESL held on 9 October 2018. Company has only Land Asset. However, due to high circle rate of the area, there is huge capital Gain tax implication and thus, unable to auction the land. Alternatives are being discussed by Liquidator with Promoters. Pursuant to winding up proceedings, the Company had lost the joint control over the entity and accordingly, has classified the investment in BFNESL as 'Investment in unquoted equity instruments. The difference between the cost of investment and the fair value has been provided for in the earlier years.

e) The number of Debentures of Jhabua PowerLimited mentioned above includes current portion of Debntures to be redeemed.

f) The Company is of the view that provisions of Ind AS 24 'Related Party Disclosures' and Ind AS 111 'Joint Arrangements' are not applicable to the investments made in PTC India Ltd., International Coal Ventures Private Ltd. and BF-NTPC Energy systems Ltd., and the same has been accounted for as per the provisions of Ind AS 109 'Financial Instruments'. Also Refer Note 59 (g) for investments in PTC India Ltd.

g) No strategic investments in equity instruments measured at FVTOCI were disposed during the financial year 2023-24, and there were no transfers of any cumulative gain or loss within equity relating to these investments.

h) Movement in quoted investments

₹ Crore

Opening balance	**102.30**	98.70
Add / less: Mark to Market gain / loss through FVTOCI	**120.90**	3.60
Closing balance	**223.20**	102.30

9. Non-current financial assets - Loans

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Loans (Considered good, unless otherwise stated)		
Related parties		
Secured	**259.32**	712.43
Unsecured	**0.08**	12.43
Considered doubtful	**-**	3.09
Less: Allowance for bad and doubtful loans	**-**	3.09
	259.40	724.86
Employees (including accrued interest)		
Secured	**365.21**	316.80
Unsecured	**163.15**	174.61
Others		
Unsecured	**12.90**	17.20
Total	**800.66**	1,233.47

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
a) Due from directors and officers of the Company		
Directors	**0.08**	-
Officers	**-**	0.20
b) Loans to related parties include:		
Key management personnel	**0.08**	0.20
National High Power Test Laboratory Private Ltd. (Joint venture company) (net of allowance for bad and doubtful loan) (Refer Note 7 for conversion of loan into equity)	**-**	11.63
Ratnagiri Gas & Power Private Ltd. (Subsidiary company)	**259.32**	712.43
NTPC Education and Research Society	**-**	0.60

c) Loan to Ratnagiri Gas & Power Company Private Ltd.(RGPPL) is secured by first ranking pari passu charge/ mortgage on the assets (moveable and immoveable, tangible and intangible and current assets) of the Subsidiary, both present and future. During the year, RGPPL has pre-paid the loan amounting to ₹ 400.00 crore and the same has been adjusted from the non-current dues.

d) Loans - Others represent loan of **₹ 12.90 crore** (31 March 2023: ₹ 17.20 crore) given to Andhra Pradesh Industrial Infrastructure Corporation Ltd. (APIIC) which is covered by a guarantee given by the Government of Andhra Pradesh vide GO dated 3 April 2003.

e) Loans to the employees are secured against the mortgage of the house properties and hypothecation of vehicles for which such loans have been given in line with the policies of the Company.

10. Non-current financial assets - Trade receivables

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Trade receivables		
Unsecured, considered good	**1,168.10**	2,399.78

a) Pursuant to Electricity (Late Payment Surcharge and Related Matters) Rules, 2022 notified on 3 June 2022 and the application made by some of the beneficiaries for redetermination of their payment of dues under these Rules, the outstanding dues of such beneficiaries including late payment surcharge (LPSC) have been rescheduled upto a maximum period of 48 months in the manner prescribed in the said Rules and no LPSC are charged on the outstanding dues. The dues of such beneficiaries have been presented at their fair value under Non- current Trade Receivables considering the requirements of applicable Indian Accounting Standards. Consequently, the fair value difference amounting to **₹ 37.74 crore** (31 March 2023: ₹ 386.84 crore) has been charged to Statement of Profit and Loss (Refer Note 46). Out of the above, an amount of **₹ 155.96 crore** (31 March 2023: ₹ 149.88 crore) has been accounted as interest from non current trade receivables (Refer Note 41).

b) No amount is receivable from related party.

11. Non-current assets - Other financial assets

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Share application money pending allotment in		
Subsidiary companies		
Patratu Vidyut Utpadan Nigam Ltd.	-	100.00
	-	100.00
Joint venture companies		
Meja Urja Nigam Private Ltd.	-	7.49
NTPC-Tamil Nadu Energy Company Ltd.	-	30.00
Trincomalee Power Company Ltd.	-	0.44
	-	37.93
Claims recoverable	**485.07**	517.28
Finance lease receivables (Refer Note 72)	-	201.56
Mine closure deposit	**142.91**	66.16
Total	**627.98**	922.93

a) Claims recoverable includes amount outstanding as recoverable from GOI of **₹ 483.37 crore** (31 March 2023: ₹ 517.28 crore)in respect of one of the hydro power projects, the construction of which has been discontinued on the advice of the Ministry of Power (MOP), GOI in the year 2010. The aforesaid amount includes **₹ 269.93 crore** (31 March 2023: ₹ 302.16 crore) in respect of arbitration awards challenged by the Company before Hon'ble High Court of Delhi for which corresponding liability exists under Current liabilities - Provisions - Provision for arbitration awards (Note 36). In the event the Hon'ble High Court grants relief to the Company, the amount would be adjusted against the amount recoverable from GOI. Management expects that the total cost incurred, anticipated expenditure on the safety and stabilisation measures, other recurring site expenses and interest costs as well as claims of contractors/ vendors for various packages for this project will be compensated in full by the GOI.

b) The Company had ascertained that the Power Purchase Agreement (PPA) entered into for Stage-I of a power station with the beneficiary falls under the definition of finance lease. Accordingly, the written down value of the specified assets was derecognized from PPE and accounted as Finance Lease Receivable (FLR) on transition to Ind AS. The Company has continued to classify this arrangement with its customer as lease based on the practical expedient provided in Ind AS 116. Accordingly, recovery of capacity charges towards depreciation, interest on loan capital & return on equity (pre-tax) components from the beneficiary are continued to be adjusted against FLR. The interest component of the FLR and amount received on account of revision of tariff of previous periods in respect of the above three elements are continued to be recognised as 'Interest income on Assets under finance lease' under 'Revenue from operations' (Note 40). The PPA is expiring in the next financial year and accordingly the balance lease recoverable has been included under 'Current assets - Other financial assets'.

c) As per the guidelines from Ministry of Coal, Government of India for preparation of Mine Closure Plan, Escrow Accounts have been opened for each captive mine and the balances held in these escrow accounts are presented as 'Mine closure deposit'. Up to 80% of the total deposited amount including interest accrued in the escrow account shall be released after every five years in line with the periodic examination of the closure plan as per the Guidelines. Interest earned on the escrow account is added to mine closure deposit account.

12. Other non-current assets

₹ Crore

Particulars		As at 31 March 2024	As at 31 March 2023
Capital advances (Considered good unless otherwise stated)			
Secured		**1.45**	1.88
Unsecured			
Covered by bank guarantees		**2,826.48**	2,204.51
Others		**3,261.18**	3,820.30
Considered doubtful		**53.86**	67.70
Less: Allowance for bad and doubtful advances		**53.86**	67.70
		6,089.11	6,026.69
Advances other than capital advances (Considered good unless otherwise stated)			
Security deposits (unsecured)		**303.05**	306.87
Advances to contractors and suppliers			
Unsecured	**1,666.51**		1,810.82
Considered doubtful	**112.57**		112.57
Less: Allowance for bad and doubtful advances	**112.57**		112.57
		1,666.51	1,810.82
Prepaid Expenses		**28.81**	25.51
Advance tax and tax deducted at source	**16,446.05**		14,730.96
Less: Provision for tax	**14,251.99**		12,254.94
		2,194.06	2,476.02
Deferred foreign currency fluctuation asset		**1,486.57**	1,565.41
Deferred payroll expenditure		**107.77**	103.02
Adjustable from Escrow Account towards mine closure expenses		**62.82**	39.30
Total		**11,938.70**	12,353.64

a) In line with material accounting policy no. C.12 (Note 1), deferred foreign currency fluctuation asset has been accounted and **₹ 89.79 crore** (31 March 2023: ₹ 830.98 crore) being the exchange fluctuations on account of foreign currency loans have been adjusted in 'Energy sales' under 'Revenue from operations'. Further, an amount of **₹ 10.95 crore** (31 March 2023: ₹ 915.67 crore) has been recognised as deferred foreign currency fluctuation asset corresponding to exchange differences capitalised during the year. (Note 40).

b) Capital advances include amounts given as advance against works to the following private companies (related parties) in which one or more directors of the Company are directors:

NTPC BHEL Power Projects Private Ltd.	**281.96**	274.25

c) Capital advances include **₹ 224.29 crore** (31 March 2023: ₹ 224.29 crore), paid to a contractor pending settlement of certain claims which are under litigation. The amount will be adjusted with the cost of related work or recovered from the party, depending upon the outcome of the legal proceedings.



d) Advances to contractors and suppliers include payments to Railways amounting to **₹ 1,580.42 crore** (31 March 2023: ₹ 1,708.03 crore) under customer funding model as per policy on 'Participative model for rail-connectivity and capacity augmentation projects' issued by the Ministry of Railways, GOI. As per this policy, an agreement has been signed between the Company and the Ministry of Railways, GOI on 6 June 2016. As per the agreement, railway projects agreed between the Company and Railways will be constructed, maintained and operated by Railways and ownership of the line and its operations and maintenance will always remain with them. Railways will pay upto 7% of the amount invested through freight rebate on freight volumes every year till the funds provided by the Company are fully recovered along-with interest (equal to the prevailing rate of dividend payable by Railways at the time of signing of respective agreements), subject to the rebate not exceeding the freight amount in the accounting year, after commercial operation date (COD) of the railway projects. The advance is adjusted at projects which have achieved COD based on confirmation from Railways towards freight rebate in consonance with the agreement terms and the interest portion is recognised in Note-41-'Other income'.

e) Secured capital advances are secured against the hypothecation of the construction equipment/material supplied by the contractors/suppliers.

f) Loans given to employees are measured at amortized cost. The deferred payroll expenditure represents the benefits on account of interest rate on loans being lower than the market rate of interest. The same is amortized on a straight-line basis over the remaining period of the loan.

13. Current assets - Inventories

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Coal	**7,560.67**	5,064.63
Fuel oil	**879.95**	892.97
Naphtha	**83.66**	85.05
Stores and spares	**7,148.84**	6,231.13
Chemicals and consumables	**287.72**	236.60
Loose tools	**16.21**	14.38
Others	**1,628.71**	1,357.33
	17,605.76	13,882.09
Less : Provision for shortages	**15.06**	15.99
Provision for obsolete/unserviceable items/ diminution in value of surplus inventory	**220.87**	186.35
Total	**17,369.83**	13,679.75
Inventories include material-in-transit		
Coal	**495.62**	426.44
Stores and spares	**14.40**	19.40
Chemicals and consumables	**5.31**	2.20
Loose tools	**0.01**	0.04
Others	**2.08**	6.68

a) Inventory items have been valued as per material accounting policy no. C.8 (Note 1).

b) Inventories - Others includes steel, cement, ash bricks etc.

c) Refer Note 53 (a) for information on inventories consumed and recognised as expense during the year.

d) Refer Note 53 (b) for information on inventories pledged as security by the Company.

e) Paragraph 32 of Ind AS 2 'Inventories' provides that materials and other supplies held for use in the production of inventories are not written down below cost if the finished products in which they will be incorporated are expected to be sold at or above cost. The Company is operating in the regulatory environment and as per CERC Tariff Regulations, cost of fuel and other inventory items are recovered as per extant tariff regulations. Accordingly, the realizable value of the inventories is not lower than the cost.

14. Current financial assets - Investments

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Current maturity of non current investments		
Investment in debt instruments in Joint venture companies (Unquoted - measured at amortised cost)		
Jhabua Power Limited-8.5% Non convertible debentures - private placement (Refer Note 8)	**50.00**	50.00
Total	**50.00**	50.00

a) Investments have been valued as per material accounting policy no. C.22 (Note 1)

15. Current financial assets - Trade receivables

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Trade receivables		
Unsecured, considered good	**27,347.52**	26,028.64
Credit impaired	**0.20**	0.20
	27,347.72	26,028.84
Less: Allowance for credit impaired trade receivables	**0.20**	0.20
Total	**27,347.52**	26,028.64

a) Refer Note 54 for restatement of Trade receivables for the previous periods pursuant to opinion of Expert Advisory committee of Institute of Chartered Accountants of India.

b) Amounts receivable from related parties are disclosed in Note 59 (c).

c) Trade receivables include revenue for the month of March amounting to **₹ 13,326.46 crore** (31 March 2023: ₹ 11,176.95 crore) net of advance, billed to the beneficiaries after 31 March.

d) The carrying amount of trade receivables include receivables amounting to **₹ 1,824.71 crore** (31 March 2023: ₹ 1,287.19 crore) towards bills of customers discounted through bill discounting facility availed from banks. The facility is with recourse to the Company i.e. if the customer fails to make payment on due date, the Company will be required to make the payment. Under this arrangement, the Company has transferred the receivables to the bank in exchange for cash and is prevented from selling or pledging the receivables. Further, the Company has retained substantially all of the risks and rewards, primarily late payment and credit risk, therefore these trade receivables have not been derecognized from the balance sheet. The amount received from the bank under the facility has been recognized under 'Current financial liabilities – Borrowings (Secured)' (refer Note 31(d)). The Company considers that the held to collect business model remains appropriate for these receivables and accordingly, continues to measure them at amortised cost.



(d) Trade Receivables ageing schedule

As at 31 March 2024

₹ Crore

Particulars	Unbilled	Not Due	Outstanding for following periods from due date of payment					Total
			Less than 6 months	6 months - 1 year	1-2 years	2-3 years	More than 3 years	
(i) Undisputed Trade receivables – considered good	13,609.03	9,740.33	2,933.47	84.57	32.22	19.16	61.52	26,480.30
(ii) Undisputed Trade Receivables – which have significant increase in credit risk	-	-	-	-	-	-	-	-
(iii) Undisputed Trade Receivables – credit impaired	-	-	-	-	-	-	-	-
(iv) Disputed Trade Receivables– considered good	-	18.88	13.66	94.43	63.07	509.86	167.32	867.22
(v) Disputed Trade Receivables – which have significant increase in credit risk	-	-	-	-	-	-	-	-
(vi) Disputed Trade Receivables – credit impaired	-	-	-	-	-	-	0.20	0.20
Sub-total	13,609.03	9,759.21	2,947.13	179.00	95.29	529.02	229.04	27,347.72
Less: Allowance for credit impaired trade receivables	-	-	-	-	-	-	0.20	0.20
Total	13,609.03	9,759.21	2,947.13	179.00	95.29	529.02	228.84	27,347.52

As at 31 March 2023

₹ Crore

Particulars	Unbilled	Not Due	Outstanding for following periods from due date of payment					Total
			Less than 6 months	6 months - 1 year	1-2 years	2-3 years	More than 3 years	
(i) Undisputed Trade receivables – considered good	12,447.25	9,776.81	1,059.91	1,219.55	62.65	2.49	54.58	24,623.24
(ii) Undisputed Trade Receivables – which have significant increase in credit risk	-	-	-	-	-	-	-	-
(iii) Undisputed Trade Receivables – credit impaired	-	-	-	-	-	-	-	-
(iv) Disputed Trade Receivables– considered good	-	25.56	78.49	130.12	677.94	151.36	341.93	1,405.40
(v) Disputed Trade Receivables – which have significant increase in credit risk	-	-	-	-	-	-	-	-
(vi) Disputed Trade Receivables – credit impaired	-	-	-	-	-	-	0.20	0.20
Sub-total	12,447.25	9,802.37	1,138.40	1,349.67	740.59	153.85	396.71	26,028.84
Less: Allowance for credit impaired trade receivables	-	-	-	-	-	-	0.20	0.20
Total	12,447.25	9,802.37	1,138.40	1,349.67	740.59	153.85	396.51	26,028.64

16. Current financial assets - Cash and cash equivalents

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Balances with banks in current accounts	**197.13**	2.18
Cheques and drafts on hand	**-**	0.91
Others (stamps on hand)	**0.03**	0.04
Total	**197.16**	3.13

17. Current financial assets - Bank balances other than cash and cash equivalents

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Deposits with original maturity of more than three months and maturing within one year (including interest accrued)	**2,377.23**	1,588.60
Earmarked balances with banks #	**2,026.11**	2,150.00
Total	**4,403.34**	3,738.60
#Earmarked balances with banks towards:		
Redemption of bonds due for repayment within one year	**723.00**	1,033.00
Fly ash utilization reserve fund*	**902.81**	729.82
DDUGJY and other Schemes of GOI**	**283.42**	283.26
Unpaid dividend account balance	**17.74**	19.07
Amount deposited as per court orders	**37.28**	37.28
Unpaid interest/refund account balance - Bonds	**12.12**	9.04
Payment Security Fund - MNRE Refer Note (a) below	**49.18**	37.97
Unpaid interest on public deposit	**0.03**	0.03
Amount deposited-arbitration cases	**0.53**	0.53
Total	**2,026.11**	2,150.00

* Refer Note 24 (d) regarding fly ash utilization reserve fund.

** Out of advances for the schemes of GOI. Refer Note 34(b) and 35(a).

a) In line with the guidelines issued by Ministry of New and Renewable Energy (MNRE), GOI under National Solar Mission-II, a Payment Security Mechanism (PSM) /Working Capital Fund will be set up/created by the MNRE. Upon creation of the said fund, amounts accrued from encashment of bank guarantee, penalties/liquidated damages on developers deducted by the Company from the Solar Power Developers (SPDs) as per the guidelines of MNRE shall be transferred to this fund. Subsequently, MNRE has asked the Company to maintain the PSM fund. The fund is retained till further directions for payment to MNRE or any other authority as may be directed.



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18. Current financial assets - Loans

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Loans (including interest accrued) (Considered good unless otherwise stated)		
Related parties		
Secured	**53.10**	53.10
Unsecured	**100.00**	1.64
Considered doubtful	**-**	3.68
Less: Allowance for bad and doubtful loans	**-**	3.68
	153.10	54.74
Employees		
Secured	**86.68**	77.77
Unsecured	**171.77**	175.64
Others		
Unsecured	**4.30**	4.30
Total	**415.85**	312.45
a) Due from Directors and Officers of the Company		
Directors	**-**	0.16
Officers	**-**	0.10
b) Loans to related parties include:		
Key management personnel	**-**	0.26
Ratnagiri Gas & Power Private Ltd. (Subsidiary company) [Refer Note 9 c)]	**153.10**	53.10
National High Power Test Laboratory Private Ltd. (Joint venture company) (net of allowance for bad and doubtful loan) (Refer Note 7 for conversion of loan into equity)	**-**	1.38

c) Other loans represent interest on loan of **₹ 4.30 crore** (31 March 2023: interest on loan of ₹ 4.30 crore) given to APIIC which is covered by a guarantee given by the Government of Andhra Pradesh vide GO dated 3 April 2003.

d) Loans to the employees are secured against the mortgage of the house properties and hypothecation of vehicles for which such loans have been given in line with the policies of the Company.

19. Current assets - Other financial assets

₹ Crore

Particulars		As at 31 March 2024	As at 31 March 2023
Advances (Considered good unless otherwise stated)			
Related parties			
Unsecured		**171.26**	3,345.64
Employees			
Unsecured	**10.57**		12.79
Considered doubtful	**0.03**		0.03
Less: Allowance for bad and doubtful advances	**0.03**		0.03
		10.57	12.79
Others			
Unsecured		**0.34**	1.33
Claims recoverable			
Unsecured, considered good	**235.75**		280.35
Considered doubtful	**349.54**		349.32
Less: Allowance for doubtful claims	**349.54**		349.32
		235.75	280.35
Contract assets		**10,682.16**	7,096.08
Finance lease receivables		**211.01**	83.63
Mine closure deposit		**26.09**	37.31
Dividend receivable		**223.49**	350.00
Hedging cost recoverable		**10.51**	-
Others		**93.76**	66.68
Total		**11,664.94**	11,273.81

a) Contract Assets represent Company's right to consideration in exchange for goods and services that the Company has transferred / provided to customers when that right is conditioned on matters, other than passage of time, like receipt of income tax assessment orders, trueing up orders from CERC,etc. and are net of credits to be passed to customers.

b) Advances to related parties include:		
Key Managerial Personnel	**-**	-
Subsidiary companies	**67.96**	3,180.76#
Joint venture companies	**59.13**	76.77
Post employment benefits Trusts	**44.17**	88.11

Includes balance amounts recoverable in terms of BTA for transfer of RE assets after adjustment of subsequent transactions which have been received / adjusted during the year.

c) Advances to related parties include amounts due from the following private companies in which one or more directors of the Company are directors:		
NTPC-GE Power Services Private Ltd.	**4.25**	3.30
Aravali Power Company Private Ltd.	**14.99**	15.64
NTPC BHEL Power Projects Private Ltd.	**3.14**	1.20
Meja Urja Nigam Private Ltd.	**18.60**	7.34

d) Other financial assets - Others include amount recoverable from contractors and other parties towards hire charges, rent/electricity etc.

e) Dividend receivable represents interim dividend declared by the Board of THDC India Ltd. (Subsidiary of the Company) on 31 March 2024 (31 March 2023 - NEEPCO Ltd.), which has since been received.



20. Current assets - Other current assets

₹ Crore

Particulars		As at 31 March 2024	As at 31 March 2023
Security deposits			
Unsecured	**1,863.76**		2,322.88
Considered doubtful	**500.00**		-
Less: Allowance for bad and doubtful advances	**500.00**		-
		1,863.76	2,322.88
Advances (Considered good unless otherwise stated)			
Related parties			
Unsecured		**96.89**	0.31
Employees			
Unsecured		**5.75**	5.90
Contractors and suppliers			
Unsecured	**4,663.28**		4,376.18
Considered doubtful	**3.19**		3.93
Less: Allowance for bad and doubtful advances	**3.19**		3.93
		4,663.28	4,376.18
Prepaid expenses		**38.34**	42.58
Others			
Unsecured		**0.71**	1.29
		4,804.97	4,426.26
Interest accrued on			
Advance to contractors		**63.93**	68.45
Claims recoverable			
Unsecured, considered good	**4,030.67**		3,852.26
Considered doubtful	**125.59**		125.84
Less: Allowance for doubtful claims	**125.59**		125.84
		4,030.67	3,852.26
Deferred payroll expenditure		**22.03**	20.07
Adjustable from Escrow Account for mine closure expenses		**28.80**	28.15
Others		**93.34**	8.08
Total		**10,907.50**	10,726.15

a) Security deposits (unsecured) include **₹ 41.98 crore** (31 March 2023: ₹ 54.20 crore) towards sales tax/GST deposited with sales/commercial tax authorities, **₹ 1,233.32 crore** (31 March 2023: ₹ 1,458.49 crore) deposited with Courts, **₹ 223.20 crore** (31 March 2023: ₹ 218.83 crore) deposited with LIC for making annuity payments to the land oustees. Further an amount of **₹ 500.00 crore** (31 March 2023: ₹ 500.00 crore) has been deposited against bank guarantee with one of the party as per the direction of the Hon'ble Supreme Court of India, refer Note 63 (iii) which has been considered as doubtful.

b) Advances - Related parties include amounts due from the following private companies in which one or more directors of the Company are directors:

NTPC-GE Power Services Private Ltd.	-	0.02

c) Loans given to employees are measured at amortized cost. The deferred payroll expenditure represents the benefits on account of interest rate on loans being lower than the market rate of interest. The same is amortized on a straight-line basis over the remaining period of the loan.

d) Advances to contractors and suppliers mainly include payment made to coal companies amounting to **₹ 3,420.89 crore** (31 March 2023: ₹ 3,143.51 crore) for supply of coal to various stations of the Company.

e) Claims recoverable includes claims against Railways amounting to **₹ 1,962.65 crore** (31 March 2023: ₹ 2,023.76 crore) mainly towards diversion of coal rakes. These are regularly reviewed and reconciled with the Indian Railways periodically. Claims recoverable also includes claims amounting to **₹ 1,725.37 crore** (31 March 2023: ₹ 1,615.66 crore) made against coal companies towards various issues eg. credit notes to be received as per referee results for grade slippages, supply of stones, claims under settlement through AMRCD, surface transportation charges,etc.

21. Assets held for sale

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Land	**0.17**	4.21
Building	**9.60**	21.46
Plant and equipment	**104.70**	92.90
Other assets	**2.72**	1.95
Total	**117.19**	120.52

a) The Company has surplus land of **0.83 acres** (31 March 2023: 20.87 acres) which is under process of disposal. The Company expects that the fair value (estimated based on market values) less costs to sell is higher than their carrying values and hence no impairment is considered necessary.

b) Plant and equipment and Other assets (Office equipment, vehicles,furniture and fixtures,etc.) have been identified for disposal due to replacement/ obsolescence of assets which happens in the normal course of operations. On account of classification of these assets from Property, plant and equipment, the loss recognised in the statement of profit and loss is not material.

c) These assets are expected to be disposed off within the next twelve months.

d) The Company has not reclassified any of the assets classified as held for sale as Property, plant and equipment during the year as well as in the previous year.

22. Regulatory deferral account debit balances

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
On account of		
Exchange differences	-	1,034.34
Employee benefits expense	**62.48**	177.75
Deferred tax	**13,278.97**	10,676.77
Ash transportation cost	**68.36**	73.11
Total	**13,409.81**	11,961.97

a) Regulatory deferral account balances have been accounted in line with material accounting policy no. C.4 (Note 1). Refer Note 39 for Regulatory deferral account credit balances. Refer Note 70 for detailed disclosures.

b) CERC Tariff Regulations, 2019 provide for recovery of deferred tax liability (DTL) as at 31 March 2009 from the beneficiaries. Accordingly, DTL as at 31 March 2009 is recoverable on materialisation from the beneficiaries. Regulations, 2014 and Regulations, 2019 provide for grossing-up the rate of return on equity based on effective tax

rate for the financial year based on the actual tax paid during the year on the generation income. Accordingly, deferred tax liability for the period from 1 April 2014 will be reversed in future years when the related DTL forms part of current tax. Keeping in view the above, the Company has recognized such deferred tax as regulatory deferral account debit balances, since the amounts are recoverable in future years.

23. Equity share capital

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Equity share capital		
Authorized		
16,60,00,00,000 shares of par value ₹ 10/- each (16,60,00,00,000 shares of par value ₹ 10/- each as at 31 March 2023)	**16,600.00**	16,600.00
Issued, subscribed and fully paid up		
9,69,66,66,134 shares of par value ₹ 10/- each (9,69,66,66,134 shares of par value ₹ 10/- each as at 31 March 2023)	**9,696.67**	9,696.67

a) Reconciliation of the shares outstanding at the beginning and at the end of the year:

₹ Crore

Particulars	Number of shares	
	31 March 2024	31 March 2023
At the beginning of the year	**9,69,66,66,134**	9,69,66,66,134
Outstanding at the end of the year	**9,69,66,66,134**	9,69,66,66,134

b) Terms and rights attached to equity shares:

The Company has only one class of equity shares having a par value ₹ 10/- per share. The holders of the equity shares are entitled to receive dividends as declared from time to time and are entitled to voting rights proportionate to their share holding at the meetings of shareholders.

c) Dividends:

₹ Crore

Particulars	Paid during the year endedshares	
	31 March 2024	31 March 2023
(i) Dividends paid and recognised during the year		
Final dividend for the year ended 31 March 2023 of **₹ 3.00**(31 March 2022: ₹ 3.00) per equity share	**2,909.00**	2,909.00
Interim dividends for the year ended 31 March 2024 of **₹ 4.50**(31 March 2023: ₹ 4.25) per equity share	**4,363.50**	4,121.08

₹ Crore

(ii) Dividends not recognised at the end of the reporting period	31 March 2024	31 March 2023
In addition to the above dividends, since year end the directors have recommended the payment of a final dividend of **₹ 3.25** (31 March 2023: ₹ 3.00) per equity share. This proposed dividend is subject to the approval of shareholders in the ensuing Annual General Meeting.	**3,151.42**	2,909.00

d) Details of shareholders holding more than 5% shares in the Company:

Particulars	As at 31 March 2024	
	No. of shares	%age holding
- President of India	**4,95,53,46,251**	**51.10**

Particulars	31 March 2023	
	No. of shares	%age holding
- President of India	4,95,53,46,251	51.10
- Life Insurance Corporation of India (including shares held in various Funds/Schemes)	57,41,73,389	5.92
- ICICI Prudential Mutual Fund	55,60,01,423	5.73

e) Increase in the authorised share capital

During the previous year 2022-23, the authorised share capital of the Company has increased from ₹ 10,000 crore to ₹ 16,600 crore pursuant to scheme of amalgamation of two subsidiaries of the Company, vide order dated 26 August 2022 of Ministry of Corporate Affairs, GOI.

f) For the period of five years immediately preceding the Balance sheet date:

(i) Shares bought back

The Company has bought back 19,78,91,146 equity shares of the Company for an aggregate amount of ₹ 2,275.75 crore being 2% of the total paid up equity share capital at ₹ 115.00 per equity share, during the financial year 2020-21.

(ii) Shares allotted as fully paid up by way of bonus shares:

The Company had issued 1,64,90,92,880 equity shares of ₹ 10/- each as fully paid bonus shares in the financial year 2018-19 in the ratio of one equity share of ₹ 10/- each for every five equity shares held.

g) Details of shareholding of promoters:

Shares held by promoters as at 31 March 2024

Sl. No.	Promoter name	No. of shares	%age of total shares	%age changes during the year
1.	President of India	**4,95,53,46,251**	**51.10**	**Nil**

Shares held by promoters as at 31 March 2023

Sl. No.	Promoter name	No. of shares	%age of total shares	%age changes during the year
1.	President of India	4,95,53,46,251	51.10	Nil

24. Other equity

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Capital reserve	**50.08**	50.08
Capital redemption reserve	**197.89**	197.89
Bonds/debentures redemption reserve	**3,219.38**	5,014.61
Fly ash utilization reserve fund	**902.81**	729.82
General reserve	**96,147.17**	96,147.17
Retained earnings	**39,459.82**	26,963.34
Reserve for equity instruments through OCI	**211.20**	90.30
Total	**1,40,188.35**	1,29,193.21

(a) Capital reserve

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
Opening balance and closing balance	**50.08**	50.08

Capital reserve represents amount received by the Company during 2001-02 as consideration under settlement for withdrawal from an erstwhile JV project. There is no movement in the capital reserve balance during the year. This amount will be utilised as per the provisions of the Companies Act, 2013.

(b) Capital redemption reserve

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
Opening balance and closing balance	**197.89**	197.89

Capital redemption reserve is created when company purchases its own shares out of free reserves or securities premium, as required by Companies Act, 2013. A sum equal to the nominal value of the shares so purchased is transferred to capital redemption reserve. This reserve will be utilised in accordance with the provisions of the Companies Act, 2013. Also refer Note 23 (f)(i).

(c) Bonds/Debentures redemption reserve

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
Opening balance	**5,014.61**	5,643.18
Less: Transfer to retained earnings	**1,795.23**	628.57
Closing balance	**3,219.38**	5,014.61

Ministry of Corporate Affairs notified Companies (Share Capital and Debentures) Amendment Rules, 2019 on 16 August 2019. As per the amendment, Debenture Redemption Reserve (DRR) is not required to be created in case of Companies whose securities are listed. Accordingly, the Company has not created any further Bonds/Debenture Redemption Reserve from the financial year 2019-20 onwards. Further, the outstanding balance of Bonds / Debenture Redemption Reserve created up to 31 March 2019 shall be written back as and when the respective bonds / debentures are redeemed.

(d) Fly ash utilization reserve fund

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
Opening balance	**729.82**	598.41
Add: Transferred during the year:		
Revenue from operations	**492.16**	396.51
Other income	**56.30**	29.15
Less: Utilised during the year:		
Capital expenditure	**10.16**	2.95
Other expenses including tax expense	**365.31**	291.30
Closing balance	**902.81**	729.82

The principal Gazette Notification dated 14 September 1999 enunciates that every thermal power plant should provide ash free of cost for 10 years for activities of manufacturing ash-based products or for construction of roads, embankments, dams, dykes or for any other construction activity. Subsequently, vide Gazette Notification dated 3 November 2009, issued by the Ministry of Environment and Forest (MOEF),Government of India (GOI) directed that, the amount collected from sale of fly ash and fly ash based products should be kept in a separate account head and shall be utilized only for the development of infrastructure or facility, promotion & facilitation activities for use of fly ash until 100 percent fly ash utilization level is achieved.

Vide, Gazette Notification dated 31st December 2021, of Ministry of Environment and Forest and Climate Change (MOEF&CC), GOI which is applicable from 1st April 2022 had superseded all earlier notifications The said notification does not mention any requirement of keeping the amount thus collected from sale of fly ash and fly ash based products in a separate account. However, the Company continues to maintain the fund for the purposes stated above.

In line with various CERC orders on reimbursement of ash transportation, the Company spends the amounts collected from sale of fly ash and fly ash-based products for offsetting it against the expenditure incurred by respective Station for transportation of ash to agencies engaged in construction activities such as road laying, road and flyover embankments, shoreline protection structures in coastal districts and dams.

The fund balance has been kept in 'Bank balances other than cash & cash equivalents' (Note 17). Also refer Note 22 & 70 (ii)(d) for ash transportation cost.

(e) General reserve

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
Opening balance	**96,147.17**	96,147.17
Closing balance	**96,147.17**	96,147.17

General reserve is used from time to time to transfer profits from retained earnings for appropriation purposes. The same will be utilised as per the provisions of the Companies Act, 2013.

(f) Retained earnings

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
Opening balance	**26,963.34**	16,247.42
Add: Profit for the year as per statement of profit and loss	**18,079.39**	17,196.73
Transfer from bonds/debentures redemption reserve	**1,795.23**	628.57
Less: Final dividend paid (2022-23)	**2,909.00**	2,909.00
Interim dividend paid (2023-24)	**4,363.50**	4,121.08
	39,565.46	27,042.64
Items of other comprehensive income recognized directly in retained earnings:		
- Net actuarial gains/(losses) on defined benefit plans (net of tax)	**(105.64)**	(79.30)
Closing balance	**39,459.82**	26,963.34

Retained Earnings are the profits of the Company earned till date net of appropriations. The same will be utilised for the purposes as per the provisions of the Companies Act, 2013.



(g) Reserve for equity instruments through OCI

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
Opening balance	**90.30**	86.70
Add: Fair value gains/(losses) on equity instruments for the year	**120.90**	3.60
Closing balance	**211.20**	90.30

The Company has elected to recognize changes in the fair value of certain investments in equity instruments in other comprehensive income. These changes are accumulated in reserve for equity instruments through OCI within equity. The Company transfers amounts from this reserve to retained earnings when the relevant equity instruments are derecognized.

25. Non-current financial liabilities -Borrowings

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Bonds/debentures		
Secured		
7.37% Tax free secured non-cumulative non-convertible redeemable bonds - 2015 of ₹ 1,000/- each redeemable at par in full on 5 October 2035 (Fifty Sixth Issue - Public Issue - Series 3A)[IX]	**189.01**	188.95
7.62% Tax free secured non-cumulative non-convertible redeemable bonds - 2015 of ₹ 1,000/- each redeemable at par in full on 5 October 2035 (Fifty Sixth Issue - Public Issue - Series 3B)[IX]	**171.77**	171.71
8.61% Tax free secured non-cumulative non-convertible redeemable bonds of ₹ 10,00,000/- each redeemable at par in full on 4 March 2034 (Fifty First Issue C - Private Placement) [III]	**322.11**	322.11
8.66% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 1,000/- each redeemable at par in full on 16 December 2033 (Fiftieth Issue - Public Issue - Series 3A)[VI]	**319.93**	319.87
8.91% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 1,000/- each redeemable at par in full on 16 December 2033 (Fiftieth Issue - Public Issue - Series 3B)[VI]	**410.39**	410.32
7.37% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 14 December 2031(Sixty Sixth Issue - Private Placement)[II]	**4,010.99**	4,010.41
7.49% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 7 November 2031 (Sixty Fourth Issue - Private Placement)[IV]	**720.75**	720.65
7.28% Tax free secured non-cumulative non-convertible redeemable bonds - 2015 of ₹ 1,000/- each redeemable at par in full on 5 October 2030 (Fifty Sixth Issue - Public Issue - Series 2A)[IX]	**133.53**	133.48
7.53% Tax free secured non-cumulative non-convertible redeemable bonds - 2015 of ₹ 1,000/- each redeemable at par in full on 5 October 2030 (Fifty Sixth Issue - Public Issue - Series 2B)[IX]	**49.96**	49.93
7.32% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 17 July 2029 (Sixty Ninth Issue - Private Placement)[IV]	**4,522.59**	4,522.31
8.63% Tax free secured non-cumulative non-convertible redeemable bonds of ₹ 10,00,000/- each redeemable at par in full on 4 March 2029 (Fifty First Issue B - Private Placement) [III]	**105.70**	105.70
8.30% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 15 January 2029 (Sixty Seventh Issue - Private Placement) [V]	**4,069.70**	4,068.96
8.48% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 1,000/- each redeemable at par in full on 16 December 2028 (Fiftieth Issue - Public Issue - Series 2A)[VI]	**256.14**	256.10
8.73% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 1,000/- each redeemable at par in full on 16 December 2028 (Fiftieth Issue - Public Issue - Series 2B)[VI]	**93.73**	93.71
7.47% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 16 September 2026 (Sixty Third Issue - Private Placement)[IV]	**697.00**	696.90
7.58% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 23 August 2026 (Sixty Second Issue - Private Placement)[IV]	**836.70**	836.61
8.05% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 5 May 2026 (Sixtieth Issue - Private Placement)[IV]	**1,072.73**	1,072.90
8.19% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 15 December 2025(Fifty Seventh Issue - Private Placement)[IV]	**512.02**	511.91
7.11% Tax free secured non-cumulative non-convertible redeemable bonds - 2015 of ₹ 1,000/- each redeemable at par in full on 5 October 2025 (Fifty Sixth Issue - Public Issue - Series 1A)[IX]	**112.11**	112.06
7.36% Tax free secured non-cumulative non-convertible redeemable bonds - 2015 of ₹ 1,000/- each redeemable at par in full on 5 October 2025 (Fifty Sixth Issue - Public Issue - Series 1B)[IX]	**68.30**	68.26
7.15% Tax free secured non-cumulative non-convertible redeemable bonds - 2015 of ₹ 10,00,000/- each redeemable at par in full on 21 August 2025 (Fifty Fifth Issue - Private Placement)[VII]	**313.13**	313.05
9.17% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 22 September 2024(Fifty Third Issue - Private Placement)[VII]	**1,048.11**	1,047.99
9.34% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 24 March 2024 (Fifty Second Issue - Private Placement)[III]	**-**	751.53
8.19% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 10,00,000/- each redeemable at par in full on 4 March 2024 (Fifty First Issue A - Private Placement)[III]	**-**	75.47
8.41% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 1,000/- each redeemable at par in full on 16 December 2023 (Fiftieth Issue - Public Issue - Series 1A)[VI]	**-**	499.95

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₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
8.66% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 1,000/- each redeemable at par in full on 16 December 2023 (Fiftieth Issue - Public Issue - Series 1B)[VI]	-	213.89
9.25% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each with five equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 11th year and in annual instalments thereafter upto the end of 15th year respectively commencing from 04 May 2023 and ending on 04 May 2027 (Forty Fourth Issue - Private Placement)[VI]	**433.66**	542.07
8.48% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 1 May 2023(Seventeenth Issue - Private Placement)[I]	-	50.01
8.80% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 4 April 2023 (Forty Ninth Issue - Private Placement)[VI]	-	217.46
8.49% Secured non-cumulative non-convertible redeemable taxable fully paid-up bonus debentures of ₹ 12.50 each redeemable at par in three annual instalments of ₹ 2.50, ₹ 5.00 and ₹ 5.00 at the end of 8th year, 9th year and 10th year on 25 March 2023, 25 March 2024 and 25 March 2025 respectively (Fifty Fourth Issue -Bonus Debentures)[VIII]	**4,132.32**	8,260.81
9.00% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each with five equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 11th year and in annual instalments thereafter upto the end of 15th year respectively commencing from 25 January 2023 and ending on 25 January 2027 (Forty Second Issue - Private Placement)[III]	**304.94**	406.51
8.10% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 30,00,000/- each redeemable at par in three equal separately transferable redeemable principal parts (STRPP) at the end of 5th year, 10th year & 15th year on 27 May 2021, 27 May 2026 and 27 May 2031 respectively (Sixty first issue - Private Placement)[IX]	**763.70**	763.99
11.25% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in five equal annual instalments commencing from 6 November 2019 and ending on 6 November 2023 (Twenty Seventh Issue - Private Placement)[III]	-	73.62
9.3473% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual instalments thereafter upto the end of 20th year respectively commencing from 20 July 2018 and ending on 20 July 2032 (Forty Sixth Issue - Private Placement)[VI]	**48.06**	53.38
9.4376% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual instalments thereafter upto the end of 20th year respectively commencing from 16 May 2018 and ending on 16 May 2032 (Forty Fifth Issue - Private Placement)[VI]	**48.09**	53.45

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
9.2573% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual instalments thereafter upto the end of 20th year respectively commencing from 2 March 2018 and ending on 2 March 2032 (Forty Third Issue - Private Placement)[III]	**42.69**	48.01
9.6713% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual instalments thereafter upto the end of 20th year respectively commencing from 23 December 2017 and ending on 23 December 2031 (Forty First Issue - Private Placement)[III]	**42.81**	48.18
9.558% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual instalments thereafter upto the end of 20th year respectively commencing from 29 July 2017 and ending on 29 July 2031 (Fortieth Issue - Private Placement)[III]	**42.78**	48.11
9.3896% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual instalments thereafter upto the end of 20th year respectively commencing from 9 June 2017 and ending on 9 June 2031 (Thirty Ninth Issue - Private Placement)[III]	**59.82**	67.28
9.17% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual instalments thereafter upto the end of 20th year respectively commencing from 22 March 2017 and ending on 22 March 2031 (Thirty Eighth Issue - Private Placement)[III]	**37.33**	42.65
8.8086% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual instalments thereafter upto the end of 20th year respectively commencing from 15 December 2016 and ending on 15 December 2030 (Thirty Sixth Issue - Private Placement)[III]	**37.24**	42.55
8.785% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual instalments thereafter upto the end of 20th year respectively commencing from 15 September 2016 and ending on 15 September 2030 (Thirty Fifth Issue - Private Placement)[III]	**59.57**	68.07
8.71% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual instalments thereafter upto the end of 20th year respectively commencing from 10 June 2016 and ending on 10 June 2030 (Thirty Fourth Issue - Private Placement)[III]	**74.43**	85.04

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
8.8493% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual instalments thereafter upto the end of 20th year respectively commencing from 25 March 2016 and ending on 25 March 2030 (Thirty Second Issue - Private Placement)[III]	**44.70**	52.14
	26,208.54	32,498.06
Bonds/debentures		
Unsecured		
6.87% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 21 April 2036 (Seventy Fourth Issue - Private Placement)	**4,256.09**	4,256.04
7.44% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 15 April 2033 (Seventy Ninth Issue - Private Placement)	**510.85**	510.77
7.44% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 25 August 2032 (Seventy Eighth Issue - Private Placement)	**2,089.35**	2,089.18
6.74% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 14 April 2032 (Seventy Sixth Issue - Private Placement)	**1,197.19**	1,197.02
6.69% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 13 September 2031 (Seventy Fifth Issue - Private Placement)	**3,110.09**	3,109.83
6.29% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 11 April 2031 (Seventy First Issue - Private Placement)	**1,042.06**	1,042.00
6.43% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 27 January 2031 (Seventy Third Issue - Private Placement)	**2,528.45**	2,528.08
7.35% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 1,00,000/- each redeemable at par in full on 17 April 2026 (Eightieth Issue - Private Placement)	**3,210.75**	-
7.48% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 1,00,000/- each redeemable at par in full on 21 March 2026 (Eighty First Issue - Private Placement)	**1,503.15**	-
5.45% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 15 October 2025 (Seventy Second Issue - Private Placement)	**4,100.57**	4,100.21
5.78% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 29 April 2024 (Seventy Seventh Issue - Private Placement)	**1,580.06**	1,580.00
6.55% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 17 April 2023 (Seventy Issue - Private Placement)	**-**	4,648.83
	51,337.15	57,560.02

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Foreign currency notes		
Unsecured		
4.500 % Fixed rate notes due for repayment on 19 March 2028	**3,353.82**	3,302.14
2.750 % Fixed rate notes due for repayment on 1 February 2027	**4,590.69**	4,554.79
4.250 % Fixed rate notes due for repayment on 26 February 2026	**4,210.06**	4,145.67
4.375 % Fixed rate notes due for repayment on 26 November 2024	**4,261.27**	4,199.85
3.750 % Fixed rate notes due for repayment on 3 April 2024	**3,847.75**	3,721.68
	20,263.59	19,924.13
Term loans		
From Banks		
Secured		
Rupee term loans[X]	**1,352.24**	7,647.61
Unsecured		
Foreign currency loans	**22,436.54**	19,828.94
Rupee term loans	**67,561.39**	61,229.80
From Others		
Secured		
Rupee term loans[X]	**4,217.92**	4,972.04
Unsecured		
Foreign currency loans (guaranteed by GOI)	**845.52**	1,133.60
Other foreign currency loans	**2,886.41**	3,661.88
Rupee term loans	**-**	16.84
	1,70,900.76	1,75,974.86
Less: Current maturities of		
Bonds-secured	**5,389.73**	6,231.40
Bonds-Unsecured	**1,500.00**	4,374.10
Foreign currency notes - Unsecured	**7,975.25**	-
Foreign currency loans from banks - unsecured	**416.74**	425.05
Rupee term loans from banks - secured	**108.16**	634.11
Rupee term loans from banks - unsecured	**6,013.62**	4,375.04
Rupee term loans from others - secured	**238.75**	367.07
Foreign currency loans from others - unsecured (guaranteed by GOI)	**163.47**	183.61
Other foreign currency loans from others - unsecured	**549.74**	565.28
Rupee term loans from others - unsecured	**-**	16.57
Interest accrued but not due on secured borrowings	**795.01**	853.42
Interest accrued but not due on unsecured borrowings	**1,591.22**	1,633.52
Total	**1,46,159.07**	1,56,315.69



a) **Details of terms of repayment and rate of interest**

i) Unsecured foreign currency loans (guaranteed by GOI) - Others carry fixed rate of interest ranging from 1.80% p.a. to 2.30% p.a. and are repayable in 5 to 14 semi annual instalments.

ii) Unsecured foreign currency loans – Banks include loans of **₹ 44.82 crore** (31 March 2023: ₹ 67.13 crore) which carry fixed rate of interest of 1.88% and loans of **₹ 22,391.72 crore** (31 March 2023: ₹ 19,761.81 crore) which carry floating rate of interest linked to 6M USD SOFR/6M EURIBOR/3M TONA/6M TONA . These loans are repayable in 1 to 23 semi annual/annual instalments as of 31 March 2024, commencing after moratorium period if any, as per the terms of the respective loan agreements.

iii) Unsecured foreign currency loans – Others include loans of **₹ 1,155.55 crore** (31 March 2023: ₹ 1,568.31 crore) which carry fixed rate of interest ranging from 1.88% p.a. to 4.13% p.a and loans of **₹ 1,730.86 crore** (31 March 2023: ₹ 2,093.57 crore) which carry floating rate of interest linked to 3M TONA/6M TONA. These loans are repayable in 03 to 23 semi annual instalments as of 31 March 2024, commencing after moratorium period if any, as per the terms of the respective loan agreements.

iv) Unsecured rupee term loans from banks and others carry interest rate ranging from 7.60% p.a. to 8.20% p.a. with monthly rests. These loans are repayable in half-yearly/yearly instalments as per the terms of the respective loan agreements. The repayment period extends from a period of 9 to 15 years after a moratorium period of 3 to 6 years.

v) Secured rupee term loans from banks and others carry interest rate ranging from 7.95% p.a. to 8.50% p.a. with monthly rests. These loans are repayable in quarterly instalments as per the terms of the respective loan agreements. The repayment period extends upto a period of 15 years after a moratorium period of 6 months to 5 years.

b) There has been no default in repayment of any of the loans or interest thereon as at the end of the year.

c) The company has used the borrowings from banks and financial institutions for the purposes for which they were taken

Details of securities

I Secured by (I) English mortgage, on first pari-passu charge basis, of the office premises of the Company at Mumbai and (II) Equitable mortgage, by way of first charge, by deposit of title deeds of the immovable properties pertaining to National Capital Power Station (including thermal & gas)

II Secured by Equitable mortgage of the immovable properties pertaining to Vindhyachal Super Thermal Power Station on first charge basis.

III Secured by (I) English mortgage, on first pari-passu charge basis, of the office premises of the Company at Mumbai and (II) Equitable mortgage of the immovable properties, on first pari-passu charge basis, pertaining to Sipat Super Thermal Power Project by extension of charge already created.

IV Secured by Equitable mortgage, on pari-passu charge basis, of the immovable properties pertaining to Barh Super Thermal Power Project.

V Secured by Equitable mortgage, on pari-passu charge basis, of the immovable properties pertaining to Vindhyachal Super Thermal Power Station.

VI Secured by (I) English mortgage, on first pari-passu charge basis, of the office premises of the Company at Mumbai and (II) Equitable mortgage of the immovable properties, on first pari-passu charge basis, pertaining to National Capital Power Station (including thermal and gas) by extension of charge already created.

VII Secured by English mortgage of the immovable properties pertaining to Solapur Super Thermal Power Project on first charge basis.

VIII Secured by Equitable mortgage of the immovable properties pertaining to Barh Super Thermal Power Project on first charge basis.

IX Secured by English mortgage, on pari-passu charge basis, of the immovable properties pertaining to Solapur Super Thermal Power Project.

X (i) Secured by a first priority charge on all assets, present & future, movable & immovable and land of 975.05 acres and second charge on all inventories and receivables, in respect of loan from consortium led by SBI for Muzzafarpur Thermal Power Station (Kanti Bijlee Utpadan Nigam Ltd., erstwhile Subsidiary of the Company) expansion project. The security will rank pari-pasu with all term lenders of the project. The charge was created in favor of SBI Cap Trustee Co. Ltd. and Canara Bank. Legal mortgage of land in favour of security trustee has been executed for 877.18 acres out of 975.05 acres of land. During the year, the loan has been repaid in full.

(ii) Secured by a first pari passu charge on entire current assets and fixed assets of Nabinagar Thermal Power Station (Nabinagar Power Generating Company Limited, erstwhile subsidiary of the Company).

Secured by a first pari passu charge on all assets, present and future, movable and immovable through a deed of hypothecation and simple mortgage of 2500 acres of land of Nabinagar Thermal Power Station (Nabinagar Power Generating Company Limited, erstwhile subsidiary of the Company).

XI Security cover mentioned at Sl. No. I to X is above 100% of the debt securities outstanding.

26. Non-current financial liabilities - Lease liabilities

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Lease liabilities	**987.39**	986.23
Less: current maturities of lease liabilities	**162.87**	170.79
Total	**824.52**	815.44

a) The lease liabilities are repayable in instalments as per the terms of the respective lease agreements generally over a period of more than 1 year and upto 99 years.

27. Non-current liabilities - Other financial liabilities

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Payable for capital expenditure		
- micro and small enterprises	**4.54**	4.16
- other than micro and small enterprises	**325.48**	413.41
Deposits from contractors and others	**1.62**	1.62
Contractual Obligations	**133.86**	86.52
Others	**0.10**	0.10
Total	**465.60**	505.81

a) Contractual obligations represent security deposit and retention money deducted from vendors at present value and includes Performance Guarantee Deposit (PGD) deducted by the Company from the Solar Power Developers (SPD) in line with the MNRE Guidelines are earmarked for the purpose specified therein. The PGD shall be refunded to SPDs without interest within three months after expiry of the 25 Year term of PPA subject to satisfactory performance of the project. In case the developer winds up his project or terminates the PPA prior to the completion of the 25 Year term of PPA, the PGD shall be forfeited. Further the PGD may also be used in Payment Security Mechanism as specified in the guidelines.

b) Disclosures as required under Companies Act, 2013 / MSMED Act, 2006 are provided in Note 73.

c) Amounts payable to related parties are disclosed in Note 59.



28. Non-current liabilities - Provisions

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Provision for		
Employee benefits	**800.42**	792.10
Mine Closure	**494.01**	323.80
Stripping Activity Adjustments	**603.60**	611.88
	1,898.03	1,727.78

a) Disclosures as per Ind AS 19 'Employee benefits' are provided in Note 56.

b) Disclosures required by Ind AS 37 'Provisions, Contingent Liabilities and Contingent Assets' are provided in Note 63.

29. Non-current liabilities - Deferred tax liabilities (net)

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Deferred tax liability		
Difference in book depreciation and tax depreciation	**35,870.06**	31,449.40
Less: Deferred tax assets		
Provisions	**1,167.76**	1,062.02
Statutory dues	**326.49**	259.00
Leave encashment	**539.82**	497.29
Unabsorbed depreciation	**-**	-
MAT credit entitlement	**20,451.47**	19,016.68
Others	**317.99**	0.34
Total	**13,066.53**	10,614.07

a) Deferred tax assets and deferred tax liabilities have been offset as they relate to the same governing laws.

b) The Company has been recognising MAT credit entitlement available to the Company as the same is likely to give future economic benefits in the form of availability of set off against future income tax liability.

c) Disclosures as per Ind AS 12 - 'Income Taxes' are provided in Note 55.

d) Others mainly include deferred tax assets on account of lease liabilities.

Movement in deferred tax balances

As at 31 March 2024

₹ Crore

Particulars	As at 1 April 2023	Recognised in statement of profit and loss	Recognised in OCI	Others	As at 31 March 2024
Deferred tax liability					
Difference in book depreciation and tax depreciation	**31,449.40**	**4,628.00**	**-**	**(207.34)**	**35,870.06**
Less: Deferred tax assets					
Provisions	**1,062.02**	**107.24**	**-**	**(1.50)**	**1,167.76**
Statutory dues	**259.00**	**67.49**	**-**	**-**	**326.49**
Leave encashment	**497.29**	**42.53**	**-**	**-**	**539.82**
Unabsorbed depreciation	**-**	**-**	**-**	**-**	
MAT credit entitlement	**19,016.68**	**1,434.79**	**-**	**-**	**20,451.47**
Others	**0.34**	**317.65**	**-**	**-**	**317.99**
Net deferred tax (assets)/liabilities	**10,614.07**	**2,658.30**	**-**	**(205.84)**	**13,066.53**

As at 31 March 2023

₹ Crore

Particulars	As at 1 April 2022	Recognised in statement of profit and loss	Recognised in OCI	Others	As at 31 March 2023
Deferred tax liability					
Difference in book depreciation and tax depreciation	28,945.71	3,853.37	-	(1,349.68)*	31,449.40
Less: Deferred tax assets					
Provisions	879.39	182.63	-	-	1,062.02
Statutory dues	291.32	(32.32)	-	-	259.00
Leave encashment	472.44	24.85	-	-	497.29
Unabsorbed depreciation	847.80	(847.80)	-	-	-
MAT credit entitlement	16,263.41	2,753.27	-	-	19,016.68
Others	6.96	(6.62)	-	-	0.34
Net deferred tax (assets)/liabilities	10,184.39	1,779.36	-	(1,349.68)	10,614.07

* includes amount of ₹ 1,205.18 crore transferred to NGEL pursuant to a Business Transfer Agreement for transfer of renewable energy assets executed as at 28 February 2023.

30. Other non-current liabilities

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Government grants	**83.27**	70.64

a) Government grants include grant received in advance amounting to **₹ 15.00 crore** (31 March 2023: ₹ 8.47 crore) for which attached conditions are to be fulfilled / works to be completed relating to various solar power plants. This amount will be recognized as revenue corresponding to the depreciation charge in future years on completion of related projects.

b) Balance Government grants represent unamortised portion of grant received. This includes **₹ 47.55 crore** (31 March 2023: ₹ 39.64 crore) received from Solar Energy Corporation of India under MNRE Scheme for setting up Solar PV power projects. This amount will be recognized as revenue corresponding to the depreciation charge in future years. Refer Note 35 w.r.t. current portion of Government grants.



31. Current financial liabilities - Borrowings

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Current borrowings		
Bills discounted - Secured	**1,824.71**	1,287.19
Other Loans		
Unsecured		
Short term working capital loan from Banks	**11,500.00**	9,550.00
Commercial paper	**3,379.38**	1,959.73
	16,704.09	12,796.92
Current maturities of non-current borrowings		
Bonds - Secured	**5,389.73**	6,231.40
Bonds - Unsecured	**1,500.00**	4,374.10
Foreign currency notes - Unsecured	**7,975.25**	-
From Banks		
Secured		
Rupee term loans	**108.16**	634.11
Unsecured		
Foreign currency loans	**416.74**	425.05
Rupee term loans	**6,013.62**	4,375.04
From Others		
Secured		
Rupee term loans	**238.75**	367.07
Unsecured		
Foreign currency loans (guaranteed by GOI)	**163.47**	183.61
Other foreign currency loans	**549.74**	565.28
Rupee term loans	**-**	16.57
	22,355.46	17,172.23
Total	**39,059.55**	29,969.15

a) The outstanding short term working capital loans from banks carry fixed interest rate ranging between 7.04% to 7.30% p.a. (31 March 2023: 6.98% p.a. to 7.38% p.a.) repayable on due dates, in line with respective arrangements with the lender banks. Commercial paper carry discounted interest of 7.59 % p.a.(31 March 2023: Ranging from 5.20 % p.a.to 7.30 % p.a.) .

b) Borrowings under Commercial paper are net of unamortised discount as at 31 March 2024 amounting to **₹ 120.62 crore** (31 March 2023: ₹ 40.27 crore)

c) Details in respect of rate of interest and terms of repayment of current maturities of secured and unsecured non-current borrowings indicated above are disclosed in Note 25.

d) The secured current borrowings relating to bills discounted are secured against the book debts, present and future. Refer note 15 (d) for detailed disclosure.

e) There has been no default in repayment of any of the loans or interest thereon as at the end of the year.

32. Current financial liabilities - Lease liabilities

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Current maturities of lease liabilities	**162.87**	170.79

a) Refer Note 26 for details in respect of non-current lease liabilities.

33. Current financial liabilities - Trade payables

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Trade payables for goods and services		
Total outstanding dues of		
- micro and small enterprises	**538.52**	272.77
- creditors other than micro and small enterprises	**8,936.14**	9,325.33
Total	**9,474.66**	9,598.10

a) Disclosures as required under Companies Act, 2013 / MSMED Act, 2006 are provided in Note 73.

b) Amounts payable to related parties are disclosed in Note 59.

c) Trade payables ageing schedule

As at 31 March 2024 ₹ Crore

Particulars	Unbilled Dues	Not Due	Outstanding for following periods from due date of payment				Total
			Less than 1 year	1-2 years	2-3 years	More than 3 years	
(i) MSME	**359.96**	**2.12**	**176.44**	**-**	**-**	**-**	**538.52**
(ii) Others	**2,523.66**	**0.01**	**3,535.31**	**1,171.28**	**128.57**	**1,577.27**	**8,936.10**
(iii) Disputed dues – MSME	**-**	**-**	**-**	**-**	**-**	**-**	**-**
(iv) Disputed dues – Others	**-**	**-**	**-**	**-**	**-**	**0.04**	**0.04**
Total	**2,883.62**	**2.13**	**3,711.75**	**1,171.28**	**128.57**	**1,577.31**	**9,474.66**

As at 31 March 2023 ₹ Crore

Particulars	Unbilled Dues	Not Due	Outstanding for following periods from due date of payment				Total
			Less than 1 year	1-2 years	2-3 years	More than 3 years	
(i) MSME	178.19	15.07	79.44	0.01	-	0.06	272.77
(ii) Others	2,065.81	171.83	4,848.43	343.83	189.28	1,705.94	9,325.12
(iii) Disputed dues – MSME	-	-	-	-	-	-	-
(iv) Disputed dues – Others	-	-	-	-	-	0.21	0.21
Total	2,244.00	186.90	4,927.87	343.84	189.28	1,706.21	9,598.10



34. Current liabilities - other financial liabilities

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Interest accrued but not due on		
Unsecured current borrowings	**63.49**	36.84
Secured non current borrowings	**795.01**	853.42
Unsecured non current borrowings	**1,591.22**	1,633.52
Unpaid dividends	**17.74**	19.07
Unpaid matured deposits and interest accrued thereon	**0.19**	0.19
Unpaid matured bonds and interest accrued thereon	**12.69**	9.62
Book overdraft	**31.38**	168.70
Payable to customers	**1,077.05**	1,289.39
Payable for capital expenditure		
- micro and small enterprises	**182.57**	127.23
- other than micro and small enterprises	**13,790.35**	15,248.60
Other payables		
Deposits from contractors and others	**231.57**	195.41
Contractual Obligations	**2,454.81**	2,409.24
Payable to employees	**1,046.96**	1,099.50
Payable to Solar Payment Security Fund	**49.18**	37.97
Others	**626.33**	505.34
Total	**21,970.54**	23,634.04

a) Unpaid dividends, matured deposits, bonds and interest include the amounts which have either not been claimed by the investors/holders of the equity shares/bonds/fixed deposits or are on hold pending legal formalities etc. Out of the above, the amount required to be transferred to the Investor Education and Protection Fund (IEPF) has been transferred.

b) Other payables - Others' mainly includes **₹ 41.52 crore** (31 March 2023: ₹ 63.68 crore) towards the implementation of Deen Dayal Upadhyay Gram Jyoti Yojana (DDUGJY) Scheme of the GOI being carried out by the Company. The funds for the implementation of these schemes are provided by the agencies nominated by the GOI in this regard. Further, 'Other payables - Others' also include **₹ 293.29 crore** (31 March 2023: ₹ 251.53 crore) in respect of an amount payable under a contract which was under dispute which has been since settled and balance towards amount payable to hospitals, etc.

c) The Company had obtained exemption from the Ministry of Corporate Affairs (MCA), GOI in respect of applicability of Section 58A from the erstwhile Companies Act, 1956 in respect of deposits held from the dependants of employees who die or suffer permanent total disability under the 'Employees Rehabilitation Scheme' (said amount is included in "Other payables - Others"). Consequent upon enactment of the Companies Act, 2013, the Company has written to the MCA for clarification on continuation of above exemption granted earlier, which is still awaited. Based on an expert opinion, the amount accepted under the Scheme is not considered as a deposit under the Companies Act, 2013.

d) Contractual obligation includes security deposit and retention money deducted from vendors.

e) Disclosures as required under the Companies Act, 2013 / MSMED Act, 2006 are provided in Note 73.

f) Amounts payable to related parties are disclosed in Note 59.

35. Current liabilities - Other current liabilities

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Advances from customers and others	**636.77**	419.00
Government grants	**3.94**	3.53
Other payables		
Statutory dues	**618.90**	789.72
Others	**0.72**	0.72
Total	**1,260.33**	1,212.97

a) Advance received for the DDUGJY of **₹ 306.93 crore** (31 March 2023: ₹ 282.22 crore) is included in 'Advance from customers and others'. Refer Note 35 (b). Tax deducted at source on the interest is included in 'Advance tax and tax deducted at source' - Note 12.

b) Also refer Note 30 w.r.t. accounting of Government grants.

36. Current liabilities - Provisions

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Provision for		
Employee benefits	**1,719.26**	1,597.14
Obligations incidental to land acquisition	**1,727.34**	2,295.07
Tariff adjustments	**801.14**	817.61
Arbitration awards	**2,021.62**	2,646.94
Others	**106.85**	113.49
Total	**6,376.21**	7,470.25

a) Disclosures required by Ind AS 19 'Employee Benefits' are provided in Note 56.

b) Disclosures required by Ind AS 37 'Provisions, Contingent Liabilities and Contingent Assets' are provided in Note 63.

c) Provision for others mainly comprise **₹ 99.40 crore** (31 March 2023: ₹ 90.79 crore) towards cost of unfinished minimum work programme demanded by the Ministry of Petroleum and Natural Gas (MoP&NG) including interest thereon in relation to Block AA-ONN-2003/2 (Refer Note 65) and **₹ 5.11 crore** (31 March 2023: ₹ 5.97 crore) towards provision for shortage in property, plant and equipment on physical verification pending investigation.

37. Current liabilities - Current tax liabilities (net)

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Current tax	-	4,188.03
Less: Advance tax paid	-	4,125.06
Total	-	62.97



38. Deferred revenue

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
On account of		
Income from foreign currency fluctuation	**2,328.01**	2,616.87

a) Foreign exchange rate variation (FERV) on foreign currency loans and interest thereon is recoverable from/payable to the customers in line with the Tariff Regulations. Keeping in view the opinion of the EAC of ICAI, the Company is recognizing deferred foreign currency fluctuation asset by corresponding credit to deferred income from foreign currency fluctuation in respect of the FERV on foreign currency loans adjusted in the cost of property, plant and equipment, which is recoverable from the customers in future years as provided in material accounting policy no. C.13.1 (Note 1). This amount will be recognized as revenue corresponding to the depreciation charge in future years. The amount does not constitute a liability to be discharged in future periods and hence, it has been disclosed separately from equity and liabilities.

39. Regulatory deferral account credit balances

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Exchange differences	**280.32**	-

Regulatory deferral account balances have been accounted in line with material accounting policy no. C.4. Refer Note 70 for detailed disclosures. Refer Note 22 for Regulatory deferral account debit balances.

40. Revenue from operations

₹ Crore

Particulars		For the year ended 31 March 2024	For the year ended 31 March 2023
Energy sales		**1,56,155.82**	1,57,762.43
Sale of energy through trading		**3,990.52**	3,753.48
Consultancy, project management and supervision fee		**170.59**	154.08
Lease rentals on assets on operating lease		**19.58**	19.58
		1,60,336.51	1,61,689.57
Sale of fly ash/ash products	**492.16**		396.51
Less: Transferred to fly ash utilization reserve fund	**492.16**		396.51
		-	-
Other operating revenues			
Interest from beneficiaries		**1,512.58**	1,609.33
Energy internally consumed		**77.90**	92.04
Interest income on assets under finance lease		**23.81**	32.53
Recognized from Government grants		**4.00**	94.88
Provision written back			
Tariff adjustments		**16.47**	-
Others		**0.01**	242.98
Income form Trading of ESCerts		**13.75**	8.44
		1,648.52	2,080.20
Total		**1,61,985.03**	1,63,769.77

a) (i) CERC notified The Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 vide Order dated 7 March 2019 (Regulations, 2019) for determination of tariff for the tariff period 2019-24. CERC has issued provisional tariff orders in respect of thirty nine stations for the tariff period 2019-24. Pending issue of provisional tariff orders in respect of balance stations, capacity charges are billed to beneficiaries in accordance with the tariff approved and applicable as on 31 March 2019, as provided in Regulations, 2019. In case of new stations, which got commercialised on and after 1 April 2019 and stations where tariff approved and applicable as on 31 March 2019 is pending from CERC, billing is done based on capacity charges as filed with CERC in tariff petition. Accordingly, capacity charges provisionally billed for the year ended 31 March 2024 is **₹ 51,405.34 crore** (31 March 2023 ₹ 47,631.73 crore). Energy and other charges are billed as per the operational norms specified in the Regulations 2019. Accordingly, energy charges billed for the year ended 31 March 2024 is **₹ 96,337.27 crore** (31 March 2023 ₹ 97,042.05 crore).

(ii) Capacity charges for the year ended 31 March 2024 have been provisionally recognized considering the provisions of CERC Tariff Regulations amounting to **₹ 54,458.51 crore** (31 March 2023 ₹ 49,832.28 crore). Energy and Other charges for the year ended 31 March 2024 have been recognized at **₹ 98,307.09 crore** (31 March 2023 ₹ 1,00,306.61 crore) as per the operational norms specified in the Regulations 2019.

b) Capacity charges for the year ended 31 March 2024 include **₹ 1,661.51 crore** (31 March 2023 ₹ 1,829.50 crore) pertaining to earlier years on account of impact of CERC orders and other adjustments. Energy and other charges for the year ended 31 March 2024 **₹ 327.76 crore** (31 March 2023 ₹ 3,206.12 crore) pertaining to earlier years on account of revision of energy charges due to grade slippages and other adjustments. Other adjustments during PY include an amount of ₹ 3,097.04 crore on account of adjustment of 'Net movement in regulatory deferral account balances (net of taxes)' relating to reimbursement of ash transportation cost for the period from 1 April 2019 to 31 March 2022 pursuant to Order of CERC dated 28 October 2022.

c) Sales for the year ended 31 March 2024 include **₹ Nil** (31 March 2023 ₹ 262.97 crore) on account of income tax receivable from the beneficiaries as per Regulations, 2004. Sales for the year ended 31 March 2024 also include **124.70 crore** (31 March 2023 ₹ 87.51 crore) on account of deferred tax materialized which is recoverable from beneficiaries as per Regulations, 2019.

d) Energy sales include electricity duty amounting to **₹ 1,668.20 crore** (31 March 2023: ₹ 1,516.71 crore).

e) Revenue from operations for the year ended 31 March 2024 include **₹ 3,997.78 crore** (31 March 2023: ₹ 3,759.32 crore) on account of sale of energy through trading (gross).

f) Other operating revenue includes **₹ 77.90 crore** (31 March 2023: ₹ 92.04 crore) towards energy internally consumed, valued at variable cost of generation and the corresponding amount is included in power charges in Note 46.

g) CERC Regulations provides that where after the truing-up, the tariff recovered is less/more than the tariff approved by the Commission, the generating Company shall recover from /pay to the beneficiaries the under/over recovered amount along-with simple interest. Based on the above, the interest recoverable from the beneficiaries amounting to **₹ 1,512.58 crore** (31 March 2023: ₹ 1,609.33 crore) has been accounted as 'Interest from beneficiaries'. Further, the amount payable to the beneficiaries has been accounted as 'Interest to beneficiaries' in Note 46.

h) Provision written back-others includes write back of provision towards water conservation fund at few projects of the Company amounting to **₹ Nil** (31 March 2023: ₹ 242.98 crore), which was no longer required.

i) The Power Purchase Agreements (PPA) signed in respect of a power station was operative initially for a period of five years with the beneficiary which may be extended, renewed or replaced as the parties mutually agree. The Company has continued to classify these arrangement with its customers as lease based on the practical expedient provided in Appendix C of Ind AS 116. Accordingly, recovery of capacity charges towards depreciation, interest on loan capital & return on equity (pre-tax) components from the beneficiary are considered as lease rentals on the assets which are on operating lease.

j) The Company had ascertained that the PPA entered into for Stage-I of a power station with the beneficiary falls under the definition of finance lease. Accordingly, the written down value of the specified assets was derecognized from PPE and accounted as Finance Lease Receivable (FLR) on transition date to Ind AS. The Company has continued to classify this arrangement with its customer as lease based on the practical expedient provided in Appendix C of Ind AS 116. Accordingly, recovery of capacity charges towards depreciation (including AAD), interest on loan capital

& return on equity (pre-tax) components from the beneficiary are continued to be adjusted against FLR. The interest component of the FLR and amount received on account of revision of tariff of previous periods in respect of the above three elements are continued to be recognised as 'Interest income on Assets under finance lease'.

k) CERC vide notification dated 19 February 2021, notified the Second amendment to Tariff Regulations 2019, which inter alia includes mechanism for determination of transfer price of coal from integrated coal mines to generating stations and are effective for the period 2019-24. Coal extracted from Company's captive mines and supplied to generating stations have been accounted considering these Regulations.

41. Other income

₹ Crore

Particulars		For the year ended 31 March 2024	For the year ended 31 March 2023
Interest from			
Financial assets at amortized cost			
Non-current trade receivables		**155.96**	149.88
Loan to subsidiary companies		**94.29**	81.45
Loan to employees		**62.98**	61.92
Deposits with banks		**218.40**	67.76
Deposits with banks out of fly ash utilization reserve fund	**56.30**		29.15
Less : Transferred to fly ash utilization reserve fund	**56.30**		29.15
		-	-
Deposits with banks - DDUGJY funds	**18.55**		13.81
Less : Transferred to DDUGJY advance from customers	**18.55**		13.81
		-	-
Other investments in Joint venture companies		**47.26**	28.79
Advance to contractors and suppliers		**113.65**	166.02
Income tax refunds		**296.71**	1.13
Others		**60.12**	65.82
Dividend from			
Non-current investments in			
Subsidiary companies		**904.20**	1,050.25
Joint venture companies		**725.52**	1,285.33
Equity instruments designated at fair value through OCI		**9.36**	6.96
Other non-operating income			
Late payment surcharge from beneficiaries		**303.42**	429.82
Hire charges for equipment		**1.21**	1.33
Sale of scrap		**180.60**	148.67
Gain on Option Contract		**0.11**	5.90
Miscellaneous income		**317.48**	303.90
Profit on de-recognition of property, plant and equipment		**29.74**	31.73
Lease rent from investment property		**5.93**	0.19
Provisions written back			
Doubtful loans, advances and claims		**20.77**	0.17
Shortage in inventories		**10.18**	52.93
Obsolescence in inventories		**3.65**	28.05
Arbitration cases		**143.38**	33.92
Unserviceable capital works		**32.95**	3.84
Others		**4.54**	5.15
		3,742.41	4,010.91
Less: Transferred to expenditure during construction period (net) - Note 47		**19.05**	55.42
Transferred to expenditure during development of coal mines (net) - Note 48		**1.12**	0.85
Total		**3,722.24**	3,954.64

a) Interest from others' includes interest on advance to APIIC for drawl of water and deposits with LIC towards annuity to the land oustees.

b) Miscellaneous income includes income from township recoveries and receipts towards insurance claims.

c) 'Provisions written back - Others' include provision for shortage in construction stores, shortage in property, plant and equipment and other provisions no longer required..

d) During the year, certain disputes with vendors which were under arbitration were settled pursuant to Vivadh se Vishwas II (Contractual liabilities) scheme of GOI. Consequentially, provision created in the earlier years have been.

42. Fuel cost

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
Coal	**87,985.99**	92,081.38
Gas	**4,604.50**	3,052.30
Naptha	**2.91**	158.43
Oil	**1,285.57**	1,495.00
Biomass pellets and other chemicals	**158.52**	64.39
Total	**94,037.49**	96,851.50

43. Employee benefits expense

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
Salaries and wages	**5,030.70**	5,146.38
Contribution to provident and other funds	**909.10**	777.57
Staff welfare expenses	**697.55**	626.40
	6,637.35	6,550.35
Less: Allocated to fuel inventory	**343.71**	319.11
Transferred to expenditure during construction period (net)- Note 47	**443.67**	506.73
Transferred to expenditure during development of coal mines (net) - Note 48	**70.56**	65.95
Reimbursements for employees on deputation/secondment	**109.31**	99.53
Total	**5,670.10**	5,559.03

a) Disclosures as per Ind AS 19 - 'Employee Benefits' in respect of provision made towards various employee benefits are provided in Note 56.

b) Expenses on ex-gratia payments under voluntary retirement scheme are charged to statement of profit and loss in the year incurred.

44. Finance costs

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
Finance costs on financial liabilities measured at amortized cost		
Bonds	**4,004.11**	4,271.35
Foreign currency term loans	**828.61**	472.66
Rupee term loans	**5,771.49**	5,812.67
Foreign currency bonds/notes	**830.17**	933.64
Cash credit	**598.20**	256.48
Commercial papers	**144.89**	396.93
Others	**125.84**	127.27
	12,303.31	12,271.00
Interest on non financial items	**21.13**	11.11
Exchange differences regarded as an adjustment to borrowing costs	**82.90**	457.54
Other borrowing costs		
Guarantee fee	**13.58**	15.83
Others	**8.06**	9.70
	21.64	25.53
Sub-total	**12,428.98**	12,765.18
Less: Transferred to expenditure during construction period (net) - Note 47	**1,993.72**	2,589.03
Transferred to expenditure during development of coal mines (net) - Note 48	**184.44**	196.92
Total	**10,250.82**	9,979.23

a) Finance costs on financial liabilities measured at amortized cost - Others represent unwinding of lease liabilities, vendor liabilities and provisions

b) 'Other borrowing costs - Others' include bond issue and service expenses, commitment charges, exposure premium and insurance premium & other expenses on foreign currency loans / bonds/ notes.

c) Interest on non financial items above includes interest on shortfall in payment of advance income-tax amounting **₹ 2.52 crore** (31 March 2023: ₹ 7.95 crore)

d) Refer Note 72 w.r.t. Interest expense relating to lease obligations.

45. Depreciation, amortization and impairment expense

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
On property, plant and equipment - Note 2	**15,514.46**	14,544.59
On Investment Property - Note 4	**0.86**	-
On intangible assets - Note 5	**35.83**	41.85
	15,551.15	14,586.44
Less : Allocated to fuel inventory	**1,209.29**	1,059.25
Transferred to expenditure during construction period(net)-Note 47	**40.93**	65.11
Transferred to expenditure during development of coal mines (net) - Note 48	**57.98**	53.18
Adjustment with deferred revenue from deferred foreign currency fluctuation	**299.80**	272.19
Total	**13,943.15**	13,136.71

a) Refer Note 72 w.r.t. Depreciation expense of right of use assets.

46. Other expenses

₹ Crore

Particulars		For the year ended 31 March 2024	For the year ended 31 March 2023
Power charges	**324.86**		363.47
Less: Recovered from contractors and employees	**65.88**		65.17
		258.98	298.30
Water charges		**894.05**	923.16
Cost of captive coal produced		**5,150.59**	3,102.15
Stores consumed		**278.97**	248.60
Rent		**23.54**	43.36
Repairs and maintenance			
Buildings	**367.78**		386.36
Plant and equipment	**4,746.28**		4,097.50
Others	**420.09**		413.63
		5,534.15	4,897.49
Load dispatch centre charges		**83.30**	38.79
Insurance		**336.58**	333.60
Interest to beneficiaries		**252.30**	285.85
Loss on fair valuation of non-current trade receivables at amortised cost		**37.74**	386.84
Rates and taxes		**147.00**	159.06
Water cess and environment protection cess		**1.24**	0.47
Training and recruitment expenses	**61.80**		49.94
Less : Receipts	**1.11**		0.51
		60.69	49.43



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₹ Crore

Particulars		For the year ended 31 March 2024	For the year ended 31 March 2023
Communication expenses		**90.69**	76.45
Travelling expenses		**247.70**	250.22
Remuneration to auditors		**6.41**	6.44
Advertisement and publicity		**68.85**	39.85
Electricity duty		**1,555.13**	1,430.32
Security expenses		**1,260.31**	1,141.81
Entertainment expenses		**71.52**	70.93
Expenses for guest house	**84.33**		73.09
Less: Recoveries	**5.06**		5.14
		79.27	67.95
Education expenses		**71.95**	76.80
Donation/Grants		**-**	0.03
Ash utilization and marketing expenses		**4,170.11**	2,650.93
Directors sitting fee		**0.79**	0.71
Professional charges and consultancy fee		**86.80**	138.35
Legal expenses		**76.20**	77.84
EDP hire and other charges		**72.67**	68.26
Printing and stationery		**7.73**	6.12
Oil and gas exploration expenses		**0.09**	0.06
Hiring of vehicles		**133.30**	118.52
Net loss/(gain) in foreign currency transactions and translations		**(1,358.38)**	706.49
Derivatives MTM loss/(gain) (net)		**10.51**	-
Horticulture expenses		**76.11**	75.98
Hire charges of helicopter/aircraft		**5.02**	4.08
Hire charges of construction equipment		**7.20**	5.55
Transport vehicle running expenses		**9.17**	8.72
Loss on de-recognition of property, plant and equipment		**215.46**	165.36
Miscellaneous expenses		**620.70**	215.11
		20,644.44	18,169.98
Less : Allocated to fuel inventory		**5,077.39**	3,647.69
Transferred to expenditure during construction period (net)-Note 47		**186.72**	390.78
Transferred to expenditure during development of coal mines (net)-Note 48		**1,037.38**	335.60
Transferred to derivative MTM loss/(gain) recoverable/(payable) from/ to beneficiaries		**10.51**	-
Transferred to fly ash utilization reserve fund		**326.54**	262.85
Transferred to corporate social responsibility expenses		**18.36**	9.67
		13,987.54	13,523.39
Corporate Social Responsibility (CSR) expenses (Refer Note 77)		**200.57**	315.32
Provisions for			
Tariff adjustments		**-**	335.33
Impairment of investments		**181.05**	14.24
Obsolescence in inventories		**38.74**	52.58
Shortages in inventories		**10.29**	8.77
Unserviceable capital works		**150.22**	18.12
Unfinished minimum work programme for oil and gas exploration		**8.60**	11.01
Arbitration cases		**125.65**	155.40
Shortages in construction stores		**3.09**	2.35
Doubtful loans, advances and claims		**500.27**	32.73
Others		**7.41**	5.35
		1,025.32	635.88
Total		**15,213.43**	14,474.59

a) Expenses on ex-gratia payments under voluntary retirement scheme, training & recruitment, voluntary community development and preliminary expenses on account of new projects incurred prior to approval of feasibility report/ techno economic clearance are charged to statement of profit and loss in the year incurred.

b) During the development stage of mine, transfer price of coal extracted from Company's captive mine has been determined considering the CERC Regulations. The same has been netted from the cost of captive coal and carried to 'Development of coal mines' (Note 3) through 'Transferred to expenditure during development of coal mines' (Note 48).

c) Details of remuneration to auditors:

As auditor		
Audit fee	**2.36**	2.54
Tax audit fee	**0.79**	0.89
Limited review fees	**1.56**	1.40
In other capacity		
Other services (certification fee)	**0.56**	0.69
Reimbursement of expenses	**1.14**	0.92
Total	**6.41**	6.44

Remuneration to auditors includes **₹ 0.10 crore** (31 March 2023: ₹ 0.38 crore) relating to earlier year.

d) CERC Regulations provides that where after the truing-up, the tariff recovered is more than the tariff approved by the Commission, the generating Company shall pay to the beneficiaries the over recovered amount along-with simple interest. Accordingly, the interest payable to the beneficiaries amounting to **₹ 252.30 crore** (31 March 2023: ₹ 285.85 crore) has been accounted and disclosed as 'Interest to beneficiaries'.

e) Miscellaneous expenses include expenditure on books & periodicals, workshops, operating expenses of DG sets, brokerage and commission, bank charges, furnishing expenses, etc.

f) Provisions for unserviceable capital works includes an amount of ₹ 117.62 crore in respect of one of the hydro projects whose construction activities have been stopped by the order of hon'ble Supreme Court of India in May 2014.

g) Provisions for doubtful loans, advances and claims include an amount of ₹ 500.00 crore being the amount deposited as per the orders of hon'ble Delhi Court- Refer Note 63.

h) Provision for impairment of investment for the year includes an amount of ₹ 149.10 crore in respect of one of the Joint Venture Companies as per the impairment assessment carried out. Refer Note 7 and 62.

i) Provisions - Others include provision for doubtful debts, shortages in property, plant and equipment and other losses.

j) Preliminary expenses on account of new projects incurred prior to approval of feasibility report/techno economic clearance, training and recruitment expenses and voluntary community development expenses are charged to statement of profit and loss.

47. Expenditure during construction period (net) *

₹ Crore

Particulars			For the year ended 31 March 2024	For the year ended 31 March 2023
A.	**Employee benefits expense**			
	Salaries and wages		**357.14**	418.17
	Contribution to provident and other funds		**50.00**	49.83
	Staff welfare expenses		**36.53**	38.73
	Total (A)		**443.67**	506.73
B.	**Finance costs**			
	Finance costs on financial liabilities measured at amortized cost			
	Bonds		**549.03**	878.87
	Foreign currency term loans		**335.64**	177.60
	Rupee term loans		**946.90**	1,065.02
	Foreign currency bonds/notes		**111.39**	205.82
	Others		**24.49**	54.90
	Exchange differences regarded as an adjustment to borrowing costs		**(4.69)**	174.90
	Other borrowing costs		**30.96**	31.92
	Total (B)		**1,993.72**	2,589.03
C.	**Depreciation and amortization expense**		**40.93**	65.11
D.	**Other expenses**			
	Power charges	**39.72**		115.65
	Less: Recovered from contractors and employees	**2.70**		6.67
			37.02	108.98
	Water charges		**7.54**	100.04
	Rent		**1.07**	1.08
	Repairs and maintenance			
	Buildings	**5.54**		2.82
	Plant and equipment	**0.42**		0.69
	Others	**35.39**		31.10
			41.35	34.61
	Insurance		**-**	-
	Rates and taxes		**3.07**	3.72
	Communication expenses		**4.21**	4.81
	Travelling expenses		**18.11**	20.33
	Advertisement and publicity		**0.14**	0.21
	Security expenses		**37.44**	63.73
	Entertainment expenses		**2.58**	3.69
	Expenses for guest house		**4.40**	3.59
	Professional charges and consultancy fee		**5.30**	14.27
	Legal expenses		**5.26**	8.15
	EDP hire and other charges		**1.26**	0.91
	Printing and stationery		**0.35**	0.35
	Miscellaneous expenses		**17.62**	22.31
	Total (D)		**186.72**	390.78
E.	**Less: Other income**			
	Interest from advances to contractors and suppliers		**16.28**	37.16
	Interest others		**-**	12.81
	Hire charges for equipment		**0.04**	0.32
	Sale of scrap		**0.03**	0.42
	Miscellaneous income		**2.70**	4.71
	Total (E)		**19.05**	55.42
F.	**Net actuarial losses on defined benefit plans**		**(1.34)**	(1.54)
	Grand total (A+B+C+D-E+F) **		**2,644.65**	3,494.69

* Other than for expenditure during development of coal mines- (Note 48)

** Carried to capital work-in-progress - (Note 3)

48. Expenditure during development of coal mines (net)

₹ Crore

Particulars		For the year ended 31 March 2024	For the year ended 31 March 2023
A.	**Employee benefits expense**		
	Salaries and wages	**55.19**	52.07
	Contribution to provident and other funds	**7.90**	6.19
	Staff welfare expenses	**7.47**	7.69
	Total (A)	**70.56**	65.95
B.	**Finance costs**		
	Finance costs on financial liabilities measured at amortized cost		
	Bonds	**45.04**	68.38
	Foreign currency term loans	**29.90**	12.08
	Rupee term loans	**98.97**	100.70
	Others	**10.22**	8.80
	Exchange differences regarded as an adjustment to borrowing costs	**(2.09)**	5.28
	Other borrowing costs	**2.40**	1.68
	Total (B)	**184.44**	196.92
C.	**Depreciation and amortization expense**	**57.98**	53.18



₹ Crore

Particulars		For the year ended 31 March 2024	For the year ended 31 March 2023
D.	**Other expenses**		
	Power charges	**2.26**	3.21
	Water charges	**0.25**	-
	Rent	**0.20**	0.23
	Repairs and maintenance		
	Buildings	**0.16**	0.03
	Others	**11.46**	4.78
		11.62	4.81
	Cost of captive coal produced	**977.43**	273.73
	Insurance	-	
	Rates and taxes	**0.93**	7.59
	Communication expenses	**1.29**	0.99
	Travelling expenses	**3.11**	2.87
	Advertisement and publicity	**0.30**	0.20
	Security expenses	**16.01**	15.55
	Entertainment expenses	**0.93**	0.43
	Expenses for guest house	**0.96**	1.47
	Professional charges and consultancy fee	**6.29**	9.98
	Legal expenses	**2.93**	5.19
	EDP hire and other charges	**0.13**	0.37
	Printing and stationery	**0.30**	0.12
	Miscellaneous expenses	**12.44**	8.86
	Total (D)	**1,037.38**	335.60
E.	**Less: Other income**		
	Interest from advances to contractors and suppliers	**1.00**	0.64
	Miscellaneous income	**0.12**	0.21
	Total (E)	**1.12**	0.85
F.	**Net actuarial losses on defined benefit plans**	**(0.18)**	0.29
	Grand total (A+B+C+D-E+F) *	**1,349.06**	651.09

* Carried to capital work-in-progress - (Note 3)

49 a) The Company has a system of obtaining periodic confirmation of balances from banks and other parties. There are no unconfirmed balances in respect of bank accounts and borrowings from banks & financial institutions. With regard to receivables for energy sales, the Company sends demand intimations to the beneficiaries with details of amount paid and balance outstanding which can be said to be automatically confirmed on receipt of subsequent payment from such beneficiaries. In addition, reconciliation with beneficiaries and other customers is generally done on quarterly basis. So far as trade/other payables and loans and advances are concerned, the balance confirmation letters/emails with the negative assertion as referred in the Standard on Auditing (SA) 505 (Revised) 'External Confirmations', were sent to the parties. Some of such balances are subject to confirmation/reconciliation. Adjustments, if any will be accounted for on confirmation/reconciliation of the same, which in the opinion of the management will not have a material impact.

b) In the opinion of the management, the value of assets, other than property, plant and equipment and non-current investments, on realisation in the ordinary course of business, will not be less than the value at which these are stated in the Balance Sheet.

c) The levy of transit fee/entry tax on supplies of fuel to some of the power stations has been paid under protest as the matters are sub-judice at various courts. In case the Company gets refund/demand from fuel suppliers/tax authorities on settlement of these cases, the same will be passed on to respective beneficiaries.

50 The Company is executing a 4 X 130 MW Hydro Electric Project in the State of Uttarakhand. After the reports of land subsidence in Joshimath Town, Additional District Magistrate, Chamoli has issued order on 5 January 2023 to stop all the construction activities till further orders. Hon'ble High Court of Uttarakhand on hearing a public interest litigation on 12 January 2023, has directed the State to strictly enforce the ban on construction in Joshimath area . As per Company's understanding, the land subsidence in Joshimath does not have any link with the Project which has also been confirmed through various expert reports submitted by the State of Uttarakhand in the Hon'ble High Court of Uttarakhand on 22 September 2023. The Hon'ble Court on 25 September 2023 directed the National Disaster Management Authority (NDMA) to make its recommendations and next date of hearing is 20 June 2024. The developments are closely being monitored by the Company. Aggregate cost incurred on the project up to 31 March 2024 is **₹ 6,671.30 crore** (31 March 2023: ₹ 6,252.31 crore). Technical and administrative works related to the project are going on. Management does not envisage any threat to the continuance of the project and is confident that a viable solution in connection with the project shall be arrived in due course.

51 Note on Exceptional items in the Statement of Profit and Loss

The recovery of capacity charges based on capacity declaration on RLNG in respect to Ratnagiri Gas and Power Private Limited (RGPPL), a subsidiary of the Company, was challenged by Maharashtra State Electricity Distribution Company Limited (MSEDCL) considering the same as violation of Power Purchase Agreement (PPA). However, Central Electricity Regulatory Commission (CERC) vide its order dated 30 July 2013 as well as Appellate Tribunal for Electricity (APTEL) vide its order dated 22 April 2015, upheld RGPPL's right to recover the capacity charges which was claimed by RGPPL amounting to ₹ 5,287.76 crore together with interest. MSEDCL approached the Hon'ble Supreme Court of India vide civil appeal no. 1922 of 2023 and the Hon'ble Supreme Court of India vide its judgement dated 9 November 2023 dismissed the civil appeal observing that MSEDCL is misinterpreting the clauses of PPA and ordered to continue the execution petition before the APTEL. RGPPL filed execution petition in APTEL on 1 December 2023 disposal of the same by APTEL is awaited. In the meanwhile MSEDCL has paid an adhoc payment of ₹ 500.00 crore upto 31 March 2024. Further discussions are on with MSEDCL along with Ministry of Power (MoP) for liquidation of outstanding dues of RGPPL.

The Company has an investment of **₹ 834.55 crore** (31 March 2023: ₹ 834.55 crore) in RGPPL. The entire investment was considered impaired and provided for in the earlier years based on the financial position of the Subsidiary. The amount provided includes an amount of ₹ 782.95 crore which was presented as an exceptional item in the financial year 2016-17. Remaining carrying value of the investment was also provided in the earlier years in the Note for Other expenses. During the year, fair valuation of investments in RGPPL was carried out and as per the valuation, the total equity value in the Company has been ascertained as ₹ 1,764.70 crore. Considering the above, the provision made in the earlier years has been written back and disclosed as an Exceptional item in the Statement of Profit and Loss. (Also refer Note 7(b) and Note 62(g)).

52 Disclosure as per Ind AS 1 'Presentation of financial statements'

a) Changes in Material Accounting Policy Information:

There are no material changes in the accounting policies, However, during the year, following changes to the accounting policies have been made:

i) Scrap generated out of construction or maintenance jobs was hither to accounted as inventory on accrual basis. During the year an opinion has been pronounced by EAC of ICAI against a reference made by another entity and opined that miscellaneous scrap items i.e., other than process scrap, should not form part of inventory. Accordingly, the accounting of scrap has been modified and the amount of scrap appearing in the inventory as at 1 April 2023 amounting to ₹ 27.55 crore has been charged off during the year.

ii) Certain other changes have also been made in the material accounting policies for improved disclosures. The impact on the financial statements due to these changes is not material.

b) Refer Note 54 for disclosures relating to restatement.



53 Disclosure as per Ind AS 2 'Inventories'

a) Amount of inventories consumed and recognized as expense during the year is as under:

₹ Crore

Particulars		For the year ended 31 March 2024	For the year ended 31 March 2023
Fuel cost (Note 42)	- Domestic	**81,465.57**	72,228.16
	- Imported	**12,571.92**	24,623.34
Others (included in Note 46 - Other expenses)	- Domestic	**2,030.78**	1,780.23
	- Imported	**85.97**	77.07
Total		**96,154.24**	98,708.80

b) Total inventories have been pledged as security against consortium working capital borrowings. The outstanding fund based borrowings as at 31 March 2024 is **₹ Nil** (31 March 2023: ₹ Nil).

54. Disclosure as per Ind AS 8 - 'Accounting Policies, Changes in Accounting Estimates and Errors'

(A) Restatement for the year ended 31 March 2023 and as at 1 April 2022

In accordance with Ind AS 8 'Accounting Policies, Changes in Accounting Estimates and Errors' and Ind AS 1 ' Presentation of Financial Statements', the Company has retrospectively restated its Balance Sheet as at 31 March 2023 and 1 April 2022 (beginning of the preceding period) and Statement of Cash Flows for the year ended 31 March 2023 for the reasons as stated in the notes below. There are no changes in the Statement of Profit and Loss for the year ended 31 March 2023 due to the restatement. Reconciliation of financial statement line items which are retrospectively restated are as under:

Reconciliation of restated items of Balance Sheet as at 31 March 2023 and 1 April 2022

₹ Crore

Particulars	Note	31 March 2023			1 April 2022		
		As previously reported	Adjustments	As restated	As previously reported	Adjustments	As restated
Trade receivables-Current financial assets	(a)	24,741.45	1,287.19	26,028.64	24,747.45	8,202.03	32,949.48
Other Assets		3,57,645.81	-	3,57,645.81	3,46,392.99	-	3,46,392.99
Total Assets		**3,82,387.26**	**1,287.19**	**3,83,674.45**	**3,71,140.44**	**8,202.03**	**3,79,342.47**
Borrowings-Current financial liabilities	(a)	28,681.96	1,287.19	29,969.15	24,472.43	8,202.03	32,674.46
Trade payables - Non current liabilities	(b)	86.52	(86.52)	-	84.62	(84.62)	-
Other financial liability - Non current	(b)	419.29	86.52	505.81	815.47	84.62	900.09
Trade payables- Current liabilities	(b)	12,007.34	(2,409.24)	9,598.10	9,734.35	(1,213.27)	8,521.08
Other financial liabilities - Current	(b)	21,224.80	2,409.24	23,634.04	23,169.61	1,213.27	24,382.88
Total equity		1,38,889.88	-	1,38,889.88	1,28,667.52	-	1,28,667.52
Other Liabilities		1,81,077.47	-	1,81,077.47	1,84,196.44	-	1,84,196.44
Total Equity and Liabilities		**3,82,387.26**	**1,287.19**	**3,83,674.45**	**3,71,140.44**	**8,202.03**	**3,79,342.47**

Reconciliation of Statement of Cash Flows for the year ended 31 March 2023

₹ Crore

Particulars	Note	As previously reported	Adjustments	As restated
Trade receivables	(a)	(2,450.76)	(1,287.19)	(3,737.95)
Loans, other financial assets and other assets	(c)	(5,049.74)	37.93	(5,011.81)
Trade payables, provisions, Other financial liabilities and Other liabilities	(b)	3,875.07	-	3,875.07
Others		39,024.00	-	39,024.00
Net cash flow from/(used in) operating activities	(a)+(c)	35,398.57	(1,249.26)	34,149.31
Net cash flow from/(used in) investing activities	(c)	(14,062.76)	(37.93)	(14,100.69)
Net cash flow from/(used in) financing activities	(a)	(21,450.16)	1,287.19	(20,162.97)
Net increase/ (decrease) in cash and cash equivalents during the year		**(114.35)**	**(0.00)**	**(114.35)**
Cash and cash equivalents at the beginning of the year		117.48	-	117.48
Cash and cash equivalent at the end of the year		**3.13**	**(0.00)**	**3.13**

Notes:

(a) Discounting of bills of beneficiaries

The Company has been presenting the trade receivables net of amount discounted and disclosing the amount of bills discounted under contingent liabilities for possibility of recourse to the company in the Financial Statements. During the year, an opinion has been pronounced by Expert Advisory Committee (EAC) of Institute of Chartered Accountants of India (ICAI) stating that the bills discounted having recourse to the Company should not be adjusted from the trade receivables, instead should be disclosed under borrowings - Current financial liabilities. The Company has evaluated implementation of the EAC opinion thus presenting the amount realised through bills discounting under financial liability as current borrowings instead of netting off from trade receivables.Accordingly, the Company has changed the accounting and presentation of the amount received from bills discounting as current borrowings from the financial year 2023-24 and corresponding changes in the previous periods have also been carried out. The changes in the presentation do not have any impact on the Statement of Profit and Loss as well as Statement of Changes in Equity of the Company for all the reported periods.

(b) Presentation of Contractual obligations

The Company was including contractual obligations such as security deposit along with the dues of the vendors under trade payables. A review of the same was carried out considering the Guidance Note on Schedule III to the Companies Act,2013 and Industry practice and changed the presentation of contractual obligations from 'Trade payable' to 'Other financial liabilities' for the year 2023-24 and corresponding changes in the previous periods have also been carried out. The changes in the presentation do not have any impact on the Statement of Profit and Loss as well as Statement of Changes in Equity of the Company for all the reported periods.

(c) Certain reclassifications have been made to the comparative period's Statement of cash flows with the current year's Statement of cash flows for improved disclosure.

(B) Deferred Tax relate to assets and liabilities arising from a Single Transaction

The Company has adopted the amendment to Ind AS 12 – "Income Taxes" as notified by the Ministry of Corporate Affairs vide notification dated 31 March 2023 relating to "Deferred tax related to assets and liabilities arising from a single transaction" from 1 April 2023. The amendment narrows the scope of the initial recognition exemption to exclude transactions that give rise to equal and offsetting differences e.g. leases and decommissioning liabilities. As a result, the Company has recognised associated deferred tax liability of ₹ 240.95 crore, deferred tax asset of ₹ 317.99 crore and regulatory deferral account balance of ₹ 74.32 crore on right of use assets and leases liabilities during the year, and the corresponding impact of ₹ 2.72 crore, being the net of deferred tax income of ₹ 77.04 crore and regulatory deferral account (expense) of ₹ 74.32 crore, has been recognised in the Statement of Profit and Loss for the year, considering materiality.



(C) Material accounting policy information

The Company adopted the amendment to Ind AS 1 – "Presentation of Financial Statements" as notified by Ministry of Corporate Affairs vide notification dated 31 March 2023 relating to " Disclosure of accounting policy information" from 1 April 2023. Although the amendment did not result in any changes in the accounting policies themselves, they impacted the accounting policy information disclosed in the financial statements. The amendments require the disclosure of 'material' rather than 'significant' accounting policies. The amendments also provide guidance on the application of materiality to disclosure of accounting policies, assisting entities to provide useful, entity-specific accounting policy information that users need to understand other information in the financial statements.

(D) Standards issued but not yet effective

Ministry of Corporate Affairs (MCA) notifies new standards or amendments to the existing standards under Companies (Indian Accounting Standards) Rules, from time to time. MCA has not notified any new standards or amendments to the existing standards which are effective from 1 April 2024.

55. Income taxes related disclosures

(I) Disclosure as per Ind AS 12 'Income taxes'

(a) Income tax expense

i) Income tax recognised in the statement of profit and loss

₹ Crore

Particulars	For the year ended	
	31 March 2024	31 March 2023
Current tax expense		
Current year	**4,094.36**	4,293.56
Taxes for earlier years	**(152.63)**	206.35
Pertaining to regulatory deferral account balances (A)	**240.13**	(125.14)
Total current tax expense (B)	**4,181.86**	4,374.77
Deferred tax expense		
Origination and reversal of temporary differences	**4,093.09**	4,532.62
Less: MAT credit entitlement	**1,434.79**	2,753.26
Total deferred tax expense (C)	**2,658.30**	1,779.36
Income tax expense (D=B+C-A)	**6,600.03**	6,279.27
Pertaining to regulatory deferral account balances	**240.13**	(125.14)
Total tax expense including tax on movement in regulatory deferral account balances	**6,840.16**	6,154.13

ii) Income tax recognised in other comprehensive income

Particulars	For the year ended					
	31 March 2024			31 March 2023		
	Before tax	**Tax expense/ (benefit)**	**Net of tax**	Before tax	Tax expense/ (benefit)	Net of tax
- Net actuarial losses on defined benefit plans	**(128.00)**	**(22.36)**	**(105.64)**	(96.09)	(16.79)	(79.30)
- Net gains/(losses) on fair value of equity instruments	**120.90**	**-**	**120.90**	3.60	-	3.60
	(7.10)	**(22.36)**	**15.26**	(92.49)	(16.79)	(75.70)

iii) Reconciliation of tax expense and the accounting profit multiplied by India's domestic tax rate **₹ Crore**

Particulars	For the year ended	
	31 March 2024	31 March 2023
Profit before tax including movement in regulatory deferral account balances	**24,919.55**	23,350.86
Tax using the Company's domestic tax rate of 34.944 % (31 March 2023 - 34.944%)	**8,707.89**	8,159.72
Tax effect of:		
Non-deductible tax expenses	**(19.45)**	88.55
Deferred tax expenses	**2,658.30**	1,779.36
Previous year tax liability	**(152.63)**	206.35
Minimum alternate tax adjustments	**(4,353.95)**	(4,079.85)
Total tax expense recognized in the statement of profit and loss	**6,840.16**	6,154.13

(b) Tax losses carried forward **₹ Crore**

Particulars	31 March 2024	Expiry date	31 March 2023	Expiry date
Long-term capital loss for which no deferred tax asset has been recognised due to uncertainty involved	**2,105.19**	**31-03-2029**	2,105.19	31-03-2029

(c) Refer Note 54(B) relating to adjustment to deferred tax assets and liabilities relating to ROU assets / lease liabilities.

56. Disclosure as per Ind AS 19 'Employee benefits'

(i) Defined contribution plans:

Pension

The defined contribution pension scheme of the Company for its employees which is effective from 1 January 2007, is administered through a separate trust. The obligation of the Company is to contribute to the trust to the extent of amount not exceeding 30% of basic pay and dearness allowance less employer's contribution towards provident fund, gratuity, post retirement medical facility (PRMF) or any other retirement benefits. The Company's contribution towards pension is made to National Pension System Trust (NPS) for the employees opted for the scheme. An amount of **₹ 281.93 crore** (31 March 2023: ₹ 273.29 crore) for the year is recognized as expense towards contributions to the defined contribution pension scheme of the Company/NPS for the year and charged to the statement of profit and loss.

(ii) Defined benefit plans:

Defined benefit plans of the Company are administered by separate funds which are legally separated from the Company. The management of funds is governed by their respective board of the trustees who are responsible for administration of the plan as per the provisions of the Trust deed and statutory provisions, as applicable. The board of the trustees are required by law to act in best interests of the plan participants and are responsible for setting certain policies (such as investments decisions, contribution schedules, claim settlement) of the funds.

A. Provident fund

The Company pays fixed contribution to provident fund at predetermined rates to a separate trust, which invests the funds in permitted securities. The Company has an obligation to ensure minimum rate of return to the members as specified by GOI. Accordingly, the Company has obtained report of the actuary, based on which overall interest earnings and cumulative surplus is more than the statutory interest payment requirement for all the periods presented. Further, contribution to employees pension scheme is paid to the appropriate authorities.

Based on the actuarial valuation obtained in this respect, the following table sets out the status of the provident fund plan as at balance sheet date:

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Net defined benefit (asset)/liability - Current	**(59.07)**	(56.88)

Movement in net defined benefit (asset)/liability ₹ Crore

Particulars	Defined benefit obligation		Fair value of plan assets		Net defined benefit (asset) liability	
	For the year ended		For the year ended		For the year ended	
	31 March 2024	31 March 2023	**31 March 2024**	31 March 2023	**31 March 2024**	31 March 2023
Opening balance	**11,711.37**	11,134.77	**11,768.25**	11,193.16	**(56.88)**	(58.39)
Current service cost recognised in statement of profit and loss	**335.46**	326.73	**-**	-	**335.46**	326.73
Interest cost/(income)	**928.31**	890.85	**(928.31)**	(890.85)	**-**	-
Total	**1,263.77**	1,217.58	**(928.31)**	(890.85)	**335.46**	326.73
Remeasurement loss (gain):						
Actuarial loss (gain) arising from:						
Demographic assumptions	-	-	**-**	-	**-**	-
Financial assumptions	1.13	(0.79)	**-**	-	**1.13**	(0.79)
Experience adjustment	**1.96**	3.74	**-**	-	**1.96**	3.74
Return on plan assets excluding interest income	**-**	-	**18.93**	16.74	**18.93**	16.74
Total	**3.09**	2.95	**18.93**	16.74	**22.02**	19.69
Other						
Contribution by participants	**638.70**	676.37	**638.70**	676.37	**-**	-
Contribution by employer	-	-	**359.67**	344.91	**(359.67)**	(344.91)
Benefits paid	**1,594.13**	1,320.30	**1,594.13**	1,320.30	**-**	-
Closing balance	**12,022.80**	11,711.37	**12,081.87**	11,768.25	**(59.07)**	(56.88)

Pursuant to paragraph 57 of Ind AS 19, accounting by an entity for defined benefit plans, inter-alia, involves determining the amount of the net defined benefit liability (asset) which shall be adjusted for any effect of limiting a net defined benefit asset to the asset ceiling prescribed in paragraph 64. As per Para 64 of Ind AS 19, in case of surplus in a defined benefit plan, an entity shall measure the net defined benefit asset at the lower of actual surplus or the value of the assets ceiling determined using the discount rate. The asset ceiling is the present value of any economic benefits available in the form of refunds from the plan or reductions in future contributions to the plan. Further, paragraph 65 provides that a net defined benefit asset may arise where a defined benefit plan has been overfunded or where actuarial gains have arisen.

As per the provisions of the Employees' Provident Funds and Miscellaneous Provisions Act, 1952, the Company has no right to the benefits either in the form of refund from the plan or lower future contribution to the plan towards the net surplus of **₹ 59.07 crore** (31 March 2023: ₹ 56.88 crore) determined through actuarial valuation. Accordingly, Company has not recognised the surplus as an asset, and the remeasurement loss /gains in 'Other Comprehensive Income', as these pertain to the Provident Fund Trust and not to the Company.

As per the provisions of Employee's Provident Funds Scheme 1952, the employer shall be liable to make good the loss to the Trust in the event of any loss as a result of any fraud, defalcation, wrong investment decisions etc. to the Trust. Keeping in view the above, a cumulative provision of **₹ Nil** (31 March 2023: ₹ 12.81 crore) has been recognized in the Statement of Profit and Loss, towards such loss to the trust.

B. Gratuity and pension

a) The Company has a defined benefit gratuity plan. Every employee who has rendered continuous service of five years or more is entitled to gratuity at 15 days salary (15/26 X last drawn basic salary plus dearness allowance) for each completed year of service subject to a maximum of ₹ 0.20 crore on superannuation, resignation, termination, disablement or on death, considering the provisions of the Payment of Gratuity Act, 1972, as amended. The gratuity scheme is funded by the Company and is managed by separate trust. The liability for gratuity scheme is recognised on the basis of actuarial valuation.

b) The Company has pension schemes at two of its stations in respect of employees taken over from erstwhile state government power utilities. These pension schemes are unfunded. The liability for the pension schemes is recognised on the basis of actuarial valuation.

Based on the actuarial valuation obtained in this respect, the following table sets out the status of the gratuity and pension plan and the amounts recognised in the Company's financial statements as at balance sheet date:

Net defined benefit (asset)/liability : ₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Gratuity (funded)	**93.30**	(23.18)
Gratuity (non-funded)	**-**	-
Pension (non-funded)	**540.02**	532.75
Total	**633.32**	509.57
Break-up		
Non-current	**502.95**	498.02
Current	**130.37**	11.55

Movement in net defined benefit (asset)/liability ₹ Crore

Particulars	Defined benefit obligation		Fair value of plan assets		Net defined benefit (asset) liability	
	For the year ended		For the year ended		For the year ended	
	31 March 2024	31 March 2023	**31 March 2024**	31 March 2023	**31 March 2024**	31 March 2023
Opening balance	**2,482.43**	2,609.16	**1,972.86**	1,970.63	**509.57**	638.53
Included in profit or loss for the year:						
Current service cost	**99.00**	97.55	**-**	-	**99.00**	97.55
Past service cost	**85.68**	-	**-**	-	**85.68**	-
Interest cost (income)	**181.81**	182.61	**(142.38)**	(143.37)	**39.43**	39.24
Total amount recognised in profit or loss for the year	**366.49**	280.16	**(142.38)**	(143.37)	**224.11**	136.79
Included in other comprehensive income:						
Remeasurement loss (gain):						
Actuarial loss (gain) arising from:						
Demographic assumptions	-	-	**-**	-	**-**	-
Financial assumptions	**45.67**	(78.32)	**-**	-	**45.67**	(78.32)
Experience adjustment	**(113.15)**	(41.38)	**-**	-	**(113.15)**	(41.38)
Return on plan assets excluding interest income	-	-	**(15.35)**	(30.39)	**(15.35)**	(30.39)
Total amount recognised in other comprehensive income	**(67.48)**	(119.70)	**(15.35)**	(30.39)	**(82.83)**	(150.09)
Out of the above an amount of (-) **₹ 5.64 crore** (31 March 2023: ₹ (6.44 crore)) has been transferred to expenditure during construction period / development of coal mines.						
Other						
Contribution by employer	-	-	**(23.18)**	77.59	**23.18**	(77.59)
Benefits paid	**276.24**	287.19	**235.53**	249.12	**40.71**	38.07
Closing balance	**2,505.20**	2,482.43	**1,871.88**	1,972.86	**633.32**	509.57

Out of the above net liability, an amount of **₹ 91.83 crore** (31 March 2023: ₹ Nil) has been adjusted with the amount recoverable from the trust.

C. Post-Retirement Medical Facility (PRMF)

The Company has Post-Retirement Medical Facility (PRMF), under which the retired employees and their spouses are provided medical facilities in the Company hospitals/empanelled hospitals. They can also avail treatment as out-patient subject to a ceiling fixed by the Company. The liability for the same is recognised annually on the basis of actuarial valuation. A trust has been constituted for its employees superannuated on or after 1 January 2007, for the sole purpose of providing post retirement medical facility to them.

Based on the actuarial valuation obtained in this respect, the following table sets out the status of the PRMF and the amounts recognised in the Company's financial statements as at balance sheet date:

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Net defined benefit (asset)/liability - Current (funded)	**267.57**	278.43
Net defined benefit (asset)/liability - Current (unfunded)	-	-

Movement in net defined benefit (asset)/liability ₹ Crore

Particulars	Defined benefit obligation		Fair value of plan assets		Net defined benefit (asset) liability	
	For the year ended		For the year ended		For the year ended	
	31 March 2024	31 March 2023	**31 March 2024**	31 March 2023	**31 March 2024**	31 March 2023
Opening balance	**2,742.68**	2,415.95	**2,464.25**	2,237.32	**278.43**	178.63
Included in profit or loss:						
Current service cost	**43.06**	43.86	-	-	**43.06**	43.86
Past service cost	-	-	-	-	-	-
Interest cost (income)	**202.96**	169.11	**(202.96)**	(169.11)	-	-
Total amount recognised in profit or loss	**246.02**	212.97	**(202.96)**	(169.11)	**43.06**	43.86
Included in other comprehensive income:						
Remeasurement loss (gain):						
Actuarial loss (gain) arising from:						
Demographic assumptions	-	-	-	-	-	-
Financial assumptions	**89.54**	(106.06)	-	-	**89.54**	(106.06)
Experience adjustment	**156.41**	383.56	-	-	**156.41**	383.56
Return on plan assets excluding interest income	-	-	**(27.27)**	(27.87)	**(27.27)**	(27.87)
Total amount recognised in other comprehensive income	**245.95**	277.50	**(27.27)**	(27.87)	**218.68**	249.63
Out of the above an amount of **₹ 4.12 crore** (31 March 2023: ₹ 6.14 crore) has been transferred to expenditure during construction period / development of coal mines.						
Other						
Contribution by participants	-	-	**11.67**	15.15	**(11.67)**	(15.15)
Contribution by employer	-	-	**260.93**	178.54	**(260.93)**	(178.54)
Benefits paid	**183.41**	163.74	**183.41**	163.74	-	-
Closing balance	**3,051.24**	2,742.68	**2,783.67**	2,464.25	**267.57**	278.43
Out of the above net liability, an amount of **₹ 267.57crore** (31 March 2023: ₹ 220.65 crore) has been adjusted with the amount recoverable from the trust.						

D. Other retirement benefit plans

Other retirement benefit plans include baggage allowance for settlement at home town for employees and dependents and farewell gift to the superannuating employees. The scheme above is unfunded and liability for the same is recognised on the basis of actuarial valuation.

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Net defined benefit (asset)/liability (non-funded) :	**198.97**	201.17
Non-current	**173.86**	174.17
Current	**25.11**	27.00

Movement in net defined benefit (asset)/liability ₹ Crore

Particulars	Defined benefit obligation	
	As at 31 March 2024	As at 31 March 2023
Opening balance	**201.17**	206.53
Included in profit or loss:		
Current service cost	**10.72**	9.91
Past service cost	-	
Interest cost (income)	**14.89**	14.70
Total amount recognised in profit or loss	**25.61**	24.61
Included in other comprehensive income:		
Remeasurement loss (gain):		
Actuarial loss (gain) arising from:		
Demographic assumptions	-	
Financial assumptions	**4.55**	(6.64)
Experience adjustment	**(13.93)**	(5.17)
Return on plan assets excluding interest income	-	
Total amount recognised in other comprehensive income	**(9.38)**	(11.81)
Other		
Contributions paid by the employer	-	
Benefits paid	**18.43**	18.16
Closing balance	**198.97**	201.17



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E. Plan assets

Plan assets comprise the following:

₹ Crore

Particulars	As at 31 March 2024			As at 31 March 2023		
	Quoted	Unquoted	Total	Quoted	Unquoted	Total
State government securities	**7,101.97**	-	**7,101.97**	6,832.81	-	6,832.81
Central government securities	**1,511.18**	-	**1,511.18**	1,647.90	-	1,647.90
Corporate bonds, term deposits and bank balance	**3,986.08**	**56.20**	**4,042.28**	3,992.01	47.93	4,039.94
Money market instruments/ liquid mutual fund//REITs/InvITs	**45.33**	**-**	**45.33**	-	10.62	10.62
Equity and equity linked investments	**313.08**	**-**	**313.08**	184.09	-	184.09
Investments with insurance companies	**-**	**3,849.50**	**3,849.50**	-	3,517.41	3,517.41
Total (excluding accrued interest)	**12,957.64**	**3,905.70**	**16,863.34**	12,656.81	3,575.96	16,232.77

As at 31 March 2024, an amount of **₹ Nil** (31 March 2023: ₹ 70.00 crore) is included in the value of plan assets in respect of the reporting enterprise's own financial instruments (Corporate bonds).

Actual return on plan assets is **₹ 1,297.34 crore** (31 March 2023: ₹ 1,244.85 crore).

F. Defined benefit obligations

i. Actuarial assumptions

The following were the principal actuarial assumptions at the reporting date:

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Discount rate	**7.10%**	7.40%
Expected return on plan assets		
Gratuity	**7.10%**	7.40%
Pension	**7.10%**	7.40%
PRMF	**7.10%**	7.40%
Annual increase in costs	**6.50%**	6.50%
Salary escalation rate	**6.50%**	6.50%

The estimates of future salary increases considered in actuarial valuation, take account of inflation, seniority, promotion and other relevant factors, such as supply and demand in the employment market. Further, the expected return on plan assets is determined considering several applicable factors mainly the composition of plan assets held, assessed risk of asset management and historical returns from plan assets.

ii. Sensitivity analysis

Reasonably possible changes at the reporting date to one of the relevant actuarial assumptions, holding other assumptions constant, would have affected the defined benefit obligation by the amounts shown below.

₹ Crore

Particulars	As at 31 March 2024		As at 31 March 2023	
	Increase	Decrease	Increase	Decrease
Discount rate (0.5% movement)	**(220.22)**	**234.05**	(197.68)	209.18
Annual increase in costs (0.5% movement)	**121.84**	**(120.21)**	106.35	(103.83)
Salary escalation rate (0.5% movement)	**107.05**	**(100.62)**	99.56	(93.90)

Although the analysis does not take account of the full distribution of cash flows expected under the plan, it does provide an approximation of the sensitivity of the assumptions shown.

