एनटीपीसी
NTPC
A Maharatna Company

43rd ANNUAL REPORT 2018-19

VISION

TO BE THE WORLD'S LEADING POWER COMPANY, ENERGIZING 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

Integrity
सत्यनिष्ठा

Customer Focus
ग्राहक को प्रधानता

Organisational Pride
संगठन पर गौरव

Mutual Respect and Trust
परस्पर विश्वास एवं आदर

Innovation and Learning
नवप्रवर्तन एवं ज्ञानार्जन

Total Quality and Safety
संपूर्ण गुणवत्ता एवं सुरक्षा

CORPORATE OBJECTIVES

BUSINESS PORTFOLIO GROWTH

- To sustain NTPC's position as the leading power generation company in the world.
- To broad base the generation mix with 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.

CUSTOMER FOCUS

- To foster a collaborative style of working with customers, growing to be a preferred brand for supply of quality and reliable power.
- 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.

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 co-ordinated assessment of the business environment to identify and respond to opportunities and threats.
- To create lean organization and business processes.
- To develop a learning organization having 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.

PERFORMANCE LEADERSHIP

- To continuously strive for innovation in reducing costs, enhancing operational flexibility and in 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 the new and emerging businesses.
- To embed quality and safety in all systems and processes.
- Support 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.
- To assist in capacity creation of key stakeholders.

HUMAN RESOURCE DEVELOPMENT

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

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 minimize receivables.

SUSTAINABILITY AND CORPORATE SOCIAL RESPONSIBILITY

- To deliver business and environmental value through projects which are beneficial for business and 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 resettlement and rehabilitation and environment protection including effective ash-utilization, peripheral development and energy conservation practices.

RESEARCH & DEVELOPMENT

- 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 environment friendliness.

REFERENCE INFORMATION

Registered Office

NTPC Bhawan, SCOPE Complex,
7, Institutional Area, Lodhi Road,
New Delhi-110 003
Phone No.: 011-2436 0100
Fax No. . 011-2436 1018
Email: ntpccc@ntpc.co.in
Web site: www.ntpc.co.in
CIN: L40101DL1975GOI007966

Registrar & Share Transfer Agent for Equity Shares

M/s Alankit Assignments Limited,
Alankit Heights, 1E/13, Jhandewalan Extension,
New Delhi-110 055
Contact Person: Shri Mahesh Pandey &
Shri Surinder Sharma
Tel No.: 011-42541234
Fax No.: 011-41543474
Email: alankit_ntpc@alankit.com

Depositories

National Securities Depository Limited
Central Depository Services (India) Limited

Shares listed at

National Stock Exchange of India Limited
BSE Limited

Subsidiaries

NTPC Electric Supply Company Ltd.
NTPC Vidyut Vyapar Nigam Ltd.
Kanti Bijlee Utpadan Nigam Ltd.
Bhartiya Rail Bijlee Company Ltd.
Patratu Vidyut Utpadan Nigam Ltd.
Nabinagar Power Generating Company Ltd.
(previously Nabinagar Power Generating Company Private Ltd.)

Company Secretary

Ms. Nandini Sarkar

Auditors

1. M/s T R Chadha & Co LLP
2. M/s S N Dhawan & Co LLP
3. M/s Sagar & Associates
4. M/s Kalani & Co.
5. M/s P.A. & Associates
6. M/s S.K. Kapoor & Co.
7. M/s B M Chatrath & Co LLP

Bankers

Allahabad Bank
Axis Bank
Bank of India
Canara Bank
Central Bank of India
Corporation Bank
HDFC Bank
ICICI Bank
IDBI Bank
Indian Bank
Indian Overseas Bank
IndusInd Bank
J&K Bank
Karnataka Bank Ltd.
Oriental Bank of Commerce
Punjab & Sind Bank
Punjab National Bank
State Bank of India
Syndicate Bank
UCO Bank
Union Bank of India
United Bank of India
Vijaya Bank
Yes Bank

SUPPORT 'GREEN INITIATIVE'

GREEN INITIATIVE IN THE CORPORATE GOVERNANCE

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 Alankit Assignments Limited, RTA of the Company.