The sensitivity analysis above have been determined based on a method that extrapolates the impact on defined benefit obligation as a result of reasonable changes in key assumptions occurring at the end of the reporting period. This analysis may not be representative of the actual change in the defined benefit obligations as it is unlikely that the change in assumptions would occur in isolation of one another as some of the assumptions may be correlated.

G. Risk exposure

Through its defined benefit plans, the Company is exposed to a number of risks, the most significant of which are detailed below:

a) Asset volatility

The plan liabilities are calculated using a discount rate set with reference to government bond yields; if plan assets underperform this yield, this will create a deficit. Most of the plan asset investments are in fixed income securities with high grades and in government securities. These are subject to interest rate risk and the fund manages interest rate risk with derivatives to minimise risk to an acceptable level. A portion of the funds are invested in equity securities and in alternative investments which have low correlation with equity securities. The Company has a risk management strategy where the aggregate amount of risk exposure on a portfolio level is maintained at a fixed range. Any deviations from the range are corrected by rebalancing the portfolio. The Company intends to maintain the above investment mix in the continuing years.

b) Changes in discount rate

A decrease in discount rate will increase plan liabilities, although this will be partially offset by an increase in the value of the plans' assets holdings.

c) Inflation risks

In the pension plans, the pension payments are not linked to inflation, so this is a less material risk.

d) Life expectancy

The pension plan obligations are to provide benefits for the life of the member, so increases in life expectancy will result in an increase in the plans' liabilities. This is particularly significant where inflationary increases result in higher sensitivity to changes in life expectancy.

The Company ensures that the investment positions are managed within an asset-liability matching (ALM) framework that has been developed to achieve long-term investments that are in line with the obligations under the employee benefit plans. Within this framework, the Company's ALM objective is to match assets to the pension obligations by investing in long-term fixed interest securities with maturities that match the benefit payments as they fall due and in the appropriate currency.

The Company actively monitors how the duration and the expected yield of the investments are matching the expected cash outflows arising from the employee benefit obligations. The Company has not changed the processes used to manage its risks from previous periods. The Company uses derivatives to manage some of its risk. Investments are well diversified, such that the failure of any single investment would not have a material impact on the overall level of assets.

A large portion of assets consist of government and corporate bonds. The plan asset mix is in compliance with the requirements of the respective local regulations.



H. Expected maturity analysis of the defined benefit plans in future years

₹ Crore

Particulars	Less than 1 year	Between 1-2 years	Between 2-5 years	Over 5 years	Total
31 March 2024					
Gratuity and pension	**260.31**	**254.48**	**529.34**	**1,461.07**	**2,505.20**
Post-retirement medical facility (PRMF)	**216.16**	**231.13**	**831.35**	**1,772.60**	**3,051.24**
Provident fund	**2,728.51**	**1,143.64**	**2,059.64**	**6,091.01**	**12,022.80**
Other post-employment benefit plans	**25.11**	**22.14**	**43.08**	**108.64**	**198.97**
Total	**3,230.09**	**1,651.39**	**3,463.41**	**9,433.32**	**17,778.21**
31 March 2023					
Gratuity and pension	289.51	248.74	543.21	1,400.97	2,482.43
Post-retirement medical facility (PRMF)	178.88	187.88	651.37	1,724.55	2,742.68
Provident fund	2,522.95	1,152.54	2,382.70	5,653.18	11,711.37
Other post-employment benefit plans	27.01	22.63	47.91	103.62	201.17
Total	3,018.35	1,611.79	3,625.19	8,882.32	17,137.65

Expected contributions to post-employment benefit plans for the year ending 31 March 2025 are **₹ 552.28 crore**.

The weighted average duration of the defined benefit plan obligation at the end of the reporting period is **16.65 years** (31 March 2023: 16.01 years).

(iii) Other long term employee benefit plans

A. Leave

The Company provides for earned leave benefit (including compensated absences) and half-pay leave to the employees of the Company which accrue annually at 30 days and 20 days respectively. Earned leave (EL) is en-cashable while in service. Half-pay leaves (HPL) are en-cashable only on separation beyond the age of 50 years up to the maximum of 300 days. However, total number of leave (i.e. EL & HPL combined) that can be encashed on superannuation shall be restricted to 300 days and no commutation of half-pay leave shall be permissible. The scheme is unfunded and liability for the same is recognised on the basis of actuarial valuation. During the year, provision amounting to ₹ **121.71 crore** has been made on the basis of actuarial valuation at the year end and debited to statement of profit and loss (31 March 2023: ₹ 71.11 crore)

B. Other employee benefits

Provision for long service award and family economic rehabilitation scheme amounting to ₹ **3.67 crore** (31 March 2023: ₹ (6.72) crore) for the year have been made on the basis of actuarial valuation at the year end and (credited)/ debited to the statement of profit and loss.

57 Disclosure as per Ind AS 21 'The Effects of Changes in Foreign Exchange Rates'

The amount of exchange differences (net) debited to the statement of profit and loss, net of movement in regulatory deferral account balances, is **₹ 6.10 crore** (31 March 2023: debited to Statement of profit and loss ₹ 35.76 crore).

58 Disclosure as per Ind AS 23 'Borrowing Costs'

Borrowing costs capitalised during the year is **₹ 2,178.16 crore** (31 March 2023: ₹ 2,785.95 crore).

59 Disclosure as per Ind AS 24 'Related Party Disclosures'

a) List of related parties:

i) Subsidiary companies:

1. NTPC Vidyut Vyapar Nigam Ltd.
2. NTPC Electric Supply Company Ltd.
3. Bhartiya Rail Bijlee Company Ltd.
4. Patratu Vidyut Utpadan Nigam Ltd.
5. North Eastern Electric Power Corporation Ltd. (NEEPCO)
6. THDC India Ltd. (THDCIL)
7. NTPC Mining Ltd.
8. NTPC EDMC Waste Solutions Private Ltd.
9. Ratnagiri Gas & Power Private Ltd.
10. NTPC Green Energy Limited (W.e.f 7 April 2022)

Subsidiary company of NTPC Green Energy Limited

1. NTPC Renewable Energy Ltd. (subsidiary of NTPC Limited upto 28 February 2023)
2. Green Valley Renewable Energy Limited (Incorporated on 25 August 2022)

Subsidiary company of THDCIL

1. TUSCO Limited
2. TREDCO Rajasthan Limited
3. THDCIL-UJVNL Energy Company Limited (Incorporated on 01 December 2023)

ii) Joint ventures companies:

1. Utility Powertech Ltd.
2. NTPC-GE Power Services Private Ltd.
3. NTPC-SAIL Power Company Ltd.
4. NTPC Tamil Nadu Energy Company Ltd.
5. Aravali Power Company Private Ltd.
6. Meja Urja Nigam Private Ltd.
7. NTPC BHEL Power Projects Private Ltd.
8. National High Power Test Laboratory Private Ltd.
9. Transformers and Electricals Kerala Ltd.
10. Energy Efficiency Services Ltd.
11. CIL NTPC Urja Private Ltd.
12. Anushakti Vidhyut Nigam Ltd.
13. Hindustan Urvarak & Rasayan Ltd.
14. Jhabua Power Limited.
15. Trincomalee Power Company Ltd.
16. Bangladesh-India Friendship Power Company Private Ltd.

Joint venture company of NEEPCO

1. KSK Dibbin Hydro Power Private Ltd.

Joint venture company of NTPC Green Energy Limited

1. Indian Oil NTPC Green Energy Limited (Incorporated on 2 June 2023)

Subsidiary companies of Energy Efficiency Services Ltd., a Joint venture of the Company

1. EESL EnergyPro Assets Ltd.
2. EESL Energy Solutions LLC
3. Convergence Energy Services Ltd.

iii) Key Management Personnel (KMP):

Whole Time Directors		
Mr. Gurdeep Singh	Chairman and Managing Director	
Mr. Jaikumar Srinivasan	Director (Finance)	W.e.f. 21 July 2022
Mr. A.K.Gautam	Director (Finance)	Upto 31 May 2022
Mr. Dillip Kumar Patel	Director (HR)	
Mr Ramesh Babu V.	Director (Operations)	Upto 31 January 2024
Mr. Chandan Kumar Mondol	Director (Commercial)	Upto 31 January 2023
Mr. Ujjwal Kanti Bhattacharya	Director (Projects)	Upto 30 November 2023
Mr. Shivam Srivastav	Director (Fuel)	W.e.f. 30 April 2023
Mr. K Shanmugha Sundaram	Director (Projects)	W.e.f. 1 December 2023
Mr. Ravindra Kumar	Director (Operations)	W.e.f. 26 February 2024
Independent Directors		
Mr. Jitendra Jayantilal Tanna	Non-executive Director	
Mr. Vivek Gupta	Non-executive Director	
Mr. Vidyadhar Vaishampayan	Non-executive Director	
Ms. Sangitha Varier	Non-executive Director	
Government Nominee Directors		
Mr. Ashish Upadhyaya	Non-executive Director	Upto 31 December 2023
Mr. Piyush Singh	Non-executive Director	W.e.f 31 May 2022
Mr. Vivek Kumar Dewangan	Non-executive Director	Upto 30 May 2022
Chief Financial Officer and Company Secretary		
Ms. Renu Narang	Chief Financial Officer	W.e.f. 01 June 2022 upto 20 July 2022
Ms. Ritu Arora	Company Secretary	W.e.f. 29 January 2024
Mr. Arun Kumar	Company Secretary	W.e.f. 29 October 2022 upto 28 January 2024
Ms. Nandini Sarkar	Company Secretary	Upto 30 September 2022

iv) Post employment benefit plans:

1. NTPC Limited Employees Provident Fund
2. NTPC Employees Gratuity Fund
3. NTPC Post Retirement Employees Medical Benefit Fund
4. NTPC Limited Defined Contribution Pension Trust

v) Entities under the control of the same government:

The Company is a Central Public Sector Undertaking (CPSU) controlled by Central Government by holding 51.10% of paid up share capital (31 March 2023- 51.10%) and is under Ministry of Power. The Company has transactions with other Government related entities, which significantly includes but not limited to purchase of fuel (coal, gas)/oil products, purchase of equipment, spares, receipt of erection, maintenance and other services, rendering consultancy and other services. Transactions with these parties are carried out at market terms and on terms comparable to those with other entities that are not Government-related generally through a transparent price discovery process against open tenders. In few cases of procurement of spares/services from Original Equipment Manufacturer (OEM) for proprietary items/or on single tender basis are resorted to due to urgency, compatibility and similar reasons which are also carried out through a process of negotiation with prices benchmarked against available price data of such items.

vi) Others:

1. NTPC Education and Research Society
2. NTPC Foundation

b) Transactions with the related parties are as follows:

₹ Crore

Particulars	Subsidiary Companies		Joint venture Companies	
	For the year ended		For the year ended	
	31 March 2024	31 March 2023	31 March 2024	31 March 2023
i) Sales/purchase of goods and services				
- Contracts for works/services for services received by the Company	**22.05**	2.66	**593.15**	1,711.50
- Contracts for works/services for services provided by the Company	**54.00**	48.00	**25.66**	24.77
- Sale/purchase of goods	**2,970.53**	2,567.08	**1.73**	16.65
ii) Sales/purchase of assets	**0.08**	2.56	**37.43**	2.90
iii) Secondment of employees	**48.00**	39.20	**57.40**	55.59
iv) Dividend received	**904.20**	1,050.25	**725.52**	1,285.33
v) Equity contributions made	**1,580.98**	5,582.90	**944.86**	1,605.52
vi) Equity transferred	**-**	1,094.46	**-**	-
vii) Loans granted	**1,064.82**	100.00	**-**	-
viii) Investments in Debentures	**-**	-	**-**	600.00
ix) Investments redeemed	**-**	-	**50.00**	25.00
x) Interest on loan	**94.29**	81.45	**2.52**	-
xi) Income on Investments (Debentures)	**-**	-	**47.26**	28.79
xii) Loans repaid	**1,417.92**	153.10	**-**	-
xiii) Guarantees received	**-**	-	**2.36**	5.66
xiv) Income on investment property	**5.93**	0.19	**-**	-
xv) Transfer of cost of land / RE assets (Refer Note (a) below)	**1,006.82**	12,010.55	**-**	-
xvi) Interest income- Transfer of assets	**16.25**	49.35	**-**	-

Note:

(a) Pursuant to a business transfer agreement entered with NGEL, a wholly owned subsidiary of the Company, fifteen renewable energy (RE) assets of the Company were transferred to NGEL as at 28 February 2023 at book value. During the year, the cost incurred by the Company for 1200 acres of lease hold land at Pudimadakka, Andhra Pradesh, including the capital advance (Note-12) of ₹ 713.32 crore accounted in the earlier years, was transferred to NGEL for establishing green hydrogen projects.



(b) Refer Note 75(C) (b) and (c) for other Commitments with subsidiaries and joint venture companies.

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
Transactions with post employment benefit plans		
- Contributions made during the year	**787.02**	855.35
Compensation to Key management personnel		
- Short term employee benefits	**6.26**	6.96
- Post employment benefits	**0.51**	0.54
- Other long term benefits	**0.42**	0.34
- Termination benefits	**1.34**	1.44
- Sitting fee	**0.79**	0.71
Total compensation to key management personnel	**9.32**	9.99

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
Transactions with others listed at (a)(vi) above		
- Contracts for works/services for services received by the Company	**30.89**	40.43
- Contracts for works/services for services provided by the Company	**-**	0.35

c) Outstanding balances with related parties are as follows:

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Amount recoverable towards loans from		
- Subsidiary companies	**412.42**	765.53
- Joint venture companies	**-**	19.78
- Key management personnel	**0.08**	0.47
- Others	**-**	0.60
Amount recoverable other than loans from		
- Subsidiary companies	**921.02**	3,664.36
- Joint venture companies	**333.16**	216.04
- Post employment benefit plans	**44.17**	88.09
- Others	**6.67**	0.42
Others		
- Joint venture companies - Non convertible debentures	**525.00**	575.00
Amount payable to		
- Joint venture companies	**106.87**	312.00
- Post employment benefit plans	**29.85**	78.99
- Others	**0.43**	0.30
Guarantee received Outstanding		
- Joint venture companies	**327.84**	353.95

d) Individually significant transactions

₹ Crore

Particulars	Nature of relationship	For the year ended 31 March 2024	For the year ended 31 March 2023
Contracts for works/services for services received by the Company			
Utility Powertech Ltd.	Joint Venture Company	**482.45**	1,662.35
NTPC-Tamil Nadu Energy Company Ltd.	Joint Venture Company	**85.34**	-
NTPC BHEL Power Projects Private Ltd.	Joint Venture Company	**21.31**	24.65
NTPC-GE Power Services Private Ltd.	Joint Venture Company	**2.35**	22.17
Contracts for works/services for services provided by the Company			
Patratu Vidyut Utpadan Nigam Ltd.	Subsidiary Company	**27.52**	22.89
NTPC Vidyut Vyapar Nigam Ltd.	Subsidiary Company	**3.07**	3.44
THDC India Ltd.	Subsidiary Company	**9.34**	17.73
Bhartiya Rail Bijlee Company Ltd.	Subsidiary Company	**2.57**	3.75
NTPC Green Energy Limited	Subsidiary Company	**10.94**	-
NTPC SAIL Power Company Ltd	Joint Venture Company	**3.54**	2.65
Utility Powertech Ltd.	Joint Venture Company	**2.99**	4.21
Meja Urja Nigam Private Limited	Joint Venture Company	**3.78**	3.84
Aravali Power Company Private Ltd.	Joint Venture Company	**3.82**	3.71
NTPC Tamil Nadu Energy Company Ltd.	Joint Venture Company	**3.69**	3.90
Energy Efficiency Services Ltd.	Joint Venture Company	**5.39**	5.63
Sale of goods			
NTPC Vidyut Vyapar Nigam Ltd.	Subsidiary Company	**2,591.52**	2,566.80
Purchase of goods			
Energy Efficiency Services Ltd.	Joint Venture Company	**0.47**	8.59
NTPC BHEL Power Projects Private Ltd.	Joint Venture Company	**-**	7.31
Transformers and Electricals Kerala Ltd.	Joint Venture Company	**0.11**	0.18
Sale of assets			
Bhartiya Rail Bijlee Company Ltd.	Subsidiary Company	**0.08**	2.56
NTPC-Tamil Nadu Energy Company Ltd.	Joint Venture Company	**11.86**	-
NTPC-SAIL Power Company Ltd.	Joint Venture Company	**1.50**	-
Purchase of assets			
NTPC BHEL Power Projects Private Ltd.	Joint Venture Company	**19.88**	1.98
Transformers and Electricals Kerala Ltd.	Joint Venture Company	**0.28**	0.89
NTPC-GE Power Services Private Ltd.	Joint Venture Company	**2.02**	-
Dividend received			
NTPC-SAIL Power Company Ltd.	Joint Venture Company	**75.00**	325.00
Aravali Power Company Private Ltd.	Joint Venture Company	**375.00**	475.00
NTPC-Tamil Nadu Energy Company Ltd.	Joint Venture Company	**275.21**	375.33



₹ Crore

Particulars	Nature of relationship	For the year ended 31 March 2024	For the year ended 31 March 2023
Utility Powertech Ltd.	Joint Venture Company	-	10.00
Jhabua Power Limited.	Joint Venture Company	-	100.00
NTPC-GE Power Services Private Ltd.	Joint Venture Company	**0.30**	-
CIL NTPC Urja Private Ltd.	Joint Venture Company	**0.01**	-
NTPC Vidyut Vyapar Nigam Ltd.	Subsidiary Company	**25.50**	19.50
North Eastern Electric Power Corporation Ltd.	Subsidiary Company	**250.00**	365.00
NTPC Electric Supply Company Ltd.	Subsidiary Company	-	35.56
Bhartiya Rail Bijlee Company Ltd.	Subsidiary Company	**277.50**	222.00
THDC India Ltd.	Subsidiary Company	**351.20**	408.19
Equity contributions made			
Patratu Vidyut Utpadan Nigam Ltd.	Subsidiary Company	**426.93**	500.00
NTPC Mining Ltd.	Subsidiary Company	**154.05**	-
NTPC Green Energy Limited	Subsidiary Company	**1,000.00**	4,719.61
NTPC Renewable Energy Ltd.	Subsidiary Company	-	363.29
Energy Efficiency Services Ltd.	Joint Venture Company	**383.00**	-
Trincomalee Power Company Ltd.	Joint Venture Company	-	0.44
Meja Urja Nigam Private Ltd.	Joint Venture Company	**34.44**	41.90
National High Power Test Laboratory Private Ltd.	Joint Venture Company	**18.40**	-
Bangladesh-India Friendship Power Company Pvt.Ltd.	Joint Venture Company	**161.99**	541.64
NTPC-Tamil Nadu Energy Company Ltd.	Joint Venture Company	-	30.00
Jhabua Power Limited.	Joint Venture Company	-	325.00
Hindustan Urvarak & Rasayan Ltd.	Joint Venture Company	**347.03**	666.54
Loans granted			
Ratnagiri Gas & Power Private Ltd.	Subsidiary Company	**1,064.32**	100.00
NTPC Mining Ltd.	Subsidiary Company	**0.50**	-
Investments in Debentures			
Jhabua Power Limited.	Joint Venture Company	-	600.00
Transfer of Assets			
NTPC Green Energy Limited*	Subsidiary Company	**1,006.82**	12,010.55
Interest income - Transfer of Assets			
NTPC Green Energy Limited	Subsidiary Company	**16.25**	49.35
Interest on Loan			
Ratnagiri Gas & Power Private Ltd.	Subsidiary Company	**94.29**	81.45
National High Power Test Laboratory Private Ltd.	Joint Venture Company	**2.52**	-
Income on Investments (Debentures)			
Jhabua Power Limited.	Joint Venture Company	**47.26**	28.79

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₹ Crore

Particulars	Nature of relationship	For the year ended 31 March 2024	For the year ended 31 March 2023
Equity in NTPC Renewable energy Ltd. transferred			
NTPC Green energy Ltd.	Subsidiary Company	-	1,094.46
Income on Investment Property			
NTPC Green Energy Limited	Subsidiary Company	**5.93**	0.19
Secondment of employees			
Patratu Vidyut Utpadan Nigam Ltd.	Subsidiary Company	**14.03**	11.19
Bhartiya Rail Bijlee Company Ltd.	Subsidiary Company	**15.80**	15.71
NTPC Green Energy Limited	Subsidiary Company	**6.40**	0.50
NTPC Renewable Energy Ltd.	Subsidiary Company of NTPC Green Energy Ltd.	**5.81**	6.01
Meja Urja Nigam Private Ltd.	Joint Venture Company	**15.74**	16.11
NTPC-Tamil Nadu Energy Company Ltd.	Joint Venture Company	**14.57**	14.49
NTPC-SAIL Power Company Ltd.	Joint Venture Company	**6.88**	6.76
Aravali Power Company Private Ltd.	Joint Venture Company	**10.88**	10.24
Bangladesh-India Friendship Power Company Private Ltd.	Joint Venture Company	**5.44**	3.49
Transactions with post employment benefit plans - Contribution			
NTPC Limited Employees Provident Fund	Post employment benefit plans	**335.47**	326.80
NTPC Limited Defined Contribution Pension Trust	Post employment benefit plans	**90.68**	273.29
NTPC Post Retirement Employees Medical Benefit Fund	Post employment benefit plans	**267.57**	278.44
NTPC Employees Gratuity Fund	Post employment benefit plans	**93.30**	(23.18)
Transactions with others			
NTPC Foundation	Others	**23.73**	20.02
NTPC Education and Research Society	Others	**2.33**	13.41
NTPC School of Business (under NTPC Education and Research Society)	Others	**4.83**	7.00
Guarantees received			
Utility Powertech Ltd.	Joint Venture Company	-	3.00
Transformers and Electricals Kerala Ltd.	Joint Venture Company	**2.36**	-
NTPC-GE Power Services Private Ltd.	Joint Venture Company	-	2.66
Loans repaid			
Ratnagiri Gas & Power Private Ltd.	Subsidiary Company	**1,417.42**	153.10
NTPC Mining Ltd.	Subsidiary Company	**0.50**	-

* Includes equity contribution

e) **Individually significant balances**

₹ Crore

Particulars	Nature of relationship	For the year ended 31 March 2024	For the year ended 31 March 2023
Amount recoverable towards loans from			
Ratnagiri Gas & Power Private Ltd.	Subsidiary Company	**412.42**	765.53
National High Power Test Laboratory Private Ltd.	Joint Venture Company	**-**	19.78
Mr. Ujjwal Kanti Bhattacharya	Key Management Personnel	**-**	0.05
Mr Ramesh Babu V.	Key Management Personnel	**-**	0.11
Mr. K Shanmugha Sundaram	Key Management Personnel	**0.06**	-
Mr. Ravindra Kumar	Key Management Personnel	**0.02**	-
Mr. Arun Kumar	Key Management Personnel	**-**	0.31
NTPC Education and Research Society	Others	**-**	0.60
Amount recoverable other than loans from			
NTPC Green Energy Limited	Subsidiary Company	**88.71**	3,207.91
NTPC Vidyut Vyapar Nigam Ltd.	Subsidiary Company	**525.34**	96.26
North Eastern Electric Power Corporation Ltd.	Subsidiary Company	**0.42**	349.89
THDC India Ltd.	Subsidiary Company	**238.31**	3.98
Bhartiya Rail Bijlee Company Ltd.	Subsidiary Company	**120.06**	(34.65)
Patratu Vidyut Utpadan Nigam Ltd.	Subsidiary Company	**27.07**	35.01
NTPC Mining Ltd.	Subsidiary Company	**(80.92)**	-
NTPC BHEL Power Projects Private Ltd.	Joint Venture Company	**109.52**	112.37
NTPC SAIL Power Company Ltd	Joint Venture Company	**70.22**	75.53
Aravali Power Company Private Ltd.	Joint Venture Company	**107.07**	16.71
Meja Urja Nigam Private Ltd.	Joint Venture Company	**37.94**	9.65
NTPC Post Retirement Employees Medical Benefit Fund	Post employment benefit plans	**44.17**	(57.78)
NTPC Foundation	Others	**6.67**	0.42
Amount recoverable - others			
Jhabua Power Limited - Debentures	Joint Venture Company	**525.00**	575.00
Amount payable to			
Utility Powertech Ltd.	Joint Venture Company	**45.29**	212.43
NTPC-Tamil Nadu Energy Company Ltd.	Joint Venture Company	**58.32**	87.89
NTPC-GE Power Services Private Ltd.	Joint Venture Company	**1.20**	10.15
NTPC Limited Employees Provident Fund	Post employment benefit plans	**0.58**	0.89
NTPC Limited Defined Contribution Pension Trust	Post employment benefit plans	**27.80**	20.32
NTPC Employees Gratuity Fund	Post employment benefit plans	**1.47**	(88.09)
NTPC School of Business (under NTPC Education and Research Society)	Others	**0.43**	-
NTPC Education and Research Society	Others	**-**	0.30

₹ Crore

Particulars	Nature of relationship	For the year ended 31 March 2024	For the year ended 31 March 2023
Guarantees received outstanding			
NTPC BHEL Power Projects Private Ltd.	Joint Venture Company	**264.79**	264.79
NTPC-GE Power Services Private Ltd.	Joint Venture Company	**33.02**	53.96
Utility Powertech Ltd.	Joint Venture Company	**27.67**	28.65
Transformers and Electricals Kerala Ltd.	Joint Venture Company	**2.36**	6.55

f) **Terms and conditions of transactions with the related parties**

i) The Company was assigning jobs on contract basis, for sundry works in plants/stations/offices to M/s Utility Powertech Ltd. (UPL), a joint venture of the Company till the previous year ended 31 March 2023. UPL inter-alia undertakes jobs such as overhauling, repair, refurbishment of various mechanical and electrical equipment of power stations pursuant to a Power Station Maintenance Agreement with UPL from time to time. The rates were fixed on cost plus basis after mutual discussion and after taking into account the prevailing market conditions. The transactions reported for the year are in respect of assignments awarded till the year 2022-23 having execution period beyond 31 March 2023.

ii) Other transactions with related parties are made on normal commercial terms and conditions and at arm length price.

iii) The Company is seconding its personnel to subsidiary and joint venture companies as per the terms and conditions agreed between the companies, which are similar to those applicable for secondment of employees to other companies and institutions. The cost incurred by the Company towards superannuation and employee benefits are recovered from these companies.

iv) Loans granted to subsidiaries and joint venture companies are detailed below:

Sl. No.	Name of the subsidiary (S)/ joint venture (JV) company	Loan granted (Amount in ₹ crore)	Rate of interest (p.a.)	Repayment schedule	Purpose	Year of grant of loan
1	National High Power Test Laboratory Private Ltd. (JV)	18.40	10% (quarterly rest)	Under the Restructuring Scheme approved by promoters in a meeting held at MOP on 15 September 2022, it was agreed that all promoters will convert the loan into equity under the restructuring plan. Board of Directors of NTPC in its meeting held on 11 March 2023 had approved the restructuring scheme for NHPTL for conversion of loan to equity. Further, pursuant to agreement entered on 23 April 2024 with the promoters of NHPTL, the share holding of the company in the Joint venture will be reduced to 12.50%.	For repayment of loans/ contractual obligations	2019-20

Sl. No.	Name of the subsidiary (S)/ joint venture (JV) company	Loan granted (Amount in ₹ crore)	Rate of interest (p.a.)	Repayment schedule	Purpose	Year of grant of loan
2	Ratnagiri Gas and Power Pvt Ltd. (S)	885.00	10% p.a. (quarterly rest) which will be reviewed and mutually decided at the beginning of each financial year i.e., 1st April of each year and shall be applicable for the entire financial year.	Loan shall be repaid in 53 quarterly instalments as per the loan agreement starting from 31.03.2021 and Last Instalment shall be paid on 31.03.2034.	For debt settlement with Lenders	2020-21
		570.18	Interest shall be payable w.e.f. 01.04.2034 or after full repayment of Inter-Corporate Loan of ₹ 885 crore whichever is earlier as per mutually agreed terms & Conditions.	Principal Repayment shall start from FY 2034-35 or after full repayment of Inter-Corporate Loan of ₹ 885 crore whichever is earlier as per mutually decided Schedule.	Novation of residual debt by existing lenders in favor of NTPC .	2020-21*
		400.00	9.5% (SBI 1-year MCLR + 100 bps on quarterly rests as on the date of drawl of loan) - 11.5% w.e.f 01 August 2023	To be repaid in four instalments of ₹ 50 crore, ₹ 100 crore, ₹ 100 crore and ₹ 150 crore). Out of the loan granted, ₹ 314.32 crore was drawn during the year 2023-24 which has been fully repaid / adjusted during the year.	For meeting cost of procurement of gas	2022-23
		50.00	9.5% (SBI 1-year MCLR + 100 bps on quarterly rests as on the date of drawl of loan)	Bullet repayment on 30 September 2023. The loan granted was drawn fully and has been repaid/adjusted during the year.	For meeting cost of procurement of gas	2023-24
		250.00	9.55% (SBI 1-year MCLR + 100 bps on quarterly rests as on the date of drawl of loan)	90 days from the date of drawl. The loan granted was drawn fully and has been repaid / adjusted during the year.	For meeting cost of procurement of gas	2023-24
		600.00	9.55% (SBI 1-year MCLR + 100 bps on quarterly rests as on the date of drawl of loan). 11.55% for extended period	90 days from the date of drawl. Outstanding amount as on 31 March 2024 is ₹ 100 crore.	For meeting cost of procurement of gas	2023-24
		700.00	9.65% (SBI 1-year MCLR + 100 bps on quarterly rests as on the date of drawl of loan)	90 days from date of drawl.	For meeting cost of procurement of gas	2023-24
3	NTPC Mining limited	1.00	9.5% (SBI 1-year MCLR + 100 bps on quarterly rests as on the date of drawl of loan)	90 days from date of drawl. Out of the loan granted, ₹ 0.50 crore was drawl which has been fully repaid / adjusted during the year.	For participating in coal block auction by GOI	2023-24

*Note: The loan of ₹ 570.18 crore to RGPPL has not been recognized in the books due to uncertainty involved therein.

v) Consultancy services provided by the Company to subsidiary and joint venture companies are generally on nomination basis at the terms, conditions and principles applicable for consultancy services provided to other parties.

vi) Outstanding balances of subsidiary and joint venture companies at the year-end are unsecured, except in respect of loan to RGPPL which is secured (Refer Note 9 c) and settlement occurs through banking transaction. These balances other than loans, investments in debentures and amount recoverable pursuant to business transfer agreement are interest free. The Company has not recorded any impairment of receivables relating to amounts owed by related parties. This assessment is undertaken in each financial year through examining the financial position of the related party and the market in which the related party operates.

vii) Refer Note 62 (b), (c), (d), (e), (f) and (g) in respect of impairment loss on investment in certain subsidiaries and joint venture companies.

viii) Refer Note 75 (C) towards restrictions on disposal of investment and commitment towards further investments in the subsidiary and joint venture companies.

g) Others

The Company has investment of 1.20 crore equity shares of ₹ 10 each in PTC India Ltd., as disclosed in Note 8- ' Other investments' and is one of the promoters of the Company having 4.05% holding. The Company is of the view that provisions of Ind AS 24 'Related Party Disclosures' are not applicable to the investments made in PTC India Ltd. and the same has been accounted for as per the provisions of Ind AS 109 'Financial Instruments'. During the year, the Company has transactions towards receipt of dividend of **₹ 9.36 crore** (31 March 2023: ₹ 6.96 crore) and receipt of sitting fees for the nominee director amounting to **₹ 0.04 crore** (31 March 2023: ₹ 0.10 crore) from PTC India Ltd.

60. Disclosure as per Ind AS 27 'Separate financial statements'

a) Investment in subsidiary companies:*

Sl. No.	Company name	Country of incorporation	Proportion of ownership interest	
			As at 31 March 2024	As at 31 March 2023
1	NTPC Electric Supply Company Ltd.	India	**100.00**	100.00
2	NTPC Vidyut Vyapar Nigam Ltd.	India	**100.00**	100.00
3	Bhartiya Rail Bijlee Company Ltd.	India	**74.00**	74.00
4	Patratu Vidyut Utpadan Nigam Ltd.	India	**74.00**	74.00
5	NTPC Mining Ltd.	India	**100.00**	100.00
6	THDC India Ltd.	India	**74.496**	74.496
7	North Eastern Electric Power Corporation Ltd.	India	**100.00**	100.00
8	NTPC EDMC Waste Solutions Private Ltd.	India	**74.00**	74.00
9	Ratnagiri Gas & Power Private Ltd.	India	**86.49**	86.49
10	NTPC Green Energy Ltd. (w.e.f.7 April 2022)	India	**100.00**	100.00

b) Investment in joint venture companies:*

Sl. No.	Company name	Country of incorporation	Proportion of ownership interest	
			As at 31 March 2024	As at 31 March 2023
1	Utility Powertech Ltd.	India	50.00	50.00
2	NTPC-GE Power Services Private Ltd.	India	50.00	50.00
3	NTPC-SAIL Power Company Ltd.	India	50.00	50.00
4	NTPC-Tamil Nadu Energy Company Ltd.	India	50.00	50.00
5	Aravali Power Company Private Ltd.	India	50.00	50.00
6	NTPC BHEL Power Projects Private Ltd.	India	50.00	50.00
7	Meja Urja Nigam Private Ltd.	India	50.00	50.00
8	Transformers and Electricals Kerala Ltd.	India	44.60	44.60
9	National High Power Test Laboratory Private Ltd.	India	21.63	20.00
10	Energy Efficiency Services Ltd.	India	39.252	33.334
11	CIL NTPC Urja Private Ltd.	India	50.00	50.00
12	Anushakti Vidhyut Nigam Ltd.	India	49.00	49.00
13	Hindustan Urvarak and Rasayan Ltd.	India	29.67	29.67
14	Jhabua Power Ltd. (w.e.f. 5 September 2022)	India	50.00	50.00
15	Trincomalee Power Company Ltd.	Srilanka	50.00	50.00
16	Bangladesh-India Friendship Power Company Private Ltd.	Bangladesh	50.00	50.00

* Equity investments in subsidiary and joint venture companies are measured at cost as per the provisions of Ind AS 27 on 'Separate Financial Statements'.

61. Disclosure as per Ind AS 33 'Earnings per share'

Basic earnings per equity share is computed by dividing the net profit or loss attributable to equity shareholders of the Company by the weighted average number of equity shares outstanding during the financial year.

Diluted earnings per equity share is computed by dividing the net profit or loss attributable to equity shareholders of the Company by the weighted average number of equity shares considered for deriving basic earnings per equity share and also the weighted average number of equity shares that could have been issued upon conversion of all dilutive potential equity shares.

The number of equity shares and potentially dilutive equity shares are adjusted retrospectively for all periods presented for any bonus shares issued during the financial year.

Basic and diluted earnings per equity share are also computed using the net profit or loss amounts excluding the net movements in regulatory deferral account balances.

(i) Basic and diluted earnings per share (in ₹)

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
From operations including net movement in regulatory deferral account balances (a) **[A/D]**	**18.64**	17.73
From regulatory deferral account balances (b) **[B/D]**	**1.17**	(0.60)
From operations excluding net movement in regulatory deferral account balances (a)-(b) **[C/D]**	**17.47**	18.33
Nominal value per share	**10.00**	10.00

(ii) Profit attributable to equity shareholders (used as numerator) (₹ Crore)

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
From operations including net movement in regulatory deferral account balances (a) **[A]**	**18,079.39**	17,196.73
From regulatory deferral account balances (b) **[B]**	**1,134.25**	(591.09)
From operations excluding net movement in regulatory deferral account balances (a)-(b) **[C]**	**16,945.14**	17,787.82

(iii) Weighted average number of equity shares (used as denominator) (Nos.)

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
Opening balance of issued equity shares	**9,69,66,66,134**	9,69,66,66,134
Closing balance of issued equity shares	**9,69,66,66,134**	9,69,66,66,134
Weighted average number of equity shares for Basic and Diluted EPS [D]	**9,69,66,66,134**	9,69,66,66,134

62. Disclosure as per Ind AS 36 'Impairment of Assets'

As required by Ind AS 36, an assessment of impairment of assets was carried out and based on such assessment, the Company has accounted impairment losses as under:

a) For the Company, the recoverable amount of the property, plant and equipment & intangible assets of the Cash Generating Units (CGU) is value in use and amounts to **₹ 3,39,129.52 crore** (31 March 2023: ₹ 2,87,698.56 crore). The net realisable value of the assets of the station has been assessed which is more than its carrying value.The discount rate used for the computation of value in use for the generating plant (thermal, gas and hydro) is **7.58 %** (31 March 2023: 7.27%), coal mining is **7.93 %** (31 March 2023: 7.27%) and for solar plant is **6.65 %** (31 March 2023: 6.42%).

b) In respect of investment in National High Power Test Laboratory Private Ltd., provision for impairment on investments has been recognised at **₹ 36.48 crore** (31 March 2023: ₹ 30.40 crore). Also refer Note 7 (e).

c) In respect of investment in NTPC BHEL Power Project Pvt. Ltd., provision for impairment on investments has been recognised at **₹ 50.00 crore** (31 March 2023: ₹ 50.00 crore). Also refer Note 7 (f).

d) In respect of investment in Transformers and Electricals Kerala Ltd., provision for impairment on investments has been recognised at **₹ 25.87 crore** (31 March 2023: ₹ Nil). Also refer Note 7(g).

e) In respect of investment in Energy Efficiency Services Ltd. (EESL), provision for impairment on investments has been recognised at **₹ 149.10 crore** (31 March 2023: ₹ Nil). Also refer Note 7(j).

The Company has an investment of **₹ 846.61 crore** (31 March 2023 - ₹ 463.61 crore) in the equity shares of EESL. The Company has incurred losses during last few years which has resulted in erosion of net worth of the Company. Also, value of EESL's assets has declined during the period significantly more than would be expected as a result of the passage of time or normal use. The investment in EESL has been assessed through an independent expert and the recoverable amount of this investment has been assessed at ₹ 697.51 crore and accordingly the Company has recognized an impairment loss of ₹ 149.10 crore in respect of such investment and disclosed the same under 'Provision for Impairment of investments' under Note-46- 'Other expenses'. Recoverable amount is based on the value in use as its fair value less cost of disposals cannot be estimated. Value in use has been arrived at by an independent expert. For computing the recoverable amount, independent expert has used discounted cash flow and market approach which had been equally weighted to arrive at the value in use. For discounted cash flow analysis, the key assumptions considered are: (i) Growth rate – 5% (ii) Discount factor (after tax) – 14.5%.

f) In respect of investment in Trincomalee Power Company Limited, provision for impairment on investments has been recognised at **₹ 14.28 crore** (31 March 2023: ₹ 14.28 crore). Also refer Note 7 (k).

g) In respect of investment in Ratnagiri Gas & Power Pvt. Ltd., provision for impairment on investments made in the earlier years amounting to ₹ 834.55 crore, has been written back during the year. (Also refer Note 7(b) and Note 51)

63. Disclosure as per Ind AS 37 'Provisions, Contingent Liabilities and Contingent Assets'

Movements in provisions: ₹ Crore

Particulars	Provision for obligations incidental to land acquisition		Provision for tariff adjustment		Arbitration awards and others		Mine closure and Stripping activity adjustments		Total	
	For the year ended		For the year ended		For the year ended		For the year ended		For the year ended	
	31 March 2024	31 March 2023	**31 March 2024**	31 March 2023	**31 March 2024**	31 March 2023	**31 March 2024**	31 March 2023	**31 March 2024**	31 March 2023
Carrying amount at the beginning of the year	**2,295.07**	2,726.80	**817.61**	482.28	**2,760.43**	2,422.20	**935.68**	616.22	**6,808.79**	6,247.50
Additions during the year	**226.33**	219.90	**(16.47)**	335.33	**267.70**	389.93	**149.41**	339.02	**626.97**	1,284.18
Amounts used during the year	**(794.06)**	(573.67)	**-**	-	**(334.36)**	(8.45)	**-**	-	**(1,128.42)**	(582.12)
Reversal/adjustments during the year	**-**	(77.96)	**-**	-	**(565.30)**	(43.25)	**12.52**	-	**(552.78)**	(121.21)
Unwinding of provision charged during the year	**-**	-	**-**	-	**-**	-	**-**	(19.56)	**-**	(19.56)
Carrying amount at the end of the year	**1,727.34**	2,295.07	**801.14**	817.61	**2,128.47**	2,760.43	**1,097.61**	935.68	**5,754.56**	6,808.79

i) Provision for obligations incidental to land acquisition

Provision for obligations incidental to land acquisition includes expenditure on rehabilitation & resettlement (R&R) including the amounts payable to the project affected persons (PAPs) towards land, expenditure for providing community facilities and expenditure in connection with environmental aspects of the project. The Company has estimated the provision based on the Rehabilitation Action Plan (RAP) approved by the board/competent authority or agreements/directions/demand letters of the local/government authorities. The outflow of said provision is expected to be incurred immediately on fulfilment of conditions by the land oustees/receipts of directions of the local/government authorities.

ii) Provision for tariff adjustment

Billing to beneficiaries is being done based on tariff orders issued under Regulation 2014 except few stations where billing is done on provisional basis due to non-receipt of tariff orders. In such cases, accounting is done based on trued up cash expenditure as per Regulation 2019. Provision for tariff adjustment of **₹ 16.47 crore** is mainly towards reversal of the estimated interest(net) payable to beneficiaries (31 March 2023 towards estimated interest payable to beneficiaries: ₹ 335.33 crore)at the time of issue of tariff orders.

iii) Provision - Arbitration awards and Others

(a) (i) Provision for arbitration awards represents provision created (net) based on awards pronounced by the arbitrator in respect of various litigation cases amounting to **₹ 2,021.62 crore** (31 March 2023: ₹ 2,646.94 crore). These awards have been challenged before various appellate authorities / Courts.

(ii) Provision for others includes **₹ 99.40 crore** (31 March 2023: ₹ 90.79 crore) towards cost of unfinished minimum work programme demanded by the Ministry of Petroleum and Natural Gas (MoP&NG) including interest thereon in relation to Block AA-ONN-2003/2 , **₹ 5.12 crore** (31 March 2023: ₹ 5.96 crore) towards provision for shortage in property, plant and equipment on physical verification pending investigation and **₹ Nil** (31 March 2023: ₹ 12.81 crore) towards expected loss on investments of Provident Fund Trust.

(b) The Company had entered into an agreement for movement of coal through inland waterways for one of its stations. After commencement of the operations, the operator had raised several disputes, invoked arbitration and raised substantial claims on the Company. The Arbitral Tribunal had awarded a claim of ₹ 1,891.09 crore plus applicable interest in favour of the operator, during the financial year 2018-19. Based on the interim arbitral award and subsequent directions of the Hon'ble Delhi High Court and Hon'ble Supreme Court of India, an amount of ₹ 356.31 crore was paid to Operator upto 31 March 2019 and an amount of ₹ 500 crore was deposited with the Delhi High Court in November 2019, which was subsequently released to the Operator, on submission of bank guarantee.

Hon'ble High Court directed the parties to commence formal handing over of the infrastructure in the presence of appointed Local Commissioner which could not commence due to various local and operator's issues. Date of hearing at Hon'ble High Court of Delhi has been adjourned several times and now the date of next hearing has been fixed on 24 and 25 July 2024.

Pending final disposal of the appeal by the Hon'ble High Court, considering the provisions of Ind AS 37 'Provisions, Contingent Liabilities and Contingent Assets' and material accounting policies of the Company, provision has been updated by interest to **₹ 38.59 crore** (31 March 2023: ₹ 38.42 crore) (included at (a)(i) above) and an amount of **₹ 1,870.55 crore** (31 March 2023: ₹ 2,431.04 crore) has been considered as contingent liability. Further, the amount deposited with Delhi high court has been reviewed during the year and as an abundant precaution, the amount deposited has been fully provided for, conservatively.

Also Refer Note 72 and 75.

(iv) (a) Provision for Mine closure obligation represents Company's obligations for land reclamation and decommissioning of structure consist of spending at mines in accordance with the guidelines from Ministry of Coal, Government of India. The Company estimates its obligations for mine closure, site restoration and decommissioning based on the detailed calculation and technical assessment of the amount and timing of future cash spending for the required work and provided for as per approved mine closure plan. Accordingly, a provision amounting to **₹ 494.01 crore** (31 March 2023: ₹ 323.80 crore) has since been provided for. (Refer material accounting policy C.6.2)

(b) Provision for Expenditure incurred on removal of mine waste materials (overburden) necessary to extract the coal reserves is referred to as stripping cost. The Company has to incur such expenses over the life of the mine as technically estimated. Cost of stripping is charged on technically evaluated average stripping ratio at each mine with due adjustment for stripping activity asset and ratio-variance account after the mines are brought to revenue. Net of the balances of stripping activity asset and ratio variance at the Balance Sheet date is shown as 'Stripping activity adjustment' under the head 'Non-current assets/Non-current provisions' as the case may be, and adjusted as provided in the CERC Tariff Regulations. Accordingly, a provision amounting to **₹ 603.60 crore** (31 March 2023: ₹ 611.88 crore) has since been provided for. (Refer material accounting policy C.6.1)

v) In respect of provision for cases under litigation, outflow of economic benefits is dependent upon the final outcome of such cases.

vi) In all these cases, outflow of economic benefits is expected within next one year.

vii) Sensitivity of estimates on provisions:

The assumptions made for provisions relating to current period are consistent with those in the earlier years. The assumptions and estimates used for recognition of such provisions are qualitative in nature and their likelihood could alter in next financial year. It is impracticable for the Company to compute the possible effect of changes in assumptions and estimates used in recognizing these provisions.

viii) Contingent liabilities and contingent assets

Disclosure with respect to claims against the Company not acknowledged as debts and contingent assets are made in Note 75.

64. Disclosure as per Ind AS 38 'Intangible Assets'

Research expenditure recognised as expense in the Statement of Profit and Loss during the year is **₹ 99.44 crore** (31 March 2023: ₹ 233.48 crore).

65. Disclosure as per Ind AS 106, 'Exploration for and Evaluation of Mineral Resources'

A. Oil and gas exploration activities

The Company has joint arrangements with others for operations in the nature of joint operations. The Company recognizes, on a line-by-line basis its share of the assets, liabilities and expenses of these joint operations as per the terms and conditions of respective arrangements.

All exploration costs incurred in drilling and equipping exploratory and appraisal wells, cost of drilling exploratory type stratigraphic test wells are initially capitalized as 'Exploratory wells-in-progress' under 'Intangible assets under

development' till the time these are either transferred to oil and gas assets when a well is ready for commercial production or expensed as exploration cost (including allocated depreciation) as and when determined to be dry or of no further use, as the case may be. Costs of exploratory wells are not carried over unless it could be reasonably demonstrated that there are indications of sufficient quantity of reserves and sufficient progress is being made in assessing the reserves and the economic & operating viability of the project. All such carried over costs are subject to review for impairment.Cost of surveys and prospecting activities conducted in the search of oil and gas are expensed in the year in which these are incurred.

(i) The Company along-with some public sector undertakings had entered into Production Sharing Contracts (PSCs) with GOI for three oil exploration blocks namely KG-OSN-2009/1, KG-OSN-2009/4 and AN-DWN-2009/13 under VIII round of New Exploration Licensing Policy (NELP VIII) with 10% participating interest (PI) in each of the blocks.

In the case of Block AN-DWN-2009/13 and KG-OSN-2009/1, Oil and Natural Gas Corporation Ltd. (ONGC) was the operator and the Company along-with the consortium partners have relinquished both the blocks to Directorate General of Hydrocarbons (DGH).

Based on the un-audited statement of the accounts for the above blocks forwarded by ONGC, the operator, the Company's share in the assets and liabilities and expenses is as under:

₹ Crore

Particulars	As at 31 March 2024 (Unaudited)	As at 31 March 2023 (Unaudited)
Assets	**0.01**	0.01
Liabilities	**0.49**	0.49

For the year ended 31 March 2024 and 31 March 2023, there are no income / expense and operating/investing cash flow from exploration activities, except an amount of '0.08 crore paid during the year to the operator towards license fee.

For exploration activities in block KG-OSN-2009/4 DGH has agreed for drilling of one well and have instructed to carry out airborne Full Tensor Gravity Gradiometer (FTG) survey in conditionally & partial cleared area. ONGC has completed drilling of one well. Airborne Full Tensor Gravity Gradiometer (FTG) survey work is also completed. The Company along-with the consortium partners has decided to relinquish the block and Oil and Natural Gas Corporation Ltd. (ONGC), the operator, has submitted an application to Directorate General of Hydrocarbons (DGH) in this regard, in the earlier years.

(ii) Exploration activities in the block AA-ONN-2003/2 were abandoned in January 2011 due to unforeseen geological conditions and withdrawal of the operator. Attempts to reconstitute the consortium to accomplish the residual exploratory activities did not yield result. In the meanwhile, Ministry of Petroleum & Natural Gas, GoI demanded in January 2011 the cost of unfinished minimum work programme from the consortium with NTPC's share being USD 7.516 million. During the year, provision in this respect has been updated to **₹ 99.49 crore** from ₹ 90.79 crore along-with interest. The Company has sought waiver of the claim citing force majeure conditions at site leading to discontinuation of exploratory activities.

The Company has accounted for expenditure of **₹ 8.70 crore** (31 March 2023: ₹ (21.37) crore) towards updation of liabilities relating to MWP and other liabilities of M/s Geopetrol International, the operator to complete the winding up activities of the Block. The Company's share in the assets and liabilities are as under:

₹ Crore

Particulars	As at 31 March 2024 (Unaudited)	As at 31 March 2023 (Unaudited)
Assets	**9.19**	9.19
Liabilities (including unfinished MWP)	**115.14**	106.44

Provision of **₹ 8.96 crore** as at 31 March 2024 (31 March 2023: ₹ 8.96 crore) has been made towards the assets under exploration and estimated obsolescence in the inventory. Further, a provision of Nil (31 March 2023: ₹ 0.23 crore) has been made towards NTPC's share as per arbitration decision given in favor of a contractor of the block. Aginst this, an amount of ₹ 13.65 crore has been deposited in honourable Delhi high court during the year. NTPC filed a writ petition under section 34 of Arbitration and Conciliation Act, 1996 in this matter before Hon'ble Delhi High Court which is yet to be disposed.

For the year ended 31 March 2024 and 31 March 2023, there are no income and operating/investing cash flow from exploration activities. The value of assets reported above is based on statement received from the operator in the earlier years.

(iii) The Company had entered into production sharing contracts (PSC) with GOI for exploration block namely CB-ONN-2009/5 VIII round of New Exploration Licensing Policy (NELP VIII) with 100% participating interest (PI) in the block.

MWP for the block has been completed. No oil or gas of commercial value was observed in any of the wells. Accordingly, the block has been relinquished to DGH, GOI.

Company's share in assets and liabilities is as under:

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Assets	**6.11**	6.11
Liabilities	**0.25**	0.25

Provision of **₹ 6.07 crore** as at 31 March 2024 (31 March 2023: ₹ 6.07 crore) has been made as at the balance sheet date, towards estimated obsolescence in the inventory.

For the year ended 31 March 2024 and 31 March 2023, there are no income, expenses, operating and investing cash flows from exploration activities.

B. Coal mining exploration activities

Exploration and evaluation assets comprise capitalized costs which is generally the expenditure incurred associated with finding the mineral by carrying out topographical, geological, geochemical and geophysical studies, exploratory drilling, trenching, sampling, expenditure for activities in relation to evaluation of technical feasibility and commercial viability, acquisition of rights to explore etc. Exploration and evaluation expenditure incurred after obtaining the mining right or the legal right to explore are capitalized as exploration and evaluation assets under 'Intangible assets under development' and stated at cost less impairment if any. Exploration and evaluation assets are assessed for impairment indicators at least annually. Once the proved reserves are determined and development of mine/project is sanctioned, Exploration and evaluation assets are transferred to 'Development of Coal Mines' under 'Capital Work in Progress'. However, if proved reserves are not determined, exploration and evaluation asset is derecognized. Exploration and evaluation expenditure incurred prior to obtaining the mining right or the legal right to explore are expensed as and when incurred.

(i) The Company has started coal production from five captive mines i.e Pakri-Barwadih, Dulanga, Talaipalli, Chatti-Bariatu and Kerandari. During the year, Mine Development Operator (MDO) has been appointed for Badam Mines. Pakri Barwadih was declared commercial w.e.f. 1 April 2019 and about 16.31 MMT coal was extracted during the current year. Dulanga was declared commercial w.e.f. 1 October 2020 and 7.00 MMT coal was extracted during the current year. Talaipalli was declared commercial w.e.f. 1 October 2023 and 7.54 MT of coal was extracted during the year. Chatti-Bariatu , Kerandari and Badam mines are under development stage and expenditure incurred at these mines are disclosed in Note 3 - Capital work in progress under 'Development of coal mines'. During the year 3.30 MMT of coal was extracted from Chatti-Bariatu and 0.235 MMT of coal from Kerendari.

In respect of Talaipalli coal mine, there was a delay of 22.5 months in the commecial declaration of the mine. The revised Mining plan for Talaipalli Coal Mine, as recommended by CMPDIL was approved by CCO (Coal Controller Organization) on 26 September 2023. The Company has filed a petition for determination of tariff for the coal mine and condoning the delay as provided in Regulation 22 of the CERC (Terms and Conditions of Tariff) (Second Amendment) Regulations 2021, which is yet to be disposed off.

(ii) Surrendered coal blocks- Banai,Bhalumuda and Mandakini-B

Due to geo-mining constraints and other related issues NTPC surrendered Banai and Bhalumuda blocks to MoC on 26.12.2020. The Company expects that whenever these two coal blocks are allotted to any other company, the cost incurred towards exploration and GR at these mines would be reimbursed from the new allocatee through MOC as per past experience of the Company. Keeping in view the above, an amount of **₹ 124.00 crore** (31 March 2023: ₹ 124.00 crore) has been accounted as recoverable and included under Note-19- 'Current assets - Other financial assets'. These coal blocks have been allotted to another entity in the commercial coal mine auction notified by MoC. Execution of coal mine development and production agreement between MoC and the entity is in progress. Subsequent to execution of the agreement, the recovery of the above amount from the new allottee shall be initiated by MoC before issuance of formal vesting order for which the Company has requested MoC for the same.

Since mine development activities could not be proceeded due to various issues at Mandakini-B coal block, the Company has approached Ministry of Coal on 26 December 2020 for surrendering these blocks, with a request for consideration of reimbursement of expenses incurred by the Company. The Company expects that whenever these two coal blocks are allotted to any other company, the cost incurred towards exploration and GR would be reimbursed from the new allocatee through MOC as per past experience of the Company. Keeping in view the above, an amount of **₹ 56.47 crore** (31 March 2023: ₹ 56.47 crore) has been accounted as recoverable and included under Note-19 'Current assets -Other financial assets'.

MoC has encashed the BG (Performance Security) of ₹ 168.00 crore on 22 March 2021, submitted by the Company for Mandakini-B coal block, citing delay in achieving of the milestones of efficiency parameters which were beyond the control of the Company. The Company approached MoP to take up the matter in Alternate Mechanism for Resolution of CPSE Disputes (AMRCD). Pending resolution of the dispute through AMRCD, the amount of BG encashed by MOC has been disclosed as recoverable from MOC under 'Claims recoverable' in Note-19-'Current assets-Other financial assets'. This issue is regularly being taken up with MoC by the Company and MoP for early settlement.

The Coal Block Development and Production Agreement (CBDPA) signed by the Company with MOC is silent about the recoverability of expenditure incurred in case of termination of the CBDPA. Moreover, the fresh auction / allocation of mines by MOC may also take substantial time and is dependent upon the coal demand-supply scenario of the country in the days to come. Considering the uncertainty involved on the recoverability of the amounts in respect of Banai, Bhalamuda and Mandakini-B coal blocks, the amount disclosed as claims recoverable has since been fully provided for. Further, the balance expenditure incurred at these blocks which may not be recovered has also been provided for fully (Refer Note 6- 'Non-current assets - Intangible assets under development').

(iii) Assets and liabilities of coal exploration and evaluation activities are as under:

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Assets (Intangible assets under development)	-	85.13
Liabilities	-	0.11

Exploration and evaluation activities were taking place at under ground mine area/dip side area (North west quarry) of PB block which has since been completed and capitlised.

For the year ended 31 March 2024 and 31 March 2023, there are no income, expenses and operating cash flows from coal exploration activities. Cash flows from investing activities for the year ended 31 March 2024 is (-) **₹ 85.02 crore** (31 March 2023: ₹ (50.47) crore)

(iv) In respect of captive mines, book stock of coal is considered in the accounts where the variance between book stock and measured stock is upto +/- 5% and in cases where the variance is beyond +/- 5% the measured stock is considered.

(v) The Company had incorporated a wholly owned subsidiary, in the name of 'NTPC Mining Limited' (NML) on 29 August 2019, for taking up coal mining business. The Board of Directors of the Company has approved the hiving-off its coal mining business, consisting of 6 coal mines of the Company to NML at book value, through a business transfer agreement (BTA) dated 17 August 2023. The BTA shall become effective upon completion of the conditions precedent mentioned in the BTA.The transfer is yet to take place as at 31 March 2024.

66. Disclosure as per Ind AS 108 'Operating Segments'

A. General Information

The Company has two reportable segments, as described below, which are the Company's strategic business units. The strategic business units offer different products and services, and are managed separately because they require different technology and marketing strategies. For each of the strategic business units, the Chief Operating Decision Maker (CODM) reviews internal management reports on at least a quarterly basis.

Segment results that are reported to the CODM include items directly attributable to a segment as well as those that can be allocated on a reasonable basis. Unallocated items comprise mainly corporate expenses, finance costs, income tax expenses and corporate income that are not directly attributable to segments.

Revenue directly attributable to the segments is considered as segment revenue. Expenses directly attributable to the segments and common expenses allocated on a reasonable basis are considered as segment expenses.

Segment capital expenditure is the total cost incurred during the period to acquire property, plant and equipment, Capital Wok in Progress, intangible assets other than goodwill and intangible assets under development.

Segment assets comprise property, plant and equipment, intangible assets, capital work in progress, intangible assets under development, advances for capital expenditures, trade and other receivables, inventories and other assets that can be directly or reasonably allocated to segments. For the purpose of segment reporting, property, plant and equipment have been allocated to segments based on the extent of usage of assets for operations attributable to the respective segments. Unallocated assets comprise investments, income tax assets, corporate assets and other assets that cannot reasonably be allocated to segments.

Segment liabilities include all operating liabilities in respect of a segment and consist principally of trade payable, payable for capital expenditure and other payables, provision for employee benefits and other provisions. Unallocated liabilities comprise equity, income tax liabilities, loans and borrowings and other liabilities and provisions that cannot reasonably be allocated to segments.

The following summary describes the operations in each of the Company's reportable segments:

Generation of energy : Generation and sale of bulk power to State Power Utilities.

Others : It includes providing consultancy, project management and supervision, energy trading, oil and gas exploration and coal mining.

Information regarding the results of each reportable segment is included below. Performance is measured based on segment profit before income tax, as included in the internal management reports that are reviewed by the Company's Board. Segment profit is used to measure performance as management believes that such information is the most relevant in evaluating the results of certain segments relative to other entities that operate within these industries.

Transfer prices between operating segments are on an arm's length basis in a manner similar to transactions with third parties.

B. Information about reportable segments and reconciliations to amounts reflected in the financial statements:

₹ Crore

Particulars	Generation of energy		Others		Total	
	For the year ended		For the year ended		For the year ended	
	31 March 2024	31 March 2023	31 March 2024	31 March 2023	31 March 2024	31 March 2023
Segment revenue						
Sale of energy/consultancy, project management and supervision fee*	**1,56,175.40**	1,57,782.01	**9,776.94**	7,898.43	**1,65,952.34**	1,65,680.44
Other income	**2,901.06**	3,323.99	**93.16**	58.30	**2,994.22**	3,382.29
	1,59,076.46	1,61,106.00	**9,870.10**	7,956.73	**1,68,946.56**	1,69,062.73
Intersegment elimination	**-**	-	**-**	-	**(5,615.83)**	(3,990.87)
Unallocated corporate interest and other income	**-**	-	**-**	-	**2,376.54**	2,652.55
Total	**1,59,076.46**	1,61,106.00	**9,870.10**	7,956.73	**1,65,707.27**	1,67,724.41

₹ Crore

Particulars	Generation of energy		Others		Total	
	For the year ended		For the year ended		For the year ended	
	31 March 2024	31 March 2023	**31 March 2024**	31 March 2023	**31 March 2024**	31 March 2023
Segment result (including net movements in regulatory deferral account balances)**	**31,497.75**	30,072.35	**658.43**	816.21	**32,156.18**	30,888.56
Unallocated corporate interest and other income	-	-	-	-	**2,376.54**	2,652.55
Unallocated corporate expenses, interest and finance costs	-	-	-	-	**9,613.17**	10,190.25
Profit before tax	-	-	-	-	**24,919.55**	23,350.86
Income tax expense (including tax on net movements in regulatory deferral account balances)	-	-	-	-	**6,840.16**	6,154.13
Profit after tax	-	-	-	-	**18,079.39**	17,196.73

₹ Crore

Particulars	Generation of energy		Others		Total	
	For the year ended		For the year ended		For the year ended	
	31 March 2024	31 March 2023	**31 March 2024**	31 March 2023	**31 March 2024**	31 March 2023
Depreciation, amortisation and impairment expense	**13,649.64**	12,893.49	**138.38**	83.19	**13,788.02**	12,976.68
Non-cash expenses other than depreciation and amortisation	**827.23**	967.55	**47.70**	11.00	**874.93**	978.55
Capital expenditure	**14,525.45**	16,853.62	**1,321.81**	1,035.62	**15,847.26**	17,889.24

₹ Crore

Particulars	Generation of energy		Others		Total	
	For the year ended		For the year ended		For the year ended	
	31 March 2024	31 March 2023	**31 March 2024**	31 March 2023	**31 March 2024**	31 March 2023
Segment assets	**3,38,097.26**	3,30,492.59	**13,808.89**	12,438.42	**3,51,906.15**	3,42,931.01
Unallocated corporate and other assets					**41,388.38**	40,743.44
Total assets	**3,38,097.26**	3,30,492.59	**13,808.89**	12,438.42	**3,93,294.53**	3,83,674.45
Segment liabilities	**36,905.26**	39,507.89	**5,040.12**	4,864.40	**41,945.38**	44,372.29
Unallocated corporate and other liabilities					**2,01,464.13**	2,00,412.28
Total liabilities	**36,905.26**	39,507.89	**5,040.12**	4,864.40	**2,43,409.51**	2,44,784.57

* Includes **₹ 1,989.27 crore** (31 March 2023: ₹ 1,938.58 crore) for sales related to earlier years excluding other adjustments towards reimbursement of ash transportation cost.(Refer Note 40)

** Generation segment result would have been **₹ 29,508.48 crore** (31 March 2023: ₹ 28,133.57 crore) without including the sales related to earlier years as stated above.

Reconciliation of Assets and Liabilities

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Segment assets (A)	**3,51,906.15**	3,42,931.01
Unallocated corporate and other assets:		
Non current investments	**33,107.93**	29,719.75
Current investments	**50.00**	50.00
Cash and cash equivalents and other bank balances	**3,272.01**	2,690.24
Loans	**634.91**	981.34
Other current assets	**284.74**	125.13
Advance tax (net of provision)	**2,194.06**	2,476.02
Other unallocable assets*	**1,844.73**	4,700.96
Total unallocated corporate and other assets (B)	**41,388.38**	40,743.44
Total Assets (A+B)	**3,93,294.53**	3,83,674.45
Segment liabilities (A)	**41,945.38**	44,372.29
Unallocated corporate and other liabilities:		
Non current borrowings	**1,46,159.07**	1,56,315.69
Deferred tax liability	**13,066.53**	10,614.07
Borrowings current	**39,059.55**	29,969.15
Current tax liabilities (net)	**-**	62.97
Other unallocable liabilities	**3,178.98**	3,450.40
Total unallocated corporate and other liabilities (B)	**2,01,464.13**	2,00,412.28
Total Liabilities (A+B)	**2,43,409.51**	2,44,784.57

* Amounts as at 31 March 2023 includes investment property amounting to ₹ 465.18 crore (Refer Note 4) and recoverable from NGEL amounting to ₹ 3,196.12 crore.

Reconciliation of profit after tax

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
Segment result (including net movements in regulatory deferral account balances) (A)	**32,156.18**	30,888.56
Unallocated corporate interest and other income (B)		
Dividend from non-current investments	**1,639.08**	2,342.54
Interest income	**603.06**	236.61
Miscellaneous income	**134.40**	73.40
Sub-total (B)	**2,376.54**	2,652.55
Unallocated corporate expenses, interest and finance costs(C)		
Finance costs	**10,250.82**	9,979.23
Other expenses	**196.90**	211.02
Sub total (C)	**10,447.72**	10,190.25
Profit before tax (including net movements in regulatory deferral account balances) (A+B-C)	**24,085.00**	23,350.86
Exceptional items	**(834.55)**	-
Income tax expense(including tax on net movements in regulatory deferral account balances)	**6,840.16**	6,154.13
Profit after tax	**18,079.39**	17,196.73

The operations of the Company are mainly carried out within the country and therefore there is no reportable geographical segment.



C. Information about major customers

Revenue from customers under 'Generation of energy' segment which is more than 10% of the Company's total revenues, are as under:

Name of the customer	For the year ended			
	31 March 2024		31 March 2023	
	Amount (₹ Crore)	%age	Amount (₹ Crore)	%age 2023
Gujarat Urja Vikas Nigam Ltd.	**17,097.16**	**10.55**	18,447.09	11.26

67. Financial Risk Management

The Company's principal financial liabilities comprise loans and borrowings in foreign as well as domestic currency, trade payables and other payables. The main purpose of these financial liabilities is to finance the Company's operations. The Company's principal financial assets include loans, trade and other receivables, and cash and short-term deposits that derive directly from its operations. The Company also holds equity investments and enter into derivative contracts such as forward contracts, options and swaps. Derivatives are used exclusively for hedging purposes and not as trading or speculative instruments.

The Company is exposed to the following risks from its use of financial instruments:- Credit risk- Liquidity risk- Market risk

This note presents information about the Company's exposure to each of the above risks, the Company's objectives, policies and processes for measuring and managing risk.

Risk	Exposure arising from	Measurement	Management
Credit Risk	Trade receivables, unbilled revenue, derivative financial instruments, financial assets measured at amortised cost and cash and cash equivalents.	Ageing analysis Credit ratings	Credit limits, letters of credit and diversification of bank deposits.
Liquidity risk	Borrowings and other liabilities	Rolling cash flows forecast	Availability of committed credit lines and borrowing facilities
Market risk – foreign currency risk	- Future commercial transactions - Recognised financial assets and liabilities not denominated in Indian rupee (₹)	Cash flow forecasting	Forward foreign exchange contracts Foreign currency options Currency and interest rate swaps and principal only swaps
Market risk – interest rate risk	Non-current borrowings at variable rates	Sensitivity analysis	Different kinds of loan arrangements with varied terms (e.g. fixed rate loans, floating rate loans, rupee term loans, foreign currency loans, etc.)

Risk management framework

The Company's activities make it susceptible to various risks. The Company has taken adequate measures to address such concerns by developing adequate systems and practices.

In order to institutionalize the risk management in the Company, an elaborate Enterprise Risk Management (ERM) framework has been developed. The Board of Directors has overall responsibility for the establishment and oversight of the Company's risk management framework. As a part of the implementation of ERM framework, a 'Risk Management Committee (RMC)' with functional directors as its members has been entrusted with the responsibility to identify and review the risks, formulate action plans and strategies to mitigate risks on short-term as well as long-term basis.

The RMC meets every quarter to deliberate on strategies. Risks are regularly monitored through reporting of key performance indicators. Outcomes of RMC are submitted for information of the Board of Directors.

Credit risk

Credit risk is the risk of financial loss to the Company if a customer or counterparty to a financial instrument fails to meet its contractual obligations resulting in a financial loss to the Company. Credit risk arises principally from trade receivables, unbilled revenue, loans, cash and cash equivalents and deposits with banks and financial institutions.

Trade receivables & unbilled revenue

The Company primarily sells electricity to bulk customers comprising mainly state utilities owned by State Governments. The Company has a robust payment security mechanism in the form of Letters of Credit (LC) backed by the Tri-Partite Agreement (TPA). The TPAs were signed among the Govt. of India, RBI and the individual State Governments subsequent to the issuance of the One Time Settlement Scheme of SEBs dues during 2001-02 by the GOI, which were valid till October 2016. Govt of India subsequently approved the extension of these TPAs for another period of 10 years. Most of the States have signed these extended TPAs and signing is in progress for the balance states.

CERC Tariff Regulations allow payment against monthly bill towards energy charges within a period of forty five days from the date of bill and levy of surcharge @ 18% p.a. on delayed payment beyond forty five days. GOI has notified Electricity (Late Payment Surcharge) Rules, 2021 on 22 February 2021.These rules envisage that base rate of LPSC to be considered as SBI one year MCLR, as on 1 April of the financial year, plus five percent. The rate of LPSC shall be increased by 0.5 percent for every month of delay, provided that the LPSC shall not be more than 3 percent higher than the base rate at any time.

A default occurs when in the view of management there is no significant possibility of recovery of receivables after considering all available options for recovery.

As per the provisions of the TPA, the customers are required to establish LC covering 105% of the average monthly billing of the Company for last 12 months. The TPA also provided that if there is any default in payment of current dues by any State Utility, the outstanding dues can be deducted from the State's RBI account and paid to the concerned CPSU. There is also provision of regulation of power by the Company in case of non payment of dues and non-establishment of LC.

These payment security mechanisms have served the Company well over the years. The Company has not experienced any significant impairment losses in respect of trade receivables in the past years. Since the Company has its power stations as well as customers spread over various states of India, geographically there is no concentration of credit risk.

Unbilled revenue primarily relates to the Company's right to consideration for sale effected but not billed at the reporting date and have substantially the same risk characteristics as the trade receivables for the same type of contracts.

Investments

The Company limits its exposure to credit risk by investing in only Government of India Securities, State Government Securities and other counterparties have a high credit rating. The management actively monitors the interest rate and maturity period of these investments. The Company does not expect the counterparty to fail to meet its obligations, and has not experienced any significant impairment losses in respect of any of the investments.

Loans

The Company has given loans to employees, subsidiary companies, joint venture companies and other parties. Loans to the employee are secured against the mortgage of the house properties and hypothecation of vehicles for which such loans have been given in line with the policies of the Company. The loan provided to group companies are collectible in full and risk of default is negligible. Loan to APIIC is against a guarantee given by the Government of Andhra Pradesh vide GO dated 3 April 2003.

Cash and cash equivalents

The Company held cash and cash equivalents of **₹ 197.16 crore** (31 March 2023: ₹ 3.13 crore). The cash and cash equivalents are held with banks with high rating.



Balances with banks and financial institutions, other than cash and cash equivalents

The Company held balances with banks and financial institutions, including earmarked balances, of **₹ 4,403.34 crore** (31 March 2023: ₹ 3,738.60 crore). In order to manage the risk, Company places deposits with only high rated banks/ institutions.

(i) Exposure to credit risk

The carrying amount of financial assets represents the maximum credit exposure. The maximum exposure to credit risk at the reporting date was:

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Financial assets for which loss allowance is measured using 12 months Expected Credit Losses (ECL)		
Non-current investments	**33,107.93**	29,719.75
Non-current loans	**800.66**	1,233.47
Other non-current financial assets*	**627.98**	785.00
Current investments	**50.00**	50.00
Cash and cash equivalents	**197.16**	3.13
Bank balances other than cash and cash equivalents	**4,403.34**	3,738.60
Current loans	**415.85**	312.45
Other current financial assets**	**982.78**	4,177.73
Total (A)	**40,585.70**	40,020.13
Financial assets for which loss allowance is measured using life-time Expected Credit Losses (ECL) as per simplified approach		
Trade receivables including unbilled revenue	**28,515.62**	28,428.42
Contract assets	**10,682.16**	7,096.08
Total (B)	**39,197.78**	35,524.50
Total (A+B)	**79,783.48**	75,544.63

* Excluding share application money pending allotment (Refer Note 11)

** Excluding contract assets (Refer Note 19)

(ii) Provision for expected credit losses

(a) Financial assets for which loss allowance is measured using 12 month expected credit losses

The Company has assets where the counter-parties have sufficient capacity to meet the obligations and where the risk of default is very low. Accordingly, no loss allowance for impairment has been recognised.

(b) Financial assets for which loss allowance is measured using life-time expected credit losses as per simplified approach

The Company has customers (State government utilities) with capacity to meet the obligations and therefore the risk of default is negligible or nil. Further, management believes that the unimpaired amounts that are past due by more than 30 days are still collectible in full, based on historical payment behaviour and extensive analysis of customer credit risk. Hence, no impairment loss has been recognised during the reporting periods in respect of trade receivables and unbilled revenue.

(iii) Ageing analysis of trade receivables

Refer Note 15(d)

(iv) Reconciliation of impairment loss provisions

The movement in the allowance for impairment in respect of financial assets during the year is as follows:

₹ Crore

Particulars	Investments	Trade receivables	Loans	Advances	Claims recoverable	Total
Balance as at 1 April 2022 (i)	919.47	0.20	-	0.03	346.78	**1,266.48**
Impairment loss recognised (ii)	14.24	-	6.77	-	2.54	**23.55**
Balance as at 31 March 2023 (iii =i+ii)	933.71	0.20	6.77	0.03	349.32	**1,290.03**
Impairment loss recognised (iv)	181.05	-	-	-	0.22	**181.27**
Impairment loss reversed (v)	834.55	-	6.77	-	-	**841.32**
Balance as at 31 March 2024 (vi = iii+iv-v)	**280.21**	**0.20**	-	**0.03**	**349.54**	**629.98**

Based on historic default rates, the Company believes that no impairment allowance is necessary in respect of any other financial assets as the amounts of such allowances are not significant.

Liquidity risk

Liquidity risk is the risk that the Company will encounter difficulty in meeting the obligations associated with its financial liabilities that are settled by delivering cash or another financial asset. The Company's approach to managing liquidity is to ensure, as far as possible, that it will always have sufficient liquidity to meet its liabilities when due, under both normal and stressed conditions, without incurring unacceptable losses or risking damage to the Company's reputation.

The Company has an appropriate liquidity risk management framework for the management of short, medium and long-term funding and liquidity management requirements. The Company manages liquidity risk by maintaining adequate cash reserves, banking facilities and reserve borrowing facilities by continuously monitoring forecast and actual cash flows and matching the maturity profiles of financial assets and liabilities.

The Company's Treasury department is responsible for managing the short-term and long-term liquidity requirements of the Company. Short-term liquidity situation is reviewed daily by the Treasury department. The Board of directors has established policies to manage liquidity risk and the Company's Treasury department operates in line with such policies. Any breaches of these policies are reported to the Board of Directors. Long-term liquidity position is reviewed on a regular basis by the Board of Directors and appropriate decisions are taken according to the situation.

Typically, the Company ensures that it has sufficient cash on demand to meet expected operational expenses for a month, including the servicing of financial obligations, this excludes the potential impact of extreme circumstances that cannot reasonably be predicted, such as natural disasters.

As part of the CERC Regulations, tariff inter-alia includes recovery of capital cost. The tariff regulations also provide for recovery of energy charges, operations and maintenance expenses and interest on normative working capital requirements. Since billing to the customers are generally on a monthly basis, the Company maintains sufficient liquidity to service financial obligations and to meet its operational requirements.

(i) Financing arrangements

The Company had access to the following undrawn borrowing facilities at the end of the reporting period:

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Floating-rate borrowings		
Cash credit	**2,450.00**	2,155.00
Term loans	**3,008.58**	6,351.58
Foreign currency loans	**5,456.75**	3,309.60
Total	**10,915.33**	11,816.18



(ii) Maturities of financial liabilities

The following are the contractual maturities of derivative and non-derivative financial liabilities (un-discounted), based on contractual cash flows:

31 March 2024 ₹ Crore

Contractual maturities of financial liabilities	Contractual cash flows					
	3 months or less	3-12 months	1-2 years	2-5 years	More than 5 years	Total
Non-derivative financial liabilities						
Secured bonds	278.66	5,906.08	1,241.34	7,774.84	11,009.16	26,210.08
Unsecured bonds	2,051.20	407.52	5,500.00	3,000.00	14,171.00	25,129.72
Rupee term loans from banks	1,342.20	4,969.55	6,737.64	22,271.05	33,593.19	68,913.63
Rupee term loans from others	-	238.75	318.33	955.00	2,705.83	4,217.91
Lease obligations	141.40	51.53	62.41	200.92	2,250.26	2,706.52
Foreign currency notes	3,911.51	4,240.85	4,197.50	7,933.50	-	20,283.36
Unsecured foreign currency loans from banks and financial institutions	408.78	821.65	826.33	13,945.02	9,622.53	25,624.31
Unsecured foreign currency loans (guaranteed by GOI)	-	164.92	163.47	376.57	140.56	845.52
Commercial paper, cash credit and Short term working capital loan	13,388.20	3,500.00	-	-	-	16,888.20
Trade and other payables	26,868.71	1,849.56	337.11	278.02	399.26	29,732.66

31 March 2023 ₹ Crore

Contractual maturities of financial liabilities	Contractual cash flows					
	3 months or less	3-12 months	1-2 years	2-5 years	More than 5 years	Total
Non-derivative financial liabilities						
Secured bonds	553.57	6,531.25	5,389.73	4,502.84	15,522.50	32,499.89
Unsecured bonds	4,989.11	402.76	1,500.00	4,000.00	14,171.00	25,062.87
Rupee term loans from banks	1,107.88	4,214.34	6,087.82	21,752.19	35,715.18	68,877.41
Rupee term loans from others	107.82	276.10	363.84	1,130.06	3,111.06	4,988.88
Lease obligations	139.00	62.42	76.73	193.33	2,268.85	2,740.33
Foreign currency notes	62.85	42.88	7,860.30	11,990.10	-	19,956.13
Unsecured foreign currency loans from banks and financial institutions	339.06	846.00	990.33	8,495.58	13,129.52	23,800.49
Unsecured foreign currency loans (guaranteed by GOI)	-	185.54	183.61	485.94	278.52	1,133.61
Commercial paper, cash credit and Short term working capital loan	11,874.03	1,000.00	-	-	-	12,874.03
Trade and other payables	25,452.22	3,228.76	887.09	1,179.63	719.47	31,467.17

Market risk

Market risk is the risk that changes in market prices, such as foreign exchange rates and interest rates will affect the Company's income. The objective of market risk management is to manage and control market risk exposures within acceptable parameters, while optimising the return.

The Board of Directors is responsible for setting up of policies and procedures to manage market risks of the Company. All such transactions are carried out within the guidelines set by the risk management committee.

Currency risk

The Company is exposed to foreign currency risk on certain transactions that are denominated in a currency other than entity's functional currency, hence exposure to exchange rate fluctuations arises. The risk is that the functional currency value of cash flows will vary as a result of movements in exchange rates.

The currency profile of financial assets and financial liabilities as at 31 March 2024 and 31 March 2023 are as below:

As at 31 March 2024 ₹ Crore

Particulars	USD	EURO	JPY	Others	Total
Financial assets					
Trade and other receivables	4.97	-	-	-	4.97
Total	4.97	-	-	-	4.97
Financial liabilities					
Foreign currency bonds	15,686.90	4,596.47	-	-	20,283.37
Unsecured foreign currency loans from banks and financial institutions	7,906.18	3,381.70	15,181.95	-	26,469.83
Trade payables and other financial liabilities	1,527.30	663.82	92.54	2.09	2,285.75
Total	25,120.38	8,641.99	15,274.49	2.09	49,038.95

As at 31 March 2023 ₹ Crore

Particulars	USD	EURO	JPY	Others	Total
Financial assets					
Trade and other receivables	1.22	-	-	-	1.22
Total	1.22	-	-	-	1.22
Financial liabilities					
Foreign currency bonds	15,391.81	4,564.32	-	-	19,956.13
Unsecured foreign currency loans from banks and financial institutions	8,180.71	2,774.16	13,979.22	-	24,934.09
Trade payables and other financial liabilities	1,429.26	716.59	34.28	11.73	2,191.86
Total	25,001.78	8,055.07	14,013.50	11.73	47,082.08

The gain/(loss) on account of exchange rate variations on all foreign currency loans and foreign currency monetary items is recoverable from beneficiaries considering the CERC Tariff Regulations. Therefore, currency risk in respect of such exposure would not be very significant.

Sensitivity analysis

Since the impact of strengthening or weakening of INR against USD, EURO, JPY and other currencies on the statement of profit and loss would not be very significant; therefore, sensitivity analysis for currency risk is not disclosed.

Embedded derivatives

Certain contracts of the Company for construction of power plants with vendors awarded through International Competitive Bidding are denominated in a third currency i.e. a currency which is not the functional currency of any of the parties to the contract. The Company has awarded the above contracts without any intention to enter into any derivative contract or to leverage/ take position and without any option/intention to net settle at any point of time during the tenure of the contract. The Company has not separately recognised the foreign currency embedded derivative and has not designated the entire hybrid contract at fair value through profit or loss considering the same as not practicable and absence of a reliable valuation model.



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Interest rate risk

The Company is exposed to interest rate risk arising mainly from non-current borrowings with floating interest rates. The Company is exposed to interest rate risk because the cash flows associated with floating rate borrowings will fluctuate with changes in interest rates. The Company manages the interest rate risks by entering into different kinds of loan arrangements with varied terms (e.g. fixed rate loans, floating rate loans, rupee term loans, foreign currency loans, etc.).

At the reporting date, the interest rate profile of the Company's interest-bearing financial instruments is as follows:

₹ Crore

Particulars	31 March 2024	31 March 2023
Financial Assets:		
Fixed-rate instruments		
Loans to related parties	**412.50**	779.60
Debentures	**525.00**	575.00
Loans to others	**17.20**	21.50
Bank deposits	**4,286.46**	3,634.68
Total	**5,241.16**	5,010.78
Variable-rate instruments		
Loans to related parties	**-**	-
Total	**-**	-
Financial Liabilities:		
Fixed-rate instruments		
Bonds	**51,337.15**	57,560.02
Foreign currency loans/notes*	**22,309.49**	22,611.07
Rupee term loans	**-**	16.84
Commercial paper and Short term working capital loan	**16,767.58**	12,833.76
Lease obligations	**987.39**	986.23
	91,401.61	94,007.92
Variable-rate instruments		
Foreign currency loans/notes	**24,122.57**	21,937.48
Rupee term loans	**73,131.55**	73,849.45
Cash credit	**-**	-
	97,254.12	95,786.93
Total	**1,88,655.73**	1,89,794.85

Fair value sensitivity analysis for fixed-rate instruments

The Company's fixed rate instruments are carried at amortised cost. They are therefore not subject to interest rate risk, since neither the carrying amount nor the future cash flows will fluctuate because of a change in market interest rates.

Cash flow sensitivity analysis for variable-rate instruments

A change of 50 basis points in interest rates at the reporting date would have increased (decreased) profit or loss by the amounts shown below. This analysis assumes that all other variables, in particular foreign currency rates, remain constant. The analysis is performed on the same basis for the previous year.

Particulars	Profit or loss	
	50 bp increase	50 bp decrease
31 March 2024		
Foreign currency loans/notes	**(112.06)**	**112.06**
Rupee term loans	**(359.27)**	**359.27**
Cash credit and Short term working capital loan	**(0.37)**	**0.37**
	(471.70)	**471.70**
31 March 2023		
Foreign currency loans/notes	(94.03)	94.03
Rupee term loans	(393.04)	393.04
Cash credit and Short term working capital loan	(3.44)	3.44
	(490.51)	490.51

Of the above mentioned increase in the interest expense, an amount of **₹ 109.34 crore** (31 March 2023: ₹ 122.28 crore) is expected to be capitalised and recovered from beneficiaries through tariff.

Change in interest benchmarks

As part of the IBOR transition, the Company has replaced the USD LIBOR with compounded SOFR for all financial instruments, requiring the renegotiation of financing contracts. Changes to contractual cash flows as a result of replacing the existing benchmark interest rate on an economically equivalent basis as a direct consequence of the interest rate benchmark reform are accounted for by adjusting the effective interest rate without recognizing any direct modification gains or losses. There is no material impact on the change of the benchmark rate.

(Note: IBOR-Inter Bank Offered Rates, LIBOR-London Interbank Offered Rate, SOFR – Secured Overnight Financing Rate)

68. Fair Value Measurements

a) Financial instruments by category

₹ Crore

Particulars	31 March 2024			31 March 2023		
	FVTPL	FVTOCI	Amortised Cost	FVTPL	FVTOCI	Amortised Cost
Financial assets						
Investments						
- Equity instruments	**3.78**	**223.20**	**32,405.95**	3.78	102.30	29,088.67
- Debentures	**-**	**-**	**525.00**	-	-	575.00
Trade Receivables	**-**	**-**	**28,515.62**	-	-	28,428.42
Loans	**-**	**-**	**1,216.51**	-	-	1,545.92
Cash and cash equivalents	**-**	**-**	**197.16**	-	-	3.13
Other bank balances	**-**	**-**	**4,403.34**	-	-	3,738.60
Finance lease receivables	**-**	**-**	**211.01**	-	-	285.19
Other financial assets	**-**	**-**	**12,081.91**	-	-	11,911.55
	3.78	**223.20**	**79,556.50**	3.78	102.30	75,576.48



₹ Crore

Particulars	31 March 2024			31 March 2023		
	FVTPL	FVTOCI	Amortised Cost	FVTPL	FVTOCI	Amortised Cost
Financial liabilities						
Borrowings (including interest accrued)	-	-	**1,70,900.76**	-	-	1,75,974.86
Commercial paper and cash credit	-	-	**16,767.58**	-	-	12,833.76
Lease obligations	-	-	**987.39**	-	-	986.23
Trade payables	-	-	**9,474.66**	-	-	9,598.10
Payable for capital expenditure	-	-	**14,302.94**	-	-	15,793.40
Other financial liabilities	-	-	**5,683.48**	-	-	5,822.67
	-	-	**2,18,116.81**	-	-	2,21,009.02

b) Fair value hierarchy

This section explains the judgements and estimates made in determining the fair values of the financial instruments that are (a) recognised and measured at fair value and (b) measured at amortised cost and for which fair values are disclosed in the financial statements. To provide an indication about the reliability of the inputs used in determining fair value, the Company has classified its financial instruments into the three levels prescribed under the Ind AS. An explanation of each level follows underneath the table.

₹ Crore

Financial assets and liabilities measured at fair value- recurring fair value measurement as at 31 March 2024	Level 1	Level 2	Level 3	Total
Financial assets:				
Investments in quoted equity instruments - PTC India Ltd.	**223.20**	-	-	**223.20**
Investments in unquoted equity instruments	-	-	**3.78**	**3.78**
	223.20	-	**3.78**	**226.98**

₹ Crore

Financial assets and liabilities measured at fair value- recurring fair value measurement as at 31 March 2023	Level 1	Level 2	Level 3	Total
Financial assets:				
Investments in quoted equity instruments - PTC India Ltd.	102.30	-	-	102.30
Investments in unquoted equity instruments	-	-	3.78	3.78
	102.30	-	3.78	106.08

The Company has an established control framework with respect to the measurement of fair values. This includes a valuation team that has overall responsibility for overseeing all significant fair value measurements and reports directly to the Director (Finance). The valuation team regularly reviews significant unobservable inputs and valuation adjustments. If third party information, such as broker quotes or pricing services, is used to measure fair values, then the valuation team assesses the evidence obtained from the third parties to support the conclusion that these valuations meet the requirements of Ind AS, including the level in the fair value hierarchy in which the valuations should be classified. Significant valuation issues are reported to the Company's Audit Committee, if any.

Fair values are categorised into different levels in a fair value hierarchy based on the inputs used in the valuation techniques as follows.

Level 1: Level 1 hierarchy includes financial instruments measured using quoted prices. This includes investments in quoted equity instruments. Quoted equity instruments are valued using quoted prices on national stock exchange.

Level 2: The fair value of financial instruments that are not traded in an active market is determined using valuation techniques which maximise the use of observable market data and rely as little as possible on entity specific estimates. If all significant inputs required to fair value an instrument are observable, the instrument is included in level 2. This level includes mutual funds which are valued using the closing NAV.

Level 3: If one or more of the significant inputs is not based on observable market data, the instrument is included in level 3. The fair value of financial assets and liabilities included in Level 3 is determined in accordance with generally accepted pricing models based on discounted cash flow analysis using prices from prevailing market transactions and dealer quotes of similar instruments.

There have been no transfers in either direction for the years ended 31 March 2024 and 31 March 2023.

c) Valuation technique used to determine fair value:

Specific valuation techniques used to determine fair value of financial instruments include:

i) For financial instruments other than at ii), iii) and iv) - the use of quoted market prices.

ii) For investments in mutual funds - Closing NAV is used.

iii) For financial liabilities (vendor liabilities, debentures/bonds, foreign currency notes, domestic/foreign currency loans): Discounted cash flow; appropriate market borrowing rate of the entity as of each balance sheet date used for discounting.

iv) For financial assets (employee loans) - Discounted cash flow; appropriate market rate (SBI lending rate) as of each balance sheet date used for discounting.

d) Fair value of financial assets and liabilities measured at amortised cost

₹ Crore

Particulars	Level	As at 31 March 2024		As at 31 March 2023	
		Carrying amount	Fair value	Carrying amount	Fair
Financial assets					
Investments in subsidiary and joint venture companies	3	**32,405.95**	**32,405.95**	29,088.67	29,088.67
Other investments	3	**525.00**	**525.00**	575.00	575.00
Loans	3	**1,216.51**	**1,172.19**	1,545.92	1,504.80
Finance lease receivables	3	**211.01**	**211.01**	285.19	285.19
Claims recoverable	3	**720.82**	**720.82**	797.63	797.63
Trade receivables	3	**28,515.62**	**28,515.62**	28,428.42	28,428.42
Cash and cash equivalents	1	**197.16**	**197.16**	3.13	3.13
Bank balances other than cash and cash equivalents	1	**4,403.34**	**4,403.34**	3,738.60	3,738.60
Other financial assets	3	**11,361.09**	**11,361.09**	11,113.92	11,113.92
		79,556.50	**79,512.18**	75,576.48	75,535.36
Financial liabilities					
Bonds/Debentures	1	-	-	-	-
	2	**48,791.35**	**49,518.67**	12,357.58	13,249.47
	3	**2,545.80**	**3,106.35**	45,202.44	46,398.53
Foreign currency notes	2	**15,672.89**	**15,638.81**	15,369.34	15,247.39
	3	**4,590.70**	**4,418.02**	4,554.79	4,203.16
Foreign currency loans	3	**26,168.47**	**26,180.40**	24,624.42	24,652.28
Rupee term loans	2	-	-		
Rupee term loans	3	**73,131.55**	**73,131.55**	73,866.29	73,866.00
Lease obligations	3	**987.39**	**987.39**	986.23	986.23
Borrowings - current	1	**16,704.09**	**16,704.09**	12,796.92	12,796.92
Trade payables and payable for capital expenditure	2	-	-		
Trade payables and payable for capital expenditure	3	**23,777.60**	**23,773.75**	25,391.50	25,362.09
Other financial liabilities	3	**5,746.97**	**5,746.97**	5,859.51	5,859.51
		2,18,116.81	**2,19,206.00**	2,21,009.02	2,22,621.58

The carrying amounts of current trade receivables, current trade payables, payable for capital expenditure, investment in subsidiary and joint venture companies, cash and cash equivalents and other financial assets and liabilities are considered to be the same as their fair values, due to their short-term nature.

The carrying values for finance lease receivables approximates the fair value as these are periodically evaluated based on credit worthiness of customer and allowance for estimated losses is recorded based on this evaluation. Also, carrying amount of claims recoverable approximates its fair value as these are recoverable immediately.

The fair values for loans, borrowings, non-current trade payables and payable for capital expenditure were calculated based on cash flows discounted using a current discount rate. They are classified at respective levels based on availability of quoted prices and inclusion of observable/non observable inputs.

69. Capital Management

The Company's objectives when managing capital are to:

- safeguard its ability to continue as a going concern, so that it can continue to provide returns for shareholders and benefits for other stakeholders and
- maintain an appropriate capital structure of debt and equity.

The Board of Directors has the primary responsibility to maintain a strong capital base and reduce the cost of capital through prudent management in deployment of funds and sourcing by leveraging opportunities in domestic and international financial markets so as to maintain investors, creditors & markets' confidence and to sustain future development of the business. The Board of Directors monitors the return on capital, which the Company defines as returns from operating activities divided by total shareholders' equity deployed in operating activities. The Board of Directors also monitors the level of dividends to equity shareholders in line with the dividend distribution policy of the Company.

Under the terms of major borrowing facilities, the Company is required to comply with the following financial covenants:

(i) Total liability to net worth ranges between 2:1 to 3:1.(ii) Ratio of EBITDA to interest expense shall not at any time be less than 1.75 : 1.(iii) Debt service coverage ratio not less than 1.10:1 (in case of foreign currency borrowings).

There have been no breaches in the financial covenants of any interest bearing borrowings.

The Company monitors capital, using a medium term view of three to five years, on the basis of a number of financial ratios generally used by industry and by the rating agencies. The Company is not subject to externally imposed capital requirements.

The Company monitors capital using gearing ratio which is net debt divided by total equity. Net debt comprises of non-current borrowings (including current maturities and interest accrued there on) and current borrowings less cash and cash equivalents. Equity includes equity share capital and reserves that are managed as capital. The gearing ratio at the end of the reporting period was as follows:

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Borrowings (including interest accrued)	**1,87,604.85**	1,88,771.78
Less: Cash and cash equivalents	**197.16**	3.13
Net Debt	**1,87,407.69**	1,88,768.65
Total Equity	**1,49,885.02**	1,38,889.88
Net Debt to Equity Ratio	**1.25**	1.36

70. Disclosure as per Ind AS 114, 'Regulatory Deferral Accounts'

(i) Nature of rate regulated activities

The Company is mainly engaged in generation and sale of electricity. The price to be charged by the Company for electricity sold to its beneficiaries is determined by the CERC which provides extensive guidance on the principles and methodologies for determination of the tariff for the purpose of sale of electricity. The tariff is based on allowable costs like interest, depreciation, operation & maintenance expenses, etc. with a stipulated return.

This form of rate regulation is known as cost-of-service regulations which provide the Company to recover its costs of providing the goods or services plus a fair return.

(ii) Recognition and measurement

(a) As per the CERC Tariff Regulations, any gain or loss on account of exchange risk variation during the construction period shall form part of the capital cost till the declaration of Commercial Operation Date (COD) to be considered for calculation of tariff. The CERC during the past period in tariff orders for various stations has allowed exchange differences incurred during the construction period in the capital cost. Accordingly, exchange differences arising during the construction period is within the scope of Ind AS 114.

Further, any loss or gain on account of exchange differences towards interest payment and loan repayment in respect of the foreign currency loans taken for construction of projects shall be recoverable from/payable to beneficiaries on actual payment basis, as per the said Regulations. Accordingly, such exchange differences are also within the scope of Ind AS 114.Any loss or gain on account of foreign currency exchange differences towards interest payment and loan repayment corresponding to the foreign currency loans taken for construction of the Stations shall be recoverable from/payable to beneficiaries on actual payment basis, as per the said regulation'

In view of the above, exchange differences arising from settlement/translation of monetary item denominated in foreign currency to the extent recoverable from or payable to the beneficiaries in subsequent periods as per CERC Tariff Regulations are recognized on an undiscounted basis as 'Regulatory deferral account debit/credit balance' by credit/debit to 'Net Movements in Regulatory deferral account balances' and adjusted from the year in which the same becomes recoverable from or payable to the beneficiaries. Accordingly, an amount of (-) **₹ 1,262.44 crore** for the year ended as at 31 March 2024 has been accounted for as 'Regulatory deferral account debit balance' (31 March 2023: (-) ₹ 960.93 crore accounted as 'Regulatory deferral account debit balance'). Further, an amount of ₹ **51.20 crore** (31 March 2023: ₹ 52.01 crore) has been realized/recognized during the year.

(b) Revision of pay scales of employees of PSEs w.e.f. 1 January 2017 has been implemented based on the guidelines issued by Department of Public Enterprises (DPE). The guidelines provide payment of superannuation benefits @ 30% of basic + DA to be provided to the employees of CPSEs which includes gratuity at the enhanced ceiling of ₹ 0.20 crore from the existing ceiling of ₹ 0.10 crore. As per Proviso 8(3) of Terms and Conditions of Tariff Regulations 2014 applicable for the period 2014-19, truing up exercise in respect of Change in Law or compliance of existing law will be taken up by CERC. The increase in gratuity limit from ₹ 0.10 crore to ₹ 0.20 crore falls under the category of 'Change in law' and a regulatory asset has been created. The Payment of Gratuity Act, 1972 has since been amended and the ceiling has been increased to ₹ 0.20 crore.

Considering the methodology followed by the CERC for allowing impact of the previous pay revision, various tariff orders issued by the CERC under Regulations, 2014 and the above-mentioned provision related to the change in law of CERC Tariff Regulations, 2014, a regulatory asset has been created upto 31 March 2019 (Regulatory deferral account debit balance) towards the increase in O&M expenditure due to the pay revision. This was taken up with CERC through truing up tariff petition. CERC has been allowing the same progressively and during the year, the expenditure has been allowed in respect of few stations and accordingly an amount of **₹ 108.71 crore** (31 March 2023: ' 94.56 crore) has been adjusted and an amount of **₹ 6.56 crore** (31 March 2023: ₹ 0.49 crore) has been reversed. Balance orders are expected in the coming years.

(c) CERC Regulations provide that deferred tax liability upto 31 March 2009 shall be recovered from the beneficiaries as and when the same gets materialized. Further, for the period commencing from 1 April 2014, CERC Tariff Regulations provide for grossing up of the return on equity based on effective tax rate for the financial year based on the actual tax paid during the year on the generation income. The Company has recognised a regulatory deferral account debit balance for such deferred tax liabilities (net) in the financial statements. Regulatory deferral account debit balance for deferred tax liability for the period commencing from 1 April 2014 will be reversed in future years when the related deferred tax liability forms part of current tax. Accordingly, an amount of **₹ 2,808.05 crore** (31 March 2023: ₹ 1,650.50 crore) for the year ended 31 March 2024 has been accounted for as 'Regulatory deferral account debit balance'.

(d) The petition filed by the Company before CERC for reimbursement of the expenditure on transportation of ash, was favourably considered by CERC vide order dated 5 November 2018 and it was allowed to reimburse the actual

additional expenditure incurred towards transportation of ash in terms of MOEF notification under change in law, as additional O&M expenses, w.e.f. 25 January 2016 subject to prudence check. Keeping in view the above, regulatory asset was created towards ash transportation expenses in respect of stations where there was shortfall in revenue from sale of ash over and above ash transportation expenses till 2021-22. CERC vide order dated 28 October 2022 has allowed provisional monthly billing of Ash transportation expenditure from 1 April 2022 onwards and reimbursement of expenditure already incurred from 1 April 2019 till 31 March 2022. An amount of **₹ 4.75 crore** (31 March 2023: ₹ 90.18 crore) has been adjusted/realised based on orders received from CERC during the year relating to period prior to 1 April 2019. Balance amount of ₹ **68.36 crore** (31 March 2023: ₹ 73.11 crore) shall be reversed / adjusted upon receipt of tariff orders / true-up orders from CERC.

(iii) Risks associated with future recovery/reversal of regulatory deferral account balances:

(i) demand risk due to changes in consumer attitudes, the availability of alternative sources of supply(ii) regulatory risk on account of changes in regulations and submission or approval of a rate-setting application or the entity's assessment of the expected future regulatory actions(iii) other risks including currency or other market risks, if any

(iv) Reconciliation of the carrying amounts:

The regulated assets/liability recognized in the books to be recovered from or payable to beneficiaries in future periods are as follows:

a) Regulatory deferral account debit and credit balances - Note 22 and Note 39

The regulatory assets recognized in the books to be recovered from the beneficiaries in future periods are as follows:

₹ Crore

Particulars		For the year ended 31 March 2024	For the year ended 31 March 2023
A.	Opening balance	**11,961.97**	12,822.88
B.	Additions during the year	**1,539.05**	(479.48)
C.	Amount realized/recognized during the year	**(164.67)**	(236.75)
D.	Regulatory deferral account balances recognized in the statement of profit and loss (B+C)	**1,374.38**	(716.23)
E.	Adjustments during the year	**(206.86)**	(144.68)
F.	**Closing balance (A+D+E)**	**13,129.49**	11,961.97

b) Net movements in regulatory deferral account balances [I]

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
Exchange differences	**(1,262.44)**	960.93
Pay Revision	**(6.56)**	(0.49)
Deferred tax	**2,808.05**	1,650.50
Ash transportation cost	**-**	(3,090.42)
Sub total (i)	**1,539.05**	(479.48)
Amount realized/ recognized during the year (ii)	**(164.67)**	(236.75)
Net movement in regulatory deferral account balances (i)+(ii)	**1,374.38**	(716.23)
c) Tax on net movements in regulatory deferral account balances [II]	**240.13**	(125.14)
d) Total amount recognized in the statement of profit and loss during the year [I-II]	**1,134.25**	(591.09)

The Company expects to recover the carrying amount of regulatory deferral account debit balance over the life of the projects.

71. Disclosure as per Ind AS 115, 'Revenue from contracts with customers'

I. Nature of goods and services

The revenue of the Company comprises of income from energy sales, sale of energy through trading, consultancy and other services. The following is a description of the principal activities:

(a) Revenue from energy sales

The major revenue of the Company comes from energy sales. The Company sells electricity to bulk customers, mainly electricity utilities owned by State Governments as well as private Discoms operating in States. Sale of electricity is generally made pursuant to long-term Power Purchase Agreements (PPAs) entered into with the beneficiaries.

Below are the details of nature, timing of satisfaction of performance obligations and significant payment terms under contracts for energy sales:

Product/ Service	Nature, timing of satisfaction of performance obligations and significant payment terms
Energy sales	The Company recognises revenue from contracts for energy sales over time as the customers simultaneously receive and consume the benefits provided by the Company. The tariff for computing revenue from energy sales is determined in terms of CERC Regulations as notified from time to time. The amount of revenue recognised for energy sales is adjusted for variable consideration, wherever applicable, which are estimated based on the historical data available with the Company. The amounts are billed on a monthly basis and are payable within contractually agreed credit period. In case of power station which are not governed by CERC tariff regulations, revenue is recognized based on agreement entered with beneficiaries.

(b) Revenue from energy trading, consultancy and other services

(i) Sale of Energy through trading

The Company is purchasing power from the developers and selling it to the Discoms on principal to principal basis.

Below are the details of nature, timing of satisfaction of performance obligations and significant payment terms under contracts for sale of energy through trading:

Product/ Service	Nature, timing of satisfaction of performance obligations and significant payment terms
Sale of energy through trading	The Company recognises revenue from contracts for sale of energy through trading over time as the customers simultaneously receive and consume the benefits provided by the Company. The tariff for computing revenue from sale of energy through trading is determined as per the terms of the agreements. The amount of revenue recognised is adjusted for variable consideration, wherever applicable, which are estimated based on the historical data available with the Company. The amounts are billed on a monthly basis and are payable within contractually agreed credit period.

(ii) Consultancy and other services

The Company undertakes consultancy and turnkey project contracts for domestic and international clients in the different phases of power plants viz. engineering, project management & supervision, construction management, operation & maintenance of power plants, research & development, management consultancy etc.



Below are the details of nature, timing of satisfaction of performance obligations and significant payment terms under contracts for consultancy and other services:

Product/ Service	Nature, timing of satisfaction of performance obligations and significant payment terms
Consultancy services	The Company recognises revenue from contracts for consultancy services over time as the customers simultaneously receive and consume the benefits provided by the Company. For the assets (e.g. deliverables, reports etc.) transferred under the contracts, the assets do not have alternative use to the Company and the Company has enforceable right to payment for performance completed to date. The revenue from consultancy services is determined as per the terms of the contracts. The amount of revenue recognised is adjusted for variable consideration, wherever applicable, which are estimated based on the historical data available with the Company. The amounts are billed as per the terms of the contracts and are payable within contractually agreed credit period.
Operation and maintenance services	The Company recognises revenue from contracts for operation and maintenance services over time as the customers simultaneously receive and consume the benefits provided by the Company. The revenue from operation and maintenance services is determined as per the terms of the contracts. The amount of revenue recognised is adjusted for variable consideration, wherever applicable, which are estimated based on the historical data available with the Company. The amounts are billed as per the terms of the contracts and are payable within contractually agreed credit period.
Deen Dayal Upadhyay Gramin Jyoti Yojna (DDUGJY Scheme)	The Company recognises revenue from work done under DDUGJY scheme over time as the assets do not have alternative use to the Company and the Company has enforceable right to payment for performance completed to date. The revenue from DDUGJY scheme is determined as per the terms of the contract. There is no component of variable consideration under the contract. The amounts are billed as per the terms of the contracts and are payable within contractually agreed credit period.
Pradhan Mantri Sahaj Bijli Har Ghar Yojna (SAUBHAGYA Scheme)	The Company recognises revenue from work done under SAUBHAGYA scheme at a point in time when the Company transfers control of goods and services under the contract to the customers. The revenue from SAUBHAGYA scheme is determined as per the terms of the contracts. There is no component of variable consideration under the contract. The amounts are billed as per the terms of the contracts and are payable within contractually agreed credit period.

(iii) Sale of captive coal to subsidiary company

The revenue also includes revenue from sale of captive coal to subsidiary.

Below are the details of nature, timing of satisfaction of performance obligations and significant payment terms under contracts for sale of captive coal:

Product/ Service	Nature, timing of satisfaction of performance obligations and significant payment terms
Sale of captive coal to subsidiary company	The Company recognises revenue from contracts for sale of captive coal to subsidiary company when control of the goods is transferred to customers. The tariff for computing revenue from sale of captive coal to subsidiary company is determined in terms of CERC Tariff Regulations applicable for input price of coal from captive mines. The amounts are billed as and when goods are transferred and are payable as per agreed procedures.

II. Disaggregation of revenue

In the following table, revenue is disaggregated by type of product and services, geographical market and timing of revenue recognition:

₹ Crore

Particulars	Generation of energy		Others		Total	
	For the year ended		For the year ended		For the year ended	
	31 March 2024	31 March 2023	**31 March 2024**	31 March 2023	**31 March 2024**	31 March 2023
Geographical markets						
India	**1,56,175.40**	1,57,782.01	**4,160.27**	3,906.57	**1,60,335.67**	1,61,688.58
Outside India	-	-	**0.84**	0.99	**0.84**	0.99
	1,56,175.40	1,57,782.01	**4,161.11**	3,907.56	**1,60,336.51**	1,61,689.57
Timing of revenue recognition						
Products and services transferred over time	**1,56,175.40**	1,57,782.01	**4,161.11**	3,907.56	**1,60,336.51**	1,61,689.57
	1,56,175.40	1,57,782.01	**4,161.11**	3,907.56	**1,60,336.51**	1,61,689.57

III. Reconciliation of revenue recognised with contract price:

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
Contract price	**1,61,034.03**	1,62,486.97
Adjustments for:		
Rebates	**(697.52)**	(797.40)
Revenue recognised	**1,60,336.51**	1,61,689.57

IV. Contract balances

Contract assets are recognised when there is excess of revenue earned over billings on contracts. Contract assets are transferred to trade receivables revenue when there is unconditional right to receive cash, and only passage of time is required, as per contractual terms. The contract liabilities primarily relate to the advance consideration received from the customers which are referred as 'advances from customers / payable to beneficiaries'.

The following table provides information about trade receivables including unbilled revenue, contract assets and advances from customers/payable to beneficiaries:

₹ Crore

Particulars	As at 31 March 2024		As at 31 March 2023	
	Current	**Non-current**	Current	Non-current
Trade receivables including unbilled revenue	**27,347.52**	**1,168.10**	26,028.64	2,399.78
Contract assets	**10,682.16**	**-**	7,096.08	-
Advances from customers/payable to beneficiaries	**1,713.82**	**-**	1,708.39	-

The amount of revenue recognised from performance obligations satisfied (or partially satisfied) in previous periods, due to change in transaction prices and other reasons is **₹ 1,772.12 crore** (31 March 2023 : ₹ 5,035.62 crore).



V. Transaction price allocated to the remaining performance obligations

Performance obligations related to sale of energy:

Revenue from sale of energy is accounted for based on tariff rates approved by the CERC (except items indicated as provisional) as modified by the orders of Appellate Tribunal for Electricity to the extent applicable. In case of power stations, where the tariff rates are yet to be approved/items indicated provisional by the CERC in their orders, provisional rates are adopted considering the applicable CERC Tariff Regulations. Revenue from sale of energy is recognized once the electricity has been delivered to the beneficiary and is measured through a regular review of usage meters. Beneficiaries are billed on a periodic and regular basis. Therefore, transaction price to be allocated to remaining performance obligations cannot be determined reliably for the entire duration of the contract.

Performance obligations related to other contracts:

For rest of the contracts, transaction price for remaining performance obligations amounts to **₹ 484.21 crore** (31 March 2023: ₹ 1,082.32 crore) which shall be received over the contract period in proportion of the work performed/services provided by the Company.

VI. Practical expedients applied as per Ind AS 115:

a. The company has not disclosed information about remaining performance obligations that have original expected duration of one year or less and where the revenue recognised corresponds directly with the value to the customer of the entity's performance completed to date.

b. The Company does not expect to have any contracts where the period between the transfer of the promised goods or services to the customer and payment by the customer exceeds one year. As a consequence, the Company has not adjusted any of the transaction prices for the time value of money. The impact of subsequent modifications are duly recognized in the Statement of profit and loss.

VII. The Company has not incurred any incremental costs of obtaining contracts with a customer and therefore, not recognised an asset for such costs.

72. Disclosure as per Ind AS 116 'Leases'

(A) Company as Lessee

(i) The Company's significant leasing arrangements are in respect of the following assets:

(a) Premises for residential use of employees, offices and guest houses/ transit camps on lease which are not non-cancellable and are usually renewable on mutually agreeable terms. The company generally incurs amount on improvements which are significant to the respective lease and hence the cancellable period of the lease during which the company intends to continue considering the past experience / practice, is considered for the purpose of determining the lease period.

(b) The Company has taken electrical vehicles on operating lease for a period of six years, which can be further extended at mutually agreed terms. Lease rentals are subject to escalation of 10% per annum.

(c) A helicopter on wet lease basis.

(d) The Company has taken certain vehicles (other than electrical) on lease for a period of four years, which can be further extended at mutually agreed terms. There are no escalations in the lease rentals as per terms of the agreement. However, the Company has purchase option for such vehicles at the end of the lease term.

(e) The Company had entered into an agreement for movement of coal through inland waterways for one of its stations. As per the agreement, the operator was to design, finance, build, operate and maintain the unloading and material handling infrastructure for 7 years after which it was to be transferred to the Company at 1/-. Refer Note no. 63 (iii)(b).

(f) The Company acquires land on leasehold basis for a period generally ranging from 25 years to 99 years from the government authorities which can be renewed further based on mutually agreed terms and conditions. The leases are non cancellable. These leases are capitalised at the present value of the total minimum lease payments to be paid over the lease term. Future lease rentals are recognised as 'Lease obligations' at their present values. The Right-of-use land is amortised considering the material accounting policies of the Company.

(ii) The following are the carrying amounts of lease liabilities recognised and the movements during the year :

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
Opening Balance	**986.23**	983.08
- Additions in lease liabilities	**(12.84)**	170.97
- Interest cost during the year	**69.48**	72.62
- Payment of lease liabilities	**(55.48)**	(151.68)
- Adjustment on account of transfer of RE assets to a subsidiary	**-**	(88.76)
Closing Balance	**987.39**	986.23
Current	**162.87**	170.79
Non Current	**824.52**	815.44

(iii) Maturity Analysis of the lease liabilities:

₹ Crore

Contractual undiscounted cash flows	As at 31 March 2024	As at 31 March 2023
3 months or less	**141.40**	139.00
3-12 Months	**51.53**	62.42
1-2 Years	**62.41**	76.73
2-5 Years	**200.92**	193.33
More than 5 Years	**2,250.26**	2,268.85
Total	**2,706.52**	2,740.33

(iv) The following are the amounts recognised in Statement of profit and loss:

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
Depreciation and amortisation expense for right-of-use assets	**276.28**	277.29
Interest expense on lease liabilities	**69.48**	72.62
Expense relating to short-term leases	**24.61**	44.38

(v) The following are the amounts disclosed in the cash flow statement:

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
Cash Outflow from leases	**80.09**	196.06

(B) Leases as lessor

a) Finance leases

The Company had classified the arrangement with its customer for Stage I of a power station in the nature of lease based on the principles enunciated in Appendix C of Ind AS 17 - 'Leases' and accounted for as finance lease in accordance with those principles. This arrangement continues to be classified as finance lease after transition to Ind AS 116 - 'Leases'.

The power purchase agreement with the beneficiary is for a period of twenty five years from the date of transfer and the agreement may be mutually extended, renewed or replaced by another agreement on such terms and for such further period of time as the parties may mutually agree.

The following are the amounts recognised in Statement of profit and loss:

₹ Crore

Particulars		For the year ended 31 March 2024	For the year ended 31 March 2023
i)	Finance income on the net investment in the lease	**23.81**	32.53
ii)	Income relating to variable lease payments not included in the measurement of the net investment in the lease	**1,060.01**	1,159.32

Undiscounted lease payments to be received on an annual basis for a minimum of each of the first five years and for the remaining years:

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Less than one year	**218.38**	108.54
Between one and two years	**-**	215.90
Between two and three years	**-**	-
Between three and four years	**-**	-
Total minimum lease payments	**218.38**	324.44
Less amounts representing unearned finance income	**7.37**	39.25
Present value of minimum lease payments	**211.01**	285.19

b) Operating leases

1. The Company had classified the arrangement with its customer for one gas power station as lease based on the principles enunciated in Appendix C of Ind AS 17 and accounted for as operating lease in accordance with those principles. These arrangements continue to be classified as operating lease after transition to Ind AS 116 'Leases'.

(i) Gas Power Station

PPA signed with the beneficiary on 6 January 1995 was operative for five years from the date of commercial operation of last unit of the station and may be mutually extended, renewed or replaced by another agreement on such terms and on such further period of time as the parties may mutually agree. As per the supplementary agreement dated 15 February 2013 the validity period is extended for a further period of 12 years from 1 March 2013.

The following are the amounts recognised in Statement of profit and loss in respect of the above stations:

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
Lease Income	**19.58**	19.58
Income relating to variable lease payments that do not depend on an index or a rate	**84.12**	84.80

Undiscounted lease payments to be received on an annual basis for a minimum of each of the first five years and for the remaining years:

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Less than one year	**3.91**	19.58
Between one and two years	**-**	3.91
Between two and three years	**-**	-
Beyond three years	**-**	-
Total	**3.91**	23.49

2. Land given on operating lease

(i) Investment Property

As per Business transfer agreement (BTA) entered into between the Company and NTPC Green Energy Ltd. (NGEL), a wholly owned subsidiary of the Company, freehold land pertaining to one of the RE stations (Bilhaur) admeasuring 1202.55 acres shall remain with the Company and has been leased to NGEL at the mutually agreed terms and conditions.

As per agreement entered into between the Company and NTPC Renewable Energy Ltd. (NREL), a wholly owned subsidiary of NGEL, wholly owned subsidiary of the Company, freehold land pertaining to one of the stations (Barethi) admeasuring 2809.26 acres shall remain with the Company and has been leased to NREL at the mutually agreed terms and conditions.

The following are the amounts recognised in Statement of profit and loss in respect of the above stations:

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
Lease Income	5.93	0.19

Undiscounted lease payments to be received on an annual basis for a minimum of each of the first five years and for the remaining years:

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Less than one year	**8.55**	2.25
Between one and two years	**8.55**	2.25
Between two and three years	**8.55**	2.25
Between three and four years	**8.55**	2.25
Between four and five years	**8.55**	2.25
Beyond five years	**186.00**	40.73
Total	**228.75**	51.98

(ii) Others

During the previous year and pursuant to BTA entered with NGEL, a wholly owned subsidiary of the company for transfer of fifteen RE assets, approval for assignment/novation of ROU land pertaining to Rojmal project and Jetsar project was yet to be consented by the lessor. Agreements have been entered to provide right to use ROU land pertaining to Rojmal project and Jetsar project by NTPC to NGEL (sub-lease) for a period of 6 months for carrying out necessary activities which has now been extended for another eleven months, as required to be carried out under BTA pending transfer of leasehold rights etc. These lands were included as part of purchase consideration in BTA, though the asset is retained in NTPC till receipt of consent for transfer. Accordingly, the ROU land admeasuring 863.27 acres of value ₹ 19.51 crore as at

28 February, 2023 along with corresponding lease liabilities pertaining to Rojmal project and Jetsar project were retained in NTPC, which shall be suitably adjusted once the transfer of leasehold rights as stated above is effected. Consequently, an amount of **₹ 1.62 crore** (31 March 2023: ₹ Nil) has been recognised as income during the year.

73. Information on 'Trade payables' in respect of micro and small enterprises as at 31 March 2024 as required by Schedule III to the Companies Act, 2013 and Micro, Small and Medium Enterprises Development Act, 2006 (MSMED Act), based on information available with the Company:

₹ Crore

Particulars		31 March 2024	31 March 2023
a)	Amount due and remaining unpaid to any supplier:		
	Principal amount	**538.52**	272.77
	Interest due thereon	**-**	-
b)	Amount of interest paid in terms of Section 16 of the MSMED Act along-with the amount paid to the suppliers beyond the appointed day.	**-**	-
c)	Amount of interest due and payable for the period of delay in making payment (which have been paid but beyond the appointed day during the year) but without adding the interest specified under the MSMED Act.	**-**	-
d)	Amount of interest accrued and remaining unpaid	**-**	-
e)	Amount of further interest remaining due and payable even in the succeeding years, until such date when the interest dues as above are actually paid to the small enterprises, for the purpose of disallowances as a deductible expenditure under Section 23 of MSMED Act.	**-**	-

The payment to the vendors are made as and when they are due, as per terms and conditions of respective contracts. Amounts payable to Micro and Small enterprises, other than 'Trade payables' viz. liabilities for execution of capital works, security deposit and other contractual obligations are included in 'Other Financial Liabilities' amounting to **₹ 504.62 crore** (31 March 2023: ₹ 291.74 crore).

74. Disclosure as required by Schedule V of the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015:

A. Loans and advances in the nature of loans:

1. To Subsidiary companies

₹ Crore

Name of the Company	Outstanding balance as at		Maximum amount outstanding during the year ended	
	31 March 2024	31 March 2023	31 March 2024	31 March 2023
Ratnagiri Gas and Power Private Ltd.	**412.42**	765.53	**1,309.57**	918.62

2. To Joint venture companies

Name of the Company	Outstanding balance as at		Maximum amount outstanding during the year ended	
	31 March 2024	31 March 2023	31 March 2024	31 March 2023
National High Power Test Laboratory Private Ltd.	**-**	18.40	**18.40**	18.40

3. To Firms/companies in which directors are interested : Nil

B. Investment by the loanee (as detailed above) in the shares of NTPC and its subsidiaries : Nil

75. Contingent liabilities, contingent assets and commitments

A. Contingent liabilities

a. Claims against the Company not acknowledged as debts

(i) Capital Works

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Claims by contractors under capital works	**12,288.18**	12,883.31

Some of the contractors for supply and installation of equipment and execution of works at our projects have lodged claims on the Company for the above amounts seeking enhancement of the contract price, revision of work schedule with price escalation, compensation for the extended period of work, idle charges etc. These claims are being contested by the Company as being not admissible in terms of the provisions of the respective contracts.

The Company is pursuing various options under the dispute resolution mechanism available in the contracts for settlement of these claims. It is not practicable to make a realistic estimate of the outflow of resources if any, for settlement of such claims pending resolution.

The Company has made counter-claims against some of these claims which are before various authorities for adjudication / settlement. It is impracticable to estimate the financial effect of the same as its receipt is dependent on the outcome of the litigation / settlement which is not wholly within the control of the Company.

(ii) Land compensation cases

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Claims by land oustees	**577.86**	597.02

In respect of land acquired for the projects, the erstwhile land owners have claimed higher compensation before various authorities/courts which are yet to be settled. Against such cases, contingent liability of these amounts has been estimated.

(iii) Fuel suppliers

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Claims towards grade slippages	**1,817.81**	1,638.71
Other claims	**1,483.09**	2,646.89

Pending resolution of issues with the coal companies through AMRCD(Alternate Mechanism for Resolution of CPSE Disputes), claims towards grade slippage pertaining to period prior to appointment of CIMFR(Central India Mining and Fuel Research) for joint sampling pursuant to tripartite agreement, has been estimated by the Company as contingent liability. Further, other claims represent claims made by fuel companies towards surface transportation charges, custom duty on service margin on imported coal, take or pay claims of gas suppliers, etc., estimated by the Company as contingent liability.

The Company is pursuing with the fuel companies, related ministries and other options under the dispute resolution mechanism available for settlement of these claims.

(iv) Others

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Claims by government agencies / others	**860.14**	847.86

In respect of claims made by various State/Central Government departments/Authorities towards building permission fee, penalty on diversion of agricultural land to non-agricultural use, non agricultural land assessment tax, water royalty, other claims, etc. and by others, a contingent liability of the above amounts has been estimated.

(v) Possible reimbursement in respect of (i) to (iii) above

In respect of claims included in (i) and (ii) above, payments, if any, by the Company on settlement of the claims would be eligible for inclusion in the capital cost for the purpose of determination of tariff as per CERC Tariff Regulations subject to prudence check by the CERC. In case of (iii), the estimated possible reimbursement by way of recovery through tariff as per Regulations is **₹ 3,293.39 crore** (31 March 2023: ₹ 4,225.77 crore).

b. Disputed tax matters

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Tax matters before various authorities	**1,706.73**	1,304.26

Disputed income tax/sales tax/excise and other tax matters are pending before various Appellate Authorities. Many of these matters were adjudicated in favour of the Company but are disputed before higher authorities by the concerned departments. In respect of these disputed cases, the Company estimate possible reimbursement of **₹ 431.85 crore** (31 March 2023: ₹ 142.97 crore). The amount paid under dispute/adjusted by the authorities in respect of the cases amounts to **₹ 562.69 crore** (31 March 2023: ₹ 762.45 crore).

c. Others

₹ Crore

Particulars		As at 31 March 2024	As at 31 March 2023
(i)	Coal transportation [Refer Note 63(iii)(b)]	**1,870.55**	2,431.04
(ii)	Others	**3,442.28**	1,820.36

Others include contingent liabilities disclosed on an estimated basis relating to likely claims that may arise in connection with abandoned oil exploration activities, land use agreements, service tax reimbursements, stamp duty charges arising out of merger, transfer of operations of subsidiary, etc.

Some of the beneficiaries have filed appeals against the tariff orders of the CERC. The amount of contingent liability in this regard is not ascertainable.

In respect of the disputed cases at sl.no.(ii) above, the Company estimate possible reimbursement of **₹ 1,128.85 crore** (31 March 2023: ₹ 1,090.46 crore).

B. Contingent assets

(i) While determining the tariff for some of the Company's power stations, CERC has disallowed certain capital expenditure incurred by the Company. The Company aggrieved over such issues has filed appeals with the Appellate Tribunal for Electricity (APTEL)/Hon'ble Supreme Court against the tariff orders issued by the CERC. Based on past experience, the Company believes that a favourable outcome is probable. However, it is impracticable to estimate the financial effect of the same as its receipt is dependent on the outcome of the judgement.

(ii) Coal companies have disputed some of the grade slippages confirmed by CIMFR (third party sampler) in favour of the Company and have approached referee challenging the CIMFR results. The referee results are binding on both the parties. Considering the uncertainty involved in the outcome of referee results, the Company has not recognised claims arising out of favourable CIMFR results pending receipt of referee results challenged by the coal companies, considering the provisions of Ind AS 37. It is impracticable to estimate the financial effect of the same as its receipt is dependent on the outcome of the referee results which is wholly not within the control of the Company. Not withstanding the above, the outcome of the referee results shall be dealt with as per the provisions of CERC Tariff Regulations.

(iii) CERC Tariff Regulations provide for levy of Late Payment Surcharge by generating company in case of delay in payment by beneficiaries beyond specified number of days from the date of presentation of bill. However, in view of significant uncertainties in the ultimate collection of the said surcharge from some of the beneficiaries against partial bills as estimated by the management, an amount of **₹ 491.79 crore** as on 31 March 2024 (31 March 2023: ₹ 534.63 crore) has not been recognised.

C. Commitments

a) Estimated amount of contracts remaining to be executed on capital account and not provided for is as under:

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Property, plant and equipment	**61,237.68**	41,154.11
Intangible assets	**44.36**	45.91
Total	**61,282.04**	41,200.02

b) In respect of investments in subsidiary companies (including share application money pending allotment), the Company has restrictions for their disposal as at 31 March 2024 as under:

₹ Crore

Name of the Subsidiary	Period of restrictions for disposal of investments as per related agreements	Amount invested as at 31 March 2024	Amount invested as at 31 March 2023
Bhartiya Rail Bijlee Company Ltd.	5 years from the date of commercial operation of the last unit of the project or till further date as may be mutually agreed.	**1,774.12**	1,774.12
Patratu Vidyut Utpadan Nigam Ltd.	5 years from the date of signing of agreement or till the date of commercial operation of the last new unit of Phase-I, whichever is later.	**2,164.55**	1,737.62
THDC India Ltd.	Save and except with prior written consent of GOI, NTPC shall not take any action that may result in shareholding in the subsidiary falling below 51% and shall not take any action that may result in the subsidiary ceasing to be a government company.	**7,500.00**	7,500.00
North Eastern Electric Power Corporation Ltd.	Save and except with prior written consent of GOI, NTPC shall not take any action that may result in shareholding / or total voting power in the subsidiary falling below 51% and shall not take any action that may result in the subsidiary ceasing to be a government company. Further, NTPC shall continue to hold 100% of paid up capital and voting power in the subsidiary till all amounts repayable under the loan agreement executed between the subsidiary and KfW are repaid.	**4,000.00**	4,000.00
NTPC EDMC Waste Solutions Pvt Ltd	5 years from the date of incorporation (i.e. 01 June 2020)	**0.15**	0.15
Total		**15,438.82**	15,011.89



c) In respect of investments in joint venture companies (including share application money pending allotment), the Company has restrictions for their disposal as at 31 March 2024 as under:

Name of the Joint Venture Company	Period of restrictions for disposal of investments as per related agreements	Amount invested as at	
		31 March 2024	31 March 2023
Transformers and Electricals Kerala Ltd.	3 years from the date of acquisition (i.e.19.06. 2009) or upgradation capacity enhancement scheme whichever is later or such later period as may be mutually agreed. Also refer Note 7 (g).	**31.34**	31.34
NTPC BHEL Power Projects Private Ltd.	3 years from the date of completion of first EPC contract of single order value of not less than ₹ 500 crore or till further such time as mutually agreed. Also refer Note 7 (f).	**50.00**	50.00
National High Power Test Laboratory Private Ltd.	5 years from the date of incorporation (i.e. 22.05. 2009) or completion of project whichever is later. Also refer Note 7 (e).	**48.80**	30.40
CIL NTPC Urja Private Ltd.	5 years from the date of incorporation (i.e. 27.04. 2010) or commercial operation whichever is later.	**0.08**	0.08
Trincomalee Power Company Ltd.	12 years from the initial operation date.	**15.64**	15.64
Bangladesh-India Friendship Power Company Private Ltd.	15 years from the date of commercial operation date.	**1,324.02**	1,162.02
Hindustan Urvarak and Rasayan Ltd.	(a) 5 years from the date of incorporation (15.06.2016) or 2 years from commercial operation date of any one of the proposed projects at Sindri, Gorakhpur and Barauni or date of allotment of shares for first time, whichever is later. (b) As per Sponsors Support undertaking , NTPC shall jointly and severally with the other sponsors provide additional funds to meet all cost overrun incurred/to be incurred in relation to the Project. Further, NTPC shall jointly with the other sponsors, retain 51% of total equity share capital of the JV and management control until the final settle-ment date of the loan facility (door to door tenure of 15 years). (Also refer Note 7(h))	**2,642.99**	2,295.95
Jhabua Power Limited	3 years from the date of transfer (05.09.2022)	325.00	325.00
Total		**4,437.87**	3,910.43

d) In respect of other investments, the Company has restrictions for their disposal as at 31 March 2024 as under:

₹ Crore

Name of the Joint Venture Company	Period of restrictions for disposal of investments as per related agreements	Amount invested as at	
		31 March 2024	31 March 2023
International Coal Ventures Private Ltd.	5 years from the date of incorporation (i.e. 20.05. 2009) or till such time an undertaking for non-disposal of such share is given to FI/Banks for their assistance to the Company whichever is later. Also refer Note 8 (c).	**1.40**	1.40
Total		**1.40**	1.40

e) The Company has commitments of **₹ 2,957.47 crore** (31 March 2023: ₹ 2,931.63 crore) towards further investment in the subsidiary companies as at 31 March 2024.

f) The Company has commitments of **₹ 1,503.71 crore** (31 March 2023: ₹ 1,143.96 crore) towards further investment in the joint venture entities as at 31 March 2024.

g) The Company has commitments of bank guarantee of 0.50% of total contract price to be undertaken by NTPC-BHEL Power Projects Private Ltd. (a joint venture company) to a cumulative amount of **₹ 75.00 crore** (31 March 2023: ₹ 75.00 crore).

h) The Company has provided corporate guarantee for an amount of **₹ 237.60 crore** (31 March 2023: ₹ 237.60 crore) for Patratu Vidyut Utpadan Nigam Ltd. (PVUNL) (a subsidiary company) in favor of Axis Bank for sanction of bank guarantee issued to Ministry of Coal for performance security against the milestones of Banhardih coal mine development of PVUNL.

i) The Company has agreed to provide borrowing support to NTPC Renewable Energy Limited (subsidiary of NTPC Green Energy Limited which is a wholly owned subsidiary of the Company) upto **₹ 6,000.00 crore** (31 March 2023: ₹ 6,000.00 crore) in the form of long term / short term loan, bank guarantee, corporate guarantee / comfort letter to banks, etc., in case it is required by NTPC Renewable Energy Limited.

j) The Company has agreed to provide sponsor undertaking to lenders for additional term loan upto **₹ 1,908.38 crore** (31 March 2023: ₹ 1,908.38 crore) for implementation of various projects of Hindustan Urvarak and Rasayan Limited, a Joint Venture Company.

k) The Company has provided corporate guarantee to the extent of JPY 15 Billion equivalent to **₹ 836.40 crore** (31 March 2023 : ₹ Nil) for NTPC Renewable Energy Limited (subsidiary of NTPC Green Energy Limited which is a wholly owned subsidiary of the Company) in favour of JBIC (Japan Bank for International Co-operation) for the loan extended with a door to door maturity of 15 years.

l) Outstanding bank guarantees amounting to **₹ 132.80 crore** (31 March 2023: ₹ 570.10 crore) have been issued by banks on behalf of the Company in favour of various State and Central authorities (beneficiaries) mainly towards performance guarantee for completion of various RE projects. These RE projects were transferred to NGEL, a wholly owned subsidiary of the Company, as at 28 February 2023 pursuant to a BTA entered in the previous year. These bank guarantees are being serviced by the Company till the expiry of respective bank guarantees.

m) Company's commitment towards the minimum work programme in respect of oil exploration activities of joint operations has been disclosed in Note 65.



76. Additional Regulatory Information

i) Title deeds of Immovable Properties not held in name of the Company as at 31 March 2024

Item category Balance sheet	Description of Item of Property	Gross Carrying Value (₹ crore)	Title Deeds Held in the name of	Whether title deed holder is a promoter, director or relative# of promoter*/director or employee of promoter/ director	Property held since which date	Reason for not being held in the name of the company
Property, plant and equipment	Land - Freehold	14.94	Large number of land oustees and State authorities	No	2023-24	
		1,192.57			2022-23	
		7.63			2021-22	
		16.14			2020-21	
		18.31			2019-20	
		126.24			2016-17 to 2018-19	
		647.77			2011-12 to 2015-16	
		154.18			Prior to 2011-12	
	Land - Right of Use	186.31			2022-23	
		20.83			2020-21	
		20.83			2019-20	
		168.98			2016-17 to 2018-19	
		173.05			2011-12 to 2015-16	
		244.19			Prior to 2011-12	
	Building	4.97			Prior to 2011-12	

Title deeds of Immovable Properties not held in name of the Company as at 31 March 2023

Item category Balance sheet	Description of Item of Property	Gross Carrying Value (₹ crore)	Title Deeds Held in the name of	Whether title deed holder is a promoter, director or relative# of promoter*/director or employee of promoter/ director	Property held since which date	Reason for not being held in the name of the company
Property, plant and equipment	Land - Freehold	1,196.04	Large number of land oustees and State authorities	No	2022-23	The Company is taking appropriate steps for completion of legal formalities.
		7.63			2021-22	
		21.69			2020-21	
		23.43			2019-20	
		123.76			2016-17 to 2018-19	
		674.61			2011-12 to 2015-16	
		171.34			Prior to 2011-12	
	Land - Right of Use	121.04			2022-23	
		0.46			2020-21	
		20.83			2019-20	
		168.98			2016-17 to 2018-19	
		173.63			2011-12 to 2015-16	
		244.09			Prior to 2011-12	
	Building	4.97			Prior to 2011-12	

ii) The company has investment property and fair valuation of investment property has been carried out. Refer Note 4.

iii) During the year the company has not revalued any of its Property, plant and equipment.

iv) During the year, the company has not revalued any of its Intangible assets.

v) The company has not granted any loans or advances to promoters, directors, KMP's and the related parties that are repayable on demand or without specifying any terms or period of repayment.

vi) (a) Capital-Work-in Progress (CWIP) - Ageing Schedule as at 31 March 2024

₹ Crore

Capital-Work-in Progress (CWIP)	Amount in CWIP for a period of				Total
	Less than 1 year	1-2 years	2-3 years	More than 3 years	
Projects in progress	**12,446.77**	**10,166.63**	**8,773.46**	**15,648.63**	**47,035.49**
Projects temporarily suspended*	**-**	**24.09**	**-**	**94.23**	**118.32**

* Fully provided for.

Capital-Work-in Progress (CWIP) - Ageing Schedule as at 31 March 2023

₹ Crore

Capital-Work-in Progress (CWIP)	Amount in CWIP for a period of				Total
	Less than 1 year	1-2 years	2-3 years	More than 3 years	
Projects in progress	13,048.38	11,627.24	8,666.03	28,283.91	61,625.56
Projects temporarily suspended	24.09	-	-	94.23	118.32

vi) (b) Capital-Work-in Progress (CWIP) - Completion schedule for projects overdue or cost overruns as compared to original plan as on 31 March 2024

₹ Crore

Name of the project	To be completed in				Total
	Less than 1 year	1-2 years	2-3 years	More than 3 years	
	Upto 31 March 2025	1 April 2025 to 31 March 2026	1 April 2026 to 31 March 2027	Beyond 1 April 2027	
North Karanpura TPP (1X660 MW)	**3,730.97**	**-**	**-**	**-**	**3,730.97**
Barh-I TPP (1X660 MW)	**5,557.38**	**-**	**-**	**-**	**5,557.38**
Tapovan HEP (4X130 MW)	**-**	**6,265.86**	**-**	**-**	**6,265.86**
Rammam Hydro Electric (3X40 MW)	**-**	**-**	**-**	**905.43**	**905.43**
Chatti Bariatu Coal Mining Project	**574.76**	**-**	**-**	**-**	**574.76**
Kerandari Coal Mining Project	**-**	**1,150.54**	**-**	**-**	**1,150.54**
Badam Coal Mining Project	**-**	**-**	**47.92**	**-**	**47.92**
Anta Solar (90 MW)	**399.60**	**-**	**-**	**-**	**399.60**
Rihand Solar (20 MW)	**34.35**	**-**	**-**	**-**	**34.35**
Solapur Solar (13 MW)	**30.94**	**-**	**-**	**-**	**30.94**
Nokh Solar (735 MW)	**918.22**	**-**	**-**	**-**	**918.22**



Capital-Work-in Progress (CWIP) - Completion schedule for projects overdue or cost overruns as compared to original plan as on 31 March 2023

₹ Crore

Name of the project	To be completed in				Total
	Less than 1 year	1-2 years	2-3 years	More than 3 years	
	Upto 31 March 2024	1 April 2024 to 31 March 2025	1 April 2025 to 31 March 2026	Beyond 1 April 2026	
North Karanpura TPP	-	7,460.83	-	-	7,460.83
Barh-I TPP	-	11,862.70	-	-	11,862.70
Tapovan HEP	-	5,817.62	-	-	5,817.62
Rammam Hydro Electric	-	-	-	785.14	785.14
Telangana-I TPP	11,262.65	-	-	-	11,262.65
Talaipalli Coal Mining Project	939.61	-	-	-	939.61
Chatti Bariatu Coal Mining Project	-	463.31	-	-	463.31
Kerandari Coal Mining Project	-	-	831.16	-	831.16
Badam Coal Mining Project	-	-	-	41.58	41.58

vii) (a) Intangible assets under development - Ageing Schedule as at 31 March 2024

₹ Crore

Intangible assets under development	Amount in CWIP for a period of				Total
	Less than 1 year	1-2 years	2-3 years	More than 3 years	
Projects in progress	**0.21**	**1.81**	**1.17**	**-**	**3.19**
Projects temporarily suspended	-	-	-	-	-

Intangible assets under development - Ageing Schedule as at 31 March 2023

₹ Crore

Intangible assets under development	Amount in CWIP for a period of				Total
	Less than 1 year	1-2 years	2-3 years	More than 3 years	
Projects in progress	5.85	3.65	5.14	30.28	44.92
Projects temporarily suspended	-	-	-	-	-

vii) (b) Intangible assets under development - Completion schedule for projects overdue or cost overruns as compared to original plan as on 31 March 2024 is **₹ Nil** (31 March 2023: ₹ Nil)

viii) No proceedings have been initiated or pending against the company under the Benami Transactions (Prohibition) Act,1988.

ix) The quarterly returns / statement of current assets filed by the company with banks / financial institutions are in agreement with the books of accounts.

x) The company has not been declared as a wilful defaulter by any bank or financial institution or any other lender.

xi) Relationship with Struck off Companies

(a) Payables / receivables

Name of struck off Company	Nature of transactions with struck-off Company	Balance outstanding as at 31 March 2024 (₹ crore)	Balance outstanding as at 31 March 2023 (₹ crore)	Relationship with the struck off company	CIN
Aradhya Construction Private Limited	Receivables	#	#	Contractor	U45200BR2013PTC020295
Shiv Singh Amar Singh And Company Private Limited	Receivables	-	1.38	Contractor	U70200DL1985PTC022577
Ganga Mechanical works Pvt Ltd	Receivables	0.05	0.05	Contractor	U45201DL2003PTC119275
Hello Marketing Pvt. Ltd	Receivables	#	#	Contractor	U67190DL1993PTC053859
S S Builders (India) Pvt Ltd	Receivables	#	#	Contractor	U45201DL1981PTC011552
Shiva Shakti Services Pvt. Ltd.	Receivables	#	#	Contractor	U74992DL1995PTC072519
Brindavan Projects Ltd	Payables	0.01	0.01	Contractor	U45200TG1994PLC018506
Eco E-Waste Recyclers India Private Limited	Payables	#	#	Contractor	U37200KA2010PTC052547
Go Green Buildtech Pvt. Ltd.	Payables	#	#	Contractor	U45400DL2014PTC264520
Innutech Web Solutions Pvt Ltd	Payables	#	#	Contractor	U72200DL2010PTC200692
Leonard Exports Private Limited	Payables	0.10	0.10	Contractor	U74900WB2009PTC133430
Neway Engineers Msw Pvt. Ltd.	Payables	0.18	0.18	Contractor	U74900TN2015PTC100484
Prava Trading Corporation (India) Private Limited	Payables	0.05	0.05	Contractor	U51909WB2013PTC197297
U K Construction Pvt Ltd	Payables	-	#	Contractor	U00501BR1986PTC002490
Hanothia Industries Ltd.	Payables	#	#	Contractor	U27109TG2005PTC046327
Hn18 Health Services Pvt Ltd	Payables	#	#	Contractor	U74900KA2015PTC080531
M M Raj Travels Private Limited	Payables	#	#	Contractor	U34101UP1996PTC020425
Pumos Lighting Pvt Ltd	Payables	-	#	Contractor	U31503DL2012PTC240358
Timetech Enterprises Pvt Ltd	Payables	0.01	0.01	Contractor	U51109DL1989PTC038628
Uniteam Pvt Ltd	Payables	-	#	Contractor	U29253WB2011PTC169264
A.S. Builders Private Limited.	Payables	0.01	0.01	Contractor	U45201DL1995PTC071401
Asian Marketing Co Ltd	Payables	#	#	Contractor	U51909WB1951PLC019996
Burn Standard Co. Ltd.	Payables	0.03	0.03	Contractor	U51909WB1976GOI030797
Chandel Construction Private Limited	Payables	0.06	0.10	Contractor	U45202BR2019PTC043334
Hemantbirla Construction(I)Pvt Ltd	Payables	#	#	Contractor	U45309MP2021PTC054984
Rohtas Security & Intelligence Services Pvt. Ltd.	Payables	#	#	Contractor	U74920BR2008PTC013425
Sankat Mochan Construction Pvt Ltd	Payables	0.01	0.01	Contractor	U45200BR2003PTC010344
Titan Televentures Pvt. Ltd.	Payables	#	#	Contractor	U51909UP2004PTC029354
Binary Solutions Pvt.Ltd.	Payables	#	#	Contractor	U72200TG1999PTC032912
Devidayal & Mahindra Cables Private Limited	Payables	-	-	Contractor	U31300DL1989PTC035357
Express Lifts Ltd	Payables	0.05	0.05	Contractor	U74999GJ1997PTC033243
G G Tronics India Pvt Ltd	Payables	#	#	Contractor	U14200KA2010PTC052244
Gill Buildcon Pvt.Ltd.	Payables	1.20	-	Contractor	U45400DL2007PTC162054
Great Eastern Trading Co.	Payables	#	#	Contractor	U51109WB1950PLC018863

Name of struck off Company	Nature of transactions with struck-off Company	Balance outstanding as at 31 March 2024 (₹ crore)	Balance outstanding as at 31 March 2023 (₹ crore)	Relationship with the struck off company	CIN
R V Briggs & Company Pvt Ltd	Payables	-	-	Contractor	U13209WB1993PTC057855
S V Network Technologies India Pvt	Payables	0.10	0.10	Contractor	U72200TG2006PTC051972
Sagar Hospitals Private Limited	Payables	-	-	Contractor	U85110TG1988PTC008174
Vagjra Hotline Power Service Pvt Ltd	Payables	-	-	Contractor	U40108AP2009PTC064430
Yugesh and Chandan Construction Private limited	Payables	0.02	0.02	Contractor	U45200BR2015PTC023996
Gemindiajobsolutions Private Ltd.	Payables	#	-	Contractor	U72900UP2020PTC138736

Individual Amount recoverable/payable is less than ₹ 50,000/- and sum of all recoverable cases amounts to **₹ 44,458.40/-** (31 March 2023- ₹ 46,403.90) and sum of all payable cases amounts to **₹ 3,69,988.71/-** (31 March 2023 - ₹ 4,02,619.57/-)

b) Shares held by struck off companies

Name of struck off Company	Nature of transactions with struck-off Company	Nature of equity shares held 31.03.2024	Nature of equity shares held 31.03.2023	Remarks	CIN
Stalag Investments & Management Services Pvt Ltd	Shares held by struck off company	60	60	Equity share holders	U67120MH1987PTC042898
Tradeshare Financial Services		120	120	Equity share holders	U67120KL2008PTC023516
Dige And Associates Investment Management Services Pvt Ltd		34	34	Equity share holders	U00893PN2006PTC022295
Canny Securities Pvt Ltd		1	1	Equity share holders	U67120KA1995PTC018357
Satvik Financial Services Ltd.		24	24	Equity share holders	U67100MH2009PLC196964
Vaishak Shares Limited		1	1	Equity share holders	U85110KA1994PLC015178
Kothari Intergroup Ltd.		13	13	Equity share holders	U51909KA1984PLC005952
Dreams Broking Private Limited		6	6	Equity share holders	U67190MH2012PTC226215
Ganapati Infin Pvt Ltd		8	48	Equity share holders	U70109PB2011PTC034996
Shree Anekant Marketing Pvt Ltd		10	10	Equity share holders	U51900WB1995PTC106659
Data Nova India Private Limited		1,000	1,000	Equity share holders	U72200PN1996PTC098577
Ritrishi Finvest Private Limited		256	256	Equity share holders	U99999MH1995PTC095593

c) Debentures held by struck off companies

Name of struck off Company	Nature of transactions with struck-off Company	Nature of Debentures held 31.03.2024	Nature of Debentures held 31.03.2023	Remarks	CIN
Stalag Investments & Management Services Pvt Ltd	Debentures held by struck off company	50	50	Debenture holders	U67120MH1987PTC042898
Tradeshare Financial Services Pvt Ltd		100	100	Debenture holders	U67120KL2008PTC023516
Dige And Associates Investment Consultants Pvt Ltd		29	29	Debenture holders	U00893PN2006PTC022295
Canny Securities Pvt Ltd		1	1	Debenture holders	U67120KA1995PTC018357
Satvik Financial Services Ltd.		20	20	Debenture holders	U67100MH2009PLC196964
Vaishak Shares Limited		1	1	Debenture holders	U85110KA1994PLC015178
Kothari Intergroup Ltd.		11	11	Debenture holders	U51909KA1984PLC005952
Ganapati Infin Pvt Ltd		40	40	Debenture holders	U70109PB2011PTC034996
Ritrishi Finvest Private Limited		214	214	Debenture holders	U99999MH1995PTC095593
4A Strategies Private Ltd		3,000	3,000	Debenture holders	U17231KA1997PTC023027
Bhomiya Vyapaar Pvt. Ltd		2,000	2,000	Debenture holders	U51109WB1994PTC062535
Clairsol Systems Private Limited		320	320	Debenture holders	U72200DL2001PTC110910
Diwansons Holding and Consultancy Pvt Ltd		956	956	Debenture holders	U65990MH1984PTC032744
Dreams Comtrade Private Limited		1,686	1,686	Debenture holders	U67190MH2012PTC226217
Jewel Strips Pvt Ltd		823	823	Debenture holders	U27200MH1993PTC073648
Kuber World Private Limited		1	1	Debenture holders	U74899DL1973PTC006817
Rokad Investments Private Limited.		30	30	Debenture holders	U65900MH1997PTC108580
Telelink Securities & FinanceLtd		544	544	Debenture holders	U67120MH1997PLC109896
V. M. Fiscal Services Pvt. Ltd.		50	50	Debenture holders	U65993TN1991PTC021278
Vivid Finance and Holdings Pvt Ltd		1,428	1,428	Debenture holders	U65990MH1988PTC045875
VMS Consultants Pvt. Ltd.		125	125	Debenture holders	U51909WB1992PTC055925

xii) The company has no cases of any charges or satisfaction yet to be registered with ROC beyond the statutory time limits.

xiii) The provisions of clause (87) of section 2 of the Act read with the Companies (Restriction on number of Layers) Rules, 2017 are not applicable to the company as per Section 2(45) of the Companies Act, 2013.

xiv) Disclosure of Ratios

Ratio	Numerator	Denominator	FY 2023-24	FY 2022-23	% Variance	Reason for Variance more than 25%
Current ratio	Current Assets	Current Liabilities	0.92	0.91	1.26%	
Debt-equity ratio	Paid-up debt capital (Non current borrowings+Current borrowings)	Shareholder's Equity (Total Equity)	1.24	1.34	-7.87%	
Debt service coverage ratio	Profit for the year+ Finance costs+ Depreciation and amortiation expenses +Exceptional items	Finance Costs + lease payments+ Scheduled principal repayments of non current borrowings	1.56	1.29	20.76%	
Return on equity ratio (%)	Profit for the year	Average Shareholder's Equity	12.52%	12.85%	-2.59%	
Inventory turnover ratio	Revenue from operations	Average Inventory	10.43	14.01	-25.55%	Mainly due to increase in average inventory as a result of increased closing inventory as at 31 March 2024

Ratio	Numerator	Denominator	FY 2023-24	FY 2022-23	% Variance	Reason for Variance more than 25%
Trade receivables turnover ratio	Revenue from operations	Average trade receivables	5.69	5.34	6.61%	
Trade payables turnover ratio	Total Purchases (Fuel Cost + Other Expenses+Closing Inventory-Opening Inventory)	Closing Trade Payables	11.92	12.01	-0.78%	
Net capital turnover ratio	Revenue from operations	Working Capital+ current maturities of non current borrowings	9.87	15.07	-34.49%	Mainly due to increase in current maturity of non current borrowings as compared to the previous year
Net profit ratio (%)	Profit for the year	Revenue from operations	11.16%	10.50%	6.29%	
Return on capital employed (%)	Earning before interest and taxes	Capital Employed(i)	9.07%	9.39%	-3.40%	
Return on investment(ii)- Investments in Quoted Equity (%)	{MV(T1) – MV(T0) – Sum [C(t_1)]}	{MV(T0) + Sum [W(t) * C(t_2)]}	127.33%	10.70%	1090.11%	Due to difference in opening and closing market price of the listed investments in the comparitive periods.
Return on investment(ii)- Investments in Subsidiaries (%)	{MV(T1) – MV(T0) – Sum [C(t_1)]}	{MV(T0) + Sum [W(t) * C(t_2)]}	15.67%	10.95%	43.11%	Due to variation in net worth of the subsidiaries in the comparative periods
Return on investment(ii)- debentures in joint venture (%)	{MV(T1) – MV(T0) – Sum [C(t_1)]}	{MV(T0) + Sum [W(t) * C(t_2)]}	8.50%	8.50%	0.00%	

(i) Capital Employed= Tangible Net Worth + Total Debt + Deferred Tax Liabilities

(ii) Return on Investment where

T1 = End of time period

T0 = Beginning of time period

t = Specific date falling between T1 and T0

MV(T1) = Market Value at T1

MV(T0) = Market Value at T0

$C(t_1)$ = Cash inflow, cash outflow on specific date including dividend received

$C(t_2)$ = Cash inflow, cash outflow on specific date excluding dividend received

W(t) = Weight of the net cash flow (i.e. either net inflow or net outflow) on day 't', calculated as [T1 – t] / T1

xv) There is no scheme of Amalgamation approved by the competent authority during the year in terms of sections 230 to 237 of the Companies Act,2013.

xvi) The Company has not advanced or loaned or invested any fund to any entity (Intermediaries) with the understanding that the Intermediary shall lend or invest in party identified by or on behalf of the Company (Ultimate Beneficiaries). The Company has not received any fund from any party with the understanding that the Company shall whether, directly or indirectly lend or invest in other entities identified by or on behalf of the Company ("Ultimate Beneficiaries") or provide any guarantee, security or the like on behalf of the Ultimate Beneficiaries.

xvii) The Company has not traded or invested in Crypto currency or Virtual Currency during the financial year.

xviii) The Company does not have any transaction which is not recorded in the books of accounts that has been surrendered or disclosed as income during the year in the tax assessments under the Income Tax Act, 1961.

77. Corporate Social Responsibility Expenses (CSR)

As per Section 135 of the Companies Act, 2013 read with guidelines issued by Department of Public Enterprises, GOI, the Company is required to spend, in every financial year, at least two per cent of the average net profits of the Company made during the three immediately preceding financial years in accordance with its CSR Policy. The details of CSR expenses for the year are as under:

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
A. Amount required to be spent during the year		
(i) Gross amount (2% of average net profit as per Section 135 of Companies Act, 2013)	**337.98**	310.00
(ii) Surplus arising out of CSR projects	**-**	-
(iii) Set off available from previous year	**225.19**	219.87
(iv) Total CSR obligation for the year [(i)+(ii) -(iii)]	**112.79**	90.13
B. Amount approved by the Board to be spent during the year	**200.57**	315.32
C. Amount spent during the year on:		
a) Construction/acquisition of any asset	**-**	-
b) On purposes other than (a) above	**200.57**	315.32
Total	**200.57**	315.32
D. Set off available for succeeding years	**87.78**	225.19
E. Amount unspent during the year	**-**	-

Note:- The set off available in the succeeding years is not recognised as an asset as a matter of prudence, considering the uncertainty involved in the adjustment of the same in future years.

i) Amount spent during the year ended 31 March 2024:

Particulars	In cash	Yet to be paid in cash	Total
a) Construction/acquisition of any asset	**-**	**-**	**-**
b) On purposes other than (a) above	**187.03**	**13.54**	**200.57**

Amount spent during the year ended 31 March 2023:

Particulars	In cash	Yet to be paid in cash	Total
a) Construction/acquisition of any asset	-	-	-
b) On purposes other than (a) above	301.73	13.59	315.32

ii) Details of contribution to a trust controlled by the company in relation to CSR expenditure:

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
Contribution given to NTPC Foundation	**7.17**	9.45

iii) Break-up of the CSR expenses under major heads is as under:

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
1. Eradicating Hunger and Poverty, Health Care and Sanitation	**63.61**	115.61
2. Education and Skill Development	**45.05**	26.74
3. Empowerment of Women and other Economically Backward Sections	**2.33**	5.49
4. Environmental Sustainability	**59.86**	38.14
5. Art & Culture	**2.03**	1.90
6. Sports	**10.47**	12.40
7. Rural Development	**17.22**	19.84
8. Disaster management, including relief, rehabilitation and reconstruction activities	**-**	15.20
9. Contribution to PM CARES Fund	**-**	80.00
Total	**200.57**	315.32

For and on behalf of the Board of Directors

(Ritu Arora)	(Jaikumar Srinivasan)	(Gurdeep Singh)
Company Secretary	Director (Finance)	Chairman & Managing Director
	DIN: 01220828	DIN: 00307037

These are the notes referred to in our report of even date

For Vinod Kumar & Associates	For Goyal Parul & Co	For M. C. Bhandari & Co.
Chartered Accountants	Chartered Accountants	Chartered Accountants
Firm Reg. No. 002304N	Firm Reg. No. 016750N	Firm Reg. No. 303002E
(Mukesh Dadhich)	(Parul Goyal)	(Amit Biswas)
Partner	Partner	Partner
M. No. 511741	M. No. 099172	M. No. 052296
For J K S S & Associates	For Agasti & Associates	For S.N. Kapur & Associates
Chartered Accountants	Chartered Accountants	Chartered Accountants
Firm Reg. No. 006836C	Firm Reg. No. 313043E	Firm Reg. No. 001545C
(Ram Babu)	(B. Agasti)	(S. N. Kapur)
Partner	Partner	Partner
M. No. 016151	M. No. 051026	M. No. 014335

Place: New Delhi
Dated: 24 May, 2024
Digitally signed by signatories

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INDEPENDENT AUDITORS' REPORT

To

The Members of NTPC Limited

Report on the Audit of the Standalone Financial Statements

Opinion

We have audited the Standalone Financial Statements of NTPC Limited ("The Company"), which comprise the Balance Sheet as at 31 March 2024, the Statement of Profit and Loss (including Other Comprehensive Income), the Statement of Changes in Equity and the Statement of Cash Flows for the year then ended and notes to the standalone financial statements, including a summary of the material accounting policies and other explanatory information for the year ended on that date (hereinafter referred to as "Standalone Financial Statements").

In our opinion and to the best of our information and according to the explanations given to us, the aforesaid Standalone Financial Statements give the information required by the Companies Act, 2013 ("the Act") in the manner so required and give a true and fair view in conformity with the Indian Accounting Standards prescribed under section 133 of the Act read with the Companies (Indian Accounting Standards) Rules, 2015, as amended, ("Ind AS") and other accounting principles generally accepted in India, of the state of affairs (financial position) of the Company as at 31 March, 2024, and its profit (financial performance including other comprehensive income), changes in equity and its cash flows for the year ended on that date.

Basis for Opinion

We conducted our audit in accordance with the Standards on Auditing (SAs) specified under section 143(10) of the Act. Our responsibilities under those Standards are further described in the Auditors' Responsibilities for the Audit of the Standalone Financial Statements section of our report. We are independent of the Company in accordance with the Code of Ethics issued by the Institute of Chartered Accountants of India together with the ethical requirements that are relevant to our audit of the Standalone Financial Statements under the provisions of the Act and the Rules made thereunder, and we have fulfilled our other ethical responsibilities in accordance with these requirements and the Code of Ethics. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Emphasis of Matter

We draw attention to the following matters in the notes to the Standalone Financial Statements:

(a) Note No 50 with respect to a Hydro Electric Project in the State of Uttarakhand which is under execution by the company. After the reports of land subsidence in Joshimath Town, Additional District Magistrate, Chamoli has issued order on 5 January 2023 to stop all the construction activities till further orders. Aggregate cost incurred on the project up to 31 March 2024 is ₹ 6,671.30 crore (31 March 2023: ₹ 6,252.31 crore). The matter is sub-judice in Hon'ble High Court of Uttarakhand.

(b) The Company has been assigning jobs on contract basis, for sundry works in plants/stations/offices to M/s Utility Powertech Ltd. (UPL), a joint venture of the Company, in which the company has 50% shareholding. The rates were fixed on cost plus basis, which were however, not considered by management, as on arm's length basis. The transactions reported for the year are in respect of assignments awarded till the financial year 2022-23 having execution period beyond 31 March 2023. The company has presented for the approval of Audit Committee, transactions undertaken during the current financial year 2023-24 of a value of ₹ 482.45 Crore, in pursuance to assignment awarded upto financial year 2022-23. The audit committee did not review or approve such transactions, but the same were subsequently approved by Board of Directors in the meeting held on 24 May, 2024. (Refer Note No 59 (f) (i))

(c) Note No. 63 (iii) (b) with respect to appeal filed by the company with the Hon'ble High Court of Delhi in the matter of Arbitral award pronounced against the company and the related provision made/disclosure of contingent liability as mentioned in the said note.

(d) Note No 65 (B) (v) with respect to execution of Business Transfer Agreement (BTA) dated 17 August 2023 with NTPC Mining Limited, a wholly owned subsidiary of the company, for hiving off its coal mining business at book value. The BTA has only been approved by the Board of Directors of the company and subsidiary company, which shall become effective on completion of the precedent conditions as mentioned in the said BTA, subject to necessary regulatory approvals.

Our opinion is not modified in respect of the aforesaid matters.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the Standalone Financial Statements of the current period. These matters were addressed in the context of our audit of the Standalone Financial Statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. For each matter below, description of how our audit addressed the matter is provided in that context. We have determined the matters described below to be the key audit matters to be communicated in our report.

Sl. No.	Key Audit Matters	How our audit addressed the Key Audit Matters
1.	**Recognition and Measurement of revenue from Sale of Energy** The company records revenue from sale of energy as per the principles enunciated under Ind AS 115, based on tariff approved by the Central Electricity Regulatory Commission (CERC) as modified by the orders of Appellate Authorities. Pending issue of provisional/final tariff order w.e.f. 01 April 2019 capacity charges has been provisionally recognised considering the applicable CERC Tariff Regulations 2019. This is considered as key audit matter due to the nature and extent of estimates made as per the CERC Tariff Regulations, which leads to recognition and measurement of revenue from sale of energy being complex and judgemental. (Refer Note No. 40 to the Standalone Financial Statements, read with the Material Accounting Policy No.C.13)	We have obtained an understanding of the CERC Tariff Regulations, orders, circulars, guidelines and the Company's internal circulars and procedures in respect of recognition and measurement of revenue from sale of energy comprising of capacity and energy charges and adopted the following audit procedures: - Evaluated and tested the effectiveness of the Company's design of internal controls relating to recognition and measurement of revenue from sale of energy. - Examined the Company's material accounting policies with respect to assessing compliance with Ind AS 115 "Revenue from Contract with Customers". - Verified the accounting of revenue from sale of energy based on provisional tariff computed as per the principles of CERC Tariff Regulations 2019. - Assessed the disclosures in accordance with the requirements of Ind AS 115 "Revenue from Contract with Customers". Based on the above procedures performed, the recognition, measurement and disclosures of revenue from sale of energy are considered to be adequate and reasonable.
2.	**Impairment assessment of Property, Plant and Equipment (PPE)** The Company has a material operational asset base (PPE) relating to generation of electricity and is one of the components for determining the tariff as per the CERC Tariff Regulations, which may be vulnerable to impairment. We considered this as a key audit matter as the carrying value of PPE requires impairment assessment based on the future expected cash flows associated with the power plants (Cash generating units). (Refer Note No. 62(a) to the Standalone Financial Statements, read with the Material Accounting Policy No. C.1)	We have obtained an understanding and tested the design and operating effectiveness of controls as established by the Company's management for impairment assessment of PPE. We evaluated the Company's process of impairment assessment in assessing the appropriateness of the impairment model including the independent assessment of discount rate, economic growth rate, terminal value etc. We evaluated and checked the calculations of the cash flow forecasts prepared by the Company taking into consideration the CERC (Terms and Conditions of Tariff) Regulations, 2024 (applicable for the tariff period of 5 years from 1 April 2024 to 31 March 2029) along with the aforementioned assumptions. Based on the above procedures performed, we observed that the Company's impairment assessment of the PPE is adequate and reasonable.
3.	**Deferred Tax Asset relating to MAT Credit Entitlement and corresponding Regulatory Deferral Liability** The company has recognised deferred tax asset relating to MAT credit entitlement. Utilisation of MAT credit will result in lower outflow of Income Tax in future years and accordingly Regulatory Deferral Liability attributable to the said MAT credit entitlement has also been recognised which is payable to the beneficiaries in subsequent periods as per CERC Tariff Regulations. The recoverability of this deferred tax asset relating to MAT credit entitlement is dependent upon the generation of sufficient future taxable profits to utilise such entitlement within the stipulated period prescribed under the Income Tax Act,1961. We identified this as a key audit matter because of the importance of this matter to the intended users of the Standalone Financial Statements and its materiality; and requirement of judgement in forecasting future taxable profits for recognition of MAT credit entitlement considering the recoverability of such tax credits within allowed time frame as per the provisions of the Income Tax Act,1961. (Refer Note No. 22, 29, 55 & 70 to the Standalone Financial Statements, read with the Material Accounting Policy No. C.4 and C.15)	We have obtained an understanding for recognition of deferred tax asset relating to MAT credit entitlement and corresponding liability of the same in Regulatory Deferral Account including the management's judgement. We further assessed the related forecasts of future taxable profits and evaluated the reasonableness of the considerations /assumptions underlying the preparation of these forecasts. We have also verified the regulatory deferral account balance attributable to the said MAT credit, payable to the beneficiaries in subsequent periods. Based on the above procedures performed, the recognition and measurement of Deferred tax asset relating to MAT credit entitlement and attributable Regulatory Deferral Liability towards beneficiaries, are considered adequate and reasonable.
4.	**Contingent Liabilities** There are a number of litigations pending before various forums against the Company and the management's judgement is required for estimating the amount to be disclosed as contingent liability. We identified this as a key audit matter because the estimates on which these amounts are based involve a significant degree of management judgement in interpreting the cases and it may be subject to management bias. (Refer Note No. 75(A) to the Standalone Financial Statements, read with the Material Accounting Policy No. C.11)	We have obtained an understanding of the Company's internal instructions and procedures in respect of estimation and disclosure of contingent liabilities and adopted the following audit procedures: - understood and tested the design and operating effectiveness of controls as established by the management for obtaining all relevant information for pending litigation cases; - discussed with the management regarding any material developments thereto and latest status of legal matters; - read various correspondences and related documents pertaining to litigation cases and relevant external legal opinions obtained by the management and performed substantive procedures on calculations supporting the disclosure of contingent liabilities;



Sl. No.	Key Audit Matters	How our audit addressed the Key Audit Matters
		- examined management's judgements and assessments in respect of whether provisions are required; - considered the management assessments of those matters that are not disclosed as contingent liability since the probability of material outflow is considered to be remote; - reviewed the adequacy and completeness of disclosures; Based on the above procedures performed, the estimation and disclosures of contingent liabilities are considered to be adequate and reasonable.

Information other than the Standalone Financial Statements and Auditors' Report thereon

The Company's Board of Directors is responsible for the preparation of the other information. The other information comprises the Corporate Governance Report, and the information included in the Directors' Report including Annexures, Management Discussion and Analysis, Business Responsibility and Sustainability Report and other company related information (but does not include the Consolidated Financial Statements and Standalone Financial Statements and our auditors' report thereon), which are expected to be made available to us after the date of this auditors' report.

Our opinion on the Standalone Financial Statements does not cover the other information and we do not and will not express any form of assurance conclusion thereon.

In connection with our audit of the Standalone Financial Statements, our responsibility is to read the other information identified above when it becomes available and, in doing so, consider whether the other information is materially inconsistent with the Standalone Financial Statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated.

When we read other information, if we conclude that there is a material misstatement therein, we are required to communicate the matter to those charged with governance and take appropriate actions, if required.

Responsibilities of management and those charged with governance for the Standalone Financial Statements

The Company's Board of Directors is responsible for the matters stated in Section 134(5) of the Act with respect to the preparation and presentation of these Standalone Financial Statements that give a true and fair view of the financial position, financial performance, total comprehensive income, changes in equity and cash flows of the Company in accordance with the accounting principles generally accepted in India, including the Indian Accounting Standards (Ind AS) prescribed under Section 133 of the Act read with the Companies (Indian Accounting Standards) Rules, 2015 as amended. This responsibility also includes maintenance of adequate accounting records in accordance with the provisions of the Act for safeguarding the assets of the Company and for preventing and detecting frauds and other irregularities; selection and application of appropriate accounting policies; making judgments and estimates that are reasonable and prudent; and design, implementation and maintenance of adequate internal financial controls, that were operating effectively for ensuring the accuracy and completeness of the accounting records, relevant to the preparation and presentation of the Standalone Financial Statements, that give a true and fair view and are free from material misstatement, whether due to fraud or error.

In preparing the Standalone Financial Statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

The Board of Directors is also responsible for overseeing the Company's financial reporting process.

Auditors' Responsibilities for the Audit of the Standalone Financial Statements

Our objectives are to obtain reasonable assurance about whether the Standalone Financial Statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with SAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these Standalone Financial Statements.

As part of an audit in accordance with SAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the Standalone Financial Statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances. Under section 143(3)(i) of the Act, we are also responsible for expressing our opinion on whether the company has adequate Internal Financial Controls system in place and the operating effectiveness of such controls.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the Standalone Financial Statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the Standalone Financial Statements, including the disclosures, and whether the Standalone Financial Statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the Standalone Financial Statements of the current period and are therefore the key audit matters. We describe these matters in our auditors' report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Other Matter

1. The audited standalone financial statements of the Company for the year ended 31 March 2023 included in these standalone financial statements, have been audited by the Predecessor Joint Statutory Auditors whose audit report dated 19 May, 2023 expressed an unmodified opinion on those audited standalone financial statements.
2. We audited the restatement adjustments, as disclosed in Note No. 54 to the Standalone Financial Statements, which have been made to the comparative Standalone Financial Statements presented for the years prior to year ended 31 March, 2024, in accordance with the requirement of applicable Ind AS.

Our opinion is not modified in respect of the aforesaid matters.



Report on Other Legal and Regulatory Requirements

1. As required by the Companies (Auditor's Report) Order, 2020 ("the Order") issued by the Central Government of India in terms of Section 143(11) of the Act, and on the basis of such checks of the books and records of the Company as we considered appropriate and according to the information and explanations given to us, we give in "**Annexure 1**" a statement on the matters specified in paragraphs 3 and 4 of the said Order, to the extent applicable.
2. We are enclosing our report in terms of Section 143(5) of the Act, on the basis of such checks of the books and records of the Company as we considered appropriate and according to the information and explanations given to us, in the "**Annexure 2**" on the directions issued by the Comptroller and Auditor General of India.
3. As required by Section 143(3) of the Act, we report that:
   (a) We have sought and obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purposes of our audit.
   (b) In our opinion, proper books of account as required by law have been kept by the Company so far as it appears from our examination of those books.
   (c) The Balance Sheet, the Statement of Profit and Loss (including Other Comprehensive Income), the Statement of Changes in Equity and the Statement of Cash Flows dealt with by this Report are in agreement with the books of account.
   (d) In our opinion, the aforesaid Standalone Financial Statements comply with the Indian Accounting Standards prescribed under Section 133 of the Act read with the Companies (Indian Accounting Standards) Rules, 2015 as amended.
   (e) Being a Government Company pursuant to the Notification No. GSR 463(E) dated 5 June 2015 issued by the Ministry of Corporate Affairs, Government of India, provisions of sub-section (2) of Section 164 of the Act, are not applicable to the Company.
   (f) With respect to the adequacy of the Internal Financial Controls with reference to the Standalone Financial Statement of the Company and the operating effectiveness of such controls, refer to our separate report in "**Annexure 3**". Our report expresses a opinion on the adequacy and operating effectiveness of the Company's internal financial controls over financial reporting.
   (g) As per Notification No. GSR 463(E) dated 5 June 2015 issued by the Ministry of Corporate Affairs, Government of India, Section 197 of the Act is not applicable to the Government Companies. Accordingly, reporting in accordance with requirement of provisions of section 197(16) of the Act is not applicable on the Company.
   (h) With respect to the other matters to be included in the Auditors' Report in accordance with Rule 11 of the Companies (Audit and Auditors) Rules, 2014, as amended, in our opinion and to the best of our information and according to the explanations given to us:
      I. The Company has disclosed the impact of pending litigations on its financial position in its Standalone Financial Statements. Refer Note No. 75(A) to the Standalone Financial Statements;
      II. The Company has made provision, as required under the applicable law or Indian accounting standards, for material foreseeable losses, if any, on long-term contracts including derivative contracts.
      III. There has been some delay in transferring unclaimed amount of dividend and equity shares related thereto, as required to be transferred, to the Investor Education and Protection Fund by the Company. No amount of unclaimed dividend or unclaimed equity shares are pending to be transferred to the said fund as on 31 March 2024.
      IV. (a) The Management has represented that, to the best of its knowledge and belief, as disclosed in the note no. 76(xvi) to the Standalone Financial Statements , no funds have been advanced or loaned or invested (either from borrowed funds or share premium or any other sources or kind of funds) by the Company to or in any other person(s) or entity(ies), including foreign entities ("Intermediaries"), with the understanding, whether recorded in writing or otherwise, that the Intermediary shall, directly or indirectly lend or invest in other persons or entities identified in any manner whatsoever by or on behalf of the Company ("Ultimate Beneficiaries") or provide any guarantee, security or the like on behalf of the Ultimate Beneficiaries.
      (b) The Management has represented, that, to the best of its knowledge and belief, as disclosed in the note no. 76(xvi) to the Standalone Financial Statements , no funds have been received by the Company from any person(s) or entity(ies), including foreign entities ("Funding Parties"), with the understanding, whether recorded in writing or otherwise, that the Company shall, directly or indirectly, lend or invest in other persons or entities identified in any manner whatsoever by or on behalf of the Funding Party ("Ultimate Beneficiaries") or provide any guarantee, security or the like on behalf of the Ultimate Beneficiaries.
      (c) Based on the audit procedures performed that have been considered reasonable and appropriate in the circumstances, nothing has come to our notice that has caused us to believe that the representations under sub-clause (i) and (ii) of Rule 11(e), as provided under (a) and (b) above, contain any material misstatement.
   V. As stated in Note 23 (c) to the Standalone Financial Statements:
      (a) The final dividend proposed for the previous year, declared and paid by the Company during the year is in accordance with Section 123 of the Act, as applicable.
      (b) Interim dividend declared and paid by the Company during the year is in accordance with Section 123 of the Act.
      (c) The Board of Directors of the Company has proposed final dividend for the year which is subject to the approval of the members at the ensuing Annual General Meeting. The amount of dividend proposed is in accordance with Section 123 of the Act to the extent it applies to declaration of dividend.
   VI. Based on our examination, which included test checks, the Company has used accounting software for maintaining its books of account for the financial year ended 31 March, 2024 which has a feature of recording audit trail (edit log) facility and the same has operated throughout the year for all relevant transactions recorded in the software. Further, during the course of our audit we did not come across any instance of the audit trail feature being tampered with.

      As proviso to Rule 3(1) of the Companies (Accounts) Rules, 2014 is applicable from 1 April, 2023, reporting under Rule 11(g) of the Companies (Audit and Auditors) Rules, 2014 on preservation of audit trail as per the statutory requirements for record retention is not applicable for the financial year ended 31 March, 2024.

For Vinod Kumar & Associates Chartered Accountants FRN-002304N (Mukesh Dadhich) Partner M. No. 511741 UDIN: 24511741BJZYRA9379	For Goyal Parul & Co Chartered Accountants FRN-016750N (Parul Goyal) Partner M. No. 099172 UDIN: 24099172BKBKAG2157	For M. C. Bhandari & Co. Chartered Accountants FRN- 303002E (Amit Biswas) Partner M. No. 052296 UDIN: 24052296BKFZHU6845
For J K S S & Associates Chartered Accountants FRN-006836C (Ram Babu) Partner M. No. 016151 UDIN: 24016151BKDEWE2047	For Agasti & Associates Chartered Accountants FRN-313043E (B. Agasti) Partner M. No. 051026 UDIN: 24051026BKGTSN4620	For S.N. Kapur & Associates Chartered Accountants FRN-001545C (S. N. Kapur) Partner M. No. 014335 UDIN: 24014335BJZZMY4719

Place: New Delhi
Dated: 24 May, 2024
Digitally signed by signatories

ANNEXURE 1 TO THE INDEPENDENT AUDITORS' REPORT

Referred to in paragraph 1 under 'Report on Other Legal and Regulatory Requirements' section of our report of even date to the members of NTPC LIMITED on the Standalone Financial Statements for the year ended 31 March 2024.

(i) (a) (A) The Company has generally maintained proper records showing full particulars including quantitative details and situation of Property, Plant and Equipment (including Right of Use assets) and non-current assets held for sale.

(B) The Company has generally maintained proper records showing full particulars of Intangible assets.

(b) The Company is having a regular programme of physical verification of all Property, Plant and Equipment (including Right of Use assets) and non-current assets held for sale over a period of three years, which, in our opinion, is reasonable having regard to the size of the Company and the nature of its assets. No material discrepancies were noticed on such verification.

(c) According to the information and explanations given to us, we report that, the title deeds of all the immovable properties which are included under the head of property, plant and equipment (other than properties where the company is the lessee and the lease agreements are duly executed in favour of the lessee) are held in the name of the Company except as follows:

Description of Property	Gross Carrying Value (₹ in crore)	Held in the name of	Whether promoter, director or their relative or employee	Property held-range (Financial Year)	Reason for not being held in the name of company
Land - Freehold	14.94	Large number of land oustees and State authorities	No	2023-24	The company is taking appropriate steps for completion of legal formalities.
	1,192.57			2022-23	
	7.63			2021-22	
	16.14			2020-21	
	18.31			2019-20	
	126.24			2016-17 to 2018-19	
	647.77			2011-12 to 2015-16	
	154.18			Prior to 2011-12	
Land - Right of Use	186.31			2022-23	
	20.83			2020-21	
	20.83			2019-20	
	168.98			2016-17 to 2018-19	
	173.05			2011-12 to 2015-16	
	244.19			Prior to 2011-12	
Building Structures	4.97	Government Authorities	No	Prior to 2011-12	

(d) The Company has not revalued its Property, Plant and Equipment (including Right of Use assets) and intangible assets during the year. Accordingly, reporting on clause 3(i)(d) of the Order is not applicable.

(e) According to the information and explanations given to us, there are no proceedings which have been initiated or are pending against the Company for holding benami property under the Benami Transactions (Prohibition) Act, 1988 (as amended in 2016) and rules made thereunder.

(ii) (a) In our opinion, the management has conducted physical verification of inventory at reasonable intervals during the year. According to the information and explanations given to us and based on the audit procedures performed by us, we are of the opinion that the coverage and procedure of such verification by the management is appropriate and no material discrepancies of 10% or more in the aggregate for each class of inventory between physical inventory and book records were noticed on physical verification.

(b) In our opinion and according to the information and explanations given to us, the Company has been sanctioned working capital limits in excess of 5 crores, in aggregate, from banks on the basis of security of current assets. The quarterly returns or statements filed by the Company with the such banks are in agreement with the books of account of the Company. During the year Company has not availed working capital limit from any financial institution.

(iii) The Company has made investments in, provided guarantee, grant unsecured loan to subsidiaries and Joint Venture companies during the year, in respect of which:

(a) According to the information and explanations given to us, the Company has not provided guarantee, security and not granted loans and advances in the nature of loans, secured and unsecured to subsidiaries, Joint Ventures and other entities during the year, except the following:

(₹ in crores)

Particular	Loans	Corporate Guarantees
Aggregate amount granted/ provided during the year: - Subsidiaries	1,064.82	836.40 (15 billion Japanese Yen)
Balance outstanding as at balance sheet date in respect of above cases: - Subsidiaries	100.00	836.40 (15 billion Japanese Yen)

(b) According to the information and explanations given to us and based on the audit procedures performed by us, we are of the opinion that the investments made, guarantees provided and the terms and conditions of loans granted by the company are, prima facie, not prejudicial to the company's interest.

(c) According to the information and explanations given to us and based on the audit procedures performed by us, we are of the opinion that in respect of loans granted, the schedule of repayment of principal and payment of interest has been stipulated and the repayments of principal and receipts of interest are regular, except in a case of, a subsidiary and a joint venture of the Company, detail of which is as given hereunder:

Name of the entity	Type of entity	Nature	Amount (₹ in crore)	Due date	Date of payment	Extent of delay (in days)	Remarks
Ratnagiri Gas and Power Private Limited	Subsidiary	Principal	100.00	31-05-2023	30-06-2023	30	Amount is fully repaid.
			50.00	31-07-2023	12-08-2023	12	
			50.00	31-07-2023	29-08-2023	29	
			50.00	31-07-2023	12-09-2023	43	
			14.32	31-07-2023	12-09-2023	43	
			50.00	05-12-2023	31-01-2024	57	
			50.00	12-01-2024	06-02-2024	25	
			50.00	16-01-2024	06-02-2024	21	
		Interest*	1.04	31-05-2023	30-06-2023	30	
			0.92	31-07-2023	12-08-2023	12	
			0.73	31-07-2023	29-08-2023	29	
			0.64	31-07-2023	12-09-2023	43	
			0.15	31-07-2023	12-09-2023	43	
			1.20	05-12-2023	31-01-2024	57	
			1.20	12-01-2024	06-02-2024	25	
			1.20	16-01-2024	06-02-2024	21	

Name of the entity	Type of entity	Nature	Amount (₹ in crore)	Due date	Date of payment	Extent of delay (in days)	Remarks
National High Power Test Laboratory Private Limited (NHPTL)	Joint Venture	Principal	0.92	30.09.2022,	The entire amount of loan of ₹ 18.40 crores (including overdue amount) has been converted into equity shares during the year.		
			0.92	31.03.2023,			
			0.92	30.09.2023			
		Interest*	5.85	30.09.2020 onwards	The entire amount of balance interest receivable of ₹ 2.31 crores (net of payment received) has been waived during the year, simultaneous to conversion of principal loan into equity.		

*Excluding penal interest and extended period interest.

(d) According to information and explanations given to us and based on the audit procedures performed by us, in respect of loans granted by the Company, there is no overdue amount remaining outstanding as at the balance sheet date. During the year, the Company has converted its existing loan of ₹ 18.40 crores granted to National High Power Test Laboratory Private Limited (a joint venture of NTPC), into equity shares. An amount of ₹ 2.31 crores in respect of interest payable by the aforesaid borrower has been waived.

(e) According to the information and explanations given to us and based on the audit procedures performed by us, we are of the opinion that no loan or advance in the nature of loan granted which has fallen due during the year, has been renewed or extended or fresh loans granted to settle the overdue of existing loans given to the same parties. During the year, the Company has converted its existing loan of ₹ 18.40 crores granted to National High Power Test Laboratory Private Limited (a joint venture of NTPC), into equity shares. An amount of ₹ 2.31 crores in respect of interest payable by the aforesaid borrower has been waived.

(f) According to the information and explanations given to us and based on the audit procedures performed by us, we are of the opinion that the Company has not granted any loans or advances in the nature of loans either repayable on demand or without specifying any terms or period of repayment.

(iv) In our opinion and according to the information and explanations given to us, the Company has complied with the provisions of Section 185 and 186 of the Act, to the extent applicable, in respect of loans granted to subsidiary companies and investments made in the subsidiary and joint venture companies and guarantees issued in favor of Banks for subsidiary companies. The Company has not provided any security in respect of which the provisions of section 185 and 186 of the Act are applicable.

(v) In our opinion and according to the information and explanations given to us and based on our examination of the books and records of the Company, the company has not accepted any deposits or any amount deemed to be deposits from public covered under the directives issued by the Reserve Bank of India and the provisions Sections 73 to 76 or any other relevant provisions of the Act and rules framed thereunder. The company has obtained deposits from the dependents of employees pursuant to one of the employee benefit schemes of the company who die or suffer permanent total disability for which the Company has applied to the Ministry of Corporate Affairs, Government of India for continuation of the exemption earlier obtained in respect of applicability of Section 58A of the Companies Act, 1956, which is still awaited (refer Note No. 34(c) of the Standalone Financial Statements). No order has been passed with respect to Section 73 to 76, by the Company Law Board or National Company Law Tribunal or Reserve Bank of India or any Court or any other Tribunal.

(vi) We have broadly reviewed the accounts and records maintained by the Company pursuant to the Rules made by the Central Government for the maintenance of cost records under sub-section (1) of Section 148 of the Act read with Companies (Cost Records & Audit) Rules, 2014, as amended and we are of the opinion that prima facie the prescribed accounts and records have been made and maintained. We have not, however, made detailed examination of the records with a view to determine whether they are accurate and complete.

(vii) (a) According to the information and explanations given to us and based on our examination of the books of accounts, the Company is generally regular in depositing undisputed statutory dues including goods and service tax, provident fund, income tax, sales tax, service tax, duty of customs, duty of excise, value added tax, cess and other statutory dues as applicable to the appropriate authorities. We have been informed that employees' state insurance is not applicable to the Company. Further, no undisputed statutory dues are outstanding as on 31 March 2024 for a period of more than six months from the date they became payable.

(b) According to information and explanations given to us, the gross disputed statutory dues of income tax or sales tax or service tax or duty of customs or duty of excise or value added tax or other statutory dues amounts to ₹ 3,987.69 crore in aggregate as on 31 March 2024, out of which ₹ 1,734.47 crore has been deposited under protest/adjusted by tax authorities and the balance of ₹ 2,253.22 crore of dues have not been deposited on account of matters pending before appropriate authorities as detailed below:

S No.	Name of Statue	Nature of Dues	Forum where dispute is pending	Period to which the amount relates (Financial Year)	Gross Disputed Amount (₹ Crores)	Amount deposited under protest/ adjusted by Tax authorities (₹ Crores)	Amount Not deposited (₹ Crores)
1	Income Tax Act, 1961	Income Tax/ TDS	Assistant Commissioner of Income Tax	2013-14 to 2014-15	0.31	0.12	0.19
			Commissioner of Income Tax (Appeals)	2009-10 & 2015-16 to 2018-19	163.13	163.13	-
			Income Tax Appellate Tribunal	2001-02, 2005-06, 2009-10 to 2014-15	1,302.21	1,302.05	0.16
			Hon'ble High Court	2006-07 to 2007-08, 2009-10 to 2011-12	209.23	209.23	-
			Sub Total		**1,674.88**	**1,674.53**	**0.35**
2	Finance Act, 1994	Service Tax	CESTAT	2012-13 to 2017-18	98.21	3.86	94.35
			Commissioner (Appeals)	2009-10 to 2017-18	3.26	0.06	3.20
			Commissioner of GST & Central Excise	2012-13 to 2017-18	182.97	4.11	178.86
			Hon'ble High Court	2016-17 to 2017-18	8.36	-	8.36
			Joint Director	2016-17	3.54	-	3.54
			Sub Total		**296.34**	**8.03**	**288.31**
3	CGST/SGST/ IGST Act 2017	GST	Commissioner (Appeals)	2017-18 to 2019-20	30.78	1.40	29.38
			Appellate Authority	2017-18 to 2020-21	127.84	6.07	121.77
			Deputy Commissioner	2017-18	0.10	-	0.10

S No.	Name of Statue	Nature of Dues	Forum where dispute is pending	Period to which the amount relates (Financial Year)	Gross Disputed Amount (₹ Crores)	Amount deposited under protest/ adjusted by Tax authorities (₹ Crores)	Amount Not deposited (₹ Crores)
			Principal Commissioner	2017-18 to 2022-23	11.69	0.60	11.09
			Additional Commissioner	2017-18 to 2020-21, 2023-24	126.46	5.16	121.30
			Assistant Commissioner	2017-18 to 2018-19	17.98	-	17.98
			Sub Total		**314.85**	**13.23**	**301.62**
4	Entry Tax Act of various States	Entry Tax	Appellate Tribunal/Board of Revenue	2001-02, 2006-07 to 2017-18	59.32	15.22	44.10
			Assistant Commissioner of Sales Tax	1985-86, 1986-87, 2003-04, 2005-06, 2015-16 to 2017-18	7.72	2.39	5.33
			Deputy Commissioner of Sales Tax	1997-98, 2005-06	4.61	0.46	4.15
			Hon'ble High Court	1990-91, 2005-06 to 2012-13, 2017-18	24.22	7.16	17.06
			Joint Commissioner	2017-18	2.26	-	2.26
			Sales Tax Officer	2017-18	0.31	-	0.31
			Sub Total		**98.44**	**25.23**	**73.21**
5	Sales tax and Value Added Tax Act of Various States	Sales Tax/ Trade Tax/ Value Added Tax	Additional Commissioner of Sales Tax*	2001-02, 2002-03, 2004-05, 2006-07, 2014-15 to 2015-16 & 2017-18	22.54	1.96	20.58
			Additional Commissioner of Sales Tax (Appeals)	1988-89 to 1997-98, 2015-16	2.11	0.17	1.94
			Appellate Tribunal/Board of Revenue	1985-86, 2000-01 to 2010-11, 2014-15	36.56	7.36	29.20
			Commissioner of Sales Tax (Appeals)	2005-06 to 2008-09	0.29	0.02	0.27
			Deputy Commissioner Sales Tax	2001-02 to 2006-07	11.66	-	11.66
			Hon'ble High Court	2000-01	3.12	0.05	3.07
			Joint Commissioner of Sales Tax**	2000-01, 2004-05, 2005-06	4.08	0.35	3.73
			Joint Commissioner of Sales Tax (Appeals)	2015-16	1.17	0.49	0.68
			Assistant Commissioner	2008-09 to 2009-10, 2015-16 to 2017-18	23.52	0.01	23.51
			Divisional Deputy Commissioner Sales Tax	2007-08 2016-17	381.15	-	381.15
			Sub Total		**486.20**	**10.41**	**475.79**
6	Jharkhand Forest Produce (Regulation of Transport) Rules 2020	Mineral Transit Fee	Hon'ble High Court	2020-21 to 2023-24	95.11	-	95.11
			Sub Total		**95.11**	**-**	**95.11**
7	Gujarat Green Cess Act, 2011	Green Cess	Commissioner (Appeals)	2012-13 to 2022-23	57.11	-	57.11
			Sub Total		**57.11**	**-**	**57.11**
8	Employees Provident Fund & Miscellaneous Provisions Act 1952	EPS contribution	RPFC	1996-97 to 2014-15 & 2023-24	29.30	2.08	27.22
			Sub Total		**29.30**	**2.08**	**27.22**
9	Employees' State Insurance Act, 1948	ESI Contribution	ESI Court	1996-97 to 2002-03	12.43	-	12.43
			Sub Total		**12.43**	**-**	**12.43**

S No.	Name of Statue	Nature of Dues	Forum where dispute is pending	Period to which the amount relates (Financial Year)	Gross Disputed Amount (₹ Crores)	Amount deposited under protest/ adjusted by Tax authorities (₹ Crores)	Amount Not deposited (₹ Crores)
10	Industrial Development Act, 1962	Notified Area Tax	Hon'ble Supreme Court	Upto Sept. 2005	5.92	-	5.92
			Sub Total		**5.92**	**-**	**5.92**
11	Central Excise Act, 1944	Excise Duty	CESTAT	1999-00, 2010-11	4.50	-	4.50
			Sub Total		**4.50**	**-**	**4.50**
12	Rajasthan Land Tax Act, 1985	Land Development Tax	Rajasthan Revenue Department	2006-07 to 2012-13	2.04	0.60	1.44
			Sub Total		**2.04**	**0.60**	**1.44**
13	Mines and Minerals Development and Regulation Act 1957	Penalty	High Court	2011-12	0.53	0.34	0.19
			Sub Total		**0.53**	**0.34**	**0.19**
14	Customs Act, 1962	Customs Duty	Commissioner of Customs (Appeals)	2005-06 to 2015-16	0.29	0.02	0.27
			Sub Total		**0.29**	**0.02**	**0.27**
15	The Forest (Conservation) Act, 1980	Penalty	**NGT Kolkata**	2023-24	857.00	**-**	857.00
			Sub Total		**857.00**	**-**	**857.00**
16	Jharkhand Highways Fee (Determination of rates and collection) Rules 2021	Composition User Fee	**High Court**	2021-22 to 2022-23	25.40	-	25.40
			Sub Total		**25.40**	**-**	**25.40**
17	Rajasthan Municipal Act, 1959	Municipal Tax	**Rajasthan Revenue Department**	2007-24	27.11	-	27.11
			Sub Total		**27.11**	**-**	**27.11**
18	Income Tax Act-Bangladesh	Income Tax/ TDS	**Deputy Commissioner**	2019-20	0.24	-	0.24
			Sub Total		**0.24**	**-**	**0.24**
			Total		**3,987.69**	**1,734.47**	**2,253.22**

Remarks:

* Includes ₹ 20.59 crore towards demand for VAT and CST raised by Sales Tax authority, which has been stayed by Commissioner/Additional Commissioner of sales tax.

** includes ₹ 3.81 crore towards demand for CST raised by Sales Tax Officer, which has been stayed by the Hon'ble High Court.

Disputed statutory dues include interest and penalty wherever applicable.

(viii) In our opinion and according to the information and explanations given to us, the Company has not surrendered or disclosed as income, any transaction not recorded in the books of account, during the year in the tax assessments under the Income Tax Act, 1961 (43 of 1961). Accordingly, the reporting on clause 3(viii) of the Order is not applicable.

(ix) (a) In our opinion and according to the information and explanations given to us, the Company has not defaulted in repayment of loans or other borrowings or in the payment of interest thereon to any lender.

(b) According to the information and explanations given to us and on the basis of our audit procedures, we report that the Company has not been declared willful defaulter by any bank or financial institution or other lender.

(c) In our opinion and according to the information and explanations given to us, the term loans were applied for the purposes for which the loans were obtained.

(d) According to the information and explanations given to us, and the procedures performed by us, and on an overall examination of the standalone financial statements of the company, we report that no funds raised on short-term basis have been used for long-term purposes by the Company.

(e) According to the information and explanations given to us and on an overall examination of the standalone financial statements of the company, we report that the company has not taken any funds from any entity or person on account of or to meet the obligations of its subsidiaries and joint ventures except that the Company has taken loan from Banks and given loan to one of the subsidiaries, as per details given below:

Nature of fund taken	Name of lender	Amount Involved/ outstanding (₹ in Crore)	Name of the subsidiary to whom loan given	Relation	Nature of Transaction for which funds utilized	Remarks, if any
Unsecured Term Loan	HDFC Bank Ltd.	249.62	Ratnagiri Gas and Power Private Limited	Subsidiary	Secured loan given on account of Debt Settlement of Subsidiary.	Total loan of ₹ 885 crore was taken and given by the Company in the year 2020-21
	Bank of India Ltd.	62.80				
Total		**312.42**				

(f) According to the information and explanations given to us and procedures performed by us, we report that the Company has not raised loans during the year on the pledge of securities held in its subsidiaries and joint ventures.

(x) (a) In our opinion and according to the information and explanations given to us, the Company did not raise moneys by way of initial public offer or further public offer during the year. The company has raised Privately Placed Non-Convertible Debentures during the year and in our opinion and according to the explanations given to us the money raised by way of Privately Placed Non-Convertible Debentures were applied for the purposes for which they were raised.

(b) During the year, the Company has not made any preferential allotment or private placement of shares or convertible debentures (fully, partially or optionally). Accordingly, reporting under clause 3(x)(b) of the order is not applicable.



(xi) (a) According to the information and explanations given to us and as represented by the Management and based on our examination of the books and records of the Company and in accordance with generally accepted auditing practices in India, no case of material fraud by the Company or on the Company has been noticed or reported during the year.

(b) According to the information and explanations given to us, no report under sub-section (12) of section 143 of the Act has been filed in Form ADT-4 as prescribed under Rule 13 of Companies (Audit and Auditors) Rules, 2014 (as amended from time to time) with the Central Government, during the year and up to the date of this report.

(c) We have taken into consideration the Whistle blower complaints received by the Company during the year and provided to us, when performing the audit.

(xii) In our opinion and according to the information and explanations given to us, the Company is not a Nidhi company and accordingly the Nidhi Rules, 2014 is not applicable to it, hence reporting under paragraph 3(xii) (a, b and c) of the Order is not applicable to the Company.

(xiii) In our opinion and according to the information and explanations given to us, all transactions with the related parties are in compliance with Sections 177 and 188 of Act, where applicable, and the requisite details have been disclosed in the standalone financial statements, as required by the applicable Indian Accounting Standard.

(xiv) (a) In our opinion and based on our examination, the Company has an internal audit system commensurate with the size and nature of its business.

(b) We have considered the reports of the Internal Auditors for the year under audit, issued to the Company during the year and till date, in determining the nature, timing and extent of our audit procedures.

(xv) In our opinion and according to the information and explanations given to us, the Company has not entered into any non-cash transactions with the directors or persons connected with them covered under Section 192 of the Act. Accordingly, reporting on clause 3(xv) of the Order is not applicable.

(xvi) (a) In our opinion and according to the information and explanations given to us, the Company is not required to be registered under Section 45-IA of the Reserve Bank of India Act, 1934. Accordingly, reporting on clause (xvi)(a) of the Order is not applicable to the Company.

(b) According to the information and explanations provided to us, the Company has not conducted any Non-Banking Financial or Housing Finance activities therefore the Company is not required to be registered under Section 45-IA of the Reserve Bank of India Act, 1934. Accordingly, reporting on clause (xvi)(b) of the Order is not applicable to the Company.

(c) The Company is not a Core Investment Company (CIC) as defined in the regulations made by the Reserve Bank of India. Accordingly, reporting on clause (xvi)(c) of the Order is not applicable to the Company.

(d) In our opinion, there is no core investment company within the Group (as defined in the Core Investment Companies (Reserve Bank) Directions, 2016). Accordingly, reporting on clause (xvi)(d) of the Order is not applicable to the Company.

(xvii) Based on our examination of the books and records of the Company, the Company has not incurred cash losses in the financial year and in the immediately preceding financial year. Accordingly, reporting on clause 3(xvii) of the order is not applicable.

(xviii) There has been no resignation of the statutory auditors during the year. Accordingly, reporting on clause 3(xviii) of the order is not applicable.

(xix) According to the information and explanations given to us and on the basis of the financial ratios, ageing and expected dates of realization of financial assets and payment of financial liabilities, other information accompanying the standalone financial statements, our knowledge of the Board of Directors and management plans and based on our examination of the evidence supporting the assumptions, nothing has come to our attention, which causes us to believe that any material uncertainty exists as on the date of the audit report that Company is not capable of meeting its liabilities existing at the date of balance sheet as and when they fall due within a period of one year from the balance sheet date.

We, however, state that this is not an assurance as to the future viability of the Company. We further state that our reporting is based on the facts up to the date of the audit report and we neither give any guarantee nor any assurance that all liabilities falling due within a period of one year from the balance sheet date, will get discharged by the Company as and when they fall due.

(xx) In our opinion and according to the information and explanations given to us, the company has incurred expenditure under Corporate Social Responsibility as required by the provisions of Section 135 of the Act and there are no unspent amounts which are to be transferred pursuant to section 135(5) and 135(6) of the Act.

For Vinod Kumar & Associates Chartered Accountants FRN-002304N	For Goyal Parul & Co Chartered Accountants FRN-016750N	For M. C. Bhandari & Co. Chartered Accountants FRN- 303002E
(Mukesh Dadhich) Partner M. No. 511741 UDIN: 24511741BJZYRA9379	(Parul Goyal) Partner M. No. 099172 UDIN: 24099172BKBKAG2157	(Amit Biswas) Partner M. No. 052296 UDIN: 24052296BKFZHU6845
For J K S S & Associates Chartered Accountants FRN-006836C	For Agasti & Associates Chartered Accountants FRN-313043E	For S.N. Kapur & Associates Chartered Accountants FRN-001545C
(Ram Babu) Partner M. No. 016151 UDIN: 24016151BKDEWE2047	(B. Agasti) Partner M. No. 051026 UDIN: 24051026BKGTSN4620	(S. N. Kapur) Partner M. No. 014335 UDIN: 24014335BJZZMY4719

Place: New Delhi
Dated: 24 May, 2024
Digitally signed by signatories

ANNEXURE 2 TO THE INDEPENDENT AUDITORS' REPORT

Referred to in paragraph 2 under 'Report on Other Legal and Regulatory Requirements' section of our report of even date to the members of NTPC LIMITED on the Standalone Financial Statements for the year ended 31 March 2024.

Sl. No.	Directions u/s 143(5) of the Companies Act, 2013	Auditors' reply on action taken on the directions
1	Whether the Company has system in place to process all the accounting transactions through IT system? If yes, the implications of processing of accounting transactions outside IT system on the integrity of the accounts along with the financial implications, if any, may be stated.	As per the information and explanations given to us, the Company has a system in place to process all the accounting transactions through IT system. SAP-ERP has been implemented for all the processes like Financial Accounting (FI), Controlling (CO), Sales and Distribution (SD), Payroll / Human Capital Management (HCM), Material Management (MM), Commercial billing / Industry Solution Utilities (ISU), etc. Based on the audit procedures carried out and as per the information and explanations given to us, no accounting transactions have been processed /carried outside the IT system. Accordingly, there are no implications on the integrity of the accounts.
2	Whether there is any restructuring of an existing loan or cases of waiver/write off of debts/ loans/ interest etc. made by a lender to the company due to the company's inability to repay the loan? If yes, the financial impact may be stated. Whether such cases are properly accounted for? (In case, lender is a Government company, then this direction is also applicable for statutory auditor of lender company).	Based on the audit procedures carried out and as per the information and explanations given to us, there was no restructuring of existing loans or cases of waiver/write off of debts/ loans/ interest etc. made by the lender to the auditee company due to the company's inability to repay the loan. The Company has converted its existing loan of 18.40 crores granted to National High Power Test Laboratory Private Limited (a joint venture of NTPC), into equity shares. An amount of 2.31 crores in respect of interest payable by the aforesaid borrower has been waived. The same has been properly accounted for in the books.
3	Whether funds (grants/subsidy etc.) received / receivable for specific schemes from Central / State Government or its agencies were properly accounted for/utilized as per its term and conditions? List the cases of deviation.	Based on the audit procedures carried out and as per the information and explanations given to us, the funds (grants/subsidy etc.) received/ receivable for specific schemes from Central/State Government or its agencies were properly accounted for/utilized as per the respective terms and conditions.

For Vinod Kumar & Associates
Chartered Accountants
FRN-002304N

(Mukesh Dadhich)
Partner
M. No. 511741
UDIN: 24511741BJZYRA9379

For Goyal Parul & Co
Chartered Accountants
FRN-016750N

(Parul Goyal)
Partner
M. No. 099172
UDIN: 24099172BKBKAG2157

For M. C. Bhandari & Co.
Chartered Accountants
FRN- 303002E

(Amit Biswas)
Partner
M. No. 052296
UDIN: 24052296BKFZHU6845

For J K S S & Associates
Chartered Accountants
FRN-006836C

(Ram Babu)
Partner
M. No. 016151
UDIN: 24016151BKDEWE2047

For Agasti & Associates
Chartered Accountants
FRN-313043E

(B. Agasti)
Partner
M. No. 051026
UDIN: 24051026BKGTSN4620

For S.N. Kapur & Associates
Chartered Accountants
FRN-001545C

(S. N. Kapur)
Partner
M. No. 014335
UDIN: 24014335BJZZMY4719

Place: New Delhi
Dated: 24 May, 2024
Digitally signed by signatories

ANNEXURE 3 TO THE INDEPENDENT AUDITORS' REPORT

Referred to in paragraph 3 (f) under 'Report on Other Legal and Regulatory Requirements' section of our report of even date to the members of NTPC LIMITED on the Standalone Financial Statements for the year ended 31 March 2024

Report on the Internal Financial Controls with reference to the Standalone Financial Statement under Clause (i) of Sub-section 3 of Section 143 of the Companies Act, 2013 ("the Act").

We have audited the internal financial controls with reference to the Standalone Financial Statements of NTPC Limited ("the Company") as of 31 March 2024 in conjunction with our audit of the Standalone Financial Statements of the Company for the year ended on that date.

Management's Responsibility for Internal Financial Controls

The Company's management is responsible for establishing and maintaining internal financial controls based on the internal controls over financial reporting criteria established by the Company considering the essential components of internal control stated in the Guidance Note on Audit of Internal Financial Controls over Financial Reporting issued by The Institute of Chartered Accountants of India (ICAI). These responsibilities include the design, implementation and maintenance of adequate internal financial controls that were operating effectively for ensuring the orderly and efficient conduct of its business, including adherence to Company's policies, the safeguarding of its assets, the prevention and detection of frauds and errors, the accuracy and completeness of the accounting records, and the timely preparation of reliable financial information, as required under the Act.

Auditors' Responsibility

Our responsibility is to express an opinion on the Company's internal financial controls with reference to the Standalone Financial Statements based on our audit. We conducted our audit in accordance with the Guidance Note on Audit of Internal Financial Controls over Financial Reporting (the "Guidance Note") and the Standards on Auditing, issued by ICAI and deemed to be prescribed under section 143(10) of the Act, to the extent applicable to an audit of internal financial controls, both applicable to an audit of Internal Financial Controls and, both issued by ICAI. Those Standards and the Guidance Note require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether adequate internal financial controls with reference to the Standalone Financial Statements was established and maintained and if such controls operated effectively in all material respects.

Our audit involves performing procedures to obtain audit evidence about the adequacy of the internal financial control with reference to the standalone Financial Statements and their operating effectiveness. Our audit of internal financial control with reference to the Standalone Financial Statements included obtaining an understanding of internal financial control with reference to the Standalone Financial Statements, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. The procedures selected depend on the auditors' judgement, including the assessment of the risks of material misstatement of the Standalone Financial Statements, whether due to fraud or error.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion on the Company's internal financial controls system with reference to the Standalone Financial Statements.

Meaning of Internal Financial Controls with reference to the Standalone Financial Statements

A Company's internal financial control with reference to the Standalone Financial Statements is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of Standalone Financial Statements for external purposes in accordance with generally accepted accounting principles. A Company's internal financial control with reference to the Standalone Financial Statements includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of Standalone Financial Statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the Company are being made only in accordance with authorizations of management and directors of the Company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the Company's assets that could have a material effect on the Standalone Financial Statements.

Inherent Limitations of Internal Financial Controls with reference to the Standalone Financial Statements

Because of the inherent limitations of internal financial controls with reference to the Standalone Financial Statements, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may occur and not be detected. Also, projections of any evaluation of the internal financial controls with reference to the Standalone Financial Statements to future periods are subject to the risk that the internal financial controls with reference to the Standalone Financial Statements may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Opinion

In our opinion, to the best of our information and according to the explanations given to us, the Company has, in all material respects, an adequate internal financial controls with reference to the Standalone Financial Statements in place and such internal financial controls with reference to the Standalone Financial Statements were operating effectively as at 31 March 2024, based on the internal controls over financial reporting criteria established by the Company considering the components of internal controls stated in the Guidance Note on Audit of Internal Financial Controls over Financial Reporting issued by the ICAI.

For Vinod Kumar & Associates
Chartered Accountants
FRN-002304N

(Mukesh Dadhich)
Partner
M. No. 511741
UDIN: 24511741BJZYRA9379

For Goyal Parul & Co
Chartered Accountants
FRN-016750N

(Parul Goyal)
Partner
M. No. 099172
UDIN: 24099172BKBKAG2157

For M. C. Bhandari & Co.
Chartered Accountants
FRN- 303002E

(Amit Biswas)
Partner
M. No. 052296
UDIN: 24052296BKFZHU6845

For J K S S & Associates
Chartered Accountants
FRN-006836C

(Ram Babu)
Partner
M. No. 016151
UDIN: 24016151BKDEWE2047

For Agasti & Associates
Chartered Accountants
FRN-313043E

(B. Agasti)
Partner
M. No. 051026
UDIN: 24051026BKGTSN4620

For S.N. Kapur & Associates
Chartered Accountants
FRN-001545C

(S. N. Kapur)
Partner
M. No. 014335
UDIN: 24014335BJZZMY4719

Place: New Delhi
Dated: 24 May, 2024
Digitally signed by signatories

COMMENTS OF THE COMPTROLLER AND AUDITOR GENERAL OF INDIA UNDER SECTION 143(6)(b) OF THE COMPANIES ACT, 2013 ON THE STANDALONE FINANCIAL STATEMENTS OF NTPC LIMITED FOR THE YEAR ENDED 31 MARCH 2024 AND MANAGEMENT REPLIES THEREON

The preparation of financial statements of NTPC Limited for the year ended 31 March 2024 in accordance with the financial reporting framework prescribed under the Companies Act, 2013 (Act) is the responsibility of the management of the company. The statutory auditors appointed by the Comptroller and Auditor General of India under Section 139 (5) of the Act are responsible for expressing opinion on the financial statements under Section 143 of the Act based on independent audit in accordance with the Standards on Auditing prescribed under Section 143(10) of the Act. This is stated to have been done by them vide their Audit Report dated 24 May 2024.

I, on behalf of the Comptroller and Auditor General of India, have conducted a supplementary audit of the financial statements of NTPC Limited for the year ended 31 March 2024 under Section 143(6)(a) of the Act. This supplementary audit has been carried out independently without access to the working papers of the Statutory Auditors and is limited primarily to inquiries of the Statutory Auditors and Company personnel and a selective examination of some of the accounting records.

Based on my supplementary audit, I would like to highlight the following significant matters under Section 143(6)(b) of the Act which have come to my attention and which in my view are necessary for enabling a better understanding of the financial statements and the related Audit Report:

Comment	Management Reply
Statement of Profit and Loss **Expenses-Other Expenses (Note No. 46): ₹ 15213.43 crore** **Corporate Social Responsibility (CSR) Expenses: ₹ 200.57 crore** As per section 135 (5) of the Companies Act, 2013 and Rule 7 (3) of the Companies (Corporate Social Responsibility Policy) Amendment Rules, 2021, if the company spends an amount in excess of requirements provided under this section (2%), such excess amount may be set off against the requirement to spend under this sub-section for such number of succeeding financial years as may be prescribed (three years). Further, Technical Guidance of ICAI on CSR Accounting provides that if the company decides to adjust such excess spent amount against its future CSR obligation, the same is to be recognized as an asset and if it. decides not to carry forward the same, such excess spent amount is to be recognized as an expense. During the year 2023-24, the Company was required to spend an amount of ₹ 337.98 crore towards CSR. However, it spent an amount of ₹ 200.57 crore and adjusted an amount of ₹ 137.41 crore from excess CSR spending in previous years. This was in violation of the Companies Act, 2013 as the Company had not created assets in respect of excess CSR spending in previous years. Therefore, adjustment of the excess CSR spending in previous years towards current year's obligation has led to shortfall in spending minimum stipulated CSR obligation to the extent of ₹ 137.41 crore which should have been shown as current liability on account of CSR obligation.	The Companies (Corporate Social Responsibility Policy) Amendment Rules, 2021 notified on 22 January 2021, provides vide Rule 7 (3) that *Where a company spends an amount in excess of requirement provided under sub-section (5) of section 135, such excess amount may be set off against the requirement to spend under sub-section (5) of section 135 up to immediate succeeding three financial years subject to the conditions that –* *(i) the excess amount available for set off shall not include the surplus arising out of the CSR activities, if any, in pursuance of sub-rule (2) of this rule.* *(ii) the Board of the company shall pass a resolution to that effect.* NTPC has met these conditions and hence has a right to set-off the excess spent in the earlier years in the succeeding years against its CSR obligations as per the Rules. NTPC has been consistently complying with CSR spending requirements as mandated under the Companies Act and is also committed to spend the minimum amount as per the requirements under CSR rules. As per the aforesaid requirement, the excess spent available at the end of 31 March 2023 amounting to ₹ 225.19 crore has been approved by the Board in its meeting held on 19 May 2023 to be carried forward

Comment	Management Reply
This has resulted in understatement of 'Other expenses' as well as 'Current liabilities -Other current liabilities' by ₹ 137.41 crore each.	in the succeeding years, in line with the provisions of CSR policy rules stated above. In all the earlier years, there was no necessity to adjust from the carried forward amounts and the actual expenses itself were more than the 2% requirement. In view of this trend of past, the Company has not created any asset for the excess spent with a disclosure in the financial statements that *"The set off available in the succeeding years is not recognised as an asset as a matter of prudence, considering the uncertainty involved in the adjustment of the same in future years."* The Company has incurred an amount of ₹ 200.57 crore during the year 2023-24 and utilised an amount of ₹ 137.41 crore out of the duly approved carried forwarded amount and duly met the CSR expenditure obligation of ₹ 337.98 crore as per the applicable provisions of Companies Act, 2013 read with relevant Rules. Since the CSR obligation as per Section 135 of the Companies Act, 2013 read with applicable CSR rules has been complied with, need for creation of a provision during the year 2023-24 for the amount equivalent to the set off availed as per Rules, does not arise. The provisions of Companies Act, 2013 prevail over technical guidance given by ICAI and the Company has complied with the requirements of the Companies Act,2013 as stated above. As such, there is no understatement of 'Other expenses' and 'Current liabilities -Other current liabilities'.

For and on behalf of the
Comptroller & Auditor General of India

Sd/-
(S. Ahlladini Panda)
Director General of Audit (Energy)

Place : New Delhi
Dated: 01 August 2024

For and on behalf of the
Board of Directors

Sd/-
(Gurdeep Singh)
Chairman and Managing Director

Place : New Delhi
Dated : 02 August 2024

EMPLOYEE COST SUMMARY

₹ Crore

Description	2019-20	2020-21	2021-22	2022-23	2023-24
A. Salary, wages and benefits (Incl. Provident fund and other contributions)	5,530.64	5,302.16	5,561.38	5,923.95	**5,939.80**
B. Other benefits					
1. Welfare expenses	257.12	272.56	337.56	220.54	**290.94**
2. Township	281.79	288.57	316.73	357.72	**366.15**
3. Educational and school facilities	31.77	27.67	26.82	72.35	**60.47**
4. Medical facilities	254.44	249.53	318.44	316.09	**323.01**
5. Subsidised transport	13.04	2.90	3.88	3.60	**3.93**
6. Social and cultural activities	9.96	9.08	6.54	6.25	**7.10**
7. Subsidised canteen	86.85	81.80	95.84	115.10	**125.95**
Total (B)	934.97	932.11	1,105.81	1,091.65	**1,177.55**
Total (A+B)	6,465.61	6,234.27	6,667.19	7,015.60	**7,117.35**
8. Year end no. of employees	17,398	16,798	15,794	15,159	**14,983**
9. Average no. of employees	17,879	17,098	16,296	15,477	**15,071**
10. Average salary, wages and benefits per employee per annum (₹)	30,93,372	31,01,041	34,12,727	38,27,583	**39,41,212**
11. Average cost of other benefits per employee per annum (₹)	5,22,943	5,45,157	6,78,578	7,05,337	**7,81,338**
12. Average cost of employees remuneration and benefits per annum (₹)	36,16,315	36,46,198	40,91,305	45,32,920	**47,22,550**

Note:

1. Welfare expenses are net of amounts included in Sl. no. 2 to Sl. no. 7.



Revenue expenditure on Social Overhead for the year ended on 31st March, 2024

₹ Crore

Particulars	Town-ship	Educational and School facilities	Medical facilities	Subsidized Transport	Social and Cultural Activities	Subsidized Canteen	Total	Previous Year
Payment to employees	27.48	-	156.14	-	-	-	**183.62**	188.22
Material consumed	22.32	-	5.42	-	-	-	**27.73**	24.65
Rates and taxes	1.60	-	0.00	-	-	-	**1.60**	1.18
Welfare expenses	1.94	58.18	215.41	3.93	7.03	124.06	**410.54**	409.49
Others including repairs & maintenance	247.91	0.07	93.05	-	0.07	0.83	**341.93**	343.18
Depreciation	117.54	2.22	9.14	-	-	1.07	**129.97**	117.66
Sub-total (1 to 6)	**418.78**	**60.47**	**479.16**	**3.93**	**7.10**	**125.95**	**1,095.39**	**1,084.38**
Less : Recoveries	25.15	-	-	-	-	-	**25.15**	25.05
Net expenditure (7-8)	**393.63**	**60.47**	**479.16**	**3.93**	**7.10**	**125.95**	**1,070.24**	**1,059.33**
Previous Year	384.16	72.37	477.85	3.60	6.25	115.10	1,059.33	-

CONSOLIDATED BALANCE SHEET AS AT 31 MARCH 2024

₹ Crore

Particulars	Note No.	As at 31 March 2024	As at* 31 March 2023	As at* 1 April 2022
ASSETS				
Non-current assets				
Property, plant and equipment	2	**2,58,423.86**	2,39,882.50	2,24,343.75
Capital work-in-progress	3	**87,592.80**	89,133.12	91,025.21
Intangible assets	4	**509.77**	541.92	579.27
Intangible assets under development	5	**71.65**	45.88	101.05
Investments accounted for using the equity method	6	**15,130.96**	13,252.09	10,522.14
Financial assets				
Investments	7	**703.60**	632.70	104.10
Loans	8	**570.19**	553.77	559.81
Trade Receivables	9	**1,287.54**	2,638.68	-
Other financial assets	10	**710.80**	900.70	1,017.98
Deferred tax assets (net)	11	**1,169.90**	937.85	995.70
Other non-current assets	12	**16,016.17**	16,333.91	15,877.02
Total non-current assets		**3,82,187.24**	3,64,853.12	3,45,126.03
Current assets				
Inventories	13	**18,019.12**	14,240.37	10,139.29
Financial assets				
Investments	14	**50.00**	50.00	-
Trade receivables	15	**33,349.68**	30,112.41	36,320.36
Cash and cash equivalents	16	**863.34**	465.65	675.77
Bank balances other than cash and cash equivalents	17	**5,984.00**	4,482.88	3,782.31
Loans	18	**271.12**	268.78	270.37
Other financial assets	19	**13,212.71**	8,912.07	5,826.14
Current tax assets (net)	20	**46.78**	93.51	62.64
Other current assets	21	**11,238.78**	11,160.27	9,525.32
Total current assets		**83,035.53**	69,785.94	66,602.20
Assets held for Sale	22	**117.77**	120.92	18.50
Regulatory deferral account debit balances	23	**14,856.03**	13,153.27	13,199.17
TOTAL ASSETS		**4,80,196.57**	4,47,913.25	4,24,945.90
EQUITY AND LIABILITIES				
Equity				
Equity share capital	24	**9,696.67**	9,696.67	9,696.67
Other equity	25	**1,51,012.60**	1,37,326.50	1,25,677.07
Total equity attributable to owners of the Company		**1,60,709.27**	1,47,023.17	1,35,373.74
Non-controlling interests	26	**4,413.01**	3,930.45	3,760.41
Total equity		**1,65,122.28**	1,50,953.62	1,39,134.15
Liabilities				
Non-current liabilities				
Financial liabilities				
Borrowings	27	**1,90,214.97**	1,87,883.57	1,81,871.19
Lease liabilities	28	**1,837.83**	1,604.04	962.69
Other financial liabilities	29	**540.32**	874.93	1,144.50
Provisions	30	**2,084.03**	1,919.92	1,655.35
Deferred tax liabilities (net)	31	**15,231.83**	12,690.00	10,951.67
Other non-current liabilities	32	**2,810.14**	2,611.95	1,926.65
Total non-current liabilities		**2,12,719.12**	2,07,584.41	1,98,512.05



CONSOLIDATED BALANCE SHEET AS AT 31 MARCH 2024

₹ Crore

Particulars	Note No.	As at 31 March 2024	As at* 31 March 2023	As at* 1 April 2022
Current liabilities				
Financial liabilities				
Borrowings	33	**44,825.33**	33,208.80	36,033.56
Lease liabilities	34	**252.85**	216.75	188.61
Trade payables	35			
Total outstanding dues of micro and small enterprises		**579.97**	308.92	302.61
Total outstanding dues of creditors other than micro and small enterprises		**10,757.98**	11,047.24	9,748.57
Other financial liabilities	36	**32,944.74**	30,782.44	28,853.66
Other current liabilities	37	**1,980.19**	1,954.28	1,877.61
Provisions	38	**7,060.33**	8,215.23	7,875.53
Current tax liabilities (net)	39	**2.95**	86.47	141.13
Total current liabilities		**98,404.34**	85,820.13	85,021.28
Deferred revenue	40	**2,651.00**	2,950.48	2,278.42
Regulatory deferral account credit balances	41	**1,299.83**	604.61	-
TOTAL EQUITY AND LIABILITIES		**4,80,196.57**	4,47,913.25	4,24,945.90

*-Restated - Refer Note 56

Material accounting policy information 1

The accompanying notes 1 to 78 form an integral part of these financial statements.

For and on behalf of the Board of Directors

(Ritu Arora)	(Jaikumar Srinivasan)	(Gurdeep Singh)
Company Secretary	Director (Finance)	Chairman & Managing Director
	DIN: 01220828	DIN: 00307037

This is the Consolidated Balance Sheet referred to in our report of even date

For Vinod Kumar & Associates	For Goyal Parul & Co	For M. C. Bhandari & Co.
Chartered Accountants	Chartered Accountants	Chartered Accountants
Firm Reg. No. 002304N	Firm Reg. No. 016750N	Firm Reg. No. 303002E
(Mukesh Dadhich)	(Parul Goyal)	(Amit Biswas)
Partner	Partner	Partner
M. No. 511741	M. No. 099172	M. No. 052296
For J K S S & Associates	For Agasti & Associates	For S.N. Kapur & Associates
Chartered Accountants	Chartered Accountants	Chartered Accountants
Firm Reg. No. 006836C	Firm Reg. No. 313043E	Firm Reg. No. 001545C
(Ram Babu)	(B. Agasti)	(S. N. Kapur)
Partner	Partner	Partner
M. No. 016151	M. No. 051026	M. No. 014335

Place: New Delhi
Dated: 24 May, 2024
Digitally signed by signatories

CONSOLIDATED STATEMENT OF PROFIT AND LOSS FOR THE YEAR ENDED 31 MARCH 2024

₹ Crore

Particulars	Note No.	For the year ended 31 March 2024	For the year ended 31 March 2023
Income			
Revenue from operations	42	**1,78,500.88**	1,76,207.18
Other income	43	**2,664.98**	1,769.21
Total income		**1,81,165.86**	1,77,976.39
Expenses			
Fuel cost	44	**98,311.96**	1,00,655.78
Electricity purchased for trading		**5,682.79**	5,324.95
Employee benefits expense	45	**6,592.03**	6,528.34
Finance costs	46	**12,048.21**	11,156.06
Depreciation, amortization and impairment expense	47	**16,203.63**	14,792.27
Other expenses	48	**16,821.39**	15,968.17
Total expenses		**1,55,660.01**	1,54,425.57
Profit before share of profits of joint ventures accounted for using equity method, tax and regulatory deferral account balances		**25,505.85**	23,550.82
Add: Share of profits of joint ventures accounted for using equity method		**1,635.60**	779.77
Profit before tax and regulatory deferral account balances		**27,141.45**	24,330.59
Tax expense	57		
Current tax			
Current year		**4,457.24**	4,659.84
Earlier years		**(161.14)**	196.27
Deferred tax		**2,513.10**	1,940.01
Total tax expense		**6,809.20**	6,796.12
Profit before regulatory deferral account balances		**20,332.25**	17,534.47
Net movement in regulatory deferral account balances (net of tax)	72	**1000.20**	(413.12)
Profit for the year		**21,332.45**	17,121.35
Other comprehensive income			
Items that will not be reclassified to profit or loss			
- Net actuarial gains/(losses) on defined benefit plans		**(154.69)**	(104.30)
- Net gains/(losses) on fair value of equity instruments		**120.90**	3.60
- Share of other comprehensive income of joint ventures accounted for using the equity method		**5.69**	1.89
Income tax on items that will not be classified to profit or loss			
- Net actuarial gains/(losses) on defined benefit plans		**23.24**	17.23
Items that will be reclassified to profit or loss			
- Exchange differences on translation of foreign operations		**(19.75)**	(121.42)
Other comprehensive income for the year, net of tax		**(24.61)**	(203.00)
Total comprehensive income for the year		**21,307.84**	16,918.35
Profit attributable to:			
Owners of the Parent Company		**20,811.89**	16,912.55
Non-controlling interests		**520.56**	208.80
		21,332.45	17,121.35

CONSOLIDATED STATEMENT OF PROFIT AND LOSS FOR THE YEAR ENDED 31 MARCH 2024

₹ Crore

Particulars	Note No.	For the year ended 31 March 2024	For the year ended 31 March 2023
Other comprehensive income attributable to:			
Owners of the Parent Company		**(22.13)**	(202.36)
Non-controlling interests		**(2.48)**	(0.64)
		(24.61)	(203.00)
Total comprehensive income attributable to:			
Owners of the Parent Company		**20,789.76**	16,710.19
Non-controlling interests		**518.08**	208.16
		21,307.84	16,918.35
Earnings per equity share attributable to owners of the parent company (Par value ₹ 10/- each)	62		
Basic & Diluted (₹) (including net movement in regulatory deferral account balances)		**21.46**	17.44
Basic & Diluted (₹) (excluding net movement in regulatory deferral account balances)		**20.43**	17.87
Material accounting policy information	1		

The accompanying notes 1 to 78 form an integral part of these financial statements.

For and on behalf of the Board of Directors

(Ritu Arora)	(Jaikumar Srinivasan)	(Gurdeep Singh)
Company Secretary	Director (Finance)	Chairman & Managing Director
	DIN: 01220828	DIN: 00307037

This is the Consolidated Statement of Profit and Loss referred to in our report of even date

For Vinod Kumar & Associates	For Goyal Parul & Co	For M. C. Bhandari & Co.
Chartered Accountants	Chartered Accountants	Chartered Accountants
Firm Reg. No. 002304N	Firm Reg. No. 016750N	Firm Reg. No. 303002E
(Mukesh Dadhich)	(Parul Goyal)	(Amit Biswas)
Partner	Partner	Partner
M. No. 511741	M. No. 099172	M. No. 052296
For J K S S & Associates	For Agasti & Associates	For S.N. Kapur & Associates
Chartered Accountants	Chartered Accountants	Chartered Accountants
Firm Reg. No. 006836C	Firm Reg. No. 313043E	Firm Reg. No. 001545C
(Ram Babu)	(B. Agasti)	(S. N. Kapur)
Partner	Partner	Partner
M. No. 016151	M. No. 051026	M. No. 014335

Place: New Delhi
Dated: 24 May, 2024
Digitally signed by signatories

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY FOR THE YEAR ENDED 31 MARCH 2024

(A) Equity share capital

₹ Crore

For the year ended 31 March 2024	Amount
Balance as at 1 April 2023	9,696.67
Changes in equity share capital due to prior period errors	-
Restated balance as at 1 April 2023	9,696.67
Changes in equity share capital during the year	-
Balance as at 31 March 2024	9,696.67

For the year ended 31 March 2023	Amount
Balance as at 1 April 2022	9,696.67
Changes in equity share capital due to prior period errors	-
Restated balance as at 1 April 2022	9,696.67
Changes in equity share capital during the year	-
Balance as at 31 March 2023	9,696.67

(B) Other equity

₹ Crore

For the year ended 31 March 2024	Attributable to owners of the parent company													Non-controlling interests (NCI)	Total
	Reserves & surplus							Items of other comprehensive income(OCI)		Other equity attributable to owners of the parent company					
Particulars	Capital reserve	Other capital reserve - common control	Capital redemption reserve	Bonds/ Debentures redemption reserve	Self insurance reserve	Fly ash utilisation reserve fund	General reserve	Retained earnings	Equity instruments through OCI	Foreign currency translation reserve					
Balance as at 1 April 2023	2,314.63	(5,159.26)	197.89	5,851.65	200.00	743.27	98,654.79	34,524.11	90.30	(90.88)	1,37,326.50			3,930.45	1,41,256.95
Profit for the year								20,811.89			20,811.89			520.56	21,332.45
Other comprehensive income								(123.28)	120.90	(19.75)	(22.13)			(2.48)	(24.61)
Total comprehensive income	-	-	-	-	-	-	-	20,688.61	120.90	(19.75)	20,789.76			518.08	21,307.84
Impact of business combination and additional non-controlling interest arising on acquisition / disposal of interest & other adjustments	20.04										20.04			182.22	202.26
Transfer to retained earnings				(1,795.23)	(200.00)			1,995.23			-			-	-
Transfer from retained earnings				77.92	-			(77.92)			-			-	-
Accretion / (utilisation) in fly ash utilisation fund (net) (Note 25)						175.82	-				175.82				175.82
Transfer to Non controlling interest								(27.02)			(27.02)				(27.02)
Final dividend paid for FY 2022-23(Note 25)								(2,909.00)			(2,909.00)				(2,909.00)
Interim dividend paid for FY 2023-24(Note 25)								(4,363.50)			(4,363.50)			(217.74)	(4,581.24)
Balance as at 31 March 2024	2,334.67	(5,159.26)	197.89	4,134.34	-	919.09	98,654.79	49,830.51	211.20	(110.63)	1,51,012.60			4,413.01	1,55,425.61

For the year ended 31 March 2023	Attributable to owners of the parent company													Non-controlling interests (NCI)	Total
	Reserves & surplus							Items of other comprehensive income(OCI)		Other equity attributable to owners of the parent company					
Particulars	Capital reserve	Other capital reserve - common control	Capital redemption reserve	Bonds/ Debentures redemption reserve	Self insurance reserve	Fly ash utilisation reserve fund	General reserve	Retained earnings	Equity instruments through OCI	Foreign currency translation reserve					
Balance as at 1 April 2022	2,314.63	(5,159.26)	197.89	5,851.65	200.00	743.27	98,654.79	34,524.11	90.30	(90.88)	1,37,326.50			3,930.45	1,41,256.95
Profit for the year								20,811.89			20,811.89			520.56	21,332.45
Other comprehensive income								(123.28)	120.90	(19.75)	(22.13)			(2.48)	(24.61)
Total comprehensive income	-	-	-	-	-	-	-	20,688.61	120.90	(19.75)	20,789.76			518.08	21,307.84
Impact of business combination and additional non-controlling interest arising on acquisition / disposal of interest & other adjustments	20.04										20.04			182.22	202.26
Transfer to retained earnings				(1,795.23)	(200.00)			1,995.23			-			-	-
Transfer from retained earnings				77.92	-			(77.92)			-			-	-
Accretion / (utilisation) in fly ash utilisation fund (net) (Note 25)						175.82	-				175.82				175.82
Transfer to Non controlling interest								(27.02)			(27.02)				(27.02)
Final dividend paid for FY 2022-23(Note 25)								(2,909.00)			(2,909.00)				(2,909.00)
Interim dividend paid for FY 2023-24(Note 25)								(4,363.50)			(4,363.50)			(217.74)	(4,581.24)
Balance as at 31 March 2024	2,334.67	(5,159.26)	197.89	4,134.34	-	919.09	98,654.79	49,830.51	211.20	(110.63)	1,51,012.60			4,413.01	1,55,425.61

₹ Crore

For the year ended 31 March 2023

Particulars	Attributable to owners of the parent company													Non-controlling interests (NCI)	Total
	Reserves & surplus					Items of other comprehensive income(OCI)							Other equity attributable to owners of the parent company		
	Capital reserve	Other capital reserve - common control	Capital redemption reserve	Bonds/ Debentures redemption reserve	Self insurance reserve	Fly ash utilisation reserve fund	General reserve	Retained earnings	Equity instruments through OCI	Foreign currency translation reserve					
Balance as at 1 April 2022	488.69	(5,159.26)	197.89	6,421.72	200.00	599.89	98,654.79	24,156.11	86.70	30.54			1,25,677.07	3,760.41	1,29,437.48
Profit for the year	-	-	-	-	-	-	-	16,912.55	-	-			16,912.55	208.80	17,121.35
Other comprehensive income	-	-	-	-	-	-	-	(84.54)	3.60	(121.42)			(202.36)	(0.64)	(203.00)
Total comprehensive income	-	-	-	-	-	-	-	16,828.01	3.60	(121.42)			16,710.19	208.16	16,918.35
Impact of business combination and additional non-controlling interest arising on acquisition/ disposal of interest & other adjustments	1,825.94	-	-	-	-	-	-	-	-	-			1,825.94	179.63	2,005.57
Transfer to retained earnings	-	-	-	(628.57)	-	-	-	628.57	-	-			-	-	-
Transfer from retained earnings	-	-	-	58.50	-	-	-	(58.50)	-	-			-	-	-
Accretion / (utilisation) in fly ash utilisation fund (net) (Note 25)	-	-	-	-	-	143.38	-	-	-	-			143.38	-	143.38
Final dividend paid for FY 2021-22 (Note 25)	-	-	-	-	-	-	-	(2,909.00)	-	-			(2,909.00)	(217.75)	(3,126.75)
Interim dividend paid for FY 2022-23 (Note 25)	-	-	-	-	-	-	-	(4,121.08)	-	-			(4,121.08)	-	(4,121.08)
Balance as at 31 March 2023	2,314.63	(5,159.26)	197.89	5,851.65	200.00	743.27	98,654.79	34,524.11	90.30	(90.88)			1,37,326.50	3,930.45	1,41,256.95

Note: Other comprehensive income adjusted in retained earnings amounting to **₹ 123.28 crore** (31 March 2023: ₹ 84.54 crore) represents remeasurement of defined benefit plans.

For and on behalf of the Board of Directors

(Gurdeep Singh)
Chairman & Managing Director
DIN: 00307037

(Jaikumar Srinivasan)
Director (Finance)
DIN: 01220828

(Ritu Arora)
Company Secretary

This is the Consolidated Statement of Changes in Equity referred to in our report of even date

For M. C. Bhandari & Co.
Chartered Accountants
Firm Reg. No. 303002E

(Amit Biswas)
Partner
M. No. 052296

For Goyal Parul & Co
Chartered Accountants
Firm Reg. No. 016750N

(Parul Goyal)
Partner
M. No. 099172

For S.N. Kapur & Associates
Chartered Accountants
Firm Reg. No. 001545C

(S. N. Kapur)
Partner
M. No. 014335

For Vinod Kumar & Associates
Chartered Accountants
Firm Reg. No. 002304N

(Mukesh Dadhich)
Partner
M. No. 511741

For Agasti & Associates
Chartered Accountants
Firm Reg. No. 313043E

(B. Agasti)
Partner
M. No. 051026

For J K S S & Associates
Chartered Accountants
Firm Reg. No. 006836C

(Ram Babu)
Partner
M. No. 016151

Place: New Delhi
Dated: 24 May, 2024
Digitally signed by signatories

CONSOLIDATED STATEMENT OF CASH FLOWS FOR THE YEAR ENDED 31 MARCH 2024

₹ Crore

Particulars	For the year ended 31 March 2024		For the year ended 31 March 2023
A. CASH FLOW FROM OPERATING ACTIVITIES			
Profit before tax and regulatory deferral account balances		**27,141.45**	24,330.59
Add: Net movements in regulatory deferral account balances (net of tax)		**1,000.20**	(413.12)
Add: Tax on net movements in regulatory deferral account balances		**214.19**	(92.68)
Profit before tax including movement in regulatory deferral account balances		**28,355.84**	23,824.79
Adjustment for:			
Depreciation, amortisation and impairment expense	**16,203.63**		14,792.27
Provisions	**864.55**		753.86
Share of net profits of joint ventures accounted for using equity method	**(1,635.60)**		(779.77)
On account of government grants	**214.33**		668.76
Deferred foreign currency fluctuation asset	**78.84**		(84.69)
Deferred income from foreign currency fluctuation	**14.72**		948.27
Regulatory deferral account debit balances	**(1,214.39)**		505.80
Fly ash utilisation reserve fund	**175.82**		143.38
Finance costs	**11,954.79**		11,092.08
Unwinding of discount on vendor liabilities	**93.42**		63.98
Interest income/Late payment Surcharge/Income on investments	**(961.91)**		(918.04)
Dividend income	**(9.36)**		(6.96)
Provisions written back	**(560.73)**		(368.30)
Profit on de-recognition of property, plant and equipment	**(30.37)**		(31.80)
Loss on de-recognition of property, plant and equipment	**220.67**		168.55
		25,408.41	26,947.39
Operating profit before working capital changes		**53,764.25**	50,772.18
Adjustment for:			
Trade receivables	**(1,296.73)**		3,806.23
Inventories	**(2,586.73)**		(3,004.98)
Trade payables, provisions, other financial liabilities and other liabilities	**(588.35)**		3,461.28
Loans, other financial assets and other assets	**(4,864.99)**		(3,807.28)
		(9,336.80)	455.25
Cash generated from operations		**44,427.45**	51,227.43
Income taxes (paid) / refunded		**(3,642.86)**	(4,075.65)
Net cash from/(used in) operating activities - A		**40,784.59**	47,151.78
B. CASH FLOW FROM INVESTING ACTIVITIES			
Purchase of property, plant and equipment & intangible assets	**(30,815.92)**		(24,818.52)
Disposal of property, plant and equipment & intangible assets	**74.60**		98.29
Redemption of Non convertible debentures	**50.00**		25.00
Investment in joint venture companies (net)	**(219.40)**		(920.18)
Interest income/Late payment Surcharge/Income on investments received	**630.98**		576.74
Dividend received from other investments	**9.36**		6.96
Income tax paid on income from investing activities	**(414.55)**		(434.92)
Bank balances other than cash and cash equivalents	**(1,456.44)**		(678.50)
Net cash from/(used in) investing activities - B		**(32,141.37)**	(26,145.13)



CONSOLIDATED STATEMENT OF CASH FLOWS FOR THE YEAR ENDED 31 MARCH 2024

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
C. CASH FLOW FROM FINANCING ACTIVITIES		
Proceeds from non-current borrowings	**31,631.65**	28,325.97
Repayment of non-current borrowings	**(22,439.83)**	(24,523.66)
Proceeds /repayments of current borrowings (Net)	**5,944.75**	(2,718.82)
Payment of lease liabilities	**(130.89)**	(230.10)
Interest paid	**(15,831.78)**	(14,822.25)
Dividend paid	**(7,419.43)**	(7,247.91)
Net cash from/(used in) financing activities - C	**(8,245.53)**	(21,216.77)
Net increase/(decrease) in cash and cash equivalents (A+B+C)	**397.69**	(210.12)
Cash and cash equivalents at the beginning of the year	**465.65**	675.77
Cash and cash equivalents at the end of the year	**863.34**	465.65

Notes:

1 Statement of cash flows is prepared in accordance with the indirect method prescribed in Ind AS 7-'Statement of cash flows'.