CONTENTS

Annual General Meeting

Date	:	**21st August, 2019**
Time	:	**10:30 A.M.**
Venue	:	**Manekshaw Center, Parade Road, New Delhi – 110 010**

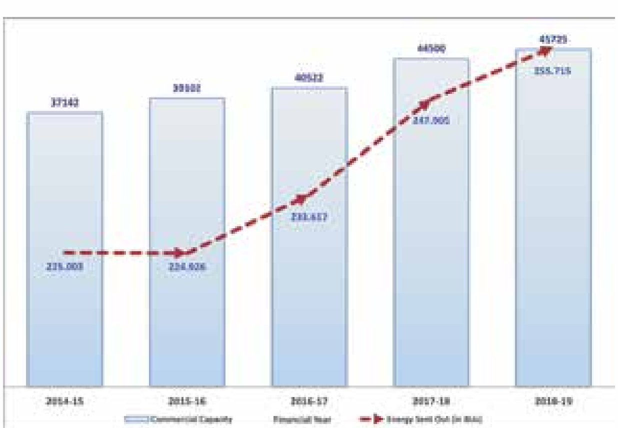
A View of NTPC - Sipat

THE YEAR AT A GLANCE

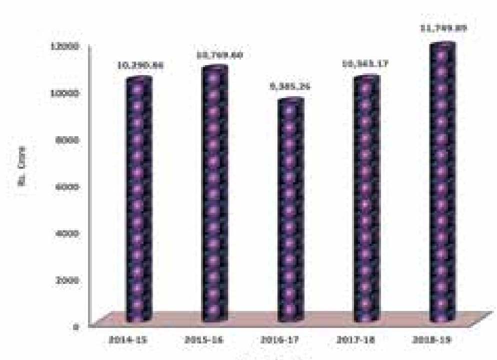
Particulars		2018-19	2017-18
Gross Generation	Million Units	274454	265798
Commercial Generation	"	273540	265003
Energy sent out	"	255715	247905
Sale of Energy (including Electricity duty)*	Rs. Crore	89316	81113
Profit before tax	"	12673	12339
Profit for the year	"	11750	10343
Dividend	"	4923	4040
Dividend tax	"	1000	816
Retained Profit	"	5827	5486
Total Fixed Assets	"	216827	198835
Net Worth	"	107408	101778
Borrowings	"	127430	115104
Capital Employed	"	131354	119711
Net Cash From Operations	"	16030	19248
Value Added	"	33571	31164
No. of Employees	Number	18359	19739
Value added per employee	Rs. Crore	1.83	1.58
Debt to Equity	Ratio	1.19	1.14
Debt Service Coverage Ratio (DSCR)	Times	2.21	2.14
Interest Service Coverage Ratio (ISCR)	Times	5.26	5.93
Return on Capital Employed	%	12.51	11.52
Face Value Per share	Rs.	10.00	10.00
Dividend Per Share**	"	5.97	4.90
Book Value Per Share	"	108.55	102.86
Earnings Per Share	"	11.88	10.45

* Including Sale of Energy through trading.
** Bonus Shares issued in March 2019 in the proportion of 1 equity share for every 5 existing equity shares

Commercial Capacity & Energy Sent Out



Profit for the Year



THE YEAR AT A GLANCE

Letter to Shareholders

Dear Shareowners and Partners,

As I reflect on the progress of past year, first, I would like to say thanks to each one of you for your continued support and investment in NTPC. I am proud of what we have accomplished together this past year, and I am even more optimistic about the opportunities ahead.

Your Company had shown all round performance and strengthened its fundamentals further. The company's total generation grew at ~4% in FY19 (Group Generation–306 BUs; Standalone - 274 BUs) and the Coal generation growth is higher than national average. Further, the country's electricity demand is growing at a very fast rate; it has grown at nearly 8% in Q1 FY20 and the peak demand has crossed 182 GW. With every Indian now having access to electricity, the power sector is poised for long term growth. With Govt.'s initiative "24X7-Power for all" the growth is expected to reach new heights. As the demand grows, there is a sizeable growth ahead for the company.