2 Cash and cash equivalents consist of cheques, drafts, stamps in hand, balances with banks and deposits with original maturity of upto three months.

3 Reconciliation of cash and cash equivalents:

Cash and cash equivalents as per Note 16	**863.34**	465.65

4 Refer Note 68 for details of undrawn borrowing facilities that may be available for future operating activities and to settle capital commitments.

5 Reconciliation between the opening and closing balances in the Balance Sheet for liabilities arising from financing activities:

For the year ended 31 March 2024 ₹ Crore

Particulars	Non-current borrowings*	Finance lease obligations	Current borrowings	Bills discounted
Opening balance as at 1 April 2023	**2,09,768.83**	**1,820.80**	**12,873.95**	**1,287.19**
Cash flows during the year	**(6,639.96)**	**400.77**	**5,257.45**	**687.30**
Non-cash changes due to:				
- Acquisitions under finance lease	-	**(130.89)**	-	-
- Equity shares issued	**46.91**	-	-	-
- Interest on borrowings	**15,785.06**	-	-	-
- Variation in exchange rates	**(1,256.17)**	-	-	-
- Transaction costs on borrowings	**20.62**	-	-	-
Closing balance as at 31 March 2024	**2,17,725.29**	**2,090.68**	**18,131.40**	**1,974.49**

CONSOLIDATED STATEMENT OF CASH FLOWS FOR THE YEAR ENDED 31 MARCH 2024

For the year ended 31 March 2023 ₹ Crore

Particulars	Non-current borrowings*	Finance lease obligations	Current borrowings	Bills discounted
Opening balance as at 1 April 2022	2,03,678.06	1,151.30	8,530.47	8,349.49
Cash flows during the year	(11,019.94)	(230.10)	4,343.48	(7,062.30)
Non-cash changes due to:				
- Acquisitions under finance lease	-	899.60	-	-
- Equity shares issued	(150.68)	-	-	-
- Interest on borrowings	15,006.58	-	-	-
- Variation in exchange rates	2,295.49	-	-	-
- Transaction costs on borrowings	(40.68)	-	-	-
Closing balance as at 31 March 2023	2,09,768.83	1,820.80	12,873.95	1,287.19

* Includes current maturities of non-current borrowings and interest accrued thereon, refer Note 27 and Note 33.

For and on behalf of the Board of Directors

(Ritu Arora)	(Jaikumar Srinivasan)	(Gurdeep Singh)
Company Secretary	Director (Finance)	Chairman & Managing Director
	DIN: 01220828	DIN: 00307037

This is the Consolidated statement of Cash Flows referred to in our report of even date

For Vinod Kumar & Associates	For Goyal Parul & Co	For M. C. Bhandari & Co.
Chartered Accountants	Chartered Accountants	Chartered Accountants
Firm Reg. No. 002304N	Firm Reg. No. 016750N	Firm Reg. No. 303002E
(Mukesh Dadhich)	(Parul Goyal)	(Amit Biswas)
Partner	Partner	Partner
M. No. 511741	M. No. 099172	M. No. 052296
For J K S S & Associates	For Agasti & Associates	For S.N. Kapur & Associates
Chartered Accountants	Chartered Accountants	Chartered Accountants
Firm Reg. No. 006836C	Firm Reg. No. 313043E	Firm Reg. No. 001545C
(Ram Babu)	(B. Agasti)	(S. N. Kapur)
Partner	Partner	Partner
M. No. 016151	M. No. 051026	M. No. 014335

Place: New Delhi
Dated: 24 May, 2024
Digitally signed by signatories



Notes forming part of Consolidated Financial Statements

Note 1. Group Information and Material Accounting Policy Information

A. Reporting entity

NTPC Limited (the 'Company' or 'Parent Company') is a Company domiciled in India and limited by shares (CIN: L40101DL1975GOI007966). The shares of the Company are listed and traded on the National Stock Exchange of India Limited (NSE) and BSE Limited (BSE) in India. The address of the Company's registered office is NTPC Bhawan, SCOPE Complex, 7 Institutional Area, Lodhi Road, New Delhi - 110003.These consolidated financial statements comprise the financial statements of the Company and its subsidiaries (referred to collectively as the 'Group') and the Group's interest in its joint ventures. The Group is primarily involved in the generation and sale of bulk power to State Power Utilities. Other business of the Group includes providing consultancy, project management & supervision, energy trading, oil & gas exploration and coal mining.

B. Basis of preparation

1. Statement of Compliance

These consolidated financial statements are prepared on going concern basis following accrual system of accounting and comply with the Indian Accounting Standards (Ind AS) prescribed under Section 133 of the Companies Act, 2013 read with the Companies (Indian Accounting Standards) Rules, 2015 as amended, and other relevant provisions of the Companies Act, 2013 and the provisions of the Electricity Act, 2003 to the extent applicable.

These financial statements were approved for issue by the Board of Directors in its meeting held on 24 May 2024.

2. Basis of measurement

The consolidated financial statements have been prepared on the historical cost basis except for:

- Certain financial assets and liabilities (including derivative instruments) that are measured at fair value (refer serial no. C. 22 of accounting policy regarding financial instruments); and
- Plan assets in the case of employees defined benefit plans that are measured at fair value.

The methods used to measure fair values are discussed in notes to the financial statements.

3. Functional and presentation currency

These consolidated financial statements are presented in Indian Rupees (₹) which is the Company's functional currency. All financial information presented in (₹) has been rounded to the nearest crore (up to two decimals), except when indicated otherwise.

4. Current and non-current classification

The Group classifies its assets and liabilities as current/non-current in the balance sheet as per the requirements of Ind AS 1 and considering 12 months period as normal operating cycle.

C. Material accounting policies

A summary of the material accounting policies applied in the preparation of the consolidated financial statements are as given below. These accounting policies have been applied consistently to all periods presented in the consolidated financial statements. It allows for an understanding as to how material transactions, other events and conditions are reported. It also describes: (a) judgements, apart from those involving estimations, that management makes in applying the policies that have the most significant effect on the amounts recognised in the Consolidated Financial Statements; and (b) estimations, including assumptions about the future, that management makes in applying the policies.

The Group has elected to utilize the option under Ind AS 101 - 'First time adoption of Indian Accounting Standards' by not applying the provisions of Ind AS 16 - 'Property, plant and equipment' & Ind AS 38 - 'Intangible assets' retrospectively and continue to use the previous GAAP carrying amount as a deemed cost under Ind AS at the date of transition to Ind AS i.e. 1 April 2015. Therefore, the carrying amount of property, plant and equipment and intangible assets as per the previous GAAP as at 1 April 2015, i.e. the Group's date of transition to Ind AS, were maintained on transition to Ind AS.

1. Basis of consolidation

The financial statements of subsidiary companies and joint venture companies are drawn up to the same reporting date as of the Company for the purpose of consolidation.

1.1 Subsidiaries

Subsidiaries are entities controlled by the Group. The Group "controls" an entity when it is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns rough its power over the entity. The financial statements of subsidiaries are included in the consolidated financial statements from the date on which control commences until the date on which control ceases.

Non-controlling interests (NCI) are measured initially at their proportionate share of the acquiree's identifiable net assets at the date of acquisition. A change in the Group's interest in a subsidiary that do not result in a loss of control are accounted for as equity transactions.

When the Group loses control over a subsidiary, it derecognises the assets and liabilities of the subsidiary, and any related NCI and other components of equity. Any resulting gain or loss is recognised in profit or loss. Any interest retained in the former subsidiary is measured at fair value when control is lost.

For detailed disclosure on Group's subsidiaries, refer note no 71.

1.2 Joint ventures

A joint venture is an arrangement in which the Group has joint control, whereby the Group has rights to the net assets of the arrangement, rather than rights to assets and obligations for its liabilities. Interests in joint venture are accounted for using the equity method. They are initially recognised at cost, which includes transaction costs. Subsequent to initial recognition, the consolidated financial statements include the Group's share of the profit or loss and OCI of equity accounted investees, until the date on which joint control ceases.

For detailed disclosure on Group's joint ventures, refer note no 71.

2. Property, plant and equipment

2.1. Initial recognition and measurement

An item of property, plant and equipment is recognized as an asset if and only if it is probable that future economic benefits associated with the item will flow to the and the cost of the item can be measured reliably.

Items of property, plant and equipment are initially recognized at cost. Subsequent measurement is done at cost less accumulated depreciation/amortization and accumulated impairment losses.

When parts of an item of property, plant and equipment that are significant in value and have different useful lives as compared to the main asset, they are recognized separately.

Deposits, payments/liabilities made provisionally towards compensation, rehabilitation and other expenses relatable to land in possession are treated as cost of land.

In the case of assets put to use, where final settlement of bills with contractors is yet to be effected, capitalization is done on provisional basis subject to necessary adjustment in the year of final settlement.

Assets and systems common to more than one generating unit are capitalized on the basis of engineering estimates/ assessments.

Items of spare parts, stand-by equipment and servicing equipment which meet the definition of property, plant and equipment are capitalized. Other spare parts are carried as inventory and recognized as expense in the statement of profit and loss on consumption.

The acquisition or construction of some items of property, plant and equipment although not directly increasing the future economic benefits of any particular existing item of property, plant and equipment, may be necessary for the Group to obtain future economic benefits from its other assets. Such items are recognized as property, plant and equipment.

Excess of net sale proceed of items produced while bringing the asset to the location and condition necessary for it to

be capable of operating in the manner intended by management is deducted from the directly attributable cost considered as part of an item of property, plant and equipment.

2.2. Subsequent costs

Subsequent expenditure is recognized in the carrying amount of the asset when it is probable that future economic benefits deriving from the cost incurred will flow to the enterprise and the cost of the item can be measured reliably.

Expenditure on major inspection and overhauls of generating unit is capitalized, when it meets the asset recognition criteria. Any remaining carrying amount of the cost of the previous inspection and overhaul is derecognized.

The cost of replacing major part of an item of property, plant and equipment is recognized in the carrying amount of the item if it is probable that the future economic benefits embodied within the part will flow to the Group and its cost can be measured reliably. The carrying amount of the replaced part is derecognized regardless of whether the replaced part has been depreciated separately. If it is not practicable to determine the carrying amount of the replaced part, the Group uses the cost of the replacement as an indication of what the cost of replaced part was at the time it was acquired or constructed. The costs of the day-to-day servicing of property, plant and equipment are recognized in the statement of profit and loss as and when incurred.

2.3. Decommissioning costs

The present value of the expected cost for the decommissioning of the asset after its use is included in the cost of the respective asset if the recognition criteria for a provision are met.

2.4. De-recognition

Property, plant and equipment is derecognized when no future economic benefits are expected from their use or upon their disposal. Gains and losses on de-recognition of an item of property, plant and equipment are determined as the difference between sale proceeds from disposal, if any, and the carrying amount of property, plant and equipment and are recognized in the statement of profit and loss.

2.5. Depreciation/amortization

Depreciation on the assets of the generation of electricity business, integrated coal mining and on the assets of Corporate & other offices of the Group, covered under Part B of Schedule II of the Companies Act, 2013, is charged on straight-line method following the rates and methodology notified by the Central Electricity Regulatory Commission (CERC) Tariff Regulations.

Depreciation on the assets of the oil & gas exploration, power plants not governed by CERC Tariff Regulations, investment properties and consultancy business is charged on straight-line method following the useful life specified in Schedule II of the Companies Act, 2013 except for the assets referred below.

Depreciation on the following assets is provided on their estimated useful lives, which are different from the useful lives as prescribed under Schedule II to the Companies Act, 2013, ascertained on the basis of technical evaluation/ assessment:

a)	Kutcha roads	2 years
b)	Enabling works- Enabling works – residential and non-residential buildings, including their internal electrification, water supply, sewerage & drainage works, railway sidings, aerodromes, helipads and airstrips	5-15 years
c)	Personal computers & laptops including peripherals	3 years
d)	Temporary erections including wooden structures	1 year
e)	Energy saving electrical appliances and fittings	2-7 years
f)	Solar/wind power plants which are not governed by CERC Tariff Regulations	25 years
g)	Furniture, Fixture, Office equipment and Communication equipment	5-15 years

Major overhaul and inspection costs which have been capitalized are depreciated over the period until the next scheduled outage or actual major inspection/overhaul, whichever is earlier.

Capital spares are depreciated considering the useful life ranging between 2 to 40 years based on technical assessment.

Right-of-use land and buildings relating to generation of electricity business governed by CERC Tariff Regulations are fully amortized on straight line method over the lease period or life of the related plant whichever is lower following the rates and methodology notified by the CERC Tariff Regulations.

Right-of-use land and buildings relating to generation of electricity business which are not governed by CERC tariff Regulations are fully amortized on straight line method over the lease period or life of the related plant whichever is lower.

Right-of-use land and buildings relating to corporate, and other offices are fully amortized on straight line method over lease period or twenty-five years whichever is lower following the rates and methodology notified by the CERC Tariff Regulations.

Land acquired under Coal Bearing Areas (Acquisition & Development) Act, 1957 and Other right-of-use land acquired for mining business are amortized on straight line method over the right of use period or balance life of the project whichever is lower.

In respect of integrated coal mines, the mines closure, site restoration and decommissioning obligations are amortized on straight line method over the balance life of the mine on commercial declaration.

Depreciation on additions to/deductions from property, plant and equipment during the year is charged on pro-rata basis from/up to the month in which the asset is available for use/sale, disposal or earmarked for disposal.

Where the cost of depreciable assets has undergone a change during the year due to increase/decrease in long-term liabilities (recognized up to 31 March 2016) on account of exchange fluctuation and price adjustment change in duties or similar factors, the unamortized balance of such asset is charged off prospectively over the remaining useful life determined following the applicable accounting policies relating to depreciation/amortization.

Where it is probable that future economic benefits deriving from the expenditure incurred will flow to the Group and the cost of the item can be measured reliably, subsequent expenditure on a property, plant and equipment along-with its unamortized depreciable amount is charged off prospectively over the revised useful life determined by technical assessment.

The residual values, useful lives and method of depreciation of assets other than the assets of generation of electricity business and integrated coal mines governed by CERC Tariff Regulations, are reviewed at each financial year end and adjusted prospectively, wherever required.

Depreciation of an asset ceases at the earlier of the date that the asset is classified as held for sale (or included in a disposal group that is classified as held for sale) in accordance with Ind AS 105 and the date that the asset is derecognised.

Refer policy no. C.16.1 in respect of depreciation/amortization of right-of-use assets other than land and buildings.

3. Capital work-in-progress

Cost incurred for property, plant and equipment that are not ready for their intended use as on the reporting date, is classified under capital work-in-progress.

The cost of self-constructed assets includes the cost of materials & direct labour, any other costs directly attributable to bringing the assets to the location and condition necessary for it to be capable of operating in the manner intended by management and the borrowing costs attributable to the acquisition or construction of qualifying asset.

Expenses directly attributable to construction of property, plant and equipment incurred till they are ready for their intended use are identified and allocated on a systematic basis on the cost of related assets.

Deposit works/cost plus contracts are accounted for on the basis of statements of account received from the contractors.

Unsettled liabilities for price variation/exchange rate variation in case of contracts are accounted for on estimated basis as per terms of the contracts.

The Group periodically reviews its Capital work-in-progress and in case of abandoned works, provision for unserviceable cost is provided for, as required, basis the technical assessment. Further, provisions made are reviewed at regular intervals and in case work has been subsequently taken up, then provision earlier provided for is written back to the extent the same is no longer required.



Net pre-commissioning income/expenditure is adjusted directly in the cost of related assets and systems.

4. Intangible assets and intangible assets under development

4.1. Initial recognition and measurement

Intangible assets that are acquired by the Group, which have finite useful lives, are recognized at cost. Subsequent measurement is done at cost less accumulated amortization and accumulated impairment losses.

4.2. Subsequent costs

Subsequent expenditure is recognized as an increase in the carrying amount of the asset when it is probable that future economic benefits deriving from the cost incurred will flow to the enterprise and the cost of the item can be measured reliably.

4.3. De-recognition

An intangible asset is derecognized when no future economic benefits are expected from their use or upon their disposal. Gain or loss on de-recognition of an intangible asset is determined as the difference between the net disposal proceeds, if any, and the carrying amount of intangible assets and are recognized in the statement of profit and loss.

4.4. Amortization

Cost of software recognized as intangible asset, is amortized on straight-line method over a period of legal right to use or 3 years, whichever is less.

The amortization period and the amortization method of intangible assets with a finite useful life is reviewed at each financial year end and adjusted prospectively, wherever required.

5. Regulatory deferral account balances

Expense/income recognized in the statement of profit and loss to the extent recoverable from or payable to the beneficiaries in subsequent periods as per CERC Tariff Regulations are recognized as 'Regulatory deferral account balances'.

Regulatory deferral account balances are adjusted in the year in which the same become recoverable from or payable to the beneficiaries.

Regulatory deferral account balances are evaluated at each balance sheet date to ensure that the underlying activities meet the recognition criteria and it is probable that future economic benefits associated with such balances will flow to the Group. If these criteria are not met, the regulatory deferral account balances are derecognized.

6. Development expenditure on coal mines

When proved reserves are determined and development of mines/project is sanctioned, exploration and evaluation assets are transferred to 'Development of coal mines' under 'Capital work-in-progress'.

Subsequent expenditure is capitalized only where it either enhances the economic benefits of the development/ producing asset or replaces part of the existing development/producing asset. Any remaining costs associated with the part replaced are expensed.

The development expenditure capitalized is net of value of coal extracted during development phase.

Date of commercial operation of integrated coal mines shall be determined on the occurring of earliest of following milestones as provided in CERC tariff regulations:

1) The first date of the year succeeding the year in which 25% of the peak rated capacity as per the mining plan is achieved; or

2) The first date of the year succeeding the year in which the value of production exceeds the total expenditure in that year; or

3) The date of two years from the date of commencement of production;

The above is subject to commercial readiness to yield production on a sustainable basis (i.e. when the Group determines that the mining property will provide sufficient and sustainable return relative to its perceived risks and therefore it is considered probable that future economic benefits will flow to the Group).

On the date of commercial operation, the assets under capital work-in-progress are classified as a component of property, plant and equipment under 'Mining property'.

Gains and losses on de-recognition of assets referred above, are determined as the difference between the net disposal proceeds, if any, and the carrying amount of respective assets and are recognized in the statement of profit and loss.

6.1. Stripping activity expense/adjustment

Expenditure incurred on removal of mine waste materials (overburden) necessary to extract the coal reserves is referred to as stripping cost. The Group has to incur such expenses over the life of the mine as technically estimated.

Cost of stripping is charged on technically evaluated average stripping ratio at each mine with due adjustment for stripping activity asset and ratio-variance account after the mines are brought to revenue.

Net of the balances of stripping activity asset and ratio variance at the Balance Sheet date is shown as 'Stripping activity adjustment' under the head 'Non-current assets/Non-current provisions' as the case may be, and adjusted as provided in the CERC Tariff Regulations.

6.2. Mines closure, site restoration and decommissioning obligations

The Group's obligations for land reclamation and decommissioning of structure consist of spending at mines in accordance with the guidelines from Ministry of Coal, Government of India. The Group estimates its obligations for mine closure, site restoration and decommissioning based on the detailed calculation and technical assessment of the amount and timing of future cash spending for the required work and provided for as per approved mine closure plan. The estimate of expenses is escalated for inflation and then discounted at a pre-tax discount rate that reflects current market assessment of the time value of money and risk, such that the amount of provision reflects the present value of expenditure required to settle the obligation. The Group recognizes a corresponding asset under property, plant and equipment as a separate item for the cost associated with such obligation. Upon commercial declaration of mines, the mine closure, site restoration and decommissioning obligations are amortized on straight line method over the balance life of the mine.

The value of the obligation is progressively increased over time as the effect of discounting unwinds and the same is recognized as finance costs.

Further, a specific escrow account is maintained for this purpose as per approved mine closure plan. The progressive mine closure expenses incurred on year to year basis, forming part of the total mine closure obligation, are initially recognized as receivable from escrow account and thereafter adjusted with the obligation in the year in which the amount is withdrawn from escrow account after concurrence of the certifying agency.

7. Borrowing costs

Borrowing costs consist of (a) interest expense calculated using the effective interest method as described in Ind AS 109 – 'Financial Instruments' (b) interest expense on lease liabilities recognized in accordance with Ind AS 116– 'Leases' and(c) exchange differences arising from foreign currency borrowings to the extent that they are regarded as an adjustment to interest costs.

Borrowing costs that are directly attributable to the acquisition, construction/exploration/ development or erection of qualifying assets are capitalized as part of cost of such asset until such time the assets are substantially ready for their intended use. Qualifying assets are assets which necessarily take substantial period of time to get ready for their intended use or sale.

When the Group borrows funds specifically for the purpose of obtaining a qualifying asset, the borrowing costs incurred are capitalized. When Group borrows funds generally and uses them for the purpose of obtaining a qualifying asset, the capitalization of the borrowing costs is computed based on the weighted average cost of all borrowings that are outstanding during the period and used for the acquisition, construction/exploration or erection of the qualifying asset. However, borrowing costs applicable to borrowings made specifically for the purpose of obtaining a qualifying asset, are excluded from this calculation, until substantially all the activities necessary to prepare that asset for its intended use or sale are complete.



Income earned on temporary investment made out of the borrowings pending utilization for expenditure on the qualifying assets is deducted from the borrowing costs eligible for capitalization.

Capitalization of borrowing costs ceases when substantially all the activities necessary to prepare the qualifying assets for their intended use are complete.

Other borrowing costs are recognized as an expense in the year in which they are incurred.

The Group can incur borrowing costs during an extended period in which it suspends the activities necessary to prepare an asset for its intended use or sale. Such costs are costs of holding partially completed assets and is not eligible for capitalisation. However, the Group does not normally suspend capitalising borrowing costs during a period when it carries out substantial technical and administrative work. The Group also does not suspend capitalising borrowing costs when a temporary delay is a necessary part of the process of getting an asset ready for its intended use or sale.

8. Inventories

Inventories are valued at the lower of cost and net realizable value. Cost is determined on weighted average basis.

The diminution in the value of obsolete/ unserviceable/surplus stores and spares and non-moving unserviceable inventories is ascertained on review and provided for.

Transit and handling losses of coal as per Group's norms are included in cost of coal.

9. Government grants

Government grants are recognized when there is reasonable assurance that they will be received and the Group will comply with the conditions associated with the grant. Grants that compensate the Group for the cost of depreciable asset are recognized as income in statement of profit and loss on a systematic basis over the period and in the proportion in which depreciation is charged. Grants that compensate the Group for expenses incurred are recognized over the period in which the related costs are incurred and the same is deducted from the related expenses.

10. Fly ash utilization reserve fund

Proceeds from sale of ash/ash products along-with income on investment of surplus fund are transferred to 'Fly ash utilization reserve fund' in terms of provisions of gazette notifications issued by Ministry of Environment and Forests & Climate Change, Government of India, from time to time. The fund is utilized towards expenditure on development of infrastructure/facilities, promotion & facilitation activities for use of fly ash.

11. Provisions, contingent liabilities, and contingent assets

A provision is recognized if, as a result of a past event, the Group has a present legal or constructive obligation that can be estimated reliably, and it is probable that an outflow of economic benefits will be required to settle the obligation. If the effect of the time value of money is material, provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the liability. When discounting is used, the increase in the provision due to the passage of time is recognized as a finance cost.

The amount recognized as a provision is the best estimate of the consideration required to settle the present obligation at reporting date, taking into account the risks and uncertainties surrounding the obligation.

When some or all of the economic benefits required to settle a provision are expected to be recovered from a third party, the receivable is recognized as an asset if it is virtually certain that reimbursement will be received and the amount of the receivable can be measured reliably. The expense relating to a provision is presented in the statement of profit and loss net of reimbursement, if any.

Contingent liabilities are possible obligations that arise from past events and whose existence will only be confirmed by the occurrence or non-occurrence of one or more future events not wholly within the control of the Group. Where it is not probable that an outflow of economic benefits will be required, or the amount cannot be estimated reliably, the obligation is disclosed as a contingent liability, unless the probability of outflow of economic benefits is remote. Contingent liabilities are disclosed on the basis of judgment of the management/independent experts. These are reviewed at each balance sheet date and are adjusted to reflect the current management estimate.

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Contingent assets are possible assets that arise from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the Group. Contingent assets are disclosed in the financial statements when inflow of economic benefits is probable on the basis of judgment of management. These are assessed continually to ensure that developments are appropriately reflected in the financial statements.

Present obligations arising under onerous contracts are recognised and measured as provisions. An onerous contract is considered to exist where the Group has a contract under which the unavoidable costs of meeting the obligations under the contract exceed the economic benefits expected to be received from the contract.

12. Foreign currency transactions and translation

Transactions in foreign currencies are initially recorded at the functional currency spot exchange rates at the date the transaction first qualifies for recognition.

Monetary assets and liabilities denominated in foreign currencies outstanding at the reporting date are translated at the functional currency spot rates of exchange prevailing on that date. Exchange differences arising on settlement or translation of monetary items are recognized in the statement of profit and loss in the year in which it arises with the exception that exchange differences on long term monetary items related to acquisition of property, plant and equipment recognized up to 31 March 2016 are adjusted to the carrying cost of property, plant and equipment.

Non-monetary items denominated in foreign currency which are measured in terms of historical cost are recorded using the exchange rate at the date of the transaction. In case of advance consideration received or paid in a foreign currency, the date of transaction for the purpose of determining the exchange rate to use on initial recognition of the related asset, expense or income (or part of it), is when the Group initially recognizes the non-monetary asset or non-monetary liability arising from the payment or receipt of advance consideration.

The results and financial position of foreign operations (none of which has the currency of a hyperinflationary economy) that have a functional currency different from the presentation currency are translated into the presentation currency as follows:

- Assets and liabilities are translated at the closing rate at the date of that balance sheet
- Income and expenses are translated at average exchange rates and
- All resulting exchange differences are recognized in OCI.

On consolidation, exchange differences arising from the translation of any net investment in foreign entities are recognized in OCI. The associated exchange differences are reclassified to profit or loss, as part of the gain or loss on disposal of the net investment.

13. Revenue

Group's revenues arise from sale and trading of energy, consultancy, project management & supervision services, income on assets under lease, supply of coal from integrated coal mines and other income. Revenue from other income comprises interest from banks, employees, contractors etc., dividend from investments in joint venture & subsidiary companies, dividend from mutual fund investments, surcharge received from beneficiaries for delayed payments, sale of scrap, other miscellaneous income, etc.

13.1 Revenue from sale of energy

The majority of the Group's operations in India are regulated under the Electricity Act, 2003. Accordingly, the CERC determines the tariff for the Group's power plants based on the norms prescribed in the tariff regulations as applicable from time to time. Tariff is based on the capital cost incurred for a specific power plant and primarily comprises two components: capacity charge i.e. a fixed charge that includes depreciation, return on equity, interest on working capital, operating & maintenance expenses, interest on loan and energy charge i.e. a variable charge primarily based on fuel costs. Tariff for Group's integrated coal mines are also determined by CERC based on the norms prescribed in the CERC Tariff Regulations.

Revenue from sale of energy is accounted for based on tariff rates approved by the CERC (except items indicated as provisional) as modified by the orders of Appellate Tribunal for Electricity to the extent applicable. In case of power

stations where the tariff rates are yet to be approved/items indicated provisional by the CERC in their orders, provisional rates are adopted considering the applicable CERC Tariff Regulations. Revenue from sale of energy is recognized once the electricity has been delivered to the beneficiary and is measured through a regular review of usage meters. Beneficiaries are billed on a periodic and regular basis. As at each reporting date, revenue from sale of energy includes an accrual for sales delivered to beneficiaries but not yet billed i.e. contract assets/ unbilled revenue.

The incentives/disincentives are accounted for based on the norms notified/approved by the CERC as per principles enunciated in Ind AS 115 - 'Revenue from contracts with customers'. In cases of power stations where the same have not been notified/approved, incentives/disincentives are accounted for on provisional basis.

Part of revenue from energy sale where CERC tariff Regulations are not applicable is recognized based on the rates, terms & conditions mutually agreed with the beneficiaries and trading of power through power exchanges.

Exchange differences arising from settlement/translation of monetary items denominated in foreign currency to the extent recoverable from or payable to the beneficiaries in subsequent periods as per the CERC Tariff Regulations are accounted as 'Regulatory deferred account balances' and such balances are adjusted in the year in which the same becomes recoverable/payable to the beneficiaries.

Exchange differences on account of translation of foreign currency borrowings recognized up to 31 March 2016, to the extent recoverable from or payable to the beneficiaries in subsequent periods as per the CERC Tariff Regulations are accounted as 'Deferred foreign currency fluctuation asset' with corresponding credit to 'Deferred income from foreign currency fluctuation'. Deferred income from foreign currency fluctuation account is amortized in the proportion in which depreciation is charged on such exchange differences and same is adjusted against depreciation expense. Fair value changes in respect of forward exchange contracts for derivatives recoverable from/payable to the beneficiaries as per the CERC Tariff Regulations, are recognized in sales.

Revenue from sale of energy through trading is recognized based on the rates, terms & conditions mutually agreed with the beneficiaries as per the guidelines issued by Ministry of New and Renewable Energy, Government of India.

Rebates allowed to beneficiaries as early payment incentives are deducted from the amount of revenue.

Revenue from sale of energy saving certificates is accounted for as and when sold.

13.2. Revenue from services

Revenue from consultancy, project management and supervision services rendered is measured based on the consideration that is specified in a contract with a customer or is expected to be received in exchange for the services, which is determined on output method and excludes amounts collected on behalf of third parties. The Group recognizes revenue when the performance obligation is satisfied, which typically occurs when control over the services is transferred to a customer.

Reimbursement of expenses is recognized as other income, as per the terms of the service contracts.

Contract modifications are accounted for when additions, deletions or changes are approved either to the contract scope or contract price. The accounting for modifications of contracts involves assessing whether the services added to an existing contract are distinct and whether the pricing is at the standalone selling price. Services added that are not distinct are accounted for on a cumulative catch up basis, while those that are distinct are accounted for prospectively, either as a separate contract, if the additional services are priced at the standalone selling price, or as a termination of the existing contract and creation of a new contract if not priced at the standalone selling price.

13.3. Other income

Interest income is recognized, when no significant uncertainty as to measurability or collectability exist, on a time proportion basis taking into account the amount outstanding and the applicable interest rate, using the effective interest rate method (EIR). For debt instruments measured either at amortized cost or at fair value through other comprehensive income (OCI), interest income is recognized using the EIR to the gross carrying amount of the financial asset and included in other income in the statement of profit and loss. For purchased or originated credit-impaired (POCI) financial assets interest income is recognized by calculating the credit-adjusted EIR and applying that rate to the amortized cost of the asset.

Insurance claims for loss of profit are accounted for in the year of acceptance. Other insurance claims are accounted for based on certainty of realization.

Revenue from rentals and operating leases is recognized on an accrual basis in accordance with the substance of the relevant agreement.

The interest/surcharge on late payment/overdue trade receivables for sale of energy is recognized when no significant uncertainty as to measurability or collectability exists.

Interest/surcharge recoverable on advances to contractors and suppliers as well as warranty claims wherever there is uncertainty of realization/acceptance are not treated as accrued and are therefore, accounted for on receipt/acceptance.

Dividend income is recognized in profit or loss only when the right to receive is established, it is probable that the economic benefits associated with the dividend will flow to the Group, and the amount of the dividend can be measured reliably.

14. Employee benefits

14.1. Defined contribution plans

A defined contribution plan is a post-employment benefit plan under which an entity pays fixed contributions to separate entities and will have no legal or constructive obligation to pay further amounts. Obligations for contributions to defined contribution plans are recognized as an employee benefits expense in statement of profit and loss in the period during which services are rendered by employees. Prepaid contributions are recognized as an asset to the extent that a cash refund or a reduction in future payments is available. Contributions to a defined contribution plan that are due after more than 12 months after the end of the period in which the employees render the service are discounted to their present value.

For detailed disclosure on Group's defined contribution schemes, refer note no 58.

14.2. Defined benefit plans

A defined benefit plan is a post-employment benefit plan other than a defined contribution plan. The Group's liability towards gratuity, pension scheme at two of the stations in respect of taken over employees from the erstwhile state government power utility, post-retirement medical facility(PRMF), baggage allowance for settlement at home town after retirement, farewell gift on retirement and provident fund scheme to the extent of interest liability on provident fund contribution are in the nature of defined benefit plans.

For detailed disclosure on Group's defined benefit schemes, refer note no 58.

The Group's net obligation in respect of defined benefit plans is calculated separately for each plan by estimating the amount of future benefit that employees have earned in return for their service in the current and prior periods; that benefit is discounted to determine its present value. The fair value of any plan assets is deducted. The discount rate is based on the prevailing market yields of Indian government securities as at the reporting date that have maturity dates approximating the terms of the Group's obligations and that are denominated in the same currency in which the benefits are expected to be paid.

The actuarial calculation is performed annually by a qualified actuary using the projected unit credit method. When the calculation results in a benefit to the Group, the recognized asset is limited to the present value of economic benefits available in the form of any future refunds from the plan or reductions in future contributions to the plan. An economic benefit is available to the Group if it is realizable during the life of the plan, or on settlement of the plan liabilities. Remeasurement comprising actuarial gain and losses, return on plan assets (excluding the amount included in net interest on the net defined liability) & effect of asset ceiling (excluding the amount included in net interest on the net defined liability) and the same are recognized in the Other Comprehensive Income (OCI) in the period in which they arise.

Past service costs are recognized in statement of profit and loss on the earlier of the date of the plan amendment or curtailment, and the date that the Group recognizes related restructuring costs. If a plan amendment, curtailment or settlement occurs, the current service cost and the net interest for the period after the re-measurement are determined using the assumptions used for the re-measurement.

14.3. Other long-term employee benefits

Benefits under the Group's leave encashment, long-service award and economic rehabilitation scheme constitute other long term employee benefits.



The Group's net obligation in respect of these long-term employee benefits is calculated separately for each plan by estimating the amount of future benefit that employees have earned in return for their service in the current and prior periods; that benefit is discounted to determine its present value and the fair value of any related assets is deducted. The discount rate is based on the prevailing market yields of Indian government securities as at the reporting date that have maturity dates approximating the terms of the Group's obligations and that are denominated in the same currency in which the benefits are expected to be paid.

The actuarial calculation is performed annually by a qualified actuary using the projected unit credit method. Remeasurement comprising of actuarial gain and losses, return on plan assets (excluding the amount included in net interest on the net defined liability) & effect of asset ceiling (excluding the amount included in net interest on the net defined liability) and the same are recognized in statement of profit and loss account in the period in which they arise.

The obligations are presented as current liabilities in the balance sheet if the Group does not have an unconditional right to defer settlement for at least twelve months after the reporting period, regardless of when the actual settlement is expected to occur.

14.4. Short-term benefits

Short-term employee benefit obligations are measured on an undiscounted basis and are expensed as the related service is provided.

A liability is recognized for the amount expected to be paid under performance related pay if the Group has a present legal or constructive obligation to pay this amount as a result of past service provided by the employee and the obligation can be estimated reliably.

15. Income tax

Income tax expense comprises current and deferred tax. Current tax expense is recognized in statement of profit and loss except to the extent that it relates to items recognized directly in OCI or equity, in which case it is recognized in OCI or equity, respectively.

Current tax is the expected tax payable on the taxable income for the year computed as per the provisions of Income Tax Act, 1961, using tax rates enacted or substantively enacted by the end of the reporting period, and any adjustment to tax payable in respect of previous years.

Deferred tax is recognized using the balance sheet method, on temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the tax bases of assets and liabilities. Deferred tax is measured at the tax rates that are expected to be applied to temporary differences when they materialize, based on the laws that have been enacted or substantively enacted by the reporting date. Deferred tax assets and liabilities are offset if there is a legally enforceable right to offset current tax assets against the current tax liabilities, and they relate to income taxes levied by the same tax authority.

Deferred tax is recognized in statement of profit and loss except to the extent that it relates to items recognized directly in OCI or equity, in which case it is recognized in OCI or equity, respectively.

Deferred tax liability is recognized for all taxable temporary differences, except when the deferred tax liability arises from the initial recognition of goodwill or an asset or liability in a transaction that is not a business combination and, at the time of transaction, (i) affects neither accounting nor taxable profit or loss and (ii) does not give rise to equal taxable and deductible temporary differences.

A deferred tax asset is recognized for all deductible temporary differences to the extent that it is probable that future taxable profits will be available against which the deductible temporary difference can be utilized. Deferred tax assets are reviewed at each reporting date and are reduced to the extent that it is no longer probable that the sufficient taxable profits will be available in future to allow all or part of deferred tax assets to be utilized.

Deferred tax liabilities are not recognized for taxable temporary differences between the carrying amount and tax bases of investments in subsidiaries and interests in joint arrangements where the Group is able to control the timing of the reversal of the temporary differences and it is probable that the temporary differences will not reverse in the foreseeable future.

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Deferred tax assets are not recognized for deductible temporary differences between the carrying amount and tax bases of investments in subsidiaries and interest in joint arrangements where it is not probable that the differences will reverse in the foreseeable future or taxable profit will not be available against which the temporary difference can be utilized.

Deferred tax assets include Minimum Alternative Tax (MAT) paid in accordance with the tax laws in India, which is likely to give future economic benefits in the form of availability of set off against future income tax liability. MAT credit is recognized as deferred tax asset in the balance sheet when the asset can be measured reliably and it is probable that the future taxable profit will be available against which MAT credit can be utilized.

When there is uncertainty regarding income tax treatments, the Group assesses whether a tax authority is likely to accept an uncertain tax treatment. If it concludes that the tax authority is unlikely to accept an uncertain tax treatment, the effect of the uncertainty on taxable income, tax bases and unused tax losses and unused tax credits is recognized. The effect of the uncertainty is recognized using the method that, in each case, best reflects the outcome of the uncertainty: the most likely outcome or the expected value. For each case, the Group evaluates whether to consider each uncertain tax treatment separately, or in conjunction with another or several other uncertain tax treatments, based on the approach that best prefixes the resolution of uncertainty.

16. Leases

16.1. As lessee

The Group assesses whether a contract contains a lease, at inception of a contract. A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. To assess whether a contract conveys the right to control the use of an identified asset, the Group assesses whether: (1) the contact involves the use of an identified asset (2) the Group has substantially all of the economic benefits from use of the asset through the period of the lease and (3) the Group has the right to direct the use of the asset.

The Group recognizes a right-of-use asset and a corresponding lease liability for all lease arrangements in which it is a lessee, except for leases with a term of twelve months or less (short-term leases) and leases for low value underlying assets. For these short-term and leases for low value underlying assets, the Group recognizes the lease payments as an operating expense on a straight-line basis over the term of the lease.

Certain lease arrangements include the options to extend or terminate the lease before the end of the lease term. Right-of use assets and lease liabilities include these options when it is reasonably certain that the option to extend the lease will be exercised/option to terminate the lease will not be exercised.

The right-of-use assets (other than land and buildings) are initially recognized at cost, which comprises the initial amount of the lease liability adjusted for any lease payments made at or prior to the commencement date of the lease plus any initial direct costs less any lease incentives. They are subsequently measured at cost less accumulated depreciation/amortization and impairment losses and adjusted for any reassessment of lease liabilities.

Right-of-use assets are depreciated/amortized from the commencement date to the end of the useful life of the underlying asset, if the lease transfers ownership of the underlying asset by the end of lease term or if the cost of right-of-use assets reflects that the purchase option will be exercised. Otherwise, Right-of-use assets are depreciated/amortized from the commencement date on a straight-line basis over the shorter of the lease term and useful life of the underlying asset.

Right-of-use assets are evaluated for recoverability whenever events or changes in circumstances indicate that their carrying amounts may not be recoverable. For the purpose of impairment testing, the recoverable amount (i.e. the higher of the fair value less costs of disposal and the value-in-use) is determined on an individual asset basis unless the asset does not generate cash flows that are largely independent of those from other assets. In such cases, the recoverable amount is determined for the Cash Generating Unit (CGU) to which the asset belongs.

The lease liability is initially measured at amortized cost at the present value of the future lease payments. In calculating the present value, lease payments are discounted using the interest rate implicit in the lease or, if not readily determinable, using the incremental borrowing rate. Lease liabilities are re-measured with a corresponding adjustment to the related right-of-use asset if the Group changes its assessment whether it will exercise an extension or a termination option.



16.2. As lessor

At the inception of an arrangement, the Group determines whether such an arrangement is or contains a lease. A specific asset is subject of a lease if fulfillment of the arrangement is dependent on the use of that specified asset. An arrangement conveys the right to use the asset if the arrangement conveys to the customer the right to control the use of the underlying asset. Arrangements that do not take the legal form of a lease but convey rights to customers/ suppliers to use an asset in return for a payment or a series of payments are identified as either finance leases or operating leases.

When the Group is an intermediate lessor, it accounts for its interests in the head lease and the sub lease separately. It assesses the lease classification of a sub-lease with reference to the right-of-use assets arising from the head lease, not with reference to the underlying asset .

Accounting for finance leases

Where the Group determines a long term Power Purchase Agreement (PPA) to be or to contain a lease and where the off taker has the principal risk and rewards of ownership of the power plant through its contractual arrangements with the Group, the arrangement is considered a finance lease. Capacity payments are apportioned between capital repayments relating to the provision of the plant, finance income and service income. The finance income element of the capacity payment is recognized as revenue, using a rate of return specific to the plant to give a constant periodic rate of return on the net investment in each period. The service income element of the capacity payment is the difference between the total capacity payment and the amount recognized as finance income and capital repayments and recognized as revenue as it is earned.

The amounts due from lessees under finance leases are recorded in the balance sheet as financial assets, classified as 'Finance lease receivables', at the amount equal to the net investment in the lease.

Accounting for operating leases

Where the Group determines a long term PPA to be or to contain a lease and where the Group retains the principal risks and rewards of ownership of the power plant, the arrangement is considered an operating lease.

For operating leases, the power plant is capitalized as property, plant and equipment and depreciated over its economic life. Rental income from operating leases is recognized on a straight line basis over the term of the arrangement.

17. Impairment of non-financial assets

The carrying amounts of the Group's non-financial assets are reviewed at each reporting date to determine whether there is any indication of impairment considering the provisions of Ind AS 36 - 'Impairment of Assets'. If any such indication exists, then the asset's recoverable amount is estimated.

The recoverable amount of an asset or cash-generating unit is the higher of its fair value less costs of disposal and its value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. For the purpose of impairment testing, assets that cannot be tested individually are grouped together into the smallest group of assets that generates cash inflows from continuing use that are largely independent of the cash inflows of other assets or groups of assets (the 'cash-generating unit', or "CGU").

An impairment loss is recognized if the carrying amount of an asset or its CGU exceeds its estimated recoverable amount. Impairment losses are recognized in the statement of profit and loss. Impairment losses recognized in respect of CGUs are reduced from the carrying amounts of the assets of the CGU.

Impairment losses recognized in prior periods are assessed at each reporting date for any indications that the loss has decreased or no longer exists. An impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of accumulated depreciation or amortization, if no impairment loss had been recognized.

18. Operating segments

In accordance with Ind AS 108 – 'Operating segments', the operating segments used to present segment information are identified on the basis of internal reports used by the Group's management to allocate resources to the segments and assess their performance. The Board of Directors is collectively the Group's 'Chief Operating Decision Maker' or 'CODM' within the meaning of Ind AS 108. The indicators used for internal reporting purposes may evolve in connection with performance assessment measures put in place.

19. Business Combinations

(i) Business combinations are accounted for using the acquisition accounting method as at the date of the acquisition, which is the date at which control is transferred to the Group. The consideration transferred in the acquisition and the identifiable assets acquired and liabilities assumed are recognized at fair values on their acquisition date. Goodwill is initially measured at cost, being the excess of the consideration transferred over the net identifiable assets acquired and liabilities assumed. Where the fair value of net identifiable assets acquired and liabilities assumed exceed the consideration transferred, after reassessing the fair values of the net assets and contingent liabilities, the excess is recognized as capital reserve. Acquisition related costs are expensed as incurred.

(ii) Business combinations involving entities that are controlled by the Group are accounted for using the pooling of interests method wherein the assets and liabilities of the combining entities are reflected at their carrying amounts and no adjustments are made to reflect fair values, or recognise any new assets or liabilities. The only adjustments that are made are to harmonise accounting policies.

The financial information in the financial statements in respect of prior periods is restated as if the business combination had occurred from the beginning of the preceding period in the financial statements, irrespective of the actual date of the combination. However, where the business combination had occurred after that date, the prior period information is restated only from that date.

The balance of the retained earnings appearing in the financial statements of the transferor is aggregated with the corresponding balance appearing in the financial statements of the transferee. The identity of the reserves is preserved and the reserves of the transferor become the reserves of the transferee. The difference, if any, between the amounts recorded as share capital issued plus any additional consideration in the form of cash or other assets and the amount of share capital of the transferor is transferred to capital reserve and is presented separately from other capital reserves.

20. Dividends

Dividends and interim dividends payable to the Group's shareholders are recognized as changes in equity in the period in which they are approved by the shareholders and the Board of Directors respectively.

21. Material prior period errors

Material prior period errors are corrected retrospectively by restating the comparative amounts for the prior periods presented in which the error occurred. If the error occurred before the earliest period presented, the opening balances of assets, liabilities and equity for the earliest period presented, are restated.

22. Financial instruments

A financial instrument is any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity. The Group recognizes a financial asset or a financial liability only when it becomes party to the contractual provisions of the instrument.

22.1. Financial assets

Initial recognition and measurement

All financial assets are recognized at fair value on initial recognition, except for trade receivables which are initially measured at transaction price. Transaction costs that are directly attributable to the acquisition of financial assets, which are not valued at fair value through profit or loss, are added to the fair value on initial recognition.

Subsequent measurement

Debt instruments at amortized cost

A 'debt instrument' is measured at the amortized cost if both the following conditions are met:



(a) The asset is held within a business model whose objective is to hold assets for collecting contractual cash flows, and

(b) Contractual terms of the asset give rise on specified dates to cash flows that are solely payments of principal and interest (SPPI) on the principal amount outstanding.

After initial measurement, such financial assets are subsequently measured at amortized cost using the effective interest rate (EIR) method. Amortized cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the EIR. The EIR amortization is included in finance income in the statement of profit and loss. The losses arising from impairment are recognized in the statement of profit and loss. This category generally applies to trade and other receivables.

Debt instrument at FVTOCI (Fair value through OCI)

A 'debt instrument' is classified as at the FVTOCI if both of the following criteria are met:

(a) The objective of the business model is achieved both by collecting contractual cash flows and selling the financial assets, and

(b) The asset's contractual cash flows represent SPPI

Debt instruments included within the FVTOCI category are measured initially as well as at each reporting date at fair value. Fair value movements are recognized in the OCI. However, the Group recognizes interest income, impairment losses & reversals and foreign exchange gain or loss in the statement of profit and loss. On de-recognition of the asset, cumulative gain or loss previously recognized in OCI is reclassified from the equity to the statement of profit and loss. Interest earned whilst holding FVTOCI debt instrument is reported as interest income using the EIR method.

Debt instrument at FVTPL (Fair value through profit or loss)

FVTPL is a residual category for debt instruments. Any debt instrument, which does not meet the criteria for categorization as at amortized cost or as FVTOCI, is classified as at FVTPL.

In addition, the Group may elect to classify a debt instrument, which otherwise meets amortized cost or FVTOCI criteria, as at FVTPL. However, such election is allowed only if doing so reduces or eliminates a measurement or recognition inconsistency (referred to as 'accounting mismatch'). Debt instruments included within the FVTPL category are measured at fair value with all changes recognized in the statement of profit and loss. Interest income on such investments is presented under 'Other income'.

Business model assessment

The Group holds financial assets which arise from its ordinary course of business. The objective of the business model for these financial assets is to collect the amounts due from the Group's receivables and to earn contractual interest income on the amounts collected.

Investment in Equity instruments

All equity investments in entities other than subsidiaries and joint venture companies are measured at fair value. Equity instruments which are held for trading are classified as at FVTPL. For all other equity instruments, the Group decides to classify the same either as at FVTOCI or FVTPL. The Group makes such election on an instrument by instrument basis. The classification is made on initial recognition and is irrevocable.

If the Group decides to classify an equity instrument as at FVTOCI, then all fair value changes on the instrument, excluding dividends, are recognized in the OCI. There is no recycling of the amounts from OCI to statement of profit and loss, even on sale/disposal of investments. However, the Group may transfer the cumulative gain or loss within equity on sale / disposal of the investments.

Equity instruments included within the FVTPL category are measured at fair value with all changes recognized in the statement of profit and loss. Dividend on such investments is presented under 'Other income'.

De-recognition

A financial asset (or, where applicable, a part of a financial asset or part of a Group of similar financial assets) is primarily de-recognized (i.e. removed from the Group's balance sheet) when:

- The rights to receive cash flows from the asset have expired, or
- The Group has transferred its rights to receive cash flows from the asset or has assumed an obligation to pay the received cash flows in full without material delay to a third party under a 'pass-through' arrangement; and either (a) the Group has transferred substantially all the risks and rewards of the asset, or (b) the Group has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.

The difference between the carrying amount and the amount of consideration received/receivable is recognized in the statement of profit and loss except for equity instruments classified as at FVTOCI, where such differences are recorded in OCI.

Impairment of financial assets

In accordance with Ind AS 109 – 'Financial Instruments', the Group applies expected credit loss (ECL) model for measurement and recognition of impairment loss on the following financial assets and credit risk exposure:

(a) Financial assets that are debt instruments, and are measured at amortized cost e.g., loans, debt securities, deposits and bank balance.

(b) Financial assets that are debt instruments and are measured as at FVTOCI.

(c) Lease receivables under Ind AS 116.

(d) Trade receivables, unbilled revenue and contract assets under Ind AS 115.

(e) Loan commitments which are not measured as at FVTPL.

(f) Financial guarantee contracts which are not measured as at FVTPL.

For trade receivables and contract assets/unbilled revenue, the Group applies the simplified approach required by Ind AS 109 - 'Financial Instruments', which requires lifetime expected losses to be recognized from initial recognition.

For recognition of impairment loss on other financial assets and risk exposure (other than purchased or originated credit impaired financial assets), the Group determines that whether there has been a significant increase in the credit risk since initial recognition. If credit risk has not increased significantly, 12-month ECL is used to provide for impairment loss. However, if credit risk has increased significantly, lifetime ECL is used. If, in a subsequent period, credit quality of the instrument improves such that there is no longer a significant increase in credit risk since initial recognition, then the Group reverts to recognizing impairment loss allowance based on 12-month ECL.

For purchased or originated credit impaired financial assets, a loss allowance is recognized for the cumulative changes in lifetime expected credited losses since initial recognition.

22.2. Financial liabilities

Initial recognition and measurement

Financial liabilities are classified, at initial recognition, as financial liabilities at fair value through profit or loss and financial liabilities at amortized cost, as appropriate. All financial liabilities are recognized initially at fair value and, in the case of liabilities subsequently measured at amortized cost net of directly attributable transaction cost. The Group's financial liabilities include trade and other payables, borrowings including bank overdrafts, financial guarantee contracts and derivative financial instruments.

Subsequent measurement

The measurement of financial liabilities depends on their classification, as described below:

Financial liabilities at amortized cost

After initial measurement, such financial liabilities are subsequently measured at amortized cost using the EIR method. Gains and losses are recognized in statement of profit and loss when the liabilities are derecognized as well as through the EIR amortization process Amortized cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the EIR. The EIR amortization is included in finance costs in the statement of profit and loss. This category generally applies to borrowings, trade payables and other contractual liabilities.



Financial liabilities at fair value through profit or loss

Financial liabilities at fair value through profit or loss include financial liabilities held for trading and financial liabilities designated upon initial recognition as at fair value through profit or loss. Financial liabilities are classified as held for trading if they are incurred for the purpose of repurchasing in the near term. This category also includes derivative financial instruments entered into by the Group that are not designated as hedging instruments in hedge relationships as defined by Ind AS 109. Separated embedded derivatives are also classified as held for trading unless they are designated as effective hedging instruments.

Gains or losses on liabilities held for trading are recognized in the statement of profit and loss.

Financial liabilities designated upon initial recognition at fair value through profit or loss are designated at the initial date of recognition, and only if the criteria in Ind AS 109 are satisfied. For liabilities designated as FVTPL, fair value gains/losses attributable to changes in own credit risk is recognized in OCI. These gains/losses are not subsequently transferred to profit and loss. However, the Group may transfer the cumulative gain or loss within equity on disposal. All other changes in fair value of such liability are recognized in the statement of profit and loss. The Group has not designated any financial liability as at fair value through profit and loss.

De-recognition

A financial liability is derecognized when the obligation under the liability is discharged or cancelled or expires. When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as the de-recognition of the original liability and the recognition of a new liability. The difference in the respective carrying amounts is recognized in the statement of profit and loss.

22.3 Interest rate benchmark reform

When the basis for determining the contractual cash flows of a financial asset or financial liability measured at amortised cost is changed as a result of interest rate benchmark reform, the Group updated the effective interest rate of the financial asset or financial liability to reflect the change that is required by the reform. A change in the basis for determining the contractual cash flows is required by interest rate benchmark reform if the following conditions are met:

- the change is necessary as a direct consequence of the reform; and
- the new basis for determining the contractual cash flows is economically equivalent to the previous basis – i.e. the basis immediately before the change.

When changes were made to a financial asset or financial liability in addition to changes to the basis for determining the contractual cash flows required by interest rate benchmark reform, the Group first updates the effective interest rate of the financial asset or financial liability to reflect the change that is required by interest rate benchmark reform and does not recognise a modification gain or loss in the statement of profit and loss. After that, the Group applies the policies on accounting for modifications to the additional changes.

22.4 Financial guarantee contracts

Financial guarantee contracts issued by the Group are those contracts that require a payment to be made to reimburse the holder for a loss it incurs because the specified debtor fails to make a payment when due in accordance with the terms of a debt instrument. Financial guarantee contracts are recognized initially as a liability at fair value, adjusted for transaction costs that are directly attributable to the issuance of the guarantee. Subsequently, the liability is measured at the higher of the amount of loss allowance determined as per impairment requirements of Ind AS 109 - 'Financial Instruments' and the amount recognized less the cumulative amount of income recognized in accordance with the principles of Ind AS 115 'Revenue from Contracts with Customers'.

22.5 Derivative financial instruments

Initial recognition and subsequent measurement

The Group uses derivative financial instruments, such as forward currency contracts and interest rate swaps to hedge its foreign currency risks and interest rate risks of foreign currency loans. Such derivative financial instruments are initially recognized at fair value on the date on which a derivative contract is entered into and are subsequently re-measured at fair value. Derivatives are carried as financial assets when the fair value is positive and as financial liabilities when the fair value is negative. Any gains or losses arising from changes in the fair value of derivatives are taken to statement of profit and loss.

22.6 Offsetting of financial assets and financial liabilities

Financial assets and financial liabilities are offset and the net amount is presented in the balance sheet if there is a currently enforceable legal right to offset the recognized amounts and there is an intention to settle on a net basis, to realize the assets and settle the liabilities simultaneously.

23. Non-current assets held for sale

The Group classifies non-current assets and disposal groups as held for sale if their carrying amounts will be recovered principally through a sale rather than through continuing use and a sale is considered highly probable.

Management must be committed to the sale, which should be expected to qualify for recognition as a completed sale within one year from the date of classification as held for sale, and actions required to complete the plan of sale should indicate that it is unlikely that significant changes to the plan will be made or that the plan will be withdrawn.

Non-current assets held for sale and disposal groups are measured at the lower of their carrying amount and the fair value less costs of disposal.

Property, plant and equipment and intangible assets once classified as held for sale are not depreciated or amortized.

In circumstances, where an item of property, plant and equipment and intangible asset is permanently abandoned and retired from active use, however criteria of 'non-current assets held for sale' as above are not met, such items are not classified as held for sale and continued to be depreciated over their revised useful lives, as assessed. Such assets are evaluated for impairment in accordance with material accounting policy no. C.17.

D. Use of estimates and management judgements

The preparation of financial statements requires management to make judgments, estimates and assumptions that may impact the application of accounting policies and the reported value of assets, liabilities, revenue, expenses and related disclosures concerning the items involved as well as contingent assets and liabilities at the balance sheet date. The estimates and management's judgments are based on previous experience & other factors considered reasonable and prudent in the circumstances. Actual results may differ from these estimates.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected.

In order to enhance understanding of the financial statements, information about significant areas of estimation, uncertainty and critical judgments in applying accounting policies that have the most significant effect on the amounts recognized in the financial statements is as under:

1. Formulation of accounting policies

The accounting policies are formulated in a manner that results in financial statements containing relevant and reliable information about the transactions, other events and conditions to which they apply. Those policies need not be applied when the effect of applying them is immaterial.

2. Useful life of property, plant and equipment and intangible assets

The estimated useful life of property, plant and equipment and intangible assets is based on a number of factors including the effects of obsolescence, demand, competition and other economic factors (such as the stability of the industry and known technological advances) and the level of maintenance expenditures required to obtain the expected future cash flows from the asset.

Useful life of the assets of the generation of electricity business and integrated coal mines (where tariff is regulated) is determined by the CERC Tariff Regulations in accordance with Schedule II of the Companies Act, 2013.

3. Recoverable amount of property, plant and equipment and intangible assets

The recoverable amount of property, plant and equipment and intangible assets is based on estimates and assumptions regarding in particular the expected market outlook and future cash flows associated with the power plants. Any changes in these assumptions may have a material impact on the measurement of the recoverable amount and could result in impairment.

4. Defined benefit plans and long-term employee benefits

Employee benefit obligations are measured on the basis of actuarial assumptions which include mortality and withdrawal rates as well as assumptions concerning future developments in discount rates, the rate of salary increases and the inflation rate. The Group considers that the assumptions used to measure its obligations are appropriate and documented. However, any changes in these assumptions may have a material impact on the resulting calculations.

5. Revenues

The Group records revenue from sale of energy based on tariff rates approved by the CERC as modified by the orders of Appellate Tribunal for Electricity, as per principles enunciated under Ind AS 115. However, in cases where tariff rates are yet to be approved, provisional rates are adopted considering the applicable CERC Tariff Regulations.

6. Leases not in legal form of lease

Significant judgment is required to apply lease accounting rules as per Ind AS 116 in determining whether an arrangement contains a lease. In assessing arrangements entered into by the Group, management has exercised judgment to evaluate the right to use the underlying asset, substance of the transactions including legally enforceable agreements and other significant terms and conditions of the arrangements to conclude whether the arrangement meets the criteria as per Ind AS 116.

7. Assets held for sale

Significant judgment is required to apply the accounting of non-current assets held for sale under Ind AS 105 - 'Non-current assets held for sale and discontinued operations'. In assessing the applicability, management has exercised judgment to evaluate the availability of the asset for immediate sale, management's commitment for the sale and probability of sale within one year to conclude if their carrying amount will be recovered principally through a sale transaction rather than through continuing use.

8. Regulatory deferral account balances

Recognition of regulatory deferral account balances involves significant judgments including about future tariff regulations since these are based on estimation of the amounts expected to be recoverable/payable through tariff in future.

9. Provisions and contingencies

The assessments undertaken in recognizing provisions and contingencies have been made in accordance with Ind AS 37 - 'Provisions, contingent liabilities and contingent assets'. The evaluation of the likelihood of the contingent events require best judgment by management regarding the probability of exposure to potential loss. Should circumstances change following unforeseeable developments, this likelihood could alter.

10. Impairment test of investments in Joint Venture Companies

The recoverable amount of investment in joint venture companies is based on estimates and assumptions regarding in particular the future cash flows associated with the operations of the investee Company. Any changes in these assumptions may have a material impact on the measurement of the recoverable amount and could result in impairment.

11. Income taxes

Significant estimates are involved in determining the provision for current and deferred tax, including amount expected to be paid/recovered for uncertain tax positions.

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2. Non-current assets - Property, plant and equipment

As at 31 March 2024 ₹ Crore

Particulars	Gross block				Depreciation, amortization and impairment				Net block
	As at 1 April 2023	Additions	Deductions/ adjustments	As at 31 March 2024	As at 1 April 2023	For the year	Deductions/ adjustments	Upto 31 March 2024	As at 31 March 2024
Land (including development expenses)									
Freehold	9,264.34	199.29	(26.11)	**9,437.52**	-	-	-	**-**	**9,437.52**
Right of use	4,030.74	1,528.67	1.48	**5,560.89**	566.36	176.38	1.47	**744.21**	**4,816.68**
Under submergence (refer footnote (d) below)	2,598.52	96.43	-	**2,694.95**	1,008.67	74.42	-	**1,083.09**	**1,611.86**
Right of use - Coal Bearing Area Land	4,320.81	535.45	-	**4,856.26**	454.71	153.78	-	**608.49**	**4,247.77**
Roads, bridges, culverts and helipads	2,493.14	406.11	(6.12)	**2,893.13**	532.26	111.79	(6.14)	**637.91**	**2,255.22**
Building									
Freehold									
Main plant	12,991.43	502.98	(352.36)	**13,142.05**	3,167.33	459.99	(159.11)	**3,468.21**	**9,673.84**
Others	7,548.73	796.35	260.47	**8,605.55**	1,557.75	337.25	94.10	**1,989.10**	**6,616.45**
Right of use	59.25	12.90	(4.66)	**67.49**	32.64	11.13	(4.14)	**39.63**	**27.86**
Temporary erection	82.80	1.26	43.12	**127.18**	80.43	1.93	43.12	**125.48**	**1.70**
Water supply, drainage and sewerage system	1,245.30	199.52	26.42	**1,471.24**	375.55	60.44	10.46	**446.45**	**1,024.79**
Hydraulic works, barrages, dams, tunnels and power channel	11,284.49	690.71	9,718.16	**21,693.36**	6,103.03	853.18	2,394.65	**9,350.86**	**12,342.50**
MGR track and signalling system	5,701.27	292.62	(0.23)	**5,993.66**	1,071.12	321.69	-	**1,392.81**	**4,600.85**
Railway siding	4,011.98	442.72	0.11	**4,454.81**	926.42	234.01	0.09	**1,160.52**	**3,294.29**
Earth dam reservoir	1,114.48	276.61	-	**1,391.09**	178.01	64.54	-	**242.55**	**1,148.54**
Plant and equipment									
Owned	2,63,867.50	28,955.93	(10,761.78)	**2,82,061.65**	79,745.58	14,465.76	(3,420.29)	**90,791.05**	**1,91,270.60**
Right of use	85.78	-		**85.78**	37.88	4.75	-	**42.63**	**43.15**
Mining Properties	1,365.07	823.71	(280.90)	**1,907.88**	203.69	35.70	(24.97)	**214.42**	**1,693.46**
Site restoration cost	253.46	190.07	(32.22)	**411.31**	22.61	9.49	-	**32.10**	**379.21**
Furniture and fixtures	1,024.49	127.03	(14.79)	**1,136.73**	393.52	77.73	(11.71)	**459.54**	**677.19**
Vehicles including speedboats / helicopter									
Owned	192.28	12.19	(3.47)	**201.00**	54.53	20.35	(2.47)	**72.41**	**128.59**
Right of use	77.34	9.69	(57.73)	**29.30**	31.17	10.36	(25.52)	**16.01**	**13.29**
Office equipment	677.64	128.65	(78.63)	**727.66**	369.25	83.84	(62.48)	**390.61**	**337.05**
EDP, WP machines and satcom equipment	600.64	150.17	(77.07)	**673.74**	440.21	93.96	(56.73)	**477.44**	**196.30**
Construction equipment	342.53	27.09	(7.46)	**362.16**	151.22	27.42	(4.39)	**174.25**	**187.91**
Electrical installations	2,710.73	322.91	106.09	**3,139.73**	837.26	150.91	63.63	**1,051.80**	**2,087.93**
Communication equipment	143.40	25.99	32.14	**201.53**	78.82	18.29	9.07	**106.18**	**95.35**
Hospital equipment	69.26	5.20	0.61	**75.07**	33.47	7.09	0.16	**40.72**	**34.35**
Laboratory and workshop equipment	278.84	13.04	1.77	**293.65**	100.25	13.27	0.52	**114.04**	**179.61**
Assets for ash utilisation	60.79	10.16	-	**70.95**	-	-	-	**-**	**70.95**
Less: Adjusted from fly ash utilisation reserve fund	60.79	10.16	-	**70.95**	-	-	-	**-**	**70.95**
Total	**3,38,436.24**	**36,773.29**	**(1,513.16)**	**3,73,696.37**	**98,553.74**	**17,879.45**	**(1,160.68)**	**1,15,272.51**	**2,58,423.86**

As at 31 March 2023 ₹ Crore

Particulars	Gross block				Depreciation, amortization and impairment				Net block
	As at 1 April 2022	Additions	Deductions/ adjustments	As at 31 March 2023	As at 1 April 2022	For the year	Deductions/ adjustments	Upto 31 March 2023	As at 31 March 2023
Land (including development expenses)									
Freehold	9,141.50	128.23	(5.39)	9,264.34	-	-	-	-	9,264.34
Right of use	3,433.43	856.10	(258.79)	4,030.74	582.24	165.34	(181.22)	566.36	3,464.38
Under submergence (refer footnote (d) below)	2,530.23	68.31	(0.02)	2,598.52	937.18	71.49	-	1,008.67	1,589.85
Right of use - Coal Bearing Area Land	4,082.64	238.17	-	4,320.81	331.13	123.58	-	454.71	3,866.10
Roads, bridges, culverts and helipads	2,230.48	264.53	(1.87)	2,493.14	440.91	91.23	0.12	532.26	1,960.88
Building									
Freehold									
Main plant	12,538.01	457.62	(4.20)	12,991.43	2,728.91	443.00	(4.58)	3,167.33	9,824.10
Others	6,722.92	852.45	(26.64)	7,548.73	1,294.52	285.92	(22.69)	1,557.75	5,990.98
Right of use	55.85	5.89	(2.49)	59.25	25.66	9.16	(2.18)	32.64	26.61
Temporary erection	81.15	5.81	(4.16)	82.80	79.12	5.36	(4.05)	80.43	2.37
Water supply, drainage and sewerage system	1,095.69	150.10	(0.49)	1,245.30	325.03	50.82	(0.30)	375.55	869.75
Hydraulic works, barrages, dams, tunnels and power channel	11,260.77	2.08	21.64	11,284.49	5,743.37	359.66	-	6,103.03	5,181.46
MGR track and signalling system	4,148.27	1,553.54	(0.54)	5,701.27	806.95	264.26	(0.09)	1,071.12	4,630.15
Railway siding	3,688.93	323.81	(0.76)	4,011.98	716.75	209.79	(0.12)	926.42	3,085.56
Earth dam reservoir	545.78	568.70	-	1,114.48	143.57	34.44	-	178.01	936.47
Plant and equipment									
Owned	2,39,449.34	24,928.78	(510.62)	2,63,867.50	67,298.67	13,630.98	(1,184.07)	79,745.58	1,84,121.92
Right of use	85.78	-	-	85.78	33.13	4.75	-	37.88	47.90
Mining Properties	1,285.97	79.10	-	1,365.07	133.48	70.21	-	203.69	1,161.38
Site restoration cost	253.46	-	-	253.46	15.80	6.81	-	22.61	230.85
Furniture and fixtures	940.77	91.77	(8.05)	1,024.49	330.23	69.78	(6.49)	393.52	630.97
Vehicles including speedboats									
Owned	183.36	8.92	-	192.28	35.03	19.77	(0.27)	54.53	137.75
Right of use	52.29	55.19	(30.14)	77.34	39.69	21.23	(29.75)	31.17	46.17
Office equipment	585.01	110.91	(18.28)	677.64	317.75	65.65	(14.15)	369.25	308.39
EDP, WP machines and satcom equipment	544.39	97.88	(41.63)	600.64	403.25	78.05	(41.09)	440.21	160.43
Construction equipment	294.34	49.74	(1.55)	342.53	128.42	24.27	(1.47)	151.22	191.31
Electrical installations	2,434.63	285.18	(9.08)	2,710.73	708.41	133.14	(4.29)	837.26	1,873.47
Communication equipment	125.67	18.50	(0.77)	143.40	68.85	10.58	(0.61)	78.82	64.58
Hospital Equipment	64.56	4.89	(0.19)	69.26	26.11	7.52	(0.16)	33.47	35.79
Laboratory and workshop equipment	269.96	8.98	(0.10)	278.84	87.27	13.02	(0.04)	100.25	178.59
Assets for ash utilisation	57.84	2.95	-	60.79	-	-	-	-	60.79
Less: Adjusted from fly ash utilisation reserve fund	57.84	2.95	-	60.79	-	-	-	-	60.79
Total	3,08,125.18	31,215.18	(904.12)	3,38,436.24	83,781.43	16,269.81	(1,497.50)	98,553.74	2,39,882.50

a) The conveyancing of the title to **15,678.05 acres** of freehold land of value **₹ 2,421.29 crore** (31 March 2023: 15,775.13 acres of value ₹ 2,461.49 crore), buildings and structures of value **₹ 4.97 crore** (31 March 2023: ₹ 4.97 crore) and also execution of lease agreements for **17,251.36 acres** of right of use land of value **₹ 1,064.87 crore** (31 March 2023: 37,390.66 acres of value ₹ 1,584.43 crore) in favour of the Group are awaiting completion of legal formalities.

b) Land includes **1,146.67 acres** of freehold land of value **₹ 22.13 crore** (31 March 2023: 1,295.40 acres of value ₹ 29.56 crore) and **377.71 acres** of right of use land of value **₹ 10.55 crore** (31 March 2023: 376.57 acres of value ₹ 3.07 crore) not in possession of the Company. The Company is taking appropriate steps for repossession of the same.

c) Land-freehold includes an amount of **₹ 263.92 crore** (31 March 2023: ₹ 263.92 crore) deposited with various authorities in respect of land in possession which is subject to adjustment on final determination of price.

d) Gross block of land under submergence represents **₹ 2,516.11 crore** (31 March 2023: ₹ 2,419.68 crore) of freehold land and **₹ 178.83 crore** (31 March 2023: ₹ 178.83 crore) of right of use land. The land has been amortized considering the rate of depreciation provided by the CERC in the tariff regulations and the fact that it will not have any economic value due to deposit of silt and other foreign materials.

e) Possession of land measuring **98 acres** (31 March 2023: 98 acres) consisting of **79 acres** of freehold land (31 March 2023: 79 acres) and **19 acres** of right of use land (31 March 2023: 19 acres) of value **₹ 0.21 crore** (31 March 2023: ₹ 0.21 crore) was transferred to Uttar Pradesh Rajya Vidyut Utpadan Nigam Ltd. (erstwhile UPSEB) for a consideration of ₹ 0.21 crore. Pending approval for transfer of the said land, the area and value of this land has been included in the total land of the Company. The consideration received from erstwhile UPSEB is disclosed under Note 36 - Current liabilities - Other financial liabilities.

f) Operations of one of the thermal power station of the Company (460 MW-TTPS) was discontinued w.e.f. the end of 31 March 2021. Some of the assets have been classified as held for sale considering the requirements of Ind AS 105. Carrying value of remaining assets of the discontinued plant as at 31 March 2024 is **₹ 4.59 crore** (31 March 2023: ₹ 120.52 crore). It is expected that many of the assets are expected to be used in other power plants of the Company. Notwithstanding the above, the net realisable value of the assets of the station has been assessed which is more than its carrying value.

g) Operations of one of the thermal power station (220 MW-Kanti) of the Company was discontinued w.e.f. 8 September 2021. Carrying value of remaining assets of the station as at 31 March 2024 is **₹ 52.38 crore** (31 March 2023: ₹ 97.61 crore). The net realisable value of the assets of the station has been assessed which is more than its carrying value. Since the conditions precedent for classification of these assets as held for sale are not completed, these assets have been continued to be classified under Property,plant and equipment.

h) Operations of Stage-I (2X110 MW-Barauni) of one of the thermal power stations of the Company, along with auxiliary systems except Coal Handling Plant, Switch yard, Ash dyke and township, was discontinued w.e.f. 31 March 2024. Carrying value of remaining assets of the station as at 31 March 2024 is **₹ 20.31 crore.** These assets will be disposed or utilised at other locations of the Company, subsequent to decommissioning of the Units. The net realisable value of the assets of the station has been assessed which is more than its carrying value. Since the conditions precedent for classification of these assets as held for sale are not completed, these assets have been continued to be classified under Property,plant and equipment.

i) Refer Note 74 regarding property, plant and equipment under lease.

j) Spare parts of ₹ 5 lakh and above, stand-by equipment and servicing equipment which meet the definition of property, plant and equipment are capitalized.

k) Property, plant and equipment costing ₹ 5,000/- or less, are depreciated fully in the year of acquisition.

l) Refer Note 27 and Note 33 for information on property, plant and equipment pledged as security by the Group.

m) Refer Note 76(C)(a) for disclosure of contractual commitments for the acquisition of property, plant and equipment.



n) Deduction/adjustments from gross block and depreciation, amortisation and impairment for the year includes:

₹ Crore

Particulars	Gross block		Depreciation, amortization and impairment	
	For the year ended		For the year ended	
	31 March 2024	31 March 2023	**31 March 2024**	31 March 2023
Disposal of assets	**(104.87)**	(60.76)	**(99.17)**	(56.02)
Retirement of assets	**(1,182.64)**	(1,158.92)	**(923.44)**	(928.62)
Cost adjustments due to exchange differences	**(2.53)**	985.46		
Assets capitalised with retrospective effect/ Write back of excess capitalisation	**(40.59)**	(6.43)	**(5.11)**	(3.73)
Transferred to Assets held for sale-Note 22	**(110.45)**	(401.73)	**(96.56)**	(299.30)
Others	**(72.08)**	(261.74)	**(36.40)**	(209.83)
Total	**(1,513.16)**	(904.12)	**(1,160.68)**	(1,497.50)

o) Exchange differences capitalized in Capital work-in-progress (CWIP) are allocated to various heads of CWIP in the year of capitalisation. Exchange differences in respect of assets already capitalised are disclosed in the 'Deductions/Adjustments' column of Property, plant and equipment. Asset-wise details of exchange differences and borrowing costs included in the cost of major heads of CWIP and property, plant and equipment through 'Addition' or 'Deductions/Adjustments' column are given below:

₹ Crore

Particulars	For the year ended 31 March 2024		For the year ended 31 March 2023	
	Exchange differences included in PPE/CWIP	**Borrowing costs included in PPE/CWIP**	Exchange differences included in PPE/CWIP	Borrowing costs included in PPE/CWIP
Building - Freehold				
Main plant	**0.32**	**30.22**	5.02	39.83
Others	**-**	**55.25**	(0.08)	61.60
Hydraulic works, barrages, dams, tunnels and power channel	**3.06**	**288.10**	32.00	267.53
MGR track and signalling system	**-**	**1.36**	0.17	4.82
Railway siding	**-**	**23.05**	-	71.62
Plant and equipment	**9.29**	**2,624.18**	1,034.07	2,762.01
Others including pending allocation	**1.37**	**905.96**	103.81	764.44
Total	**14.04**	**3,928.12**	1,174.99	3,971.85

p) **Impairment loss/Reversal**

Depreciation, amortisation and impairment expense for the year includes impairment reversal amounting **₹ 16.07 crore** of one of the subsidiaries of the Company, for the year ended 31 March 2024 (31 March 2023: ₹ 27.97 crore impairement loss)

q) **Property, plant and equipment subject to operating lease**

The Power Purchase Agreements (PPA) signed in respect of one of the thermal power stations was operative initially for a period of five years with the beneficiaries which are extended, renewed or replaced as the parties mutually agree. The Company has continued to classify this arrangement with its customers as lease based on the practical expedient provided in Ind AS 116. The net carrying value of such leased assets included above are as under:

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Land- Free hold	**51.61**	51.61
Roads, bridges, culverts and helipads	**6.25**	7.81
Main plant building-Freehold	**5.91**	7.68
Other building-Freehold	**14.69**	19.85
Water supply, drainage and sewerage system	**3.70**	4.58
Plant and equipment - Owned	**160.92**	187.30
Railway siding	**0.57**	0.66
Electrical installation	**2.61**	2.86
Others	**1.96**	2.68
	248.22	285.03

(ii) Freehold land includes land measuring **92.23 acres** (31 March 2023: 92.23 acres) of value **₹ 62.23 crore** (31 March 2023: ₹ 62.23 crore) given under operating lease by M/s Patratu Vidyut Utpadan Nigam Ltd., a subsidiary of the Company. Also refer Note 74.

(iii) Vehicles-owned includes electric buses of value **₹ 102.46 crore** (31 March 2023: ₹ 117.25 crore) given under operating lease by M/s NTPC Vidyut Vayapar Nigam Ltd., a subsidiary of the Company. Also refer Note 74.

3. Non-current assets - Capital work-in-progress

As at 31 March 2024

₹ Crore

Particulars	As at 1 April 2023	Additions	Deductions/ adjustments	Capitalized	As at 31 March 2024
Development of land	364.90	86.69	(219.17)	1.95	**230.47**
Roads, bridges, culverts and helipads	748.92	277.44	(62.28)	356.14	**607.94**
Piling and foundation	424.06	-	(286.81)	-	**137.25**
Buildings					
Freehold					
Main plant	2,213.33	610.68	(375.48)	424.49	**2,024.04**
Others	1,705.87	875.84	(139.98)	591.47	**1,850.26**
Temporary erections	20.76	4.01	(6.69)	0.37	**17.71**
Water supply, drainage and sewerage system	190.82	249.03	89.22	161.08	**367.99**



As at 31 March 2024 ₹ Crore

Particulars	As at 1 April 2023	Additions	Deductions/ adjustments	Capitalized	As at 31 March 2024
Hydraulic works, barrages, dams, tunnels and power channel	7,522.31	1,969.37	(36.76)	38.54	**9,416.38**
MGR track and signalling system	66.71	254.81	(192.32)	26.13	**103.07**
Railway siding	718.46	224.55	(139.95)	313.25	**489.81**
Earth dam reservoir	145.95	207.36	(11.78)	261.02	**80.51**
Plant and equipment - owned	66,757.12	24,706.40	(191.28)	26,548.81	**64,723.43**
Furniture and fixtures	3.58	9.71	6.97	15.40	**4.86**
Vehicles	1.79	0.31	(0.02)	2.08	**(0.00)**
Office equipment	26.32	10.62	0.13	7.56	**29.51**
EDP/WP machines and satcom equipment	6.58	3.11	(3.99)	3.73	**1.97**
Construction equipment	1.67	9.22	(4.49)	4.79	**1.61**
Electrical installations	377.99	146.00	(51.11)	176.30	**296.58**
Communication equipment	9.37	11.64	(4.54)	12.92	**3.55**
Hospital equipment	0.30	0.39	0.46	0.75	**0.40**
Laboratory and workshop equipment	0.56	0.68	(0.01)	0.27	**0.96**
Development of coal mines	2,316.69	632.51	(451.61)	823.71	**1,673.88**
	83,624.06	30,290.37	(2,081.49)	29,770.76	**82,062.18**
Expenditure pending allocation					
Survey, investigation, consultancy and supervision charges	450.71	85.27	(104.53)	-	**431.45**
Difference in exchange on foreign currency loans	745.72	3.30	(404.62)	-	**344.40**
Pre-commissioning expenses (net)	287.16	648.21	(930.47)	-	**4.90**
Expenditure during construction period(net)*	1,090.67	5,419.53	(49.01)	209.43	**6,251.76**
Other expenditure directly attributable to project construction	1,086.92	157.74	(766.78)	58.23	**419.65**
Less: Allocated to related works	-	4,399.98	-	-	**4,399.98**
	3,661.18	1,914.07	(2,255.41)	267.66	**3,052.18**
Sub-total	87,285.24	32,204.44	(4,336.90)	30,038.42	**85,114.36**
Less: Provision for unserviceable works	545.81	117.32	(6.90)	-	**656.23**
Construction stores (net of provision)	2,393.69	1,928.68	(1,180.40)	7.30	**3,134.67**
Total	**89,133.12**	**34,015.80**	**(5,510.40)**	**30,045.72**	**87,592.80**

As at 31 March 2023 ₹ Crore

Particulars	As at 1 April 2022	Additions	Deductions/ adjustments	Capitalized	As at 31 March 2023
Development of land	376.47	106.09	(108.93)	8.73	364.90
Roads, bridges, culverts and helipads	581.50	332.57	81.65	246.80	748.92
Piling and foundation	404.97	19.09	-	-	424.06
Buildings					
Freehold					
Main plant	1,606.81	937.93	121.42	452.83	2,213.33
Others	1,786.82	894.68	(127.57)	848.06	1,705.87
Temporary erections	26.40	5.58	(6.53)	4.69	20.76
Water supply, drainage and sewerage system	126.05	179.11	(10.37)	103.97	190.82
Hydraulic works, barrages, dams, tunnels and power channel	6,102.56	1,425.42	(4.69)	0.98	7,522.31
MGR track and signalling system	89.57	451.06	(472.02)	1.90	66.71
Railway siding	1,989.11	512.05	(1,458.89)	323.81	718.46
Earth dam reservoir	481.04	193.64	39.97	568.70	145.95
Plant and equipment-owned	67,429.88	21,141.44	(1,364.51)	20,449.69	66,757.12
Furniture and fixtures	8.99	15.15	3.54	24.10	3.58
Vehicles	3.33	2.98	-	4.52	1.79
Office equipment	31.16	8.88	(0.65)	13.07	26.32
EDP/WP machines and satcom equipment	3.49	4.91	(0.21)	1.61	6.58
Construction equipment	0.08	3.09	(1.44)	0.06	1.67
Electrical installations	571.15	136.82	(146.26)	183.72	377.99
Communication equipment	36.13	12.40	(33.66)	5.50	9.37
Hospital equipment	0.20	0.79	-	0.69	0.30
Laboratory and workshop equipment	1.99	0.33	(0.08)	1.68	0.56
Development of coal mines	1,896.70	456.41	42.68	79.10	2,316.69
	83,554.40	26,840.42	(3,446.55)	23,324.21	83,624.06
Expenditure pending allocation					
Survey, investigation, consultancy and supervision charges	383.07	75.78	(7.57)	0.57	450.71
Difference in exchange on foreign currency loans	715.09	141.25	(110.62)	-	745.72
Pre-commissioning expenses (net)	126.71	492.17	(331.72)	-	287.16
Expenditure during construction period (net)*	2,231.72	5,295.66	(311.75)	-	7,215.63
Other expenditure directly attributable to project construction	1,237.12	260.58	(410.78)	-	1,086.92



As at 31 March 2023 ₹ Crore

Particulars	As at 1 April 2022	Additions	Deductions/ adjustments	Capitalized	As at 31 March 2023
Less: Allocated to related works	-	4,174.17	1,950.79	-	6,124.96
	4,693.71	2,091.27	(3,123.23)	0.57	3,661.18
Sub-total	88,248.11	28,931.69	(6,569.78)	23,324.78	87,285.24
Less: Provision for unserviceable works	539.68	15.41	(9.28)	-	545.81
Construction stores (net of provision)	3,316.78	1,029.65	(1,952.74)	-	2,393.69
Total	91,025.21	29,945.93	(8,513.24)	23,324.78	89,133.12

* Brought from expenditure during construction period (net) - Note 49

a) Construction stores includes material lying with contractors for construction works and are net of provision for shortages pending investigation amounting to **₹ 30.40 crore** (31 March 2023: ₹ 28.54 crore).

b) Pre-commissioning expenses for the year amount to **₹ 876.05 crore** (31 March 2023: ₹ 667.45 crore) and after adjustment of pre-commissioning sales of **₹ 227.84 crore** (31 March 2023: ₹ 175.28 crore) resulted in net pre-commissioning expenditure of **₹ 648.21 crore** (31 March 2023: ₹ 492.17 crore).

c) Additions to the development of coal mines include expenditure during construction period (net) of **₹ 1,623.14 crore** (31 March 2023: ₹ 727.32 crore) - [Ref. Note 50] and after netting off the receipts from coal extracted during the development phase amounting to **₹ 990.63 crore** (31 March 2023: ₹ 282.67 crore).

d) Details of exchange differences and borrowing costs capitalised are disclosed in Note 2 (o).

e) Amount capitalised under development of coal mines is included in assets capitalised under 'Mining properties' and 'Site restoration cost' under Property, plant and equipment.

4. Non-current assets - Intangible assets

As at 31 March 2024 **₹ Crore**

Particulars	Gross block				Amortisation				Net block
	As at 1 April 2023	Additions	Deductions/ adjustments	As at 31 March 2024	As at 1 April 2023	For the year	Deductions/ adjustments	Upto 31 March 2024	As at 31 March 2024
Software	160.53	10.97	(8.84)	**162.66**	137.59	14.95	(8.84)	**143.70**	**18.96**
Right to use - Land	258.17	0.54	-	**258.71**	49.95	9.60	-	**59.55**	**199.16**
- Others	427.87	-	-	**427.87**	117.11	19.11	-	**136.22**	**291.65**
Total	**846.57**	**11.51**	**(8.84)**	**849.24**	**304.65**	**43.66**	**(8.84)**	**339.47**	**509.77**

As at 31 March 2023 ₹ Crore

Particulars	Gross block				Amortisation				Net block
	As at 1 April 2022	Additions	Deductions/ adjustments	As at 31 March 2023	As at 1 April 2022	For the year	Deductions/ adjustments	Upto 31 March 2023	As at 31 March 2023
Software	150.20	11.73	(1.40)	160.53	116.85	22.16	(1.42)	137.59	22.94
Right to use - Land	256.45	1.72	-	258.17	40.40	9.55	-	49.95	208.22
- Others	427.87	-	-	427.87	98.00	19.11	-	117.11	310.76
Total	834.52	13.45	(1.40)	846.57	255.25	50.82	(1.42)	304.65	541.92

(a) The right to use of land and others are amortized over the period of legal right to use or life of the related plant, whichever is less.

(b) Addition to intangible assets through internal development is Nil.

(c) Right to use - Others represents cost of acquisition of the right for drawl of water at three stations of the Company.

(d) Deductions/adjustments from gross block and amortisation for the year includes:

₹ Crore

Particulars	Gross block		Amortization	
	For the year ended		For the year ended	
	31 March 2024	31 March 2023	**31 March 2024**	31 March 2023
Retirements and other adjustments	**(8.84)**	(1.40)	**(8.84)**	(1.42)
Total	**(8.84)**	(1.40)	**(8.84)**	(1.42)

(e) Refer Note 76 (C)(a) for disclosure of contractual commitments for the acquisition of intangible assets.

5. Non-current assets - Intangible assets under development

As at 31 March 2024 **₹ Crore**

Particulars	As at 1 April 2023	Additions	Deductions/ adjustments	Capitalized	As at 31 March 2024
Exploration and evaluation assets - coal mines	86.37	67.22	(41.58)	-	**112.01**
Exploratory wells-in-progress	7.64	-	-	-	**7.64**
Software	3.34	1.19	-	1.06	**3.47**
Upfront Fee	100.96	-	-	-	**100.96**
	198.31	68.41	(41.58)	1.06	**224.08**
Less: Provision for unserviceable works	152.43	-	-	-	**152.43**
Total	**45.88**	**68.41**	**(41.58)**	**1.06**	**71.65**

As at 31 March 2023 ₹ Crore

Particulars	As at 1 April 2022	Additions	Deductions/ adjustments	Capitalized	As at 31 March 2023
Exploration and evaluation assets - coal mines	142.05	8.52	(64.20)	-	86.37
Exploratory wells-in-progress	7.64	-	-	-	7.64
Software	2.83	3.64	(0.52)	2.61	3.34
Upfront Fee	100.96	-	-	-	100.96
	253.48	12.16	(64.72)	2.61	198.31
Less: Provision for unserviceable works	152.43	-	-	-	152.43
Total	101.05	12.16	(64.72)	2.61	45.88

a) Refer Note 66 w.r.t. exploration and evaluation of assets-coal mines.



6. Non-current assets - Investments accounted for using the equity method

₹ Crore

Particulars	Number of shares Current year/ (previous year)	Face value per share in ₹ Current year/ (previous year)	As at 31 March 2024	As at 31 March 2023
Equity instruments - Unquoted (fully paid up - unless otherwise stated, at cost)				
Joint venture companies				
Utility Powertech Ltd. (includes 10,00,000 bonus shares)	20,00,000 (20,00,000)	10 (10)	110.03	103.03
NTPC-GE Power Services Private Ltd.	30,00,000 (30,00,000)	10 (10)	15.27	9.31
NTPC-SAIL Power Company Ltd.	49,02,50,050 (49,02,50,050)	10 (10)	1,580.44	1,439.11
NTPC Tamil Nadu Energy Company Ltd.	1,43,63,96,112 (1,43,63,96,112)	10 (10)	1,947.14	1,898.93
Aravali Power Company Private Ltd.	1,43,30,08,200 (1,43,30,08,200)	10 (10)	2,449.75	2,447.94
Meja Urja Nigam Private Ltd.	1,82,63,34,800 (1,78,44,09,800)	10 (10)	1,923.18	1,707.23
Transformers and Electricals Kerala Ltd.	1,91,63,438 (1,91,63,438)	10 (10)	5.47	7.41
National High Power Test Laboratory Private Ltd.	4,88,00,000 (3,04,00,000)	10 (10)	12.32	-
Energy Efficiency Services Ltd.	84,66,10,000 (46,36,10,000)	10 (10)	624.35	292.49
CIL NTPC Urja Private Ltd.	76,900 (76,900)	10 (10)	0.08	0.07
Hindustan Urvarak and Rasayan Ltd.	2,64,29,85,000 (2,29,59,55,000)	10 (10)	3,009.95	2,269.89
Jhabua Power Ltd.	32,50,00,000 (32,50,00,000)	10 (10)	1,965.23	2,021.21
KSK Dibbin Hydro Power Private Ltd. (Joint venture of Subsidiary Company, NEEPCO Ltd.)	2,79,30,000 (2,79,30,000)	10 (10)	4.45	4.43
Trincomalee Power Company Ltd. (* Srilankan rupees)	32,86,061 (32,86,061)	100* (100)*	0.86	0.41
Bangladesh-India Friendship Power Company Private Ltd. (** Bangladeshi Taka)	16,00,00,000 (13,92,50,000)	100** (100)**	1,482.39	1,050.63
Indian Oil NTPC Green Energy Pvt Ltd	50,000 (-)	10 (-)	0.05	-
Total			**15,130.96**	13,252.09
Aggregate amount of unquoted investments			**15,130.96**	13,252.09

a) Details of interest in joint venture companies, their summarised financial information, restrictions for the disposal of investments held by the Group and commitments towards certain Joint venture companies are disclosed in Note 71.

b) The Resolution Plan submitted by the company and approved by National Company Law Tribunal (NCLT), Kolkata bench in respect of Jhabua Power Limited (JPL) having installed and commercial capacity of 600 MW thermal power station, was implemented on 5 September 2022 for a total consideration of ₹ 925 crore, out of which ₹ 325 crore was contributed as equity (face value of ₹ 10 each) and ₹ 600 crore was paid for the allotment of 5,99,99,994 number of 8.5% Non-Convertible Debentures (NCDs) of face value of ₹ 100 each. Pursuant to above, NTPC has acquired 50% equity in the Company (JPL) in the previous year. Based on the shareholders agreement which provides for joint control over the company, the investment in the company is considered as joint venture and accounted for accordingly.

c) The Board of NTPC Ltd. in its meeting dated 29 October 2022 has accorded approval to the Supplementary JV Agreement of Anushakti Vidyut Utpadan Nigam Limited, a Joint Venture of the Company, to align the document in line with Atomic Energy Act 2016 amendment so that the Joint Venture Company may initiate process for setting up of nuclear power projects. Accordingly, Supplementary JV Agreement was signed between NTPC and NPCIL on 1 May 2023 subject to approval of Department of Atomic Energy (DAE).

d) Promoters of National High Power Testing Laboratory Ltd. (NHPTL), a joint venture of the Company, in the meeting held on 15 September 2022, under the chairmanship of Secretary Power, MoP, has accorded approval of revival plan of NHPTL. Subsequently, Board of NTPC Limited has accorded approval to the restructuring plan on 11 March 2023. The restructuring plan was under implementation as at 31 March 2024.

Further, pursuant to agreement entered on 23 April 2024 with the promoters of NHPTL, the share holding of the company in the Joint venture will be reduced to 12.50%.

e) The Board of Directors of the Company in its meeting held on 28 April 2016 accorded in principle approval for withdrawal from NTPC BHEL Power Projects Private Ltd. (NBPPL), a joint venture of the Company. A meeting was held on 3 October 2022 at MOP to discuss the way forward for NBPPL. In the meeting, it was decided that the process of winding up of NBPPL will be taken up by both the promoters after the completion of balance on going work at one of the projects of the Company. Pending withdrawal, provision for impairment loss on the entire investment in NBPPL of **₹ 50.00 crore** (upto 31 March 2023: ₹ 50.00 crore) has been made based on the un-audited accounts of NBPPL as at 31 March 2024.

f) The Board of Directors of the Company in its meeting held on 28 April 2016 accorded in principle approval for withdrawal from Transformers and Electricals Kerala Ltd. (TELK), a joint venture of the Company. GOI has accorded its approval for exit of NTPC from the joint venture. The decision of the Board of Directors of NTPC Limited and approval of GOI has been conveyed to the Government of Kerala (GoK) (JV Partner) & TELK vide letter dated 10.02.2017. GoK has in-principally agreed for the exit of the NTPC Ltd. subject to valuation of NTPC's share based on up-to-date audited results of TELK. The Company is following up with TELK for obtaining the updated audited results which are yet to be completed.

g) In respect of Hindustan Urvarak and Rasayan Ltd.,(HURL) a joint venture of the Company, Department of Fertiliser (DoF) has communicated to explore possibility of disinvestment in HURL vide letter dated 12 October 2022. Consequently, approvals of Board and respective ministries have been obtained by all the three lead promoters (IOCL, NTPC & CIL) for disinvestment. HURL has sought clarification from DoF with respect to disinvestment of 10.99 % shareholding of fertilizer companies (FCIL / HFCL), who had provided land on lease to HURL, and the same is awaited.



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7. Non-current financial assets - Investments

₹ Crore

Particulars	Number of instruments Current year/ (previous year)	Face value per instrument in Current year/ (previous year)	As at 31 March 2024	As at 31 March 2023
Equity instruments (fully paid up - unless otherwise stated)				
Quoted (designated at fair value through other comprehensive income)				
PTC India Ltd.	1,20,00,000 (1,20,00,000)	10 (10)	**223.20**	102.30
			223.20	102.30
Unquoted (measured at fair value through profit or loss)				
International Coal Ventures Private Ltd.	14,00,000 (14,00,000)	10 (10)	**1.40**	1.40
BF-NTPC Energy Systems Ltd.	68,48,681 (68,48,681)	10 (10)	**2.38**	2.38
			3.78	3.78
Unquoted (designated at fair value through other comprehensive income)				
Power Exchange India limited (PXIL)	29,23,503 (29,23,503)	10 (10)	**1.62**	1.62
Co-operative societies			**#**	#
Debt instruments in Joint Venture Companies (fully paid up)				
Unquoted (measured at amortised cost)				
Jhabua Power Limited-8.5% Non convertible debentures - private placement -Redeemable in forty eight quarterly equal installments (Refer Note 14 for current portion of the instrument and Note 6b) for details of transaction)	5,24,99,994 (5,74,99,994)	100 (100)	**475.00**	525.00
Total			**703.60**	632.70
Aggregate amount of quoted investments - at cost			**12.00**	12.00
Aggregate market value of the quoted investments			**223.20**	102.30
Aggregate amount of unquoted investments			**480.40**	530.40

Equity shares of **₹ 30,200/-** (31 March 2023: ₹ 30,200/-) held in various employee co-operative societies.

a) Investments have been valued as per material accounting policy no. C.22.1 (Note 1).

b) The Board of Directors of NTPC Ltd in its meeting held on 28 April 2016 accorded in principle approval for withdrawal from PTC India Ltd. (PTC). As the Company was formed by a directive from the GOI, approval of the GOI was required for exit by NTPC. Ministry of Power has accorded permission for NTPC to exit from PTC on 22 February 2022. Further in line with the MOP directive that all the Promoter CPSEs along with DVC may exit together in one go from PTC, NTPC Board in its 529th meeting held on 19 May 2023 has accorded approval for exit of NTPC along with other CPSEs from PTC. NTPC is in discussion with other CPSEs & Merchant Banker to finalize the modalities of exit from PTC.

c) The Board of Directors of NTPC Limited in its meeting held on 27 January 2012 accorded in principle approval for withdrawal from International Coal Ventures Private Ltd. (ICVPL). NTPC Board has accorded fresh approval for exiting from ICVPL on 20 May 2022. Department of Investment and Public Asset Management (DIPAM) of GoI vide OM dated 1 June 2022 has empowered Board of Directors of Public Sector Undertakings to exit from Joint Ventures and Subsidiaries and send proposal to DIPAM through administrative Ministry for approval. Communication sent to Steel Authority oif India Ltd & ICVPL regarding DIPAM guidelines for consideration. Pending withdrawal, the Company had lost the joint control over the entity and accordingly, has classified the investment in ICVPL as 'Investment in unquoted equity instruments'.

d) The Board of Directors of NTPC Limited in its meeting held on 19 June 2014 accorded in principle approval for withdrawal from BF-NTPC Energy Systems Ltd. (BF-NTPC), a joint venture of the Company. As BF-NTPC was formed by a directive from the GOI, approval of the GOI was sought for exit by the Company. Ministry of Power, GoI conveyed its approval for winding up of BF-NTPC on 8 January 2018. Consequently, liquidator was appointed in the extra-ordinary general meeting of BF-NTPC held on 9 October 2018. The winding up is under process. Pursuant to winding up proceedings, the Company had lost the joint control over the entity and accordingly, has classified the investment in BF NTPC as 'Investment in unquoted equity instruments'. The difference between the cost of investment and the fair value has been provided for in the earlier years.

e) The Group is of the view that provisions of Ind AS 24 'Related Party Disclosures' and Ind AS 111 'Joint Arrangements' are not applicable to the investments made in PTC India Ltd., International Coal Ventures Private Ltd. and BF-NTPC Energy systems Ltd., and the same has been accounted for as per the provisions of Ind AS 109 'Financial Instruments'. Also Refer Note 61 for investments in PTC India Ltd.

f) Investment for 5% equity stake of PXIL acquired by NVVN (a subsidiary of the Company) from NSE Investment Limited, a wholly owned subsidiary of National Stock Exchange of India Limited, to gain exposure of evolving power market, Transactional & Decision-making support, Commercial Discounts and Incentives, Specific Product development in line with Company's requirement, Capacity Building and other business advisory goals.

g) The number of Debentures of Jhabua Power Limited mentioned above includes current portion of Debentures to be redeemed.

h) No strategic investments in equity instruments measured at FVTOCI were disposed during the financial year 2023-24, and there were no transfers of any cumulative gain or loss within equity relating to these investments.

i) Movement in quoted investments

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Opening balance	**102.30**	98.70
Add / less: Mark to Market gain / loss through FVTOCI	**120.90**	3.60
Closing balance	**223.20**	102.30

8. Non-current financial assets - Loans

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Loans (Considered good, unless otherwise stated)		
Related parties		
Unsecured	**0.08**	12.43
Considered doubtful	-	3.09
Less: Allowance for bad and doubtful loans	-	3.09
	0.08	12.43
Employees (including accrued interest)		
Secured	**385.01**	341.09
Unsecured	**172.18**	183.02

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₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Others		
Unsecured	**12.92**	17.23
Total	**570.19**	553.77
a) Due from directors and officers of the Group		
Directors	**0.08**	-
Officers	**-**	0.20
b) Loans to related parties include:		
Key management personnel	**0.08**	0.20
National High Power Test Laboratory Private Ltd. (Joint venture company) (net of allowance for bad & doubtful loans)	**-**	11.63
NTPC Education and Research Society	**-**	0.60

c) Other loans include loan of **₹ 12.90 crore** (31 March 2023: ₹ 17.20 crore) given to Andhra Pradesh Industrial Infrastructure Corporation Ltd. (APIIC) which is covered by a guarantee given by the Government of Andhra Pradesh vide GO dated 3 April 2003.

d) Loans to the employees are secured against the mortgage of the house properties and hypothecation of vehicles for which such loans have been given in line with the policies of the Group.

9. Non-current financial assets - Trade Receivable

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Trade receivables		
Unsecured, considered good	**1,287.54**	2,638.68

a) Pursuant to Electricity (Late Payment Surcharge and Related Matters) Rules, 2022 notified on 3 June 2022 and the application made by some of the beneficiaries for redetermination of their payment of dues under these Rules, the outstanding dues of such beneficiaries including late payment surcharge (LPSC) have been rescheduled upto a maximum period of 48 months in the manner prescribed in the said Rules and no LPSC are charged on the outstanding dues. The dues of such beneficiaries have been presented at their fair value under Non- current Trade Receivables considering the requirements of applicable Indian Accounting Standards. Consequently, the fair value difference amounting to **₹ 37.74 crore** (31 March 2023: ₹ 425.61 crore) has been charged to Statement of Profit and Loss (Refer Note 48). Out of the above, an amount of **₹ 169.63 crore** (31 March 2023: ₹ 163.58 crore) has been accounted as interest from non current trade receivables. Refer Note 43.

b) No amount is receivable from related party.

10. Non-current assets - Other financial assets

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Share application money pending allotment in		
Joint venture companies		
Meja Urja Nigam Private Limited	**-**	7.49
NTPC-Tamil Nadu Energy Company Ltd.	**-**	30.00
Trincomalee Power Company Ltd.	**-**	0.44
	-	37.93
Claims recoverable	**485.07**	517.28
Finance lease receivables (Refer Note 74)	**-**	201.56
Mine closure deposit	**142.91**	66.16
Security deposit	**82.50**	77.77
Bank deposit with more than 12 months maturity	**0.32**	-
Total	**710.80**	900.70

a) Claims recoverable includes amount outstanding as recoverable from GOI of **₹ 483.37 crore** (31 March 2023: ₹ 517.28 crore) in respect of one of the hydro power projects, the construction of which has been discontinued on the advice of the Ministry of Power (MOP), GOI in the year 2010. The aforesaid amount includes **₹ 269.93 crore** (31 March 2023: ₹ 302.16 crore) in respect of arbitration awards challenged by the Company before Hon'ble High Court of Delhi for which corresponding liability exists under Current liabilities - Provisions - Provision for arbitration awards (Note 38). In the event the Hon'ble High Court grants relief to the Company, the amount would be adjusted against the amount recoverable from GOI. Management expects that the total cost incurred, anticipated expenditure on the safety and stabilisation measures, other recurring site expenses and interest costs as well as claims of contractors/ vendors for various packages for this project will be compensated in full by the GOI.

b) The Company had ascertained that the Power Purchase Agreement (PPA) entered into for Stage-I of a power station with the beneficiary falls under the definition of finance lease. Accordingly, the written down value of the specified assets was derecognized from PPE and accounted as Finance Lease Receivable (FLR) on transition to Ind AS. The Company has continued to classify this arrangement with its customer as lease based on the practical expedient provided in Ind AS 116. Accordingly, recovery of capacity charges towards depreciation, interest on loan capital & return on equity (pre-tax) components from the beneficiary are continued to be adjusted against FLR. The interest component of the FLR and amount received on account of revision of tariff of previous periods in respect of the above three elements are continued to be recognised as 'Interest income on Assets under finance lease' under 'Revenue from operations' (Note 42).

c) As per the guidelines from Ministry of Coal, Government of India for preparation of Mine Closure Plan, Escrow Accounts have been opened for each captive mine and the balances held in these escrow accounts are presented as 'Mine closure deposit'. Up to 80% of the total deposited amount including interest accrued in the escrow account shall be released after every five years in line with the periodic examination of the closure plan as per the Guidelines. Interest earned on the escrow account is added to mine closure deposit account.



11. Non-current assets - Deferred tax assets (net)

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Deferred tax assets		
Provisions	**70.55**	70.27
Leave encashment	**56.64**	41.52
Unabsorbed depreciation	**945.54**	962.55
MAT credit entitlement	**501.46**	211.45
Others	**72.43**	71.85
Less: Deferred tax liabilities		
Difference in book depreciation and tax depreciation	**476.72**	419.79
Total	**1,169.90**	937.85

a) Deferred tax assets and deferred tax liabilities have been offset to the extent they relate to the same governing laws.

b) The Group has been recognising MAT credit available as the same is likely to give future economic benefits in the form of availability of set off against future income tax liability.

c) Disclosures as per Ind AS 12 'Income Taxes' are provided in Note 57.

Movement in deferred tax assets (net) balances

As at 31 March 2024 ₹ Crore

Particulars	As at 1 April 2023	Recognised in statement of profit and loss	Recognised in OCI	Others	As at 31 March 2024
Deferred tax assets					
Provisions	**70.27**	**0.28**	-	-	**70.55**
Leave encashment	**41.52**	**15.12**	-	-	**56.64**
Unabsorbed depreciation	**962.55**	**(17.01)**	-	-	**945.54**
MAT credit entitlement	**211.45**	**290.01**	-	-	**501.46**
Others	**71.85**	**0.58**	-	-	**72.43**
Less: Deferred tax liabilities					
Difference in book depreciation and tax depreciation	**419.79**	**54.40**	-	**2.53**	**476.72**
Deferred tax assets (net)	**937.85**	**234.58**	-	**(2.53)**	**1,169.90**

As at 31 March 2023 ₹ Crore

Particulars	As at 1 April 2022	Recognised in statement of profit and loss	Recognised in OCI	Others	As at 31 March 2023
Deferred tax assets					
Provisions	70.06	0.24	-	(0.03)	70.27
Leave encashment	21.75	19.77	-	-	41.52
Unabsorbed depreciation	984.66	(22.11)	-	-	962.55
MAT credit entitlement	163.55	47.90	-	-	211.45
Others	72.38	(0.53)	-	-	71.85
Less: Deferred tax liabilities					
Difference in book depreciation and tax depreciation	316.70	102.45	-	0.64	419.79
Deferred tax assets (net)	995.70	(57.18)	-	(0.67)	937.85

12. Other non-current assets

₹ Crore

Particulars		As at 31 March 2024	As at 31 March 2023
Capital advances			
(Considered good unless otherwise stated)			
Secured		**1.45**	1.88
Unsecured			
Covered by bank guarantee		**4,730.08**	4,175.96
Others		**5,220.29**	5,662.68
Considered doubtful		**178.35**	192.33
Less: Allowance for bad and doubtful advances		**178.35**	192.33
		9,951.82	9,840.52
Advances other than capital advances			
(Considered good unless otherwise stated)			
Security deposits (unsecured)		**306.28**	309.45
Advances to contractors and suppliers			
Unsecured	**1,666.51**		1,810.82
Considered doubtful	**112.57**		112.57
Less: Allowances for bad and doubtful advances	**112.57**		112.57
		1,666.51	1,810.82
Prepaid Expenses		**28.98**	25.51
Advance tax and tax deducted at source	**16,956.01**		15,184.41
Less: Provision for tax	**14,560.75**		12,553.28
		2,395.26	2,631.13
Deferred foreign currency fluctuation asset		**1,486.57**	1,565.41
Deferred payroll expenditure		**117.79**	111.77
Adjustable from escrow account towards mine closure expenses		**62.82**	39.30
Others		**0.14**	-
Total		**16,016.17**	16,333.91

a) In line with material accounting policy no. 13 (Note 1), deferred foreign currency fluctuation asset has been accounted and **₹ 89.79 crore** (31 March 2023: ₹ 830.98 crore) being the exchange fluctuations on account of foreign currency loans have been adjusted in 'Energy sales' under 'Revenue from operations' (Note-42). Further, an amount of **₹ 10.95 crore** (31 March 2023: ₹ 915.67 crore) has been recognised as deferred foreign currency fluctuation asset corresponding to exchange differences capitalised during the year.

b) Capital advances include amounts given as advance against works to the following private companies (related parties) in which one or more directors of the Company are directors:

NTPC BHEL Power Projects Private Ltd.	**281.96**	274.25

c) Capital advances include **₹ 224.29 crore** (31 March 2023: ₹ 224.29 crore), paid to a contractor pending settlement of certain claims which are under litigation. The amount will be adjusted with the cost of related work or recovered from the party, depending upon the outcome of the legal proceedings.

d) Advances to contractors and suppliers include payments to Railways amounting to **₹ 1,580.42 crore** (31 March 2023: ₹ 1,708.03 crore) under customer funding model as per policy on 'Participative model for rail-connectivity and capacity augmentation projects' issued by the Ministry of Railways, GOI. As per this policy, an agreement has been signed between the Company and the Ministry of Railways, GOI on 6 June 2016. As per the agreement, railway projects agreed between the Company and Railways will be constructed, maintained and operated by Railways and ownership of the line and its operations and maintenance will always remain with them. Railways will pay upto 7% of the amount invested through freight rebate on freight volumes every year till the funds provided by the Company are fully recovered along-with interest (equal to the prevailing rate of dividend payable by Railways at the time of signing of respective agreements), subject to the rebate not exceeding the freight amount in the accounting year, after commercial operation date (COD) of the railway projects. The advance is adjusted at projects which have achieved COD based on confirmation from Railways towards freight rebate in consonance with the agreement terms and the interest portion is recognised in Note-43-'Other income'.

e) Secured capital advances are secured against the hypothecation of the construction equipment/material supplied by the contractors/suppliers.

f) Loans given to employees are measured at amortized cost. The deferred payroll expenditure represents the benefits on account of interest rate on loans being lower than the market rate of interest. The same is amortized on a straight-line basis over the remaining period of the loan.

13. Current assets - Inventories

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Coal	**7,664.73**	5,167.77
Fuel oil	**885.48**	901.76
Naphtha	**83.66**	85.05
Stores and spares	**7,619.29**	6,621.69
Chemicals and consumables	**314.25**	252.52
Loose tools	**16.34**	14.59
Others	**1,686.42**	1,410.48
	18,270.17	14,453.86
Less: Provision for shortages	**20.13**	17.18
Provision for obsolete/unserviceable items/ diminution in value of surplus inventory	**230.92**	196.31
Total	**18,019.12**	14,240.37

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Inventories include material-in-transit		
Coal	**505.41**	432.39
Stores and spares	**16.96**	20.54
Chemicals and consumables	**5.46**	2.20
Loose tools	**0.01**	0.04
Others	**2.08**	6.68

a) Inventory items have been valued as per material accounting policy no. C.8 (Note 1).

b) Inventories - Others includes steel, cement, ash bricks etc.

c) Refer Note 33 and 55(b) for information on inventories pledged as security by the Group.

d) Refer Note 55(a) for information on inventories consumed and recognised as expense during the year.

e) Paragraph 32 of Ind AS 2 - Inventories provides that materials and other supplies held for use in the production of inventories are not written down below cost if the finished products in which they will be incorporated are expected to be sold at or above cost. The Group is mainly operating in the regulatory environment and as per CERC Tariff Regulations, cost of fuel and other inventory items are recovered as per extant tariff regulations. Accordingly, the realizable value of the inventories is not lower than the cost.

14. Current financial assets - Investments

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Current maturity of non current investments		
Debt instruments in Joint Venture Companies (fully paid up) Unquoted (measured at amortised cost)		
Jhabua Power Limited-8.5% Non convertible debentures-private placement (Refer Note 7)	**50.00**	50.00
Total	**50.00**	50.00

a) Investments have been valued as per material accounting policy no. C.22 (Note 1)

15. Current financial assets - Trade receivables

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Trade receivables		
Unsecured, considered good	**33,349.68**	30,112.41
Credit impaired	**258.57**	561.72
	33,608.25	30,674.13
Less: Allowance for credit impaired trade receivables	**258.57**	561.72
Total	**33,349.68**	30,112.41

a) Amounts receivable from related parties are disclosed in Note 61.

b) Trade receivables include unbilled revenue amounting to **₹ 14,894.62 crore** (31 March 2023: ₹ 12,689.29 crore) billed to the beneficiaries after 31 March.

c) The carrying amount of trade receivables include receivables amounting to **₹ 1,974.49 crore** (31 March 2023: ₹ 1,287.19 crore) towards bills of customers discounted through bill discounting facility availed from banks. The facility is with recourse to the Company i.e. if the customer fails to make payment on due date, the Company will be required to make the payment. Under this arrangement, the Company has transferred the receivables to the bank in exchange for cash and is prevented from selling or pledging the receivables. Further, the Company has retained substantially all of the risks and rewards, primarily late payment and credit risk, therefore these trade receivables have not been derecognized from the balance sheet. The amount received from the bank under the facility has been recognized under 'Current financial liabilities – Borrowings (Secured)' (refer Note 33(e)). The Company considers that the held to collect business model remains appropriate for these receivables and accordingly, continues to measure them at amortised cost.

d) The margin and other tariff have been billed to Discoms including Rajasthan as per the guidelines of MNRE for JNNSM-I uniformly by M/s NVVN Ltd., a subsidiary of the Company. However, three Rajasthan Discoms have not paid the bills issued amounting to **₹ 13.13 crore** (31 March 2023: ₹ 13.13 crore). The above cases were filed with Central Electricity Regulatory Commission (CERC) wherein CERC has decided in favour of the subsidiary in all the matters stated above. However, in all the above cases Rajasthan Discoms have filed appeal with Appellate Tribunal for Electricity (ATE) against order of CERC. The case is pending with ATE. Hence, the subsidiary has not considered making provision for these outstanding dues in the Books.

e) Further, in matters related to outstanding dues towards payment of trading margin @1.5 paise/unit instead of 7.0 paise/unit in respect of M/s NVVN Ltd, CERC has advised to decide the matter with mutual consent. However, the subsidiary has filed appeal with Appellate Tribunal for Electricity (ATE) against CERC order and requested ATE to direct Rajasthan Discoms to make payment of differential trading margin and surcharge thereon. The case is pending with ATE. Based on order of CERC a provision for the disputed amount of ₹ 85.15 crore has been recognised during the financial year 2019-20.

f) Credit impaired receivables as at 31 March 2024 also include dues of M/s Ratnagiri Gas & Power Pvt. Ltd, a subsidiary of the Company amounting to **₹ 171.66 crore** (31 March 2023 : ₹ 474.81 crore) towards non payment of dues by its beneficiaries considering the uncertainty involved.

(g) Trade Receivables ageing schedule as at 31 March 2024

₹ Crore

Particulars	Unbilled	Not Due	Outstanding for following periods from due date of payment					Total
			Less than 6 months	6 months - 1 year	1-2 years	2-3 years	More than 3 years	
(i) Undisputed Trade receivables – considered good	15,177.48	10,560.14	5,218.24	114.01	33.57	20.18	1,096.75	32,220.37
(ii) Undisputed Trade Receivables – which have significant increase in credit risk	-							
(iii) Undisputed Trade Receivables – credit impaired	-							
(iv) Disputed Trade Receivables– considered good	0.29	26.56	67.10	117.71	107.70	509.86	300.09	1,129.31
(v) Disputed Trade Receivables – which have significant increase in credit risk	-							
(vi) Disputed Trade Receivables – credit impaired	-	-	-	-	-	27.97	230.60	258.57
Sub-total	15,177.77	10,586.70	5,285.34	231.72	141.27	558.01	1,627.44	33,608.25
Less: Allowance for credit impaired trade receivables	-	-	-	-	-	27.97	230.60	258.57
Total	15,177.77	10,586.70	5,285.34	231.72	141.27	530.04	1,396.84	33,349.68

Trade Receivables ageing schedule as at 31 March 2023

₹ Crore

Particulars	Unbilled	Not Due	Outstanding for following periods from due date of payment					Total
			Less than 6 months	6 months - 1 year	1-2 years	2-3 years	More than 3 years	
(i) Undisputed Trade receivables – considered good	13,959.59	9,178.09	3,344.08	1,675.52	170.79	17.32	165.59	28,510.98
(ii) Undisputed Trade Receivables – which have significant increase in credit risk	-	-	-	-	-	-	-	-
(iii) Undisputed Trade Receivables – credit impaired	-	-	-	-	-	-	-	-
(iv) Disputed Trade Receivables– considered good	-	25.56	139.95	130.12	677.94	151.36	458.75	1,583.68
(v) Disputed Trade Receivables – which have significant increase in credit risk	-	0.28	17.47	-	-	-	85.42	103.17
(vi) Disputed Trade Receivables – credit impaired	-	-	-	-	26.66	29.99	419.65	476.30
Sub-total	13,959.59	9,203.93	3,501.50	1,805.64	875.39	198.67	1,129.41	30,674.13
Less: Allowance for credit impaired trade receivables	-	-	-	-	26.66	29.99	505.07	561.72
Total	13,959.59	9,203.93	3,501.50	1,805.64	848.73	168.68	624.34	30,112.41

16. Current financial assets - Cash and cash equivalents

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Balances with banks		
Current accounts	**861.33**	372.18
Deposits with original maturity upto three months (including interest accrued)	**1.94**	92.50
Cheques and drafts on hand	**0.03**	0.92
Others (stamps on hand)	**0.04**	0.05
Total	**863.34**	465.65

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17. Current financial assets - Bank balances other than cash and cash equivalents

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Deposits with original maturity of more than three months and maturing within one year (including interest accrued)	**3041.98**	1691.54
Earmarked balances with banks #	**2,942.02**	2,791.34
Total	**5,984.00**	4,482.88
# Earmarked balances with banks towards:		
Redemption of bonds due for repayment within one year	**723.00**	1,033.00
Fly ash utilisation reserve fund*	**919.09**	743.27
DDUGJY Scheme of the GOI**	**283.66**	286.13
Unpaid dividend account balance	**17.74**	19.07
Amount deposited as per court orders	**59.53**	57.89
Unpaid interest/refund account balance - Bonds	**12.12**	9.04
Payment Security Fund - MNRE[(a)]	**49.18**	38.01
Payment Security Scheme of MNRE[(b)]	**243.06**	168.02
Unpaid interest on public deposit	**0.03**	0.03
Amount received under PM-Kusum Scheme	**0.01**	0.01
Margin money	**149.36**	119.76
Amount deposited-arbitration cases	**-**	0.53
Amount received on sale of old plant & held on behalf of Government of Jharkhand	**331.79**	311.07
Others	**153.45**	5.51
Total	**2,942.02**	2,791.34

* Refer Note 25 (f) regarding fly ash utilization reserve fund.

** Out of advance for DDUGJY Scheme of the GOI. Refer Note 36(b) and 37(a).

a) In line with the guidelines issued by Ministry of New and Renewable Energy (MNRE), GOI under National Solar Mission-II, a Payment Security Mechanism (PSM) /Working Capital Fund will be set up/created by the MNRE. Upon creation of the said fund, amounts accrued from encashment of bank guarantee, penalties/liquidated damages on developers deducted by the Company from the Solar Power Developers (SPDs) as per the guidelines of MNRE shall be transferred to this fund. Subsequently, MNRE has asked the Company to maintain the PSM fund. The fund is retained till further directions for payment to MNRE or any other authority as may be directed.

b) The Performance Guarantee Deposit (PGD) deducted by the Company from the SPDs in line with the MNRE Guidelines are earmarked for the purpose specified therein and is not available for use by the Company. The PGD shall be refunded to SPD without interest within three months after expiry of the 25 Year term of PPA subject to satisfactory performance of the project. In case the developer winds up his project or terminates the PPA prior to the completion of the 25 Year term of PPA, the PGD shall be forfeited. Further the PGD may also be used in PSM.

c) Funds received from MNRE under payment security scheme. For corresponding liability refer Note 36(g).

18. Current financial assets - Loans

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Loans (including interest accrued)		
(Considered good unless otherwise stated)		
Related parties		
Secured		
Unsecured	-	1.64
Considered doubtful	-	3.68
Less: Allowance for bad and doubtful loans	-	3.68
	-	1.64
Employees		
Secured	**91.83**	84.25
Unsecured	**174.99**	178.59
Others		
Unsecured	**4.30**	4.30
Total	**271.12**	268.78
a) Due from Directors and Officers of the Group		
Directors	-	0.16
Officers	-	0.10
b) Loans to related parties include:		
Key management personnel	-	0.26
National High Power Test Laboratory Private Ltd. (Joint venture company) (net of allowance for bad & doubtful loan)	-	1.38

c) Other loans represent interest on loan of **₹ 4.30 crore** (31 March 2023: loan of ₹ 4.30 crore) given to APIIC which is covered by a guarantee given by the Government of Andhra Pradesh vide GO dated 3 April 2003.

d) Loans to the employees are secured against the mortgage of the house properties and hypothecation of vehicles for which such loans have been given in line with the policies of the Group.

19. Current assets - Other financial assets

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Advances		
(Considered good unless otherwise stated)		
Related parties		
Unsecured	**21.72**	129.95
Employees		
Unsecured	**27.90**	30.67

₹ Crore

Particulars		As at 31 March 2024	As at 31 March 2023
Considered doubtful	**0.11**		0.11
Less: Allowance for bad and doubtful advances	**0.11**		0.11
		27.90	30.67
Others			
Unsecured		**1.35**	2.49
		50.97	163.11
Claims recoverable			
Unsecured, considered good	**245.05**		635.76
Considered doubtful	**361.71**		349.32
Less: Allowance for doubtful claims	**361.71**		349.32
		245.05	635.76
Contract assets		**10,992.65**	7,306.43
Finance lease receivables		**211.01**	83.63
Mine closure deposit		**26.09**	37.31
Security deposits		**1,566.83**	535.95
Hedging cost recoverable		**10.51**	-
Others		**109.60**	149.88
Total		**13,212.71**	8,912.07

a) Contract Assets represent Company's right to consideration in exchange for goods and services that the Company has transferred / provided to customers when that right is conditioned on matters, other than passage of time, like receipt of income tax assessment orders, trueing up orders from CERC,etc. and are net of credits to be passed to customers.

b) Advances to related parties include:

Joint venture companies	**59.13**	76.77
Post employment benefits Trusts	**44.17**	88.11

c) Advances include amounts due from the following private companies (related parties) in which one or more directors of the Company are directors:

NTPC-GE Power Services Private Ltd.	**4.25**	3.30
Aravali Power Company Private Ltd.	**14.99**	15.64
NTPC BHEL Power Projects Private Ltd.	**3.14**	1.20
Meja Urja Nigam Private Ltd.	**18.60**	7.34

d) Other financial assets - Others include amount recoverable from contractors and other parties towards hire charges, rent/electricity etc.

20. Current assets - Current tax assets (net)

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Current tax assets (net)	**46.78**	93.51

21. Current assets - Other current assets

₹ Crore

Particulars		As at 31 March 2024	As at 31 March 2023
Security deposits			
Unsecured	**1,898.68**		2,349.73
Considered doubtful	**500.00**		-
Less: Allowance for bad and doubtful advances	**500.00**		-
		1,898.68	2,349.73
Advances			
(Considered good unless otherwise stated)			
Related parties			
Unsecured		**96.70**	0.31
Employees			
Unsecured		**6.51**	6.36
Contractors and suppliers			
Unsecured	**4,770.76**		4,584.05
Considered doubtful	**17.78**		18.87
Less: Allowance for bad and doubtful advances	**17.78**		18.87
		4,770.76	4,584.05
Prepaid expenses		**119.79**	113.24
Others			
Unsecured		**116.10**	11.58
		5,109.86	4,715.54
Interest accrued on			
Advance to contractors		**63.93**	68.45
Claims recoverable			
Unsecured, considered good	**4,094.01**		3,968.68
Considered doubtful	**136.18**		136.43
Less: Allowance for doubtful claims	**136.18**		136.43
		4,094.01	3,968.68
Deferred payroll expenditure		**23.48**	21.60
Adjustable from Escrow Account for mine closure expenses		**28.80**	28.15
Others		**20.02**	8.12
Total		**11,238.78**	11,160.27

a) Security deposits (unsecured) include **₹ 50.73 crore** (31 March 2023: ₹ 65.71 crore) towards sales tax/GST deposited with sales/commercial tax authorities & others, **₹ 1,233.32 crore** (31 March 2023: ₹ 1,458.49 crore) deposited with Courts, **₹ 223.20 crore** (31 March 2023: ₹ 218.83 crore) deposited with LIC for making annuity payments to the land oustees. Further an amount of ₹ 500.00 crore (31 March 2023: ₹ 500.00 crore) has been deposited against bank guarantee with one of the party as per the direction of the Hon'ble Supreme Court of India, refer Note 64 (iii).



b) Advances - Related parties include amounts due from the following private companies in which one or more directors of the Company are directors:

NTPC-GE Power Services Private Ltd.	-	0.02

c) Loans given to employees are measured at amortized cost. The deferred payroll expenditure represents the benefits on account of interest rate on loans being lower than the market rate of interest. The same is amortized on a straight-line basis over the remaining period of the loan.

d) Claims recoverable includes claims against Railways amounting to **₹ 2,033.12 crore** (31 March 2023: ₹ 2,080.38 crore) mainly towards diversion of coal rakes. These are regularly reviewed and reconciled with the Indian Railways periodically. Claims recoverable also includes claims amounting to **₹ 1,725.37 crore** (31 March 2023: ₹ 1,615.66 crore) made against coal companies towards various issues eg. credit notes to be received as per referee results for grade slippages, supply of stones, claims under settlement through AMRCD, surface transportation charges,etc.

22. Assets held for sale

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Land	**0.17**	4.21
Building	**9.60**	21.46
Plant and equipment	**104.70**	92.90
Other assets	**3.30**	2.35
Total	**117.77**	120.92

a) The Company has surplus land of **0.83 acres** (31 March 2023: 20.87 acres) which is under process of disposal. The Company expects that the fair value (estimated based on market values) less costs to sell is higher than their carrying values and hence no impairment is considered necessary.

b) Plant and equipment and Other assets (Office equipment, vehicles,furniture and fixtures,etc.) have been identified for disposal due to replacement/ obsolescence of assets which happens in the normal course of operations. On account of classification of these assets from Property, plant and equipment, the loss recognised in the statement of profit and loss is not material.

c) These assets are expected to be disposed off within the next twelve months.

d) The Group has not reclassified any of the assets classified as held for sale as Property, plant and equipment during the year as well as in the previous year.

23. Regulatory deferral account debit balances

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
On account of		
Exchange differences	**197.00**	1,208.25
Employee benefits expense	**62.48**	177.75
Deferred tax	**14,113.90**	11,447.79
Ash transportation cost	**107.18**	97.55
Arbitration Award	**111.80**	-
Others	**263.67**	221.93
Total	**14,856.03**	13,153.27

a) Regulatory deferral account balances have been accounted in line with Material Accounting policy no. C.5 (Note 1). Refer Note 41 for Regulatory deferral account credit balances. Refer Note 72 for detailed disclosures.

b) CERC Tariff Regulations, 2019 provide for recovery of deferred tax liability (DTL) as at 31 March 2009 from the beneficiaries. Accordingly, DTL as at 31 March 2009 is recoverable on materialisation from the beneficiaries. Regulations, 2014 and Regulations, 2019 provide for grossing-up the rate of return on equity based on effective tax rate for the financial year based on the actual tax paid during the year on the generation income. Accordingly, deferred tax liability for the period from 1 April 2014 will be reversed in future years when the related DTL forms part of current tax. Keeping in view the above, the Group has recognized such deferred tax as regulatory deferral account debit balances, since the amounts are recoverable in future years.

24. Equity share capital

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Equity share capital		
Authorised		
16,60,00,00,000 shares of par value ₹ 10/- each (16,60,00,00,000 shares of par value ₹ 10/- each as at 31 March 2023)	**16,600.00**	16,600.00
Issued, subscribed and fully paid up		
9,69,66,66,134 shares of par value ₹ 10/- each (9,69,66,66,134 shares of par value ₹ 10/- each as at 31 March 2023)	**9,696.67**	9,696.67

a) Reconciliation of the shares outstanding at the beginning and at the end of the year:

Particulars	Number of shares	
	31 March 2024	31 March 2023
At the beginning of the year	**9,69,66,66,134**	9,69,66,66,134
Outstanding at the end of the year	**9,69,66,66,134**	9,69,66,66,134

b) Terms and rights attached to equity shares:

The Company has only one class of equity shares having a par value ₹ 10/- per share. The holders of the equity shares are entitled to receive dividends as declared from time to time and are entitled to voting rights proportionate to their share holding at the meetings of shareholders.

c) Dividends:

₹ Crore

Particulars	Paid during the year ended	
	31 March 2024	31 March 2023
(i) Dividends paid and recognised during the year		
Final dividend for the year ended 31 March 2023 of **₹ 3.00** (31 March 2022: ₹ 3.00) per equity share	**2,909.00**	2,909.00
Interim dividend for the year ended 31 March 2024 of **₹ 4.50** (31 March 2023: ₹ 4.25) per equity share	**4,363.50**	4,121.08
(ii) Dividends not recognised at the end of the reporting period	**31 March 2024**	31 March 2023
In addition to the above dividends, since year end the directors have recommended the payment of a final dividend of **₹3.25**(31 March 2023: ₹ 3.00) per fully paid equity share. This proposed dividend is subject to the approval of shareholders in the ensuing Annual General Meeting.	**3,151.42**	2,909.00

d) Details of shareholders holding more than 5% shares in the Company:

Particulars	As at 31 March 2024	
	No. of shares	%age holding
- President of India	**4,95,53,46,251**	**51.10**

Particulars	31 March 2023	
	No. of shares	%age holding
- President of India	4,95,53,46,251	51.10
- Life Insurance Corporation of India (including shares held in various Funds/Schemes)	57,41,73,389	5.92
- ICICI Prudential Mutual Fund	55,60,01,423	5.73

e) Increase in the authorised share capital

During the previous year 2022-23, the authorised share capital of the Company has increased from ₹ 10,000 crore to ₹ 16,600 crore pursuant to scheme of amalgamation of two subsidiaries of the Company, vide order dated 26 August 2022 of Ministry of Corporate Affairs, GOI.

f) For the period of five years immediately preceeding the Balance sheet date:

(i) Shares bought back:

The Company has bought back 19,78,91,146 equity shares of the Company for an aggregate amount of ₹ 2,275.75 crore being 2% of the total paid up equity share capital at ₹ 115.00 per equity share, during the financial year 2020-21.

(ii) Shares allotted as fully paid up by way of bonus shares:

The Company had issued 164,90,92,880 equity shares of ₹ 10/- each as fully paid bonus shares in the financial year 2018-19 in the ratio of one equity share of ₹ 10/- each for every five equity shares held.

g) Details of shareholding of promoters:

Shares held by promoters as at 31 March 2024

Sl. No.	Promoter name	No. of shares	%age of total shares	%age changes during the year
1.	President of India	**4,95,53,46,251**	**51.10**	**Nil**

Shares held by promoters as at 31 March 2023

Sl. No.	Promoter name	No. of shares	%age of total shares	%age changes during the year
1.	President of India	4,95,53,46,251	51.10	Nil

25. Other equity

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Capital reserve	**2,334.67**	2,314.63
Other capital reserve - common control	**(5,159.26)**	(5,159.26)
Capital redemption reserve	**197.89**	197.89
Bonds/debentures redemption reserve	**4,134.34**	5,851.65
Self insurance reserve	**-**	200.00
Fly ash utilisation reserve fund	**919.09**	743.27
General reserve	**98,654.79**	98,654.79
Retained earnings	**49,830.51**	34,524.11
Items of other comprehensive income	**100.57**	(0.58)
Total	**1,51,012.60**	1,37,326.50

(a) Capital reserve

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
Opening balance	**2,314.63**	488.69
Add: Addition during the year	**20.04**	1,825.94
Closing balance	**2,334.67**	2,314.63

Opening capital reserve represents amount received by the parent company as consideration under settlement for withdrawal from a erstwhile JV project, acquisition of M/s RGPPL, a subsidiary of the Company. Addition during the previous year represents value of difference between net aseets acquired and consideration paid for acquisiton of 50% stake in Jhabua Power Limited, a joint venture of the company. This amount will be utilised as per the provisions of the Companies Act, 2013.

(b) Other capital reserve - common control

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
Opening balance	**(5,159.26)**	(5,159.26)
Closing balance	**(5,159.26)**	(5,159.26)

Consequent to the acquisition of THDC India Ltd. and NEEPCO in the earlier years, the difference between the Company's share in their share capitals and the consideration paid, was recognized as other capital reserve - common control.

(c) Capital redemption reserve

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
Opening balance	**197.89**	197.89
Closing balance	**197.89**	197.89

Capital redemption reserve is created when company purchases its own shares out of free reserves or securities premium, as required by Companies Act, 2013. A sum equal to the nominal value of the shares so purchased is transferred to capital redemption reserve. This reserve will be utilised in accordance with the provisions of the Companies Act, 2013. Also refer Note 24 (f)(i).

(d) Bonds/Debentures redemption reserve

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
Opening balance	**5,851.65**	6,421.72
Add : Transfer from retained earnings	**77.92**	58.50
Less: Transfer to retained earnings	**1,795.23**	628.57
Closing balance	**4,134.34**	5,851.65

In accordance with applicable provisions of the Companies Act, 2013 read with Rules, the Group has created Debenture Redemption Reserve out of profits of the Company, considering the Companies (Share Capital and Debentures) Amendment Rules, 2019 notified on 16 August 2019. The outstanding balance of Bonds / Debenture Redemption Reserve will be utilised as and when the respective bonds / debentures are redeemed.

(e) Self insurance reserve

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
Opening balance	**200.00**	200.00
Less: Transfer to retained earnings	**200.00**	-
Closing balance	**-**	200.00

Self Insurance reserve was created by M/s RGPPL (a subsidiary of the Company), to cover machinery break down for which the subsidiary has not entered into any insurance cover agreement with insurance companies. This has been written back during the year on getting machinery break down cover under agreement entered with insurance companies.

(f) Fly ash utilisation reserve fund

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
Opening balance	**743.27**	599.89
Add: Transferred during the year:		
Revenue from operations	**495.11**	399.37
Other income	**56.30**	29.15
Less: Utilised during the year:		
Capital expenditure	**10.16**	2.95
Other Expenses including Tax expenses	**365.43**	282.19
Closing balance	**919.09**	743.27

The principal Gazette Notification dated 14 September 1999 enunciates that every thermal power plant should provide ash free of cost for 10 years for activities of manufacturing ash-based products or for construction of roads, embankments, dams, dykes or for any other construction activity. Subsequently, vide Gazette Notification dated 3 November 2009, issued by the Ministry of Environment and Forest (MOEF),Government of India (GOI) directed that, the amount collected from sale of fly ash and fly ash based products should be kept in a separate account head and shall be utilized only for the development of infrastructure or facility, promotion & facilitation activities for use of fly ash until 100 percent fly ash utilization level is achieved.

Vide, Gazette Notification dated 31st December 2021, of Ministry of Environment and Forest and Climate Change (MOEF&CC), GOI which is applicable from 1st April 2022 had superseded all earlier notifications The said notification does not mention any requirement of keeping the amount thus collected from sale of fly ash and fly ash based products in a separate account. However, the Company continues to maintain the fund for the purposes stated above.

In line with various CERC orders on reimbursement of ash transportation, the Company spends the amounts collected from sale of fly ash and fly ash-based products for offsetting it against the expenditure incurred by respective Station for transportation of ash to agencies engaged in construction activities such as road laying, road and flyover embankments, shoreline protection structures in coastal districts and dams.

The fund balance has been kept in 'Bank balances other than cash & cash equivalents' (Note 17). Also refer Note 23 & 72 for ash transportation cost.

(g) General reserve

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
Opening balance	**98,654.79**	98,654.79
Add : Transfer from retained earnings	**-**	-
Closing balance	**98,654.79**	98,654.79

General reserve is used from time to time to transfer profits from retained earnings for appropriation purposes. The same will be utilised as per the provisions of the Companies Act, 2013.

(h) Retained earnings

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
Opening balance	**34,524.11**	24,156.11
Add: Profit for the year as per statement of profit and loss	**20,811.89**	16,912.55
Impact of changes in NCI interest and other adjustments	**-**	-
Transfer from bonds/debentures redemption reserve	**1,795.23**	628.57
Transfer from Self insurance reserve	**200.00**	-
Less: Transfer to bonds/debentures redemption reserve	**77.92**	58.50
Transfer to Non Controlling Interest	**27.02**	-
Final dividend paid (2022-23)	**2,909.00**	2,909.00
Interim dividend paid (2023-24)	**4,363.50**	4,121.08
	49,953.79	34,608.65
Items of other comprehensive income recognised directly in retained earnings:		
- Net actuarial gains/(losses) on defined benefit plans (net of tax)	**(128.97)**	(86.43)
- Share of other comprehensive income/(expense) of joint ventures accounted for using the equity method (net of tax)	**5.69**	1.89
Closing balance	**49,830.51**	34,524.11

Retained Earnings are the profits of the Company earned till date net of appropriations. The same will be utilised for the purposes as per the provisions of the Companies Act, 2013.

(i) Items of other comprehensive income

(I) Reserve for equity instruments through OCI

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
Opening balance	**90.30**	86.70
Add: Fair value gains/(losses) on equity instruments for the year	**120.90**	3.60
Closing balance (I)	**211.20**	90.30

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The Group has elected to recognize changes in the fair value of certain investments in equity instruments in other comprehensive income. These changes are accumulated in reserve for equity instruments through OCI within equity. The Group transfers amounts from this reserve to retained earnings when the relevant equity instruments are derecognized.

(II) Foreign currency translation reserve

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
Opening balance	**(90.88)**	30.54
Add: Gain (Loss) on Currency translation of foreign operations	**(19.75)**	(121.42)
Closing balance (II)	**(110.63)**	(90.88)
Total (I+II)	**100.57**	(0.58)

Exchange differences arising on translation of the joint ventures are recognised in other comprehensive income as described in material accounting policy and accumulated in a separate reserve within equity. The cumulative amount will be reclassified to profit or loss when the net investment is disposed-off.

26. Non-controlling interest

₹ Crore

Particulars		As at 31 March 2024	As at 31 March 2023
Opening balance		**3,930.45**	3,760.41
Add:	Share of profit for the year	**520.56**	208.80
	Share of OCI	**(2.48)**	(0.64)
	Additional non-controlling interest arising on acquisition/ disposal of interest & other adjustments	**182.22**	179.63
Less:	Dividend paid to NCI	**217.74**	217.75
Closing balance		**4,413.01**	3,930.45

27. Non current financial liabilities -Borrowings

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Bonds/debentures		
Secured		
7.37% Tax free secured non-cumulative non-convertible redeemable bonds - 2015 of ₹ 1,000/- each redeemable at par in full on 5 October 2035 (Fifty Sixth Issue - Public Issue - Series 3A)[IX]	**189.01**	188.95
7.62% Tax free secured non-cumulative non-convertible redeemable bonds - 2015 of ₹ 1,000/- each redeemable at par in full on 5 October 2035 (Fifty Sixth Issue - Public Issue - Series 3B)[IX]	**171.77**	171.71
8.61% Tax free secured non-cumulative non-convertible redeemable bonds of ₹ 10,00,000/- each redeemable at par in full on 4 March 2034 (Fifty First Issue C - Private Placement) [III]	**322.11**	322.11

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
8.66% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 1,000/- each redeemable at par in full on 16 December 2033 (Fiftieth Issue - Public Issue - Series 3A)[VI]	**319.93**	319.87
8.91% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 1,000/- each redeemable at par in full on 16 December 2033 (Fiftieth Issue - Public Issue - Series 3B)[VI]	**410.39**	410.32
7.37% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 14 December 2031 (Sixty Sixth Issue - Private Placement)[II]	**4,010.99**	4,010.41
7.49% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 7 November 2031 (Sixty Fourth Issue - Private Placement)[IV]	**720.75**	720.65
7.28% Tax free secured non-cumulative non-convertible redeemable bonds - 2015 of ₹ 1,000/- each redeemable at par in full on 5 October 2030 (Fifty Sixth Issue - Public Issue - Series 2A)[IX]	**133.53**	133.48
7.53% Tax free secured non-cumulative non-convertible redeemable bonds - 2015 of ₹ 1,000/- each redeemable at par in full on 5 October 2030 (Fifty Sixth Issue - Public Issue - Series 2B)[IX]	**49.96**	49.93
7.32% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 17 July 2029 (Sixty Ninth Issue - Private Placement)[IV]	**4,522.59**	4,522.31
8.63% Tax free secured non-cumulative non-convertible redeemable bonds of ₹ 10,00,000/- each redeemable at par in full on 4 March 2029 (Fifty First Issue B - Private Placement) [III]	**105.70**	105.70
8.30% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 15 January 2029 (Sixty Seventh Issue - Private Placement) [V]	**4,069.70**	4,068.96
8.48% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 1,000/- each redeemable at par in full on 16 December 2028 (Fiftieth Issue - Public Issue - Series 2A)[VI]	**256.14**	256.10
8.73% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 1,000/- each redeemable at par in full on 16 December 2028 (Fiftieth Issue - Public Issue - Series 2B)[VI]	**93.73**	93.71
7.47% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 16 September 2026 (Sixty Third Issue - Private Placement)[IV]	**697.00**	696.90
7.58% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 23 August 2026 (Sixty Second Issue - Private Placement)[IV]	**836.70**	836.61
8.05% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 5 May 2026 (Sixtieth Issue - Private Placement)[IV]	**1,072.73**	1,072.90
8.19% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 15 December 2025 (Fifty Seventh Issue - Private Placement)[IV]	**512.02**	511.91



₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
7.11% Tax free secured non-cumulative non-convertible redeemable bonds - 2015 of ₹ 1,000/- each redeemable at par in full on 5 October 2025 (Fifty Sixth Issue - Public Issue - Series 1A)[IX]	**112.11**	112.06
7.36% Tax free secured non-cumulative non-convertible redeemable bonds - 2015 of ₹ 1,000/- each redeemable at par in full on 5 October 2025 (Fifty Sixth Issue - Public Issue - Series 1B)[IX]	**68.30**	68.26
7.15% Tax free secured non-cumulative non-convertible redeemable bonds - 2015 of ₹ 10,00,000/- each redeemable at par in full on 21 August 2025 (Fifty Fifth Issue - Private Placement)[VII]	**313.13**	313.05
9.17% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 22 September 2024 (Fifty Third Issue - Private Placement)[VII]	**1,048.11**	1,047.99
9.34% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 24 March 2024 (Fifty Second Issue - Private Placement)[III]	-	751.53
8.19% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 10,00,000/- each redeemable at par in full on 4 March 2024 (Fifty First Issue A - Private Placement)[III]	-	75.47
8.41% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 1,000/- each redeemable at par in full on 16 December 2023 (Fiftieth Issue - Public Issue - Series 1A)[VI]	-	499.95
8.66% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 1,000/- each redeemable at par in full on 16 December 2023 (Fiftieth Issue - Public Issue - Series 1B)[VI]	-	213.89
9.25% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each with five equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 11th year and in annual installments thereafter upto the end of 15th year respectively commencing from 04 May 2023 and ending on 04 May 2027 (Forty Fourth Issue - Private Placement)[VI]	**433.66**	542.07
8.48% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 1 May 2023 (Seventeenth Issue - Private Placement)[I]	-	50.01
8.80% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 4 April 2023 (Forty Ninth Issue - Private Placement)[VI]	-	217.46
8.49% Secured non-cumulative non-convertible redeemable taxable fully paid-up bonus debentures of ₹ 12.50 each redeemable at par in three annual installments of ' 2.50, ₹ 5.00 and ₹ 5.00 at the end of 8th year, 9th year and 10th year on 25 March 2023, 25 March 2024 and 25 March 2025 respectively (Fifty Fourth Issue -Bonus Debentures)[VIII]	**4,132.32**	8,260.81
9.00% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each with five equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 11th year and in annual installments thereafter upto the end of 15th year respectively commencing from 25 January 2023 and ending on 25 January 2027 (Forty Second Issue - Private Placement)[III]	**304.94**	406.51

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
8.10% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 30,00,000/- each redeemable at par in three equal separately transferable redeemable principal parts (STRPP) at the end of 5th year, 10th year & 15th year on 27 May 2021, 27 May 2026 and 27 May 2031 respectively (Sixty first issue - Private Placement)[IX]	**763.70**	763.99
11.25% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in five equal annual installments commencing from 6 November 2019 and ending on 6 November 2023 (Twenty Seventh Issue - Private Placement)[III]	-	73.62
9.3473% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 20 July 2018 and ending on 20 July 2032 (Forty Sixth Issue - Private Placement)[VI]	**48.06**	53.38
9.4376% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 16 May 2018 and ending on 16 May 2032 (Forty Fifth Issue - Private Placement)[VI]	**48.09**	53.45
9.2573% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 2 March 2018 and ending on 2 March 2032 (Forty Third Issue - Private Placement)[III]	**42.69**	48.01
9.6713% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 23 December 2017 and ending on 23 December 2031 (Forty First Issue - Private Placement)[III]	**42.81**	48.18
9.558% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 29 July 2017 and ending on 29 July 2031 (Fortieth Issue - Private Placement)[III]	**42.78**	48.11
9.3896% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 9 June 2017 and ending on 9 June 2031 (Thirty Ninth Issue - Private Placement)[III]	**59.82**	67.28

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₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
9.17% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 22 March 2017 and ending on 22 March 2031 (Thirty Eighth Issue - Private Placement)[III]	**37.33**	42.65
8.8086% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 15 December 2016 and ending on 15 December 2030 (Thirty Sixth Issue - Private Placement)[III]	**37.24**	42.55
8.785% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 15 September 2016 and ending on 15 September 2030 (Thirty Fifth Issue - Private Placement)[III]	**59.57**	68.07
8.71% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 10 June 2016 and ending on 10 June 2030 (Thirty Fourth Issue - Private Placement)[III]	**74.43**	85.04
8.8493% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 15,00,000/- each with fifteen equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of 6th year and in annual installments thereafter upto the end of 20th year respectively commencing from 25 March 2016 and ending on 25 March 2030 (Thirty Second Issue - Private Placement)[III]	**44.70**	52.14
Bonds issued by NEEPCO, a subsidiary of the Company		
7.55% Secured redeemable non-convertible taxable bonds of ₹ 10,00,000 each redeemable at par in four installments on 10 December 2026, 10 June 2027, 10 December 2027 and 10 June 2028 with call option on 10 June 2025, 10 December 2025, 10 June 2026, 10 December 2026, 10 June 2027 and 10 December 2027. (Twenty Second Issue - Private Placement)[X(i)]	**511.44**	511.32
8.68% Secured redeemable non-convertible taxable bonds of ₹ 10,00,000 each redeemable at par in five installments on 30 september 2026, 30 September 2027, 30 September 2028, 30 September 2029 and 30 September 2030 (Sixteenth Issue - Private Placement)[X(iii)]	**922.71**	922.50
8.69% Secured redeemable non-convertible taxable bonds of ₹ 10,00,000 each redeemable at par in two installments on 26 September 2026 and 26 September 2027 with call option on 26 September 2024, 26 March 2025, 26 September 2025, 26 March 2026, 26 September 2026 and 26 March 2027 (Twenty First Issue - Private Placement)[X(i)]	**150.08**	150.01

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
7.68% Secured redeemable non-convertible taxable bonds of ₹ 10,00,000 each redeemable at par in two installments on 15 May 2025 and 15 November 2025 with call option on 15 November 2022, 15 May 2023, 15 November 2023, 15 May 2024, 15 November 2024, 15 May 2025 (Eighteenth Issue - Private Placement)[X(ii)]	**514.38**	514.26
9.50% Secured redeemable non-convertible taxable bonds of ₹ 10,00,000 each redeemable at par in four installments on 29 May 2024, 29 November 2024, 29 May 2025 & 29 November 2025 with call option on 29 November 2023, 29 May 2024, 29 November 2024, 29 May 2025 (Twentieth Issue - Private Placement)[X(i)]	**-**	309.48
9.15% Secured redeemable non-convertible taxable bonds of ₹ 10,00,000 each redeemable at par in five installments on 25 March 2021, 25 March 2022, 25 March 2023, 25 March 2024 and 25 March 2025 (Fifteenth Issue - Private Placement)[X(iv)]	**120.21**	240.42
9.60% Secured redeemable non-convertible taxable bonds of ₹ 10,00,000 each redeemable at par in five installments on 1 October 2020, 1 October 2021, 1 October 2022, 1 October 2023 and 1 October 2024 (Fourteenth Issue - Private Placement)[X(i)]	**500.00**	1,000.00
Bonds issued by THDC India Ltd., a subsidiary of the Company		
7.60% Secured redeemable non-convertible bonds of ₹ 10,00,000 each redeemable on 14 September 2032 (Series VI)[XI(iv)]	**833.15**	833.15
7.39% Secured redeemable non-convertible bonds of ₹ 10,00,000 each redeemable on 25 August 2031 (Series V)[XI(iv)]	**1,253.21**	1,253.21
7.45% Secured redeemable non-convertible bonds of ₹ 10,00,000 each redeemable on 20 January 2031 (Series IV)[XI(iv)]	**760.87**	760.87
7.19% Secured redeemable non-convertible bonds of ₹ 10,00,000 each redeemable on 23 July 2030 (Series III)[XI(iii)]	**839.55**	839.55
8.75% Secured redeemable non-convertible bonds of ₹ 10,00,000 each redeemable on 5 September 2029 (Series II)[XI(i)]	**1,574.44**	1,574.44
7.59% Secured redeemable non-convertible bonds of ₹ 10,00,000 each redeemable on 3 October 2025 (Series I)[XI(ii)]	**622.45**	622.45
	34,811.03	42,029.72
Bonds/debentures		
Unsecured		
6.87% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 21 April 2036 (Seventy Fourth Issue - Private Placement)	**4,256.09**	4,256.04
7.44% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 15 April 2033 (Seventy Ninth Issue - Private Placement)	**510.85**	510.77
7.44% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 25 August 2032 (Seventy Eighth Issue - Private Placement)	**2,089.35**	2,089.18
6.74% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 14 April 2032 (Seventy Sixth Issue - Private Placement)	**1,197.19**	1,197.02

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₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
6.69% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 13 September 2031 (Seventy Fifth Issue - Private Placement)	**3,110.09**	3,109.83
6.29% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 11 April 2031 (Seventy First Issue - Private Placement)	**1,042.06**	1,042.00
6.43% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 27 January 2031 (Seventy Third Issue - Private Placement)	**2,528.45**	2,528.08
7.35% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 1,00,000/- each redeemable at par in full on 17 April 2026 (Eightieth Issue - Private Placement)	**3,210.75**	-
7.48% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 1,00,000/- each redeemable at par in full on 21 March 2026 (Eighty First Issue - Private Placement)	**1,503.15**	-
5.45% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 15 October 2025 (Seventy Second Issue - Private Placement)	**4,100.57**	4,100.21
5.78% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 29 April 2024 (Seventy Seventh Issue - Private Placement)	**1,580.06**	1,580.00
6.55% Unsecured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 17 April 2023 (Seventy Issue - Private Placement)	**-**	4,648.83
Bonds issued by NEEPCO, a subsidiary of the Company		
7.14% Unsecured redeemable non-convertible taxable bonds of ₹ 10,00,000/- each redeemable at par in four installments on 22 September 2028, 23 March 2029, 24 September 2029 & 22 March 2030 with call option on 24 March 2026, 24 September 2026, 24 march 2027, 24 September 2027, 24 March 2028(Twenty Third Issue-Private Placement)	**200.27**	200.27
Bonds issued by THDC, a subsidiary of the Company		
7.93% Unsecured redeemable non-convertible bonds of ₹ 1,00,000/- each redeemable at par in full on 16 January 2034 (Series IX)	**791.69**	-
7.76% Unsecured redeemable non-convertible bonds of ₹ 1,00,000/- each redeemable at par in full on 13 September 2033 (Series VIII)	**795.45**	-
7.88% Unsecured redeemable non-convertible bonds of ₹10,00,000/- each redeemable at par in full on 27 December 2032 (Series VII)	**612.31**	612.31
	62,339.36	67,904.26
Foreign currency notes		
Unsecured		
4.500 % Fixed rate notes due for repayment on 19 March 2028	**3,353.82**	3,302.14
2.750 % Fixed rate notes due for repayment on 1 February 2027	**4,590.69**	4,554.79
4.250 % Fixed rate notes due for repayment on 26 February 2026	**4,210.06**	4,145.67
4.375 % Fixed rate notes due for repayment on 26 November 2024	**4,261.27**	4,199.85
3.750 % Fixed rate notes due for repayment on 3 April 2024	**3,847.75**	3,721.68
	20,263.59	19,924.13

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Term loans		
From Banks		
Secured		
Rupee term loans[XII]	**16,057.48**	18,083.41
Unsecured		
Foreign currency loans	**22,436.54**	19,828.94
Rupee term loans	**79,150.11**	66,547.30
From Others		
Secured		
Rupee term loans[XII]	**10,650.08**	10,025.83
Unsecured		
Foreign currency loans (guaranteed by GOI)	**3,019.27**	2,900.72
Other foreign currency loans	**2,886.41**	3,661.88
Rupee term loans	**631.18**	601.11
Rupee term loans from Government of India	**291.27**	291.25
	2,17,725.29	2,09,768.83
Less: Current maturities of		
Bonds - secured	**6,009.73**	6,851.40
Bonds - Unsecured	**1,500.00**	4,374.10
Foreign Currency Fixed Rate Notes	**7,975.25**	-
Rupee term loans from banks - secured	**1,048.73**	1,519.62
Foreign currency loans from banks - unsecured	**416.74**	425.05
Rupee term loans from banks - unsecured	**6,644.31**	4,557.68
Rupee term loans from others - secured	**238.75**	412.21
Foreign currency loans from other - unsecured (guaranteed by GOI)	**336.19**	325.75
Other foreign currency loans from others - unsecured	**549.74**	565.28
Rupee term loans from others - unsecured	**-**	16.57
Interest accrued but not due on secured borrowings	**1,195.91**	1,163.69
Interest accrued but not due on unsecured borrowings	**1,594.97**	1,673.91
Total	**1,90,214.97**	1,87,883.57

a) **Details of terms of repayment and rate of interest**

i) Secured rupee term loan from banks and financial institutions carry floating rate of interest linked to SBI base rate or Base rate of respective lender or three year AAA bond yield rate plus agreed margin or three year AAA bond yield rate plus agreed margin with reset after three years or one month/three month MCLR plus spread or three month/one year MCLR plus spread or 3 month T-bill rate plus spread or prevalent rate notified by the lender for category 'A' public sector undertakings or fixed interest rate of 7.95%/9.75% p.a. or RBI's repo rate plus applicable margin or floating interest rates ranging from 7.75% to 8.35%. These loans are repayable in installments as per the terms of the respective loan agreements. The repayment period extends from a period of five to twenty years after 6 months from the date of COD or from the date specified in the loan agreements.



ii) Unsecured foreign currency loans (guaranteed by GOI) - Others include loans carrying fixed rate of interest ranging from 0.85% p.a. to 3.46% p.a. and are repayable in 7 to 18 semi annual installments in respect of NEEPCO.

Unsecured foreign currency loans (guaranteed by GOI) - Others carry fixed rate of interest ranging from 1.80% p.a. to 2.30% p.a. and are repayable in 5 to 14 semi annual installments.

Unsecured foreign currency loans (guaranteed by GOI) - Others also include loans carrying interest rate linked to SOFR plus variable spread and are repayable in 23 years on half yearly instalment from 15 November 2017 to 15 May 2040.

iii) Unsecured foreign currency loans – Banks include loans of **₹ 44.82 crore** (31 March 2023: ₹ 67.13 crore) which carry fixed rate of interest of 1.88% and loans of **₹ 22,391.72 crore** (31 March 2023: ₹ 19,761.81 crore) which carry floating rate of interest linked to 6M USD SOFR/6M EURIBOR/3M TONA/6M TONA . These loans are repayable in 1 to 23 semi annual/annual installments as of 31 March 2024, commencing after moratorium period if any, as per the terms of the respective loan agreements.

iv) Unsecured foreign currency loans – Others include loans of **₹ 1,155.55 crore** (31 March 2023: ₹ 1,568.31 crore) which carry fixed rate of interest ranging from 1.88% p.a. to 4.13% p.a and loans of **₹ 1,730.86 crore** (31 March 2023: ₹ 2,093.57 crore) which carry floating rate of interest linked to 3M TONA/6M TONA . These loans are repayable in 03 to 23 semi annual instalments as of 31 March 2024, commencing after moratorium period if any, as per the terms of the respective loan agreements.

v) Unsecured rupee term loans from banks and others carry interest rate ranging from 7.75% p.a. to 8.30% p.a. with monthly rests. These loans are repayable in half-yearly/yearly instalments as per the terms of the respective loan agreements. The repayment period extends from a period of 5 to 15 years after a moratorium period of 3 to 6 years.

vi) Unsecured rupee term loans include **₹ 631.18 crore** (31 March 2023: ₹ 584.27 crore) from Government of Jharkhand to M/s Patratu Vidyut Utpadan Nigam Ltd., a Subsidiary of the parent company, which carry interest at the rate of 10% p.a. until the date of investment approval and afterwards equivalent to weighted average cost of borrowing subject to ceiling of 10% per annum. The said loan is being utilised towards raising share application money from JBVNL as prescribed in JVA/SJVA. During the year, a sum of **Nil** (31 March 2023: ₹ 150.68 crore) has been utilised for rasing share application money from JBVNL.

vii) Unsecured rupee term loans from Government of India carry interest rate of 1% p.a. This loan is repayable in yearly installments as per the terms of the loan agreement. The repayment period is 15 years starting from 30 January 2018.

viii) Secured rupee term loans from banks and others carry interest rate ranging from 7.95% p.a. to 8.50% p.a. with monthly rests. These loans are repayable in quarterly instalments as per the terms of the respective loan agreements. The repayment period extends upto a period of 15 years after a moratorium period of 6 months to 5 years.

b) There has been no default in repayment of any of the loans or interest thereon as at the end of the year.

c) The group has used the borrowings from banks and financial institutions for the purposes for which it were taken.

d) M/s Patratu Vidyut Utpadan Nigam Limited, a subsidiary of the company has created a subservient charge on the movable assets of the company in favour of Axis Bank Limited for obtaining a performance bank guarantee of **₹ 237.60 crore** for Banardih coalmine.

Details of securities

I Secured by (I) English mortgage, on first pari-passu charge basis, of the office premises of the Company at Mumbai and (II) Equitable mortgage, by way of first charge, by deposit of title deeds of the immovable properties pertaining to National Capital Power Station (including thermal & gas)

II Secured by Equitable mortgage of the immovable properties pertaining to Vindhyachal Super Thermal Power Station on first charge basis.

III Secured by (I) English mortgage, on first pari-passu charge basis, of the office premises of the Company at Mumbai and (II) Equitable mortgage of the immovable properties, on first pari-passu charge basis, pertaining to Sipat Super Thermal Power Project by extension of charge already created.

IV Secured by Equitable mortgage, on pari-passu charge basis, of the immovable properties pertaining to Barh Super Thermal Power Project.

V Secured by Equitable mortgage, on pari-passu charge basis, of the immovable properties pertaining to Vindhyachal Super Thermal Power Station.

VI Secured by (I) English mortgage, on first pari-passu charge basis, of the office premises of the Company at Mumbai and (II) Equitable mortgage of the immovable properties, on first pari-passu charge basis, pertaining to National Capital Power Station (including thermal & gas) by extension of charge already created.

VII Secured by English mortgage of the immovable properties pertaining to Solapur Super Thermal Power Project on first charge basis.

VIII Secured by Equitable mortgage of the immovable properties pertaining to Barh Super Thermal Power Project on first charge basis.

IX Secured by English mortgage, on pari-passu charge basis, of the immovable properties pertaining to Solapur Super Thermal Power Project.

X (i) Secured by way of mortgage of assets attached to the earth as well as other movable assets of the Kameng Hydro Electric Project, Arunachal Pradesh and the landed property in the District of Mehsana, Gujarat.

(ii) Secured by way of mortgage of the assets attached to the earth as well as other movable assets of the Pare Hydro Electric Project, Arunachal Pradesh and the landed property in the District of Mehsana, Gujarat.

(iii) Secured by way of mortgage of the assets attached to the earth as well as other movable assets of the Tuirial Hydro Electric Project in Mizoram, Kopili Hydro Electric Project in Assam and the landed property in the District of Mehsana, Gujarat.

(iv) Secured by way of mortgage of the assets of the Agartala Gas Turbine Project (original open-cycle plant) in Tripura, assets except the gas turbines & steam turbines in the Assam Gas Based Project, Assam, assets except plant & machinery in the generating station in the Ranganadi Hydro Electric Project, Arunachal Pradesh and the landed property in the District of Mehsana, Gujarat.

(v) Secured by way of mortgage of the steam turbines of the Assam Gas Based Power Plant, Assam and the landed property in the District of Mehsana, Gujarat.

(vi) Secured by way of mortgage of all the plant and machinery in the generating station of the Ranganadi Hydro Electric Project, Arunachal Pradesh and the landed property in the District of Mehsana, Gujarat.

(vii) Secured by way of mortgage of the gas turbines of the Assam Gas Based Power Project, Assam and the landed property in the District of Mehsana, Gujarat.

XI (i) Secured by first charge on paripassu basis on movable assets of Tehri HPP Stage-I including book debts.

(ii) Secured by first charge on paripassu basis on movable assets of Tehri HPP Stage-I.

(iii) Secured by first charge on paripassu basis on movable assets of Koteshwar HEP & Wind Power Projects of Patan & Dwarka.

(iv) Secured by first charge on paripassu basis on the movable CWIP and future movable assets of pump storage plant located at Tehri.

XII (i) Secured by a first priority charge on all assets, present & future, movable & immovable and land of 975.05 acres and second charge on all inventories and receivables, in respect of loan from consortium led by SBI for Muzzafarpur Thermal Power Station (Kanti Bijlee Utpadan Nigam Ltd., erstwhile Subsidiary of the Company) expansion project. The security will rank pari-pasu with all term lenders of the project. The charge has been created in favor of SBI Cap Trustee Co. Ltd. and Canara Bank. Legal mortgage of land in favour of security trustee has been executed for 877.18 acres out of 975.05 acres of land. During the year, the loan has been repaid in full.

(ii) Secured by equitable mortgage/ hypothecation of all present and future fixed and movable assets of Nabinagar TPP (4*250) MW of Bhartiya Rail Bijlee Company Ltd., a subsidiary company, as first charge, ranking pari passu. The term loan is secured on pari passu basis on the project assets (Units - I to IV).

(iii) Secured by all existing and future moveable assets of Patratu Vidyut Utpadan Nigam Ltd, a subsidiary company, including equipment, machinery and other current assets, book debts, receivables and all other moveables. The Loan is further secured by first charge by way of English Mortgage on all immovable properties.

(iv) Secured by a first pari passu charge on entire current assets and fixed assets of Nabinagar Thermal Power Station (Nabinagar Power Generating Company Limited, erstwhile subsidiary of the Company).

Secured by a first pari passu charge on all assets, present and future, movable and immovable through a deed of hypothecation and simple mortgage of 2500 acres of land of Nabinagar Thermal Power Station (Nabinagar Power Generating Company Limited, erstwhile subsidiary of the Company).

(v) Secured by pari passu charge over assets of the Kameng Hydro Electric Power Project (600 MW) situated at Arunachal Pradesh of NEEPCO, a subsidiary company.

(vi) Secured by first charge on pari passu basis on assets of Tehri stage-I i.e. dam, power house civil construction, power house electrical & mechanical equipments not covered under other borrowings and project township of Tehri dam and HPP together with all rights and interest appertaining there to, of THDC India Ltd., a subsidiary company.

(vii) Secured against first charge on pari passu basis on assets of Tehri PSP of THDC India Ltd., a subsidiary company. (viii) Secured against first charge on pari passu basis on movable fixed assets (including plant & machinery and cwip) both existing & future of Kasargod Solar Power Plant, Khurja STPP and Amelia coal mine of THDC India Ltd., a subsidiary company.

(ix) Secured against first charge on pari-passu basis on all existing and future movable and immovable assets excluding current assets pertaining to six projects viz, Bhainsara 320MW, Chattargarh 150MW, GUVNL 200MW, GUVNL 150MW, SECI Hybrid Tr-IV-350MW & Shajapur U-2 of NTPC Renewable Energy Limited, subsidiary of NTPC Green Energy Ltd., a subsidiary company.

(x) Secured by first charge over the movable fixed assets (including assets attached to the earth) of the Tripura Gas based Power Station situated in the Sepahijala District of Tripura).

(xi) Secured by hypothecation of fixed assets of the property on first pari passu charge basis at Pare Hydro Power Station, Arunachal Pradesh and Plant & Machinery at the Rangandi HPS (405 MW) and Gas Turbines of the Assam Gas based Power station (291 MW)

(xii) Secured by first ranking pari passu charge / mortgage on the assets (moveable and immovable, tangible and intangible), entire cash flows, Current Assets, receivables, book debts, goodwill and revenues, all rights, title's, interests, benefits, claims and demand (including without limitation the Clearances, Insurance Contracts, proceeds under the Insurance Contracts, performance bonds, contractors' guarantees, bank guarantees, advance payment guarantees and any letter of credit provided by any person) and all the bank accounts of Ratnagiri Gas Power Plant Limited (RGPPL), a subsidiary company.

XIII Security cover mentioned at Sl. No. I to XII is above 100% of the secured debt outstanding.

28. Non-current financial liabilities - Lease liabilities

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Lease liabilities	**2,090.68**	1,820.79
Less: current maturities of lease liabilities	**252.85**	216.75
Total	**1,837.83**	1,604.04

a) The lease liabilities are repayable in installments as per the terms of the respective lease agreements generally over a period of more than 1 year and upto 99 years.

29. Non-current liabilities- Other financial liabilities

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Payable for capital expenditure		
- micro and small enterprises	**4.55**	4.16
- other than micro and small enterprises	**329.26**	417.04
Deposits from contractors and others	**72.49**	367.11
Contractual Obligations	**133.92**	86.52
Others	**0.10**	0.10
Total	**540.32**	874.93

a) Contractual obligations represent security deposit and retention money deducted from vendors at present value and includes Performance Guarantee Deposit (PGD) deducted by the Company from the Solar Power Developers (SPD) in line with the MNRE Guidelines are earmarked for the purpose specified therein. The PGD shall be refunded to SPDs without interest within three months after expiry of the 25 Year term of PPA subject to satisfactory performance of the project. In case the developer winds up his project or terminates the PPA prior to the completion of the 25 Year term of PPA, the PGD shall be forfeited. Further the PGD may also be used in Payment Security Mechanism as specified in the guidelines.

b) Amounts payable to related parties are disclosed in Note 61.

30. Non-current liabilities - Provisions

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Provision for		
Employee benefits	**966.61**	966.02
Mine Closure	**494.01**	323.80
Stripping Activity Adjustments	**603.60**	611.88
Others	**19.81**	18.22
Total	**2,084.03**	1,919.92

a) Disclosures as per Ind AS 19 'Employee benefits' are provided in Note 58.

b) Disclosures required by Ind AS 37 'Provisions, Contingent Liabilities and Contingent Assets' are provided in Note 64.



31. Non-current liabilities - Deferred tax liabilities (net)

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Deferred tax liability		
Difference in book depreciation and tax depreciation	**39,810.04**	34,433.23
Less: Deferred tax assets		
Provisions	**1,269.19**	1,164.77
Statutory dues	**327.75**	259.00
Leave encashment	**598.08**	554.58
Unabsorbed depreciation	**1,173.61**	738.96
MAT credit entitlement	**20,696.72**	19,016.68
Others	**512.86**	9.24
Total	**15,231.83**	12,690.00

a) Deferred tax assets and deferred tax liabilities have been offset to the extent they relate to the same governing laws.

b) The Group has been recognising MAT credit available as the same is likely to give future economic benefits in the form of availability of set off against future income tax liability.

c) Disclosures as per Ind AS 12 'Income Taxes' are provided in Note 57.

d) Others mainly include deferred tax assets on account of lease liabilities.

Movement in deferred tax balances

As at 31 March 2024 ₹ Crore

Particulars	As at 1 April 2023	Recognised in statement of profit and loss	Recognised in OCI	Others	As at 31 March 2024
Deferred tax liability					
Difference in book depreciation and tax depreciation	**34,433.23**	**5,584.15**	**-**	**(207.34)**	**39,810.04**
Less: Deferred tax assets					
Provisions	**1,164.77**	**105.92**	**-**	**(1.50)**	**1,269.19**
Statutory dues	**259.00**	**68.75**	**-**	**-**	**327.75**
Leave encashment	**554.58**	**43.50**	**-**	**-**	**598.08**
Unabsorbed depreciation	**738.96**	**434.65**	**-**	**-**	**1,173.61**
MAT credit entitlement	**19,016.68**	**1,680.04**	**-**	**-**	**20,696.72**
Others	**9.24**	**503.62**	**-**	**-**	**512.86**
Deferred tax liability (net)	**12,690.00**	**2,747.67**	**-**	**(205.84)**	**15,231.83**

As at 31 March 2023 ₹ Crore

Particulars	As at 1 April 2022	Recognised in statement of profit and loss	Recognised in OCI	Others	As at 31 March 2023
Deferred tax liability					
Difference in book depreciation and tax depreciation	30,288.21	4,289.52	-	(144.50)	34,433.23
Less: Deferred tax assets					
Provisions	968.99	195.78	-	-	1,164.77
Statutory dues	294.97	(35.97)	-	-	259.00
Leave encashment	520.86	33.72	-	-	554.58
Unabsorbed depreciation	1,273.21	(534.25)	-	-	738.96
MAT credit entitlement	16,263.41	2,753.27	-	-	19,016.68
Others	15.10	(5.86)	-	-	9.24
Deferred tax liability (net)	10,951.67	1,882.83	-	(144.50)	12,690.00

32. Other non-current liabilities

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Government grants	**2,810.14**	2,611.95

a) Government grants include grant received in advance amounting to **₹ 15.00 crore** (31 March 2023: ₹ 8.47 crore) for which attached conditions are to be fulfilled / works to be completed relating to various solar power plants. This amount will be recognized as revenue corresponding to the depreciation charge in future years on completion of related projects.

b) Government grants also include:

(i) Grant received from Govt. of Uttar Pradesh towards irrigation sector by THDC India Ltd. (a subsidiary of the Company) amounting to **₹ 546.64 crore** (31 March 2023: ₹ 577.49 crore). This amount will be recognized as revenue corresponding to the depreciation charge in future years.

(ii) Grant received from Ministry of Development of North Eastern Region by NEEPCO (a subsidiary of the Company) amounting to **₹ 196.27 crore** (31 March 2023: ₹ 212.09 crore). As per the Investment Approval sanctioned vide the Ministry of Power's letter no.7/7/2009-H-I dated 14 January 2011, an amount of ₹ 300.00 crores has been sanctioned by the Ministry of Development of North Eastern Region (MDONER) as a part of the approved funding pattern for the Tuirial Hydro Electric Project, Mizoram. The grant is being amortised during normative useful life of the project since its commissioning.

(iii) Grant received by NGEL (a subsidiary of the Company) amounting to **₹ 52.50 crore** (31 March 2023: ₹ 87.50 crore) relating to various solar power plants and **₹ 539.52 crore** (31 March 2023: ₹ 359.76 crore) in respect of Khavda Solar Park of its subsidiary NTPC Renewable Energy Limited for which works are to be completed. These amounts will be recognised as revenue corresponding to the depreciation charge in future years after the completion of related projects.

(iv) Unamortised grant also includes amount **₹ 27.00 crore** (31 March 2023: ₹ 32.64 crore) received/ receivable from Bangalore Metropolitan Transport Corporation (BMTC) for supply of e-Buses by NVVN (a subsidiary of the Company). This amount will be recognised as revenue corresponding to depreciation charge in future years.



(v) Balance Government grants mainly represent unamortised portion of grant received. This includes **₹ 1,364.18 crore** (31 March 2023: ₹ 1,286.97 crore) received from Solar Energy Corporation of India under MNRE Scheme for setting up Solar PV power projects. This amount will be recognized as revenue corresponding to the depreciation charge in future years.

Refer Note 37 w.r.t. current portion of Government grants.

33. Current financial liabilities -Borrowings

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Current borrowings		
Bills discounted - Secured	**1,974.49**	1,287.19
Loans repayable on demand		
From banks		
Secured		
Cash Credit /Short term working capital loan	**2,052.02**	1,189.11
Unsecured		
Cash Credit /Short term working capital loan	**1,200.00**	175.11
Other Loans		
Unsecured		
Short term working capital loan from Bank	**11,500.00**	9,550.00
Commercial paper	**3,379.38**	1,959.73
	20,105.89	14,161.14
Current maturities of non-current borrowings		
Bonds - secured	**6,009.73**	6,851.40
Bonds - Unsecured	**1,500.00**	4,374.10
Foreign currency notes - unsecured	**7,975.25**	-
From Banks		
Secured		
Rupee term loans	**1,048.73**	1,519.62
Unsecured		
Foreign currency loans	**416.74**	425.05
Rupee term loans	**6,644.31**	4,557.68
From Others		
Secured		
Rupee term loans	**238.75**	412.21
Unsecured		
Foreign currency loans (guaranteed by GOI)	**336.19**	325.75
Other foreign currency loans	**549.74**	565.28
Rupee term loans	**-**	16.57
	24,719.44	19,047.66
Total	**44,825.33**	33,208.80

(a) Current Borrowings:- The outstanding cash credit from banks carry floating interest rate linked to MCLR plus spread or 91 Days T-Bill plus spread or Repo rate plus spread, while short term working capital loans from banks carry fixed interest rate ranging between 7.04% to 7.30% p.a. (31 March 2023: 6.98% p.a. to 7.38% p.a.) repayable on demand, in line with respective arrangements with the lender banks. Commercial paper carry discounted interest of 7.59% p.a.(31 March 2023: 5.20 % p.a.to 7.30 % p.a.).

(b) Secured cash credit/Short term working capital loan includes:

(i) Secured against hypothecation of the stocks of stores and spares and book debt, both present and future, of the NEEPCO, a subsidiary of the Company.

(ii) Secured against secured by way of second charge on block of assets of Tehri Stage-1 and Koteshwar HEP including machinery spares, tools & accessories, fuel stock, spares & material at project site and by way of exclusive charge on debtors of Patan Wind Power Project,Dev Bhoomi dwarka wind power project, Dhukuwan project and Solar power plant Kerala, trade receivables of Koteshwar HEP of THDC India Ltd., a subsidiary of the Company.

(iii) Secured by a first pari passu charge on entire current assets (both present and future) and second pari passu charge on fixed assets of the of Bhartiya Rail Bijlee Company Limited, a subsidiary of the Company.

(iv) Secured by a first hypothecation charge on stores/spares, book debts and entire current assets both present and future of the of NTPC Vidhyut Vyapar Nigam Limited, a subsidiary of the Company.

(c) Borrowings under Commercial paper are net of unamortised discount as at 31 March 2024 amounting to **₹ 120.62 crore** (31 March 2023: ₹ 40.27 crore)

(d) Details in respect of rate of interest and terms of repayment of current maturities of secured and unsecured non-current borrowings indicated above are disclosed in Note 27.

(e) The secured current borrowings relating to bills discounted are secured against the book debts, present and future. Refer note 15 (c) for detailed disclosure.

(f) There has been no default in repayment of any of the loans or interest thereon as at the end of the year.

34. Current financial liabilities - Lease liabilities

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Current maturities of lease liabilities	**252.85**	216.75

a) Refer Note 28 for details in respect of non-current lease labilities.

35. Current financial liabilities - Trade payables

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Trade payables for goods and services		
Total outstanding dues of		
- micro and small enterprises	**579.97**	308.92
- creditors other than micro and small enterprises	**10,757.98**	11,047.24
Total	**11,337.95**	11,356.16

(a) Amounts payable to related parties are disclosed in Note 61.



(b) Trade payables ageing schedule

As at 31 March 2024 ₹ Crore

Particulars		Unbilled Dues	Not Due	Outstanding for following periods from due date of payment				Total
				Less than 1 year	1-2 years	2-3 years	More than 3 years	
(i)	MSME	**387.39**	**4.33**	**188.25**	**-**	**-**	**-**	**579.97**
(ii)	Others	**2,660.82**	**91.59**	**4,753.61**	**1,235.08**	**219.58**	**1,645.16**	**10,605.84**
(iii)	Disputed dues – MSME	**-**	**-**	**-**	**-**	**-**	**-**	**-**
(iv)	Disputed dues – Others	**-**	**-**	**-**	**-**	**-**	**152.14**	**152.14**
Total		**3,048.21**	**95.92**	**4,941.86**	**1,235.08**	**219.58**	**1,797.30**	**11,337.95**

As at 31 March 2023 ₹ Crore

Particulars		Unbilled Dues	Not Due	Outstanding for following periods from due date of payment				Total
				Less than 1 year	1-2 years	2-3 years	More than 3 years	
(i)	MSME	187.94	35.90	85.01	0.01	-	0.06	308.92
(ii)	Others	2,493.41	339.35	5,607.26	420.36	218.72	1,782.02	10,861.12
(iii)	Disputed dues – MSME	-	-	-	-	-	-	-
(iv)	Disputed dues – Others	-	-	-	-	-	186.12	186.12
Total		2,681.35	375.25	5,692.27	420.37	218.72	1,968.20	11,356.16

36. Current liabilities - Other financial liabilities

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Interest accrued but not due on		
Secured current borrowings	**0.40**	0.23
Unsecured current borrowings	**63.49**	36.84
Secured non current borrowings	**1,195.91**	1,163.69
Unsecured non current borrowings	**1,594.97**	1,673.91
Unpaid dividends	**17.74**	19.07
Unpaid matured deposits and interest accrued thereon	**0.19**	0.19
Unpaid matured bonds and interest accrued thereon	**12.69**	9.62
Book overdraft	**36.95**	307.57
Payable to customers	**1,077.05**	1,289.39
Payable for capital expenditure		
- micro and small enterprises	**213.24**	140.46
- other than micro and small enterprises	**22,411.46**	20,643.14
Other payables		
Deposits from contractors and others	**1,106.09**	533.76
Contractual Obligations	**2,652.72**	2,599.98

36. Current liabilities - Other financial liabilities *(Contd.)*

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Payable to employees	**1,172.33**	1,212.45
Retention on account of encashment of bank guarantee (solar)	**288.74**	284.78
Payable to Solar Payment Security account	**367.85**	344.62
Dividend Payable	**70.81**	-
Others	**662.11**	522.74
Total	**32,944.74**	30,782.44

a) Unpaid dividends, matured deposits, bonds and interest include the amounts which have either not been claimed by the investors/holders of the equity shares/bonds/fixed deposits or are on hold pending legal formalities etc. Out of the above, the amount required to be transferred to the Investor Education and Protection Fund (IEPF) has been transferred.

b) Other payables - Others' mainly includes **₹ 41.52 crore** (31 March 2023: ₹ 63.68 crore) towards the implementation of Deen Dayal Upadhyay Gram Jyoti Yojana (DDUGJY) Scheme of the GOI being carried out by the Company. The funds for the implementation of these schemes are provided by the agencies nominated by the GOI in this regard. 'Other payables - Others' also include **₹ 293.29 crore** (31 March 2023: ₹ 251.53 crore) in respect of an amount payable under a contract which was under dispute which has been since settled and balance towards amount payable to hospitals, etc. Further, 'Other payables - Others' also include provision for CSR Reserve in respect of two subsidiaries amounting to **₹ 13.79 crore** (31 March 2023 - ₹ Nil)

c) The Company had obtained exemption from the Ministry of Corporate Affairs (MCA), GOI in respect of applicability of Section 58A from the erstwhile Companies Act, 1956 in respect of deposits held from the dependants of employees who die or suffer permanent total disability under the 'Employees Rehabilitation Scheme' (said amount is included in "Other payables - Others"). Consequent upon enactment of the Companies Act, 2013, the Company has written to the MCA for clarification on continuation of above exemption granted earlier, which is still awaited. Based on an expert opinion, the amount accepted under the Scheme is not considered as a deposit under the Companies Act, 2013.

d) Retention on account of encashment of bank guarantee (solar) represents amounts retained by M/s NVVN Ltd., a wholly owned subsidiary, pursuant to directions received from the Ministry of New and Renewable Energy vide letter ref. no. 29/5/2010-11/JNNSM(ST) dated 29 June 2012 and clarifications thereafter. The company has utilised **₹ 288.74 crore** (31 March 2023 : ₹ 284.74 crore) from "Retention on account of encashment of bank guarantee (solar)" for non-payment of dues by its customers under Jawahar Lal Nehru National Solar Mission, Phase-I (JNNSM-I).

e) Contractual obligation includes security deposit and retention money deducted from vendors.

f) Amounts payable to related parties are disclosed in Note 61.

g) Solar Payment Security Account was created by MNRE, Government of India vide OM No. 29/5/2010-11/JNNSM(ST) dated 30 June 2011 as Gross Budgetary Support (GBS) by Ministry of New and Renewable Energy (MNRE), Government of India for ensuring timely payment to Solar Power Developers (SPDs) in the event of default by State Utilities/ Discoms. This fund is to be recouped after receipt of payment from State Utilities/Discoms against these bills. This fund was incorporated in the books of accounts of NVVN with effect from 01 Jan 2019 for better monitoring and control of the fund. The funds not withdrawn are invested in Term deposits and balance amount is kept in Current account (refer Note 16).

37. Current liabilities - Other current liabilities

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Advances from customers and others	**686.25**	624.89
Government Grants	**111.44**	95.30
Other payables		
Statutory dues	**725.28**	842.29
Others	**457.22**	391.80
Total	**1,980.19**	1,954.28

(a) Advance received for the DDUGJY of **₹ 306.93 crore** (31 March 2023: ₹ 282.22 crore) is included in 'Advance from customers and others'. Refer Note 35 (b). Tax deducted at source on the interest is included in 'Advance tax and tax deducted at source' - Note 12.

(b) Refer Note 32 w.r.t. accounting of Government grants.

(c) Others include an amount **₹ 331.79 crore** (31 March 2023: ₹ 311.07 crore) payable to Government of Jharkhand on disposal of the assets held for sale. These assets were initially transferred to the subsidiary by the Scheme notified by the Government of Jharkhand (GoJ) vide notification No. 888 dated 1 April 2016 of Patratu Thermal Power Station, for generation of the electricity under power supply arrangement to Jharkhand Bijli Vitran Nigam Limited (JBVNL), an enterprise of Government of Jharkhand (GoJ). However due to heavy cost of generation, JBVNL / GoJ proposed to shut down the plant and scrap all the existing units and accordingly plant has been shut down on 24 Jan 2017. It has been further agreed that consideration of these assets shall be the amount realised from sale of scrap, net of cost.

The proceeds realised during the year from dismantling of the existing units, current assets & Scrap less administrative expenses towards the sale, land lease and any other incidental expenses has been credited to GoJ in lieu of the Specified Assets Transfer consideration as per the agreement. The corresponding provisional liability on account of these assets has been adjusted and disclosed above.

38. Current liabilities - Provisions

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Provision for		
Employee benefits	**2,205.45**	2,080.24
Obligations incidental to land acquisition	**1,857.23**	2,456.35
Tariff adjustment	**801.14**	817.61
Arbitration awards	**2,064.12**	2,687.95
Others	**132.39**	173.08
Total	**7,060.33**	8,215.23

a) Disclosures required by Ind AS 19 'Employee Benefits' are provided in Note 58.

b) Disclosures required by Ind AS 37 'Provisions, Contingent Liabilities and Contingent Assets' are provided in Note 64.

c) Provision for others mainly comprise **₹ 99.40 crore** (31 March 2023: ₹ 90.79 crore) towards cost of unfinished minimum work programme demanded by the Ministry of Petroleum and Natural Gas (MoP&NG) including interest thereon in relation to Block AA-ONN-2003/2 (Refer Note 66) and **₹ 5.48 crore** (31 March 2023: ₹ 6.18 crore) towards provision for shortage in property, plant and equipment on physical verification pending investigation.

39. Current liabilities - Current tax liabilities (net)

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Current Tax	**49.34**	4,487.20
Less: Advance tax paid	**46.39**	4,400.73
Total	**2.95**	86.47

40. Deferred revenue

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
On account of		
Advance against depreciation	**182.32**	189.92
Income from foreign currency fluctuation	**2,427.79**	2,712.87
Deferred fair valuation gain	**15.18**	47.69
Others	**25.71**	-
Total	**2,651.00**	2,950.48

a) Advance against depreciation (AAD) was an element of tariff provided under the Tariff Regulations for 2001-04 and 2004-09 to facilitate debt servicing by the generators since it was considered that depreciation recovered in the tariff considering a useful life of 25 years is not adequate for debt servicing. Though this amount is not repayable to the beneficiaries, keeping in view the matching principle, and in line with the opinion of the Expert Advisory Committee (EAC) of the Institute of Chartered Accountants of India (ICAI), this was treated as deferred revenue to the extent depreciation chargeable in the accounts is considered to be higher than the depreciation recoverable in tariff in future years. Since AAD is in the nature of deferred revenue and does not constitute a liability, it has been disclosed in this note separately from equity and liabilities.

b) Foreign exchange rate variation (FERV) on foreign currency loans and interest thereon is recoverable from/payable to the customers in line with the Tariff Regulations. Keeping in view the opinion of the EAC of ICAI, the Company is recognizing deferred foreign currency fluctuation asset by corresponding credit to deferred income from foreign currency fluctuation in respect of the FERV on foreign currency loans adjusted in the cost of property, plant and equipment, which is recoverable from the customers in future years as provided in material accounting policy no. C.13 (Note 1). This amount will be recognized as revenue corresponding to the depreciation charge in future years. The amount does not constitute a liability to be discharged in future periods and hence, it has been disclosed separately from equity and liabilities.

c) Deferred revenue-Others represents amount recovered from EPC contractor for one of the solar projects in case of NTPC Green Energy Limited,which will be adjusted against future recurring annual expenditure.

41. Regulatory deferral account credit balances

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Deferred liability for MAT credit	**1,019.04**	604.61
Exchange differences	**280.79**	-
	1,299.83	604.61

Regulatory deferral account balances have been accounted in line with material accounting policy no. C.5. Refer Note 23 for Regulatory deferral account debit balances. Refer Note 72 for detailed disclosures.

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42. Revenue from operations

₹ Crore

Particulars		For the year ended 31 March 2024	For the year ended 31 March 2023
Energy sales		**1,67,227.01**	1,65,695.01
Sale of energy through trading		**9,212.95**	8,141.27
Consultancy, project management and supervision fee		**169.46**	119.05
Lease rentals on assets on operating lease		**19.58**	19.58
Commission - energy trading business		**12.71**	9.20
		1,76,641.71	1,73,984.11
Sale of fly ash/ash products	**495.11**		399.37
Less: Transferred to fly ash utilisation reserve fund	**495.11**		399.37
		-	-
Other operating revenues			
Interest from beneficiaries		**1,569.36**	1,676.95
Energy internally consumed		**77.90**	92.04
Interest income on assets under finance lease		**23.81**	32.53
Recognised from government grants		**111.26**	131.90
Provision written back			
Tariff adjustments		**16.47**	-
Others		**0.01**	242.98
Income form Trading of ESCerts		**15.12**	10.19
Leasing of E- vehicles		**43.35**	36.48
Others		**1.89**	-
		1,859.17	2,223.07
Total		**1,78,500.88**	1,76,207.18

a) (i) CERC notified The Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 vide Order dated 7 March 2019 (Regulations, 2019) for determination of tariff for the tariff period 2019-24. CERC has issued provisional tariff orders in respect of thirty nine stations of the company for the tariff period 2019-24. Pending issue of provisional tariff orders in respect of balance stations, capacity charges are billed to beneficiaries in accordance with the tariff approved and applicable as on 31 March 2019, as provided in Regulations, 2019. In case of new stations, which got commercialised on and after 1 April 2019 and stations where tariff approved and applicable as on 31 March 2019 is pending from CERC, billing is done based on capacity charges as filed with CERC in tariff petition. Accordingly, capacity charges provisionally billed for the year ended 31 March 2024 is **₹ 54,009.23 crore** (31 March 2023: ₹ 50,307.67 crore). Energy and other charges are billed as per the operational norms specified in the Regulations 2019. Accordingly, energy charged billed for the year ended 31 March 2024 is **₹ 1,00,326.08 crore** (31 March 2023: ₹ 1,01,655.16 crore).

(ii) Capacity charges for the year ended 31 March 2024 have been provisionally recognized considering the provisions of CERC Tariff Regulations amounting to **₹ 57,983.52 crore** (31 March 2023: ₹ 52,588.57 crore). Energy and Other charges for the year ended 31 March 2024 have been recognized at **₹ 1,03,728.94 crore** (31 March 2023: ₹ 1,05,304.14 crore) as per the operational norms specified in the Regulations 2019.

b) Capacity charges for the year ended 31 March 2024 include **₹ 1,951.75 crore** (31 March 2023: ₹ 1,813.68 crore) pertaining to earlier years on account of impact of CERC orders and other adjustments. Energy and other charges for the year ended 31 March 2024 include **₹ 329.59 crore** (31 March 2023: ₹ 3,279.26 crore) pertaining to earlier years on account of revision of energy charges due to grade slippages and other adjustments. Other adjustments in PY include an amount of ₹ 3,097.04 crore on account of adjustment of 'Net movement in regulatory deferral account balances (net of taxes)' relating to reimbursement of ash transportation cost for the period from 1 April 2019 to 31 March 2022 pursuant to Order of CERC dated 28 October 2022.

c) Sales for the year ended 31 March 2024 include **₹ Nil** (31 March 2023: ₹ 262.97 crore) on account of income tax recoverable from the beneficiaries as per Regulations, 2004. Sales for the year ended 31 March 2024 include **₹ 141.07 crore** (31 March 2023: ₹ 102.03 crore) on account of deferred tax materialized which is recoverable from beneficiaries as per Regulations, 2019.

d) Energy sales include electricity duty amounting to **₹ 1,672.32 crore** (31 March 2023: ₹ 1,516.71 crore).

e) Revenue from operations for the year ended 31 March 2024 include **₹ 9,295.80 crore** (31 March 2023: ₹ 8,183.92 crore) on account of sale of energy through trading. Sale of energy through trading includes export sales amounting to **₹ 1,376.86 crore** (31 March 2023: ₹ 1,275.80 crore) to Nepal and Bangladesh by M/s NVVN Ltd., a subsidiary of the Company.

f) Other operating revenue includes **₹ 77.90 crore** (31 March 2023: ₹ 92.04 crore) towards energy internally consumed, valued at variable cost of generation and the corresponding amount is included in power charges in Note 48.

g) CERC Regulations provides that where after the truing-up, the tariff recovered is less/more than the tariff approved by the Commission, the generating Company shall recover from /pay to the beneficiaries the under/over recovered amount along-with simple interest. Based on the above, the interest recoverable from the beneficiaries amounting to **₹ 1,569.35 crore** (31 March 2023: ₹ 1,676.95 crore) has been accounted as 'Interest from beneficiaries'. Further, the amount payable to the beneficiaries has been accounted as 'Interest to beneficiaries' in Note 48.

h) Provision written back-others includes write back of provision towards water conservation fund at few projects of the Company amounting to Nil (31 March 2023: ₹ 242.98 crore), which was no longer required.

i) In respect of Ratnagiri Gas & Power Private Limited (RGPPL), one of the subsidiaries, revenue amounting ₹ 5,188.83 crore (31 March 2023 ₹ 3,308.75 crore) (including Late Payment Surcharge) has not been recognized due to uncertainty in collection as a prudent measure. Further, during the year RGPPL has supplied power intermittently to GRID as per the requirement of WRLDC/NLDC. Being the power supply of regulatory nature, revenue is recognized based on the weekly statements uploaded by the Western Regional Power Committee on their website.

j) The Power Purchase Agreements (PPA) signed in respect of a power station was operative initially for a period of five years with the beneficiary which may be extended, renewed or replaced as the parties mutually agree. The Company has continued to classify these arrangement with its customers as lease based on the practical expedient provided in Appendix C of Ind AS 116. Accordingly, recovery of capacity charges towards depreciation, interest on loan capital & return on equity (pre-tax) components from the beneficiary are considered as lease rentals on the assets which are on operating lease.

k) The Company had ascertained that the PPA entered into for Stage-I of a power station with the beneficiary falls under the definition of finance lease. Accordingly, the written down value of the specified assets was derecognized from PPE and accounted as Finance Lease Receivable (FLR) on transition date to Ind AS. The Company has continued to classify this arrangement with its customer as lease based on the practical expedient provided in Appendix C of Ind AS 116. Accordingly, recovery of capacity charges towards depreciation (including AAD), interest on loan capital & return on equity (pre-tax) components from the beneficiary are continued to be adjusted against FLR. The interest component of the FLR and amount received on account of revision of tariff of previous periods in respect of the above three elements are continued to be recognised as 'Interest income on Assets under finance lease'.

l) CERC vide notification dated 19 February 2021, notified the Second amendment to Tariff Regulations 2019, which inter alia includes mechanism for determination of transfer price of coal from integrated coal mines to generating stations and are effective for the period 2019-24. Coal extracted from Company's captive mines and supplied to generating stations have been accounted considering these Regulations.



43. Other income

₹ Crore

Particulars		For the year ended 31 March 2024	For the year ended 31 March 2023
Interest from			
Financial assets at amortized cost			
Non-current trade receivables		**169.63**	163.58
Loan to employees		**68.14**	69.11
Deposits with banks		**308.19**	103.65
Deposits with banks out of fly ash utilisation reserve fund	**56.30**		29.15
Less: Transferred to fly ash utilisation reserve fund	**56.30**		29.15
		-	-
Deposits with banks - DDUGJY funds	**18.55**		13.81
Less: Transferred to DDUGJY advance from customers	**18.55**		13.81
		-	-
Deposits with banks - Solar payment security account	**-**		0.94
Less: Transferred to Solar payment security account	**-**		0.94
		-	-
Other investments in Joint venture companies		**47.26**	28.79
Advance to contractors and suppliers		**128.12**	167.15
Income Tax refunds		**299.52**	1.73
Others		**81.52**	17.27
Dividend from			
Non-current investment in equity instruments designated at fair value through OCI		**9.36**	6.96
Other non-operating income			
Late payment surcharge from beneficiaries		**436.83**	622.02
Hire charges for equipment		**1.29**	1.37
Sale of scrap		**181.48**	150.00
Gain on Option Contract		**0.11**	5.90
Miscellaneous income		**449.04**	423.27
Profit on de-recognition of property, plant and equipment		**30.37**	31.80
Provisions written back			
Doubtful debts		**323.01**	-
Doubtful loans, advances and claims		**20.77**	0.17
Shortage in inventories		**10.18**	52.93
Obsolescence in inventories		**3.65**	28.05
Arbitration cases		**143.38**	33.92
Unserviceable capital works		**33.78**	3.84
Others		**9.48**	6.41
		2,755.11	1,917.92
Less: Transferred to expenditure during construction period (net) - Note 49		**67.39**	133.67
Transferred to expenditure during development of coal mines (net) - Note 50		**1.12**	0.85
Transferred to payable to Govt. of Jharkhand-Note 37		**21.62**	14.19
Total		**2,664.98**	1,769.21

a) 'Interest from others' includes interest on advance to APIIC for drawal of water and deposits with LIC towards annuity to the land oustees.

b) Miscellaneous income includes income from township recoveries and receipts towards insurance claims.

c) 'Provisions written back - Others' include provision for shortage in construction stores, shortage in property, plant and equipment and other provisions no longer required.

d) During the year, certain disputes with vendors which were under arbitration were settled pursuant to Vivadh se Vishwas II(Contractual liabilities) scheme of GOI. Consequentially, provision created in the earlier years have been written back and included in 'Provisions written back-Arbitration cases' which are no longer required.

44. Fuel cost

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
Coal	**89,857.18**	93,975.55
Gas	**6,979.12**	4,908.66
Naptha	**2.91**	158.43
Oil	**1,314.23**	1,548.75
Biomass pellets and other chemicals	**158.52**	64.39
Total	**98,311.96**	1,00,655.78

45. Employee benefits expense

₹ Crore

Particulars		For the year ended 31 March 2024	For the year ended 31 March 2023
Salaries and wages		**6,078.91**	6,162.99
Contribution to provident and other funds		**1,068.67**	935.94
Staff welfare expenses		**794.40**	742.37
		7,941.98	7,841.30
Less:	Allocated to fuel inventory	**345.99**	320.34
	Transferred to expenditure during construction period (net) - Note 49	**865.87**	861.57
	Transferred to expenditure during development of coal mines (net) - Note 50	**76.19**	68.65
	Reimbursements for employees on deputation/secondment	**61.70**	60.33
	Adjusted with payable to Govt. of Jharkhand - Note 37	**0.20**	2.07
Total		**6,592.03**	6,528.34

a) Disclosures as per Ind AS 19 - 'Employee Benefits' in respect of provision made towards various employee benefits are provided in Note 58.

b) Expenses on ex-gratia payments under voluntary retirement scheme are charged to statement of profit and loss in the year incurred.



46. Finance costs

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
Finance costs on financial liabilities measured at amortised cost		
Bonds	**4,830.97**	5,084.40
Foreign currency term loans	**939.76**	538.13
Rupee term loans	**8,091.27**	6,899.79
Foreign currency bonds/notes	**830.17**	933.64
Cash credit	**708.52**	328.79
Commercial papers	**144.89**	396.93
Others	**172.14**	162.01
	15,717.72	14,343.69
Interest on non financial items	**125.43**	178.70
Exchange differences regarded as an adjustment to borrowing costs	**107.50**	572.58
Other borrowing costs		
Guarantee fee	**18.54**	21.24
Others	**9.01**	11.70
	27.55	32.94
Sub-Total	**15,978.20**	15,127.91
Less: Transferred to expenditure during construction period (net) - Note 49	**3,745.49**	3,774.91
Transferred to expenditure during development of coal mines (net) - Note 50	**184.50**	196.94
Total	**12,048.21**	11,156.06

a) Finance costs on financial liabilities measured at amortized cost - Others represent unwinding of lease liabilities , vendor liabilities and provisions

b) 'Other borrowing costs - Others' include bond issue and service expenses, commitment charges, exposure premium and insurance premium & other expenses on foreign currency loans / bonds/ notes.

c) Interest on non financial items above includes interest on shortfall in payment of advance income-tax amounting **₹ 2.52 crore** (31 March 2023: ₹ 7.95 crore)

d) Refer Note 74 w.r.t. Interest expense relating to lease obligations.

47. Depreciation, amortisation and impairment expense

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
On property, plant and equipment - Note 2	**17,879.45**	16,269.81
On intangible assets - Note 4	**43.66**	50.82
	17,923.11	16,320.63
Less:		
Allocated to fuel inventory	**1,227.41**	1,077.05
Transferred to expenditure during construction period (net) - Note 49	**134.29**	125.94
Transferred to expenditure during development of coal mines (net) - Note 50	**57.98**	53.18
Adjustment with deferred revenue from deferred foreign currency fluctuation	**299.80**	272.19
Total	**16,203.63**	14,792.27

a) Refer Note 74 w.r.t. depreciation expense of right of use assets.

48. Other expenses

₹ Crore

Particulars		For the year ended 31 March 2024	For the year ended 31 March 2023
Power charges	**375.88**		401.31
Less: Recovered from contractors and employees	**70.68**		69.05
		305.20	332.26
Water charges		**1,029.66**	1,014.74
Cost of captive coal		**5,150.59**	3,102.15
Stores consumed		**282.38**	251.96
Rent		**27.80**	48.10
Repairs and maintenance			
Buildings	**452.34**		452.46
Plant and equipment	**5,225.55**		4,407.03
Others	**523.39**		489.66
		6,201.28	5,349.15
Load dispatch centre charges		**97.01**	47.09
Insurance		**483.78**	472.70
Interest to beneficiaries		**252.30**	291.09
Loss on fair valuation of non-current trade receivables at amortized cost		**37.74**	425.61
Rates and taxes		**197.60**	210.89
Water cess and environment protection cess		**1.24**	0.47
Training and recruitment expenses	**64.57**		52.15
Less: Receipts	**1.11**		0.51
		63.46	51.64

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₹ Crore

Particulars		For the year ended 31 March 2024	For the year ended 31 March 2023
Communication expenses		**104.84**	88.18
Travelling expenses		**277.19**	276.83
Remuneration to auditors		**7.58**	7.36
Advertisement and publicity		**85.78**	47.52
Electricity duty		**1,557.10**	1,434.48
Security expenses		**1,491.73**	1,354.71
Entertainment expenses		**75.80**	73.33
Expenses for guest house	**91.84**		78.60
Less: Recoveries	**5.24**		5.44
		86.60	73.16
Education expenses		**72.78**	76.80
Donation / Grants		**-**	0.03
Ash utilisation and marketing expenses		**4,231.72**	2,713.37
Directors sitting fee		**0.79**	0.71
Professional charges and consultancy fee		**104.71**	154.73
Legal expenses		**88.19**	84.84
EDP hire and other charges		**87.40**	80.81
Printing and stationery		**8.92**	7.12
Oil and gas exploration expenses		**0.09**	0.06
Hiring of vehicles		**168.76**	144.93
Net loss/(gain) in foreign currency transactions and translations		**(1,345.50)**	748.92
Derivatives MTM loss/(gain) (net)		**10.51**	-
Horticulture expenses		**77.31**	77.13
Hire charges of helicopter/aircraft		**5.02**	4.08
Hire charges of construction equipment		**7.20**	5.62
Transport vehicle running expenses		**25.01**	23.51
Loss on de-recognition of property, plant and equipment		**220.67**	168.55
Power Charges (e-mobility)		**4.14**	2.95
Annual Maintenance Expenses - e mobility		**20.90**	17.56
Miscellaneous expenses		**1,321.17**	525.55
		22,926.45	19,790.69
Less: Allocated to fuel inventory		**5,085.16**	3,655.19
Transferred to expenditure during construction period (net) - Note 49		**741.37**	668.57
Transferred to expenditure during development of coal mines (net) - Note 50		**1,041.46**	337.76
Transferred to derivative MTM loss/(gain) recoverable/ (payable) from/to beneficiaries		**10.51**	-

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
Transferred to corporate social responsibility expenses	**18.36**	9.67
Adjusted with payable to Govt. of Jharkhand-Note 37	**0.71**	4.21
Transferred to fly ash utilisation reserve fund	**326.66**	253.74
	15,702.22	14,861.55
Corporate Social Responsibility (CSR) expense	**254.62**	352.76
Provisions for		
Tariff adjustments	**-**	335.33
Doubtful Trade Receivables	**19.86**	82.27
Obsolescence in inventories	**38.74**	52.58
Shortages in inventories	**10.48**	9.35
Unserviceable capital works	**150.22**	18.95
Unfinished minimum work programme for oil and gas exploration	**8.60**	11.01
Arbitration cases	**125.65**	155.40
Shortages in construction stores	**3.09**	2.35
Doubtful loans, advances and claims	**500.35**	71.25
Others	**7.56**	15.37
	864.55	753.86
Total	**16,821.39**	15,968.17

a) During the development stage of mine, transfer price of coal extracted from Company's captive mine has been determined considering the CERC Regulations. The same has been netted from the cost of captive coal and carried to 'Development of coal mines' (Note 3) through 'Transferred to expenditure during development of coal mines' (Note 50).

b) CERC Regulations provides that where after the truing-up, the tariff recovered is more than the tariff approved by the Commission, the generating Company shall pay to the beneficiaries the over recovered amount along-with simple interest. Accordingly, the interest payable to the beneficiaries amounting to **₹ 252.30 crore** (31 March 2023: ₹ 291.09 crore) has been accounted and disclosed as 'Interest to beneficiaries'.

c) Miscellaneous expenses include expenditure on books & periodicals, workshops, operating expenses of DG sets, brokerage and commission, bank charges, furnishing expenses, etc.

d) Provisions for unserviceable capital works includes an amount of ₹ 117.62 crore in respect of one of the hydro projects whose construction activities have been stopped by the order of hon'ble Supreme Court of India in May 2014.

e) Provisions for doubtful loans, advances and claims include an amount of ₹ 500.00 crore being the amount deposited as per the orders of hon'ble Delhi Court- Refer Note 64.

f) Provisions - Others include provision for doubtful debts, shortages in property, plant and equipment and other losses.

g) Preliminary expenses on account of new projects incurred prior to approval of feasibility report/techno economic clearance, training and recruitment expenses and voluntary community development expenses are charged to statement of profit and loss.



49. Expenditure during construction period (net)*

₹ Crore

Particulars			For the year ended 31 March 2024	For the year ended 31 March 2023
A.	**Employee benefits expense**			
	Salaries and wages		**695.94**	701.67
	Contribution to provident and other funds		**108.99**	100.16
	Staff welfare expenses		**60.94**	59.74
	Total (A)		**865.87**	861.57
B.	**Finance costs**			
	Finance costs on financial liabilities measured at amortised cost			
	Bonds		**1,039.49**	1,504.30
	Foreign currency term loans		**458.14**	177.60
	Rupee term loans		**1,960.99**	1,464.97
	Foreign currency bonds/notes		**111.39**	205.82
	Others		**115.35**	136.49
	Exchange differences regarded as an adjustment to borrowing costs		**(4.69)**	174.90
	Other borrowing costs - others		**64.82**	110.83
	Total (B)		**3,745.49**	3,774.91
C.	**Depreciation and amortisation expense**		**134.29**	125.94
D.	**Other expenses**			
	Power charges	**61.41**		131.39
	Less: Recovered from contractors and employees	**7.42**		10.53
			53.99	120.86
	Water charges		**10.13**	101.69
	Rent		**4.10**	3.19
	Repairs and maintenance			
	Buildings	**11.89**		6.36
	Plant and equipment	**6.05**		12.13
	Others	**71.11**		60.14
			89.05	78.63
	Insurance		**8.66**	8.19
	Rates and taxes		**27.97**	49.16
	Communication expenses		**7.59**	7.99
	Travelling expenses		**28.34**	30.13
	Tender expenses		**9.54**	6.63
	Advertisement and publicity		**0.76**	0.45
	Security expenses		**95.33**	124.15
	Entertainment expenses		**3.35**	4.27
	Expenses for guest house		**7.52**	5.95
	Professional charges and consultancy fee		**7.36**	17.13
	Legal expenses		**5.65**	8.54
	EDP hire and other charges		**1.95**	1.37
	Printing and stationery		**0.58**	0.49
	Miscellaneous expenses		**379.50**	99.75
	Total (D)		**741.37**	668.57
E.	**Less: Other income**			
	Interest from advances to contractors and suppliers		**18.35**	37.40
	Interest others		**13.42**	16.20
	Hire charges for equipment		**0.13**	0.36
	Sale of scrap		**0.06**	0.42
	Miscellaneous income		**35.43**	79.29
	Total (E)		**67.39**	133.67
F.	**Net actuarial losses on defined benefit plans**		**(0.10)**	(1.66)
	Grand total (A+B+C+D-E+F)**		**5,419.53**	5,295.66

* Other than for expenditure during development of coal mines- (Note 50)

** Carried to Capital work-in-progress - (Note 3)

50. Expenditure during development of coal mines (net)

₹ Crore

Particulars		For the year ended 31 March 2024	For the year ended 31 March 2023
A.	**Employee benefits expense**		
	Salaries and wages	**59.23**	54.45
	Contribution to provident and other funds	**9.32**	6.25
	Staff welfare expenses	**7.64**	7.95
	Total (A)	**76.19**	68.65
B.	**Finance costs**		
	Finance costs on financial liabilities measured at amortised cost		
	Bonds	**45.04**	68.38
	Foreign currency term loans	**29.90**	12.08
	Rupee term loans	**98.97**	100.70
	Others	**10.28**	8.82
	Other borrowing costs - others	**0.31**	6.96
	Total (B)	**184.50**	196.94
C.	**Depreciation and amortisation expense**	**57.98**	53.18

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₹ Crore

Particulars		For the year ended 31 March 2024	For the year ended 31 March 2023
D. Other expenses			
Power charges		**2.27**	3.21
Water charges		**0.25**	-
Rent		**0.35**	0.24
Repairs and maintenance			
Buildings	**0.16**		0.03
Others	**12.38**		4.81
		12.54	4.84
Cost of captive coal produced		**977.43**	273.73
Rates and taxes		**0.93**	7.59
Communication expenses		**1.41**	0.99
Travelling expenses		**3.33**	3.09
Advertisement and publicity		**0.31**	0.40
Security expenses		**16.38**	15.55
Entertainment expenses		**1.02**	0.46
Expenses for guest house		**1.19**	1.63
Professional charges and consultancy fee		**6.29**	10.02
Legal expenses		**2.93**	5.20
EDP hire and other charges		**0.13**	0.37
Printing and stationery		**0.32**	0.12
Miscellaneous expenses		**14.38**	10.32
Total (D)		**1,041.46**	337.76
E. Less: Other income			
Interest from advances to contractors and suppliers		1.00	0.64
Miscellaneous income		0.12	0.21
Total (E)		**1.12**	0.85
F. Net actuarial losses on defined benefit plans		(0.18)	0.29
Grand total (A+B+C+D-E+F)*		**1,358.83**	655.97

* Carried to Capital work-in-progress - (Note 3)

51 (a) The Group has a system of obtaining periodic confirmation of balances from banks and other parties. There are no unconfirmed balances in respect of bank accounts and borrowings from banks & financial institutions. With regard to receivables for energy sales, the Group sends demand intimations to the beneficiaries with details of amount paid and balance outstanding which can be said to be automatically confirmed on receipt of subsequent payment from such beneficiaries. In addition, reconciliation with beneficiaries and other customers is generally done on quarterly basis. So far as trade/other payables and loans and advances are concerned, the balance confirmation letters/emails with the negative assertion as referred in the Standard on Auditing (SA) 505 (Revised) 'External Confirmations', were sent to the parties. Some of such balances are subject to confirmation/reconciliation. Adjustments, if any will be accounted for on confirmation/reconciliation of the same, which in the opinion of the management will not have a material impact.

(b) In the opinion of the management, the value of assets, other than property, plant and equipment and non-current investments, on realisation in the ordinary course of business, will not be less than the value at which these are stated in the Balance Sheet.

(c) The levy of transit fee/entry tax on supplies of fuel to some of the power stations has been paid under protest as the matters are sub-judice at various courts. In case the Company gets refund/demand from fuel suppliers/tax authorities on settlement of these cases, the same will be passed on to respective beneficiaries.

52 (a) Penstock I - feeding 02 (two) units (50 MW each) of Kopili Hydro Power Station, Umrongso, Assam of the Company got ruptured on 07.10.2019 following a Load through off and tripping of Unit -I (50 MW). 03 (three) other units were in full load during the mishap. Rupture happened at three locations of Penstock including at location immediately downstream of Valve House. Penstock protection valve closing mechanism was damaged in the incident and therefore, the Valve could not be closed to isolate the Penstock, consequently thereafter, the Power House was flooded upto EOT Crane beam level within a very short period. Repair, Renovation and Modernization (RRM) activities of the said generating plant is going on and as on the end of the reporting period, out of four units of on Kopili HPS (50X4 MW), the COD of three units were already recommissioned i.e. Unit # 4: COD declared w.e.f. 00:00 hrs of 20.08.2023, Unit # 3: COD declared w.e.f. 00:00 hrs of 03.09.2023 and Unit # 2: COD declared w.e.f. 00:00 hrs of 12.11.2023. The Turbine shaft free activity completed. Generator erection is under progress. The final unit i.e. Unit #1 is expected within May 2024.

(b) M/s Patratu Utpadan Nigam Ltd., a subsidiary of the Company, had signed the deed of adherence with Ministry of Coal (MoC) and Jharkhand Urja Utpadan Nigam Limited (JUUNL) for Banhardih coal mine on 2 June 2017. Subsequently, Deed of assignment between PVUNL and JUUNL was executed on 18 May 2018 after obtaining consent from MoC. Geological Report (GR) for the coal block has been handed over by JUUNL in July 2019, which is a vital input to take up further activities for the development of coal mine. The mining plan has been approved. The Board of Directors has approved the Feasibility Report (FR) of the mine during the financial year 2022-23.

A bank guarantee (BG) of ₹ 237.60 crore has been submitted to MoC, GOI towards performance security for the development of Banhardih coal mine. MoC appropriated 50% of the BG amount of ₹ 118.80 crore in July 2019 for not complying with the efficiency parameters as specified in the allotment agreement. MoC was approached for revision of the efficiency parameters and also refund of the appropriated amount.

A further appropriation of 15% of BG amount of ₹ 35.64 crore was done by MoC in December 2020 for not complying with some more efficiency parameters as specified in the allotment agreement. The Company has decided to exercise remedies available in the allotment agreement both for revision of efficiency parameters and refund of appropriated value of the BG and accordingly approached MoC which inter alia includes referring the matter to appropriate tribunal for redressal. The cumulative appropriated BG value of ₹ 154.44 crore has been accounted as capital work in progress for the development of the coal mine. A case was filed in Coal Tribunal, Ranchi for revision of efficiency parameters and refund of the appropriated BG amount. The case was admitted on 19 January 2022 and notice was issued to Ministry of Coal (MoC).

Further, the Company has received third show cause notice bearing no. F. No.103/18/2015/NA dated 18 January 2022 from MoC, GoI for appropriating 17% of BG amount of ₹ 4,039.20 lakh for not complying with four efficiency parameters namely land acquisition (CBA Section-11), opening of escrow account, application for opening permission and grant of opening permission, as specified in the allotment agreement. The Company has filed an injuction petition dated 24 February 2022 in Coal Tribunal, Ranchi. Notice to the Nominated Authority of MoC was issued by Hon'ble Judge on 2 March 2022. In the meantime, MoC has convened scrutiny committee meeting on 2 March 2022 wherein it was decided that as the matter is sub-judice, no further action on the matter of BG encashment will be taken till final verdict of the Court. Furthermore, scrutiny committee on 26 May 2023 recommended that the decision to be taken on non-achievement of milestone will be reviewed only after the final verdict of the Court. The pleadings in the matter are complete. The arguments are in progress. The company expects that the decision will be in favour of the company.

(c) As a consequence of unprecedented dry season flood in Kopili river, the Bundh constructed at the approach channel for taking up planned repair and renovation works overtopped on the 26th March 2022 leading to uncontrollable ingress of water from the Kopili reservoir into Khanding HRT. The discharge gushes down the hill slopes and inundated



the Khandong Power House (2 X 25 MW) and Kopili Stage II Power House (1 X 25 MW) causing damages to the Power Stations and its Plant & Machineries. The construction activities are under progress. The RCC work in foundation of Y-piece, Valve House up to intermediate beam level, renovation for Power House wall and Floor. Wall putty cleaning 80% of inside & 20% of outside completed. Brick work 100% completed & Plastering 95%, Tail Race Channel Renovation work: Protection works like Stone Masonry works at both sides of TRC, tail Race Channel Renovation work: Protection works like Stone Masonry works at both sides of TRC, are completed. The plant level Engineering for EM package/ approval of drawings and design memorandum, forging, Casting, machining and fabrication of different component of Turbine & Generator and the switchyard are in progress. The work is scheduled to be completed by May & July 2025.

(d) The recovery of capacity charges based on capacity declaration on RLNG in respect to Ratnagiri Gas and Power Private Limited (RGPPL), a subsidiary of the Company, was challenged by Maharashtra State Electricity Distribution Company Limited (MSEDCL) considering the same as violation of Power Purchase Agreement (PPA). However, Central Electricity Regulatory Commission (CERC) vide its order dated 30 July 2013 as well as Appellate Tribunal for Electricity (APTEL) vide its order dated 22 April 2015, upheld RGPPL's right to recover the capacity charges which was claimed by RGPPL amounting to ₹ 5,287.76 crore together with interest. MSEDCL approached the Hon'ble Supreme Court of India vide civil appeal no. 1922 of 2023 and the Hon'ble Supreme Court of India vide its judgement dated 9 November 2023 dismissed the civil appeal observing that MSEDCL is misinterpreting the clauses of PPA and ordered to continue the execution petition before the APTEL. RGPPL filed execution petition in APTEL on 1 December 2023 and defects raised by APTEL were cured on 21 December 2023 by RGPPL. Admission of execution petition and disposal of the same by APTEL is awaited.

In the meanwhile MSEDCL has paid an adhoc payment of ₹ 500.00 crore upto 31 March 2024. Further, based on MSEDCL Letter dated 12 February 2024 and commitments by MSEDCL during meeting held on 04 April 2024 chaired by Secretary (Power), Revenue of ₹ 1,156.16 crore and LPSC of ₹ 72.66 crore has been recognized in books of accounts by RGPPL and balance has been postponed for recognition due to uncertainty in probability of collection.

53 The Company is executing a 4 X 130 MW Hydro Electric Project in the State of Uttarakhand. After the reports of land subsidence in Joshimath Town, Additional District Magistrate, Chamoli has issued order on 5 January 2023 to stop all the construction activities till further orders. Hon'ble High Court of Uttarakhand on hearing a public interest litigation on 12 January 2023, has directed the State to strictly enforce the ban on construction in Joshimath area . As per Company's understanding, the land subsidence in Joshimath does not have any link with the Project which has also been confirmed through various expert reports submitted by the State of Uttarakhand in the Hon'ble High Court of Uttarakhand on 22 September 2023. The hon'ble Court on 25 September 2023 directed the National Disaster Management Authority (NDMA) to make its recommendations and next date of hearing is 20 June 2024. The developments are closely being monitored by the Company. Aggregate cost incurred on the project up to 31 March 2024 is **₹ 6,671.30 crore** (31 March 2023: ₹ 6,252.31 crore). Technical and administrative works related to the project are going on. Management does not envisage any threat to the continuance of the project and is confident that a viable solution in connection with the project shall be arrived in due course.

54 Disclosure as per Ind AS 1 'Presentation of financial statements'

a) Changes in material accounting policies:

There are no material changes in the accounting policies, However, during the year, following changes to the accounting policies have been made:

i) Scrap generated out of construction or maintenance jobs was hither to accounted as inventory on accrual basis. During the year an opinion has been pronounced by EAC of ICAI against a reference made by another entity and opined that miscellaneous scrap items i.e., other than process scrap, should not form part of inventory. Accordingly, the accounting of scrap has been modified and the amount of scrap appearing in the inventory as at 1 April 2023 amounting to ₹ 27.55 crore has been charged off during the year.

ii) Certain other changes have also been made in the material accounting policies for improved disclosures. The impact on the financial statements due to these changes is not material.

b) Refer Note 56 for disclosures relating to restatement.

55 Disclosure as per Ind AS 2 'Inventories'

(a) Amount of inventories consumed and recognised as expense during the year is as under:

₹ Crore

Particulars		For the year ended 31 March 2024	For the year ended 31 March 2023
Fuel Cost (Note 44)	- Domestic	**85,540.66**	75,599.59
	- Imported	**12,771.30**	25,056.19
Others (included in Note 48 - Other expenses)	- Domestic	**2,137.59**	1,870.71
	- Imported	**94.29**	78.01
Total		**1,00,543.84**	1,02,604.50

(b) Carrying amount of inventories pledged as security for borrowings as at 31 March 2024 is **₹ 17,994.62 crore** (31 March 2023: ₹ 548.83 crore). The amount of inventories pledged as at 31 March 2024 includes ₹ 17,369.83 crore of NTPC Limited against which outstanding amount of Fund based borrowings as on 31 March 2024 is **₹ Nil**.

56. Disclosure as per Ind AS 8 - 'Accounting Policies, Changes in Accounting Estimates and Errors'

(A) Restatement for the year ended 31 March 2023 and as at 1 April 2022

In accordance with Ind AS 8 'Accounting Policies, Changes in Accounting Estimates and Errors' and Ind AS 1 ' Presentation of Financial Statements', the Company has retrospectively restated its Balance Sheet as at 31 March 2023 and 1 April 2022 (beginning of the preceding period) and Statement of Cash Flows for the year ended 31 March 2023 for the reasons as stated in the notes below. There are no changes in the Statement of Profit and Loss for the year ended 31 March 2023 due to the restatement. Reconciliation of financial statement line items which are retrospectively restated are as under:

Reconciliation of restated items of Balance Sheet as at 31 March 2023 and 1 April 2022

₹ Crore

Particulars	Note	31 March 2023			1 April 2022		
		As previously reported	Adjustments	As restated	As previously reported	Adjustments	As restated
Trade receivables-Current financial assets	(a)	28,825.22	1,287.19	30,112.41	27,970.87	8,349.49	36,320.36
Other Assets		4,17,196.23	604.61	4,17,800.84	3,88,625.54	-	3,88,625.54
Total Assets		**4,46,021.45**	**1,891.80**	**4,47,913.25**	**4,16,596.41**	**8,349.49**	**4,24,945.90**
Borrowings - Current financial liabilities	(a)	31,921.61	1,287.19	33,208.80	27,684.07	8,349.49	36,033.56
Trade payables - Non current liabilities	(b)	86.52	(86.52)	-	84.64	(84.64)	-
Other financial liabilities - Non current	(b)	788.41	86.52	874.93	1,059.86	84.64	1,144.50
Trade payables- Current liabilities	(b)	13,822.35	(2,466.19)	11,356.16	11,277.32	(1,226.14)	10,051.18
Other financial liabilities - Current	(b)	28,181.98	2,600.46	30,782.44	27,627.52	1,226.14	28,853.66
Total equity		1,50,953.62	-	1,50,953.62	1,39,134.15	-	1,39,134.15
Other Liabilities		2,20,266.96	470.34	2,20,737.30	2,09,728.85	-	2,09,728.85
Total Equity and Liabilities		**4,46,021.45**	**1,891.80**	**4,47,913.25**	**4,16,596.41**	**8,349.49**	**4,24,945.90**

Reconciliation of Statement of Cash Flows for the year ended 31 March 2023

₹ Crore

Particulars	Note	As previously reported	Adjustments	As restated
Trade receivables	(a)	(3,256.07)	7,062.30	3,806.23
Loans, other financial assets and other assets	(c)	(3,845.21)	37.93	(3,807.28)
Trade payables, provisions,Other financial liabilities and Other liabilities	(b)	3,461.28	-	3,461.28
Others		43,691.55	-	43,691.55
Net cash flow from/(used in) operating activities	(a)+(c)	40,051.55	7,100.23	47,151.78
Net cash flow from/(used in) investing activities	(c)	(26,107.20)	(37.93)	(26,145.13)
Net cash flow from/(used in) financing activities	(a)	(14,154.47)	(7,062.30)	(21,216.77)
Net increase/ (decrease) in cash and cash equivalents during the year		**(210.12)**	**(0.00)**	**(210.12)**
Cash and cash equivalents at the beginning of the year		675.77	-	675.77
Cash and cash equivalent at the end of the year		**465.65**	**(0.00)**	**465.65**

Notes:

(a) Discounting of bills of beneficiaries

The Company has been presenting the trade receivables net of amount discounted and disclosing the amount of bills discounted under contingent liabilities for possibility of recourse to the company in the Financial Statements. During the year, an opinion has been pronounced by Expert Advisory Committee (EAC) of Institute of Chartered Accountants of India (ICAI) stating that the bills discounted having recourse to the Company should not be adjusted from the receivables, instead should be disclosed under borrowings - Current financial liabilities. The Company has evaluated implementation of the EAC opinion thus presenting the amount realised through bills discounting under financial liability as current borrowings instead of netting off from trade receivables.Accordingly, the Company has changed the accounting and presentation of the amount received from bills discounting as current borrowings from the financial year 2023-24 and corresponding changes in the previous periods have also been carried out. The changes in the presentation do not have any impact on the Statement of Profit and Loss of the Company for all the reported periods.

(b) Presentation of Contractual obligations

The Company was including contractual obligations such as security deposit along with the dues of the vendors under trade payables. A review of the same was carried out considering the Guidance Note on Schedule III to the Companies Act, 2013 and Industry practice and changed the presentation of contractual obligations from 'Trade payable' to 'Other financial liabilities' for the year 2023-24 and corresponding changes in the previous periods have also been carried out. The changes in the presentation do not have any impact on the Statement of Profit and Loss of the Company for all the reported periods.

(c) Certain reclassifications have been made to the comparative period's Statement of cash flows with the current year's Statement of cash flows for improved disclosure.

(B) Deferred Tax relate to assets and liabilities arising from a Single Transaction

The Company has adopted the amendment to Ind AS 12 – "Income Taxes" as notified by the Ministry of Corporate Affairs vide notification dated 31 March 2023 relating to "Deferred tax related to assets and liabilities arising from a single transaction" from 1 April 2023. The amendment narrows the scope of the initial recognition exemption to exclude transactions that give rise to equal and offsetting differences e.g. leases and decommissioning liabilities. As a result, the Company has recognised associated deferred tax liability of ₹ 240.95 crore, deferred tax asset of ₹ 317.99 crore and regulatory deferral account balance of ₹ 74.32 crore on right of use assets and leases liabilities during the year, and the corresponding impact of ₹ 2.72 crore, being the net of deferred tax income of ₹ 77.04 crore and regulatory deferral account (expense) of ₹ 74.32 crore, has been recognised in the Statement of Profit and Loss for the year considering materiality.

(C) Material accounting policy information

The Company adopted the amendment to Ind AS 1 – "Presentation of Financial Statements" as notified by Ministry of Corporate Affairs vide notification dated 31 March 2023 relating to " Disclosure of accounting policy information" from 1 April 2023. Although the amendment did not result in any changes in the accounting policies themselves, they impacted the accounting policy information disclosed in the financial statements.

The amendments require the disclosure of 'material' rather than 'significant' accounting policies. The amendments also provide guidance on the application of materiality to disclosure of accounting policies, assisting entities to provide useful, entity-specific accounting policy information that users need to understand other information in the financial statements.

(D) Standards issued but not yet effective

Ministry of Corporate Affairs (MCA) notifies new standards or amendments to the existing standards under Companies (Indian Accounting Standards) Rules, from time to time. MCA has not notified any new standards or amendments to the existing standards which are effective from 1 April 2024.

57. Income taxes related disclosures

Disclosure as per Ind AS 12 'Income taxes'

(a) Income tax expense

i) Income tax recognised in the statement of profit and loss

₹ Crore

Particulars	For the year ended	
	31 March 2024	31 March 2023
Current tax expense		
Current year	**4,457.24**	4,659.84
Taxes for earlier years	**(161.14)**	196.27
Pertaining to regulatory deferral account balances (A)	**214.19**	(92.68)
Total current tax expense (B)	**4,510.29**	4,763.43
Deferred tax expense		
Origination and reversal of temporary differences	**4,038.46**	4,741.17
Less: MAT credit entitlement	**1,525.36**	2,801.16
Total deferred tax expense (C)	**2,513.10**	1,940.01
Income tax expense (D=B+C-A)	**6,809.20**	6,796.12
Pertaining to regulatory deferral account balances	**214.19**	(92.68)
Total tax expense including tax on movement in regulatory deferral account balances	**7,023.39**	6,703.44

ii) Income tax recognised in other comprehensive income

Particulars	For the year ended					
	31 March 2024			31 March 2023		
	Before tax	Tax expense/ (benefit)	Net of tax	Before tax	Tax expense/ (benefit)	Net of tax
- Net actuarial gains/(losses) on defined benefit plans	**(154.69)**	**23.24**	**(131.45)**	(104.30)	17.23	(87.07)
- Net gains/(losses) on fair value of equity instruments	**120.90**	**-**	**120.90**	3.60	-	3.60
- Share of other comprehensive income/ (expense) of joint ventures accounted for using the equity method	**5.69**	**-**	**5.69**	1.89	-	1.89
- Exchange differences on translation of foreign operations	**(19.75)**	**-**	**(19.75)**	(121.42)	-	(121.42)
	(47.85)	**23.24**	**(24.61)**	(220.23)	17.23	(203.00)

(b) Tax losses carried forward

₹ Crore

Particulars	31 March 2024	Expiry date	31 March 2023	Expiry date
Long-term capital loss for which no deferred tax asset has been recognised due to uncertainty involved	**2,105.19**	**31-03-2029**	2,105.19	31-03-2029
Unabsorbed Depreciation	**3,156.76**	**-**	1,523.56	-

(c) Refer Note 56(B) relating to adjustment to deferred tax assets and liabilities relating to ROU assets / lease liabilities.

58. Disclosure as per Ind AS 19 'Employee benefits'

(i) Defined contribution plans:

Pension

The defined contribution pension scheme of the Group for its employees which is effective from 1 January 2007, is administered through a separate trust. The obligation of the Group is to contribute to the trust to the extent of amount not exceeding 30% of basic pay and dearness allowance less employer's contribution towards provident fund, gratuity, post retirement medical facility (PRMF) or any other retirement benefits. The Group's contribution towards pension is made to National Pension System Trust (NPS) for the employees opted for the scheme. An amount of **₹ 339.38 crore** (31 March 2023: ₹ 336.94 crore) for the year is recognized as expense towards contributions to the defined contribution pension scheme of the Group/NPS for the year and charged to the statement of profit and loss.

(ii) Defined benefit plans:

Defined benefit plans of the Company are administered by separate funds which are legally separated from the Company. The management of funds is governed by their respective board of the trustees who are responsible for administration of the plan as per the provisions of the Trust deed and statutory provisions, as applicable. The board of the trustees are required by law to act in best interests of the plan participants and are responsible for setting certain policies (such as investments decisions, contribution schedules, claim settlement) of the funds.

A. Provident fund

The Group pays fixed contribution to provident fund at predetermined rates to a separate trust, which invests the funds in permitted securities. The Group has an obligation to ensure minimum rate of return to the members as specified by GOI. Accordingly, the Group has obtained report of the actuary, based on which overall interest earnings and cumulative surplus is more than the statutory interest payment requirement for all the periods presented. Further, contribution to employees pension scheme is paid to the appropriate authorities.

Based on the actuarial valuation obtained in this respect, the following table sets out the status of the provident fund plan as at balance sheet date:

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Net defined benefit (asset)/liability - Current	**(52.39)**	(46.63)

Movement in net defined benefit (asset)/liability

₹ Crore

Particulars	Defined benefit obligation		Fair value of plan assets		Net defined benefit (asset) liability	
	For the year ended		For the year ended		For the year ended	
	31 March 2024	31 March 2023	31 March 2024	31 March 2023	31 March 2024	31 March 2023
Opening balance	**12,900.89**	12,210.96	**12,947.53**	12,243.80	**(46.63)**	(32.83)
Current service cost recognised in statement of profit and loss	**367.16**	355.42	-	-	**367.16**	355.42
Interest cost/(income)	**1,023.52**	979.02	**(1,023.16)**	(979.02)	**0.36**	-
Total	**1,390.68**	1,334.44	**(1,023.16)**	(979.02)	**367.52**	355.42
Remeasurement loss (gain):						
Actuarial loss (gain) arising from:						
Demographic assumptions	**-**	**-**	-	-	**-**	-
Financial assumptions	**1.25**	(0.89)	-	-	**1.25**	(0.89)
Experience adjustment	**(3.70)**	(20.03)	-	-	**(3.70)**	(20.03)
Return on plan assets excluding interest income	**-**	**-**	**18.93**	14.01	**18.93**	14.01
Total	**(2.45)**	(20.92)	**18.93**	14.01	**16.48**	(6.91)
Other*						
Contribution by participants	**714.00**	748.55	**714.00**	748.55	**-**	-
Contribution by employer	**-**	-	**391.37**	362.30	**(391.37)**	(362.30)
Benefits paid	**1,726.98**	1,372.14	**1,728.59**	1,372.13	**(1.61)**	0.01
Closing balance	**13,276.14**	12,900.89	**13,328.54**	12,947.53	**(52.39)**	(46.63)

Pursuant to paragraph 57 of Ind AS 19, accounting by an entity for defined benefit plans, inter-alia, involves determining the amount of the net defined benefit liability (asset) which shall be adjusted for any effect of limiting a net defined benefit asset to the asset ceiling prescribed in paragraph 64. As per Para 64 of Ind AS 19, in case of surplus in a defined benefit plan, an entity shall measure the net defined benefit asset at the lower of actual surplus or the value of the assets ceiling determined using the discount rate. The asset ceiling is the present value of any economic benefits available in the form of refunds from the plan or reductions in future contributions to the plan. Further, paragraph 65 provides that a net defined benefit asset may arise where a defined benefit plan has been overfunded or where actuarial gains have arisen.

As per the provisions of the Employees' Provident Funds and Miscellaneous Provisions Act, 1952, the Group has no right to the benefits either in the form of refund from the plan or lower future contribution to the plan towards the net surplus of **₹ 52.39 crore** (31 March 2023: ₹ 46.63 crore) determined through actuarial valuation. Accordingly, Group has not recognised the surplus as an asset, and the actuarial gains in 'Other Comprehensive Income', as these pertain to the Provident Fund Trust and not to the Group.

As per the provisions of Employee's Provident Funds Scheme 1952, the employer shall be liable to make good the loss to the Trust in the event of any loss as a result of any fraud, defalcation, wrong investment decisions etc. to the Trust. Keeping in view the above, a provision of **₹ Nil** (31 March 2023 ₹ 12.81 crore) has been recognized in the Statement of Profit and Loss during the year, towards such loss to the trust.

B. Gratuity and pension

a) The Group has a defined benefit gratuity plan. Every employee who has rendered continuous service of five years or more is entitled to gratuity at 15 days salary (15/26 X last drawn basic salary plus dearness allowance) for each completed year of service subject to a maximum of ₹ 0.20 crore on superannuation, resignation, termination, disablement or on death, considering the provisions of the Payment of Gratuity Act, 1972, as amended.



b) The Group has pension schemes at two of its stations in respect of employees taken over from erstwhile state government power utilities. These pension schemes are unfunded. The liability for the pension schemes is recognised on the basis of actuarial valuation.