In FY19, your Company recorded a profit of over ₹ 12,600 Crore which is a growth of 20.3% as compared to previous year, revenue almost touched ₹ 1,00,000 Crore and the company declared dividend of over ₹ 5,400 Crore to shareholders. This is the 26th consecutive year that company has paid dividend and the increase in dividend is 28.5% over last year. Your Company has also issued bonus shares for the 1st time.

Another important event has been the issuance of Tariff Regulations 2019, effective from 1st April 2019 for a five-year period by Hon'ble Central Electricity Regulatory Commission (CERC). The Govt. has also launched a scheme; Security Constrained Economic Dispatch (SCED) on pilot basis with the objective of reducing cost of power. These are forward looking regulations and capture the need of the sector through various provisions. These regulations coupled with the pilot rollout of SCED scheme will lead to more efficiency and optimal use of resources.

In FY19, your Company's PLF has consistently maintained a positive difference of over 15% as compared to the National PLF. Company's coal stations achieved a PLF of 76.81% during the year 2018-19 as against National PLF of 61.07%. Five stations of NTPC figured in top ten stations list of the country in terms of PLF.

Your Company added 2180 MW to its commercial capacity during FY19. It has further added 1460 MW in FY20 till Q1. With this, the commercial capacity of NTPC Group is now 54,326 MW. This includes 928 MW of renewables. With 19 GW capacities under construction, the target for this year is for adding around 3.5GW of Commercial capacity for the balance period. Pursuing inorganic growth path – your Company acquired Barauni Thermal Power Station in Bihar [Stage# I: 220 MW and Stage#II: 500 MW (Under Construction)]. Further, Badarpur plant (705 MW) in NCT of Delhi has been permanently shut down with effect from October 15, 2018. Even though the plant was meeting environmental norms, Delhi's poor air quality index has led to this decision.

Your Company is going aggressively in the renewable space. The company has won 545 MW of capacity through participation in Tariff Based Competitive Bidding conducted by States and SECI which proves the competitive edge. Setting up 100 MW of floating solar in the State of Telangana and for 92 MW of floating solar in Kerala, discussions are in advanced stage for signing of PPA. Further, PPAs have been signed for 2000 MW solar and 1150 MW wind in developer mode. Your Company is looking at the possibility of setting up renewable projects as merchant plants in future. Further, the policy issued by Govt. of India - "Flexibility in generation and scheduling of thermal power stations to reduce emissions" is being actively pursued for implementation.

Your Company has been ranked No#1 "Independent Power Producer and Energy Trader" in the Platts Top 250 Global Energy rankings 2018. Improving its position, your Company has been ranked 492 in Forbes Global 2000 – The world's largest public companies list.

Your Company is working with the objective of "Low Cost, Low Emission and Highest Safety". Even though the cost of coal has increased over years, average Power Charges were maintained at nearly the same level. Various optimization and technological measures are being taken for resource utilization and keeping expenses under control.

Your Company has made substantial progress in coal-mining. Pakri-Barwadih mine was declared commercial w.e.f 1st April 2019. It has surpassed the mine plan production target and extracted 6.81 MMT of coal during FY19. Further 0.5 MMT was extracted from Dulanga. Your Company is working relentlessly to enhance production from all the captive mines to ensure fuel security and adopting best mining technologies. I am very proud to mention that Director General Mine Safety (DGMS), a Statutory Authority of Govt. of India, has selected Pakri-Barwadih as a model mine, the one out of two in the entire country.

Robust financial management system put in place by your Company has resulted in reducing the weighted average cost of borrowings to less than 7% in FY19. The Company has achieved 100% realization of current bills for the sixteenth year in a row. This has been possible only with effective stake holder management.

Tireless efforts are underway for maximizing profitability. Steps have been taken for eliminating under recovery by ensuring fuel availability and controlling equipment forced outage. The availability of coal Stations has increased significantly in Q1 FY20. With robust all round performance, your Company is expected to retain the “Excellent” rating for the MoU signed with Government of India again.

Reduction of water consumption, increasing ash utilization and environmental protection are the top most priorities of your Company.