Based on the actuarial valuation obtained in this respect, the following table sets out the status of the gratuity and pension plan and the amounts recognised in the Group's financial statements as at balance sheet date:

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Net defined benefit (asset)/liability :		
Gratuity (funded)	**96.91**	(24.71)
Gratuity (non-funded)	**173.59**	174.92
Pension (non-funded)	**540.02**	532.75
	810.52	682.95
Breakup		
Non-current	**651.34**	654.51
Current	**159.18**	28.45

Movement in net defined benefit (asset)/liability ₹ Crore

Particulars	Defined benefit obligation		Fair value of plan assets		Net defined benefit (asset) liability	
	For the year ended		For the year ended		For the year ended	
	31 March 2024	31 March 2023	31 March 2024	31 March 2023	31 March 2024	31 March 2023
Opening balance	**2,842.04**	2,989.60	**2,159.08**	2,157.06	**682.95**	832.53
Included in profit or loss:						
Current service cost	**109.77**	110.23	-	-	**109.77**	110.23
Past service cost	**85.68**	-	-	-	**85.68**	-
Interest cost (income)	**208.42**	209.24	**(156.16)**	(156.42)	**52.26**	52.82
Total amount recognised in profit or loss	**403.87**	319.47	**(156.16)**	(156.42)	**247.71**	163.05
Included in other comprehensive income:						
Remeasurement loss (gain):						
Actuarial loss (gain) arising from:						
Demographic assumptions	-	-	-	-	-	-
Financial assumptions	**50.80**	(85.87)	-	-	**50.80**	(85.87)
Experience adjustment	**(119.46)**	(48.85)	-	-	**(119.46)**	(48.85)
Return on plan assets excluding interest income	-	-	**(14.88)**	(31.94)	**(14.88)**	(31.94)
Total amount recognised in other comprehensive income	**(68.66)**	(134.72)	**(14.88)**	(31.94)	**(83.54)**	(166.66)
Out of the above an amount of (-) **₹ 5.46 crore** (31 March 2023: (-) ₹ 5.68 crore) has been transferred to expenditure during construction period / development of coal mines.						
Other						
Contribution by employer	-	-	**(23.18)**	88.05	**23.18**	(88.05)
Benefits paid	**318.07**	332.31	**258.29**	274.39	**59.78**	57.92
Closing balance	**2,859.18**	2,842.04	**2,048.65**	2,159.08	**810.52**	682.95

Out of the above net liability, an amount of **₹ 91.83 crore** (31 March 2023: ₹ Nil) has been adjusted with the amount recoverable from the trust.

C. Post-Retirement Medical Facility (PRMF)

The Group has Post-Retirement Medical Facility (PRMF), under which the retired employees and their spouses are provided medical facilities in the Group hospitals/empanelled hospitals. They can also avail treatment as out-patient subject to a ceiling fixed by the Group. The liability for the same is recognised annually on the basis of actuarial valuation. A trust has been constituted for its employees superannuated on or after 1 January 2007, for the sole purpose of providing post retirement medical facility to them.

Based on the actuarial valuation obtained in this respect, the following table sets out the status of the PRMF and the amounts recognised in the Group's financial statements as at balance sheet date:

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Net defined benefit (asset)/liability - (funded)	**307.79**	312.86
Net defined benefit (asset)/liability - (non-funded)	**-**	-
	307.79	312.86
Non-current	**-**	-
Current	**307.79**	312.86

Movement in net defined benefit (asset)/liability ₹ Crore

Particulars	Defined benefit obligation		Fair value of plan assets		Net defined benefit (asset) liability	
	For the year ended		For the year ended		For the year ended	
	31 March 2024	31 March 2023	31 March 2024	31 March 2023	31 March 2024	31 March 2023
Opening balance	**2,978.48**	2,618.22	**2,665.62**	2,410.75	**312.86**	207.47
Included in profit or loss:						
Current service cost	**51.65**	51.73	-	-	**51.65**	51.73
Past service cost	**-**	-	-	-	**-**	-
Interest cost (income)	**220.41**	183.29	**(218.58)**	(181.66)	**1.83**	1.63
Total amount recognised in profit or loss	**272.06**	235.02	**(218.58)**	(181.66)	**53.48**	53.36
Included in other comprehensive income:						
Remeasurement loss (gain):						
Actuarial loss (gain) arising from:						
Demographic assumptions	**-**	-	**-**	-	**-**	-
Financial assumptions	**114.65**	(109.53)	**-**	-	**114.65**	(109.53)
Experience adjustment	**161.73**	414.77	**-**	-	**161.73**	414.77
Return on plan assets excluding interest income	**-**	-	**(27.90)**	(30.60)	**(27.90)**	(30.60)
Total amount recognised in other comprehensive income	**276.38**	305.25	**(27.90)**	(30.60)	**248.48**	274.65
Out of the above an amount of **₹ 5.47 crore** (31 March 2023: ₹ 6.84 crore) has been transferred to expenditure during construction period / development of coal mines.						
Other						
Contribution by participants	**-**	-	**11.67**	15.15	**(11.67)**	(15.15)
Contribution by employer	**-**	-	**295.36**	207.46	**(295.36)**	(207.46)
Benefits paid	**201.39**	180.01	**201.39**	180.01	**-**	-
Closing balance	**3,325.53**	2,978.48	**3,017.74**	2,665.62	**307.79**	312.86

Out of the above net liability, an amount of **₹ 269.32 crore** (31 March 2023: ₹ 220.65 crore) has been adjusted with the amount recoverable from the trust.



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D. Other retirement benefit plans

Other retirement benefit plans include baggage allowance for settlement at home town for employees and dependents and farewell gift to the superannuating employees. The scheme above is unfunded and liability for the same is recognised on the basis of actuarial valuation.

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Net defined benefit (asset)/liability (non-funded) :	**204.04**	206.19
Non-current	**178.29**	178.73
Current	**25.75**	27.46

Movement in net defined benefit (asset)/liability

₹ Crore

Particulars	Defined benefit obligation	
	As at 31 March 2024	As at 31 March 2023
Opening balance	**206.19**	211.57
Included in profit or loss:		
Current service cost	**10.93**	10.11
Past service cost	**-**	-
Interest cost (income)	**15.27**	15.05
Total amount recognised in profit or loss	**26.20**	25.16
Included in other comprehensive income:		
Remeasurement loss (gain):		
Actuarial loss (gain) arising from:		
Demographic assumptions	**-**	-
Financial assumptions	**4.61**	(6.73)
Experience adjustment	**(14.28)**	(5.40)
Return on plan assets excluding interest income	-	
Total amount recognised in other comprehensive income	**(9.67)**	(12.13)
Other		
Contributions paid by the employer	**-**	-
Benefits paid	**18.68**	18.41
Closing balance	**204.04**	206.19

E. Plan assets

Plan assets comprise the following:

₹ Crore

Particulars	As at 31 March 2024			As at 31 March 2023		
	Quoted	Unquoted	Total	Quoted	Unquoted	Total
State government securities	**7,819.48**	-	**7,819.48**	7,481.48	-	7,481.48
Central government securities	**1,620.39**	-	**1,620.39**	1,777.16	-	1,777.16
Corporate bonds and term deposits	**4,455.20**	**56.20**	**4,511.40**	4,412.93	47.93	4,460.86
Money market instruments/liquid mutual fund	**45.33**	**-**	**45.33**	-	10.62	10.62
Equity and equity linked investments	**374.86**	**-**	**374.86**	216.27	-	216.27
Investments with insurance companies	**-**	**4,154.56**	**4,154.56**	-	3,808.86	3,808.86
Total (excluding accrued interest)	**14,315.25**	**4,210.76**	**18,526.01**	13,887.84	3,867.41	17,755.25

As at 31 March 2024, an amount of ₹ **Nil** (31 March 2023: ₹ 70.00 crore) is included in the value of plan assets (in respect of the reporting enterprise's own financial instruments (Corporate bonds).

Actual return on plan assets is **₹ 1,421.75 crore** (31 March 2023: ₹ 1,365.62 crore).

F. Defined benefit obligations

i. Actuarial assumptions

The following were the principal actuarial assumptions at the reporting date:

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Discount rate	**7.10%**	7.40%
Expected return on plan assets		
Gratuity	**7.10%**	7.40%
Pension	**7.10%**	7.40%
PRMF	**7.10%**	7.40%
Annual increase in costs	**6.50%**	6.50%
Salary escalation rate	**6.50%**	6.50%

The estimates of future salary increases considered in actuarial valuation, take account of inflation, seniority, promotion and other relevant factors, such as supply and demand in the employment market. Further, the expected return on plan assets is determined considering several applicable factors mainly the composition of plan assets held, assessed risk of asset management and historical returns from plan assets.

ii. Sensitivity analysis

Reasonably possible changes at the reporting date to one of the relevant actuarial assumptions, holding other assumptions constant, would have affected the defined benefit obligation by the amounts shown below.

₹ Crore

Particulars	As at 31 March 2024		As at 31 March 2023	
	Increase	Decrease	Increase	Decrease
Discount rate (0.5% movement)	**(250.69)**	**266.65**	(227.16)	240.79
Annual increase in costs (0.5% movement)	**130.40**	**(128.41)**	113.20	(110.39)
Salary escalation rate (0.5% movement)	**124.34**	**(117.23)**	115.38	(109.12)

Although the analysis does not take account of the full distribution of cash flows expected under the plan, it does provide an approximation of the sensitivity of the assumptions shown.

The sensitivity analysis above have been determined based on a method that extrapolates the impact on defined benefit obligation as a result of reasonable changes in key assumptions occurring at the end of the reporting period. This analysis may not be representative of the actual change in the defined benefit obligations as it is unlikely that the change in assumptions would occur in isolation of one another as some of the assumptions may be correlated.

G. Risk exposure

Through its defined benefit plans, the Company is exposed to a number of risks, the most significant of which are detailed below:

a) Asset volatility

The plan liabilities are calculated using a discount rate set with reference to bond yields; if plan assets underperform this yield, this will create a deficit. Most of the plan asset investments are in fixed income securities with high grades and in government securities. These are subject to interest rate risk and the fund manages interest rate risk with derivatives to minimise risk to an acceptable level. A portion of the funds are invested in equity securities and in alternative investments which have low correlation with equity securities. The equity securities are expected to earn a return in excess of the discount rate and contribute to the plan deficit. The Group has a risk management strategy where the aggregate amount of risk exposure on a portfolio level is maintained at a fixed range. Any deviations from the range are corrected by rebalancing the portfolio. The Group intends to maintain the above investment mix in the continuing years.



b) Changes in discount rate

A decrease in discount rate will increase plan liabilities, although this will be partially offset by an increase in the value of the plans' assets holdings.

c) Inflation risks

In the pension plans, the pensions in payment are not linked to inflation, so this is a less material risk.

d) Life expectancy

The pension plan obligations are to provide benefits for the life of the member, so increases in life expectancy will result in an increase in the plans' liabilities. This is particularly significant where inflationary increases result in higher sensitivity to changes in life expectancy.

The Group ensures that the investment positions are managed within an asset-liability matching (ALM) framework that has been developed to achieve long-term investments that are in line with the obligations under the employee benefit plans. Within this framework, the Group's ALM objective is to match assets to the pension obligations by investing in long-term fixed interest securities with maturities that match the benefit payments as they fall due and in the appropriate currency.

The Group actively monitors how the duration and the expected yield of the investments are matching the expected cash outflows arising from the employee benefit obligations. The Group has not changed the processes used to manage its risks from previous periods. The Group uses derivatives to manage some of its risk. Investments are well diversified, such that the failure of any single investment would not have a material impact on the overall level of assets.

A large portion of assets consists of government and corporate bonds. The plan asset mix is in compliance with the requirements of the respective local regulations.

H. Expected maturity analysis of the defined benefit plans in future years

₹ Crore

Particulars	Less than 1 year	Between 1-2 years	Between 2-5 years	Over 5 years	Total
31 March 2024					
Gratuity and pension	**309.57**	**300.48**	**649.52**	**1,599.61**	**2,859.18**
Post-retirement medical facility (PRMF)	**235.04**	**251.24**	**899.11**	**1,940.11**	**3,325.50**
Provident fund	**2,843.37**	**1,143.64**	**2,354.08**	**6,935.08**	**13,276.17**
Other post-employment benefit plans	**25.74**	**22.81**	**44.92**	**110.57**	**204.04**
Total	**3,413.72**	**1,718.17**	**3,947.63**	**10,585.37**	**19,664.89**
31 March 2023					
Gratuity and pension	326.91	295.50	663.76	1,555.87	2,842.04
Post-retirement medical facility (PRMF)	195.60	205.93	711.47	1,865.47	2,978.48
Provident fund	2,597.76	1,152.54	2,671.37	6,479.23	12,900.90
Other post-employment benefit plans	27.43	23.18	49.57	105.64	205.82
Total	3,147.70	1,677.15	4,096.17	10,006.22	18,927.23

Expected contributions to post-employment benefit plans for the year ending 31 March 2025 are **₹ 635.82 crore**.

The weighted average duration of the defined benefit plan obligation at the end of the reporting period is **15.97 years** (31 March 2023: 15.34 years).

(iii) Other long term employee benefit plans

A. Leave

The Group provides for earned leave benefit (including compensated absences) and half-pay leave to the employees of the Companies which accrue annually at 30 days and 20 days respectively. Earned leave (EL) is en-cashable while in service. Half-pay leaves (HPL) are en-cashable only on separation beyond the age of 50 years up to the maximum of 300 days. However, total number of leave (i.e. EL & HPL combined) that can be encashed on superannuation shall be restricted to 300 days and no commutation of half-pay leave shall be permissible. The scheme is unfunded and liability for the same is recognised on the basis of actuarial valuation. During the year, provision amounting to **₹ 132.90 crore** has been made on the basis of actuarial valuation at the year end and debited to statement of profit and loss (31 March 2023: ₹ 103.33 crore).

B. Other employee benefits

Provision for long service award and family economic rehabilitation scheme amounting to **₹ 4.10 crore** (31 March 2023: (-) ₹ 12.44 crore) for the year have been made on the basis of actuarial valuation at the year end and debited to the statement of profit and loss.

59. Disclosure as per Ind AS 21 'The Effects of Changes in Foreign Exchange Rates'

The amount of exchange differences (net) debited to the statement of profit and loss, net of movement in regulatory deferral account balances, is **₹ 5.73 crore** (31 March 2023: ₹ 39.02 crore).

60. Disclosure as per Ind AS 23 'Borrowing Costs'

Borrowing costs capitalised during the year is **₹ 3,928.12 crore** (31 March 2023: ₹ 3,971.85 crore).

61. Disclosure as per Ind AS 24 'Related Party Disclosures'

a) List of Related parties:

i) Joint venture companies:

1. Utility Powertech Ltd.
2. NTPC-GE Power Services Private Ltd.
3. NTPC-SAIL Power Company Ltd.
4. NTPC Tamil Nadu Energy Company Ltd.
5. Aravali Power Company Private Ltd.
6. Meja Urja Nigam Private Ltd.
7. NTPC BHEL Power Projects Private Ltd.
8. National High Power Test Laboratory Private Ltd.
9. Transformers and Electricals Kerala Ltd.
10. Energy Efficiency Services Ltd.
11. CIL NTPC Urja Private Ltd.
12. Anushakti Vidhyut Nigam Ltd.
13. Hindustan Urvarak & Rasayan Ltd.
14. Jhabua Power Limited.
15. Trincomalee Power Company Ltd.
16. Bangladesh-India Friendship Power Company Private Ltd.

Joint venture company of NEEPCO (a Subsidiary of the Company)

1. KSK Dibbin Hydro Power Private Ltd

Joint venture company of NTPC Green Energy Limited

1. Indian Oil NTPC Green Energy Limited (W.e.f 2 June 2023)

Subsidiary companies of Energy Efficiency Services Ltd., a Joint venture of the Company

1. EESL EnergyPro Assets Ltd.
2. EESL Energy Solutions LLC
3. Convergence Energy Services Ltd.

ii) Key Management Personnel (KMP):

Parent Company:

Whole Time Directors

Mr. Gurdeep Singh	Chairman and Managing Director	
Mr. Jaikumar Srinivasan	Director (Finance)	W.e.f. 21 July 2022
Mr. A.K.Gautam	Director (Finance)	Upto 31 May 2022
Mr. Dillip Kumar Patel	Director (HR)	
Mr Ramesh Babu V.	Director (Operations)	Upto 31 January 2024
Mr. Chandan Kumar Mondol	Director (Commercial)	Upto 31 January 2023
Mr. Ujjwal Kanti Bhattacharya	Director (Projects)	Upto 30 November 2023
Mr. Shivam Srivastav	Director (Fuel)	W.e.f. 30 April 2023
Mr. K Shanmugha Sundaram	Director (Projects)	W.e.f. 1 December 2023
Mr. Ravindra Kumar	Director (Operations)	W.e.f. 26 February 2024

Independent Directors

Mr. Jitendra Jayantilal Tanna	Non-executive Director	
Mr. Vivek Gupta	Non-executive Director	
Mr. Vidyadhar Vaishampayan	Non-executive Director	
Ms. Sangitha Varier	Non-executive Director	

Government Nominee Directors

Mr. Ashish Upadhyaya	Non-executive Director	Upto 31 December 2023
Mr. Piyush Singh	Non-executive Director	W.e.f 31 May 2022
Mr. Vivek Kumar Dewangan	Non-executive Director	Upto 30 May 2022

Chief Financial Officer and Company Secretary

Ms. Renu Narang	Chief Financial Officer	W.e.f. 1 June 2022 upto 20 July 2022
Ms. Ritu Arora	Company Secretary	W.e.f. 29 January 2024
Mr. Arun Kumar	Company Secretary	W.e.f. 29 October 2022 upto 28 January 2024
Ms. Nandini Sarkar	Company Secretary	Upto 30 September 2022

Subsidiary Companies:

1. NTPC Vidyut Vyapar Nigam Ltd.

Mr. Dillip Kumar Patel	Chairman	W.e.f. 3 February 2023
Mr. Chandan Kumar Mondol	Chairman & Director	Chairman w.e.f. 8 June 2022 Upto 31 January 2023
Mr. A.K. Gautam	Chairman	Upto 31 May 2022
Mr. Shivam Srivastava	Director	W.e.f. 19 February 2024
Ms. Rachana Singh Bhal	Director	W.e.f. 10 November 2023
Mr. Ajay Dua	Director	W.e.f. 11 May 2022
Mr. K Shanmugha Sundaram	Director	W.e.f. 12 October 2023 upto 19 February 2024
Mr. Ratnesh	Director	W.e.f. 8 June 2022 upto 30 September 2023
Ms. Shoba Pattabhiraman	Director	W.e.f. 11 October 2022 upto 10 November 2023
Ms. Nandini Sarkar	Director	Upto 30 September 2022
Mr. Anil Nautiyal	Director	Upto 30 April 2022
Ms. Renu Narang	Chief Executive Officer	W.e.f. 24 June 2023
Mr. Ajit Kumar Bishoi	Chief Executive Officer	W.e.f. 29 December 2022 upto 26 May 2023
Mr. Praveen Saxena	Chief Executive Officer	Upto 30 September 2022
Mr. Kumar Sanjay	Chief Financial Officer	Upto 31 December 2023
Mr. Nitin Mehra	Company Secretary	

2. NTPC Electric Supply Company Ltd.

Mr. Dillip Kumar Patel	Chairman	
Mr. Nasaka Srinivasa Rao	Director	W.e.f. 19 January 2024
Mr. Masood Akhtar Ansari	Director	W.e.f. 16 December 2023
Mr. Praveen Saxena	Director	Upto 31 December 2023
Mr. Sandeep Aggarwal	Director	W.e.f. 10 October 2022 upto 30 November 2023
Mr. Rajendra Mohan Arya	Director	Upto 30 September 2022
Ms. Renu Narang	Chief Executive Officer	(Note: ceased to be a CEO (KMP) as per the Companies Act, 2013, w.e.f. 26 May 2023, though continued as CEO as per Article of Association of NESCL
Ms. Vijeta Saini	Company Secretary	W.e.f. 23 January 2024
Mr. Amit Prakash	Company Secretary	Upto 23 January 2024

3. Bhartiya Rail Bijlee Company Limited

Mr. Ravindra Kumar	Chairman	W.e.f. 7 March 2024
Mr. Shivam Srivastava	Chairman	W.e.f. 21 February 2024 Upto 6 March 2024
Mr. Ramesh Babu V	Chairman	Upto 31 January 2024
Mr. R.K. Jain	Non-executive Director	
Mr. DGSSS Babji	Additional Director	W.e.f. 30 November 2022 upto 15 November 2023



Mr. Sudip Nag	Additional Director	W.e.f. 29 December 2023
Mr. Sital Kumar Nischal	Additional Director	Upto 17 November 2022
Ms. Renu Narang	Non-executive Director	
Mr. Ravi Prakash	Chief Executive Officer	W.e.f. 9 May 2022 upto 31 March 2024
Mr. P M Jena	Chief Executive Officer	Upto 27 April 2022
Ms. Vijayasree Ranganathan	Chief Financial Officer	W.e.f. 30 October 2023
Mr. N Venkataramana	Chief Financial Officer	Upto 17 October 2023
Mr. Dinesh	Company Secretary	W.e.f. 24 January 2024
Mr. Kamal Nath Thakur	Company Secretary	Upto 31 October 2023

4. Patratu Vidyut Utpadan Nigam Ltd.

Mr. K Shanmugha Sundaram	Chairman	W.e.f. 18 December 2023
Mr. Ujjwal Kanti Bhattacharya	Chairman	Upto 30 November 2023
Mr. Avinash Kumar, IAS	Director	
Mr. Avnish Srivastava	Director	
Ms. Renu Narang	Director	W.e.f. 2 December 2022
Ms. Nandini Sarkar	Director	Upto 30 September 2022
Mr. Randhir Kumar Singh	Chief Executive Officer	W.e.f. 8 January 2024
Mr. Ravindra Kumar	Chief Executive Officer	W.e.f. 15 February 2023 upto 6 January 2024
Mr. Prem Parkash	Chief Executive Officer	Upto 15 February 2023
Mr. Nagendra Kumar Mishra	Chief Financial Officer	W.e.f. 22 August 2022
Ms. Niharika Agarwal	Company Secretary	W.e.f. 8 November 2023
Mr. Sipan K. Garg	Chief Financial Officer* & Company Secretary	*Chief Financial Officer upto 20 July 2022 Company Secretary upto 8 November 2023

5. NTPC Mining Ltd.

Mr. Shivam Srivastav**	Chairman	W.e.f 6 June 2023
Mr. Ramesh Babu V.	Chairman	W.e.f 3 February 2023 Upto 31 May 2023 Non-Executive Director w.e.f 20 December 2023 upto 31 January 2024
Mr. Chandan Kumar Mondol	Chairman	Upto 31 January 2023
Mr. Ravindra Kumar	Non-Executive Director	W.e.f. 9 March 2024
Mr. Aditya Dar	Non-Executive Director	
Mr. K Shanmugha Sundaram	Non-Executive Director	W.e.f 25 February 2024 Upto 6 March 2024
Mr. Ashwini Kumar Tripathy	Non-Executive Director	W.e.f 30 March 2023 Upto 31 May 2023
Mr. Partha Mazumdar*	Non-Executive Director	W.e.f 6 June 2023 upto 31 December 2023
Mr. P K Mishra	Non-Executive Director	W.e.f 1 April 2023
Mr. Muthyala V Reddy	Chief Executive Officer	W.e.f 11 May 2023 upto 31 August 2023
Mr. Animesh Jain	Chief Executive Officer	W.e.f 13th September 2023
Mr. Gaurav Rastogi	Chief Financial Officer	W.e.f 13th September 2023
Mr Amit Garg	Company Secretary	W.e.f. 4 December 2023

** Non executive director w.e.f 11 May 2023

* Non executive director upto 6 March 2023, CEO w.e.f 6 March 2023 Upto 8 May 2023

6. THDC India Ltd.

Mr. R K Vishnoi*	Chairman & Managing Director	
Mr. J. Behera	Director (Finance) & Chief Financial Officer	Upto 29 February 2024
Mr. Bhupinder Gupta	Director(Technical)	W.e.f 9 June 2023
Mr. Shallinder Singh Kaushal	Director (Personnel)	W.e.f 6 June 2023
Mr. U.K.Bhattacharya	Non-executive Director	Upto 30 November 2023
Mr. Jaikumar Srinivasan	Non-executive Director	W.e.f. 17 August 2022
Mr. A.K.Gautam	Non-executive Director	Upto 31 May 2022
Mr. Anil Garg	Non-executive Director	W.e.f. 26 April 2022
Mr. Ajay Tewari	Non-executive Director	W.e.f 20 February 2024
Mr. Jitesh John	Non-executive Director	Upto 30 November 2023
Mr. Kesridevsinh Digvijaysinh Jhala	Independent Director	Upto 11 July 2023
Ms. Sajal Jha	Independent Director	
Dr. Bajalakaria JayaPrakash Naik	Independent Director	
Mr. Ajay Kumar Garg	Chief Financial Officer	W.e.f 31 March 2024
Ms. Rashmi Sharma	Company Secretary	

*Holding additional charge of Director (Finance) w.e.f 1 March 2024

7. North Eastern Electric Power Corporation Ltd.

Mr. R K Vishnoi	Chairman	Holding additional charge of CMD upto 31 May 2023 & Director (Tech) upto 17 April 2023
Mr. Gurdeep Singh	Chairman & Managing Director	W.e.f. 1 June 2023
Mr. V K Singh*	Chairman & Managing Director	Upto 31 May 2022
Maj Gen Rajesh Kumar Jha, AVSM (retd)	Director (Personnel)	W.e.f. 25 September 2023
Mr. Dillip Kumar Patel	Director (Personnel)	W.e.f 18 July 2023 to 31 July 2023 and w.e.f 14 September 2023 upto 24 September 2023
Mr. Anil Kumar	Director (Personnel)	Upto 31 October 2022
Mr. B Maharana**	Director (Finance) & Chief Financial officer	

Mr. Ranendra Sarma	Director (Technical)	W.e.f. 18 April 2023
Ms. Mala Sinha	Independent Director	Upto 10 July 2022
Dr Viveka Nand Paswan	Independent Director	
Bimal Chand Oswal	Independent Director	
Mr. Piyush Singh	Nominee Director GOI	W.e.f. 20 February 2024
Mr. Jithesh John	Nominee Director GOI	Upto 30 November 2023
Mr. Jaikumar Srinivasan	Nominee Director NTPC LTD	W.e.f. 17 August 2022
Mr. Shambhu Nath Tripathi	Nominee Director NTPC LTD	W.e.f. 15 December 2023
Mr. Anil Kumar Gautam	Nominee Director NTPC LTD	Upto 31 May 2022
Mr. Ujjwal Kanti Bhattacharya	Nominee Director NTPC LTD	Upto 30 November 2023
Mr. Abinoam Panu Rong	Company Secretary	

*Holding additional charge of Director (Technical) upto 31 May 2022

**Holding additional charge of Director (Personnel) w.e.f 1 November 2022 upto 31 January 2023

8. NTPC Green Energy Limited

Mr. K Shanmugha Sundaram	Chairman	W.e.f 11 January 2024
Mr. Gurdeep Singh	Chairman	W.e.f 9 August 2022 upto 8 January 2024
Mr. Jaikumar Srinivasan	Non-executive Director	W.e.f 9 August 2022
Mr. Ajay Dua	Non-executive Director	W.e.f 17 February 2023
Ms. Sangeeta Kaushik	Non-executive Director	W.e.f 8 December 2023
Mr. Chandan Kumar Mondol	Non-executive Director	W.e.f 7 April 2022 upto 31 January 2023
Mr. Aditya Dar	Non-executive Director	W.e.f 7 April 2022 upto 9 August 2022
Mr. Vinay Kumar	Non-executive Director	W.e.f 7 April 2022 upto 9 August 2022
Mr. Rajiv Gupta	Chief Executive Officer	W.e.f 2 March 2024
Mr. Mohit Bhargava	Chief Executive Officer	W.e.f 5 July 2022 upto 29 February 2024
Ms. Shoba Pattabhiraman	Non-executive Director	W.e.f 25 July 2023 upto 10 November 2023
Mr. Neeraj Sharma	Chief Financial Officer	W.e.f 12 May 2023
Mr. Manish Kumar	Company Secretary	W.e.f 21 December 2022

9. NTPC EDMC Waste Solutions Private Ltd.

Mr. K Shanmugha Sundaram	Chairman	Director w.e.f. 21 October 2023, Chairman w.e.f. 10 January 2024
Mr. Sital Kumar Nischal	Chairman	Upto 31 December 2023
Mr. Chithirai Velu Kumar	Director	W.e.f. 12 January 2024
Mr. Sundeep Kumar Sharma	Director	
Mr. Arun Kumar	Director	
Mr. Achal Kumar Arora	Director	Upto 31 March 2023
Mr. Ajit Kumar Bishoi	Director	W.e.f. 17 May 2023 upto 14 September 2023
Mr. Rajesh Kumar Roy	Chief Executive Officer	W.e.f. 25 November 2022 upto 30 September 2023
Mr. Amit Kumar Kulshreshtha	Chief Executive Officer	Upto 28 October 2022
Mr. Manoj Srivastava	Chief Financial Officer	Upto 31 January 2024

10. Ratnagiri Gas & Power Private Ltd.

Mr. Jaikumar Srinivasan	Chairman	W.e.f 13 January 2024
Mr. Praveen Saxena	Chairman	Upto 31 December 2023
Ms. Sangeeta Kaushik	Non-executive Director	
Mr. P: Anbalagan	Non-executive Director	W.e.f 19 January 2023
Mr. Sanjay Khandare	Non-executive Director	Upto 30 September 2022
Mr. Ajay Dua	Non-executive Director	W.e.f 28 March 2024
Mr. Aditya Dar	Non-executive Director	Upto 12 March 2024
Mr. S K Takhele	Chief Executive Officer	W.e.f 1 March 2024
Mr. Sanjay Agarwal	Chief Executive Officer	W.e.f. 1 March 2023 upto 29 February 2024
Mr. Vijay Goel	Chief Executive Officer	W.e.f. 1 January 2023 upto 28 February 2023
Mr. Asim Kumar Samanta	Chief Executive Officer	Upto 31 December 2022
Mr. Ajay Sharma	Chief Financial Officer	Upto 20 June 2023
Mr. Amit Verma	Company Secretary	W.e.f 23 April 2022
Mr. Pankaj Kumar Jha	Chief Financial Officer	W.e.f. 20 June 2023

11. NTPC Renewable Energy Limited - Subsidiary of NTPC Green Energy Limited

Mr. K Shanmugha Sundaram	Chairman	W.e.f 11 January 2024
Mr. Gurdeep Singh	Chairman	W.e.f. 6 August 2022 upto 8 January 2024
Mr. Jaikumar Srinivasan	Director	W.e.f. 6 August 2022
Ms. Sangeeta Kaushik	Director	W.e.f. 7 October 2022
Mr. Ajay Dua	Director	W.e.f. 21 February 2023
Mr. C K Mondol	Chairman/Director	Chairman upto 6 August 2022, Director upto 31 January 2023
Mr. Vinay Kumar	Director	Upto 6 August 2022
Mr. Aditya Dar	Director	Upto 6 August 2022
Ms Nandini Sarkar	Director	Upto 30 September 2022
Mr. Rajiv Gupta	Chief Executive Officer	W.e.f. 8 December 2023
Mr. Mohit Bhargava*	Chief Executive Officer	Upto 8 December 2023

Mr. Neeraj Sharma	Chief Financial Officer	W.e.f. 25 July 2022
Ms. Rashmi Aggarwal	Company Secretary	W.e.f. 28 July 2022

* Director w.e.f 8 December 2023 upto 29 February 2024

12. Green Valley Renewable Energy Limited - subsidiary of NTPC Green Energy Limited

Mr. Dillip Kumar Patel	Chairman	W.e.f. 13 February 2023
Mr. Chandan Kumar Mondol	Chairman	W.e.f 25 August 2022 Upto 31 January 2023
Mr. Mohit Bhargava	Director	W.e.f. 25 August 2022 upto 29 February 2024
Mr. Rajiv Gupta	Director	W.e.f. 25 August 2022
Mr. Raghu Ram Machiraju	Director	W.e.f. 25 August 2022
Mr. Arup Sarkar	Director	W.e.f. 25 August 2022
Mr. Masood Akhtar Ansari	Director	W.e.f. 12 March 2024
Mr. Shailendra	Chief Executive Officer	W.e.f. 26 March 2024

13. TUSCO Limited - Subsidiary of THDC

Mr. R K Vishnoi	Chairman	
Mr. J. Behera	Nominee Director-THDCIL	Upto 29 February 2024
Mr. Atul Jain	Nominee Director-THDCIL	W.e.f 9 Sept 2023 Upto 31 December 2023
Mr. Anupam Shukla	Nominee Director-UPNEDA	W.e.f. 12 July 2022
Mr. Bhawani Singh Khangarot	Nominee Director-UPNEDA	Upto 10 June 2022
Mr. Shailendra Singh	Chief Executive Officer	Upto 31 July 2022
Mr. Mridul Dubey	Chief Financial Officer	W.e.f. 06 January 2023
Mr. K.K.Srivastava	Chief Financial Officer	Upto 29 August 2022
Mr. Himanshu Bajpai	Company Secretary	
Mr Manoj Sardana	Chief Executive Officer	W.e.f 15 April 2023

14. TREDCO Rajasthan Limited - Subsidiary of THDC

Mr. R K Vishnoi	Chairman	W.e.f. 25 March 2023
Mr. Lalit Verma	Nominee Director - RRECL	W.e.f. 25 March 2023 upto 20 March 2024
Mr. Dinesh Kumar Sharma	Nominee Director - RRECL	W.e.f. 25 March 2023 upto 27 April 2023
Mr. Kumar Sharad	Nominee Director - THDCIL	W.e.f. 25 March 2023
Mr. Atul Jain	Nominee Director - THDCIL	W.e.f. 25 March 2023 upto 31 December 2023
Mr Hari Ram Shah	Nominee Director - RRECL	W.e.f 28 April 2023 upto 20 March 2024
Mr Neeraj Verma	Nominee Director - THDCIL	W.e.f. 23 January 2024
Mr Deokinandan Sharma	Nominee Director - RRECL	W.e.f. 21 March 2024

15. TREDCO Rajasthan Limited - Subsidiary of THDC

Mr. R K Vishnoi	Chairman	W.e.f. 1 December 2023
Mr. Sandeep Singhal	Nominee Director - UJVNL	W.e.f. 1 December 2023
Mr. Suresh Chandra Baluni	Nominee Director - UJVNL	W.e.f. 1 December 2023
Mr. Bhupender Gupta	Nominee Director - THDCIL	W.e.f. 1 December 2023
Mr. A.B Goel	Nominee Director - THDCIL	W.e.f. 1 December 2023 upto 29 February 2024
Mr. Laxmi Prasad Joshi	Nominee Director - THDCIL	W.e.f. 1 December 2023
Mr. Sandeep Kumar	Chief Executive Officer	W.e.f. 14 December 2023
Mr. Anand Prakash Bajpai	Chief Financial Officer	W.e.f. 14 December 2023
Ms. Shakshi Negi	Company Secretary	W.e.f. 14 December 2023

iii) Post Employment Benefit Plans:

1. NTPC Limited Employees Provident Fund
2. NTPC Employees Gratuity Fund
3. NTPC Post Retirement Employees Medical Benefit Fund
4. NTPC Limited Defined Contribution Pension Trust
5. THDC Employees Provident Fund Trust
6. THDCIL Employees Defined Contribution Superannuation Pension Trust
7. THDCIL Post Retirement Medical Facility Fund Trust
8. NEEPCO Employees Provident Fund Trust
9. NEEPCO Employees Defined Contribution Superannuation Scheme Trust
10. NEEPCO Employees Social Security Scheme Trust
11. NEEPCO Employees Group Gratuity Assurance Fund Trust
12. RGPPL Employees Gratuity Fund Trust

iv) Entities under the control of the same government:

The Parent company is a Central Public Sector Undertaking (CPSU) controlled by Central Government by holding 51.10% of paid up share capital (31 March 2022- 51.10%) and is under Ministry of Power. The Group has transactions with other Government related entities, which significantly includes but not limited to purchase of fuel (coal, gas)/ oil products, purchase of equipment, spares, receipt of erection, maintenance and other services, rendering consultancy and other services. Transactions with these parties are carried out at market terms and on terms comparable to those with other entities that are not Government-related generally through a transparent price discovery process against open tenders. In few cases of procurement of spares/services from Original Equipment Manufacturer (OEM) for proprietary items/or on single tender basis are resorted to due to urgency, compatibility and similar reasons which are also carried out through a process of negotiation with prices benchmarked against available price data of such items.

v) Others:

1. NTPC Education and Research Society
2. NTPC Foundation
3. SEWA - THDC



b) Transactions with the related parties are as follows:

₹ Crore

Particulars	Joint venture Companies	
	For the year ended	
	31 March 2024	31 March 2023
i) Sales/purchase of goods and services during the year		
- Contracts for works/services for services received by the Group	**656.22**	1,856.36
- Contracts for works/services for services provided by the Group	**36.09**	24.77
- Sale/Purchase of goods	**450.50**	16.65
ii) Sales/purchase of assets	**190.11**	2.90
iii) Secondment of employees	**57.40**	55.59
iv) Dividend received	**725.52**	1,285.33
v) Equity contributions made	**944.91**	1,605.52
vi) Investments in Debentures	**-**	600.00
vii) Investments redeemed	**50.00**	25.00
viii) Interest on loan	**2.52**	-
ix) Income on Investments (Debentures)	**47.26**	28.79
viii) Guarantees received	**29.35**	5.66

Note: Refer Note no. 71 for other commitments with Joint Venture Companies.

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
Transactions with post employment benefit plans		
- Contributions made during the year	**1,020.76**	1,113.49
Compensation to Key management personnel		
- Short term employee benefits	**36.31**	31.11
- Post employment benefits	**3.17**	2.95
- Other long term benefits	**2.06**	1.89
- Termination benefits	**9.28**	3.50
- Sitting fee	**0.96**	1.08
Total compensation to key management personnel	**51.78**	40.53

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
Transactions with others listed at (a)(v) above		
- Contracts for works/services for services received by the Group	**65.17**	62.54
- Contracts for works/services for services provided by the Group	**-**	0.35

c) Outstanding balances with related parties are as follows:

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Amount recoverable towards loans from		
- Joint venture companies	**-**	19.78
- Key management personnel	**1.94**	1.68
- Others	**-**	0.60
Amount recoverable other than loans from		
- Joint venture companies	**342.65**	216.04
- Post employment benefit plans	**44.17**	89.62
- Others	**7.99**	0.75
Others		
- Joint venture companies - Non convertible debentures	**525.00**	575.00
Amount payable to		
- Joint venture companies	**222.14**	336.07
- Post employment benefit plans	**102.36**	132.20
- Others	**0.43**	0.30
Guarantee received		
- Joint venture companies	**354.83**	353.95

d) Individually significant transactions

₹ Crore

Particulars	Nature of relationship	Amount	
		For the year ended 31 March 2024	For the year ended 31 March 2023
Contracts for works/services for services received by the Group			
Utility Powertech Ltd.	Joint venture company	**543.62**	1,727.38
NTPC BHEL Power Projects Private Ltd.	Joint venture company	**21.31**	24.65
NTPC-Tamil Nadu Energy Company Ltd.	Joint venture company	**85.39**	-
NTPC-GE Power Services Private Ltd.	Joint venture company	**2.35**	101.62
Contracts for works/services for services provided by the Group			
NTPC SAIL Power Company Ltd	Joint Venture Company	**3.54**	2.65
Utility Powertech Ltd.	Joint Venture Company	**2.99**	4.21
Meja Urja Nigam Private Limited	Joint Venture Company	**3.78**	3.84
Aravali Power Company Private Ltd.	Joint Venture Company	**3.82**	3.71
NTPC Tamilnadu Energy Company Ltd.	Joint Venture Company	**3.69**	3.90
Energy Efficiency Services Ltd.	Joint Venture Company	**5.39**	5.63
Sale of goods			
Jhabua Power Limited.	Joint Venture Company	**448.77**	-

₹ Crore

Particulars	Nature of relationship	Amount	
		For the year ended 31 March 2024	For the year ended 31 March 2023
Purchase of goods			
Energy Efficiency Services Ltd.	Joint Venture Company	**0.47**	8.59
NTPC BHEL Power Projects Private Ltd.	Joint Venture Company	**-**	7.31
Transformers and Electricals Kerala Ltd.	Joint Venture Company	**0.11**	0.18
Sale of assets			
NTPC-Tamil Nadu Energy Company Ltd.	Joint Venture Company	**11.86**	-
NTPC-SAIL Power Company Ltd.	Joint Venture Company	**1.50**	-
Purchase of assets			
NTPC BHEL Power Projects Private Ltd.	Joint Venture Company	**19.88**	1.98
Transformers and Electricals Kerala Ltd.	Joint Venture Company	**0.28**	0.89
NTPC-GE Power Services Private Ltd.	Joint Venture Company	**154.70**	-
Dividend received			
NTPC-SAIL Power Company Ltd.	Joint Venture Company	**75.00**	325.00
Aravali Power Company Private Ltd.	Joint Venture Company	**375.00**	475.00
NTPC-Tamil Nadu Energy Company Ltd.	Joint Venture Company	**275.21**	375.33
NTPC-GE Power Services Private Ltd.	Joint Venture Company	**0.30**	-
CIL NTPC Urja Private Ltd.	Joint Venture Company	**0.01**	-
Utility Powertech Ltd.	Joint Venture Company	**-**	10.00
Jhabua Power Limited.	Joint Venture Company	**-**	100.00
Equity contributions made			
Trincomalee Power Company Ltd.	Joint Venture Company	**-**	0.44
Meja Urja Nigam Private Ltd.	Joint Venture Company	**34.44**	41.90
Bangladesh-India Friendship Power Company Pvt.Ltd.	Joint Venture Company	**161.99**	541.64
NTPC-Tamil Nadu Energy Company Ltd.	Joint Venture Company	**-**	30.00
Energy Efficiency Services Ltd.	Joint Venture Company	**383.00**	-
National High Power Test Laboratory Private Ltd.	Joint Venture Company	**18.40**	-
Jhabua Power Limited.	Joint Venture Company	**-**	325.00
Hindustan Urvarak & Rasayan Ltd.	Joint Venture Company	**347.03**	666.54
Investments in Debentures			
Jhabua Power Limited.	Joint Venture Company	**-**	600.00
Interest on Loan			
National High Power Test Laboratory Private Ltd.	Joint Venture Company	**2.52**	-
Income on Investments (Debentures)			
Jhabua Power Limited.	Joint Venture Company	**47.26**	28.79

₹ Crore

Particulars	Nature of relationship	Amount	
		For the year ended 31 March 2024	For the year ended 31 March 2023
Secondment of employees			
Meja Urja Nigam Private Ltd.	Joint Venture Company	**15.74**	16.11
NTPC-Tamil Nadu Energy Company Ltd.	Joint Venture Company	**14.57**	14.49
NTPC-SAIL Power Company Ltd.	Joint Venture Company	**6.88**	6.76
Aravali Power Company Private Ltd.	Joint Venture Company	**10.88**	10.24
Bangladesh-India Friendship Power Company Private Ltd.	Joint Venture Company	**5.44**	3.49
Transactions with post employment benefit plans - Contribution			
NTPC Limited Employees Provident Fund	Post employment benefit plans	**335.47**	326.80
NTPC Limited Defined Contribution Pension Trust	Post employment benefit plans	**90.68**	273.29
NTPC Post Retirement Employees Medical Benefit Fund	Post employment benefit plans	**267.57**	278.44
NTPC Employees Gratuity Fund	Post employment benefit plans	**93.30**	(23.18)
THDC Employees Provident Fund Trust	Post employment benefit plans	**30.89**	46.28
THDCIL Employees Defined Contribution Superannuation Pension Trust	Post employment benefit plans	**33.56**	40.26
NEEPCO Employees' Provident Fund Trust	Post employment benefit plans	**97.07**	94.20
NEEPCO Ltd. Employees' Defined Contribution Superannuation Scheme Trust	Post employment benefit plans	**37.24**	37.43
NEEPCO Employees' Post Retirement Medical Benefit Trust (under NEEPCO Employees' Social Security Scheme Trust)	Post employment benefit plans	**25.20**	23.01
Transactions with others			
NTPC Foundation	Others	**23.73**	20.02
NTPC Education and Research Society	Others	**2.33**	13.41
NTPC School of Business (under NTPC Education and Research Society)	Others	**4.83**	7.00
SEWA - THDC	Others	**34.28**	22.11
Guarantees received			
Utility Powertech Ltd.	Joint Venture Company	**-**	3.00
Transformers and Electricals Kerala Ltd.	Joint Venture Company	**2.36**	-
NTPC-GE Power Services Private Ltd.	Joint Venture Company	**26.99**	2.66



e) Individually significant balances

₹ Crore

Particulars	Nature of relationship	As at 31 March 2024	As at 31 March 2023
Amount recoverable towards loans from			
National High Power Test Laboratory Private Ltd.	Joint Venture Company	-	19.78
Mr. Ujjwal Kanti Bhattacharya	Key Management Personnel	-	0.05
Mr Ramesh Babu V.	Key Management Personnel	-	0.11
Mr. Arun Kumar	Key Management Personnel	-	0.31
Mr. K Shanmugha Sundaram	Key Management Personnel	**0.06**	-
Mr. Ravindra Kumar	Key Management Personnel	**0.02**	-
NTPC Education and Research Society	Others	-	0.60
Amount recoverable other than loans from			
NTPC BHEL Power Projects Private Ltd.	Joint Venture Company	**109.52**	112.37
NTPC SAIL Power Company Ltd	Joint Venture Company	**70.10**	75.53
Aravali Power Company Private Ltd.	Joint Venture Company	**105.74**	16.71
Meja Urja Nigam Private Ltd.	Joint Venture Company	**37.93**	9.65
Indian Oil NTPC Green Energy Limited	Joint Venture Company	**9.49**	-
NTPC Post Retirement Employees Medical Benefit Fund	Post employment benefit plans	**44.17**	(57.78)
NTPC Foundation	Others	**6.67**	0.42
SEWA - THDC	Others	-	0.33
Amount recoverable - others			
Jhabua Power Limited - Debentures	Joint Venture Company	**525.00**	575.00
Amount payable to			
Utility Powertech Ltd.	Joint Venture Company	**47.83**	219.21
NTPC-Tamil Nadu Energy Company Ltd.	Joint Venture Company	**58.93**	87.89
NTPC-GE Power Services Private Ltd.	Joint Venture Company	**55.65**	27.40
Jhabua Power Limited.	Joint Venture Company	**55.30**	(1.03)
NTPC Limited Employees Provident Fund	Post employment benefit plans	**0.58**	0.89
NTPC Limited Defined Contribution Pension Trust	Post employment benefit plans	**27.80**	20.32
NTPC Employees Gratuity Fund	Post employment benefit plans	**1.47**	(88.09)
THDC Employees Provident Fund Trust	Post employment benefit plans	**2.71**	8.10
THDCIL Employees Defined Contribution Superannuation Pension Trust	Post employment benefit plans	**0.45**	2.37
THDCIL Post Retirement Medical Benefit Fund Trust	Post employment benefit plans	**27.04**	9.51
NEEPCO Employees' Post Retirement Medical Benefit Trust (under NEEPCO Employees' Social Security Scheme Trust)	Post employment benefit plans	**26.89**	22.32
NEEPCO Employees' Provident Fund Trust	Post employment benefit plans	**8.75**	7.81
NEEPCO Ltd. Employees' Defined Contribution Superannuation Scheme Trust	Post employment benefit plans	**3.05**	3.06
NTPC School of Business (under NTPC Education and Research Society)	Others	**0.43**	0.30
Guarantees received outstanding			
Utility Powertech Ltd.	Joint Venture Company	**27.67**	28.65
NTPC BHEL Power Projects Private Ltd.	Joint Venture Company	**264.79**	264.79
Transformers and Electricals Kerala Ltd.	Joint Venture Company	**2.36**	6.55
NTPC-GE Power Services Private Ltd.	Joint Venture Company	**60.01**	53.96

f) Terms and conditions of transactions with the related parties

(i) Transactions with the related parties are made on normal commercial terms and conditions and at arm length price.

(ii) The Company was assigning jobs on contract basis, for sundry works in plants/stations/offices to M/s Utility Powertech Ltd. (UPL), a joint venture of the Company till the previous year ended 31 March 2023. UPL inter-alia undertakes jobs such as overhauling, repair, refurbishment of various mechanical and electrical equipment of power stations pursuant to a Power Station Maintenance Agreement with UPL from time to time. The rates were fixed on cost plus basis after mutual discussion and after taking into account the prevailing market conditions. The transactions reported for the year are in respect of assignments awarded till the year 2022-23 having execution period beyond 31 March 2023. Some of the group companies have entered contracts also during the year with M/s UPL and related transactions have been included in disclosure above.

(iii) The Group is seconding its personnel to Joint venture companies as per the terms and conditions agreed between the companies, which are similar to those applicable for secondment of employees to other companies and institutions. The cost incurred by the group towards superannuation and employee benefits are recovered from these companies.

(iv) Loans granted to joint venture companies are detailed below:

Sl. No.	Name of the joint venture company	Loan granted (Amount in ₹ crore)	Rate of interest (p.a.)	Repayment schedule	Purpose	Year of grant of loan
1	National High Power Test Laboratory Private Ltd. (JV)	18.40	10% (quarterly rest)	Under the Restructuring Scheme approved by promoters in a meeting held at MOP on 15 September 2022, it was agreed that all promoters will convert the loan into equity under the restructuring plan. Board of Directors of NTPC in its meeting held on 11 March 2023 has approved the restructuring scheme for NHPTL for conversion of loan to equity. Further, pursuant to agreement entered on 23 April 2024, the shareholding of the company in the Joint venture will be reduced to 12.50%.	For repayment of loans / contractual obligations	2019-20#

(v) Consultancy services provided by the Group to Joint venture companies are generally on nomination basis at the terms, conditions and principles applicable for consultancy services provided to other parties.

(vi) Outstanding balances of joint venture companies at the year-end are unsecured and settlement occurs through banking transaction. These balances other than loans are interest free. The Group has not recorded any impairment of receivables relating to amounts owed by related parties. This assessment is undertaken in each financial year through examining the financial position of the related party and the market in which the related party operates.

vii) Refer Note 71 towards restrictions on disposal of investment and commitment towards further investments in joint venture companies.

g) Others

The Company has investment of 1.20 crore equity shares of ₹ 10 each in PTC India Ltd, as disclosed in Note 7- 'Other investments' and is one of the promoters of the Company having 4.05% holding. The Company is of the view that provisions of Ind AS 24 'Related Party Disclosures' are not applicable to the investments made in PTC India Ltd. and the same has been accounted for as per the provisions of Ind AS 109 'Financial Instruments'. During the year, the Company has transactions towards receipt of dividend of **₹ 9.36 crore** (31 March 2023: ₹ 6.96 crore) and receipt of sitting fees for the nominee director amounting to **₹ 0.04 crore** (31 March 2023: ₹ 0.10 crore) from PTC India Ltd.

62. Disclosure as per Ind AS 33 'Earnings per Share'

Basic earnings per equity share is computed by dividing the net profit or loss attributable to equity shareholders of the Company by the weighted average number of equity shares outstanding during the financial year.

Diluted earnings per equity share is computed by dividing the net profit or loss attributable to equity shareholders of the Company by the weighted average number of equity shares considered for deriving basic earnings per equity share and also the weighted average number of equity shares that could have been issued upon conversion of all dilutive potential equity shares.

The number of equity shares and potentially dilutive equity shares are adjusted retrospectively for all periods presented for any bonus shares issued during the financial year.

Basic and diluted earnings per equity share are also computed using the net profit or loss amounts excluding the net movements in regulatory deferral account balances.

Basic and diluted earnings per share attributable to owners of the parent company (in ₹)

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
From operations including net movement in regulatory deferral account balances (a) **[A/D]**	**21.46**	17.44
From regulatory deferral account balances (b) **[B/D]**	**1.03**	(0.43)
From operations excluding net movement in regulatory deferral account balances (a)-(b) **[C/D]**	**20.43**	17.87
Nominal value per share	**10.00**	10.00

(a) Profit attributable to equity shareholders (used as numerator) **₹ Crore**

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
From operations including net movement in regulatory deferral account balances (a) **[A]**	**20,811.89**	16,912.55
From regulatory deferral account balances (b) **[B]**	**1,000.20**	(413.12)
From operations excluding net movement in regulatory deferral account balances (a)-(b) **[C]**	**19,811.69**	17,325.67

(b) Weighted average number of equity shares (used as denominator) (in Nos.)

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
Opening balance of issued equity shares	**9,69,66,66,134**	9,69,66,66,134
Closing balance of issued equity shares	**9,69,66,66,134**	9,69,66,66,134
Weighted average number of equity shares for Basic and Diluted EPS [D]	**9,69,66,66,134**	9,69,66,66,134

63. Disclosure as per Ind AS 36 'Impairment of Assets'

As required by Ind AS 36, an assessment of impairment of assets was carried out and following has been assessed:

For the Company, the recoverable amount of the property, plant and equipment & intangible assets of the Cash Generating Units (CGU) is value in use and amounts to **₹ 3,39,129.52 crore** (31 March 2023: ₹ 2,87,698.56 crore). The net realisable value of the assets of the station has been assessed which is more than its carrying value.

The discount rate used for the computation of value in use for the generating plant (thermal, gas and hydro) is **7.58 %** (31 March 2023: 7.27%), coal mining is **7.93 %** (31 March 2023: 7.27%) and for solar plant is **7.29 %** (31 March 2023: 6.42%).

64. Disclosure as per Ind AS 37 'Provisions, Contingent Liabilities and Contingent Assets'

Movement in provisions: **₹ Crore**

Particulars	Provision for obligations incidental to land acquisition		Provision for tariff adjustment		Arbitration awards and others		Mine closure and Stripping activity adjustments		Total	
	For the year ended		For the year ended		For the year ended		For the year ended		For the year ended	
	31 March 2024	31 March 2023	**31 March 2024**	31 March 2023	**31 March 2024**	31 March 2023	**31 March 2024**	31 March 2023	**31 March 2024**	31 March 2023
Carrying amount at the beginning of the year	**2,456.35**	2,879.76	**817.61**	482.28	**2,861.03**	2,502.99	**935.68**	616.22	**7,070.67**	6,481.25
Additions during the year	**226.33**	243.29	**-**	335.33	**305.23**	499.17	**149.41**	339.02	**680.97**	1,416.81
Amounts used during the year	**(825.45)**	(588.74)	**(16.47)**	-	**(398.52)**	(36.59)	**-**	-	**(1,240.44)**	(625.33)
Reversal / adjustments during the year	**-**	(77.96)	**-**	-	**(571.32)**	(104.54)	**12.52**	-	**(558.80)**	(182.50)
Unwinding of Provisions charged during the year	**-**	-	**-**	-	**-**	-	**-**	(19.56)	**-**	(19.56)
Carrying amount at the end of the year	**1,857.23**	2,456.35	**801.14**	817.61	**2,196.42**	2,861.03	**1,097.61**	935.68	**5,952.40**	7,070.67

i) Provision for obligations incidental to land acquisition

Provision for obligations incidental to land acquisition includes expenditure on rehabilitation & resettlement (R&R) including the amounts payable to the project affected persons (PAPs) towards land, expenditure for providing community facilities and expenditure in connection with environmental aspects of the project. The Company has estimated the provision based on the Rehabilitation Action Plan (RAP) approved by the board/competent authority or agreements/directions/demand letters of the local/government authorities. The outflow of said provision is expected to be incurred immediately on fulfilment of conditions by the land oustees/receipts of directions of the local/government authorities.

ii) Provision for tariff adjustment

Billing to beneficiaries is being done based on tariff orders issued under Regulation 2014 except few stations where billing is done on provisional basis due to non-receipt of tariff orders. In such cases, accounting is done based on trued up cash expenditure as per Regulation 2019. Provision for tariff adjustment of **₹ 16.47 crore** is mainly towards reversal of the estimated interest (net) payable to beneficiaries (31 March 2023 towards estimated interest payable to beneficiaries : ₹ 335.33 crore) at the time of issue of tariff orders.

iii) Provision - Arbitration awards and Others

(a) (i) Provision for arbitration awards represents provision created based on awards pronounced by the arbitrator in respect of various litigation cases amounting to **₹ 2,064.12 crore** (31 March 2023: ₹ 2,687.95 crore). These awards have been challenged before various appellate authorities / Courts.

(ii) Provision for others includes **₹ 99.40 crore** (31 March 2023: ₹ 90.79 crore) towards cost of unfinished minimum work programme demanded by the Ministry of Petroleum and Natural Gas (MoP&NG) including interest thereon in relation to block AA-ONN-2003/2, **₹ 5.48 crore** (31 March 2023: ₹ 6.18 crore) towards provision for shortage in property, plant and equipment on physical verification pending investigation and **₹ Nil** (31 March 2023: ₹ 12.81 crore) towards expected loss on investments of Provident Fund Trust.

(b) The Company had entered into an agreement for movement of coal through inland waterways for one of its stations. After commencement of the operations, the operator had raised several disputes, invoked arbitration and raised substantial claims on the Company. The Arbitral Tribunal had awarded a claim of ₹ 1,891.09 crore plus applicable interest in favour of the operator, during the financial year 2018-19. Based on the interim arbitral award and subsequent directions of the Hon'ble Delhi High Court and Hon'ble Supreme Court of India, an amount of ₹ 356.31 crore was paid to Operator upto 31 March 2019 and an amount of ₹ 500 crore was deposited with the Delhi High Court in November 2019, which was subsequently released to the Operator, on submission of bank guarantee.

Hon'ble High Court directed the parties to commence formal handing over of the infrastructure in the presence of appointed Local Commissioner which could not commence due to various local and operator's issues. Date of hearing at Hon'ble High Court of Delhi has been adjourned several times and now the date of next hearing has been fixed on 24 and 25 July 2024.

Pending final disposal of the appeal by the Hon'ble High Court, considering the provisions of Ind AS 37 'Provisions, Contingent Liabilities and Contingent Assets' and material accounting policies of the Company, provision has been updated by interest to **₹ 38.59 crore** (31 March 2023: ₹ 38.42 crore) (included at (a)(i) above) and an amount of **₹ 1,870.55 crore** (31 March 2023: ₹ 2,431.04 crore) has been considered as contingent liability. Further, the amount deposited with Delhi high court has been reviewed during the year and as an abundant precaution, the amount deposited has been fully provided for, conservatively.

Also Refer Note 74 and 76.

(iv) (a) Provision for Mine closure obligation represents Company's obligations for land reclamation and decommissioning of structure consist of spending at mines in accordance with the guidelines from Ministry of Coal, Government of India. The Company estimates its obligations for mine closure, site restoration and decommissioning based on the detailed calculation and technical assessment of the amount and timing of future cash spending for the required work and provided for as per approved mine closure plan. Accordingly, a provision amounting to **₹ 494.01 crore** (31 March 2023: ₹ 323.80 crore) has since been provided for.

(b) Provision for Expenditure incurred on removal of mine waste materials (overburden) necessary to extract the coal reserves is referred to as stripping cost. The Company has to incur such expenses over the life of the mine as technically estimated. Cost of stripping is charged on technically evaluated average stripping ratio at each mine with due adjustment for stripping activity asset and ratio-variance account after the mines are brought to revenue. Net of the balances of stripping activity asset and ratio variance at the Balance Sheet date is shown as 'Stripping activity adjustment' under the head 'Non-current assets/Non-current provisions' as the case may be, and adjusted as provided in the CERC Tariff Regulations. Accordingly, a provision amounting to **₹ 603.60 crore** (31 March 2023: ₹ 611.88 crore) has since been provided for. (Refer material accounting policy C.6)

v) In respect of provision for cases under litigation, outflow of economic benefits is dependent upon the final outcome of such cases.

vi) In all these cases, outflow of economic benefits is expected within next one year.

vii) Sensitivity of estimates on provisions

The assumptions made for provisions relating to current period are consistent with those in the earlier years. The assumptions and estimates used for recognition of such provisions are qualitative in nature and their likelihood could alter in next financial year. It is impracticable for the group to compute the possible effect of assumptions and estimates made in recognizing these provisions.

viii) Contingent liabilities and contingent assets

Disclosure with respect to claims against the Group not acknowledged as debts and contingent assets are made in Note 76.

65. Disclosure as per Ind AS 38 'Intangible Assets'

Research expenditure recognised as expense in the Statement of Profit and Loss during the year is **₹ 103.20 crore** (31 March 2023: ₹ 236.78 crore).

66. Disclosure as per Ind AS 106, 'Exploration for and Evaluation of Mineral Resources'

A. Oil and gas exploration activities

a) The Company has joint arrangements with others for operations in the nature of joint operations. The Company recognizes, on a line-by-line basis its share of the assets, liabilities and expenses of these joint operations as per the terms and conditions of respective arrangements.

All exploration costs incurred in drilling and equipping exploratory and appraisal wells, cost of drilling exploratory type stratigraphic test wells are initially capitalized as 'Exploratory wells-in-progress' under 'Intangible assets under development' till the time these are either transferred to oil and gas assets when a well is ready for commercial production or expensed as exploration cost (including allocated depreciation) as and when determined to be dry or of no further use, as the case may be.

Costs of exploratory wells are not carried over unless it could be reasonably demonstrated that there are indications of sufficient quantity of reserves and sufficient progress is being made in assessing the reserves and the economic & operating viability of the project. All such carried over costs are subject to review for impairment.

Cost of surveys and prospecting activities conducted in the search of oil and gas are expensed in the year in which these are incurred.

(i) The Company along-with some public sector undertakings had entered into Production Sharing Contracts (PSCs) with GOI for three oil exploration blocks namely KG-OSN-2009/1, KG-OSN-2009/4 and AN-DWN-2009/13 under VIII round of New Exploration Licensing Policy (NELP VIII) with 10% participating interest (PI) in each of the blocks.

In the case of Block AN-DWN-2009/13 and KG-OSN-2009/1, Oil and Natural Gas Corporation Ltd. (ONGC) was the operator and the Company along-with the consortium partners have relinquished both the blocks to Directorate General of Hydrocarbons (DGH).

Based on the un-audited statement of the accounts for the above blocks forwarded by ONGC, the operator, the Company's share in the assets and liabilities and expenses is as under:

₹ Crore

Particulars	As at 31 March 2024 (Unaudited)	As at 31 March 2023 (Unaudited)
Assets	**0.01**	0.01
Liabilities	**0.49**	0.49

For the year ended 31 March 2024 and 31 March 2023, there are no income / expense and operating/investing cash flow from exploration activities, an amount of ₹ 0.08 crore paid during the year to the operator towards license fee.

For exploration activities in block KG-OSN-2009/4 DGH has agreed for drilling of one well and have instructed to carry out airborne Full Tensor Gravity Gradiometer (FTG) survey in conditionally & partial cleared area. ONGC has completed drilling of one well. Airborne Full Tensor Gravity Gradiometer (FTG) survey work is also completed. The Company along-with the consortium partners has decided to relinquish the block and Oil and Natural Gas Corporation Ltd. (ONGC), the operator, has submitted an application to Directorate General of Hydrocarbons (DGH) in this regard, in the earlier years.

b) Exploration activities in the block AA-ONN-2003/2 were abandoned in January 2011 due to unforeseen geological conditions and withdrawal of the operator. Attempts to reconstitute the consortium to accomplish the residual exploratory activities did not yield result. In the meanwhile, Ministry of Petroleum & Natural Gas, GoI demanded in January 2011 the cost of unfinished minimum work programme from the consortium with NTPC's share being USD 7.516 million. During the year, provision in this respect has been updated to **₹ 99.49 crore** from ₹ 90.79 crore along-with interest. The Company has sought waiver of the claim citing force majeure conditions at site leading to discontinuation of exploratory activities.

The Company has accounted for expenditure of **₹ 8.70 crore** (31 March 2023: ₹ (21.37) crore) towards updation of liabilities relating to MWP and other liabilities of M/s Geopetrol International, the operator to complete the winding up activities of the Block. The Company's share in the assets and liabilities are as under:

₹ Crore

Particulars	As at 31 March 2024 (Unaudited)	As at 31 March 2023 (Unaudited)
Assets	**9.19**	9.19
Liabilities (including unfinished MWP)	**115.14**	106.44

Provision of **₹ 8.96 crore** as at 31 March 2024 (31 March 2023: ₹ 8.96 crore) has been made towards the assets under exploration and estimated obsolescence in the inventory. Further, a provision of **₹ Nil** (31 March 2023: ₹ 0.23 crore) has been made towards NTPC's share as per arbitration decision given in favor of a contractor of the block. Against this, an amount of ₹ 13.65 crore has been deposited in honourable Delhi high court during the year. NTPC filed a writ petition under section 34 of Arbitration and Conciliation Act, 1996 in this matter before Hon'ble Delhi High Court which is yet to be disposed.

For the year ended 31 March 2024 and 31 March 2023, there are no income and operating/investing cash flow from exploration activities. The value of assets reported above is based on statement received from the operator in the earlier years.

c) The Company had entered into production sharing contracts (PSC) with GOI for exploration block namely CB-ONN-2009/5 VIII round of New Exploration Licensing Policy (NELP VIII) with 100% participating interest (PI) in the block.

MWP for the block has been completed. No oil or gas of commercial value was observed in any of the wells. Accordingly, the block has been relinquished to DGH, GOI.

Company's share in assets and liabilities is as under:

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Assets	**6.11**	6.11
Liabilities	**0.25**	0.25

Provision of **₹ 6.07 crore** as at 31 March 2024 (31 March 2023: ₹ 6.07 crore) has been made as at the balance sheet date, towards estimated obsolescence in the inventory.

For the year ended 31 March 2024 and 31 March 2023, there are no income, expenses, operating and investing cash flows from exploration activities.

B. Coal mining exploration activities

Exploration and evaluation assets comprise capitalized costs which is generally the expenditure incurred associated with finding the mineral by carrying out topographical, geological, geochemical and geophysical studies, exploratory drilling, trenching, sampling, expenditure for activities in relation to evaluation of technical feasibility and commercial viability, acquisition of rights to explore etc.

Exploration and evaluation expenditure incurred after obtaining the mining right or the legal right to explore are capitalized as exploration and evaluation assets under 'Intangible assets under development' and stated at cost less impairment if any. Exploration and evaluation assets are assessed for impairment indicators at least annually.

Once the proved reserves are determined and development of mine/project is sanctioned, Exploration and evaluation assets are transferred to 'Development of Coal Mines' under 'Capital Work in Progress'. However, if proved reserves are not determined, exploration and evaluation asset is derecognized. Exploration and evaluation expenditure incurred prior to obtaining the mining right or the legal right to explore are expensed as and when incurred.

(i) The Company has started coal production from five captive mines i.e Pakri-Barwadih, Dulanga, Talaipalli, Chatti-Bariatu and Kerandari. During the year, Mine Development Operator (MDO) has been appointed for Badam Mines. Pakri Barwadih was declared commercial w.e.f. 1 April 2019 and about 16.31 MMT coal was extracted during the current year. Dulanga was declared commercial w.e.f. 1 October 2020 and 7.00 MMT coal was extracted during the current year. Talaipalli was declared commercial w.e.f. 1 October 2023 and 7.54 MT of coal was extracted during the year. Chatti-Bariatu , Kerandari and Badam mines are under development stage and expenditure incurred at these mines are disclosed in Note 3 - Capital work in progress under 'Development of coal mines'. During the year 3.30 MMT of coal was extracted from Chatti-Bariatu and 0.235 MMT of coal from Kerendari.

In respect of Talaipalli coal mine, there was a delay of 22.5 months in the commercial declaration of the mine. The revised Mining plan for Talaipalli Coal Mine, as recommended by CMPDIL was approved by CCO (Coal Controller Organization) on 26 September 2023. The Company has filed a petition for determination of tariff for the coal mine and condoning the delay as provided in Regulation 22 of the CERC (Terms and Conditions of Tariff) (Second Amendment) Regulations 2021, which is yet to be disposed off.

Development activities are under process for Banhardih mine, allocated to Patratu Vidyut Utapadan Nigam Ltd. (PVUNL), a subsidiary company incorporated between NTPC & Government of Jharkhand.

During the year, NTPC Mining Limited, a wholly owned subsidiary, emerged as successful bidder in e-auction of commercial coal block of North Dadhu (East) declared by Ministry of Coal (MoC). Pre-development activities are under progress.

(ii) Surrendered coal blocks- Banai,Bhalumuda and Mandakini-B

Due to geo-mining constraints and other related issues NTPC surrendered Banai and Bhalumuda blocks to MoC on 26.12.2020. The Company expects that whenever these two coal blocks are allotted to any other company, the cost incurred towards exploration and GR at these mines would be reimbursed from the new allocatee through MOC as per past experience of the Company. Keeping in view the above, an amount of **₹ 124.00 crore** (31 March 2023: ₹ 124.00 crore) has been accounted as recoverable and included under Note-19- 'Current assets - Other financial assets'. These coal blocks have been allotted to another entity in the commercial coal mine auction notified by MoC. Execution of coal mine development and production agreement between MoC and the entity is in progress. Subsequent to execution of the agreement, the recovery of the above amount from the new allottee shall be initiated by MoC before issuance of formal vesting order for which the Company has requested MoC for the same.

Since mine development activities could not be proceeded due to various issues at Mandakini-B coal block, the Company has approached Ministry of Coal on 26 December 2020 for surrendering these blocks, with a request for consideration of reimbursement of expenses incurred by the Company. The Company expects that whenever these two coal blocks are allotted to any other company, the cost incurred towards exploration and GR would be reimbursed from the new allocatee through MOC as per past experience of the Company. Keeping in view the above, an amount of **₹ 56.47 crore** (31 March 2023: ₹ 56.47 crore) has been accounted as recoverable and included under Note-19 'Current assets -Other financial assets'.

MoC has encashed the BG (Performance Security) of ₹ 168.00 crore on 22 March 2021, submitted by the Company for Mandakini-B coal block, citing delay in achieving of the milestones of efficiency parameters which were beyond the control of the Company. The Company approached MoP to take up the matter in Alternate Mechanism for Resolution of CPSE Disputes (AMRCD). Pending resolution of the dispute through AMRCD, the amount of BG encashed by MOC has been disclosed as recoverable from MOC under 'Claims recoverable' in Note-19-'Current assets-Other financial assets'. This issue is regularly being taken up with MoC by the Company and MoP for early settlement.

The Coal Block Development and Production Agreement (CBDPA) signed by the Company with MOC is silent about the recoverability of expenditure incurred in case of termination of the CBDPA. Moreover, the fresh auction / allocation of mines by MOC may also take substantial time and is dependent upon the coal demand-supply scenario of the country in the days to come. Considering the uncertainty involved on the recoverability of the amounts in respect of

Banai, Bhalamuda and Mandakini-B coal blocks, the amount disclosed as claims recoverable has since been fully provided for. Further, the balance expenditure incurred at these blocks which may not be recovered has also been provided for fully (Refer Note 5- 'Non-current assets - Intangible assets under development').

(iii) Assets and liabilities of coal exploration and evaluation activities are as under:

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Assets (Intangible assets under development)	-	85.13
Liabilities	-	0.11

Exploration and evaluation activities were taking place at under ground mine area/dip side area (North west quarry) of PB block which has since been completed and capitalised.

For the year ended 31 March 2024 and 31 March 2023, there are no income, expenses and operating cash flows from coal exploration activities. Cash flows from investing activities for the year ended 31 March 2024 is (-) **₹ 85.02 crore** (31 March 2023: ₹ (50.47) crore)

(iv) In respect of captive mines, book stock of coal is considered in the accounts where the variance between book stock and measured stock is upto +/- 5% and in cases where the variance is beyond +/- 5% the measured stock is considered.

(v) The Company had incorporated a wholly owned subsidiary, in the name of 'NTPC Mining Limited' (NML) on 29 August 2019, for taking up coal mining business. The Board of Directors of the Company has approved the hiving-off its coal mining business, consisting of 6 coal mines of the Company to NML at book value, through a business transfer agreement (BTA) dated 17 August 2023. The BTA shall become effective upon completion of the conditions precedent mentioned in the BTA. The transfer is yet to take place as at 31 March 2024.

67. Disclosure as per Ind AS 108 'Operating segments'

A. General Information

The Group has two reportable segments, as described below, which are the Group's strategic business units. The strategic business units offer different products and services, and are managed separately because they require different technology and marketing strategies. For each of the strategic business units, the Chief Operating Decision Maker (CODM) reviews internal management reports on at least a quarterly basis.

Segment results that are reported to the CODM include items directly attributable to a segment as well as those that can be allocated on a reasonable basis. Unallocated items comprise mainly corporate expenses, finance costs, income tax expenses and corporate income that are not directly attributable to segments.

Revenue directly attributable to the segments is considered as segment revenue. Expenses directly attributable to the segments and common expenses allocated on a reasonable basis are considered as segment expenses.

Segment capital expenditure is the total cost incurred during the period to acquire property, plant and equipment, Capital Wok in Progress, intangible assets other than goodwill and intangible assets under development.

Segment assets comprise property, plant and equipment, intangible assets, capital work in progress, intangible assets under development, advances for capital expenditures, trade and other receivables, inventories and other assets that can be directly or reasonably allocated to segments. For the purpose of segment reporting, property, plant and equipment have been allocated to segments based on the extent of usage of assets for operations attributable to the respective segments. Unallocated assets comprise investments, income tax assets, corporate assets and other assets that cannot reasonably be allocated to segments.

Segment liabilities include all operating liabilities in respect of a segment and consist principally of trade payable, payable for capital expenditure and other payables, provision for employee benefits and other provisions. Unallocated liabilities comprise equity, income tax liabilities, loans and borrowings and other liabilities and provisions that cannot reasonably be allocated to segments.

The following summary describes the operations in each of the Group's reportable segments:

Generation of energy: Generation and sale of bulk power to State Power Utilities.

Others: It includes providing consultancy, project management & supervision, energy trading, oil and gas exploration and coal mining.

Information regarding the results of each reportable segment is included below. Performance is measured based on segment profit before income tax, as included in the internal management reports that are reviewed by the Board of Directors. Segment profit is used to measure performance as management believes that such information is the most relevant in evaluating the results of certain segments relative to other entities that operate within these industries.

Transfer prices between operating segments are on an arm's length basis in a manner similar to transactions with third parties.

B. Information about reportable segments and reconciliations to amounts reflected in the financial statements:

₹ Crore

Particulars	Generation of energy		Others		Inter-segment eliminations		Total	
	For the year ended		For the year ended		For the year ended		For the year ended	
	31 March 2024	31 March 2023	31 March 2024	31 March 2023	31 March 2024	31 March 2023	31 March 2024	31 March 2023
Segment revenue								
Revenue from external customers*	**1,67,232.58**	1,65,709.64	**9,409.13**	8,274.47	**-**	-	**1,76,641.71**	1,73,984.11
Inter-segment revenue	**3,249.44**	2,594.92	**5,655.36**	4,035.13	**(8,904.80)**	(6,630.05)	**-**	-
	1,70,482.02	1,68,304.56	**15,064.49**	12,309.60	**(8,904.80)**	(6,630.05)	**1,76,641.71**	1,73,984.11
Other income	**3,710.09**	3,523.56	**194.60**	286.26	**(10.89)**	(3.52)	**3,893.80**	3,806.30
	1,74,192.11	1,71,828.12	**15,259.09**	12,595.86	**(8,915.69)**	(6,633.57)	**1,80,535.51**	1,77,790.41
Unallocated corporate interest and other income							**630.35**	185.98
Total	**1,74,192.11**	1,71,828.12	**15,259.09**	12,595.86	**(8,915.69)**	(6,633.57)	**1,81,165.86**	1,77,976.39
Segment result (including net movements in regulatory deferral account balances)**	**37,228.67**	33,128.18	**925.28**	1,097.94	**-**	-	**38,153.95**	34,226.12
Unallocated corporate interest and other income							**630.35**	185.98
Unallocated corporate expenses, interest and finance charges							**12,064.06**	11,367.08
Profit before share of net profits of investments accounted for using equity method and tax							**26,720.24**	23,045.02
Add: Share of net profits of joint ventures accounted for using equity method							**1,635.60**	779.77
Profit before tax							**28,355.84**	23,824.79
Income tax expense (including tax on net movements in regulatory deferral account balances)							**7,023.39**	6,703.44
Profit after tax							**21,332.45**	17,121.35

₹ Crore

Particulars	Generation of energy		Others		Total	
	For the year ended		For the year ended		For the year ended	
	31 March 2024	31 March 2023	**31 March 2024**	31 March 2023	**31 March 2024**	31 March 2023
Depreciation, amortisation and impairment expense	**15,893.09**	14,531.79	**155.41**	100.45	**16,048.50**	14,632.24
Non-cash expenses other than depreciation and amortisation	**847.43**	712.93	**47.78**	11.00	**895.21**	723.93
Capital expenditure	**33,478.49**	44,680.69	**1,545.01**	1,299.59	**35,023.50**	45,980.28

₹ Crore

Particulars	Generation of energy		Others		Inter-segment eliminations		Total	
	As at		As at		As at		As at	
	31 March 2024	31 March 2023	**31 March 2024**	31 March 2023	**31 March 2024**	31 March 2023	**31 March 2024**	31 March 2023
Segment assets	**4,38,046.42**	4,10,768.54	**18,912.62**	15,641.63	**(593.75)**	(96.21)	**4,56,365.29**	4,26,313.96
Unallocated corporate and other assets							**23,831.28**	21,599.29
Total assets	**4,38,046.42**	4,10,768.54	**18,912.62**	15,641.63	**(593.75)**	(96.21)	**4,80,196.57**	4,47,913.25
Segment liabilities	**59,238.11**	57,083.58	**7,401.21**	6,664.77	**(593.75)**	(96.21)	**66,045.57**	63,652.14
Unallocated corporate and other liabilities							**2,53,441.73**	2,37,237.94
Total liabilities	**59,238.11**	57,083.58	**7,401.21**	6,664.77	**(593.75)**	(96.21)	**3,19,487.30**	3,00,890.08

* Generation segment includes **₹ 2,281.34 crore** (31 March 2023: ₹ 1,995.90 crore) for sales related to earlier years excluding other adjustments towards reimbursement of ash transportation cost.(Refer Note 42).

** Generation segment result would have been **₹ 34,947.33 crore** (31 March 2023: ₹ 31,132.28 crore) without including the sales related to earlier years as stated above.

Reconciliation of Assets and Liabilities

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Segment assets (A)	**4,56,365.29**	4,26,313.96
Unallocated corporate and other assets:		
Non current investments	**15,834.56**	13,884.79
Current investments	**50.00**	50.00
Cash and cash equivalents and other bank balances	**3,256.05**	2,673.92
Loans	**222.49**	215.81
Other current assets	**270.36**	125.13
Advance tax (net of provision)	**2,395.26**	2,631.13
Other unallocable assets	**1,802.56**	2,018.51
Total unallocated corporate and other assets (B)	**23,831.28**	21,599.29
Total Assets (A+B)	**4,80,196.57**	4,47,913.25

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Segment liabilities(A)	**66,045.57**	63,652.14
Unallocated corporate and other liabilities:		
Non current borrowings	**1,90,214.97**	1,87,883.57
Deferred tax liability	**15,231.83**	12,690.00
Borrowings current	**44,825.33**	33,208.80
Current tax liabilities (net)	**2.95**	86.47
Other unallocable liabilities	**3,166.65**	3,369.10
Total unallocated corporate and other liabilities (B)	**2,53,441.73**	2,37,237.94
Total Liabilities (A+B)	**3,19,487.30**	3,00,890.08

Reconciliation of profit after tax

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
Segment result (including net movements in regulatory deferral account balances) (A)	**38,153.95**	34,226.12
Unallocated corporate interest and other income (B)		
Other Income	**630.35**	185.98
Sub-total (B)	**630.35**	185.98
Unallocated corporate expenses, interest and finance costs (C)		
Finance costs	**12,048.21**	11,156.06
Other expenses	**15.85**	211.02
Sub total (C)	**12,064.06**	11,367.08
Profit before tax (including net movements in regulatory deferral account balances) [D=(A+B-C)]	**26,720.24**	23,045.02
Exceptional items	**-**	
Share of net profits of joint ventures accounted for using equity method (E)	**1,635.60**	779.77
Profit before tax (F=D+E)	**28,355.84**	23,824.79
Income tax expense (including tax on net movements in regulatory deferral account balances) (G)	**7,023.39**	6,703.44
Profit after tax (H=F-G)	**21,332.45**	17,121.35

The operations of the Group are mainly carried out within the country and therefore there is no reportable geographical segment.

C. Information about geographical areas

Segment revenue - Others include export sale of energy through trading amounting to **₹ 1,376.86 crore** (31 March 2023: ₹ 1,275.80 crore) to Nepal and Bangladesh by M/s NVVN Ltd., a subsidiary of the Company.



D. Information about major customers

Revenue from customers under 'Generation of energy' segment which is more than 10% of the Group's total revenues, are as under :

Name of the customer	For the year ended			
	31 March 2024		31 March 2023	
	Amount (₹ Crore)	%age	Amount (₹ Crore)	%age 2023
Gujarat Urja Vikas Nigam Ltd.	**17,562.95**	**9.84**	18,543.55	10.52

68. Financial Risk Management

The Group's principal financial liabilities comprise loans and borrowings in foreign as well as domestic currency, trade payables and other payables. The main purpose of these financial liabilities is to finance the Group's operations. The Group's principal financial assets include loans, trade and other receivables, and cash and short-term deposits that derive directly from its operations. The Group also holds equity investments and enter into derivative contracts such as forward contracts, options and swaps. Derivatives are used exclusively for hedging purposes and not as trading or speculative instruments.

The Group is exposed to the following risks from its use of financial instruments:- Credit risk- Liquidity risk- Market risk

This note presents information about the Group's exposure to each of the above risks, the Group's objectives, policies and processes for measuring and managing risk.

Risk	Exposure arising from	Measurement	Management
Credit Risk	Trade receivables, unbilled revenue, derivative financial instruments, financial assets measured at amortised cost and cash and cash equivalents.	Ageing analysis Credit ratings	Credit limits, letters of credit and diversification of bank deposits.
Liquidity risk	Borrowings and other liabilities	Rolling cash flows forecast	Availability of committed credit lines and borrowing facilities
Market risk – foreign currency risk	- Future commercial transactions - Recognised financial assets and liabilities not denominated in Indian rupee (₹)	Cash flow forecasting	Forward foreign exchange contracts Foreign currency options Currency and interest rate swaps and principal only swaps
Market risk – interest rate risk	Non-current borrowings at variable rates	Sensitivity analysis	Different kinds of loan arrangements with varied terms (e.g. fixed rate loans, floating rate loans, rupee term loans, foreign currency loans, etc.)

Risk management framework

The Group's activities make it susceptible to various risks. The Group has taken adequate measures to address such concerns by developing adequate systems and practices.

In order to institutionalize the risk management in the Group, an elaborate Enterprise Risk Management (ERM) framework has been developed. The Board of Directors has overall responsibility for the establishment and oversight of the parent company's risk management framework. As a part of the implementation of ERM framework, a 'Risk Management Committee (RMC)' with functional directors as its members has been entrusted with the responsibility to identify and review the risks, formulate action plans and strategies to mitigate risks on short-term as well as long-term basis.

The RMC meets every quarter to deliberate on strategies. Risks are regularly monitored through reporting of key performance indicators. Outcomes of RMC are submitted for information of the Board of Directors.

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68. Financial Risk Management

Credit risk

Credit risk is the risk of financial loss to the Group if a customer or counterparty to a financial instrument fails to meet its contractual obligations resulting in a financial loss to the Group. Credit risk arises principally from trade receivables, unbilled revenue, loans, cash and cash equivalents and deposits with banks and financial institutions.

Trade receivables & unbilled revenue

The Group primarily sells electricity to bulk customers comprising mainly state utilities owned by State Governments. The Company has a robust payment security mechanism in the form of Letters of Credit (LC) backed by the Tri-Partite Agreement (TPA). The TPAs were signed among the Govt. of India, RBI and the individual State Governments subsequent to the issuance of the One Time Settlement Scheme of SEBs dues during 2001-02 by the GOI, which were valid till October 2016. Govt of India subsequently approved the extension of these TPAs for another period of 10 years. Most of the States have signed these extended TPAs and signing is in progress for the balance states.

CERC Tariff Regulations allow payment against monthly bill towards energy charges within a period of forty five days from the date of bill and levy of surcharge @ 18% p.a. on delayed payment beyond forty five days. On 22 February 2021, Ministry of power has issued a notification and accordingly Late Payment Surcharge (LPSC) shall be payable on the payment outstanding after the due date at the base rate of LPSC applicable for the period for the first month of default and the rate of LPSC for the successive months of default shall increase by 0.5 percent for every month of delay provided that the LPSC shall not be more than 3 percent higher than the base rate at any time.

A default occurs when in the view of management there is no significant possibility of recovery of receivables after considering all available options for recovery.

As per the provisions of the TPA, the customers are required to establish LC covering 105% of the average monthly billing of the Company for last 12 months. The TPA also provided that if there is any default in payment of current dues by any State Utility the outstanding dues can be deducted from the State's RBI account and paid to the concerned CPSU. There is also provision of regulation of power by the Group in case of non payment of dues and non-establishment of LC.

In addition to above, MoP vide its communications dated 28 June 2019 and subsequent clarifications, further emphasised on ensuring availability of suitable payment security mechanism to be maintained by DISCOMs. Further, to liquidate the outstanding dues of the discoms towards the generating companies, GOI has announced a Scheme for offering 90,000 crore in soft loans under the Aatmanirbhar Bharat package. The Discoms are expected to take the benefit of the this Scheme and pay their outstanding dues.

These payment security mechanisms have served the Group well over the years. The Group has not experienced any significant impairment losses in respect of trade receivables in the past years. Since the Group has its power stations as well as customers spread over various states of India, geographically there is no concentration of credit risk.

Unbilled revenue primarily relates to the Group's right to consideration for sale effected but not billed at the reporting date and have substantially the same risk characteristics as the trade receivables for the same type of contracts.

Investments

The Group limits its exposure to credit risk by investing in only Government of India Securities, State Government Securities and other counterparties have a high credit rating. The management actively monitors the interest rate and maturity period of these investments. The Group does not expect the counterparty to fail to meet its obligations, and has not experienced any significant impairment losses in respect of any of the investments.

Loans

The Group has given loans to employees, joint venture companies and other parties. Loans to the employee are secured against the mortgage of the house properties and hypothecation of vehicles for which such loans have been given in line with the policies of the Company. The loan provided to group companies are collectible in full and risk of default is negligible. Loan to APIIC is against a guarantee given by the Government of Andhra Pradesh vide GO dated 3 April 2003.

Cash and cash equivalents

The Group held cash and cash equivalents of **₹ 863.34 crore** (31 March 2023: ₹ 465.65 crore). The cash and cash equivalents are held with banks with high rating.

Deposits with banks and financial institutions

The Group held deposits with banks and financial institutions of **₹ 5,984.00 crore** (31 March 2023: ₹ 4,482.88 crore). In order to manage the risk, Group places deposits with only high rated banks/institutions.

(i) Exposure to credit risk

The carrying amount of financial assets represents the maximum credit exposure. The maximum exposure to credit risk at the reporting date was:

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Financial assets for which loss allowance is measured using 12 months Expected Credit Losses (ECL)		
Non-current investments	**703.60**	632.70
Non-current loans	**570.19**	553.77
Other non-current financial assets	**710.80**	900.70
Current investments	**50.00**	50.00
Cash and cash equivalents	**863.34**	465.65
Bank balances other than cash and cash equivalents	**5,984.00**	4,482.88
Current loans	**271.12**	268.78
Other current financial assets*	**2,220.06**	1,605.64
Total (A)	**11,373.11**	8,960.12
Financial assets for which loss allowance is measured using Life time Expected Credit Losses (ECL) as per simplified approach		
Trade receivables including unbilled revenue	**34,637.22**	32,751.09
Contract Assets	**10,992.65**	7,306.43
Total (B)	**45,629.87**	40,057.52
Total (A+B)	**57,002.98**	49,017.64

* Excluding Contract Assets (Refer Note 19)

(ii) Provision for expected credit losses

(a) Financial assets for which loss allowance is measured using 12 month expected credit losses

The Group has assets where the counter-parties have sufficient capacity to meet the obligations and where the risk of default is very low. Accordingly, no loss allowance for impairment has been recognised.

(b) Financial assets for which loss allowance is measured using life time expected credit losses as per simplified approach

The Group has customers (State government utilities) with capacity to meet the obligations and therefore the risk of default is negligible or nil. Further, management believes that the unimpaired amounts that are past due by more than 30 days are still collectible in full, based on historical payment behaviour and extensive analysis of customer credit risk. Hence, no impairment loss has been recognised during the reporting periods in respect of trade receivables and unbilled revenue.

(iii) Ageing analysis of trade receivables

Refer Note 15(g)

(iv) Reconciliation of impairment loss provisions

The movement in the allowance for impairment in respect of financial assets during the year was as follows:

₹ Crore

Particulars	Investments	Trade receivables	Loans	Advances	Claims recoverable	Total
Balance as at 1 April 2022 (i)	4.48	479.45	-	0.11	346.78	830.82
Impairment loss recognised (ii)	-	82.27	6.77	-	2.54	91.58
Amounts written off / written back / adjustment during the period (iii)	-	-	-	-	-	-
Balance as at 31 March 2023 (iv=i+ii-iii)	4.48	561.72	6.77	0.11	349.32	922.40
Impairment loss recognised (v)			-		12.39	12.39
Amounts written off / written back / adjustment during the period (vi)	-	303.15	6.77	-		309.92
Balance as at 31 March 2024 (vii=iv+v-vi)	**4.48**	**258.57**	**-**	**0.11**	**361.71**	**624.87**

Based on historic default rates, the Group believes that no impairment allowance is necessary in respect of any other financial assets as the amounts of such allowances are not significant.

68. Financial Risk Management

Liquidity risk

Liquidity risk is the risk that the Group will encounter difficulty in meeting the obligations associated with its financial liabilities that are settled by delivering cash or another financial asset. The Group's approach to managing liquidity is to ensure, as far as possible, that it will always have sufficient liquidity to meet its liabilities when due, under both normal and stressed conditions, without incurring unacceptable losses or risking damage to the Group's reputation.

The Group has an appropriate liquidity risk management framework for the management of short, medium and long term funding and liquidity management requirements. The Group manages liquidity risk by maintaining adequate cash reserves, banking facilities and reserve borrowing facilities by continuously monitoring forecast and actual cash flows and matching the maturity profiles of financial assets and liabilities.

The Group's treasury department is responsible for managing the short term and long term liquidity requirements of the Group. Short term liquidity situation is reviewed daily by Treasury department. The Board of directors has established policies to manage liquidity risk and the Group's treasury department operates in line with such policies. Any breaches of these policies are reported to the Board of Directors. Long term liquidity position is reviewed on a regular basis by the Board of Directors and appropriate decisions are taken according to the situation.

Typically the Group ensures that it has sufficient cash on demand to meet expected operational expenses for a month, including the servicing of financial obligations, this excludes the potential impact of extreme circumstances that cannot reasonably be predicted, such as natural disasters.

As part of the CERC regulations, tariff inter alia includes recovery of capital cost. The tariff regulations also provide for recovery of energy charges, operations and maintenance expenses and interest on normative working capital requirements. Since billing to the customers are generally on a monthly basis, the Group maintains sufficient liquidity to service financial obligations and to meet its operational requirements.

(i) Financing arrangements

The Group had access to the following undrawn borrowing facilities at the end of the reporting period: **₹ Crore**

Particulars	As at 31 March 2024	As at 31 March 2023
Floating-rate borrowings		
Cash credit	**6,274.93**	4,758.50
Term loans	**17,526.81**	24,232.99
Foreign currency loans	**7,041.61**	3,309.60
Total	**30,843.35**	32,301.09

(ii) Maturities of financial liabilities

The following are the contractual maturities of derivative and non-derivative financial liabilities (un-discounted), based on contractual cash flows:

31 March 2024 ₹ Crore

Contractual maturities of financial liabilities	Contractual cash flows					
	3 months or less	3-12 months	1-2 years	2-5 years	More than 5 years	Total
Non-derivative financial liabilities						
Secured bonds	561.15	6,526.08	1,741.34	9,564.84	16,419.16	**34,812.57**
Unsecured bonds	2,108.92	407.52	5,500.00	3,000.00	16,513.00	**27,529.44**
Rupee term loans from banks	1,592.45	6,323.56	8,582.56	30,556.43	48,152.59	**95,207.59**
Rupee term loans from others	-	238.75	547.00	2,964.17	7,822.60	**11,572.52**
Lease obligations	171.72	110.56	131.81	401.75	4,943.17	**5,759.01**
Foreign currency notes	3,911.51	4,240.85	4,197.50	7,933.50	-	**20,283.36**
Unsecured foreign currency loans from banks and financial institutions	408.78	821.65	826.33	13,945.02	9,622.53	**25,624.31**
Unsecured foreign currency loans (guaranteed by GOI)	132.92	251.28	336.20	870.70	1,428.17	**3,019.27**
Commercial paper, cash credit and Short term working capital loan	15,490.00	4,800.00	-	-	-	**20,290.00**
Trade and other payables	33,662.67	7,559.13	340.77	278.02	399.26	**42,239.85**

31 March 2023 ₹ Crore

Contractual maturities of financial liabilities	Contractual cash flows					
	3 months or less	3-12 months	1-2 years	2-5 years	More than 5 years	Total
Non-derivative financial liabilities						
Secured bonds	611.56	7,151.25	6,159.73	6,037.84	22,071.19	42,031.57
Unsecured bonds	4,989.38	402.76	1,500.00	4,000.00	14,983.31	25,875.45
Rupee term loans from banks	1,274.85	4,866.85	7,177.11	25,419.07	45,892.83	84,630.71
Rupee term loans from others	107.82	276.10	721.54	2,787.42	7,025.31	10,918.19
Lease obligations	150.51	75.45	98.68	236.26	2,590.16	3,151.06
Foreign currency notes	67.81	37.92	7,860.30	11,990.10	-	19,956.13
Unsecured foreign currency loans from banks and financial institutions	339.06	846.00	990.33	8,495.58	13,129.52	23,800.49
Unsecured foreign currency loans (guaranteed by GOI)	36.96	218.40	249.33	683.10	1,712.94	2,900.73
Commercial paper, cash credit and Short term working capital loan	13,143.12	1,095.35	-	-	-	14,238.47
Trade and other payables	31,567.52	5,888.28	892.34	1,179.63	719.47	40,247.24

68. Financial Risk Management

Market risk

Market risk is the risk that changes in market prices, such as foreign exchange rates and interest rates will affect the Group's income. The objective of market risk management is to manage and control market risk exposures within acceptable parameters, while optimising the return.

The Board of directors is responsible for setting up of policies and procedures to manage market risks of the Group. All such transactions are carried out within the guidelines set by the risk management committee.

Currency risk

The Group is exposed to foreign currency risk on certain transactions that are denominated in a currency other than entity's functional currency, hence exposure to exchange rate fluctuations arises. The risk is that the functional currency value of cash flows will vary as a result of movements in exchange rates.

The currency profile of financial assets and financial liabilities as at 31 March 2024 and 31 March 2023 are as below:

31 March 2024 ₹ Crore

Particulars	USD	EURO	JPY	Others	Total
Financial assets					
Trade and other receivables	**4.97**	-	-	-	**4.97**
Total	**4.97**	-	-	-	**4.97**
Financial liabilities					
Foreign currency bonds	**15,686.90**	**4,596.47**	-	-	**20,283.37**
Unsecured foreign currency loans from banks and financial institutions	**9,742.38**	**3,719.25**	**15,181.95**	-	**28,643.58**
Trade payables and other financial liabilities	**3,528.51**	**1,303.63**	**92.54**	**2.09**	**4,926.77**
Total	**28,957.79**	**9,619.35**	**15,274.49**	**2.09**	**53,853.72**

31 March 2023 ₹ Crore

Particulars	USD	EURO	JPY	Others	Total
Financial assets					
Trade and other receivables	1.22	-	-	-	1.22
Total	1.22	-	-	-	1.22
Financial liabilities					
Foreign currency bonds	15,391.81	4,564.32	-	-	19,956.13
Unsecured foreign currency loans from banks and financial institutions	9,182.35	3,175.56	13,979.22	-	26,337.13
Trade payables and other financial liabilities	1,656.46	1,347.75	34.28	11.73	3,050.22
Total	26,230.62	9,087.63	14,013.50	11.73	49,343.48

The gain/(loss) on account of exchange rate variations on all foreign currency loans and foreign currency monetary items (up to COD) is recoverable from beneficiaries. Therefore, currency risk in respect of such exposure would not be very significant.

Sensitivity analysis

Since the impact of strengthening or weakening of INR against USD, Euro, JPY and other currencies on the statement of profit and loss would not be very significant; therefore, sensitivity analysis for currency risk is not disclosed.

Embedded derivatives

Certain contracts of the Group for construction of power plants with vendors awarded through International Competitive Bidding are denominated in a third currency i.e. a currency which is not the functional currency of any of the parties to the contract. The Group has awarded the above contracts without any intention to enter into any derivative contract or to leverage/ take position and without any option/intention to net settle at any point of time during the tenure of the contract. The Group has not separately recognised the foreign currency embedded derivative and has not designated the entire hybrid contract at fair value through profit or loss considering the same as impracticable and absence of a reliable valuation model.

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68. Financial Risk Management

Interest rate risk

The Group is exposed to interest rate risk arising mainly from non-current borrowings with floating interest rates. The Group is exposed to interest rate risk because the cash flows associated with floating rate borrowings will fluctuate with changes in interest rates. The Group manages the interest rate risks by entering into different kinds of loan arrangements with varied terms (e.g. fixed rate loans, floating rate loans, rupee term loans, foreign currency loans, etc.).

At the reporting date the interest rate profile of the Group's interest-bearing financial instruments is as follows:

₹ Crore

Particulars	31 March 2024	31 March 2023
Financial Assets:		
Fixed-rate instruments		
Loan to related parties	**0.08**	14.07
Debentures	**525.00**	575.00
Loans to others	**17.22**	21.53
Bank deposits	**4,969.67**	3,846.44
Total	**5,511.97**	4,457.04
Financial Liabilities:		
Fixed-rate instruments		
Bonds	**62,339.36**	67,904.26
Foreign currency loans/notes*	**22,647.04**	23,012.47
Rupee term loans	**291.27**	308.09
Commercial paper and Short term working capital loan	**16,917.36**	12,833.76
Lease obligations	**2,090.68**	1,820.79
Total (A)	**1,04,285.71**	1,05,879.37
Variable-rate instruments		
Foreign currency loans/notes	**25,958.77**	23,303.20
Rupee term loans	**1,06,488.85**	95,240.81
Cash credit and short term loans	**3,252.42**	1,364.45
Total (B)	**1,35,700.04**	1,19,908.46
Total (A+B)	**2,39,985.75**	2,25,787.83

Fair value sensitivity analysis for fixed-rate instruments

The Group's fixed rate instruments are carried at amortised cost. They are therefore not subject to interest rate risk, since neither the carrying amount nor the future cash flows will fluctuate because of a change in market interest rates.

Cash flow sensitivity analysis for variable-rate instruments

A change of 50 basis points in interest rates at the reporting date would have increased (decreased) profit or loss by the amounts shown below. This analysis assumes that all other variables, in particular foreign currency rates, remain constant. The analysis is performed on the same basis for the previous year.

₹ Crore

Particulars	Profit or loss	
	50 bp increase	50 bp decrease
31 March 2024		
Foreign currency loans/notes	**(113.49)**	**113.49**
Rupee term loans	**(464.64)**	**464.64**
Cash credit and Short term working capital loan	**(0.50)**	**0.50**
	(578.63)	**578.63**
31 March 2023		
Foreign currency loans/notes	(96.08)	96.08
Rupee term loans	(448.09)	448.09
Cash credit and Short term working capital loan	(3.46)	3.46
	(547.63)	547.63

Of the above mentioned increase in the interest expense, an amount of **₹ 116.56 crore** (31 March 2023: ₹ 125.54 crore) is expected to be capitalised and recovered from beneficiaries through tariff.

Change in interest benchmarks

As part of the IBOR transition, the Company has replaced the USD LIBOR with compounded SOFR for all financial instruments, requiring the renegotiation of financing contracts. Changes to contractual cash flows as a result of replacing the existing benchmark interest rate on an economically equivalent basis as a direct consequence of the interest rate benchmark reform are accounted for by adjusting the effective interest rate without recognizing any direct modification gains or losses. There is no material impact on the change of the benchmark rate.

(Note: IBOR-Inter Bank Offered Rates, LIBOR-London Interbank Offered Rate, SOFR – Secured Overnight Financing Rate)

69. Fair Value Measurements

(a) Financial instruments by category

₹ Crore

Particulars	31 March 2024			31 March 2023		
	FVTPL	FVTOCI	Amortised Cost	FVTPL	FVTOCI	Amortised Cost
Financial assets						
Investments						
- Equity instruments	**3.78**	**224.82**	**-**	3.78	103.92	-
- Debentures	**-**	**-**	**525.00**	-	-	575.00
Trade Receivables	**-**	**-**	**34,637.22**	-	-	32,751.09
Loans	**-**	**-**	**841.31**	-	-	822.55
Cash and cash equivalents	**-**	**-**	**863.34**	-	-	465.65
Other bank balances	**-**	**-**	**5,984.00**	-	-	4,482.88
Finance lease receivables	**-**	**-**	**211.01**	-	-	285.19
Other financial assets	**-**	**-**	**13,712.50**	-	-	9,527.58
Total	**3.78**	**224.82**	**56,774.38**	3.78	103.92	48,909.94



₹ Crore

Particulars	31 March 2024			31 March 2023		
	FVTPL	FVTOCI	Amortised Cost	FVTPL	FVTOCI	Amortised Cost
Financial liabilities						
Borrowings (including interest accrued)	-	-	**2,17,725.29**	-	-	2,09,768.83
Commercial paper and cash credit	-	-	**20,105.89**	-	-	14,161.14
Lease obligations	-	-	**2,090.68**	-	-	1,820.79
Trade payables	-	-	**11,337.95**	-	-	11,356.16
Payable for capital expenditure	-	-	**22,958.51**	-	-	21,204.80
Other financial liabilities	-	-	**7,735.67**	-	-	7,614.97
Total	-	-	**2,81,953.99**	-	-	2,65,926.69

(b) Fair value hierarchy

This section explains the judgements and estimates made in determining the fair values of the financial instruments that are (a) recognised and measured at fair value and (b) measured at amortised cost and for which fair values are disclosed in the financial statements. To provide an indication about the reliability of the inputs used in determining fair value, the Group has classified its financial instruments into the three levels prescribed under the accounting standard. An explanation of each level follows underneath the table.

₹ Crore

Financial assets and liabilities measured at fair value- recurring fair value measurement as at 31 March 2024	Level 1	Level 2	Level 3	Total
Financial assets:				
Investments in quoted equity instruments - PTC India Ltd.	**223.20**	-	-	**223.20**
Investments in unquoted equity instruments	-	-	**5.40**	**5.40**
	223.20	-	**5.40**	**228.60**

₹ Crore

Financial assets and liabilities measured at fair value- recurring fair value measurement as at 31 March 2023	Level 1	Level 2	Level 3	Total
Financial assets:				
Investments in quoted equity instruments - PTC India Ltd.	102.30	-	-	102.30
Investments in unquoted equity instruments	-	-	5.40	5.40
	102.30	-	5.40	107.70

The Group has an established control framework with respect to the measurement of fair values. This includes a valuation team that has overall responsibility for overseeing all significant fair value measurements and reports directly to the Director (Finance). The valuation team regularly reviews significant unobservable inputs and valuation adjustments. If third party information, such as broker quotes or pricing services, is used to measure fair values, then the valuation team assesses the evidence obtained from the third parties to support the conclusion that these valuations meet the requirements of Ind AS, including the level in the fair value hierarchy in which the valuations should be classified. Significant valuation issues are reported to the audit committee.

Fair values are categorised into different levels in a fair value hierarchy based on the inputs used in the valuation techniques as follows:

Level 1: Level 1 hierarchy includes financial instruments measured using quoted prices. This includes investments in quoted equity instruments. Quoted equity instruments are valued using quoted prices on national stock exchange.

Level 2: The fair value of financial instruments that are not traded in an active market is determined using valuation techniques which maximise the use of observable market data and rely as little as possible on entity specific estimates. If all significant inputs required to fair value an instrument are observable, the instrument is included in level 2. This level includes mutual funds which are valued using the closing NAV.

Level 3: If one or more of the significant inputs is not based on observable market data, the instrument is included in level 3. The fair value of financial assets and liabilities included in Level 3 is determined in accordance with generally accepted pricing models based on discounted cash flow analysis using prices from prevailing market transactions and dealer quotes of similar instruments.

There have been no transfers in either direction for the years ended 31 March 2024 and 31 March 2023.

(c) Valuation technique used to determine fair value:

Specific valuation techniques used to fair value of financial instruments include:

i) For financial instruments other than at ii), iii) and iv) - the use of quoted market prices.

ii) For investments in mutual funds - Closing NAV is used.

iii) For financial liabilities (vendor liabilities, debentures/bonds, foreign currency notes, domestic/foreign currency loans): Discounted cash flow; appropriate market borrowing rate of the entity as of each balance sheet date used for discounting.

iv) For financial assets (employee loans) - Discounted cash flow; appropriate market rate (SBI lending rate) as of each balance sheet date used for discounting.

(d) Fair value of financial assets and liabilities measured at amortised cost

₹ Crore

Particulars	Level	As at 31 March 2024		As at 31 March 2023	
		Carrying amount	Fair value	Carrying amount	Fair value
Financial assets					
Other investments	3	**525.00**	**525.00**	575.00	575.00
Loans	3	**841.31**	**841.31**	822.55	781.43
Finance lease receivables	3	**211.01**	**211.01**	285.19	285.19
Claims recoverable	3	**730.12**	**730.12**	1,153.04	1,153.04
Trade receivables	3	**34,637.22**	**34,637.22**	32,751.09	32,751.09
Cash and cash equivalents	1	**863.34**	**863.34**	465.65	465.65
Bank balances other than cash and cash equivalents	1	**5,984.00**	**5,984.00**	4,482.88	4,482.88
Other financial assets	3	**12,982.38**	**12,982.38**	8,374.54	8,374.54
Total		**56,774.38**	**56,774.38**	48,909.94	48,868.82
Financial liabilities					
Bonds/Debentures	1			-	-
	2	**48,791.35**	**49,518.67**	12,357.58	13,249.47
	3	**13,548.01**	**14,165.67**	55,546.68	56,852.50
Foreign currency notes	2	**15,672.89**	**15,638.81**	15,369.34	15,247.39
	3	**4,590.70**	**4,418.02**	4,554.79	4,203.16
Foreign currency loans	3	**28,342.22**	**28,344.33**	26,391.54	26,408.92
Rupee term loans	2	**11,691.10**	**11,691.10**	10,467.49	10,096.03
	3	**95,089.02**	**92,642.28**	85,081.41	84,900.31
Lease Obligations	3	**2,090.68**	**2,090.68**	1,820.79	1,820.79
Borrowings - current	1	**20,169.78**	**20,169.78**	14,198.21	14,198.21
Trade payables & payable for capital expenditure	2	**3.66**	**3.66**	3.63	4.35
	3	**34,292.80**	**34,292.80**	32,557.33	32,586.74
Other financial liabilities	3	**7,671.78**	**7,671.78**	7,577.90	7,577.90
Total		**2,81,953.99**	**2,80,647.58**	2,65,926.69	2,67,145.77

The carrying amounts of current trade receivables, current trade payables, payable for capital expenditure, cash and cash equivalents and other financial assets and liabilities are considered to be the same as their fair values, due to their short-term nature.

The carrying values for finance lease receivables approximates the fair value as these are periodically evaluated based on credit worthiness of customer and allowance for estimated losses is recorded based on this evaluation. Also, carrying amount of claims recoverable approximates its fair value as these are recoverable immediately.

The fair values for loans, borrowings, non-current trade payables and payable for capital expenditure were calculated based on cash flows discounted using a current discount rate. They are classified at respective levels based on availability of quoted prices and inclusion of observable/non observable inputs.

70. Capital Management

The Group's objectives when managing capital are to:

- safeguard its ability to continue as a going concern, so that it can continue to provide returns for shareholders and benefits for other stakeholders and
- maintain an appropriate capital structure of debt and equity.

The Board of Directors has the primary responsibility to maintain a strong capital base and reduce the cost of capital through prudent management in deployment of funds and sourcing by leveraging opportunities in domestic and international financial markets so as to maintain investors, creditors & markets' confidence and to sustain future development of the business. The Board of Directors monitors the return on capital, which the Company defines as returns from operating activities divided by total shareholders' equity deployed in operating activities. The Board of Directors also monitors the level of dividends to equity shareholders in line with the dividend distribution policy of the Company.

Under the terms of major borrowing facilities, the Group is required to comply with the following financial covenants:

(i) Total liability to networth ranges between 2:1 to 3:1.

(ii) Ratio of EBITDA to interest expense shall not at any time be less than 1.75 : 1.

(iii) Debt service coverage ratio not less than 1.10:1 (in case of foreign currency borrowings).

There have been no breaches in the financial covenants of any interest bearing borrowings.

The Group monitors capital, using a medium term view of three to five years, on the basis of a number of financial ratios generally used by industry and by the rating agencies. The Group is not subject to externally imposed capital requirements.

The Group monitors capital using gearing ratio which is net debt divided by total equity. Net debt comprises of non-current and current borrowings less cash and cash equivalent. Equity includes equity share capital and reserves that are managed as capital. The gearing ratio at the end of the reporting period was as follows:

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Borrowings (including interest accrued)	**2,37,831.18**	2,23,929.97
Less: Cash and cash equivalent	**863.34**	465.65
Net Debt	**2,36,967.84**	2,23,464.32
Total Equity	**1,65,122.28**	1,50,953.62
Net Debt to Equity ratio	**1.44**	1.48

71. Disclosure as per Ind AS 112 'Disclosure of Interest in Other Entities'

(a) Subsidiary companies

The Group's subsidiaries at 31 March 2024 are set out below. Unless otherwise stated, they have share capital consisting solely of equity shares that are held directly by the group, and the proportion of ownership interests held equals the voting rights held by the group. The country of incorporation or registration is also their principal place of business.

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₹ Crore

Name of subsidiary company	Place of business/ country of incorporation	Ownership interest held by the group as at		Ownership interest held by non-controlling interests as at		Principal activities
		31 March 2024	31 March 2023	31 March 2024	31 March 2023	
NTPC Electric Supply Company Ltd. (NESCL)	India	**100.00**	100.00	**-**	-	Consultancy & Distribution of energy
NTPC Vidyut Vyapar Nigam Ltd. (NVVN)	India	**100.00**	100.00	**-**	-	Trading of energy
Bhartiya Rail Bijlee Company Ltd. (BRBCL)	India	**74.00**	74.00	**26.00**	26.00	Generation of energy
Patratu Vidyut Utpadan Nigam Ltd. (PVUNL)	India	**74.00**	74.00	**26.00**	26.00	Generation of energy
NTPC Mining Ltd. (NML)	India	**100.00**	100.00	**-**	-	Coal mining
THDC India Ltd. (THDCIL)	India	**74.496**	74.496	**25.504**	25.504	Generation of energy
North Eastern Electric Power Corporation Ltd. (NEEPCO)	India	**100.00**	100.00	**-**	-	Generation of energy
NTPC EDMC Waste Solutions Private Ltd. (NTPC EDMC)	India	**74.00**	74.00	**26.00**	26.00	Generation of energy
Ratnagiri Gas & Power Private Ltd. (RGPPL)	India	**86.49**	86.49	**13.51**	13.51	Generation of energy
NTPC Green Energy Ltd.* (w.e.f. 7 April 2022)	India	**100.00**	100.00	**-**	-	Generation of energy

(1) The shareholders of the NESCL in its Extra-ordinary General Meeting held on 24 March, 2015, inter alia, approved the proposal for transfer and vesting of all existing operations of NESCL together with all assets and liabilities relating to such operations to NTPC Limited, the Parent Company, with effect from 1 April, 2015. After obtaining the aforesaid approval, an agreement was entered into with the Parent Company to implement such transfer. In pursuance of the above, it does not have any operations w.e.f 1 April 2015.

(2) The Company has incorporated a subsidiary company 'NTPC EDMC Waste Solutions Pvt. Ltd.', in joint venture with East Delhi Municipal Corporation (EDMC) on 1 June 2020, with equity participation of 74:26 respectively to develop and operate state of the art / modern integrated waste management & energy generation facility. The Board of Directors of the Company in its 494th meeting held on 4 February 2021 had accorded approval for transfer of its shareholding in the subsidiary to M/s NVVN Ltd., a wholly owned subsidiary of the Company which is yet to take place.

(3) The Company had an investment of ₹ 834.55 crore as at 1 April 2020 in the equity shares of Ratnagiri Gas and Power Private Ltd. (RGPPL), an erstwhile joint venture of the Company. The Company had entered into a tripartite framework agreement with RGPPL and its lenders on 31 December 2020 for settlement of RGPPL's outstanding debt liabilities as per the Composite Resolution Plan. As per the Resolution Plan, the Company has provided inter corporate loan of ₹ 885 crore to RGPPL for settlement of loan with the lenders. Further, 35.47% of equity held by lenders in RGPPL have been transferred to the Company as a part of the Resolution Plan at nominal value. Consequently, the Company's equity shareholding in RGPPL has increased from 25.51% to 60.98% and RGPPL has become a subsidiary company of the Company with effect from 31 December 2020. Further, the Company had an investment of ₹ 139.75 crore as at 1 April 2020 in the equity shares of Konkan LNG Ltd. (KLL), an erstwhile joint venture of the Company. The Company had executed Share Purchase Agreements with GAIL (India) Ltd. on 23 February 2021, for purchase of GAIL's share (25.51%) in RGPPL and Sale of Company's share (14.82%) (on fully dilutive basis) in KLL, at a nominal value of ₹ 1/- . Consequently, the Company had exited from KLL after transfer of shares as per the Share Purchase Agreements and the Company's shareholding in RGPPL has become 86.49% with effect from 23 February 2021.

(b) Non-controlling interests (NCI)

Set out below is summarised financial information for each subsidiary that has non-controlling interest. The amounts disclosed for each subsidiary are before inter-company eliminations.

Summarised balance sheet

₹ Crore

Particulars	Bhartiya Rail Bijlee Company Ltd.		Patratu Vidyut Utpadan Nigam Ltd.		THDC India Ltd.		NTPC EDMC		RGPPL	
	As at 31 March 2024	As at 31 March 2023	As at 31 March 2024	As at 31 March 2023	As at 31 March 2024	As at 31 March 2023	As at 31 March 2024	As at 31 March 2023	As at 31 March 2024	As at 31 March 2023
Current assets	**742.76**	973.24	**501.02**	428.62	**2,332.31**	1,575.34	**0.11**	0.12	**1,678.84**	449.90
Current liabilities	**1,362.84**	1,534.48	**4,454.76**	3,733.27	**4,516.02**	2,676.12	**3.46**	3.44	**449.94**	474.97
Net current assets/(liabilities)	**(620.08)**	(561.24)	**(3,953.74)**	(3,304.65)	**(2,183.71)**	(1,100.78)	**(3.35)**	(3.32)	**1,228.90**	(25.07)
Non-current assets	7,993.14	7,978.39	**13,874.32**	11,210.64	**28,974.22**	23,682.17		-	**934.38**	883.44
Non-current liabilities	4,238.43	4,464.13	**7,035.26**	5,593.25	**15,768.52**	11,781.01		-	**498.58**	927.90
Net non-current assets	**3,754.71**	3,514.26	**6,839.06**	5,617.39	**13,205.70**	11,901.16	**-**	-	**435.80**	(44.46)
Regulatory deferral account debit balances	46.05	32.13	**37.15**	32.81	**215.72**	133.42		-		-
Regulatory deferral account credit balances	157.86	107.15		-	**680.37**	497.46		-		-
Net assets	**3,022.82**	2,878.00	**2,922.47**	2,345.55	**10,557.34**	10,436.34	**(3.35)**	(3.32)	**1,664.70**	(69.53)
Accumulated NCI	**781.70**	744.78	**759.84**	609.85	**2,689.14**	2,659.47	**0.87**	(0.87)	**169.78**	(91.54)

Summarised statement of profit and loss for the year ended

₹ Crore

Particulars	Bhartiya Rail Bijlee Company Ltd.		Patratu Vidyut Utpadan Nigam Ltd.		THDC India Ltd.		NTPC EDMC		RGPPL	
	For the year ended 31 March 2024	For the year ended 31 March 2023	For the year ended 31 March 2024	For the year ended 31 March 2023	For the year ended 31 March 2024	For the year ended 31 March 2023	For the year ended 31 March 2024	For the year ended 31 March 2023	For the year ended 31 March 2024	For the year ended 31 March 2023
Total income	**3,721.22**	3,433.84	**0.11**	0.16	**2,012.61**	2,014.52	**-**	-	**3,095.31**	541.31
Profit/(loss) for the year	**517.01**	248.14	**(0.01)**	(0.51)	**596.97**	672.91	**(0.02)**	(0.56)	**1,734.23**	(199.94)
Other comprehensive income/(expense)		0.05		-	**(9.74)**	(2.52)		-		-
Total comprehensive income/(expense)	**517.01**	248.19	**(0.01)**	(0.51)	**587.23**	670.39	**(0.02)**	(0.56)	**1,734.23**	(199.94)
Profit/(loss) allocated to NCI	**134.42**	64.53	**(0.00)**	(0.13)	**149.77**	170.98	**(0.01)**	(0.15)	**-**	-
Dividends paid to NCI	**97.50**	78.00		-	**120.24**	139.75		-		-

Summarised cash flows for the year ended

₹ Crore

Particulars	Bhartiya Rail Bijlee Company Ltd.		Patratu Vidyut Utpadan Nigam Ltd.		THDC India Ltd.		NTPC EDMC		RGPPL	
	For the year ended 31 March 2024	For the year ended 31 March 2023	For the year ended 31 March 2024	For the year ended 31 March 2023	For the year ended 31 March 2024	For the year ended 31 March 2023	For the year ended 31 March 2024	For the year ended 31 March 2023	For the year ended 31 March 2024	For the year ended 31 March 2023
Cash flows from/(used in) operating activities	**1,315.40**	1,414.09	**124.56**	76.19	**423.26**	1,881.86	**-**	(0.22)	**653.54**	37.47
Cash flows from/(used in) investing activities	**(238.28)**	(271.47)	**(1,620.52)**	(1,873.08)	**(4,236.96)**	(4,802.45)	**-**	0.06	**(27.47)**	(53.00)
Cash flows from/(used in) financing activities	**(1,081.38)**	(1,145.23)	**1,500.32**	1,784.35	**3,997.54**	2,901.69	**-**	-	**(648.15)**	(67.80)
Net increase/ (decrease) in cash and cash equivalents	**(4.26)**	(2.61)	**4.36**	(12.54)	**183.84**	(18.90)	**-**	(0.16)	**(22.08)**	(83.33)

(c) Details of significant restrictions

In respect of investments in subsidiary companies, the Group has restrictions for their disposal as under:

₹ Crore

Name of the Subsidiary	Period of restrictions for disposal of investments as per related agreements	Amount invested as at	
		31 March 2024	31 March 2023
Bhartiya Rail Bijlee Company Ltd.	5 years from the date of commercial operation of the last unit of the project.	**1,774.12**	1,774.12
Patratu Vidyut Utpadan Nigam Ltd.	5 years from the date of signing of agreement or till the date of commercial operation of the last new unit of Phase-I, whichever is later.	**2,164.55**	1,737.62
THDC India Ltd.	Save and except with prior written consent of GOI, NTPC shall not take any action that may result in shareholding in the subsidiary falling below 51% and shall not take any action that may result in the subsidiary ceasing to be a government company.	**7,500.00**	7,500.00
North Eastern Electric Power Corporation Ltd.	Save and except with prior written consent of GOI, NTPC shall not take any action that may result in shareholding / or total voting power in the subsidiary falling below 51% and shall not take any action that may result in the subsidiary ceasing to be a government company. Further, NTPC shall continue to hold 100% of paid up capital and voting power in the subsidiary till all amounts repayable under the loan agreement executed between the subsidiary and KfW are repaid.	**4,000.00**	4,000.00
NTPC EDMC Waste Solutions Pvt Ltd	5 years from the date of incorporation (i.e. 01 June 2020)	**0.15**	0.15
Total		**15,438.82**	15,011.89

(d) Joint operations

The group has entered into production sharing contracts (PSCs) with GoI for some exploration blocks whose principal place of business is in India. For detailed disclosures of these joint operations, refer Note 66.

(e) Interests in joint venture companies

List of joint venture companies as at 31 March 2024 in which the group has interest, is as below. These entities have share capital consisting solely of equity shares, which are held directly by the group. The country of incorporation or registration is also their principal place of business, and the proportion of ownership interest is the same as the proportion of voting rights held.

₹ Crore

Name of joint venture company	Place of business/ country of incorporation	Ownership interest held by the group (in %) as at		Accounting method	Carrying amount as at	
		31 March 2024	31 March 2023		31 March 2024	31 March 2023
Utility Powertech Ltd.	India	**50.00**	50.00	Equity method	**110.03**	103.03
NTPC-GE Power Services Private Ltd. $	India	**50.00**	50.00	Equity method	**15.27**	9.31
NTPC-SAIL Power Company Ltd.	India	**50.00**	50.00	Equity method	**1,580.44**	1,439.11
NTPC Tamil Nadu Energy Company Ltd.	India	**50.00**	50.00	Equity method	**1,947.14**	1,898.93
Aravali Power Company Private Ltd. $	India	**50.00**	50.00	Equity method	**2,449.75**	2,447.94

₹ Crore

Name of joint venture company	Place of business/ country of incorporation	Ownership interest held by the group (in %) as at		Accounting method	Carrying amount as at	
		31 March 2024	31 March 2023		31 March 2024	31 March 2023
NTPC BHEL Power Projects Private Ltd. *$	India	**50.00**	50.00	Equity method	**-**	-
Meja Urja Nigam Private Ltd.	India	**50.00**	50.00	Equity method	**1,923.18**	1,707.23
Transformers and Electricals Kerala Ltd. **$	India	**44.60**	44.60	Equity method	**5.47**	7.41
National High Power Test Laboratory Private Ltd. $	India	**21.63**	20.00	Equity method	**12.32**	-
Energy Efficiency Services Ltd. $	India	**39.25**	33.334	Equity method	**624.35**	292.49
CIL NTPC Urja Private Ltd.	India	**50.00**	50.00	Equity method	**0.08**	0.07
Anushakti Vidhyut Nigam Ltd. $	India	**49.00**	49.00	Equity method	**-**	-
Hindustan Urvarak and Rasayan Ltd.#	India	**29.67**	29.67	Equity method	**3,009.95**	2,269.89
Jhabua Power Ltd. (w.e.f. 5 September 2022)	India	**50.00**	50.00	Equity method	**1,965.23**	2,021.21
KSK Dibbin Hydro Power Private Ltd. (Joint venture of Subsidiary Company, NEEPCO Ltd.) $	India	**30.00**	30.00	Equity method	**4.45**	4.43
Trincomalee Power Company Ltd. $	Srilanka	**50.00**	50.00	Equity method	**0.86**	0.41
Bangladesh-India Friendship Power Company Pvt.Ltd. $	Bangladesh	**50.00**	50.00	Equity method	**1,482.39**	1,050.63

$ The financial statements are un-audited and certified by the management of respective companies and have been considered for Consolidated Financial Statements of the Group. The figures appearing in their respective financial statements may change upon completion of their audit.

*The Board of Directors of the Company in its meeting held on 28 April 2016 accorded in principle approval for withdrawal from NTPC BHEL Power Projects Private Ltd. (NBPPL), a joint venture of the Company. A meeting was held on 3 October 2022 at MOP to discuss the way forward for NBPPL. In the meeting, it was decided that the process of winding up of NBPPL will be taken up by both the promoters after the completion of balance on going work at one of the projects of the Company.

**The Board of Directors of the Company in its meeting held on 28 April 2016 accorded in principle approval for withdrawal from Transformers and Electricals Kerala Ltd. (TELK), a joint venture of the Company. GOI has accorded its approval for exit of NTPC from the joint venture. The decision of the Board of Directors of NTPC Limited and approval of GOI has been conveyed to the Government of Kerala (GoK) (JV Partner) & TELK. The GoK has requested NTPC to review the decision. NTPC again took up the matter with GoK who has now in principally agreed for the exit of NTPC and NTPC has written a letter to Chief Secretary, GoK on 17 March 2023 for expediting the process of exit of the Company from TELK.

The percentage holding in HURL has been considered as 29.67% in view of the concession agreement dated 6 September 2018 and shares to be allotted to FCIL and HFCL for the right of use land and other usable assets of its three fertilizer plants.

(i) NTPC BHEL Power Projects Pvt Ltd (NTPC BHEL) (joint venture company) has accumulated losses due to which the Group has recognised accumulated losses equal to the cost of investments of NTPC BHEL as at 31 March 2024. The Group has unrecognised share of losses in respect of NTPC BHEL amounting to **₹ 111.48 crore** as at 31 March 2024 (31 March 2023: ₹ 91.73 crore) as per their unaudited financial statements for the year ended 31 March 2024.

(ii) Summarised financial information of joint venture companies of the group

The tables below provide summarised financial information of joint venture companies of the group. The information disclosed reflects the amounts presented in the financial statements of the relevant joint venture companies and not the group's share of those amounts.

₹ Crore

Summarised balance sheet

Particulars	Utility Powertech Ltd.		NTPC-GE Power Services Pvt. Ltd.		NTPC-SAIL Power Company Ltd.		NTPC-Tamil Nadu Energy Company Ltd.		Aravali Power Company Private Ltd.	
	As at 31 March 2024	As at 31 March 2023	As at 31 March 2024	As at 31 March 2023	As at 31 March 2024	As at 31 March 2023	As at 31 March 2024	As at 31 March 2023	As at 31 March 2024	As at 31 March 2023
Current assets	**14.19**	30.66	**35.48**	31.11	**62.26**	32.80	**5.08**	264.74	**15.46**	8.53
Cash and cash equivalents	**318.41**	458.55	**173.73**	172.56	**978.76**	922.20	**1,923.96**	1,773.09	**2,825.37**	2,746.89
Other assets	**332.60**	489.21	**209.21**	203.67	**1,041.02**	955.00	**1,929.04**	2,037.83	**2,840.83**	2,755.42
Total current assets	**103.89**	196.67	**23.35**	24.28	**4,582.52**	4,621.31	**6,995.74**	7,493.20	**6,269.74**	6,511.71
Total non-current assets	**161.71**	213.82	**5.32**	1.14	**998.59**	1,136.32	**1,832.81**	1,960.91	**1,144.43**	1,195.42
Current liabilities	**46.87**	219.97	**180.45**	193.10	**349.61**	402.65	**314.21**	549.30	**534.94**	409.06
Financial liabilities (excluding trade payables and provisions)	**208.58**	433.79	**185.77**	194.24	**1,348.20**	1,538.97	**2,147.02**	2,510.21	**1,679.37**	1,604.48
Other liabilities	**0.40**	14.64	-	0.15	**1,105.74**	1,152.93	**2,700.60**	3,119.56	**1,660.19**	2,087.89
Total current liabilities	**7.45**	31.39	**16.26**	14.95	**8.72**	6.20	**687.13**	487.64	**4.92**	3.42
Non-current liabilities	**7.85**	46.03	**16.26**	15.10	**1,114.46**	1,159.13	**3,387.73**	3,607.20	**1,665.11**	2,091.31
Financial liabilities (excluding trade payables and provisions)	-	-	-	-	-	-	**583.17**	489.50	**0.15**	40.97
Other liabilities	-	-	-	-	-	-	-	-	**518.10**	443.02
Total non-current liabilities	-	-	-	-	-	-	-	60.00	-	-
Regulatory deferral account debit balances	-	-	-	-	-	-	-	-	**5,248.14**	5,169.29
Regulatory deferral account credit balances	-	-	-	-	-	-	**3,973.20**	3,843.12		
Share application money pending allotment	-	-	-	-	-	-				
Net assets	**220.06**	206.06	**30.53**	18.61	**3,160.88**	2,878.21				

₹ Crore

Reconciliation to carrying amounts

Particulars	Utility Powertech Ltd.		NTPC-GE Power Services Pvt. Ltd.		NTPC-SAIL Power Company Ltd.		NTPC-Tamil Nadu Energy Company Ltd.		Aravali Power Company Private Ltd.	
	As at 31 March 2024	As at 31 March 2023	As at 31 March 2024	As at 31 March 2023	As at 31 March 2024	As at 31 March 2023	As at 31 March 2024	As at 31 March 2023	As at 31 March 2024	As at 31 March 2023
Opening net assets	**206.06**	189.34	**18.61**	14.84	**2,878.21**	3,057.21	**3,843.12**	3,716.70	**5,169.29**	5,613.21
Profit/(loss) for the year	**(5.76)**	32.61	**12.42**	5.99	**435.85**	470.34	**586.84**	848.21	**747.37**	496.47
Other comprehensive income/(expense)	**19.76**	4.11	**(0.15)**	(0.26)	**(3.18)**	0.66	-	0.03	**(0.22)**	0.29
Dividends paid		(20.00)	**(0.60)**	-	**(150.00)**	(650.00)	**(550.43)**	(750.66)	**(750.00)**	(950.00)
Other adjustments*		-	**0.25**	(1.96)			**93.67**	28.84	**81.70**	9.32
Closing net assets	**220.06**	206.06	**30.53**	18.61	**3,160.88**	2,878.21	**3,973.20**	3,843.12	**5,248.14**	5,169.29
Group's share in %	**50.00**	50.00	**50.00**	50.00	**50.00**	50.00	50.00	50.00	**50.00**	50.00
Group's share in INR	110.03	103.03	**15.27**	9.31	**1,580.44**	1,439.11	**1,986.60**	1,921.56	**2,624.07**	2,584.65
Goodwill/(Restricted reserves)/NCI		-		-			**(39.46)**	(22.63)	**(174.32)**	(136.71)
Carrying amount	**110.03**	103.03	**15.27**	9.31	**1,580.44**	1,439.11	**1,947.14**	1,898.93	**2,449.75**	2,447.94

* Includes adjustments on account of further investment by the joint venture partners and opening net worth changes

Summarised statement of profit and loss for the year ended

₹ Crore

Particulars	Utility Powertech Ltd.		NTPC-GE Power Services Pvt. Ltd.		NTPC-SAIL Power Company Ltd.		NTPC-Tamil Nadu Energy Company Ltd.		Aravali Power Company Private Ltd.	
	31 March 2024	31 March 2023	31 March 2024	31 March 2023	31 March 2024	31 March 2023	31 March 2024	31 March 2023	31 March 2024	31 March 2023
Revenue from operations	543.33	1,619.80	508.54	439.64	3,854.04	3,638.67	4,235.12	5,151.89	5,375.73	5,263.56
Other income	27.91	15.78	2.82	0.94	16.55	69.07	146.29	722.40	87.68	112.92
Depreciation and amortisation	1.37	1.37	3.00	11.31	78.58	76.05	522.66	512.83	372.39	420.73
Interest expense	4.26	6.03	0.14	2.61	127.20	99.05	290.01	279.20	150.04	166.53
Income tax expense/(income)	3.18	11.82	6.84	2.79	103.04	79.25	208.82	502.65	96.72	96.74
Profit/(loss) for the year	(5.76)	32.61	12.42	5.99	435.85	470.34	586.84	848.21	747.37	496.47
Other comprehensive income/(expense)	19.76	4.11	(0.15)	(0.26)	(3.18)	0.66	-	0.03	(0.22)	0.29
Total comprehensive income/(expense)	14.00	36.72	12.27	5.73	432.67	471.00	586.84	848.24	747.15	496.76
Dividends received		-		-		-		-		-

** Opening Net assets as on acqusition date (5 September, 2022) & Statement of profit & loss considered for post acquisition period (05 September 2022 -31 March 2023)

Details of Capital Expenditure for the year ended

₹ Crore

Particulars	Utility Powertech Ltd.		NTPC-GE Power Services Pvt. Ltd.		NTPC-SAIL Power Company Ltd.		NTPC-Tamil Nadu Energy Company Ltd.		Aravali Power Company Private Ltd.	
	31 March 2024	31 March 2023	31 March 2024	31 March 2023	31 March 2024	31 March 2023	31 March 2024	31 March 2023	31 March 2024	31 March 2023
(a) Addition to Property, Plant & Equipment, Intangible Assets, etc	28.97	0.54	-	-	38.48	48.32	107.05	179.53	68.65	49.79
(b) Changes in Capital work in progress (+/-)	3.42	11.07	-	-	257.23	(465.14)	362.25	375.71	76.47	104.87
(c) Changes in Capital advance, if shown separately (+/-)	1.95	(0.12)	-	-	(15.09)	(3.82)	(13.67)	(45.48)	4.65	(1.16)
Total	34.34	11.49	-	-	280.62	(420.64)	455.63	509.76	149.77	153.50

Summarised balance sheet

₹ Crore

	NTPC BHEL Power Projects Private Ltd.		Meja Urja Nigam Private Ltd.		Transformers and Electricals Kerala Ltd.		National High Power Test Laboratory Private Ltd.		Energy Efficiency Services Ltd.		CIL NTPC Urja Private Ltd.	
	As at 31 March 2024	As at 31 March 2023	As at 31 March 2024	As at 31 March 2023	As at 31 March 2024	As at 31 March 2023	As at 31 March 2024	As at 31 March 2023	As at 31 March 2024	As at 31 March 2023	As at 31 March 2024	As at 31 March 2023
Current assets												
Cash and cash equivalents	1.36	1.42	236.58	53.77	-	2.96	30.22	7.67	353.70	521.29	0.13	0.08
Other assets	383.78	402.77	1,210.75	1,593.18	164.68	170.60	7.58	3.41	9,032.17	4,781.31	0.03	0.10
Total current assets	385.14	404.19	1,447.33	1,646.95	164.68	173.56	37.80	11.08	9,385.87	5,302.60	0.16	0.18
Total non-current assets	192.66	198.89	10,110.00	10,713.66	52.90	33.40	169.29	225.13	1,708.85	5,106.99		-
Current liabilities												
Financial liabilities (excluding trade payables and provisions)	27.92	24.66	1,709.21	1,974.43	52.19	93.95	61.00	94.84	3,012.88	3,606.46		-
Other liabilities	347.82	677.39	114.11	277.28	134.98	74.69	3.50	9.06	1,623.53	1,434.93	0.01	0.04
Total current liabilities	375.74	702.05	1,823.32	2,251.71	187.17	168.64	64.50	103.90	4,636.41	5,041.39	0.01	0.04
Non-current liabilities												
Financial liabilities (excluding trade payables and provisions)	366.70	-	5,875.24	6,578.75		2.60	85.24	171.91	4,740.51	4,310.02	-	-
Other liabilities	58.32	84.49	16.87	0.10	18.14	19.11	0.39	0.50	87.38	135.82	-	-
Total non-current liabilities	425.02	84.49	5,892.11	6,578.85	18.14	21.71	85.63	172.41	4,827.89	4,445.84	-	-
Regulatory deferral account debit balances	-	-	94.06	52.14	-	-	-	-	-	-	-	-
Regulatory deferral account credit balances	-	-	57.07	132.50	-	-	-	-	-	-	-	-
Share application money pending allotment	-	-	-	15.56	-	-	-	-	-	-	-	-
Net assets	(222.96)	(183.46)	3,878.89	3,434.13	12.27	16.61	56.96	(40.10)	1,630.42	922.36	0.15	0.14

Reconciliation to carrying amounts

₹ Crore

	NTPC BHEL Power Projects Private Ltd.		Meja Urja Nigam Private Ltd.		Transformers and Electricals Kerala Ltd.		National High Power Test Laboratory Private Ltd.		Energy Efficiency Services Ltd.		CIL NTPC Urja Private Ltd.	
	As at 31 March 2024	As at 31 March 2023	As at 31 March 2024	As at 31 March 2023	As at 31 March 2024	As at 31 March 2023	As at 31 March 2024	As at 31 March 2023	As at 31 March 2024	As at 31 March 2023	As at 31 March 2024	As at 31 March 2023
Opening net assets	(183.46)	(198.75)	3,434.13	3,271.85	16.61	52.60	(40.10)	71.20	922.36	1,269.23	0.14	0.02
Profit/(loss) for the year	(4.16)	(5.49)	348.04	85.87	2.85	2.89	20.90	(111.30)	(393.83)	(331.74)	0.04	0.12
Other comprehensive income/(expense)	0.02	-	-	-	-	-	-	-	(5.20)	7.42	-	-
Dividends paid		-				-		-		-		-
Other adjustments*	(35.36)	20.78	96.72	76.41	(7.19)	(38.88)	76.16	-	1,107.09	(22.55)	(0.02)	-
Closing net assets	(222.96)	(183.46)	3,878.89	3,434.13	12.27	16.61	56.96	(40.10)	1,630.42	922.36	0.16	0.14
Group's share in %	50.00	50.00	50.00	50.00	44.60	44.60	21.63	20.00	39.252	33.334	50.00	50.00
Group's share in INR	-	-	1,939.45	1,717.07	5.47	7.41	12.32	-	639.97	307.46	0.08	0.07
Goodwill/(Restricted reserves)/NCI		-	(16.27)	(9.84)		-		-	(15.62)	(14.97)		-
Carrying amount	-	-	1,923.18	1,707.23	5.47	7.41	12.32	-	624.35	292.49	0.08	0.07

* Includes adjustments on account of further investment by the joint venture partners and opening net worth changes

Summarised statement of profit and loss for the year ended

₹ Crore

	NTPC BHEL Power Projects Private Ltd.		Meja Urja Nigam Private Ltd.		Transformers and Electricals Kerala Ltd.		National High Power Test Laboratory Private Ltd.		Energy Efficiency Services Ltd.		CIL NTPC Urja Private Ltd.	
	31 March 2024	31 March 2023	**31 March 2024**	31 March 2023	**31 March 2024**	31 March 2023	**31 March 2024**	31 March 2023	**31 March 2024**	31 March 2023	**31 March 2024**	31 March 2023
Revenue from operations	**19.07**	44.45	**4,241.88**	3,809.81	**130.18**	183.10	**39.55**	20.06	**1,383.97**	2,373.39	**0.06**	0.15
Other income	**0.93**	2.00	**41.43**	39.44	**1.03**	9.08	**6.56**	0.12	**472.36**	75.40	**0.01**	-
Depreciation and amortisation	**5.73**	5.79	**534.33**	525.96	**0.96**	1.00	**8.58**	8.61	**42.06**	756.06	**-**	-
Interest expense	**0.97**	0.17	**547.51**	562.01	**9.33**	8.22	**9.35**	20.96	**566.79**	462.88	**0.01**	-
Income tax expense/(income)	**2.85**	3.69	**124.74**	(75.16)	**-**		**-**	-	**(92.21)**	(58.53)	**-**	-
Profit/(loss) for the year	**(4.16)**	(5.49)	**348.04**	85.87	**2.85**	2.89	**20.90**	(111.30)	**(393.83)**	(331.74)	0.04	0.12
Other comprehensive income/(expense)	**0.02**	-	**-**	-				-	**(5.20)**	7.42		
Total comprehensive income/(expense)	**(4.14)**	(5.49)	**348.04**	85.87	**2.85**	2.89	**20.90**	(111.30)	**(399.03)**	(324.32)	**0.04**	0.12
Dividends received		-		-		-		-		-		**-**

** Opening Net assets as on acqusition date (5 September, 2022) & Statement of profit & loss considered for post acquisition period (05 September 2022 -31 March 2023)

Details of Capital Expenditure for the year ended

₹ Crore

	NTPC BHEL Power Projects Private Ltd.		Meja Urja Nigam Private Ltd.		Transformers and Electricals Kerala Ltd.		National High Power Test Laboratory Private Ltd.		Energy Efficiency Services Ltd.		CIL NTPC Urja Private Ltd.	
	31 March 2024	31 March 2023	**31 March 2024**	31 March 2023	**31 March 2024**	31 March 2023	**31 March 2024**	31 March 2023	**31 March 2024**	31 March 2023	**31 March 2024**	31 March 2023
(a) Addition to Property, Plant & Equipment, Intangible Assets, etc	**-**	**-**	**247.37**	213.89		**-**		**-**	**552.92**	615.45		**-**
(b) Changes in Capital work in progress (+/-)	**-**	**-**	**145.48**	55.38		**-**		**-**	**237.99**	154.85		**-**
(c) Changes in Capital advance, if shown separately (+/-)	**-**	**-**	**(26.16)**	(18.55)		**-**		**-**	**-**	(65.98)		**-**
Total	**-**	-	**366.69**	250.72	**-**	-	**-**	-	**790.91**	704.32	**-**	-

Summarised balance sheet

₹ Crore

	Anushakti Vidhyut Nigam Ltd.		Hindustan Urvarak and Rasayan Ltd.		KSK Dibbin Hydro Power Private Ltd.		Trincomalee Power Company Ltd.		Bangladesh-India Friendship Power Company Pvt. Ltd.		Jhabua Power Ltd.	
	As at 31 March 2024	As at 31 March 2023	**As at 31 March 2024**	As at 31 March 2023	**As at 31 March 2024**	As at 31 March 2023	**As at 31 March 2024**	As at 31 March 2023	**As at 31 March 2024**	As at 31 March 2023	**As at 31 March 2024**	As at 31 March 2023
Current assets												
Cash and cash equivalents	**0.01**	0.01	**432.47**	171.86	**0.02**	0.01	**0.31**	0.59	**366.48**	303.08	**405.12**	23.16
Other assets	**0.00**		**4,279.70**	2,879.98	**4.36**	5.05	**0.01**	0.14	**2,095.16**	1,086.26	**1,039.72**	1,509.81
Total current assets	**0.01**	0.01	**4,712.17**	3,051.84	**4.38**	5.06	**0.32**	0.73	**2,461.64**	1,389.34	**1,444.84**	1,532.97
Total non-current assets			**24,328.37**	24,708.98	**122.61**	120.17	**3.19**	1.26	**14,614.69**	14,003.81	**3,623.11**	3,729.99
Current liabilities												
Financial liabilities (excluding trade payables and provisions)	**-**	-	**3,427.67**	4,722.12	**1.56**	1.58	**-**	0.01	**1,076.32**	1,239.83	**100.00**	100.00
Other liabilities	**0.01**	-	**963.72**	789.46	**0.53**	0.55	**0.03**	0.05	**1,135.95**	410.24	**82.44**	53.72
Total current liabilities	**0.01**	-	**4,391.39**	5,511.58	**2.09**	2.13	**0.03**	0.06	**2,212.27**	1,650.07	**182.44**	153.72
Non-current liabilities												
Financial liabilities (excluding trade payables and provisions)	**-**	-	**13,374.62**	13,786.79	**16.92**	15.19	**1.77**	1.11	**11,899.29**	11,641.83	**955.06**	1,066.83
Other liabilities	**-**	-	**1,613.76**	1,167.43	**0.04**	0.04	**-**	-		-		-
Total non-current liabilities	**-**	-	**14,988.38**	14,954.22	**16.96**	15.23	**1.77**	1.11	**11,899.29**	11,641.83	**955.06**	1,066.83
Regulatory deferral account debit balances	**-**	-	**-**	-		-		-	**-**	-	**-**	-
Regulatory deferral account credit balances	**-**	-	**-**	-		-		-	**-**	-	**-**	-
Share application money pending allotment	**-**	-	**-**	-		-		-	**-**	-	**-**	-
Net assets	**0.00**	0.01	**9,660.77**	7,295.02	**107.94**	107.87	**1.71**	0.82	**2,964.77**	2,101.25	**3,930.45**	4,042.41

Reconciliation to carrying amounts

₹ Crore

	Anushakti Vidhyut Nigam Ltd.		Hindustan Urvarak and Rasayan Ltd.		KSK Dibbin Hydro Power Private Ltd.		Trincomalee Power Company Ltd.		Bangladesh-India Friendship Power Company Pvt. Ltd.		Jhabua Power Ltd.**	
	As at 31 March 2024	As at 31 March 2023	**As at 31 March 2024**	As at 31 March 2023	**As at 31 March 2024**	As at 31 March 2023	**As at 31 March 2024**	As at 31 March 2023	**As at 31 March 2024**	As at 31 March 2023	**As at 31 March 2024**	As at 31 March 2023
Opening net assets	**0.01**	0.02	**7,295.02**	5,356.34	**107.87**	107.92	**0.82**	1.09	**2,101.25**	1,305.32	**4,225.77**	4,225.77
Profit/(loss) for the year	**(0.01)**	(0.01)	**1,324.49**	(61.04)	**0.06**	(0.06)	**(0.31)**	(0.27)	**579.37**	(40.42)	**(110.58)**	17.98
Other comprehensive income/(expense)	**-**	-	**0.17**	0.10	**-**	-	**-**	-	**-**	-	**(1.36)**	(1.34)
Dividends paid		-		-				-		-		(200.00)
Other adjustments*		-	**1,041.09**	1,999.62	**0.01**	0.01	**1.20**	-	**284.15**	836.35	**(0.02)**	
Closing net assets	**0.00**	0.01	**9,660.77**	7,295.02	**107.94**	107.87	**1.71**	0.82	**2,964.77**	2,101.25	**4,113.81**	4,042.41
Group's share in %	**49.00**	49.00	29.67	29.67	30.00	30.00	**50.00**	50.00	**50.00**	50.00	**50.00**	50.00
Group's share in INR	**0.00**	0.00	**2,866.35**	2,164.43	**32.38**	32.36	**0.86**	0.41	**1,482.39**	1,050.63	**1,965.23**	2,021.21
Goodwill/(Restricted reserves)/NCI		-	**143.60**	105.46	(27.93)	(27.93)		-		-		-
Carrying amount	**-**	-	**3,009.95**	2,269.89	**4.45**	4.43	**0.86**	0.41	**1,482.39**	1,050.63	**1,965.23**	2,021.21

* Includes adjustments on account of further investment by the joint venture partners and opening net worth changes

Summarised statement of profit and loss for the year ended

₹ Crore

	Anushakti Vidhyut Nigam Ltd.		Hindustan Urvarak and Rasayan Ltd.		KSK Dibbin Hydro Power Private Ltd.		Trincomalee Power Company Ltd.		Bangladesh-India Friendship Power Company Pvt. Ltd.		Jhabua Power Ltd.**	
	31 March 2024	31 March 2023	31 March 2024	31 March 2023	31 March 2024	31 March 2023	31 March 2024	31 March 2023	31 March 2024	31 March 2023	31 March 2024	31 March 2023
Revenue from operations		-	**14,894.75**	4,401.20	**-**	-	**-**	-	**3,289.08**	708.12	**1,907.92**	886.36
Other income	0.00	-	**92.68**	48.00	**0.32**	0.25	**0.05**	0.07	**24.70**	1.88	**69.14**	19.24
Depreciation and amortisation		0.01	**877.13**	279.98	**0.15**	0.21	**-**	-	**494.21**	160.01	**175.81**	102.81
Interest expense		-	**1,451.13**	392.63	**-**	-	**-**	-	**573.49**	124.70	**94.78**	58.06
Income tax expense/(income)	0.00	-	**473.08**	(31.82)	**0.08**	0.06	**-**	-	**10.99**	-	**(29.52)**	-
Profit/(loss) for the year	(0.01)	(0.01)	**1,324.49**	(61.04)	**0.06**	(0.06)	**(0.31)**	(0.27)	**579.37**	(40.42)	**(110.58)**	17.98
Other comprehensive income/(expense)	-	-	**0.17**	0.10	**-**	-	**-**	-	**-**	-	**(1.36)**	(1.34)
Total comprehensive income/(expense)	**(0.01)**	(0.01)	**1,324.66**	(60.94)	**0.06**	(0.06)	**(0.31)**	(0.27)	**579.37**	(40.42)	**(111.94)**	16.64
Dividends received		-		-		-		-		-		-

** Opening Net assets as on acquisition date (5 September, 2022) & Statement of profit & loss considered for post acquisition period (05 September 2022 -31 March 2023)

Details of Capital Expenditure for the year ended

₹ Crore

	Anushakti Vidhyut Nigam Ltd.		Hindustan Urvarak and Rasayan Ltd.		KSK Dibbin Hydro Power Private Ltd.		Trincomalee Power Company Ltd.		Bangladesh-India Friendship Power Company Pvt. Ltd.		Jhabua Power Ltd.	
	31 March 2024	31 March 2023	31 March 2024	31 March 2023	31 March 2024	31 March 2023	31 March 2024	31 March 2023	31 March 2024	31 March 2023	31 March 2024	31 March 2023
(a) Addition to Property, Plant & Equipment, Intangible Assets, etc		-	**15,434.64**	7,634.06	**5.48**	0.39	**0.01**	-	**5,984.86**	8,780.48	**30.94**	5.59
(b) Changes in Capital work in progress (+/-)		-	**381.95**	(2,912.63)	**2.44**	2.96	**(1.86)**	-	**(5,059.74)**	(6,513.60)	**9.48**	4.91
(c) Changes in Capital advance, if shown separately (+/-)		-	**(20.07)**	(30.23)		-		-	**(41.10)**	(195.15)		-
Total		-	**15,796.52**	4,691.20	**7.92**	3.35	**(1.85)**	-	**884.02**	2,071.73	**40.42**	10.50

(iv) Commitments and contingent liabilities in respect of joint venture companies

The Group has commitments of **₹ 1,503.71 crore** (31 March 2023: ₹ 1,143.96 crore) towards further investment in the joint venture companies as at 31 March 2024.

The Group has commitments of bank guarantee of 0.50 % of total contract price to be undertaken by NTPC-BHEL Power Projects Private Ltd. limited to a cumulative amount of **₹ 75.00 crore** (31 March 2023: ₹ 75.00 crore).

The Group has agreed to provide sponsor undertaking to lenders for additional term loan upto **₹ 1,908.38 crore** (31 March 2023: ₹ 1,908.38) for implementation of various projects of Hindustan Urvarak and Rasayan Limited, a Joint Venture Company.

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Contingent liabilities		
Share of contingent liabilities incurred jointly with other investors of the joint venture companies	**1,952.97**	1,781.82
Possible reimbursements	**1,047.01**	223.34
Capital commitments	**1,233.33**	2,199.37

(v) Details of significant restrictions

In respect of investments in joint venture companies, the Group has restrictions for their disposal as under:

₹ Crore

Name of the joint venture company	Period of restrictions for disposal of investments as per related agreements	Amount invested as at	
		31 March 2024	31 March 2023
Transformers and Electricals Kerala Ltd.	3 years from the date of acquisition(i.e.19.06.2009) or upgradation capacity enhancement scheme whichever is later. Also refer Note 6 (f).	**31.34**	31.34
NTPC BHEL Power Projects Private Ltd.	3 years from the date of completion of first EPC contract of single order value of not less than ₹ 500 crore or till further such time as mutually agreed. Also refer Note 6 (e).	**50.00**	50.00
National High Power Test Laboratory Private Ltd.	5 years from the date of incorporation (i.e. 22.05. 2009) or completion of project whichever is later. Also refer Note 6 (d).	**48.80**	30.40
CIL NTPC Urja Private Ltd.	5 years from the date of incorporation (i.e. 27.04. 2010) or commercial operation whichever is later.	**0.08**	0.08
Trincomalee Power Company Ltd.	12 years from the initial operation date.	**15.64**	15.64
Bangladesh-India Friendship Power Company Private Ltd.	15 years from the date of commercial operation date.	**1,324.02**	1,162.02
Hindustan Urvarak & Rasayan Ltd.	(a) 5 years from the date of incorporation (15.06.2016) or 2 years from commercial operation date of any one of the proposed projects at Sindri, Gorakhpur and Barauni or date of allotment of shares for first time, whichever is later.	**2,642.99**	2,295.95

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₹ Crore

Name of the joint venture company	Period of restrictions for disposal of investments as per related agreements	Amount invested as at 31 March 2024	Amount invested as at 31 March 2023
	(b) As per Sponsors Support undertaking, NTPC shall jointly and severally with the other sponsors provide additional funds to meet all cost overrun incurred/to be incurred in relation to the Project. Further, NTPC shall jointly with the other sponsors, retain 51% of total equity share capital of the JV and management control until the final settlement date of the loan facility (door to door tenure of 15 years). (Also refer Note 6(g))		
Jhabua Power Limited	3 years from the date of transfer (05.09.2022)	**325.00**	325.00
Total		**4,437.87**	3,910.43

72. Disclosure as per Ind AS 114, 'Regulatory Deferral Accounts'

(i) Nature of rate regulated activities

The Group is mainly engaged in generation and sale of electricity. The price to be charged by the Group for electricity sold to its beneficiaries is determined by the CERC which provides extensive guidance on the principles and methodologies for determination of the tariff for the purpose of sale of electricity. The tariff is based on allowable costs like interest, depreciation, operation & maintenance expenses, etc. with a stipulated return.

This form of rate regulation is known as cost-of-service regulations which provide the Group to recover its costs of providing the goods or services plus a fair return.

(ii) Recognition and measurement

(a) As per the CERC Tariff Regulations, any gain or loss on account of exchange risk variation during the construction period shall form part of the capital cost till the declaration of Commercial Operation Date (COD) to be considered for calculation of tariff. The CERC during the past period in tariff orders for various stations has allowed exchange differences incurred during the construction period in the capital cost. Accordingly, exchange differences arising during the construction period is within the scope of Ind AS 114.

Further, any loss or gain on account of exchange differences towards interest payment and loan repayment in respect of the foreign currency loans taken for construction of projects shall be recoverable from/payable to beneficiaries on actual payment basis, as per the said Regulations. Accordingly, such exchange differences are also within the scope of Ind AS 114.

Any loss or gain on account of foreign currency exchange differences towards interest payment and loan repayment corresponding to the foreign currency loans taken for construction of the Stations shall be recoverable from/payable to beneficiaries on actual payment basis, as per the said regulation'

In view of the above, exchange differences arising from settlement/translation of monetary item denominated in foreign currency to the extent recoverable from or payable to the beneficiaries in subsequent periods as per CERC Tariff Regulations are recognized on an undiscounted basis as 'Regulatory deferral account debit/credit balance' by credit/debit to 'Net Movements in Regulatory deferral account balances' and adjusted from the year in which the same becomes recoverable from or payable to the beneficiaries. Accordingly, an amount of (-) **₹ 1,239.83 crore** for the year ended as at 31 March 2023 has been accounted for as 'Regulatory deferral account debit balance' (31 March 2023: ₹ 1,021.81 crore accounted as 'Regulatory deferral account debit balance'). Further, an amount of **₹ 51.20 crore** (31 March 2023: ₹ 52.01 crore) has been realized/recognized during the year.

(b) Revision of pay scales of employees of PSEs w.e.f. 1 January 2017 has been implemented based on the guidelines issued by Department of Public Enterprises (DPE). The guidelines provide payment of superannuation benefits @ 30% of basic + DA to be provided to the employees of CPSEs which includes gratuity at the enhanced ceiling of ₹ 0.20 crore from the existing ceiling of ₹ 0.10 crore. As per Proviso 8(3) of Terms and Conditions of Tariff Regulations 2014 applicable for the period 2014-19, truing up exercise in respect of Change in Law or compliance of existing law will be taken up by CERC. The increase in gratuity limit from ₹ 0.10 crore to ₹ 0.20 crore falls under the category of 'Change in law' and a regulatory asset has been created. The Payment of Gratuity Act, 1972 has since been amended and the ceiling has been increased to ₹ 0.20 crore.

Considering the methodology followed by the CERC for allowing impact of the previous pay revision, various tariff orders issued by the CERC under Regulations, 2014 and the above-mentioned provision related to the change in law of CERC Tariff Regulations, 2014, a regulatory asset has been created upto 31 March 2019 (Regulatory deferral account debit balance) towards the increase in O&M expenditure due to the pay revision. This was taken up with CERC through truing up tariff petition. CERC has been allowing the same progressively and during the year, the expenditure has been allowed in respect of few stations and accordingly an amount of **₹ 108.71 crore** (31 March 2023: ₹ 94.56 crore) has been adjusted and an amount of **₹ 6.56 crore** (31 March 2023: ₹ 48.43 crore) has been reversed. Balance orders are expected in the coming years.

(c) CERC Regulations provide that deferred tax liability upto 31 March 2009 shall be recovered from the beneficiaries as and when the same gets materialized. Further, for the period commencing from 1 April 2014, CERC Tariff Regulations provide for grossing up of the return on equity based on effective tax rate for the financial year based on the actual tax paid during the year on the generation income. The Company has recognised a regulatory deferral account debit balance for such deferred tax liabilities (net) in the financial statements. Regulatory deferral account debit balance for deferred tax liability for the period commencing from 1 April 2014 will be reversed in future years when the related deferred tax liability forms part of current tax. Accordingly, an amount of **₹ 2,457.53 crore** (31 March 2023: ₹ 1,796.22 crore) for the year ended 31 March 2024 has been accounted for as 'Regulatory deferral account debit balance'.

(d) The petition filed by the Company before CERC for reimbursement of the expenditure on transportation of ash, was favourably considered by CERC vide order dated 5 November 2018 and it was allowed to reimburse the actual additional expenditure incurred towards transportation of ash in terms of MOEF notification under change in law, as additional O&M expenses, w.e.f. 25 January 2016 subject to prudence check. Keeping in view the above, regulatory asset was created towards ash transportation expenses in respect of stations where there was shortfall in revenue from sale of ash over and above ash transportation expenses till 2021-22. CERC vide order dated 28 October 2022 has allowed provisional monthly billing of Ash transportation expenditure from 1 April 2022 onwards and reimbursement of expenditure already incurred from 1 April 2019 till 31 March 2022. An amount of **₹ 4.75 crore** (31 March 2023: ₹ 90.18 crore) has been adjusted/realised based on orders received from CERC during the year relating to period prior to 1 April 2019. Balance amount of **₹ 107.18 crore** (31 March 2023: ₹ 97.55 crore) shall be reversed / adjusted upon receipt of tariff orders / true-up orders from CERC.

(e) CERC while determining the annual fixed cost of the Tuirial Hydro Electric Project (TrHEP) of NEEPCO, a subsidiary of the Company, for the period of 30.10.2017 to 31.03.2019 by CERC, allowed depreciation @ 2% for the said purposes in line with the decision of the Public Investment Board (PIB) of the Govt. of India. The rates and methodology as per the CERC tariff regulations based on which depreciation for TrHEP has been calculated and charged to the Statement of Profit & Loss vary from that allowed to recover through tariff as per the CERC order. Due to higher rate of depreciation as per the CERC regulations, depreciation charged for the first 12 (twelve) years of operation TrHEP will be more than that of the depreciation recoverable through tariff, which will be reversed in future periods during remaining period of normative life of the generating station. Accordingly, the lower depreciation realized during the earlier period of its operation will be recovered/adjusted during later period. In view of above, an amount of **₹ 41.74 crore** (31 March 2023: ₹ 41.14 crore) being the difference of depreciation to the extent recoverable/adjustable in future period has been recognized as Regulatory deferral account debit balances.

(f) CERC Regulations provide that the capital expenditure in respect of existing generating station incurred /projected to be incurred, inter-alia, towards liabilities to meet award of arbitration (i) within the original scope of work after the COD upto the cut off date (Regulations 24); (ii) within the original scope of work and after the cut off date (Regulations 25); and (iii) beyond the original scope of work (Regulation 26), will be admitted by CERC subject to

prudence check. Keeping in view the above, regulatory deferral account debit balance has been accounted corresponding to the amount debited to Statement of profit & loss in respect of arbitration cases amounting to **₹ 111.80 crore** for the year ended 31 March 2024 (31 March 2023: ₹ Nil).

(iii) Risks associated with future recovery/reversal of regulatory deferral account balances:

(a) demand risk due to changes in consumer attitudes, the availability of alternative sources of supply.

(b) regulatory risk on account of changes in regulations and submission or approval of a rate-setting application or the entity's assessment of the expected future regulatory actions.

(c) other risks including currency or other market risks, if any.

(iv) Reconciliation of the carrying amounts:

The regulated assets/liability recognized in the books to be recovered from or payable to beneficiaries in future periods are as follows:

a) Regulatory deferral account debit and credit balances - Note 23 and Note 41

The regulatory assets recognized in the books to be recovered from the beneficiaries in future periods are as follows:

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
A. Opening balance	**12,548.66**	13,199.17
B. Additions during the year	**1,379.06**	(269.07)
C. Amount realized/recognized during the year	**(164.67)**	(236.73)
D. Regulatory deferral account balances recognized in the statement of profit and loss (B+C)	**1,214.39**	(505.80)
E. Adjustments during the year	**(206.85)**	(144.71)
F. Closing balance (A+D+E)	**13,556.20**	12,548.66

b) Net movements in regulatory deferral account balances [I]

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
Exchange differences	**(1,239.83)**	1,021.81
Deferred tax	**2,457.53**	1,796.22
Ash transportation cost	**14.38**	(3,079.81)
Pay Revision	**(6.56)**	(48.43)
Arbitration cases	**111.80**	-
Others	**41.74**	41.14
Sub total (i)	**1,379.06**	(269.07)
Amount realized/ recognized during the year (ii)	**(164.67)**	(236.73)
Net movement in regulatory deferral account balances (i)+(ii)	**1,214.39**	(505.80)
c) Tax on net movements in regulatory deferral account balances [II]	**214.19**	(92.68)
d) Total amount recognized in the statement of profit and loss during the year [I-II]	**1,000.20**	(413.12)

The Company expects to recover the carrying amount of regulatory deferral account debit balance over the life of the projects.

73. Disclosure as per Ind AS 115, 'Revenue from contracts with customers'

I. Nature of goods and services

The revenue of the Group comprises of income from energy sales, sale of energy through trading, consultancy and other services. The following is a description of the principal activities:

(A) Revenue from energy sales

The major revenue of the Group comes from energy sales. The Group sells electricity to bulk customers, mainly electricity utilities owned by State Governments as well as private Discoms operating in States. Sale of electricity is generally made pursuant to long-term Power Purchase Agreements (PPAs) entered into with the beneficiaries.

Below are the details of nature, timing of satisfaction of performance obligations and significant payment terms under contracts for energy sales:

Product/ Service	Nature, timing of satisfaction of performance obligations and significant payment terms
Energy sales	The Group recognises revenue from contracts for energy sales over time as the customers simultaneously receive and consume the benefits provided by the Group. The tariff for computing revenue from energy sales is determined in terms of CERC Regulations as notified from time to time. The amount of revenue recognised for energy sales is adjusted for variable consideration, wherever applicable, which are estimated based on the historical data available with the Group. The amounts are billed on a monthly basis and are payable within contractually agreed credit period. In case of power station which are not governed by CERC tariff regulations, revenue is recognized based on agreement entered with beneficiaries.

(B) Revenue from energy trading, consultancy and other services

(i) Sale of Energy through trading

(a) The Group is purchasing power from the developers and selling it to the Discoms on principal to principal basis.

Below are the details of nature, timing of satisfaction of performance obligations and significant payment terms under contracts for sale of energy through trading:

Product/ Service	Nature, timing of satisfaction of performance obligations and significant payment terms
Energy trading (principal to principal basis)	The Group recognises revenue from contracts for sale of energy through trading over time as the customers simultaneously receive and consume the benefits provided by the Group. The tariff for computing revenue from sale of energy through trading is determined as per the terms of the agreements. The amount of revenue recognised is adjusted for variable consideration, wherever applicable, which are estimated based on the historical data available with the Group. The amounts are billed on a monthly basis and are payable within contractually agreed credit period.

(b) For some of its revenue arrangements, the Group has determined that it is acting as an agent and has recognized revenue on such contracts net of power purchase cost based on the following factors:

a. Another party is primarily responsible for fulfilling the contract as the Group does not have the ability to direct the use of energy supplied or obtain benefits from supply of power.

b. The Group does not have inventory risk before or after the power has been delivered to customers as the power is directly supplied to customer.

c. The Group has no discretion in establishing the price for supply of power. The Group's consideration in these contracts is only based on the difference between sales price charged to procurer and purchase price given to supplier.



Below are the details of nature, timing of satisfaction of performance obligations and significant payment terms under contracts for sale of energy through trading on agency nature:

Product/ Service	Nature, timing of satisfaction of performance obligations and significant payment terms
Energy trading (agency nature)	The Group recognises revenue from such arrangements over time on net basis when the units of electricity are delivered to power procurers as the procurers simultaneously receive and consume the benefits from the Group's agency services. The amount of revenue recognised is adjusted for variable consideration, wherever applicable, which are estimated based on the historical data available with the Group. The amounts are billed as per the terms of the contracts.

(c) The Group carries out energy trading operations on commission basis. NVVN, a subsidiary of the Parent Company is a "Trader Member" of India Energy Exchange Ltd. (IEX) & Power Exchange India Ltd (PXIL) and undertakes trading of Power and REC on Power Exchange Platform of IEX and PXIL.

Below are the details of nature, timing of satisfaction of performance obligations and significant payment terms under contracts for sale of energy through trading on energy exchange:

Product/ Service	Nature, timing of satisfaction of performance obligations and significant payment terms
Energy trading on energy exchange	The Group recognises revenue from contracts for commission for trading on energy exchange over time as the customers simultaneously receive and consume the benefits provided by the Group's performance. The commission for trading of energy is determined as per the terms of the respective agreement. The amount of revenue recognised is adjusted for variable consideration, wherever applicable, which are estimated based on the historical data available with the Group. The amounts are billed as per the terms of the contracts.

(ii) Consultancy and other services

The Group undertakes consultancy and turnkey project contracts for domestic and international clients in the different phases of power plants viz. engineering, project management & supervision, construction management, operation & maintenance of power plants, research & development, management consultancy etc.

Below are the details of nature, timing of satisfaction of performance obligations and significant payment terms under contracts for consultancy and other services:

Product/ Service	Nature, timing of satisfaction of performance obligations and significant payment terms
Consultancy services	The Group recognises revenue from contracts for consultancy services over time as the customers simultaneously receive and consume the benefits provided by the Group. For the assets (e.g. deliverables, reports etc.) transferred under the contracts, the assets do not have alternative use to the Group and the Group has enforceable right to payment for performance completed to date. The revenue from consultancy services is determined as per the terms of the contracts. The amount of revenue recognised is adjusted for variable consideration, wherever applicable, which are estimated based on the historical data available with the Group. The amounts are billed as per the terms of the contracts and are payable within contractually agreed credit period.
Operation and maintenance services	The Group recognises revenue from contracts for operation and maintenance services over time as the customers simultaneously receive and consume the benefits provided by the Group. The revenue from operation and maintenance services is determined as per the terms of the contracts. The amount of revenue recognised is adjusted for variable consideration, wherever applicable, which are estimated based on the historical data available with the Group. The amounts are billed as per the terms of the contracts and are payable within contractually agreed credit period.
Deen Dayal Upadhyay Gramin Jyoti Yojna (DDUGJY Scheme)	The Group recognises revenue from work done under DDUGJY scheme over time as the assets do not have alternative use to the Group and the Group has enforceable right to payment for performance completed to date. The revenue from DDUGJY scheme is determined as per the terms of the contract. There is no component of variable consideration under the contract. The amounts are billed as per the terms of the contracts and are payable within contractually agreed credit period.
Pradhan Mantri Sahaj Bijli Har Ghar Yojna (SAUBHAGYA Scheme)	The Group recognises revenue from work done under SAUBHAGYA scheme at a point in time when the Group transfers control of goods and services under the contract to the customers. The revenue from SAUBHAGYA scheme is determined as per the terms of the contracts. There is no component of variable consideration under the contract. The amounts are billed as per the terms of the contracts and are payable within contractually agreed credit period.

II. Disaggregation of revenue

In the following table, revenue is disaggregated by type of product and services, geographical market and timing of revenue recognition:

₹ Crore

Particulars	Generation of energy		Others		Total	
	For the year ended		For the year ended		For the year ended	
	31 March 2024	31 March 2023	**31 March 2024**	31 March 2023	**31 March 2024**	31 March 2023
Geographical markets						
India	**1,67,246.59**	1,65,714.59	**8,015.42**	6,992.73	**1,75,262.01**	1,72,707.32
Outside India	**-**	-	**1,379.70**	1,276.79	**1,379.70**	1,276.79
	1,67,246.59	1,65,714.59	**9,395.12**	8,269.52	**1,76,641.71**	1,73,984.11
Timing of revenue recognition						
Products and services transferred over time	**1,67,246.59**	1,65,714.59	**9,395.12**	8,269.52	**1,76,641.71**	1,73,984.11
	1,67,246.59	1,65,714.59	**9,395.12**	8,269.52	**1,76,641.71**	1,73,984.11

III. Reconciliation of revenue recognised with contract price:

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
Contract price	**1,77,490.50**	1,74,875.03
Adjustments for:		
Rebates	**(848.79)**	(890.92)
Revenue recognised	**1,76,641.71**	1,73,984.11

IV. Contract balances

Contract assets are recognised when there is excess of revenue earned over billings on contracts. Contract assets are transferred to trade receivables revenue when there is unconditional right to receive cash, and only passage of time is required, as per contractual terms. The contract liabilities primarily relate to the advance consideration received from the customers which are referred as 'advances from customers / payable to beneficiaries'.



The following table provides information about trade receivables including unbilled revenue, contract assets and advances from customers/payable to beneficiaries:

₹ Crore

Particulars	As at 31 March 2024		As at 31 March 2023	
	Current	Non-current	Current	Non-current
Trade receivables including unbilled revenue	**33,349.68**	**1,287.54**	30,112.41	2,638.68
Contract assets	**10,992.65**	**-**	7,306.43	-
Advances from customers/payable to beneficiaries	**1,763.30**	**-**	1,914.28	-

The amount of revenue recognised from performance obligations satisfied (or partially satisfied) in previous periods, mainly due to change in transaction prices is **₹ 2,281.34 crore** (31 March 2023 : ₹ 5,092.94 crore).

V. Transaction price allocated to the remaining performance obligations

Performance obligations related to sale of energy:

Revenue from sale of energy is accounted for based on tariff rates approved by the CERC (except items indicated as provisional) as modified by the orders of Appellate Tribunal for Electricity to the extent applicable. In case of power stations, where the tariff rates are yet to be approved/items indicated provisional by the CERC in their orders, provisional rates are adopted considering the applicable CERC Tariff Regulations. Revenue from sale of energy is recognized once the electricity has been delivered to the beneficiary and is measured through a regular review of usage meters. Beneficiaries are billed on a periodic and regular basis. Therefore, transaction price to be allocated to remaining performance obligations cannot be determined reliably for the entire duration of the contract.

Performance obligations related to other contracts:

For rest of the contracts, transaction price for remaining performance obligations amounts to **₹ 484.21 crore** (31 March 2023: ₹ 1,082.32 crore) which shall be received over the contract period in proportion of the work performed/services provided by the Group.

VI. Practical expedients applied as per Ind AS 115:

a. The Group has not disclosed information about remaining performance obligations that have original expected duration of one year or less and where the revenue recognised corresponds directly with the value to the customer of the entity's performance completed to date.

b. The Group does not expect to have any contracts where the period between the transfer of the promised goods or services to the customer and payment by the customer exceeds one year. As a consequence, the Group has not adjusted any of the transaction prices for the time value of money. The impact of subsequent modifications are duly recognized in the Statement of profit and loss.

VII. The Group has not incurred any incremental costs of obtaining contracts with a customer and therefore, not recognised an asset for such costs.

74. Disclosure as per Ind AS 116 'Leases'

(A) Group as Lessee

(i) The Group's significant leasing arrangements are in respect of the following assets:

(a) Premises for residential use of employees, offices and guest houses/ transit camps on lease which are not non-cancellable and are usually renewable on mutually agreeable terms. The company generally incurs amount on improvements which are significant to the respective lease and hence the cancellable period of the lease during which the company intends to continue considering the past experience / practice, is considered for the purpose of determining the lease period.

(b) The Group has taken electrical vehicles on operating lease for a period of five to six years, which can be further extended at mutually agreed terms. Lease rentals are subject to escalation of 10% per annum.

(c) A helicopter on wet lease basis.

(d) The Group has taken certain vehicles (other than electrical) on lease for a period of more than one year to four years, which can be further extended at mutually agreed terms. There are no escalations in the lease rentals as per terms of the agreement. However, the Group has purchase option for some of such vehicles at the end of the lease term.

(e) The Group had entered into an agreement for movement of coal through inland waterways for one of its stations. As per the agreement, the operator was to design, finance, build, operate and maintain the unloading and material handling infrastructure for 7 years after which it was to be transferred to the Company at ₹ 1/-. Refer Note no. 64(iii)(b).

(f) The Group acquires land on leasehold basis for a period generally ranging from 5 years to 99 years from the government authorities which can be renewed further based on mutually agreed terms and conditions. The leases are non cancellable. These leases are capitalised at the present value of the total minimum lease payments to be paid over the lease term. Future lease rentals are recognised as 'Lease liabilities' at their present values. The Right-of-use land is amortised considering the material accounting policies of the Group.

(ii) The following are the carrying amounts of lease liabilities recognised and the movements during the year:

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
Opening Balance	**1,820.79**	1,151.30
- Additions in lease liabilities	**267.95**	784.66
- Interest cost during the year	**132.83**	114.93
- Payment of lease liabilities	**(130.89)**	(230.10)
Closing Balance	**2,090.68**	1,820.79
Current	**252.85**	216.75
Non Current	**1,837.83**	1,604.04

(iii) Maturity Analysis of the lease liabilities:

₹ Crore

Contractual undiscounted cash flows	As at 31 March 2024	As at 31 March 2023
3 months or less	**171.72**	150.51
3-12 Months	**110.56**	75.45
1-2 Years	**131.81**	98.68
2-5 Years	**401.75**	236.26
More than 5 Years	**4,943.17**	2,590.16
Total Lease liabilities	**5,759.01**	3,151.06

(iv) The following are the amounts recognised in profit or loss:

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
Depreciation and amortisation expense for right-of-use assets	**364.03**	331.69
Interest expense on lease liabilities	**132.83**	114.93
Expense relating to short-term leases	**49.17**	49.40



(v) The following are the amounts disclosed in the cash flow statement:

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
Cash Outflow from leases	**180.06**	279.50

(B) Leases as lessor

a) Finance leases

The Company had classified the arrangement with its customer for Stage I of a power station in the nature of lease based on the principles enunciated in Appendix C of Ind AS 17 - 'Leases' and accounted for as finance lease in accordance with those principles. This arrangement continues to be classified as finance lease after transition to Ind AS 116 - 'Leases'.

The power purchase agreement with the beneficiary is for a period of twenty five years from the date of transfer and the agreement may be mutually extended, renewed or replaced by another agreement on such terms and for such further period of time as the parties may mutually agree.

The following are the amounts recognised in profit or loss:

₹ Crore

Particulars		For the year ended 31 March 2024	For the year ended 31 March 2023
i)	Finance income on the net investment in the lease	**23.81**	32.53
ii)	Income relating to variable lease payments not included in the measurement of the net investment in the lease	**1,060.01**	1,159.32

Undiscounted lease payments to be received on an annual basis for a minimum of each of the first five years and for the remaining years:

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Less than one year	**218.38**	108.54
Between one and two years	**-**	215.90
Between two and three years	**-**	-
Total minimum lease payments	**218.38**	324.44
Less amounts representing unearned finance income	**7.37**	39.25
Present value of minimum lease payments	**211.01**	285.19

b) Operating leases

The Company had classified the arrangement with its customer for one gas power station as lease based on the principles enunciated in Appendix C of Ind AS 17 and accounted for as operating lease in accordance with those principles. These arrangements continue to be classified as operating lease after transition to Ind AS 116 'Leases'.

(i) Gas Power Station

PPA signed with the beneficiary on 6 January 1995 was operative for five years from the date of commercial operation of last unit of the station and may be mutually extended, renewed or replaced by another agreement on such terms and on such further period of time as the parties may mutually agree. As per the supplementary agreement dated 15 February 2013 the validity period is extended for a further period of 12 years from 1 March 2013.

The following are the amounts recognised in profit or loss:

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
Lease Income	**19.58**	19.58
Income relating to variable lease payments that do not depend on an index or a rate	**84.12**	84.80

Undiscounted lease payments to be received on an annual basis for a minimum of each of the first five years and for the remaining years:

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Less than one year	**3.91**	19.58
Between one and two years	**-**	3.91
Between two and three years	**-**	-
Total	**3.91**	**23.49**

(2) Land given on operating lease

The Group has entered into two leases agreements with one of the vendor for right to use of freehold land of 24.50 acre and 67.73 acre for the period of two years w.e.f. from 25 January 2021 and 21 August 2021 respectively. The Group continues to classify the same as operating lease.

The following are the amounts recognised in profit or loss:

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
Lease Income	**2.36**	2.20
Income relating to variable lease payments that do not depend on an index or a rate	**-**	-

Undiscounted lease payments to be received on an annual basis for a minimum of each of the first five years and for the remaining years:

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Less than one year	**2.26**	1.28
Between one and two years	**0.68**	0.52
Total	**2.94**	1.80

(3) Buses given on operating lease

The Group has entered into an agreement with Directorate of Transport (DoT), Andaman and Nicobar administration & Bangalore Metropolitan Transport Corporation (BMTC) to supply (operate and maintain in case of BMTC) the fully built AC electric buses for a period of 10 years on fixed hire charges per Km per bus. In addition, the Group has also install, commissioned and shall maintain necessary charging infrastructure at its depots and identified routes, wherever necessary. The Group has classified these arrangement with customers as operating lease as per Ind AS 116 because it does not transfer substantially all the risk and rewards incidental to the ownership of the assets.



The following are the amounts recognised in profit or loss:

₹ Crore

Particulars	For the year ended 31 March 2024	For the year ended 31 March 2023
Lease Income	**43.35**	36.48

Undiscounted lease payments to be received on an annual basis for a minimum of each of the first five years and for the remaining years:

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Less than one year	**43.01**	42.49
Between one and two years	**43.31**	42.71
Between two and three years	**43.61**	43.01
Between three and four years	**43.91**	43.31
Between four and five years	**44.22**	43.61
More than five years	**140.02**	182.90
Total	**358.08**	398.03

75. Disclosure as per Schedule III to the Companies Act,2013

₹ Crore

Name of the entity in the Group	Net Assets, i.e., total assets minus total liabilities as at		Share in profit or loss for the year ended		Share in other comprehensive income for the year ended		Share in total comprehensive income for the year ended	
	As % age of consolidated net assets	Amount	As % age of consolidated profit or loss	Amount	As % age of consolidated other comprehensive income	Amount	As % age of total comprehensive income	Amount
Parent								
NTPC Limited								
31 March 2024	**90.77%**	**1,49,885.02**	**84.75%**	**18,079.39**	**-62.01%**	**15.26**	**84.92%**	**18,094.65**
31 March 2023	92.01%	1,38,889.88	100.44%	17,196.73	37.29%	(75.70)	101.20%	17,121.03
Subsidiaries (Indian)								
Bhartiya Rail Bijlee Company Ltd.								
31 March 2024	**1.83%**	**3,022.83**	**2.42%**	**517.01**	**0.00%**	**-**	**2.43%**	**517.01**
31 March 2023	1.91%	2,877.99	1.45%	248.14	-0.02%	0.05	1.47%	248.19
NTPC Vidyut Vyapar Nigam Ltd.								
31 March 2024	**0.52%**	**854.40**	**0.75%**	**160.94**	**0.00%**	**-**	**0.76%**	**160.94**
31 March 2023	0.48%	718.96	1.03%	175.89	0.00%	-	1.04%	175.89
NTPC Electric Supply Company Ltd.								
31 March 2024	**0.01%**	**20.31**	**0.00%**	**0.04**	**0.00%**	**-**	**0.00%**	**0.04**
31 March 2023	0.01%	20.27	0.00%	0.25	0.00%	-	0.00%	0.25
Patratu Vidyut Utpadan Nigam Ltd.								
31 March 2024	**1.77%**	**2,922.48**	**0.00%**	**(0.01)**	**0.00%**	**-**	**0.00%**	**(0.01)**
31 March 2023	1.46%	2,210.43	0.00%	(0.51)	0.00%	-	0.00%	(0.51)
NTPC Mining Ltd.								
31 March 2024	**0.09%**	**150.67**	**-0.02%**	**(3.42)**	**0.00%**	**-**	**-0.02%**	**(3.42)**
31 March 2023	0.00%	0.04	0.00%	(0.01)	0.00%	-	0.00%	(0.01)
THDC India Ltd.								
31 March 2024	**6.39%**	**10,543.98**	**2.80%**	**596.97**	**39.58%**	**(9.74)**	**2.76%**	**587.23**
31 March 2023	6.91%	10,427.64	3.93%	672.84	1.24%	(2.52)	3.96%	670.32
North Eastern Electric Power Corporation Ltd.								
31 March 2024	**4.16%**	**6,871.40**	**2.57%**	**548.14**	**65.30%**	**(16.07)**	**2.50%**	**532.07**
31 March 2023	4.37%	6,589.33	2.32%	396.91	2.61%	(5.30)	2.31%	391.61
NTPC EDMC Waste Solutions Private Ltd.								
31 March 2024	**0.00%**	**(3.34)**	**0.00%**	**(0.02)**	**0.00%**	**-**	**0.00%**	**(0.02)**
31 March 2023	0.00%	(3.32)	0.00%	(0.56)	0.00%	-	0.00%	(0.56)
NTPC Renewable Energy Ltd.								
31 March 2024	**0.00%**	**-**	**0.00%**	**-**	**0.00%**	**-**	**0.00%**	**-**
31 March 2023	0.00%	-	0.00%	-	0.00%	-	0.00%	-
Ratnagiri Gas & Power Private Ltd.								
31 March 2024	**1.01%**	**1,664.70**	**8.13%**	**1,734.23**	**0.00%**	**-**	**8.14%**	**1,734.23**
31 March 2023	-0.05%	(69.53)	-1.17%	(199.94)	0.00%	-	-1.18%	(199.94)
NTPC Green Energy Ltd. (w.e.f. 07 April 2022)								
31 March 2024	**3.77%**	**6,232.13**	**1.61%**	**342.86**	**0.00%**	**-**	**1.61%**	**342.86**
31 March 2023	3.24%	4,889.58	1.01%	173.37	0.00%	-	1.02%	173.37
Non-controlling interests in all subsidiaries								
31 March 2024	**2.67%**	**4,413.01**	**2.44%**	**520.56**	**10.08%**	**(2.48)**	**2.43%**	**518.08**
31 March 2023	2.60%	3,930.45	1.22%	208.80	0.32%	(0.64)	1.23%	208.16
Joint ventures (Investment as per equity method)								
Indian								
Utility Powertech Ltd.								
31 March 2024	**0.07%**	**110.03**	**-0.01%**	**(2.88)**	**-40.15%**	**9.88**	**0.03%**	**7.00**
31 March 2023	0.07%	103.03	0.10%	16.30	-1.01%	2.06	0.11%	18.36
NTPC-GE Power Services Private Ltd.								
31 March 2024	**0.01%**	**15.27**	**0.03%**	**6.34**	**0.33%**	**(0.08)**	**0.03%**	**6.26**
31 March 2023	0.01%	9.31	0.01%	2.02	0.06%	(0.13)	0.01%	1.89
NTPC-SAIL Power Company Ltd.								
31 March 2024	**0.96%**	**1,580.44**	**1.02%**	**217.92**	**6.46%**	**(1.59)**	**1.02%**	**216.33**
31 March 2023	0.95%	1,439.11	1.37%	235.17	-0.16%	0.33	1.39%	235.50

₹ Crore

Name of the entity in the Group	Net Assets, i.e., total assets minus total liabilities as at		Share in profit or loss for the year ended		Share in other comprehensive income for the year ended		Share in total comprehensive income for the year ended	
	As % age of consolidated net assets	Amount	As % age of consolidated profit or loss	Amount	As % age of consolidated other comprehensive income	Amount	As % age of total comprehensive income	Amount
NTPC-Tamil Nadu Energy Company Ltd.								
31 March 2024	**1.18%**	**1,947.14**	**1.38%**	**293.41**	**-0.04%**	**0.01**	**1.38%**	**293.42**
31 March 2023	1.26%	1,898.93	2.48%	424.10	-0.01%	0.02	2.51%	424.12
Aravali Power Company Private Ltd.								
31 March 2024	**1.48%**	**2,449.75**	**1.77%**	**376.92**	**0.45%**	**(0.11)**	**1.77%**	**376.81**
31 March 2023	1.62%	2,447.94	1.47%	251.28	-0.07%	0.15	1.49%	251.43
NTPC BHEL Power Projects Private Ltd.								
31 March 2024	**0.00%**	**-**	**0.00%**	**-**	**0.00%**	**-**	**0.00%**	**-**
31 March 2023	0.00%	-	0.00%	-	0.00%	-	0.00%	-
Meja Urja Nigam Private Ltd.								
31 March 2024	**1.16%**	**1,923.18**	**0.82%**	**174.05**	**0.08%**	**(0.02)**	**0.82%**	**174.03**
31 March 2023	1.13%	1,707.23	0.25%	42.93	0.00%	-	0.25%	42.93
Transformers and Electricals Kerala Ltd.								
31 March 2024	**0.00%**	**5.47**	**-0.01%**	**(1.94)**	**0.00%**		**-0.01%**	**(1.94)**
31 March 2023	0.00%	7.41	-0.09%	(16.05)	0.00%	-	-0.09%	(16.05)
National High Power Test Laboratory Pvt. Ltd.								
31 March 2024	**0.01%**	**12.32**	**-0.03%**	**(6.08)**	**0.00%**		**-0.03%**	**(6.08)**
31 March 2023	0.00%	-	-0.08%	(14.24)	0.00%	-	-0.08%	(14.24)
Energy Efficiency Services Ltd.								
31 March 2024	**0.38%**	**624.35**	**-0.23%**	**(49.37)**	**7.19%**	**(1.77)**	**-0.24%**	**(51.14)**
31 March 2023	0.19%	292.49	-0.78%	(132.76)	-0.05%	0.10	-0.78%	(132.66)
CIL NTPC Urja Private Ltd.								
31 March 2024	**0.00%**	**0.08**	**0.00%**	**0.02**	**0.00%**	**-**	**0.00%**	**0.02**
31 March 2023	0.00%	0.07	0.00%	0.06	0.00%	-	0.00%	0.06
Anushakti Vidhyut Nigam Ltd.								
31 March 2024	**0.00%**	**-**	**0.00%**	**-**	**0.00%**	**-**	**0.00%**	**-**
31 March 2023	0.00%	-	0.00%	(0.01)	0.00%	-	0.00%	(0.01)
Hindustan Urvarak and Rasayan Ltd.								
31 March 2024	**1.82%**	**3,009.95**	**1.84%**	**392.97**	**-0.20%**	**0.05**	**1.84%**	**393.02**
31 March 2023	1.50%	2,269.89	-0.11%	(18.10)	-0.01%	0.03	-0.11%	(18.07)
Jhabua Power Ltd.								
31 March 2024	**1.19%**	**1,965.23**	**-0.26%**	(55.30)	**2.76%**	**(0.68)**	**-0.26%**	**(55.98)**
31 March 2023	1.34%	2,021.21	0.06%	9.42	0.33%	(0.67)	0.05%	8.75
KSK Dibbin Hydro Power Private Ltd.								
31 March 2024	**0.00%**	**4.45**	**0.00%**	**0.02**	**0.00%**	**-**	**0.00%**	**0.02**
31 March 2023	0.00%	4.43	0.00%	(0.02)	0.00%	-	0.00%	(0.02)

₹ Crore

Name of the entity in the Group	Net Assets, i.e., total assets minus total liabilities as at		Share in profit or loss for the year ended		Share in other comprehensive income for the year ended		Share in total comprehensive income for the year ended	
	As % age of consolidated net assets	Amount	As % age of consolidated profit or loss	Amount	As % age of consolidated other comprehensive income	Amount	As % age of total comprehensive income	Amount
Foreign								
Trincomalee Power Company Ltd.								
31 March 2024	**0.00%**	**0.86**	**0.00%**	**(0.16)**	**0.00%**	**-**	**0.00%**	**(0.16)**
31 March 2023	0.00%	0.41	0.00%	(0.13)	0.00%	-	0.00%	(0.13)
Bangladesh-India Friendship Power Company Private Ltd.								
31 March 2024	**0.90%**	**1,482.39**	**1.36%**	**289.68**	**0.00%**	**-**	**1.36%**	**289.68**
31 March 2023	0.70%	1,050.63	-0.12%	(20.20)	0.00%	-	-0.12%	(20.20)
Intra Group Eliminations								
31 March 2024	**-22.16%**	**(36,586.22)**	**-13.12%**	**(2,799.84)**	**70.17%**	(17.27)	**-13.22%**	**(2,817.11)**
31 March 2023	-21.72%	**(32,780.19)**	-14.78%	(2,530.33)	59.50%	(120.78)	-15.67%	(2,651.11)
Total								
31 March 2024	**100.00%**	**1,65,122.28**	**100.00%**	**21,332.45**	**100.00%**	**-24.61**	**100.00%**	**21,307.84**
31 March 2023	**100.00%**	**1,50,953.62**	**100.00%**	**17,121.35**	**100.00%**	**-203.00**	**100.00%**	**16,918.35**

76. Contingent liabilities and commitments

A. Contingent liabilities

a. Claims against the group not acknowledged as debts

(i) Capital works

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Claims by contractors under capital works	**18,181.37**	17,308.02

Some of the contractors for supply and installation of equipment and execution of works at our projects have lodged claims on the Group for the above amounts seeking enhancement of the contract price, revision of work schedule with price escalation, compensation for the extended period of work, idle charges etc. These claims are being contested by the Group as being not admissible in terms of the provisions of the respective contracts.

The Group is pursuing various options under the dispute resolution mechanism available in the contracts for settlement of these claims. It is not practicable to make a realistic estimate of the outflow of resources if any, for settlement of such claims pending resolution.

The Group has made counter-claims against some of these claims which are before various authorities for adjudication / settlement. It is impracticable to estimate the financial effect of the same as its receipt is dependent on the outcome of the litigation / settlement which is not wholly within the control of the Group.

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(ii) Land compensation cases

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Claims by land oustees	**620.05**	692.05

In respect of land acquired for the projects, the erstwhile land owners have claimed higher compensation before various authorities/courts which are yet to be settled. Against such cases, contingent liability of these amounts has been estimated.

(iii) Fuel suppliers

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Claims towards grade slippages	**1,817.81**	1,638.71
Other claims	**1,516.40**	2,674.92

Pending resolution of issues with the coal companies through AMRCD (Alternate Mechanism for Resolution of CPSE Disputes), claims towards grade slippage pertaining to period prior to appointment of CIMFR (Central India Mining and Fuel Research) for joint sampling pursuant to tripartite agreement, has been estimated by the Company as contingent liability. Further, other claims represent claims made by fuel companies towards surface transportation charges, custom duty on service margin on imported coal, take or pay claims of gas suppliers, etc., estimated by the Company as contingent liability.

The Group is pursuing with the fuel companies, related ministries and other options under the dispute resolution mechanism available for settlement of these claims.

(iv) Others

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Claims by government agencies	**2,437.75**	2,355.20

In respect of claims (including applicable interest) made by various State/Central Government departments/Authorities towards building permission fee, penalty on diversion of agricultural land to non-agricultural use, non agricultural land assessment tax, water royalty, other claims, etc. and by others, contingent liability of the above amounts has been estimated.

(v) Possible reimbursement in respect of (i) to (iii) above

In respect of claims included in (i) and (ii) above, payments, if any, by the Group on settlement of the claims would be eligible for inclusion in the capital cost for the purpose of determination of tariff as per CERC Tariff Regulations subject to prudence check by the CERC. In case of (iii), the estimated possible reimbursement by way of recovery through tariff as per Regulations is **₹ 4,422.77 crore** (31 March 2023: ₹ 4,253.80 crore).

b. Disputed tax matters

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Tax matters before various authorities	**1,924.73**	2,801.47

Disputed income tax/sales tax/excise and other tax matters are pending before various Appellate Authorities. Many of these matters were adjudicated in favour of the Group but are disputed before higher authorities by the concerned departments. In respect of these disputed cases, the Group estimate possible reimbursement of **₹ 431.85 crore** (31 March 2023: ₹ 142.97 crore). The amount paid under dispute/adjusted by the authorities in respect of the cases amounts to **₹ 564.41 crore** (31 March 2023: ₹ 779.21 crore).

c. Others

₹ Crore

Particulars		As at 31 March 2024	As at 31 March 2023
(i)	Coal transportation [Refer Note 64(iii)(b)]	**1,870.55**	2,431.04
(ii)	Others	**4,481.02**	3,856.81

Others include contingent liabilities disclosed on an estimated basis relating to likely claims that may arise in connection with abandoned oil exploration activities, land use agreements, service tax reimbursements,stamp duty arising out of merger, transfer of operations of subsidiary, etc.

In respect of NTPC Vidyut Vyapar Nigam Ltd., a subsidiary of the Company, electricity supplied by the sellers under SWAP arrangements of **427.90 MUs** (31 March 2023: 254.30 MUs) are yet to be returned for which the amount is not ascertainable.

Some of the beneficiaries have filed appeals against the tariff orders of the CERC. The amount of contingent liability in this regard is not ascertainable.

In respect of the disputed cases at sl.no.(ii) above, the Company estimate possible reimbursement of **₹ 1,128.85 crore** (31 March 2023: ₹ 1,090.46 crore).

d. Joint venture companies

Refer Note 71 for contingent liability relating to joint venture companies.

B. Contingent assets

(i) While determining the tariff for some of the Parent Company's power stations, CERC has disallowed certain capital expenditure incurred by the Parent Company. The Parent Company aggrieved over such issues has filed appeals with the Appellate Tribunal for Electricity (APTEL)/Hon'ble Supreme Court against the tariff orders issued by the CERC. Based on past experience, the Parent Company believes that a favourable outcome is probable. However, it is impracticable to estimate the financial effect of the same as its receipt is dependent on the outcome of the judgement.

(ii) Coal companies have disputed some of the grade slippages confirmed by CIMFR(third party sampler) in favour of the Company and have approached referee challenging the CIMFR results. The referee results are binding on both the parties. Considering the uncertainty involved in the outcome of referee results, the Company has not recognised claims arising out of favourable CIMFR results pending receipt of referee results challenged by the coal companies, considering the provisions of Ind AS 37. It is impracticable to estimate the financial effect of the same as its receipt is dependent on the outcome of the referee results which is wholly not within the control of the Company. Not withstanding the above, the outcome of the referee results shall be dealt with as per the provisions of CERC Tariff Regulations.

(iii) CERC (Terms & Conditions of Tariff) Regulations 2019-24 provide for levy of Late Payment Surcharge by generating company in case of delay in payment by beneficiaries beyond 45 days from the date of presentation of bill. However, in view of significant uncertainties in the ultimate collection from some of the beneficiaries against partial bills as resolved by the management, an amount of **₹ 661.35 crore** as at 31 March 2024 (31 March 2023: ₹ 754.90 crore) has not been recognised.

C. Commitments

a) Estimated amount of contracts remaining to be executed on capital account (property, plant & equipment and intangible assets) and not provided for is as under:

₹ Crore

Particulars	As at 31 March 2024	As at 31 March 2023
Property, plant and equipment	**82,743.21**	60,966.62
Intangible assets	**44.36**	45.91
Total	**82,787.57**	61,012.53



b) In respect the following investments, the Group has restrictions for their disposal as at 31 March 2024 as under:

₹ Crore

Name of the Company	Period of restrictions for disposal of investments as per related agreements	Amount invested as at	
		31 March 2024	31 March 2023
International Coal Ventures Private Ltd.	5 years from the date of incorporation (i.e. 20.05. 2009) or till such time an undertaking for non-disposal of such share is given to FI/Banks for their assistance to the Company whichever is later. Also refer Note	**1.40**	1.40
Total		**1.40**	1.40

c) Group's commitment towards the minimum work programme in respect of oil exploration activities of joint operations has been disclosed in Note 66.

e) Refer Note 71 for commitments relating to joint venture companies.

77. Additional Regulatory Information

i) The Group does not hold any Investment Property in its books of accounts, so fair valuation of investment property is not applicable.

ii) During the year the Group has not revalued any of its Property,plant and equipment.

iii) During the year, the Group has not revalued any of its Intangible assets.

iv) The Group has not granted any loans or advances to promoters, directors, KMP's and the related parties that are repayable on demand or without specifying any terms or period of repayment.

v) **(a) Capital-Work-in Progress (CWIP) - Ageing Schedule as at 31 March 2024**

₹ Crore

Capital-Work-in Progress (CWIP)	Amount in CWIP for a period of				Total
	Less than 1 year	1-2 years	2-3 years	More than 3 years	
Projects in progress	**28,100.77**	**19,085.39**	**15,134.95**	**25,150.19**	**87,471.30**
Projects temporarily suspended	**0.63**	**24.68**	**0.02**	**96.17**	**121.50**

Capital-Work-in Progress (CWIP) - Ageing Schedule as at 31 March 2023

₹ Crore

Capital-Work-in Progress (CWIP)	Amount in CWIP for a period of				Total
	Less than 1 year	1-2 years	2-3 years	More than 3 years	
Projects in progress	23,697.70	18,752.51	11,991.27	34,573.32	89,014.80
Projects temporarily suspended	24.09	-	-	94.23	118.32

v) **(b) Capital-Work-in Progress (CWIP) - Completion schedule for projects overdue or cost overruns as compared to original plan as on 31 March 2024**

₹ Crore

Capital-Work-in Progress (CWIP)	To be completed in				Total
	Less than 1 year	1-2 years	2-3 years	More than 3 years	
	Upto 31 March 2025	1 April 2025 to 31 March 2026	1 April 2026 to 31 March 2027	Beyond 1 April 2027	
North Karanpura TPP (1X660 MW)	**3,730.97**	-	-	-	**3,730.97**
Barh-I TPP (1X660 MW)	**5,557.38**	-	-	-	**5,557.38**
Tapovan HEP (4X130 MW)	-	**6,265.86**	-	-	**6,265.86**
Rammam Hydro Electric (3X40 MW)	-	-	-	**905.43**	**905.43**
Chatti Bariatu Coal Mining Project	**574.76**	-	-	-	**574.76**
Kerandari Coal Mining Project	-	**1,150.54**	-	-	**1,150.54**
Badam Coal Mining Project	-	-	**47.92**	-	**47.92**
Anta Solar (90 MW)	**399.60**	-	-	-	**399.60**
Rihand Solar (20 MW)	**34.35**	-	-	-	**34.35**
Solapur Solar (13 MW)	**30.94**	-	-	-	**30.94**
Nokh Solar (735 MW)	**918.22**	-	-	-	**918.22**
PSP (1000 MW)	**569.00**	-	-	-	**569.00**
VPHEP (444 MW)	**1,279.44**	**800.00**	**476.51**	-	**2,555.95**
PVUNL Stage-1	**12,632.63**	-	-	-	**12,632.63**
BRBCL	**796.83**	-	-	-	**796.83**
Sambhu Ki Bhurj II Solar PV Project 150 MW	**225.82**	-	-	-	**225.82**
Bhainsara 320 MW	**899.25**	-	-	-	**899.25**
GUVNL 200 MW	**541.25**	-	-	-	**541.25**
GUVNL 150 MW	**459.71**	-	-	-	**459.71**
Shajapur 325 MW	**1,120.37**	-	-	-	**1,120.37**
Dayapar 200 MW	**177.61**	-	-	-	**177.61**
SECI TR-IV - 450 MW	**968.51**	-	-	-	**968.51**
500 MW Bhadla	**1,124.62**	-	-	-	**1,124.62**
CPSU 1255 MW	**965.67**	-	-	-	**965.67**
SECI TR-V - 450 MW	-	**7.41**	-	-	**7.41**
1200 MW Khavada	-	**150.58**	-	-	**150.58**
Waste to Energy* Project: Varanasi	**192.01**	-	-	-	**192.01**
Waste to Energy Project: Punjab	**5.01**	-	-	-	**5.01**



Capital-Work-in Progress (CWIP) - Completion schedule for projects overdue or cost overruns as compared to original plan as on 31 March 2023

₹ Crore

Capital-Work-in Progress (CWIP)	To be completed in				Total
	Less than 1 year	1-2 years	2-3 years	More than 3 years	
	Upto 31 March 2024	1 April 2024 to 31 March 2025	1 April 2025 to 31 March 2026	Beyond 1 April 2026	
North Karanpura TPP	-	7,460.83	-	-	7,460.83
Barh-I TPP	-	11,862.70	-	-	11,862.70
Tavopan HEP	-	5,817.62	-	-	5,817.62
Rammam Hydro Electric	-	-	-	785.14	785.14
Telangana-I TPP	11,262.65	-	-	-	11,262.65
PSP (1000 MW)	850.00	298.86	-	-	1,148.86
VPHEP (444 MW)	560.00	470.00	316.05	-	1,346.05
PVUNL Stage-1	-	9,822.78	-	-	9,822.78
BRBCL	540.56	-	-	-	540.56
Talaipalli Coal Mining Project	939.61	-	-	-	939.61
Chatti Bariatu Coal Mining Project	-	463.31	-	-	463.31
Kerandari Coal Mining Project	-	-	831.16	-	831.16
Badam Coal Mining Project	-	-	-	41.58	41.58
Nokhra Solar PV Project 100MW	682.33	-	-	-	682.33
Sambhu Ki Bhurj II Solar PV Project 150 MW	217.11	-	-	-	217.11
Chattargarh 150 MW	240.74	-	-	-	240.74
Bhainsara 320 MW	7.33	-	-	-	7.33
GUVNL 200 MW	1.29	-	-	-	1.29
GUVNL 150 MW	5.50	-	-	-	5.50

vi) (a) Intangible assets under development - Ageing Schedule as at 31 March 2024

₹ Crore

Intangible assets under development	Amount in CWIP for a period of				Total
	Less than 1 year	1-2 years	2-3 years	More than 3 years	
Projects in progress	**67.71**	**2.77**	**1.17**	**-**	**71.65**
Projects temporarily suspended	-	-	-	-	-

Intangible assets under development - Ageing Schedule as at 31 March 2023

₹ Crore

Intangible assets under development	Amount in CWIP for a period of				Total
	Less than 1 year	1-2 years	2-3 years	More than 3 years	
Projects in progress	5.98	3.65	5.14	31.11	45.88
Projects temporarily suspended	-	-	-	-	-

vi) (b) Intangible assets under development - Completion schedule for projects overdue or cost overruns as compared to original plan as on 31 March 2024.

vii) No proceedings have been initiated or pending against the Group under the Benami Transactions (Prohibition) Act,1988.

viii) The quarterly returns / statement of current assets filed by the Group with banks / financial institutions are generally in agreement with the books of accounts.

ix) None of the entities of the Group have been declared as a wilful defaulter by any bank or financial institution or any other lender.

x) Relationship with Struck off Companies

₹ Crore

Name of struck off Company	Nature of transactions with struck-off Company	Balance outstanding as at 31 March 2024	Balance outstanding as at 31 March 2023	Relationship with the struck off company	CIN
Aradhya Construction Private Limited	Receivables	#	#	Contractor	U45200BR2013PTC020295
Shiv Singh Amar Singh And Company Private Limited	Receivables	-	1.38	Contractor	U70200DL1985PTC022577
Ganga Mechanical works Pvt Ltd	Receivables	0.05	0.05	Contractor	U45201DL2003PTC119275
Hello Marketing Pvt. Ltd	Receivables	#	#	Contractor	U67190DL1993PTC053859
S S Builders (India) Pvt Ltd	Receivables	#	#	Contractor	U45201DL1981PTC011552
Shiva Shakti Services Pvt. Ltd.	Receivables	#	#	Contractor	U74992DL1995PTC072519
Brindavan Projects Ltd	Payables	0.01	0.01	Contractor	U45200TG1994PLC018506
Eco E-Waste Recyclers India Private Limited	Payables	#	#	Contractor	U37200KA2010PTC052547
Go Green Buildtech Pvt. Ltd.	Payables	#	#	Contractor	U45400DL2014PTC264520
Innutech Web Solutions Pvt Ltd	Payables	#	#	Contractor	U72200DL2010PTC200692
Leonard Exports Private Limited	Payables	0.10	0.10	Contractor	U74900WB2009PTC133430
Neway Engineers Msw Pvt. Ltd.	Payables	0.18	0.18	Contractor	U74900TN2015PTC100484
Prava Trading Corporation (India) Private Limited	Payables	0.05	0.05	Contractor	U51909WB2013PTC197297
U K Construction Pvt Ltd	Payables	-	#	Contractor	U00501BR1986PTC002490
Hanothia Industries Ltd.	Payables	#	#	Contractor	U27109TG2005PTC046327
Hn18 Health Services Pvt Ltd	Payables	#	#	Contractor	U74900KA2015PTC080531
M M Raj Travels Private Limited	Payables	#	#	Contractor	U34101UP1996PTC020425
Pumos Lighting Pvt Ltd	Payables	-	#	Contractor	U31503DL2012PTC240358
Timetech Enterprises Pvt Ltd	Payables	0.01	0.01	Contractor	U51109DL1989PTC038628
Uniteam Pvt Ltd	Payables	-	#	Contractor	U29253WB2011PTC169264
A.S. Builders Private Limited.	Payables	0.01	0.01	Contractor	U45201DL1995PTC071401
Asian Marketing Co Ltd	Payables	#	#	Contractor	U51909WB1951PLC019996
Burn Standard Co. Ltd.	Payables	0.03	0.03	Contractor	U51909WB1976GOI030797
Chandel Construction Private Limited	Payables	0.06	0.10	Contractor	U45202BR2019PTC043334
Hemantbirla Construction(I)Pvt Ltd	Payables	#	#	Contractor	U45309MP2021PTC054984
Rohtas Security & Intelligence Services Pvt. Ltd.	Payables	#	#	Contractor	U74920BR2008PTC013425
Sankat Mochan Construction Pvt Ltd	Payables	0.01	0.01	Contractor	U45200BR2003PTC010344
Titan Televentures Pvt. Ltd.	Payables	#	#	Contractor	U51909UP2004PTC029354
Binary Solutions Pvt.Ltd.	Payables	#	#	Contractor	U72200TG1999PTC032912



₹ Crore

Name of struck off Company	Nature of transactions with struck-off Company	Balance outstanding as at 31 March 2024	Balance outstanding as at 31 March 2023	Relationship with the struck off company	CIN
Devidayal & Mahindra Cables Private Limited	Payables	-	-	Contractor	U31300DL1989PTC035357
Express Lifts Ltd	Payables	0.05	0.05	Contractor	U74999GJ1997PTC033243
G G Tronics India Pvt Ltd	Payables	#	#	Contractor	U14200KA2010PTC052244
Gill Buildcon Pvt.Ltd.	Payables	1.20	-	Contractor	U45400DL2007PTC162054
Great Eastern Trading Co.	Payables	#	#	Contractor	U51109WB1950PLC018863
R V Briggs & Company Pvt Ltd	Payables	-	-	Contractor	U13209WB1993PTC057855
S V Network Technologies India Pvt	Payables	0.10	0.10	Contractor	U72200TG2006PTC051972
Sagar Hospitals Private Limited	Payables	-	-	Contractor	U85110TG1988PTC008174
Vagjra Hotline Power Service Pvt Ltd	Payables	-	-	Contractor	U40108AP2009PTC064430
Yugesh and Chandan Construction Private limited	Payables	0.02	0.02	Contractor	U45200BR2015PTC023996
Gemindiajobsolutions Private Ltd.	Payables	#	-	Contractor	U72900UP2020PTC138736
D. HARIDAS & COMPANY	Payables	-	-	Service Provider	U51909GJ1947PLC000266
INDIAN HYDRAULIC INDUSTRIES PVT. LTD.	Payables	-	-	Service Provider	U29119DL1976PTC008404
Pixel Webtech Private Limited	Payables	#	#	Service Provider	U72100DL2006PTC155887
ANANTSHRI INDUSTRIAL SECURITY (OPC) PRIVATE LIMITED	Payables	0.02	0.02	Contractor	U93090MP2017OPC042984
Naveli Décor Private Limited	Payables	-	-	Contractor	U52609UP2017PTC099523
Shashidhar Construction & Carriers Private Limited	Receivables	0.72	0.72	Contractor	U45200JH1994PTC005864
Sankat Mochan Construction Private Limited	Payables	0.01	0.01	Contractor	U45200BR2003PTC010344
Shaba Infra Projects Private Limited	Payables	0.14	0.14	Contractor	U45200JH2013PTC001333
Bennett Coleman & Company Ltd	Payables	-	-	Contractor	U72900MH1999PLC123286

Individual Amount recoverable/payable is less than ₹ 50,000/- and sum of all recoverable cases amounts to **₹ 58,175/-** (31 March 2023- ₹ 46,403) and sum of all payable cases amounts to **₹ 3,69,989/-** (31 March 2023 - ₹ 4,23,337/-)

b) Shares held by struck off companies

Name of struck off Company	Nature of transactions with struck-off Company	Number of equity shares held 31.03.2024	Number of equity shares held 31.03.2023	CIN
Stalag Investments & Management Services Pvt Ltd	Shares held by struck off company	60	60	U67120MH1987PTC042898
Tradeshare Financial Services Pvt Ltd		120	120	U67120KL2008PTC023516
Dige And Associates Investment Consultants Pvt Ltd		34	34	U00893PN2006PTC022295
Canny Securities Pvt Ltd		1	1	U67120KA1995PTC018357
Satvik Financial Services Ltd.		24	24	U67100MH2009PLC196964
Vaishak Shares Limited		1	1	U85110KA1994PLC015178
Kothari Intergroup Ltd.		13	13	U51909KA1984PLC005952
Dreams Broking Private Limited		6	6	U67190MH2012PTC226215
Ganapati Infin Pvt Ltd		8	48	U70109PB2011PTC034996
Shree Anekant Marketing Pvt Ltd		10	10	U51900WB1995PTC106659
Data Nova India Private Limited		1,000	1,000	U72200PN1996PTC098577
Ritrishi Finvest Private Limited		256	256	U99999MH1995PTC095593

c) Debentures held by struck off companies

Name of struck off Company	Nature of transactions with struck-off Company	Number of Debentures held 31.03.2024	Number of Debentures held 31.03.2023	CIN
Stalag Investments & Management Services Pvt Ltd	Debentures held by struck off company	50	50	U67120MH1987PTC042898
Tradeshare Financial Services Pvt Ltd		100	100	U67120KL2008PTC023516
Dige And Associates Investment Consultants Pvt Ltd		29	29	U00893PN2006PTC022295
Canny Securities Pvt Ltd		1	1	U67120KA1995PTC018357
Satvik Financial Services Ltd.		20	20	U67100MH2009PLC196964
Vaishak Shares Limited		1	1	U85110KA1994PLC015178
Kothari Intergroup Ltd.		11	11	U51909KA1984PLC005952
Ganapati Infin Pvt Ltd		40	40	U70109PB2011PTC034996
Ritrishi Finvest Private Limited		214	214	U99999MH1995PTC095593
4A Strategies Private Ltd		3,000	3,000	U17231KA1997PTC023027
Bhomiya Vyapaar Pvt. Ltd		2,000	2,000	U51109WB1994PTC062535
Clairsol Systems Private Limited		320	320	U72200DL2001PTC110910
Diwansons Holding and Consultancy Pvt Ltd		956	956	U65990MH1984PTC032744
Dreams Comtrade Private Limited		1,686	1,686	U67190MH2012PTC226217
Jewel Strips Pvt Ltd		823	823	U27200MH1993PTC073648
Kuber World Private Limited		1	1	U74899DL1973PTC006817
Rokad Investments Private Limited.		30	30	U65900MH1997PTC108580
Telelink Securities & FinanceLtd		544	544	U67120MH1997PLC109896
V. M. Fiscal Services Pvt. Ltd.		50	50	U65993TN1991PTC021278
Vivid Finance and Holdings Pvt Ltd		1,428	1,428	U65990MH1988PTC045875
VMS Consultants Pvt. Ltd.		125	125	U51909WB1992PTC055925

xi) The provisions of clause (87) of section 2 of the Act read with the Companies (Restriction on number of Layers) Rules, 2017 are not applicable to the group as per Section 2(45) of the Companies Act, 2013.

xii) There were no scheme of Arrangements approved by the competent authority during the year in terms of sections 230 to 237 of the Companies Act,2013.

xiii) The Group has not advanced or loaned or invested any fund to any entity (Intermediaries) with the understanding that the Intermediary shall lend or invest in party identified by or on behalf of the Company (Ultimate Beneficiaries). The Company has not received any fund from any party with the understanding that the Company shall whether, directly or indirectly lend or invest in other entities identified by or on behalf of the Company ("Ultimate Beneficiaries") or provide any guarantee, security or the like on behalf of the Ultimate Beneficiaries.

xiv) The Group has not traded or invested in Crypto currency or Virtual Currency during the financial year.

xv) The Group does not have any transaction which is not recorded in the books of accounts that has been surrendered or disclosed as income during the year in the tax assessments under the Income Tax Act, 1961.

78. Statement containing salient features of the financial statements of Subsidiaries/Joint Ventures of NTPC Ltd. pursuant to first proviso to sub-section (3) of Section 129 read with Rule 5 of Companies (Accounts) Rules, 2014, in Form AOC I is attached.

For and on behalf of the Board of Directors

(Ritu Arora)	(Jaikumar Srinivasan)	(Gurdeep Singh)
Company Secretary	Director (Finance)	Chairman & Managing Director
	DIN: 01220828	DIN: 00307037

These are the notes referred to in our report of even date

For Vinod Kumar & Associates	For Goyal Parul & Co	For M. C. Bhandari & Co.
Chartered Accountants	Chartered Accountants	Chartered Accountants
Firm Reg. No. 002304N	Firm Reg. No. 016750N	Firm Reg. No. 303002E
(Mukesh Dadhich)	(Parul Goyal)	(Amit Biswas)
Partner	Partner	Partner
M. No. 511741	M. No. 099172	M. No. 052296
For J K S S & Associates	For Agasti & Associates	For S.N. Kapur & Associates
Chartered Accountants	Chartered Accountants	Chartered Accountants
Firm Reg. No. 006836C	Firm Reg. No. 313043E	Firm Reg. No. 001545C
(Ram Babu)	(B. Agasti)	(S. N. Kapur)
Partner	Partner	Partner
M. No. 016151	M. No. 051026	M. No. 014335

Place: New Delhi
Dated: 24 May, 2024
Digitally signed by signatories

FORM NO. AOC.1

Statement containing salient features of the financial statements of Subsidiaries/Associate Companies/Joint Ventures of NTPC Ltd.

(Pursuant to first proviso to sub-section (3) of Section 129 read with Rule 5 of Companies (Accounts) Rules, 2014)

(Amount in ₹ crore)

Part "A": Subsidiaries

Sl. No.	1	2	3	4	5	6	7	8	9	10
Name of the Subsidiary	NTPC Electric Supply Company Ltd.	NTPC Vidyut Vyapar Nigam Ltd.	Bhartiya Rail Bijlee Company Ltd.	Patratu Vidyut Utpadan Nigam Ltd.	NTPC Mining Ltd.	THDC India Ltd.	North Eastern Electric Power Corporation Ltd.	NTPC EDMC Waste Solutions Private Ltd.	Ratnagiri Gas & Power Private Ltd.	NTPC Green Energy Ltd.
The date since when subsidiary was acquired	21.08.2002	01.11.2002	22.11.2007	15.10.2015	29.08.2019	27.03.2020	27.03.2020	01.06.2020	31.12.2020	07.04.2022
Reporting period for the subsidiary concerned, if different from the holding company's reporting period	Same as that of Holding Company (01.04.2023 - 31.03.2024)	Same as that of Holding Company (01.04.2023 - 31.03.2024)	Same as that of Holding Company (01.04.2023 - 31.03.2024)	Same as that of Holding Company (01.04.2023 - 31.03.2024)	Same as that of Holding Company (01.04.2023 - 31.03.2024)	Same as that of Holding Company (01.04.2023 - 31.03.2024)	Same as that of Holding Company (01.04.2023 - 31.03.2024)	Same as that of Holding Company (01.04.2023 - 31.03.2024)	Same as that of Holding Company (01.04.2023 - 31.03.2024)	Same as that of Holding Company (01.04.2023 - 31.03.2024)
Reporting currency and exchange rate as on the last date of the relevant financial year in the case of foreign subsidiaries.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Share capital	0.08	30.00	2,397.46	2,925.07	154.10	3,665.88	3,609.81	0.20	3,272.30	5,719.61
Reserves & surplus	20.23	824.40	625.37	(2.59)	(3.43)	6,878.11	3,261.59	(3.54)	(1,607.60)	512.53
Total assets	20.50	4,431.21	8,781.95	14,412.49	150.71	31,522.25	16,605.80	0.11	2,613.22	27,206.43
Total liabilities	0.19	3,576.81	5,759.12	11,490.01	0.04	20,978.26	9,734.40	3.45	948.52	20,974.29
Investments	-	1.62	-	-	-	-	-	-	-	-
Turnover	-	5,303.29	3,707.55	-	-	1,967.24	4,239.57	-	2,605.19	1,962.60
Profit before taxation	0.15	211.98	565.54	(0.01)	(3.42)	514.55	597.20	(0.02)	1,734.23	485.71
Provision for taxation	0.11	51.04	48.53	-	-	(82.42)	49.06	-	-	142.85
Profit after taxation	0.04	160.94	517.01	(0.01)	(3.42)	596.97	548.14	(0.02)	1,734.23	342.86
Proposed dividend	-	-	-	-	-	-	-	-	-	-
% of Shareholding	100.00%	100.00%	74.00%	74.00%	100.00%	74.496%	100.00%	74.00%	86.49%	100.00%

Notes:

1. Subsidiaries which are yet to commence operations.
   1. NTPC Mining Limited
   2. NTPC EDMC Waste Solutions Private Ltd.

Part"B": Associates and Joint Ventures

Statement pursuant to Section 129 (3) of the Companies Act, 2013

Sl. No.	Name of Joint Ventures	Utility Powertech Ltd.	NTPC - GE Power Services Pvt. Ltd.	NTPC-SAIL Power Company Ltd.	NTPC Tamil-nadu Energy Company Ltd.	Aravali Power Company Pvt. Ltd.	NTPC-BHEL Power Projects Pvt. Ltd.	Meja Urja Nigam Pvt. Ltd.	Transformers & Electricals Kerela Ltd.
1.	**Latest Audited Balance Sheet Date**	31.03.2023	31.03.2023	31.03.2024	31.03.2024	31.03.2024	31.03.2023	31.03.2024	31.03.2023
2.	**Date on which the Associate or Joint venture was associated or acquired**	23.11.1995	27.09.1999	08.02.1999	23.05.2003	21.12.2006	28.04.2008	02.04.2008	19.06.2009
3.	**Shares of Joint Ventures held by the Company on the year end as at 31.03.2024**								
	Number	20,00,000	30,00,000	49,02,50,050	1,46,63,96,112	1,43,30,08,200	5,00,00,000	1,82,63,34,800	1,91,63,438
	Amount of Investment in Joint Venture (₹ crore)	1.00	3.00	490.25	1,466.40	1,433.01	50.00	1,826.33	31.34
	Extent of Holding (%)	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	44.60%
4.	**Description of how there is significant influence**	NA	NA	NA	NA	NA	NA	NA	NA
5.	**Reason why the Joint Venture is not consolidated (₹ crore)**	NA	NA	NA	NA	NA	NA	NA	NA
	Share Capital	2.00	3.00	490.25	1,466.40	1,433.01	50.00	1,826.34	19.16
	Reserve & Surplus	108.03	12.27	1,090.19	480.75	1,016.74	(161.48)	96.84	(13.69)
6.	**Networth attributable to Shareholding as per latest audited Balance Sheet (₹ crore)**	110.03	15.27	1,580.44	1,947.14	2,449.75	(111.48)	1,923.17	5.47
7.	**Profit/ Loss for the year (Total Comprehensive Income)**								
i	Considered for Consolidation (₹ crore)	7.00	6.26	216.33	293.42	376.81	-	174.03	(1.94)
ii	Not Considered in Consolidation (₹ crore)	NA	NA	NA	NA	NA	(111.48)	NA	NA

Sl. No.	Name of Joint Ventures	National High Power Test Laboratory Pvt. Ltd.	Energy Efficiency Services Ltd.	CIL NTPC Urja Pvt. Ltd.	Anushakti Vidhyut Nigam Ltd.	Hindustan Urvarak & Rasayan Limited	Trincomalee Power Company Ltd.	Bangladesh-India Friendship Power Company Pvt. Ltd.	Jhabua Power Ltd.
1.	**Latest Audited Balance Sheet Date**	31.03.2023	31.03.2023	31.03.2024	31.03.2024	31.03.2023	31.12.2021	30.06.2023	31.03.2024
2.	**Date on which the Associate or Joint venture was associated or acquired**	22.05.2009	10.12.2009	27.04.2010	27.01.2011	15.06.2016	26.09.2011	31.10.2012	05.09.2022
3.	**Shares of Joint Ventures held by the Company on the year end as at 31.03.2024**								
	Number	4,88,00,000	84,66,10,000	76,900	49,000	2,64,29,85,000	34,86,061	16,00,00,000	32,50,00,000
	Amount of Investment in Joint Venture (₹ crore)	12.32	697.51	0.08	0.05	2,642.99	15.64	1,324.02	325.00
	Extent of Holding (%)	21.63%	39.25%	50.00%	49.00%	33.33%	50.00%	50.00%	50.00%
4.	**Description of how there is significant influence**	NA	NA	NA	NA	NA	NA	NA	NA
5.	**Reason why the Joint Venture is not consolidated (₹ crore)**	NA	NA	NA	NA	NA	NA	NA	NA
	Share Capital	48.80	846.59	0.08	0.05	2,642.99	9.69	1,212.64	325.00
	Reserve & Surplus	(36.47)	(222.21)	-	(0.05)	577.26	(8.83)	269.75	1,640.23
6.	**Networth attributable to Shareholding as per latest audited Balance Sheet (₹ crore)**	12.32	624.39	0.08	-	3,220.25	0.86	1,482.39	1,965.23
7.	**Profit/ Loss for the year (Total Comprehensive Income)**								
i	Considered for Consolidation (₹ crore)	(6.08)	(51.14)	0.02	-	393.02	(0.16)	289.68	(55.98)
ii	Not Considered in Consolidation (₹ crore)	12.32	NA	NA	NA	NA	NA	NA	NA

Notes:

A. Names of Joint Ventures which are yet to commence operations.

1 CIL NTPC Urja Private Ltd.

2 Anushakti Vidyut Nigam Ltd.

3 Trincomalee Power Company Ltd. (incorporated in Srilanka)

B. Names of Associates or Joint Ventures which have been liquidated or sold during the year.

1 BF-NTPC Energy Systems Ltd. is in the process of voluntary winding up.

For and on behalf of the Board of Directors

(Ritu Arora) Company Secretary	(Jaikumar Srinivasan) Director (Finance) DIN: 01220828	(Gurdeep Singh) Chairman & Managing Director DIN: 00307037
For Vinod Kumar & Associates Chartered Accountants Firm Reg. No. 002304N	For Goyal Parul & Co Chartered Accountants Firm Reg. No. 016750N	For M. C. Bhandari & Co. Chartered Accountants Firm Reg. No. 303002E
(Mukesh Dadhich) Partner M. No. 511741	(Parul Goyal) Partner M. No. 099172	(Amit Biswas) Partner M. No. 052296
For J K S S & Associates Chartered Accountants Firm Reg. No. 006836C	For Agasti & Associates Chartered Accountants Firm Reg. No. 313043E	For S.N. Kapur & Associates Chartered Accountants Firm Reg. No. 001545C
(Ram Babu) Partner M. No. 016151	(B. Agasti) Partner M. No. 051026	(S. N. Kapur) Partner M. No. 014335

Place: New Delhi
Dated: 24 May, 2024
Digitally signed by signatories

Our Group's Overview | Innovating for Sustainability | Statutory Disclosures | Statutory and Financial Results

INDEPENDENT AUDITORS' REPORT

To

The Members of NTPC Limited

Report on the Audit of the Consolidated Financial Statements

Opinion

We have audited the accompanying Consolidated Financial Statements of NTPC Limited (hereinafter referred to as "the Holding Company") and its subsidiaries (the Holding Company and its subsidiaries together referred to as "the Group"), and its share of profit/ loss in joint ventures, which comprise the Consolidated Balance Sheet as at 31 March 2024, the Consolidated Statement of Profit and Loss (including Other Comprehensive Income), the Consolidated Statement of Changes in Equity and the Consolidated Statement of Cash Flows for the year then ended, and notes to the Consolidated Financial Statements, including a summary of the Material accounting policies and other explanatory information for the year ended on that date (hereinafter referred to as "Consolidated Financial Statements").

In our opinion and to the best of our information and according to the explanations given to us and based on the consideration of reports of other auditors on separate Financial Statements and on the other financial information of the subsidiaries and joint ventures referred to in the Other Matters section below, the aforesaid Consolidated Financial Statements give the information required by the Companies Act, 2013 ('the Act') in the manner so required and give a true and fair view in conformity with the Indian Accounting Standards prescribed under section 133 of the Act, read with the Companies (Indian Accounting Standards) Rules, 2015, as amended ("Ind AS") and other accounting principles generally accepted in India, of the consolidated state of affairs (financial position) of the Group and its joint ventures as at 31 March 2024, and their consolidated net profit (financial performance including other comprehensive income), their consolidated changes in equity and consolidated cash flows for the year ended on that date.

Basis for Opinion

We conducted our audit of the Consolidated Financial Statements in accordance with the Standards on Auditing (SAs) specified under section 143(10) of the Act. Our responsibilities under those Standards are further described in the Auditor's Responsibilities for the Audit of the Consolidated Financial Statements section of our report. We are independent of the Group and Its Joint Ventures in accordance with the 'Code of Ethics' issued by the Institute of Chartered Accountants of India (ICAI) together with the ethical requirements that are relevant to our audit of the Consolidated Financial Statements under the provisions of the Act and the Rules made thereunder, and we have fulfilled our other ethical responsibilities in accordance with these requirements and the ICAI's Code of Ethics. We believe that the audit evidence obtained by us and the audit evidence obtained by the other auditors in terms of their reports referred in the Other Matters section below, is sufficient and appropriate to provide a basis for our audit opinion on the Consolidated Financial Statements.

Emphasis of Matter

Considering the requirement of Standard on Auditing (SA 600) on 'Using the work of Another Auditor' including materiality, we draw attention to the following matters in the notes to the Consolidated Financial Statements:

(a) Note No 52 (d) with respect to order of Hon'ble Supreme Court of India regarding recovery of capacity charges along with interest from Maharashtra State Electricity Distribution Company Limited by Ratnagiri Gas and Power Private Limited, a subsidiary of the Holding Company and revenue amounting to ₹ 1,228.82 crore has been recognised during the year and balance amount due has been postponed for recognition due to uncertainty of ultimate collection of the amount involved.

(b) Note No 53 with respect to a Hydro Electric Project in the State of Uttarakhand which is under execution by the holding company. After the reports of land subsidence in Joshimath Town, Additional District Magistrate, Chamoli has issued order on 5 January 2023 to stop all the construction activities till further orders. Aggregate cost incurred on the project up to 31 March 2024 is ₹ 6,671.30 crore (31 March 2023: ₹ 6,252.31 crore). The matter is sub-judice in Hon'ble High Court of Uttarakhand.

(c) The Holding Company has been assigning jobs on contract basis, for sundry works in plants/stations/offices to M/s Utility Powertech Ltd. (UPL), a joint venture of the Holding Company, in which the holding company has 50% shareholding.



The rates were fixed on cost plus basis, which were however, not considered by management, as on arm's length basis. The transactions reported for the year are in respect of assignments awarded till the financial year 2022-23 having execution period beyond 31 March 2023. The holding company has presented for the approval of Audit Committee, transactions undertaken during the current financial year 2023-24 of a value of ₹ 482.45 Crore, in pursuance to assignment awarded upto financial year 2022-23. The audit committee did not review or approve such transactions, but the same were subsequently approved by Board of Directors in the meeting held on 24 May, 2024. (Refer Note no 61 (f) (ii))

(d) Note No. 64(iii)(b) with respect to appeal filed by the Holding Company with the Hon'ble High Court of Delhi in the matter of Arbitral award pronounced against the holding company and the related provision made/disclosure of contingent liability as mentioned in the said note.

(e) Note No 66 (B) (v) with respect to execution of Business Transfer Agreement (BTA) dated 17 August 2023 with NTPC Mining Limited, a wholly owned subsidiary of the holding company, for hiving off its coal mining business at book value. The BTA has only been approved by the Board of Directors of the holding company and subsidiary company, which shall become effective on completion of the precedent conditions as mentioned in the said BTA, subject to necessary regulatory approvals.

Our opinion is not modified in respect of the aforesaid matters.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the Consolidated Financial Statements of the current period. These matters were addressed in the context of our audit of the Consolidated Financial Statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. For each matter below, description of how our audit addressed the matter is provided in that context. Considering the requirement of Standard on Auditing (SA 600) on 'Using the work of Another Auditor' including materiality, below Key Audit Matters have been reproduced from the Independent Auditors' report on the audit of Standalone Financial Statements of the Holding Company.

Sl. No.	Key Audit Matters	How our audit addressed the Key Audit Matters
1.	**Recognition and Measurement of revenue from Sale of Energy** The Holding Company records revenue from sale of energy as per the principles enunciated under Ind AS 115, based on tariff approved by the Central Electricity Regulatory Commission (CERC) as modified by the orders of Appellate Authorities. Pending issue of provisional/final tariff order w.e.f. 01 April, 2019 capacity charges has been provisionally recognised considering the applicable CERC Tariff Regulations 2019. This is considered as key audit matter due to the nature and extent of estimates made as per the CERC Tariff Regulations, which leads to recognition and measurement of revenue from sale of energy being complex and judgmental. (Refer Note No. 42 to the Consolidated Financial Statements, read with the Material Accounting Policy No. C.13)	We have obtained an understanding of the CERC Tariff Regulations, orders, circulars, guidelines and the Company's internal circulars and procedures in respect of recognition and measurement of revenue from sale of energy comprising of capacity and energy charges and adopted the following audit procedures: - Evaluated and tested the effectiveness of the Company's design of internal controls relating to recognition and measurement of revenue from sale of energy. - Examined the Holding Company's material accounting policies with respect to assessing compliance with Ind AS 115 "Revenue from Contract with Customers". - Verified the accounting of revenue from sale of energy based on provisional tariff computed as per the principles of CERC Tariff Regulations 2019. - Assessed the disclosures in accordance with the requirements of Ind AS 115 "Revenue from Contract with Customers". Based on the above procedure performed, the recognition, measurement and disclosures of revenue from sale of energy are considered to be adequate and reasonable.
2.	**Impairment assessment of Property, Plant and Equipment (PPE)** The Holding Company has a material operational asset base (PPE) relating to generation of electricity and is one of the components for determining the tariff as per the CERC Tariff Regulations, which may be vulnerable to impairment. We considered this as a key audit matter as the carrying value of PPE requires impairment assessment based on the future expected cash flows associated with the power plants (Cash generating units). (Refer Note No. 63 to the Consolidated Financial Statements, read with the Material Accounting Policy No. C.17)	We have obtained an understanding and tested the design and operating effectiveness of controls as established by the Company's management for impairment assessment of PPE. We evaluated the Holding Company's process of impairment assessment in assessing the appropriateness of the impairment model including the independent assessment of discount rate, economic growth rate, terminal value etc. We evaluated and checked the calculations of the cash flow forecasts prepared by the Holding Company taking into consideration the CERC (Terms and Conditions of Tariff) Regulations, 2024 (applicable for the tariff period of 5 years from 1 April 2024 to 31 March 2029) along with the aforementioned assumptions. Based on the above procedures performed, we observed that the Company's impairment assessment of the PPE is adequate and reasonable.
3.	**Deferred Tax Asset relating to MAT Credit Entitlement and corresponding Regulatory Deferral Liability** The holding company has recognised deferred tax asset relating to MAT credit entitlement. Utilisation of MAT credit will result in lower outflow of Income Tax in future years and accordingly Regulatory Deferral Liability attributable to the said MAT credit entitlement has also been recognized which is payable to the beneficiaries in subsequent periods as per CERC Tariff Regulations. The recoverability of this deferred tax asset relating to MAT credit entitlement is dependent upon the generation of sufficient future taxable profits to utilise such entitlement within the stipulated period prescribed under the Income Tax Act, 1961. We identified this as a key audit matter because of the importance of this matter to the intended users of the Consolidated Financial Statements and its materiality; and requirement of judgement in forecasting future taxable profits for recognition of MAT credit entitlement considering the recoverability of such tax credits within allowed time frame as per the provisions of the Income Tax Act, 1961. (Refer Note No. 23, 31, 57 & 72 to the Consolidated Financial Statements, read with the Material Accounting Policy No. C.5 and C.15)	We have obtained an understanding for recognition of deferred tax asset relating to MAT credit entitlement and corresponding liability of the same in Regulatory Deferral Account including the management's judgement. We further assessed the related forecasts of future taxable profits and evaluated the reasonableness of the considerations / assumptions underlying the preparation of these forecasts. We have also verified the regulatory deferral account balance attributable to the said MAT credit payable to the beneficiaries in subsequent periods. Based on the above procedures performed, the recognition and measurement of Deferred tax asset relating to MAT credit entitlement and attributable Regulatory Deferral Liability towards beneficiaries, is considered adequate and reasonable.

Sl. No.	Key Audit Matters	How our audit addressed the Key Audit Matters
4.	**Contingent Liabilities** There are a number of litigations pending before various forums against the Holding Company and the management's judgement is required for estimating the amount to be disclosed as contingent liability. We identified this as a key audit matter because the estimates on which these amounts are based involve a significant degree of management judgement in interpreting the cases and it may be subject to management bias. (Refer Note No. 76(A) to the Consolidated Financial Statements, read with the Material Accounting Policy No. C.11)	We have obtained an understanding of the Holding Company's internal instructions and procedures in respect of estimation and disclosure of contingent liabilities and adopted the following audit procedures: - understood and tested the design and operating effectiveness of controls as established by the management for obtaining all relevant information for pending litigation cases; - discussed with the management regarding any material developments thereto and latest status of legal matters; - read various correspondences and related documents pertaining to litigation cases and relevant external legal opinions obtained by the management and performed substantive procedures on calculations supporting the disclosure of contingent liabilities; - examined management's judgements and assessments in respect of whether provisions are required; - considered the management assessments of those matters that are not disclosed as contingent liability since the probability of material outflow is considered to be remote; - reviewed the adequacy and completeness of disclosures; Based on the above procedures performed, the estimation and disclosures of contingent liabilities is considered to be adequate and reasonable.

Information other than the Consolidated Financial Statements and Auditors' Report thereon

The Holding Company's Board of Directors is responsible for the preparation of the other information. The other information comprises the Corporate Governance Report, and the information included in the Directors' Report including Annexures, Management Discussion and Analysis, Business Responsibility and Sustainability Report and other company related information (but does not include the Consolidated Financial Statements and Standalone Financial Statements and our auditors' report thereon), which are expected to be made available to us after the date of this auditors' report.

Our opinion on the Consolidated Financial Statements does not cover the other information and we do not and will not express any form of assurance conclusion thereon.

In connection with our audit of the Consolidated Financial Statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the Consolidated Financial Statements or our knowledge obtained during the course of our audit or otherwise appears to be materially misstated.

When we read the other information, if we conclude that there is a material misstatement therein, we are required to communicate the matter to those charged with governance and take appropriate actions, if required.

Responsibilities of Management and Those Charged with Governance for the Consolidated Financial Statements

The Holding Company's Board of Directors is responsible for the preparation and presentation of these Consolidated Financial Statements in terms of the requirements of the Act, that give a true and fair view of the consolidated financial position, consolidated financial performance including other comprehensive income, consolidated Statement of Changes in Equity and consolidated cash flows of the Group including its joint ventures in accordance with the accounting principles generally accepted in India, including the Indian Accounting Standards (Ind AS) specified under section 133 of the Act read with the Companies (Indian Accounting Standards) Rules, 2015 as amended. The respective Board of Directors of the companies included in the Group and of its joint ventures are responsible for maintenance of adequate accounting records in accordance with the provisions of the Act for safeguarding the assets of the Group and its joint ventures and for preventing and detecting frauds and other irregularities; the selection and application of appropriate accounting policies; making judgments and estimates that are reasonable and prudent; and the design, implementation and maintenance of adequate internal financial controls, that were operating effectively for ensuring accuracy and completeness of the accounting records, relevant to the preparation and presentation of the Consolidated Financial Statements that give a true and fair view and are free from material misstatement, whether due to fraud or error, which have been used for the purpose of preparation of the Consolidated Financial Statements by the Directors of the Holding Company, as aforesaid.

In preparing the Consolidated Financial Statements, the respective Board of Directors of the companies included in the Group and of its joint ventures are responsible for assessing the ability of the Group and of its joint ventures to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Group and its Joint Ventures or to cease operations, or has no realistic alternative but to do so.

The respective Board of Directors of the companies included in the Group and of its joint ventures are responsible for overseeing the financial reporting process of the Group and of its joint ventures.

Auditors' Responsibility for the audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the Consolidated Financial Statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with SAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these Consolidated Financial Statements.

As part of an audit in accordance with SAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the Consolidated Financial Statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal financial control relevant to the audit in order to design audit procedures that are appropriate in the circumstances. Under section 143(3)(i) of the Act, we are also responsible for expressing our opinion on whether the holding company, its subsidiaries and joint ventures incorporated in India have adequate internal financial controls with reference to Consolidated Financial Statements in place and the operating effectiveness of such controls.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of Holding Company's management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the ability of the Group and its joint ventures to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the Consolidated Financial Statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group and its joint ventures to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the Consolidated Financial Statements, including the disclosures, and whether the Consolidated Financial Statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities

within the Group and its joint ventures to express an opinion on the Consolidated Financial Statements. We are responsible for the direction, supervision and performance of the audit of the financial statements of such entities included in the Consolidated Financial Statements of which we are the independent auditors. For the other entities included in the Consolidated Financial Statements, which have been audited by other auditors, such other auditors remain responsible for the direction, supervision and performance of the audits carried out by them. We remain solely responsible for our audit opinion.

We communicate with those charged with governance of the Holding Company and such other entities included in the Consolidated Financial Statements of which we are the independent auditors regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the Consolidated Financial Statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Other Matters

a) We did not audit the financial statements/ financial information of Nine subsidiaries included in the Consolidated Financial Statement, whose financial statements reflects total Assets of ₹ 1,03,131.45 crore as at 31 March 2024; total Revenues of ₹ 17,408.50 crore and Net Cash inflows amounting to ₹ 397.03 crore for the year ended on that date, as considered in the Consolidated Financial Statements. The Consolidated Financial Statements also includes the Group's share of net profit using the equity method, of ₹ 1,007.02 crore and total comprehensive income of ₹ 1,004.63 crore for the year ended 31 March 2024, as considered in the consolidated financial statements, in respect of Seven joint ventures, whose financial statements have not been audited by us. These financial statements have been audited by their respective independent auditors whose reports have been furnished to us by the management and our opinion on the Statement, in so far as it relates to the aforesaid subsidiaries and joint ventures is based solely on the reports of the other auditors and the procedures performed by us are as stated Auditor's Responsibility section above after considering the requirement of Standard on Auditing (SA 600) on 'Using the work of Another Auditor' including materiality.

b) The Consolidated Financial Statements also include One subsidiary, whose financial statement / financial information reflect total Assets of ₹ 2,613.22 crore as at 31 March 2024; total Revenues of ₹ 3,096.14 crore for the year ended on that date, and net cash outflows amounting to ₹ 22.08 crore for the year ended on that date, as considered in the consolidated financial statements, have not been audited by their auditors. The consolidated financial statements also include the Group's share of net profit/(loss) after tax using the equity method, of ₹ 628.56 crore and total comprehensive income of ₹ 636.64 crore for the year ended 31 March 2024 respectively as considered in the Consolidated Financial Statements in respect of Nine joint ventures whose financial statements/ financial information are unaudited.These financial statements/ financial information have been furnished to us by the Holding Company's Management and our opinion on the Consolidated Financial Statements, in so far as it relates to the Group's share of net profit/(loss) and disclosures included in respect of these joint ventures, and our report in terms of sub-section (3) of Section 143 of the Act, in so far as it relates to the aforesaid subsidiaries and joint ventures, is based solely on such unaudited financial statements/ financial information. Two of the joint ventures as above are located outside India in respect of which the Holding Company's management has provided us the financial statements prepared in accordance with accounting principles generally accepted in India. In our opinion and according to the information and explanations given to us by the Holding Company's Management these financial statements / financial information are not material to the Group.

Our opinion on the Consolidated Financial Statements, and our report on Other Legal and Regulatory Requirements below, is not modified in respect of the matters as stated in para (a) & (b) above, with respect to our reliance on the work done and the reports of the other auditors, the financial statements/financial information certified by the Holding Company's Management.

c) The audited consolidated financial statements of the Holding Company for the year ended 31 March 2023 included in these consolidated financial statements, have been audited by the Predecessor Joint Statutory Auditors whose audit report dated 19 May, 2023 expressed unmodified opinion on those audited consolidated financial statements.

d) We audited the restatement adjustments, as disclosed in Note No. 56 to the Consolidated Financial Statements, which have been made to the comparative Consolidated Financial Statements presented for the years prior to year ended 31 March, 2024, in accordance with the requirement of applicable Ind AS.

Our opinion is not modified in respect of the aforesaid matters.

Report on Other Legal and Regulatory Requirement

1. As required by paragraph 3(xxi) of the Companies (Auditor's Report) Order, 2020 ("the Order") issued by the Central Government of India in terms of Section 143(11) of the Act, we report that there are no qualifications or adverse remarks included in the CARO report in respect of the standalone financial statements of the Holding Company which are included in these Consolidated Financial Statements. In respect of Subsidiaries and Joint Ventures incorporated in India whose accounts are audited, we report that no qualifications or adverse remarks given by the respective auditors in the Companies (Auditor's Report) Order (CARO) reports of the Companies included in the consolidated financial statements.

   In respect of following components included in the consolidated financial statements, respective auditors have not issued their statutory audit report till the cut-off date considered for the independent auditors' report of the Holding Company:

S. No.	Name of the Company	Subsidiary/ Joint Venture
1.	Ratnagiri Gas & Power Private Limited	Subsidiary
2.	Utility Powertech Limited	Joint Venture
3.	National High Power Test Laboratory Private Limited	Joint Venture
4.	NTPC- GE Power Services Private Limited	Joint Venture
5.	NTPC-BHEL Power Project Private Limited	Joint Venture
6.	Transformers and Electricals Kerala Limited	Joint Venture
7.	Energy Efficiency Services Limited	Joint Venture
8.	Hindustan Urvarak and Rasayan Limited	Joint Venture
9.	Trincomalee Power Company Limited	Joint Venture
10.	Bangladesh India Friendship Power Company Private Limited	Joint Venture

2. As required by Section 143(3) of the Act, based on our audit and on the consideration of report of the other auditors on separate financial statements and the other financial information of subsidiaries and joint ventures as mentioned in the 'Other Matters' section, we report, to the extent applicable, that:

   a) We have sought and obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purposes of our audit of the aforesaid Consolidated Financial Statements.

   b) In our opinion, proper books of account as required by law relating to preparation of the aforesaid Consolidated Financial Statements have been kept by the Holding Company so far as it appears from our examination of those books and the reports of the other auditors.

   c) The Consolidated Balance Sheet, the Consolidated Statement of Profit and Loss (including Other Comprehensive Income), the Consolidated Statement of Changes in Equity and the Consolidated Statement of Cash Flows dealt with by this Report are in agreement with the relevant books of account maintained for the purpose of preparation of the Consolidated Financial Statements.

   d) In our opinion, the aforesaid Consolidated Financial Statements comply with the Indian Accounting Standards specified under Section 133 of the Act read with the Companies (Indian Accounting Standards) Rules, 2015 as amended.



e) Being a Government Company, pursuant to the Notification No. GSR 463(E) dated 5 June 2015 issued by Ministry of Corporate Affairs, Government of India, provisions of sub-section (2) of Section 164 of the Act, are not applicable to the Holding company and its subsidiaries. Further, on the basis of the reports of the auditors of two joint ventures incorporated in India, none of the directors of the joint ventures incorporated in India is disqualified as on 31 March 2024 from being appointed as a director in terms of Section 164 (2) of the Act, wherever applicable.

f) With respect to the adequacy of the Internal Financial Controls with reference to consolidated financial statements of the Holding Company, its subsidiaries and joint ventures incorporated in India and the operating effectiveness of such controls, refer to our separate report in "**Annexure-1"**. Our report expresses a opinion on the adequacy and operating effectiveness of the Holding Company's internal financial controls over financial reporting.

g) As per Notification No. GSR 463(E) dated 5 June 2015 issued by the Ministry of Corporate Affairs, Government of India, Section 197 of the Act is not applicable to the Government Companies. Accordingly, reporting in accordance with requirement of provisions of section 197(16) of the Act is not applicable to the Holding company and its subsidiaries. Further, on the basis of the reports of the auditors of one joint venture incorporated in India, the managerial remuneration paid/provided by such joint venture to its directors during the year was in accordance with the provisions of section 197 read with Schedule V of the Act, wherever applicable.

h) With respect to the other matters to be included in the Auditor's Report in accordance with Rule 11 of the Companies (Audit and Auditor's) Rules, 2014, as amended in our opinion and to the best of our information and according to the explanations given to us and based on the consideration of the report of the other auditors on separate financial statements and also the other financial information of the subsidiaries and joint ventures, as mentioned in the 'Other Matters' paragraph:

i. The Consolidated Financial Statements disclose the impact of pending litigations on the consolidated financial position of the Group and its joint ventures. Refer Note No. 76(A) to the Consolidated Financial Statements;

ii. Provision has been made in the Consolidated Financial Statements, as required under the applicable law or Indian Accounting Standards, for material foreseeable losses, on long-term contracts including derivative contracts;

iii. There has been some delay in transferring unclaimed amount of dividend and equity shares related thereto, as required to be transferred, to the Investor Education and Protection Fund by the Holding Company. No amount of unclaimed dividend or unclaimed equity shares are pending to be transferred to the said fund as on 31 March 2024.

iv. (a) The respective Managements of the Holding Company and its subsidiaries and joint ventures which are companies incorporated in India, whose financial statements have been audited under the Act, have represented to us and the other auditors of such subsidiaries and its joint ventures that, to the best of their knowledge and belief, as disclosed in the note 77(xiii) to the Consolidated Financial Statements, no funds have been advanced or loaned or invested (either from borrowed funds or share premium or any other sources or kind of funds) by the Holding Company or any such subsidiaries and joint ventures to or in any other person(s) or entity(ies), including foreign entities ("Intermediaries"), with the understanding, whether recorded in writing or otherwise, that the Intermediary shall, directly or indirectly lend or invest in other persons or entities identified in any manner whatsoever by or on behalf of the Holding Company or any of such subsidiaries and joint ventures ("Ultimate Beneficiaries") or provide any guarantee, security or the like on behalf of the Ultimate Beneficiaries.

(b) The respective Managements of the Holding Company and its subsidiaries and joint ventures which are companies incorporated in India whose financial statements have been audited under the Act, have represented to us and the other auditors of such subsidiaries and joint ventures that to the best of their knowledge and belief, as disclosed in the note 77(xiii) to the Consolidated Financial Statements, no funds have been received by the Holding Company or any of such subsidiaries and joint ventures from any person(s) or entity(ies), including foreign entities ("Funding Parties"), with the understanding, whether recorded in writing or otherwise, that the Holding Company or any of such subsidiaries and joint ventures shall directly or indirectly, lend or invest in other persons or entities identified in any manner whatsoever by or on behalf of the Funding Party ("Ultimate Beneficiaries") or provide any guarantee, security or the like on behalf of the Ultimate Beneficiaries.

(c) Based on the audit procedures that have been considered reasonable and appropriate in the circumstances performed by us and that performed by the auditors of the subsidiaries and joint ventures which are companies incorporated in India whose financial statements have been audited under the Act, nothing has come to our or other auditors' notice that has caused us or other auditors to believe that the representations under sub-clause (i) and (ii) of Rule 11(e), as provided under (a) and (b) above, contain any material misstatement.

v. As stated in Note 24 (c) to the Consolidated Financial Statements:

(a) The final dividend proposed for the previous year, declared and paid by the Holding Company and its subsidiaries and joint ventures which are companies incorporated in India during the year is in accordance with Section 123 of the Act, as applicable.

(b) Interim dividend declared and paid by the Holding Company and its subsidiaries and joint ventures which are companies incorporated in India during the year is in accordance with Section 123 of the Act.

(c) The Board of Directors of the Holding Company and its subsidiaries and joint ventures which are companies incorporated in India has proposed final dividend for the year which is subject to the approval of the members at the ensuing Annual General Meeting. The amount of dividend proposed is in accordance with Section 123 of the Act to the extent it applies to declaration of dividend.

vi. Based on our examination which included test checks, performed by us and on the consideration of the reports of the other auditors on the Holding Company, its subsidiaries and Joint Ventures which are companies incorporated in India, have used accounting softwares for maintaining their respective books of account for the financial year ended 31 March, 2024 which has a feature of recording audit trail (edit log) facility and the same has operated throughout the year for all relevant transactions recorded in the softwares. Further, during the course of audit, we have not come across any instance of the audit trail feature being tampered with except in respect of Anushakti Vidhyut Nigam Limited, a Joint Venture incorporated in India, as reported by the auditor of such joint venture, has used accounting software which has no feature for recording audit trail (edit log) throughout the year.

As proviso to Rule 3(1) of the Companies (Accounts) Rules, 2014 is applicable from 1 April, 2023, reporting under Rule 11(g) of the Companies (Audit and Auditors) Rules, 2014 on preservation of audit trail as per the statutory requirements for record retention is not applicable for the financial year ended 31 March, 2024.

For Vinod Kumar & Associates Chartered Accountants FRN-002304N (Mukesh Dadhich) Partner M. No. 511741 UDIN:24511741BJZYRB2984	For Goyal Parul & Co Chartered Accountants FRN-016750N (Parul Goyal) Partner M. No. 099172 UDIN:24099172BKBKAH8861	For M. C. Bhandari & Co. Chartered Accountants FRN- 303002E (Amit Biswas) Partner M. No. 052296 UDIN:24052296BKFZHV4107
For J K S S & Associates Chartered Accountants FRN-006836C (Ram Babu) Partner M. No. 016151 UDIN: 24016151BKDEWF1744	For Agasti & Associates Chartered Accountants FRN-313043E (B. Agasti) Partner M. No. 051026 UDIN: 24051026BKGTSO4352	For S.N. Kapur & Associates Chartered Accountants FRN-001545C (S. N. Kapur) Partner M. No. 014335 UDIN: 24014335BJZZMZ8228

Place: New Delhi
Dated: 24 May, 2024
Digitally signed by signatories

ANNEXURE 1 TO THE INDEPENDENT AUDITORS' REPORT

Referred to in paragraph 2 (f) under 'Report on Other Legal and Regulatory Requirements' section of our report of even date to the members of NTPC LIMITED on the Consolidated Financial Statements for the year ended 31 March 2024

Report on the Internal Financial Controls with reference to Consolidated Financial Statements under Clause (i) of Sub-section 3 of Section 143 of the Companies Act, 2013 ("the Act")

In conjunction with our audit of the Consolidated Financial Statements of the Company as of and for the year ended 31 March 2024, we have audited the internal financial controls with reference to Consolidated Financial Statements of NTPC Limited (hereinafter referred to as "the Holding Company") and its subsidiaries (the Holding Company and its subsidiaries together referred to as "the Group"), and joint ventures, which are companies incorporated in India, as of that date.

Management's Responsibility for Internal Financial Controls

The respective Board of Directors of the Holding Company, its subsidiaries, and joint ventures, which are companies incorporated in India, are responsible for establishing and maintaining internal financial controls based on the internal controls over financial reporting criteria established by the respective companies considering the essential components of internal control stated in the Guidance Note on Audit of Internal Financial Controls over Financial Reporting issued by the Institute of Chartered Accountants of India (ICAI). These responsibilities include the design, implementation and maintenance of adequate internal financial controls that were operating effectively for ensuring the orderly and efficient conduct of its business, including adherence to the respective company's policies, the safeguarding of its assets, the prevention and detection of frauds and errors, the accuracy and completeness of the accounting records, and the timely preparation of reliable financial information, as required under the Act.

Auditors' Responsibility

Our responsibility is to express an opinion on the Company's internal financial controls with reference to Consolidated Financial Statements based on our audit. We conducted our audit in accordance with the Guidance Note on Audit of Internal Financial Controls over Financial Reporting (the "Guidance Note") and the Standards on Auditing prescribed under section 143(10) of the Act, to the extent applicable to an audit of internal financial controls with reference to Consolidated Financial Statements. Those Standards and the Guidance Note require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether adequate internal financial controls with reference to Consolidated Financial Statements was established and maintained and if such controls operated effectively in all material respects.

Our audit involves performing procedures to obtain audit evidence about the adequacy of the internal financial control with reference to Consolidated Financial Statements and their operating effectiveness. Our audit of internal financial controls with reference to Consolidated Financial Statements included obtaining an understanding of internal financial controls with reference to Consolidated Financial Statements, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the Consolidated Financial Statements, whether due to fraud or error.

We believe that the audit evidence we have obtained and the audit evidence obtained by the other auditors of the subsidiaries and joint ventures, incorporated in India, in terms of their reports referred to in the 'Other Matters' paragraph below, is sufficient and appropriate to provide a basis for our audit opinion on the internal financial controls of the Group and its Joint Venture Companies incorporated in India, with reference to Consolidated Financial Statements.

Meaning of Internal Financial Controls with reference to Consolidated Financial Statements

A company's internal financial control with reference to Consolidated Financial Statements is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of Consolidated Financial Statements for external purposes in accordance with generally accepted accounting principles. A company's internal financial control with reference to Consolidated Financial Statements includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of Consolidated Financial Statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the Consolidated Financial Statements.

Inherent Limitations of Internal Financial Controls with reference to Consolidated Financial Statements

Because of the inherent limitations of internal financial controls with reference to Consolidated Financial Statements, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may occur and not be detected. Also, projections of any evaluation of the internal financial controls with reference to Consolidated Financial Statements to future periods are subject to the risk that the internal financial control with reference to Consolidated Financial Statements may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Opinion

In our opinion and to the best of our information and according to the explanations given to us, the Holding Company, its subsidiaries and joint ventures, which are companies incorporated in India, have, in all material respects, an adequate internal financial controls with reference to Consolidated Financial Statements in place and such internal financial controls with reference to Consolidated Financial Statements were operating effectively as at 31 March 2024, based on the internal controls over financial reporting criteria established by the Group and its Joint Venture Companies incorporated in India considering the essential components of internal control stated in the Guidance Note on Audit of Internal Financial Controls Over Financial Reporting issued by ICAI.

Other Matters

Our aforesaid report under Section 143(3)(i) of the Act on the adequacy and operating effectiveness of the internal financial controls with reference to Consolidated Financial Statements of the Holding Company, in so far as it relates to nine subsidiaries and six joint ventures incorporated in India, is based on the corresponding reports of the auditors of such companies incorporated in India.

Our aforesaid report under Section 143(3)(i) of the Act on the adequacy and operating effectiveness of the internal financial controls with reference to Consolidated Financial Statements in so far as it relates to one subsidiary and seven joint ventures incorporated in India, whose financial statements / financial information are unaudited and our opinion on the adequacy and operating effectiveness of the internal financial controls with reference to Consolidated Financial Statements of the Group is not affected as the Group's share of net profit/loss (including Other Comprehensive Income) and disclosures included in respect of these joint ventures in these Consolidated Financial Statements are not material to the Group.

Our report is not modified in respect of the above matters.

For Vinod Kumar & Associates Chartered Accountants FRN-002304N (Mukesh Dadhich) Partner M. No. 511741 UDIN:24511741BJZYRB2984	For Goyal Parul & Co Chartered Accountants FRN-016750N (Parul Goyal) Partner M. No. 099172 UDIN:24099172BKBKAH8861	For M. C. Bhandari & Co. Chartered Accountants FRN- 303002E (Amit Biswas) Partner M. No. 052296 UDIN:24052296BKFZHV4107
For J K S S & Associates Chartered Accountants FRN-006836C (Ram Babu) Partner M. No. 016151 UDIN: 24016151BKDEWF1744	For Agasti & Associates Chartered Accountants FRN-313043E (B. Agasti) Partner M. No. 051026 UDIN: 24051026BKGTSO4352	For S.N. Kapur & Associates Chartered Accountants FRN-001545C (S. N. Kapur) Partner M. No. 014335 UDIN: 24014335BJZZMZ8228

Place: New Delhi
Dated: 24 May, 2024
Digitally signed by signatories

THE COMPTROLLER AND AUDITOR GENERAL OF INDIA UNDER SECTION 143(6)(b) READ WITH SECTION 129 (4) OF THE COMPANIES ACT, 2013 ON THE CONSOLIDATED FINANCIAL STATEMENTS OF NTPC LIMITED FOR THE YEAR ENDED 31 MARCH 2024 AND MANAGEMENT REPLIES THEREON

The preparation of consolidated financial statements of NTPC Limited for the year ended 31 March 2024 in accordance with the financial reporting framework prescribed under the Companies Act, 2013 (Act) is the responsibility of the management of the company. The statutory auditors appointed by the Comptroller and Auditor General of India under section 139(5) read with section 129(4) of the Act are responsible for expressing opinion on the financial statements under section 143 read with section 129(4) of the Act based on independent audit in accordance with the standards on auditing prescribed under section 143(10) of the Act. This is stated to have been done by them vide their Audit Report dated 24 May 2024.

I, on behalf of the Comptroller and Auditor General of India, have conducted a supplementary audit of the consolidated financial statements of NTPC Limited for the year ended 31 March 2024 under Section 143(6)(a) read with section 129(4) of the Act. We conducted a supplementary audit of financial statements of NTPC Limited, and subsidiaries, associate companies and jointly controlled entities listed in Annexure I but did not conduct supplementary audit of the financial statements of subsidiaries, associate companies and jointly controlled entities listed in Annexure II for the year ended on that date. Further, section 139(5) and 143(6)(a) of the Act are not applicable to Utility Powertech Limited and NTPC - GE Power Services Private Limited being private entities and Tricomalee Power Company Limited and Bangladesh - India Friendship Power Company Private Limited being incorporated in foreign country(ies) under the respective laws, for appointment of their Statutory Auditors and for conduct of supplementary audit. Accordingly, Comptroller and Auditor General of India has neither appointed the Statutory Auditors nor conducted the supplementary audit of these companies. This supplementary audit has been carried out independently without access to the working papers of the statutory auditors and is limited primarily to inquiries of the statutory auditors and company personnel and a selective examination of some of the accounting records.

Based on my supplementary audit, I would like to highlight the following significant matter under section 143(6)(b) which has come to my attention and which in my view is necessary for enabling a better understanding of the financial statements and the related audit report:

Comment	Management Reply
Statement of Profit and Loss **Expenses-Other Expenses (Note No. 48): ₹ 16,821.39 crore** **Corporate Social Responsibility (CSR) Expenses: ₹ 254.62 crore**	
As per section 135 (5) of the Companies Act, 2013 and Rule 7(3) of the Companies (Corporate Social Responsibility Policy) Amendment Rules, 2021, if the company spends an amount in excess of requirements provided under this section (2%), such excess amount may be set off against the requirement to spend under this sub-section for such number of succeeding financial years as may be prescribed (three years). Further, Technical Guidance of ICAI on CSR Accounting provides that if the company decides to adjust such excess spent amount against its future CSR obligation, the same is to be recognized as an asset and if it decides not to carry forward the same, such excess spent amount is to be recognized as an expense.	The Companies (Corporate Social Responsibility Policy) Amendment Rules, 2021 notified on 22 January 2021, provides vide Rule 7 (3) that *Where a company spends an amount in excess of requirement provided under sub-section (5) of section 135, such excess amount may be set off against the requirement to spend under sub-section (5) of section 135 up to immediate succeeding three financial years subject to the conditions that –* *(i) the excess amount available for set off shall not include the surplus arising out of the CSR activities, if any, in pursuance of sub-rule (2) of this rule.* *(ii) the Board of the company shall pass a resolution to that effect.*
During the year 2023-24, the Company as a standalone was required to spend an amount of ₹ 337.98 crore towards CSR. However, it spent an amount of ₹ 200.57 crore and adjusted an amount of ₹ 137.41 crore from excess CSR spending in previous years. This was in violation of the Companies Act, 2013 as the Company had not created assets in respect of excess CSR spending in previous years. Therefore, adjustment of the excess CSR spending in previous years towards current year's obligation has led to shortfall in spending minimum stipulated CSR obligation to the extent of ₹ 137.41 crore which should have been shown as current liability on account of CSR obligation. This has resulted in understatement of 'Other expenses' as well as 'Current liabilities -Other current liabilities' by ₹ 137.41 crore each.	NTPC has met these conditions and hence has a right to set-off the excess spent in the earlier years in the succeeding years against its CSR obligations as per the Rules. NTPC has been consistently complying with CSR spending requirements as mandated under the Companies Act and is also committed to spend the minimum amount as per the requirements under CSR rules. As per the aforesaid requirement, the excess spent available at the end of 31 March 2023 amounting to ₹ 225.19 crore has been approved by the Board in its meeting held on 19 May 2023 to be carried forward in the succeeding years, in line with the provisions of CSR policy rules stated above. In all the earlier years, there was no necessity to adjust from the carried forward amounts and the actual expenses itself were more than the 2% requirement. In view of this trend of past, the Company has not created any asset for the excess spent with a disclosure in the financial statements that *"The set off available in the succeeding years is not recognised as an asset as a matter of prudence, considering the uncertainty involved in the adjustment of the same in future years."* The Company has incurred an amount of ₹ 200.57 crore during the year 2023-24 and utilised an amount of ₹ 137.41 crore out of the duly approved carried forwarded amount and duly met the CSR expenditure obligation of ₹ 337.98 crore as per the applicable provisions of Companies Act, 2013 read with relevant Rules. Since the CSR obligation as per Section 135 of the Companies Act, 2013 read with applicable CSR rules has been complied with, need for creation of a provision during the year 2023-24 for the amount equivalent to the set off availed as per Rules, does not arise. The provisions of Companies Act, 2013 prevail over technical guidance given by ICAI and the Company has complied with the requirements of the Companies Act, 2013 as stated above. As such, there is no understatement of 'Other expenses' and 'Current liabilities -Other current liabilities'.

For and on behalf of the
Comptroller & Auditor General of India

Sd/-
(S. Ahlladini Panda)
Director General of Audit (Energy)

Place : New Delhi
Dated: 01 August, 2024

For and on behalf of the
Board of Directors

Sd/-
(Gurdeep Singh)
Chairman and Managing Director

Place : New Delhi
Dated : 02 August 2024

ANNEXURE-I

List of Subsidiaries, Associate Companies and Jointly Controlled Entities whose financial statements were audited by the Comptroller and Auditor General of India

A. **Subsidiaries**

1. NTPC Vidyut Vyapar Nigam Limited
2. Bhartiya Rail Bijlee Company Limited
3. Patratu Vidyut Utpadan Nigam Limited
4. THDC Limited
5. North Eastern Electric Power Corporation Limited
6. NTPC EDMC Waste Solutions Private Limited
7. NTPC Green Energy Limited

B. **Associate Companies and Joint Ventures**

1. Aravali Power Company Private Limited,
2. Meja Urja Nigam Private Limited
3. NTPC -SAIL Power Company Limited
4. Jhabua Power Limited
5. NTPC Tamilnadu Energy Company Limited

ANNEXURE-II

List of Subsidiaries, Associate Companies and Jointly Controlled Entities whose financial statements were not audited by the Comptroller and Auditor General of India

Subsidiaries

1. NTPC Electric Supply Company Limited
2. NTPC Mining Limited
3. Ratnagiri Gas & Power Private Limited

Associate Companies and Joint Ventures

1. NTPC -BHEL Power Projects Private Limited
2. Transformers & Electricals Kerala Limited
3. National High Power Test Laboratory Private Limited
4. Energy Efficiency Services Limited
5. Hindustan Urvarak & Rasayan Limited
6. Anushakti Vidhyut Nigam Limited
7. CIL NTPC Urja Private Limited

Our Group's Overview | Innovating for Sustainability | Statutory Disclosures | Statutory and Financial Results

NTPC Limited

CIN: L40101DL1975GOI007966
Regd. Office: NTPC Bhawan, SCOPE Complex, 7, Institutional Area, Lodi Road,
New Delhi-110 003
Tel. no.: 011-24360959 Fax: 011-24360241
Email: csntpc@ntpc.co.in Website: www.ntpc.co.in

NOTICE

NOTICE is hereby given that the **48th Annual General Meeting** of the Members of NTPC Limited will be held on **Thursday, 29th August 2024 at 10.30 A.M. (IST)** through Video Conferencing ("VC")/ Other Audio-Visual Means ("OAVM"), to transact the following businesses:

ORDINARY BUSINESS:

1. To consider and adopt Audited Standalone & Consolidated Financial Statements of the Company for the financial year ended 31st March 2024, the reports of the Board of Directors and Auditors thereon and, in this regard, to consider and if thought fit, to pass, with or without modification(s), the following resolution as an **Ordinary Resolution**:

   Resolved that the audited Standalone & Consolidated financial statement of the Company for the financial year ended 31st March 2024 and the reports of the Board of Directors and Auditors thereon, as circulated to the Members, be and are hereby considered and adopted.

2. To confirm payment of interim dividend and declare final dividend for the financial year 2023-24 and in this regard, to consider and if thought fit, to pass, with or without modification(s), the following resolution as an **Ordinary Resolution**:

   Resolved that an interim dividend @ 45% (Rs.4.50 per equity share of Rs.10/-) on the paid- up equity share capital of the Company and final dividend @ 32.50% (Rs. 3.25 per equity share of Rs.10/-) as recommended by the Board of Directors be and is hereby declared out of the profits of the Company for the financial year 2023-24.

3. To appoint Shri Piyush Surendrapal Singh (DIN: 07492389) Government Nominee Director, who retires by rotation as a Director and in this regard, to consider and if thought fit, to pass, with or without modification(s), the following resolution as an **Ordinary Resolution**:

   Resolved that in accordance with the provisions of Section 152 and other applicable provisions of the Companies Act, 2013, Shri Piyush Surendrapal Singh (DIN: 07492389), who retires by rotation at this meeting, be and is hereby re-appointed as a Director of the Company.

4. To fix the remuneration of the Statutory Auditors for the financial year 2024-25 and, in this regard, to consider and if thought fit, to pass, with or without modification(s), the following resolution as an **Ordinary Resolution**:

   Resolved that the Board of Directors of the Company be and is hereby authorised to fix an appropriate remuneration of Statutory Auditors of the Company, appointed by the Comptroller and Auditor General of India for the financial year 2024-25.

SPECIAL BUSINESS:

5. **To appoint Shri K. Shanmugha Sundaram (DIN: 10347322), as Director (Projects) of the Company and in this regard to consider and if thought fit, to pass the following resolution as an Ordinary Resolution:**

   Resolved that pursuant to the provisions of Section 149, 152 and other applicable provisions, if any, of the Companies Act, 2013, rules made thereunder, and other applicable provisions of the Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015 Shri K. Shanmugha Sundaram (DIN: 10347322), who was appointed as Director (Projects), by the President of India vide Ministry of Power Order No. 8/12/2022-Th-1 dated 08th November, 2023 and subsequently appointed as an Additional Director and designated as Director (Projects) by the Board of Directors with effect from 01st December, 2023 to hold office until the date of this Annual General Meeting, in terms of Section 161 of the Companies Act, 2013 be and is hereby appointed as Director (Projects) of the Company on terms & conditions as may be fixed by the Government of India and he shall be liable to retire by rotation.



6. **To appoint Shri Ravindra Kumar (DIN: 10523088), as Director (Operations) of the Company and in this regard to consider and if thought fit, to pass the following resolution as an Ordinary Resolution:**

   Resolved that pursuant to the provisions of Section 149, 152 and other applicable provisions, if any, of the Companies Act, 2013, rules made thereunder, and other applicable provisions of the Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015 Shri Ravindra Kumar (DIN: 10523088), who was appointed as Director (Operations), by the President of India vide Ministry of Power Order No. 8/2/2023-Th-1 dated 25th February, 2024 and subsequently appointed as an Additional Director and designated as Director (Operations) by the Board of Directors with effect from 26th February, 2024 to hold office until the date of this Annual General Meeting, in terms of Section 161 of the Companies Act, 2013 be and is hereby appointed as Director (Operations) of the Company on terms & conditions as may be fixed by the Government of India and he shall be liable to retire by rotation.

7. **To ratify the remuneration of the Cost Auditors for the financial year 2024-25 and in this regard to consider and if thought fit, to pass the following resolution as an Ordinary Resolution**:

   Resolved that pursuant to the provisions of Section 148 and all other applicable provisions of the Companies Act, 2013 and the Companies (Audit and Auditors) Rules, 2014 [including any statutory modification(s)], the Company hereby ratifies the remuneration of Rs.47,40,000/- (Rupees Forty Seven Lakh and Forty Thousand only) as approved by the Board of Directors payable to Cost Auditors appointed by the Board of Directors of the Company to conduct the audit of the cost records of the Company for the financial year 2024-25 as per detail set out in the Statement annexed to the Notice convening this Meeting.

   Further resolved that the Board of Directors of the Company be and is hereby authorised to do all acts, deeds, matters and things as may be considered necessary, desirable or expedient for giving effect to this resolution.

8. **To raise funds up to Rs. 12,000 Crore through issue of Non-Convertible Debentures (NCDs/Bonds) on Private Placement basis and in this regard to consider and if thought fit, to pass following resolution as a Special Resolution:**

   Resolved that pursuant to Section 42 and other applicable provisions of the Companies Act, 2013 read with Rule 14 (1) of the Companies (Prospectus and Allotment of Securities) Rules, 2014 and any other applicable statutory provisions (including any statutory modification or re-enactments thereof) the Board of Directors of the Company (the "Board") be and are hereby authorized to make offer(s) or invitation(s) to subscribe to the secured/unsecured, redeemable, taxable/ tax-free, cumulative/non-cumulative, non-convertible debentures ("NCDs/Bonds") up to Rs.12,000 Crore in one or more tranches/series not exceeding 12 (twelve), through private placement, in domestic market for capex, working capital and general corporate purposes, during the period commencing from the date of passing of Special Resolution till completion of one year thereof or the date of next Annual General Meeting in the financial year 2025-26, whichever is earlier, in conformity with rules, regulations, notifications and enactments as may be applicable from time to time, subject to the total borrowings of the Company approved by the shareholders under Section 180 (1) (c) of Companies Act, 2013.

   Further Resolved that the Board be and is hereby authorized to do or delegate from time to time, all such acts, deeds and things as may be deemed necessary to give effect to private placement of such NCDs including but not limited to determining the face value, issue price, issue size, tenor, timing, amount, security, coupon/interest rate, yield, listing, allotment and other terms and conditions of issue of NCDs as it may, in its absolute discretion, consider necessary.

By order of the Board of Directors

Sd/-
(Ritu Arora)
Company Secretary

Place: New Delhi
Date: 2 August 2024

Notes: -

1. The Ministry of Corporate Affairs ('MCA') has vide its General Circulars dated 8th April, 2020, 13th April, 2020, 5th May, 2020, 13th January, 2021, 14th December, 2021, 05th May, 2022, 28th December, 2022 and 25th September, 2023 and other circulars issued from time to time (collectively referred to as 'MCA Circulars') and SEBI vide circular dated 6th October, 2023 (referred to as 'SEBI Circulars')permitted the holding of the Annual General Meeting ('AGM') through Video Conferencing ('VC') facility / Other Audio Visual Means ('OAVM'), without the physical presence of the Members at a common venue. In compliance with the applicable provisions of the Companies Act, 2013 ('the Act'), the Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015 ('SEBI Listing Regulations') and the MCA Circulars and the SEBI Circulars, the AGM of the Company is being held through VC / OAVM. The deemed venue for the AGM shall be the Registered Office of the Company.
2. In compliance with the statutory guidelines, Notice of the AGM along with the Annual Report 2023-24 is being sent only through electronic mode to those Members whose email addresses are registered with the Company/Depository participant/ Depositories. Members may please note that the Notice and Annual Report 2023-24 will also be available on the Company's website www.ntpc.co.in, websites of the Stock Exchanges, i.e., BSE Limited and National Stock Exchange of India Limited at www.bseindia.com and www.nseindia.com respectively. The AGM Notice is also disseminated on the website of NSDL (agency for providing the Remote e-Voting facility and e-voting system during the AGM) i.e. https://www.evoting.nsdl.com/ . Shareholders are advised to contact RTA, at the address mentioned in Para 13 below, with details like name, folio no. and self-attested copy of PAN & AADHAR in order to update their email ID.
3. Since this AGM is being held through VC / OAVM pursuant to the MCA Circulars, physical attendance of members has been dispensed with. Accordingly, the facility for appointment of proxies by the members will not be available for this AGM. Hence, Proxy Form and Attendance Slip are not annexed hereto. However, in terms of the provisions of Section 112 and Section 113 of the Act, representatives of the Members such as the President of India or the Governor of a State or body corporate can attend the AGM through VC/OAVM and cast their votes through e-voting.
4. The attendance of the Members attending the AGM through VC/OAVM will be counted for the purpose of ascertaining the quorum under Section 103 of the Companies Act, 2013.
5. The Board has appointed Shri Sachin Agarwal, Partner, Agarwal S. & Associates, Company Secretaries as scrutinizer for e-voting.
6. Members of the Company under the category of Institutional Investors are requested to attend and vote at the AGM through VC. Corporate Members/ Institutional Investors intending to appoint their authorized representatives pursuant to Section 113 of the Act, to attend the AGM through VC or OAVM or to vote through remote e-voting are requested to send a certified copy of the Board Resolution to the Scrutinizer by e-mail at asacs2022@gmail.com.
7. Pursuant to Section 139 of the Companies Act, 2013, the Auditors of a Government Company are to be appointed or re-appointed by the Comptroller and Auditor General of India (C&AG) and in pursuant to Section 142 of the Companies Act, 2013, their remuneration is to be fixed by the Company in the Annual General Meeting or in such manner as the Company in general meeting may determine. The Members of the Company, in 47th Annual General Meeting held on 30th August, 2023, had authorized the Board of Directors to fix the remuneration of Statutory Auditors for the financial year 2023-24. Accordingly, the Board of Directors has fixed audit fee of Rs.2,70,48,000/- (Rupees Two Crore Seventy Lakh Fourty Eight Thousand only) for the Statutory Auditors for the financial year 2023-24 in addition to applicable GST and reimbursement of actual traveling and out-of-pocket expenses for visits to accounting units. The Statutory Auditors of the Company for the year 2024-25 are yet to be appointed by the C&AG. Accordingly, the Members may authorize the Board to fix an appropriate remuneration of Statutory Auditors as may be deemed fit by the Board for the year 2024-25.
8. The relevant explanatory statement pursuant to Section 102 of the Companies Act, 2013, in respect of Special Businesses, as set out above is annexed hereto.
9. A brief resume of the Directors seeking appointment or re-appointment at Annual General Meeting (AGM), as required under Regulation 36 of SEBI Listing Regulations, is annexed hereto and forms part of the Notice.
10. None of the Directors of the Company is in any way related with each other.

DIVIDEND

11. The Board of Directors, in its meeting held on 28th October, 2023 had declared the first interim dividend @22.50 % (Rs.2.25 per share) on the paid-up equity share capital of the Company which was paid on 23rd November, 2023. Further, the Board of Directors, in its meeting held on 29th January, 2024 had declared the second interim dividend @ 22.50 % (Rs.2.25 per share) on the paid-up equity share capital of the Company which was paid on 22nd February, 2024. Further, the Board of Directors, in its Meeting held on 24th May, 2024 has recommended a final dividend @ 32.50% (Rs.3.25 per share) on the paid-up equity share capital of the Company.



12. The Company has fixed Wednesday, 7th August, 2024 as record date for the purpose of payment of the final dividend. Final dividend, if approved at the AGM shall be paid on or after Wednesday, 11th September, 2024.

TDS on dividend

13. Pursuant to the Finance Act, 2020, dividend income is taxable in the hands of the Shareholders w.e.f. 01st April, 2020 and the Company is required to deduct TDS from dividend paid to the Members at rates prescribed under the Income Tax Act, 1961 ("IT Act"). To enable compliance with TDS requirements, Members are requested to complete and / or update their Residential Status, PAN, Category as per the IT Act with their Depository Participants ('DPs') or in case shares are held in physical form, with the Company/RTA by sending the required documents by 16th August, 2024. For the detailed process, please visit website of the Company https://www.ntpc.co.in/investor-updates/dividend-tds-communication. The aforesaid documents, as applicable, are required to be emailed at tdsdiv@ntpc.co.in and dividend.ntpc@taxcpc.com, to enable the Company to determine the appropriate TDS rates. Communication on the tax determination/deduction received post 16th August, 2024, 1730 Hours (IST) shall not be considered for payment of the Final Dividend.

    Further, in order to receive the dividend in a timely manner, Members holding shares in physical form who have not updated their mandate for receiving the dividends directly in their bank accounts through Electronic Clearing Service or any other means are requested to send the following documents to our RTA - **Beetal Financial & Computer Services Pvt. Ltd. at 3rd Floor, Beetal House, 99, Madangir, Delhi-110062**:

    a) A signed request letter by the first holder, mentioning the name, folio number, complete address and following details relating to bank account in which the dividend is to be received:

        i. Name of Bank and Bank Branch;

        ii. Bank Account Number & Type allotted by your bank after implementation of Core Banking Solutions; and

        iii. 11-digit IFSC Code;

        iv. 9 digit MICR Code.

    b) Original cancelled cheque bearing the name of the Member or first holder, in case shares are held jointly;

    c) Self-attested copy of the PAN Card; and

    d) Self-attested copy of any document (such as AADHAR Card, Driving License, Election Identity Card, Passport) in support of the address of the Member as registered with the Company.

    Members holding shares in demat form may please note that their bank details as furnished by the respective DPs to the Company will be considered for remittance of dividend as per the applicable regulations of the DPs and the Company will not entertain any direct request from such Members for change/addition/deletion in such bank details. Accordingly, the Members holding shares in demat form are requested to update their Electronic Bank Mandate with their respective DPs. Any instruction pertaining to the remittance of dividend would not be entertained other than the particulars that are mapped with the DPs.

INVESTOR EDUCATION AND PROTECTION FUND

14. Pursuant to the provisions of section 124(5) of the Companies Act, 2013, read with Regulation 61A of Securities and Exchange Board of India (LODR) (Fifth Amendment) Regulations, 2021, the Company has transferred the unpaid or unclaimed Final dividend for the financial year 2015-16, Interim dividend for the financial year 2016-17, unclaimed interest on Tax Free Bonds 2013 paid in 2016-17, unclaimed interest on Tax Free Bonds 2015 paid in 2016-17 and unclaimed interest on Bonus Debenture for the financial year 2016-17 to the Investor Education and Protection Fund (IEPF) established by the Central Government. Pursuant to the provisions of IEPF Rules & amendments thereto, the Company has uploaded the details of unpaid and unclaimed amounts lying with the Company as on the date of closure of financial year i.e. 31st March, 2024 on the website of the Company (www.ntpc.co.in) and also on the website of the Ministry of Corporate Affairs (https://www.iepf.gov.in) as per timelines stated in IEPF Rules.

15. Attention of the members is drawn to the provisions of Section 124(6) of the Act which require a company to transfer all shares in respect of which dividend has not been paid or claimed for 7 (seven) consecutive years or more, in the name of IEPF Authority. In accordance with the aforesaid provisions of the Act read with the Investor Education and Protection Fund Authority (Accounting, Audit, Transfer and Refund) Rules, 2016, Company has transferred shares to the IEPF authority from time to time. Members are advised to visit the web-link: https://www.ntpc.co.in/iepf-details to check details of shares transferred to IEPF authority. The procedure for claiming shares from IEPF account is also available on the website of the Company.

16. Unclaimed Final dividend for the financial year 2016-17 will be due for transfer to the Investor Education and Protection Fund of the Central Government on or before 23rd November, 2024 pursuant to the provisions of Section 124 of the Companies Act, 2013. Accordingly, corresponding shares on which dividend has not been paid or claimed for seven consecutive years shall also be liable to be transferred to the account of IEPF. Unclaimed interest on Tax Free Bonds 2013 and Tax-Free Bonds 2015 paid in 2017-18 will be due for transfer to the Investor Education and Protection Fund of the Central Government on 16th December, 2024 and 5th October, 2024, respectively. Further, Unclaimed interest on Bonus Debenture paid in 2017-18 will be due for transfer to the Investor Education and Protection Fund of the Central Government on or before 25th March, 2025.

WEBCASTING

17. In compliance with the provisions of Regulation 44(6) of the SEBI Listing Regulations, the Company shall provide live webcast of proceedings of AGM from 10.30 A.M. (IST) onwards on Thursday, 29th August 2024.

PROCEDURE FOR INSPECTION OF DOCUMENTS

18. The Register of Directors and Key Managerial Personnel and their shareholding maintained under Section 170 of the Act, the Register of Contracts or Arrangements in which the directors are interested, maintained under Section 189 of the Act will be available electronically for inspection by the members during the AGM. All documents referred to in the Notice will also be available electronically for inspection without any fee by the members from the date of circulation of this Notice and up to the date of AGM. Members seeking to inspect such documents can send an email to agm2024@ntpc.co.in.

OTHER INFORMATION

19. Members holding shares in multiple folios in physical mode are requested to apply for consolidation to the Company or its Registrar & Transfer Agent (RTA) along with relevant Share Certificates.

20. SEBI, vide notification dated 8th June, 2018 read with notification dated 24th January 2022, any requests for effecting transfer/ transposition/ transmission of securities shall not be processed unless the securities are held in the dematerialized form with a depository. Accordingly, Shareholders holding shares in physical form, are advised to dematerialize their shares.

21. SEBI vide its circular dated 16th March, 2023 mandated all listed companies to record PAN, Nomination and Contact details, Bank A/c details and specimen signature for their corresponding folio numbers of holders of physical securities. The Company has completed the process of sending letters through its RTA to the Members holding shares in physical form in relation to above referred SEBI Circular. Members holding shares in electronic form are requested to submit their details to their Depository Participant(s).

22. Members, holding shares in physical form, may avail the facility of nomination in terms of Section 72 of the Companies Act, 2013 by nominating in the Form-SH 13 as prescribed in the Companies (Share Capital & Debentures) Rules, 2014, any person to whom their shares in the Company shall vest on occurrence of event stated in the Form. Persons holding shares in physical form may send Form-SH 13 in duplicate to RTA of the Company. In case of shares held in dematerialized form, the nomination has to be lodged with the respective DP.

23. Annual listing fee for the year 2024-25 has been paid to all Stock Exchanges wherein shares of the Company are listed. Also, the Annual Custodian Fee for the year 2024-25 was paid to both Depositories i.e. Central Depository Services (India) Limited and National Securities Depository Limited.

24. Since the AGM will be held through VC/OAVM, the route map of the venue of the Meeting is not annexed hereto.



Annexure to Notice

EXPLANATORY STATEMENT PURSUANT TO SECTION 102 OF THE COMPANIES ACT, 2013

The following statement sets out all material facts relating to Special Businesses mentioned in the accompanying notice:

Item No. 5: Appointment of Shri K. Shanmugha Sundaram (DIN: 10347322) as Director (Projects)

Shri K. Shanmugha Sundaram (DIN: 10347322), was appointed as Director (Projects), by the President of India vide Ministry of Power Order No. 8/12/2022-Th-1 dated 08th November, 2023 till the date of superannuation or until further orders, whichever is earlier and was accordingly appointed as an Additional Director w.e.f. the date of taking over charge and to hold office up to this Annual General Meeting on the basis of recommendation of Nomination & Remuneration Committee including PRP. He has taken charge as Director (Projects), NTPC on 01st December, 2023. The terms and conditions regulating the appointment of Shri K. Shanmugha Sundaram as Director (Projects) shall be determined by the Government of India. The Company has received a requisite notice pursuant to the provisions of Section 160 of the Companies Act, 2013 in respect of appointment of Shri K. Shanmugha Sundaram.

His brief resume, inter-alia, giving nature of expertise in specific functional area, shareholding in the Company, other Directorship, Membership/ Chairmanship of Committees and other particulars are enclosed with this notice.

None of the Directors, Key Managerial Personnel of the Company or their relatives except Shri K. Shanmugha Sundaram, is in any way, concerned or interested, financially or otherwise, in the resolution.

The Board recommends the resolution for your approval.

Item No. 6: Appointment of Shri Ravindra Kumar (DIN: 10523088) as Director (Operations)

Shri Ravindra Kumar (DIN: 10523088), was appointed as Director (Operations), by the President of India vide Ministry of Power Order No. 8/2/2023-Th-1 dated 25th February, 2024 till the date of superannuation or until further orders, whichever is earlier and was accordingly appointed as an Additional Director w.e.f. the date of taking over charge and to hold office up to this Annual General Meeting on the basis of recommendation of Nomination & Remuneration Committee including PRP. He has taken charge as Director (Operations), NTPC on 26th February, 2023. The terms and conditions regulating the appointment of Shri Ravindra Kumar as Director (Operations) shall be determined by the Government of India. The Company has received a requisite notice pursuant to the provisions of Section 160 of the Companies Act, 2013 in respect of appointment of Shri Ravindra Kumar.

His brief resume, inter-alia, giving nature of expertise in specific functional area, shareholding in the Company, other Directorship, Membership/ Chairmanship of Committees and other particulars are enclosed with this notice.

None of the Directors, Key Managerial Personnel of the Company or their relatives except Shri Ravindra Kumar, is in any way, concerned or interested, financially or otherwise, in the resolution.

The Board recommends the resolution for your approval.

Item No. 7: Ratification of Remuneration payable to Cost Auditors

Based on recommendation of Audit Committee, appointment of Cost Auditors for the Financial year 2024-25 was decided by the Board of Directors. The Board of Directors in its meeting held on Saturday, 27th July 2024 has accorded approval for payment of total fee of Rs.47,40,000/-(Rupees Forty Seven Lakh Forty Thousand only) for cost audit for the Financial year 2024-25. The fee structure for cost audit is broadly based on station capacity and number of stations. The reimbursement of applicable statutory taxes/ levies shall be in addition to fees.

As per Rule 14 of Companies (Audit and Auditors) Rules, 2014 read with Section 148(3) of the Companies Act, 2013, the remuneration recommended by the Audit Committee shall be considered and approved by the Board of Directors and ratified subsequently by the shareholders.

Accordingly, members are requested to ratify the remuneration payable to the Cost Auditors for the financial year 2024-25.

The Board of Directors recommended the passing of the proposed Resolution by members of the Company.

The Directors or Key Managerial Personnel or their relatives do not have any concern or interest, financial or otherwise, in passing of the said Ordinary Resolution, except to the extent of their shareholding in the Company.

Item No. 8: To raise funds up to Rs. 12,000 Crore through issue of Non-Convertible Debentures (NCDs/ Bonds)on Private Placement basis

The Company is the largest power producer in India. As the Company is under capacity expansion mode, major portion of capital expenditure requirement of the Company has to be funded by debt. The Company borrows in the form of NCDs, rupee term loans from banks and financial institutions, foreign currency borrowings, foreign currency bonds etc. The NCDs are raised by the Company under public issue route or through private placement basis.

In addition to capital expenditure requirement as explained above, Company also needs to borrow for meeting its working capital requirement and other general corporate purposes which is partly proposed to be met through issuance of NCDs.

The provisions of Section 42 of Companies Act, 2013 read with Rule 14(1) of the Companies (Prospectus and Allotment of Securities) Rules, 2014 require the Company to seek a Special Resolution from its shareholders for raising the NCDs on private placement basis. However, in case of offer or invitation for "non-convertible debentures", it shall be sufficient, if the Company passes a previous Special Resolution only once in a year for all the offers or invitations for such debentures during the year.

In view of the above, approval of the Shareholders of the Company is being sought to authorize the Board of Directors to make offer(s) or invitation(s) to subscribe to the secured/unsecured, redeemable, taxable/tax-free, cumulative/non-cumulative, non-convertible debentures ("NCDs/Bonds") up to Rs.12,000 Crore in one or more tranches/series not exceeding 12 (twelve), through private placement, in domestic market for capex, working capital and general corporate purposes during the period commencing from the date of passing of Special Resolution till completion of one year thereof or the date of next Annual General Meeting in the financial year 2025-26, whichever is earlier, subject to ceiling approved by the shareholders under Section 180 (1) (c) of Companies Act, 2013.

The Board of Directors of the Company in its Meeting held on 29th June, 2024 has approved the proposal and recommends the passing of the proposed Special Resolution.

The Directors or key managerial personnel or their relatives do not have any concern or interest, financial or otherwise, in passing of the said Special Resolution, except to the extent of their shareholding in the Company.

By order of the Board of Directors

Sd/-
(Ritu Arora)
Company Secretary

Place: New Delhi
Date: 2 August 2024



Brief Resume of Directors seeking appointment/re-appointment

Name	Shri Piyush Surendrapal Singh	Shri K. Shanmugha Sundaram	Shri Ravindra Kumar
Date of Birth & Age	26/10/1976 47 years	21/05/1967 57 years	02/10/1967 56 years
Date of Appointment	31/05/2022	01/12/2023	26/02/2024
Qualifications	B. Tech (Civil) from IIT Delhi	Electronics and Communication Engineering graduate from Govt. College of Technology, Coimbatore and PGDM from MDI Gurgaon in the area of Strategy & Finance	B.Sc. (Engineering) in Mechanical engineering from BIT Sindri
Expertise in Specific Functional Area	He is a 2000 Batch IAS officer from Maharashtra Cadre. He worked in various capacities in District Administration, Department of Social Justice & Empowerment and Department of health & family welfare, Government of Maharashtra. He also served in Uttrakhand in Planning department, Dehradun. He has wide experience in the area of Public Administration and Planning.	He joined NTPC as Graduate Engineer Trainee officer in 1988 and has more than 35 years of diverse and versatile experience in Project as well as Commissioning stages of 110, 210, 500, 660 and 800 MW fleets, across various states in India. He was actively involved for the development of 1st supercritical power project of NTPC at Sipat and has worked in various capacities at NTPC Darlipali Project. During his tenure as Head of Project at NTPC Barauni (720 MW), a taken over Project from Bihar State Electricity Board, project commissioning was accomplished. As Head of Project at Talcher Kaniha (3000 MW), he was influential in improving the performance of the station which has ensured CII-ITC Sustainability award and also construction of FGD.	He joined NTPC Limited as Graduate Engineer Trainee officer in 1989 and has more than 34 years of diverse and versatile experience in Commissioning, O&M, Engineering and Project management. He has exposure of working at Corporate Centre in Engineering department and as a technical support to Director (Technical). He was actively involved in development of 1st Maitree supercritical power project of Bangladesh India Friendship Power Company Limited (BIFPCL), Bangladesh. During his tenure as Chief Technical Officer (CTO), he spearheaded all Engineering, erection and O&M activities of 660 MW 1st Unit of BIFPCL.As Chief Executive Officer (CEO), Patratu Vidyut Utpadan Nigam Limited, he expedited various construction and erection activities.
Directorship held in other companies	1) Northen Eastern Electric Power Corpn Ltd 2) THDC India Limited	1) Aravali Power Company Private Limited 2) Meja Urja Nigam Private Limited 3) NTPC Renewable Energy Limited 4) NTPC Green Energy Limited 5) Patratu Vidyut Utpadan Nigam Limited 6) Hindustan Urvarak & Rasayan Limited 7) Energy Efficiency Services Limited	1) NTPC SAIL Power Company Limited 2) Jhabua Power Limited 3) NTPC GE Power Services Private Limited 4) NTPC Tamil Nadu Energy Company Limited 5) NTPC Mining Limited 6) Bhartiya Rail Bijlee Company Limited 7) NTPC BHEL Power Projects Private Limited
Memberships/ Chairmanship of committees across all public companies*	**Audit Committee:** NIL **Stakeholders' Relationship Committee:** 1. Northen Eastern Electric Power Corpn Ltd (Member)	**Audit Committee:** NIL **Stakeholders' Relationship Committee:** 1. Energy Efficiency Services Limited (Chairman)	**Audit Committee:** NIL **Stakeholders' Relationship Committee:** NIL
Number of shares held in NTPC Ltd. as on 31.03.2024	Nil	Nil	5266
Attendance in Board Meetings held during 2023-24	**No. of meetings held:** 15 **No. of meetings attended:** 14	**No. of meetings held:** 5 **No. of meetings attended:** 5	**No. of meetings held:** 2 **No. of meetings attended:** 2

*In line with Regulation 26 of SEBI (Listing Obligations and Disclosure Requirements) Regulations 2015, membership of the Audit Committee and Stakeholders' Relationship Committee have only been taken into consideration.

A. LOGIN METHOD FOR E-VOTING AND JOINING VIRTUAL MEETINGS FOR INDIVIDUAL SHAREHOLDERS HOLDING SECURITIES IN DEMAT MODE

Step 1: Access to NSDL e-Voting system

A) Login method for e-Voting and joining virtual meeting for Individual shareholders holding securities in demat mode

In terms of SEBI Master circular dated 11th July, 2023 on e-Voting facility provided by Listed Companies, Individual shareholders holding securities in demat mode are allowed to vote through their demat account maintained with Depositories and Depository Participants. Shareholders are advised to update their mobile number and email Id in their demat accounts in order to access e-Voting facility.

Login method for Individual shareholders holding securities in demat mode is given below:

Type of shareholders	Login Method
Individual Shareholders holding securities in demat mode with NSDL.	1. Existing **IDeAS** (Internet-based Demat Account Statement)user can visit the e-Services website of NSDL Viz. https://eservices.nsdl.com either on a Personal Computer or on a mobile. On the e-Services home page click on the **"Beneficial Owner"** icon under **"Login"** which is available under **'IDeAS'** section, this will prompt you to enter your existing User ID and Password. After successful authentication, you will be able to see e-Voting services under Value added services. Click on **"Access to e-Voting"** under e-Voting services and you will be able to see e-Voting page. Click on company name or **e-Voting service provider i.e. NSDL** and you will be re-directed to e-Voting website of NSDL for casting your vote during the remote e-Voting period or joining virtual meeting & voting during the meeting. 2. If you are not registered for IDeAS e-Services, option to register is available at https://eservices.nsdl.com. Select **"Register Online for IDeAS Portal"** or click at https://eservices.nsdl.com/SecureWeb/IdeasDirectReg.jsp 3. Visit the e-Voting website of NSDL. Open web browser by typing the following URL: https://www.evoting.nsdl.com/ either on a Personal Computer or on a mobile. Once the home page of e-Voting system is launched, click on the icon "Login" which is available under 'Shareholder/Member' section. A new screen will open. You will have to enter your User ID (i.e. your sixteen digit demat account number hold with NSDL), Password/OTP and a Verification Code as shown on the screen. After successful authentication, you will be redirected to NSDL Depository site wherein you can see e-Voting page. Click on company name or **e-Voting service provider i.e. NSDL** and you will be redirected to e-Voting website of NSDL for casting your vote during the remote e-Voting period or joining virtual meeting & voting during the meeting. 4. Shareholders/Members can also download NSDL Mobile App **"NSDL Speede"** facility by scanning the QR code mentioned below for seamless voting experience. **NSDL Mobile App is available on** App Store Google Play
Individual Shareholders holding securities in demat mode with CDSL	1. Users who have opted for CDSL Easi / Easiest facility, can login through their existing user id and password. Option will be made available to reach e-Voting page without any further authentication. The users to login Easi /Easiest are requested to visit CDSL website www.cdslindia.com and click on login icon & New System Myeasi Tab and then use your existing my easi username & password.

Type of shareholders	Login Method
	2. After successful login the Easi / Easiest user will be able to see the e-Voting option for eligible companies where the e-voting is in progress as per the information provided by company. On clicking the e-voting option, the user will be able to see e-Voting page of the e-Voting service provider for casting your vote during the remote e-Voting period or joining virtual meeting & voting during the meeting. Additionally, there is also links provided to access the system of all e-Voting Service Providers, so that the user can visit the e-Voting service providers' website directly. 3. If the user is not registered for Easi/Easiest, option to register is available at CDSL website www.cdslindia.com and click on login & New System Myeasi Tab and then click on login option. 4. Alternatively, the user can directly access e-Voting page by providing Demat Account Number and PAN No. from a e-Voting link available on https://evoting.cdslindia.com/Evoting/EvotingLogin home page. The system will authenticate the user by sending OTP on registered Mobile & Email as recorded in the Demat Account. After successful authentication, user will be able to see the e-Voting option where the e-voting is in progress and also able to directly access the system of all e-Voting Service Providers.
Individual Shareholders (holding securities in demat mode) login through their depository participants	You can also login using the login credentials of your demat account through your Depository Participant registered with NSDL/CDSL for e-Voting facility. upon logging in, you will be able to see e-Voting option. Click on e-Voting option, you will be redirected to NSDL/CDSL Depository site after successful authentication, wherein you can see e-Voting feature. Click on company name or e-Voting service provider i.e. NSDL and you will be redirected to e-Voting website of NSDL for casting your vote during the remote e-Voting period or joining virtual meeting & voting during the meeting.

Important note: Members who are unable to retrieve User ID/ Password are advised to use Forget User ID / Forget Password option available at abovementioned website.

Helpdesk for Individual Shareholders holding securities in demat mode for any technical issues related to login through Depository i.e. NSDL and CDSL.

Login type	Helpdesk details
Individual Shareholders holding securities in demat mode with NSDL	Members facing any technical issue in login can contact NSDL helpdesk by sending a request at e-voting@nsdl.co.in or call at 022 - 4886 7000 and 022 - 2499 7000
Individual Shareholders holding securities in demat mode with CDSL	Members facing any technical issue in login can contact CDSL helpdesk by sending a request at helpdesk.evoting@cdslindia.com or contact at toll free no. 1800 22 55 33

B) Login Method for e-Voting and joining virtual meeting for shareholders other than Individual shareholders holding securities in demat mode and shareholders holding securities in physical mode.

How to Log-in to NSDL e-Voting website?

1. Visit the e-Voting website of NSDL. Open web browser by typing the following URL: https://www.evoting.nsdl.com/ either on a Personal Computer or on a mobile.
2. Once the home page of e-Voting system is launched, click on the icon "Login" which is available under 'Shareholder/Member' section.
3. A new screen will open. You will have to enter your User ID, your Password/OTP and a Verification Code as shown on the screen.

   Alternatively, if you are registered for NSDL e-services i.e. IDEAS, you can log-in at https://eservices.nsdl.com/ with your existing IDEAS login. Once you log-in to NSDL eservices after using your log-in credentials, click on e-Voting and you can proceed to Step 2 i.e. Cast your vote electronically.

4. Your User ID details are given below:

Manner of holding shares i.e. Demat (NSDL or CDSL) or Physical	Your User ID is:
a) For Members who hold shares in demat account with NSDL.	8 Character DP ID followed by 8 Digit Client ID For example if your DP ID is IN300*** and Client ID is 12****** then your user ID is IN300***12******.
b) For Members who hold shares in demat account with CDSL.	16 Digit Beneficiary ID For example if your Beneficiary ID is 12********** then your user ID is 12**********
c) For Members holding shares in Physical Form.	EVEN Number followed by Folio Number registered with the company For example if folio number is 001*** and EVEN is 101456 then user ID is 101456001***

5. Password details for shareholders other than Individual shareholders are given below:
   a) If you are already registered for e-Voting, then you can use your existing password to login and cast your vote.
   b) If you are using NSDL e-Voting system for the first time, you will need to retrieve the 'initial password' which was communicated to you. Once you retrieve your 'initial password', you need to enter the 'initial password' and the system will force you to change your password.
   c) How to retrieve your 'initial password'?
      (i) If your email ID is registered in your demat account or with the company, your 'initial password' is communicated to you on your email ID. Trace the email sent to you from NSDL from your mailbox. Open the email and open the attachment i.e. a .pdf file. Open the .pdf file. The password to open the .pdf file is your 8 digit client ID for NSDL account, last 8 digits of client ID for CDSL account or folio number for shares held in physical form. The .pdf file contains your 'User ID' and your 'initial password'.
      (ii) If your email ID is not registered, please follow steps mentioned below in **"Process for those shareholders whose email ids are not registered".**
6. If you are unable to retrieve or have not received the "Initial password" or have forgotten your password:
   a) Click on "**Forgot User Details/Password**?"(If you are holding shares in your demat account with NSDL or CDSL) option available on www.evoting.nsdl.com.
   b) **Physical User Reset Password**?" (If you are holding shares in physical mode) option available on www.evoting.nsdl.com.
   c) If you are still unable to get the password by aforesaid two options, you can send a request at evoting@nsdl.co.in mentioning your demat account number/folio number, your PAN, your name and your registered address etc.
   d) Members can also use the OTP (One Time Password) based login for casting the votes on the e-Voting system of NSDL.
7. After entering your password, tick on Agree to "Terms and Conditions" by selecting on the check box.
8. Now, you will have to click on "Login" button.
9. After you click on the "Login" button, Home page of e-Voting will open.

Step 2: Cast your vote electronically and join General Meeting on NSDL e-Voting system.

How to cast your vote electronically and join General Meeting on NSDL e-Voting system?

1. After successful login at Step 1, you will be able to see all the companies "EVEN" in which you are holding shares and whose voting cycle and General Meeting is in active status.



2. Select "EVEN" of company for which you wish to cast your vote during the remote e-Voting period and casting your vote during the General Meeting. For joining virtual meeting, you need to click on "VC/OAVM" link placed under "Join Meeting".
3. Now you are ready for e-Voting as the Voting page opens.
4. Cast your vote by selecting appropriate options i.e. assent or dissent, verify/modify the number of shares for which you wish to cast your vote and click on "Submit" and also "Confirm" when prompted.
5. Upon confirmation, the message "Vote cast successfully" will be displayed.
6. You can also take the printout of the votes cast by you by clicking on the print option on the confirmation page.
7. Once you confirm your vote on the resolution, you will not be allowed to modify your vote.

General Guidelines for shareholders

1. Institutional shareholders (i.e. other than individuals, HUF, NRI etc.) are required to send scanned copy (PDF/JPG Format) of the relevant Board Resolution/ Authority letter etc. with attested specimen signature of the duly authorized signatory(ies) who are authorized to vote, to the Scrutinizer by e-mail to asacs2022@gmail.com with a copy marked to evoting@nsdl.co.in. Institutional shareholders (i.e. other than individuals, HUF, NRI etc.) can also upload their Board Resolution / Power of Attorney / Authority Letter etc. by clicking on "Upload Board Resolution / Authority Letter" displayed under "e-Voting" tab in their login.
2. It is strongly recommended not to share your password with any other person and take utmost care to keep your password confidential. Login to the e-voting website will be disabled upon five unsuccessful attempts to key in the correct password. In such an event, you will need to go through the "Forgot User Details/Password?" or "Physical User Reset Password?" option available on www.evoting.nsdl.com to reset the password.

   In case of any queries, you may refer the Frequently Asked Questions (FAQs) for Shareholders and e-voting user manual for Shareholders available at the download section of www.evoting.nsdl.com or call on.: 022 - 4886 7000 and 022 - 2499 7000 or send a request to Ms. Pallavi Mhatre, Senior Manager at evoting@nsdl.co.in

Process for those shareholders whose email ids are not registered with the depositories for procuring user id and password and registration of e mail ids for e-voting for the resolutions set out in this notice:

1. In case shares are held in physical mode please provide Folio No., Name of shareholder, scanned copy of the share certificate (front and back), PAN (self attested scanned copy of PAN card), AADHAR (self attested scanned copy of Aadhar Card) by email to agm2024@ntpc.co.in**.**
2. In case shares are held in demat mode, please provide DPID-CLID (16 digit DPID + CLID or 16 digit beneficiary ID), Name, client master or copy of Consolidated Account statement, PAN (self attested scanned copy of PAN card), AADHAR (self attested scanned copy of Aadhar Card) to **agm2024@ntpc.co.in**. If you are an Individual shareholders holding securities in demat mode, you are requested to refer to the login method explained at **step 1 (A**) i.e. **Login method for e-Voting and joining virtual meeting for Individual shareholders holding securities in demat mode**.
3. Alternatively shareholder/members may send a request to evoting@nsdl.co.in for procuring user id and password for e-voting by providing above mentioned documents.
4. In terms of SEBI Master circular dated 11th July, 2023 on e-Voting facility provided by Listed Companies, Individual shareholders holding securities in demat mode are allowed to vote through their demat account maintained with Depositories and Depository Participants. Shareholders are required to update their mobile number and email ID correctly in their demat account in order to access e-Voting facility.

THE INSTRUCTIONS FOR MEMBERS FOR E-VOTING ON THE DAY OF THE EGM/AGM ARE AS UNDER:-

1. The procedure for e-Voting on the day of the EGM/AGM is same as the instructions mentioned above for remote e-voting.
2. Only those Members/ shareholders, who will be present in the EGM/AGM through VC/OAVM facility and have not casted their vote on the Resolutions through remote e-Voting and are otherwise not barred from doing so, shall be eligible to vote through e-Voting system in the EGM/AGM.
3. Members who have voted through Remote e-Voting will be eligible to attend the EGM/AGM. However, they will not be eligible to vote at the EGM/AGM.
4. The details of the person who may be contacted for any grievances connected with the facility for e-Voting on the day of the EGM/AGM shall be the same person mentioned for Remote e-voting.

B. GENERAL INSTRUCTIONS FOR SHAREHOLDERS JOINING MEETING, REMOTE E-VOTING AND E-VOTING DURING AGM:

1. The Members can join the AGM in the VC/OAVM mode 15 minutes before and after the scheduled time of the commencement of the Meeting by following the procedure mentioned in the Notice. The facility of participation at the AGM through VC/OAVM will be made available to at least 1000 members on first come first served basis. This will not include large Shareholders (Shareholders holding 2% or more shareholding), Promoters, Institutional Investors, Directors, Key Managerial Personnel, the Chairpersons of the Audit Committee, Nomination and Remuneration Committee and Stakeholders Relationship Committee, Auditors etc. who are allowed to attend the AGM without restriction on account of first come first served basis.
2. The voting period begins on **Sunday, 25th August, 2024 at 9:00 AM and ends on Wednesday, 28th August, 2024 at 5:00 PM.** During this period, shareholders of the Company, holding shares either in physical form or in dematerialized form, as on the **cut-off date of Thursday, 22nd August 2024** may cast their vote electronically. The e-voting module shall be disabled by NSDL for voting thereafter. The voting rights of Members shall be in proportion to their share of the paid-up equity share capital of the Company as on the cut-off date.
3. Shareholders who have voted through Remote e-Voting will be eligible to attend the meeting. However, they will not be eligible to vote at the AGM.
4. Shareholders are encouraged to join the Meeting through Laptops / IPads for better experience.
5. Further, shareholders will be required to allow Camera and use Internet with a good speed to avoid any disturbance during the meeting.
6. Please note that Participants Connecting from Mobile Devices or Tablets or through Laptop connecting via Mobile Hotspot may experience Audio/Video loss due to fluctuation in their respective network. It is therefore recommended to use Stable Wi-Fi or LAN Connection to mitigate any kind of aforesaid glitches.
7. Shareholders who would like to express their views/ask questions during the meeting may **register themselves as speakers by sending their request in advance at least seven (7) days prior to meeting mentioning their name, Demat account number/folio number, email id, mobile number at agm2024@ntpc.co.in.** Request given on other email IDs will not be considered. The Company reserves the right to restrict the number of questions and number of speakers, depending upon availability of time as may be appropriate for smooth conduct of the AGM. Members who are not able to join this Meeting over video conferencing will be able to view the live webcast of proceedings of AGM on the website of the Company. *The shareholders who do not wish to speak during the AGM but have queries in respect of items of businesses proposed to be transacted at the meeting, may send their queries in advance 7 (Seven) days prior to meeting mentioning their name, demat account number/folio number, email id, mobile number at* **agm2024@ntpc.co.in**. *These queries will be replied by the company suitably by email.*
8. Those shareholders who have registered themselves as speakers will only be allowed to express their views/ask questions during the meeting.
9. Only those shareholders, who are present in the AGM through VC/OAVM facility and did not cast their vote on the Resolutions through remote e-Voting and are otherwise not barred from doing so, shall be eligible to vote through e-Voting system available during the AGM.
10. If any Votes are cast by the shareholders through the e-voting available during the AGM and if the same shareholders have not participated in the meeting through VC/OAVM facility, then the votes cast by such shareholders shall be considered invalid as the facility of e-voting during the meeting is available only to the shareholders attending the meeting.



Independent Assurance Statement

Independent Assurance Statement on NTPC Limited's Integrated Annual Report

Introduction and Objective of Work

BUREAU VERITAS has been engaged by **NTPC Limited** (hereinafter abbreviated as "NTPC") to conduct an independent assurance of the identified sustainability indicators in its Integrated Annual Report ("IR") for the reporting period from 01.04.2023 to 31.03.2024. This assurance statement applies to the related information included within the scope of work described below.

Intended User

The assurance statement is made solely for "NTPC and its stakeholders" as per the governing contractual terms and conditions of the assurance engagement contract between "NTPC" and "Bureau Veritas". To the extent that the law permits, we owe no responsibility and do not accept any liability to any party other than "NTPC" for the work we have performed for this assurance report or our conclusions stated in the paragraph below.

Reporting Criteria

In preparing the Integrated Annual Report, FY2023-24, NTPC has reported in accordance with the Global Reporting Initiative Standard 2021 (hereinafter abbreviated as "GRI Standard") for Sustainability Indicators for the FY2023-24.

Reporting period

01st April 2023 to 31st March 2024

Assurance Standards Used

Bureau Veritas conducted the assurance in accordance with:

Assurance requirements of International Federation of Accountants' (IFAC) International Standard on Assurance Engagement (ISAE) 3000 (revised) – Assurance Engagements Other than Audits or Reviews of Historical Financial Information'.

- Reasonable and limited level of assurance under ISAE 3000 requires us to plan and perform procedures to obtain sufficient appropriate evidence on conformity of sustainability performance disclosures as per GRI Standards, 2021.
- Assurance Engagements on Greenhouse Gas Statements (ISAE 3410) for the GHG emission data.
- The requirement of GRI Standard, we have reviewed the information presented in the Report against the characteristics of relevance, completeness, reliability, neutrality and understandability.

Scope and Boundary of Assurance

The scope of assurance involves evaluating the sustainability performance of non-financial disclosures for the period from April 1, 2023, to March 31, 2024, based on the GRI Standard.

Reporting Boundary: This report includes NTPC Limited's business activities (within India) including its Joint Ventures & Subsidiaries, focusing on Electricity Generation (Thermal, Renewables, Hydro), Consultancy, Business Development, R&D (NETRA), and Energy Trading pertaining to entities including NTPC Ltd., NSPCL, BRBCL, NEEPCO, THDC, NGEL, APCPL, MUNPL, NTECL, RGPPL, PVUNL and JPL.

The Scope of Assurance for Sustainability Indicators based on GRI Standard includes:

- An assessment of the procedures or approaches followed for data compilation and reporting of the sustainability performance of non-financial disclosures for specific operations.
- Testing, on a sample basis, of evidence supporting the data.
- Verification of the sample data evidence and information on selected material topics reported at the above-mentioned operations for the defined reporting period.
- Assessment of the suitability between the backup data for the selected sustainability performance of non-financial disclosures and the information presented in IR.
- Completion of assurance statement for inclusion in the report reflecting the verification, findings, and conclusion of the disclosure's assurance.

Level of Assurance

- Reasonable and;
- Limited (the level of assurance obtained in work performed in a limited assurance engagement is lower than for a reasonable assurance engagement, but is higher than no assurance).

List of GRI disclosure assured at a reasonable level:

GRI Index-2021	Disclosure
302-1	Energy consumption within the organization
302-3	Energy Intensity
303-4	Water discharge
303-5	Water consumption
305-1	Energy direct (Scope 1) GHG emissions
305-2	Energy indirect (Scope 2) GHG emissions
305-4	GHG emissions intensity
306-3	Waste Generated
306-4	Waste diverted from disposal
306-5	Waste directed to disposal
403-1	Workers' representation in formal joint management–worker health and safety committees
403-2	Hazard identifications, risk assessments and incident investigations
403-3	Occupational health services
403-5	Worker training on occupational health and safety
403-6	Promotion of worker health
403-8	Workers covered by an OHS management system
403-9	Work-related injuries
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk
413-1	Operations with local community engagement, impact assessments, and development programs

List of GRI disclosure assured at a limited level:

GRI Index-2021	
301-1	Materials used by weight or volume
301-2	Recycled input materials used
302-4	Reduction of energy consumption
303-2	Management of water discharge-related impacts
303-3	Water withdrawal
305-6	Emissions of ozone-depleting substances (ODS)
305-7	NOx, SOx, and other significant air emissions
305-3	Scope 3 GHG emission for Employee Commute, Business travel and upstreamtransportation and distribution
401-1	New employee hires and employee turnover



GRI Index-2021	
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees
404-1	Average hours of training per year per employee
404-2	Programmes for upgrading employee skills and transition assistance programmes
404-3	Percentage of employees received regular performance and career development reviews
405-1	Diversity of governance bodies and employees
405-2	Ratio of basic salary and remuneration of women to men
406-1	Incidents of discrimination and corrective actions taken
408-1	Operations and suppliers at significant risk for incidents of child labor
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor
410-1	Security personnel trained in human rights policies or procedures
411-1	Incidents of violations involving rights of indigenous peoples
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data

The Methodology Adopted for Assurance

Bureau Veritas' sustainability assurance process involves specified procedures to obtain evidence regarding the accuracy and reliability of the data provided related to general and topic-specific standard disclosures. The nature, timing, and extent of procedures selected depend on the data and evidence provided, including the verification of the associated risks with the material topics of the selected sustainability related non-financial disclosures and their relevance for the reporting period. While assessing the associated risks, internal strategy is being considered during the preparation of the report to design the assurance procedure and validate their appropriateness to the possible extent.

As per the scope of the assurance, sample evidence, information, and explanations that were considered necessary in relation to the assurance scope and accordingly conclusions have been made as mentioned below:

- Assessed the report preparation in accordance with GRI Standard parameters applicable to NTPC operations.
- Evaluated the appropriateness of various assumptions used for data estimation and reviewed the report to ensure that there is no misrepresentation of disclosures within the scope of assurance.
- Assessed adherence to the GRI Standard, including the principles of materiality, inclusivity, and responsiveness, and evaluated the systems used for data compilation and reporting.
- Verified systems and procedures for quantification, collation, and analysis of sustainability performance disclosures included in the report through site visits.
- Discussed with corporate office officials to understand sustainability risks and opportunities, NTPC's strategy to address them, and assessed the month-wise data for similarity, reliability, and accuracy.
- Evaluated the stakeholder engagement process through interactions with relevant internal stakeholders and review of related documentation. Reviewed the materiality assessment process and the processes for collection, compilation, and reporting of sustainability performance disclosures at the corporate and plant levels.
- Reviewed claims and data streams to determine the accuracy of statements in the report and the reliability of specified sustainability performance – Non-Financial Disclosure Assurance. Executed an audit trail of claims and data streams to determine the accuracy of data collection, transcription, and aggregation.
- Assessed the reporting procedures for GHG emissions and evaluated the appropriateness and reliability of various assumptions and calculations adopted for data estimation.
- Reviewed the report, supporting evidence, and documented data to ensure that there is no misrepresentation of disclosures within the scope of assurance and findings.
- Discussed data presented in the report and the associated backup data with concerned personnel at NTPC Headquarters (Corporate Level) and plant sites including Ratnagiri (RGPPL), Kudgi, Sipat, Bongaigaon and Barh.

Limitations and Exclusions

The assurance is limited to the above-mentioned scope of work and excludes the information relating to:

- Data related to the Company's financial performance disclosures.
- Activities and practices followed outside the defined assurance period stated hereinabove.
- Positional statements, expressions of opinion, belief, aim, or future intention by "NTPC" and statements of future commitment.
- The assurance does not extend to the activities and operations of "NTPC" outside of the scope and geographical boundaries mentioned in the report as well as the operations undertaken by any other entity that may be associated with or have a business relationship with "NTPC".
- Compliance with any Environmental, Social, and legal issues related to the regulatory authority.
- Any of the statements related to company aspects or reputation.

Our Findings

- Nothing has come to our attention to indicate that the sustainability disclosure in the IR based on GRI standard are inaccurate or that the information included therein is not fairly stated.
- It is our opinion that Company has established appropriate systems for the collection, aggregation, and analysis of data on Sustainability/Non-Financial performance disclosures.
- The sustainability disclosure in the IR provides a fair representation of the Company's activities as included therein.
- The information is presented in a clear, understandable, and accessible manner, and allows readers to form a balanced opinion over the Company and status during the reporting period.

Management Responsibilities

NTPC is completely responsible for the report contents, identification of material topics, and data reporting structure. The selection of reporting criteria, reporting period, reporting boundary, monitoring, and measurement of data, preparation, and presentation of information for the report are the sole responsibility of the management of "NTPC". Bureau Veritas (BV) was not involved in the drafting or preparation of the report and any other backup data for the reporting period. The responsibility of BV was to provide reasonable independent assurance for the sustainability performance of non-financial disclosures as described in the scope of assurance.

The said assessment is properly based on the assumption that the data and information provided in the report are proper and without any discrepancy. Bureau Veritas shall not be held liable or responsible for any type of decision a person or entity would make based on this assurance statement. While reading the assurance statement, stakeholders shall recognize and accept the limitations and scope as mentioned above.

Uncertainty

The reliability of assurance is subject to uncertainty(ies) that is inherent in the assurance process. Uncertainties stem from limitations in quantification models used, assumptions, or data conversion factors used or may be present in the estimation of data used to arrive at results. Our conclusions with respect to this assurance are naturally subject to any inherent uncertainty(ies) involved in the assurance process.

Statement of Independence, Impartiality, and Competence

Bureau Veritas is an independent professional services company that specializes in Quality, Health, Safety, Social, and Environmental Management with almost 190 years of history in providing independent assurance services. Bureau Veritas has implemented a Code of Ethics across the business to maintain high ethical standards among staff in their day-to-day business activities. We are particularly vigilant in the prevention of conflicts of interest.

No member of the assurance team has a business relationship with "NTPC", its Directors, Managers, or officials beyond that required of this assignment. We have conducted this verification independently and there has been no conflict of interest.

Competence

The assurance team has extensive experience in conducting assurance over environmental, social, ethical, and health &

safety information, systems and processes an excellent understanding of Bureau Veritas standard methodology for the Assurance of Sustainability Reports.

Restriction on use of Our Report

Our assurance report has been prepared and addressed to the Board of Directors of the Company at the request of the company solely to assist the company in reporting on the Company's Sustainability performance and activities. Accordingly, we accept no liability to anyone, other than the Company. Our deliverables should not be used for any other purpose or by any person other than the addressees of our deliverables. The Firm neither accepts nor assumes any duty of care or liability for any other purpose or to any other party to whom our Deliverables are shown or into whose hands it may come without our prior consent in writing.

Sd/-
Amit Kumar
Lead Assurer
Bureau Veritas India Private Limited

New Delhi, India
Date: July 27, 2024

Sd/-
Munji Rama Mohan Rao
Technical Reviewer
Bureau Veritas India Private Limited

Hyderabad, India
Date: July 27, 2024

Independent Assurance Statement

Assurance Statement on NTPC Limited's Business Responsibility and Sustainability Report Core

Introduction and Objective of Work

BUREAU VERITAS has been engaged by NTPC Limited (hereinafter abbreviated as "NTPC") to conduct an independent assurance of the Business Responsibility and Sustainability Report Core (hereinafter abbreviated as "BRSR Core"), consisting of the Key Performance Indicators (KPIs) under Environment, Social and Governance (ESG) attributes, which are mentioned in Annexure I, as prescribed under the Securities and Exchange Board of India (SEBI) Circular dated 12th July, 2023.

Intended User

The assurance statement is made solely for "NTPC and its stakeholders" as per the governing contractual terms and conditions of the assurance engagement contract between "NTPC" and "Bureau Veritas". To the extent that the law permits, we owe no responsibility and do not accept any liability to any party other than "NTPC" for the work we have performed for this assurance report or our conclusions stated in the paragraph below.

Reporting Criteria

Reporting Framework based on BRSR Core, Business Responsibility and Sustainability Report as per Annexure 1 of the SEBI circular (SEBI/HO/CFD/CFD-SEC-2/P/CIR/2023/122,) dated July 12, 2023) BRSR Core KPIs.

The reported information of BRSR core based on following nine ESG attributes:

1. Green-house gas (GHG) footprint
2. Water footprint
3. Energy footprint
4. Embracing circularity - details related to waste management by the entity
5. Enhancing Employee Wellbeing and Safety
6. Enabling Gender Diversity in Business
7. Enabling Inclusive Development
8. Fairness in Engaging with Customers and Suppliers
9. Open-ness of business

Assurance Standards Used

Bureau Veritas conducted reasonable assurance of BRSR Core in accordance with the requirements of the International Federation of Accountants (IFAC), International Standard on Assurance Engagement (ISAE) 3000 (Revised) Reasonable Assurance & GHG as per "Assurance Engagements on Greenhouse Gas Statements" ISAE 3410. Under this standard, Bureau Veritas has reviewed the information presented in the report against the characteristics of relevance, completeness, materiality, reliability, neutrality, and understandability.

Scope and Boundary of Assurance

The scope of assurance involves evaluating the sustainability performance of non-financial disclosures for the period from 1st April 2023 to 31st March 2024, based on BRSR Core requirements.

Reporting Boundary: This report includes NTPC Limited's business activities (within India) including its Joint Ventures & Subsidiaries, focusing on Electricity Generation (Thermal, Renewables, Hydro), Consultancy, Business Development, R&D (NETRA), and Energy Trading pertaining to entities including NTPC Ltd., NSPCL, BRBCL, NEEPCO, THDC, NGEL, APCPL, MUNPL, NTECL, RGPPL, PVUNL and JPL.

The Scope of Assurance for BRSR Core includes:

- An assessment of the procedures or approaches followed for data compilation and reporting of the sustainability performance of non-financial disclosures for specific operations.



- Testing, on a sample basis, of evidence supporting the data.
- Verification of the sample data evidence and information on selected material topics reported at the above-mentioned operations for the defined reporting period.
- Assessment of the suitability between the backup data for the selected sustainability performance of non-financial disclosures and the information presented in the BRSR Core requirement.
- Completion of assurance statement for inclusion in the report reflecting the verification, findings, and conclusion of the disclosure's assurance.

The Methodology Adopted for Assurance

Bureau Veritas' sustainability assurance process involves specified procedures to obtain evidence regarding the accuracy and reliability of the data provided related to general and topic-specific standard disclosures. The nature, timing, and extent of procedures selected depend on the data and evidence provided, including the verification of the associated risks with the material topics of the selected sustainability related non-financial disclosures and their relevance for the reporting period. While assessing the associated risks, internal strategy is being considered during the preparation of the report to design the assurance procedure and validate their appropriateness to the possible extent.

As per the scope of the assurance, sample evidence, information, and explanations that were considered necessary in relation to the assurance scope and accordingly conclusions have been made as mentioned below:

- Assessed the report preparation in accordance with BRSR Core parameters applicable to NTPC operations.
- Evaluated the appropriateness of various assumptions used for data estimation and reviewed the report to ensure that there is no misrepresentation of disclosures within the scope of assurance.
- Assessed adherence to the BRSR framework for Reasonable Assurance of Core parameters, including the principles of materiality, inclusivity, and responsiveness, and evaluated the systems used for data compilation and reporting.
- Verified systems and procedures for quantification, collation, and analysis of sustainability performance disclosures included in the report through site visits.
- Discussed with corporate office officials to understand sustainability risks and opportunities, NTPC's strategy to address them, and assessed the month-wise data for similarity, reliability, and accuracy.
- Evaluated the stakeholder engagement process through interactions with relevant internal stakeholders and review of related documentation. Reviewed the materiality assessment process and the processes for collection, compilation, and reporting of sustainability performance disclosures at the corporate and plant levels.
- Reviewed claims and data streams to determine the accuracy of statements in the report and the reliability of specified sustainability performance indicators– Non-Financial Disclosure Assurance.
- Executed an audit trail of claims and data streams to determine the accuracy of data collection, transcription, and aggregation.
- Reviewed plans, policies, and practices pertaining to Environmental, Social, and Governance aspects to assess and evaluate the adequacy and fairness of BRSR Core reporting. Ensured the reports provide a balanced and reasonable representation of the organization's positive and negative contributions toward sustainable development.
- Assessed the reporting procedures for GHG emissions and evaluated the appropriateness and reliability of various assumptions and calculations adopted for data estimation.
- Reviewed the report, supporting evidence, and documented data to ensure that there is no misrepresentation of disclosures within the scope of assurance and findings.
- Discussed data presented in the report and the associated backup data with concerned personnel at NTPC Headquarters Corporate Level and plant sites including Ratnagiri, Kudgi, Sipat, Bongaigaon, Barh.
- Reviewed sustainability performance of non-financial disclosures data based on data provided for respective units, including related backup, site visits to NTPC's operations and discussions with the concerned personnel.

Limitations and Exclusions

The assurance is limited to the above-mentioned scope of work and excludes the information relating to:

- Data related to the Company's financial performance disclosures.
- Activities and practices followed outside the defined assurance period stated hereinabove.
- Positional statements, expressions of opinion, belief, aim, or future intention by "NTPC" and statements of future commitment.
- The assurance does not extend to the activities and operations of "NTPC" outside of the scope and geographical boundaries mentioned in the report as well as the operations undertaken by any other entity that may be associated with or have a business relationship with "NTPC".
- Compliance with any Environmental, Social, and legal issues related to the regulatory authority.
- Any of the statements related to company aspects or reputation.

Our Findings

- Nothing has come to our attention to indicate that the BRSR disclosures are inaccurate or that the information included therein is not fairly stated.
- It is our opinion that Company has established appropriate systems for the collection, aggregation, and analysis of data on Sustainability/Non-Financial performance disclosures in the BRSR.
- The BRSR disclosure on core parameter provides a fair representation of the Company's activities as included therein.
- The information is presented in a clear, understandable, and accessible manner, and allows readers to form a balanced opinion over the Company and status during the reporting period.
- NTPC's data and information on BRSR core disclosures for the period of 01 April 2023 to 31 March 2024 included in the Report, is, in all material respects, in accordance with the SEBI's BRSR guidelines.

Management Responsibilities

NTPC is completely responsible for the report contents, identification of material topics, and data reporting structure. The selection of reporting criteria, reporting period, reporting boundary, monitoring, and measurement of data, preparation, and presentation of information for the report are the sole responsibility of the management of "NTPC". Bureau Veritas (BV) was not involved in the drafting or preparation of the report and any other backup data for the reporting period. The responsibility of BV was to provide reasonable independent assurance for the sustainability performance of non-financial disclosures as described in the scope of assurance.

The said assessment is properly based on the assumption that the data and information provided in the report are proper and without any discrepancy. Bureau Veritas shall not be held liable or responsible for any type of decision a person or entity would make based on this assurance statement. While reading the assurance statement, stakeholders shall recognize and accept the limitations and scope as mentioned above.

Uncertainty

The reliability of assurance is subject to uncertainty(ies) that is inherent in the assurance process. Uncertainties stem from limitations in quantification models used, assumptions, or data conversion factors used or may be present in the estimation of data used to arrive at results. Our conclusions with respect to this assurance are naturally subject to any inherent uncertainty(ies) involved in the assurance process.

Statement of Independence, Impartiality, and Competence

Bureau Veritas is an independent professional services company that specializes in Quality, Health, Safety, Social, and Environmental Management with almost 190 years of history in providing independent assurance services. Bureau Veritas has implemented a Code of Ethics across the business to maintain high ethical standards among staff in their day-to-day business activities. We are particularly vigilant in the prevention of conflicts of interest.

No member of the assurance team has a business relationship with "NTPC", its Directors, Managers, or officials beyond that required of this assignment. We have conducted this verification independently and there has been no conflict of interest.



Competence

The assurance team has extensive experience in conducting assurance over environmental, social, ethical, and health & safety information, systems and processes an excellent understanding of Bureau Veritas standard methodology for the Assurance of Sustainability Reports.

Restriction on use of Our Report

Our Reasonable assurance report has been prepared and addressed to the Board of Directors of the Company at the request of the company solely to assist the company in reporting on the Company's Sustainability performance and activities. Accordingly, we accept no liability to anyone, other than the Company. Our deliverables should not be used for any other purpose or by any person other than the addressees of our deliverables. The Firm neither accepts nor assumes any duty of care or liability for any other purpose or to any other party to whom our Deliverables are shown or into whose hands it may come without our prior consent in writing.

Sd/-
Amit Kumar
Lead Assurer
Bureau Veritas India Private Limited

New Delhi, India
Date: July 25, 2024

Sd/-
Munji Rama Mohan Rao
Technical Reviewer
Bureau Veritas India Private Limited

Hyderabad, India
Date: July 25, 2024

GRI Index/ UN SDG Index

Disclosure	Indicator	Page No.
2-1	**Organizational Details**	2, 3, 4, 255 (BRSR)
	Name of the organization	
	Location of headquarters	
	Location of operations	
	Ownership and legal form	
	Nature of ownership and legal form	
2-2	**Entities included in the organization's sustainability reporting**	2, 255-256 (BRSR)
	List all entities included in its sustainable reportingThis includes subsidiaries, joint ventures, and affiliates, including joint interests.	
	If the organization has audited consolidated financial statements or financial information filed on public record, specify the differences between the list of entities included in its financial reporting and the list included in its sustainability reporting; if the organization consists of multiple entities, explain the approach used for consolidating the information, including: whether the approach involves adjustments to information for minority interests	
	how the approach takes into account mergers, acquisitions, and disposal of entities or parts of entities	
	whether and how the approach differs across the disclosures in this Standard and across material topics.	
2-3	**Reporting period**	2
	Date of most recent report	
	Reporting cycle	
	Contact point for questions regarding the report	
2-4	**Restatements of information**	Not Applicable
	Restatement and the effect of any restatements of information given in previous reports, and the reasons for such restatements	
2-5	**External assurance**	2, 657-667
	Describe the policy and practice for seeking external assurance along with if and how and senior body is involved. If the report has been externally assured, provide	
	i. the assurance statement,	
	ii. What has been assured, using which standard and the limitations	
	iii. describe relationship between the company and the assurance provider	
2-6	**Activities, value chain and other business relationships**	4-8, 26-27, 51-65
	The company should disclose sectors of activity, describe their entire value chain, and describe other business relations. Also, they are to disclose any significant changes which have occurred since the previous reporting period.	



Disclosure	Indicator	Page No.
2-7	**Employees**	136-137
	The company should report the total number of employees with breakdown by gender and region.	
	They should also give the following by breakdown into gender and region	
	i. Permanent Employees	
	ii. Temporary Employees	
	iii. full-time employees	
	iv. Part-time Employees	
2-8	**Workers who are not employees**	136-137
	a. report the total number of workers who are not employees and whose work is controlled by the organization and describe:	
	i. the most common types of worker and their contractual relationship with the organization;	
	ii. the type of work they perform;	
	b. describe the methodologies and assumptions used to compile the data, including whether the number of workers who are not employees is reported:	
	i. in head count, full-time equivalent (FTE), or using another methodology;	
	ii. at the end of the reporting period, as an average across the reporting period, or using another methodology;	
	c. describe significant fluctuations in the number of workers who are not employees during the reporting period and between reporting periods.	
2-9	**Governance structure and composition**	208-220
	describe its governance structure, including committees of the highest governance body;	
	a. list the committees of the highest governance body that are responsible for decision-making on and overseeing the management of the organization's impacts on the economy, environment, and people;	
	b. describe the composition of the highest governance body and its committees by:	
	i. executive and non-executive members;	
	ii. independence;	
	iii. tenure of members on the governance body;	
	iv. number of other significant positions and commitments held by each member, and the nature of the commitments;	
	v. gender;	
	vi. under-represented social groups;	
	vii. competencies relevant to the impacts of the organization;	
	viii. stakeholder representation.	
2-10	**Nomination and selection of the highest governance body**	208-220
	a. describe the nomination and selection processes for the highest governance body and its committees;	
	b. describe the criteria used for nominating and selecting highest governance body members, including whether and how the following are taken into consideration:	
	i. views of stakeholders (including shareholders);	
	ii. diversity;	
	iii. independence;	
	iv. competencies relevant to the impacts of the organization.	

Disclosure	Indicator	Page No.
2-11	**Chair of the highest governance body**	208-220
	a. report whether the chair of the highest governance body is also a senior executive in the organization;	
	b. if the chair is also a senior executive, explain their function within the organization's management, the reasons for this arrangement, and how conflicts of interest are prevented and mitigated.	
2-12	**Role of the highest governance body in overseeing the management of impacts**	208-220
	a. describe the role of the highest governance body and of senior executives in developing, approving, and updating the organization's purpose, value or mission statements, strategies, policies, and goals related to sustainable development;	
	b. describe the role of the highest governance body in overseeing the organization's due diligence and other processes to identify and manage the organization's impacts on the economy, environment, and people, including:	
	i. whether and how the highest governance body engages with stakeholders to support these processes;	
	ii. how the highest governance body considers the outcomes of these processes;	
	c. describe the role of the highest governance body in reviewing the effectiveness of the organization's processes as described in 2-12-b, and report the frequency of this review	
2-13	**Delegation of responsibility for managing impacts**	208-220
	a. describe how the highest governance body delegates responsibility for managing the organization's impacts on the economy, environment, and people, including:	
	i. whether it has appointed any senior executives with responsibility for the management of impacts;	
	ii. whether it has delegated responsibility for the management of impacts to other employees;	
	iii. describe the process and frequency for senior executives or other employees to report back to the highest governance body on the management of the organization's impacts on the economy, environment, and people	
2-14	**Role of the highest governance body in sustainability reporting**	208-220
	a. report whether the highest governance body is responsible for reviewing and approving the reported information, including the organization's material topics, and if so, describe the process for reviewing and approving the information;	
	b. if the highest governance body is not responsible for reviewing and approving the reported information, including the organization's material topics, explain the reason for this.	
2-15	**Conflicts of interest**	208-220
	a. Processes for the highest governance body to ensure conflicts of interest are avoided and managed.	
	b. Whether conflicts of interest are disclosed to stakeholders, including, at a minimum, conflicts of interest relating to:	
	i. Cross-board membership;	
	ii. Cross-shareholding with suppliers and other stakeholders;	
	iii. Existence of controlling shareholder;	
	iv. Related party disclosures.	



Disclosure	Indicator	Page No.
2-16	**Communicating critical concerns**	208-220
	a. Process for communicating critical concerns to the highest governance body.	
	b. Nature and total number of critical concerns	
	i. Total number and nature of critical concerns that were communicated to the highest governance body.	
	ii. Mechanism(s) used to address and resolve critical concerns."	
2-17	**Collective knowledge of highest governance body**	208-220
	a. Measures taken to develop and enhance the highest governance body's collective knowledge of economic, environmental, and social topics.	
2-18	**Evaluating the highest governance body's performance**	208-220
	a. Processes for evaluating the highest governance body's performance with respect to governance of economic, environmental, and social topics.	
	b. Whether such evaluation is independent or a self-assessment, and its frequency.	
	c. Actions taken in response to evaluation of the highest governance body's performance including changes to the composition of the highest governance body and organizational practices.	
2-19	**Remuneration policies**	84-89
	a. describe the remuneration policies for members of the highest governance body and senior executives, including:	
	i. Fixed pay and variable pay, including performance-based pay, equity-based pay, bonuses, and deferred or vested shares;	
	ii. Sign-on bonuses or recruitment incentive payments;	
	iii. Termination payments;	
	iv. Clawbacks;	
	v. Retirement benefits, including the difference between benefit schemes and contribution rates for the highest governance body, senior executives, and all other employees.	
	b. How performance criteria in the remuneration policies relate to the highest governance body's and senior executives' objectives for economic, environmental, and social topics. When compiling the information specified in Disclosure 102-35, the reporting organization should, if termination payments are used, explain whether:	
	1) notice periods for governance body members and senior executives are different from those for other employees;	
	2) termination payments for governance body members and senior executives are different from those for other employees;	
	3) any payments other than those related to the notice period are paid to departing governance body members and senior executives;	
	4) any mitigation clauses are included in the termination arrangements	

Disclosure	Indicator	Page No.
2-20	**Process for determining remuneration**	84-89, 139
	a. describe the process for designing its remuneration policies and for determining remuneration, including:	
	i. whether independent highest governance body members or an independent remuneration committee oversees the process for determining remuneration;	
	ii. how the views of stakeholders (including shareholders) regarding remuneration are sought and taken into consideration;	
	iii. whether remuneration consultants are involved in determining remuneration and, if so, whether they are independent of the organization, its highest governance body and senior executives;	
	b. report the results of votes of stakeholders (including shareholders) on remuneration policies and proposals, if applicable	
2-21	**Annual total compensation ratio**	84-89, 139
	a. Ratio of the annual total compensation for the organization's highest-paid individual in each country of significant operations to the median annual total compensation for all employees (excluding the highest-paid individual) in the same country.	
	b. Ratio of the percentage increase in annual total compensation for the organization's highest- paid individual in each country of significant operations to the median percentage increase in annual total compensation for all employees (excluding the highest-paid individual) in the same country	
2-22	**Statement on sustainable development strategy**	19
	Present a statement from the highest governance body or most senior executive of the organization about the relevance of sustainable development to the organization and its strategy for contributing to sustainable development	
2-23	**Policy commitments**	255-293
	a. describe its policy commitments for responsible business conduct, including:	
	i. the authoritative intergovernmental instruments that the commitments reference;	
	ii. whether the commitments stipulate conducting due diligence;	
	iii. whether the commitments stipulate applying the precautionary principle;	
	iv. whether the commitments stipulate respecting human rights;	
	b. describe its specific policy commitment to respect human rights, including: mmunicated to workers, business partners, and other relevant parties.	
	i. the internationally recognized human rights that the commitment covers;	
	ii. the categories of stakeholders, including at-risk or vulnerable groups, that the organization gives particular attention to in the commitment;	
	c. provide links to the policy commitments if publicly available, or, if the policy commitments are not publicly available, explain the reason for this;	
	d. report the level at which each of the policy commitments was approved within the organization, including whether this is the most senior level;	
	e. report the extent to which the policy commitments apply to the organization's activities and to its business relationships;	
	f. describe how the policy commitments are co	



Disclosure	Indicator	Page No.
2-24	**Embedding policy commitments**	255-293
	a. describe how it embeds each of its policy commitments for responsible business conduct throughout its activities and business relationships, including:	
	i. how it allocates responsibility to implement the commitments across different levels within the organization;	
	ii. how it integrates the commitments into organizational strategies, operational policies, and operational procedures;	
	iii. how it implements its commitments with and through its business relationships;	
	iv. training that the organization provides on implementing the commitments	
2-25	**Processes to remediate negative impacts**	255-293
	a. describe commitments to provide for or cooperate in the remediation of negative impacts that the organization identifies it has caused or contributed to;	
	b. describe approach to identify and address grievances, including the grievance mechanisms that the organization has established or participates in;	
	c. describe other processes by which the organization provides for or cooperates in the remediation of negative impacts that it identifies it has caused or contributed to;	
	d. describe how the stakeholders who are the intended users of the grievance mechanisms are involved in the design, review, operation, and improvement of these mechanisms;	
	e. describe how the organization tracks the effectiveness of the grievance mechanisms and other remediation processes, and report examples of their effectiveness, including stakeholder feedback	
2-26	**Mechanisms for seeking advice and raising concerns**	255-293
	The organization shall:	
	a. describe the mechanisms for individuals to:	
	i. seek advice on implementing the organization's policies and practices for responsible business conduct;	
	ii. raise concerns about the organization's business conduct	
2-27	**Compliance with laws and regulations**	255-293
	a. report the total number of significant instances of non-compliance with laws and regulations during the reporting period, and a breakdown of this total by:	
	i. instances for which fines were incurred;	
	ii. instances for which non-monetary sanctions were incurred;	
	b. report the total number and the monetary value of fines for instances of noncompliance with laws and regulations that were paid during the reporting period, and a breakdown of this total by:	
	i. fines for instances of non-compliance with laws and regulations that occurred in the current reporting period;	
	ii. fines for instances of non-compliance with laws and regulations that occurred in previous reporting periods;	
	c. describe the significant instances of non-compliance;	
	d. describe how it has determined significant instances of non-compliance	

Disclosure	Indicator	Page No.
2-28	**Membership associations**	255-293
	The organization shall report industry associations, other membership associations, and national or international advocacy organizations in which it participates in a significant role	
2-29	**Approach to stakeholder engagement**	28-31
	The organization shall:	
	a. describe its approach to engaging with stakeholders, including:	
	i. the categories of stakeholders it engages with, and how they are identified;	
	ii. the purpose of the stakeholder engagement;	
	iii. how the organization seeks to ensure meaningful engagement with stakeholders	
2-30	**Collective bargaining agreements**	88, 33
	The organization shall:	
	a. report the percentage of total employees covered by collective bargaining agreements;	
	b. for employees not covered by collective bargaining agreements, report whether the organization determines their working conditions and terms of employment based on collective bargaining agreements that cover its other employees or based on collective bargaining agreements from other organizations	
3-1	Process to determine material topics	28-31
3-2	List of material topics	32-35

GRI Standard	Disclosure	Description	Page No.
		GRI 200: Economic	
GRI 201: Economic Performance 2016	3-3	Management of material topics	44-47
	201-1	Direct economic value generated and distributed	
	201-2	Financial implications and other risks and opportunities due to climate change	
	201-3	Defined benefit plan obligations and other retirement plans	
GRI 202: Market Presence 2016	3-3	Management of material topics	32-35, 277
	202-1	Ratios of standard entry level wage by gender compared to local minimum wage	
GRI 203: Indirect Economic Impacts 2016	3-3	Management of material topics	32-35, 109-116
	203-1	Infrastructure investments and services supported	
	203-2	Significant indirect economic impacts	
GRI 204: Procurement Practices 2016	3-3	Management of material topics	105
	204-1	Proportion of spending on local suppliers	
GRI 205: Anti-Corruption 2016	3-3	Management of material topics	41-42
	205-2	Communication and training about anti-corruption policies and procedures	
	205-3	Confirmed incidents of corruption and actions taken	



GRI Standard	Disclosure	Description	Page No.
GRI 207: Tax 2019	3-3	Management of material topics	45
	207-1	Approach to tax	
	207-2	Tax governance, control, and risk management	
	207-3	Stakeholder engagement and management of concerns	
		GRI 300: Environment	
GRI 301: Material 2016	3-3	Management of material topics	67-82, 130-134
	301-1	Materials used by weight or volume	
	301-2	Recycled input materials	
GRI 302: Energy 2016	3-3	Management of material topics	67-82, 130-134
	302-1	Energy consumption within the organization	
	302-3	Energy intensity	
	302-4	Reduction of energy consumption	
GRI 303: Water and Effluents 2018	3-3	Management of material topics	67-82, 130-134
	303-1	Interactions with water as a shared resource	
	303-2	Management of water discharge-related impacts	
	303-3	Water withdrawal	
	303-4	Water discharge	
	303-5	Water consumption	
GRI 304: Biodiversity 2016	3-3	Management of material topics	78-81
	304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	
	304-2	Significant impacts of activities, products, and services on biodiversity	
	304-3	Habitats protected or restored	
GRI 305: Emissions 2016	3-3	Management of material topics	80-138
	305-1	Direct (Scope 1) GHG emissions	
	305-2	Energy indirect (Scope 2) GHG emissions	
	305-3	Other indirect (Scope 3) GHG emissions	
	305-4	GHG emissions intensity	
	305-5	Reduction of GHG Emissions	
	305-6	Emissions of ozone-depleting substances (ODS)	
	305-7	Nitrogen oxides (NO_X), sulfur oxides (SO_X), and other significant air emissions	
GRI 306: Waste 2020	306-3	Waste generated	133-134
	306-4	Waste diverted from disposal	
	306-5	Waste directed to disposal	
GRI 308: Supplier Environmental Assessment 2016	3-3	Management of material topics	104-106
	308-1	New suppliers that were screened using environmental criteria	
	308-2	Negative environmental impacts in the supply chain and actions taken	

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GRI Standard	Disclosure	Description	Page No.
		GRI 400: Social	
GRI 401: Employment 2016	3-3	Management of material topics	138
	401-1	New employee hires and employee turnover	
	401-2	Benefits provided to full-time employees that are not provided to temporary or part time employee	
	401-3	Parental leave	
GRI 402: Labor/Management Relations 2016	3-3	Management of material topics	84-99
	402-1	Minimum notice periods regarding operational changes	
GRI 403: Occupational Health and Safety 2018	3-3	Management of material topics	94-99
	402-1	Minimum notice periods regarding operational changes	
	3-3	Management of material topics	
	403-1	Occupational health and safety management system	
	403-2	Hazard identification, risk assessment, and incident investigation	
	403-3	Occupational health services	
	403-4	Worker participation, consultation, and communication on occupational health and safety	
	403-5	Worker training on occupational health and safety	
	403-6	Promotion of worker health	
	403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	
	403-8	Workers covered by an occupational health and safety management system	
	403-9	Work-related injuries	
	403-10	Work-related ill health	
GRI 404: Training and Education 2016	3-3	Management of material topics	91-92
	404-1	Average hours of training per year per employee	
	404-2	Programs for upgrading employee skills and transition assistance programs	
	404-3	Percentage of employees receiving regular performance and career development reviews	
GRI 405: Diversity and Equal Opportunity 2016	3-3	Management of material topics	85-88
	405-1	Diversity of governance bodies and employees	
	405-2	Ratio of basic salary and remuneration of women to men	
GRI 406: Non-Discrimination 2016	3-3	Management of material topics	85-88, 143
	406-1	Incidents of discrimination and corrective actions taken	
GRI 407: Freedom of Association and Collective Bargaining 2016	3-3	Management of material topics	88-89
	407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	



GRI Standard	Disclosure	Description	Page No.
GRI 408: Child Labor 2016	3-3	Management of material topics	88-89
	408-1	Operations and suppliers at significant risk for incidents of child labor	
GRI 409: Forced or Compulsory Labor 2016	3-3	Management of material topics	88-89
	409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	
GRI 410: Security Practices 2016	410-1	Security personnel trained in human rights policies or procedures	88-89
GRI 411: Rights of Indigenous Peoples 2016	3-3	Management of material topics	89
	411-1	Incidents of violations involving rights of indigenous peoples	
GRI 412: Human Rights Assessment 2016	3-3	Management of material topics	**89**
	412-2	Employee training on human rights policies or procedures	
GRI 413: Local Communities 2016	3-3	Management of material topics	107-119
	413-1	Operations with local community engagement, impact assessments, and development programmes	
GRI 414: Supplier Social Assessment 2016	3-3	Management of material topics	105-107
	414-1	New suppliers that were screened using social criteria	
	414-2	Negative social impacts in the supply chain and actions taken	
GRI 415: Public Policy 2016	3-3	Management of material topics	31-35
	415-1	Political contributions	
GRI 417: Marketing and Labelling 2016	3-3	Management of material topics	100-103
	417-1	Requirements for product and service information and labeling	
GRI 418: Customer Privacy 2016	3-3	Management of material topics	100-103
	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	

GRI Exclusions for NTPC IAR FY 2023-24

GRI Principle	Disclosure	Reasons for Exclusions
Disclosure 201-1 Direct economic value generated and distributed	b. Where significant, report EVG&D separately at country, regional, or market levels, and the criteria used for defining significance.	Not applicable.
Disclosure 201-2 Financial implications and other risks and opportunities due to climate change	a. iii. the financial implications of the risk or opportunity before action is taken; v. the costs of actions taken to manage the risk or opportunity	In process of calculating financial implications due to climate change
Disclosure 202-1 Ratios of standard entry level wage by gender compared to local minimum wage	a. When a significant proportion of employees are compensated based on wages subject to minimum wage rules, report the relevant ratio of the entry level wage by gender at significant locations of operation to the minimum wage. b. When a significant proportion of other workers (excluding employees) performing the organization's activities are compensated based on wages subject to minimum wage rules, describe the actions taken to determine whether these workers are paid above the minimum wage. c. Whether a local minimum wage is absent or variable at significant locations of operation, by gender. In circumstances in which different minimums can be used as a reference, report which minimum wage is being used. d. The definition used for 'significant locations of operation'	All workers are given wages in excess of minimum wage, hence not applicable.
Disclosure 202-2 Proportion of senior management hired from the local community	a. Percentage of senior management at significant locations of operation that are hired from the local community. b. The definition used for 'senior management'. c. The organization's geographical definition of 'local'. d. The definition used for 'significant locations of operation'.	For senior management, the hiring is done through central examinations. In addition, since NTPC is spread across India with regular transfer of employees, this data is not applicable.
Disclosure 206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	a. Number of legal actions pending or completed during the reporting period regarding anti-competitive behavior and violations of anti- trust and monopoly legislation in which the organization has been identified as a participant. b. Main outcomes of completed legal actions, including any decisions or judgements.	No incidents were reported.



GRI Principle	Disclosure	Reasons for Exclusions
Disclosure 301-3 Reclaimed products and their packaging materials	a. Percentage of reclaimed products and their packaging materials for each product category. b. How the data for this disclosure have been collected.	Not applicable for NTPC, as NTPC major product being electricity cannot be reclaimed or require packaging
Disclosure 302-2 Energy consumption outside of the organization	a. Energy consumption outside of the organization, in joules or multiples. b. Standards, methodologies, assumptions, and/or calculation tools used. c. Source of the conversion factors used.	Not applicable for NTPC
Disclosure 303-4 Water discharge	d. Priority substances of concern for which discharges are treated, including: i. how priority substances of concern were defined, and any international standard, authoritative list, or criteria used; ii. the approach for setting discharge limits for priority substances of concern; iii. number of incidents of non-compliance with discharge limits.	Not applicable as all the discharge as per government norms
Disclosure 304-3	c. Status of each area based on its condition at the close of the reporting period. d. Standards, methodologies, and assumptions used.	Not monitored
Disclosure 306-3 Significant spills	a. Total number and total volume of recorded significant spills. b. The following additional information for each spill that was reported in the organization's financial statements: i. Location of spill; ii. Volume of spill; iii. Material of spill, categorized by: oil spills (soil or water surfaces), fuel spills (soil or water surfaces), spills of wastes (soil or water surfaces), spills of chemicals (mostly soil or water surfaces), and other (to be specified by the organization). c. Impacts of significant spills.	No incidents were reported.
Disclosure 412-1 Human Rights Assessment 2016	Operations that have been subject to human rights reviews or impact assessments	No incidents were reported.
Disclosure 415-1 Political contributions	a. Total monetary value of financial and in-kind political contributions made directly and indirectly by the organization by country and recipient/beneficiary. b. If applicable, how the monetary value of in-kind contributions was estimated.	Organization does not contribute to any political parties.

GRI Principle	Disclosure	Reasons for Exclusions
Disclosure 416-1 Assessment of the health and safety impacts of product and service categories	a. Percentage of significant product and service categories for which health and safety impacts are assessed for improvement	Not Applicable
Disclosure 416-2 Incidents of non- compliance concerning the health and safety impacts of products and services	a. Total number of incidents of non-compliance with regulations and/or voluntary codes concerning the health and safety impacts of products and services within the reporting period, by: i. incidents of non-compliance with regulations resulting in a fine or penalty; ii. incidents of non-compliance with regulations resulting in a warning; iii. incidents of non-compliance with voluntary codes.	Organization has not identified any non- compliance with regulations or voluntary codes
Disclosure 417-1 Requirements for product and service information and labeling	a. Whether each of the following types of information is required by the organization's procedures for product and service information and labeling: ii. Content, particularly with regard to substances that might produce an environmental or social impact; iii. Safe use of the product or service; iv. Disposal of the product and environmental or social impacts; v. Other (explain). b. Percentage of significant product or service categories covered by and assessed for compliance with such procedures.	Organization has not identified any non- compliance with regulations or voluntary codes
Disclosure 417-2 Incidents of non- compliance concerning product and service information and labeling	a. Total number of incidents of non-compliance with regulations and/or voluntary codes concerning product and service information and labeling, by: i. incidents of non-compliance with regulations resulting in a fine or penalty; ii. incidents of non-compliance with regulations resulting in a warning; iii. incidents of non-compliance with voluntary codes.	Organization has not identified any non- compliance with regulations or voluntary codes
Disclosure 417-3 Incidents of non- compliance concerning marketing communications	a. Total number of incidents of non-compliance with regulations and/or voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship, by: i. incidents of non-compliance with regulations resulting in a fine or penalty; ii. incidents of non-compliance with regulations resulting in a warning; iii. incidents of non-compliance with voluntary codes.	Organization has not identified any non- compliance with regulations or voluntary codes



Notes





Board of Directors of NTPC Limited



NTPC Limited

(A Govt. of India Enterprise)

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Regd. Office: NTPC Bhawan, Core-7, SCOPE Complex, 7 Institutional Area, Lodi Road, New Delhi-110003

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Leading the Power Sector