Rain Water Harvesting policy has been put in place. Significant steps are being taken for reducing water consumption. Specific water consumption has been reduced by 1.3% (3.02 l/kWh) when compared to FY18. Implementation of Zero Liquid Discharge (ZLD) scheme has been completed at ten Stations. Implementation of higher CoC across all Stations is being done to reduce fresh water intake. Besides these, Air Cooled Condenser is being implemented at new projects.

To address the issue of ash utilization, your Company had conducted ‘Grand Ash Challenge’ to invite innovative ideas on pan India basis for ‘Productive ash utilization’. Five best ideas were selected for implementation. This initiative will not only benefit the company but the country at large. Your Company has also tied up with Indian Railways for setting up of fly ash depots.

To meet the Flexibilization requirement with increased penetration of renewables in to the grid, pilot testing has been started at one of the Stations and a road map has been prepared for retrofitting of the Units for enhancing Flexibilization characteristics.

To maximize the geo-strategic reach, your Company is actively looking at business opportunities overseas. First international office has been opened at Myanmar. Construction activities of a Coal based project at Bangladesh are under progress. Further, the company is actively looking at Middle East and African continent for business opportunities. Setting up of electric charging infrastructure has been started in NCR and will be operationalized soon. The company is actively pursuing with various States for providing complete e-mobility solutions.

Your company’s Sustainability Report for FY18 has been assured by Deloitte with Type-II, High Level category. This is the highest level of assurance in accordance with Global Reporting Initiative (GRI), conforming to AA1000AS (2008) Standard. NTPC is one of the three organizations and first PSU in India to have such highest level of assurance. Your Company had won the most coveted Frost & Sullivan and TERI Sustainability 4.0 Award 2019 for best sustainability practices.

Improving its position significantly, your Company is Ranked 14^{th} in Best Companies to Work for-2019, first among PSUs. Your company is putting continued thrust on employee capability improvement. To bridge the skill gap, leadership programmes for senior management has been conducted at Harvard and Wharton. To inculcate leadership skills and business acumen in middle level management - Young leaders programme has been started. NTPC was facilitated by the most coveted ATD BEST award in training domain, consecutively three times in a row from ATD, USA.

Corporate Social Responsibility has been the prime focus of your Company. With the success of Girl Empowerment Mission (GEM) launched in FY18, the programmes has been started at 23 locations in FY19, covering 1900 school girls and inputs are given on academics, health, hygiene, self-defense, yoga and personality development.

To address the problem of municipal waste, a 24 TPD pilot scale Waste to Energy (WtE) Plant has been commissioned at Varanasi. This is the 1^{st} Waste to Energy Plant owned by NTPC. Many such proposals are on the cards along with large scale Waste to Energy plants.

On behalf of NTPC family, I assure you that your Company will continue to put tireless efforts and commitment to fulfill your expectations. With the unmatched knowledge pool and skill of Team NTPC, I once again assure you that each employee of the company will work as a “Power Soldier” for improving the performance in the years to come.

With best wishes,

Yours sincerely,

(Gurdeep Singh)
Chairman & Managing Director

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 **43rd Annual General Meeting** of the Members of **NTPC Limited** will be held on **Wednesday, 21st August , 2019 at 10.30 A.M.at Manekshaw Centre, Parade Road, New Delhi – 110 010** to transact the following businesses:

ORDINARY BUSINESS:

1. To consider and adopt:

   (a) the Audited Standalone Financial Statement of the Company for the financial year ended 31st March 2019, the reports of the Board of Directors and Auditors thereon; and

   (b) the Audited Consolidated Financial Statement of the Company for the financial year ended 31st March 2019 and the report of the Auditors thereon.

2. To confirm payment of interim dividend and declare final dividend for the year 2018-19.

3. To appoint a Director in place of Shri Anand Kumar Gupta, Director (Commercial) (DIN: 07269906), who retires by rotation and being eligible, offers himself for re-appointment.

4. To fix the remuneration of the Statutory Auditors for the year 2019-20.

SPECIAL BUSINESS:

5. To appoint Shri Anurag Agarwal (DIN: 01360908), as Government Nominee Director on the Board 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, Shri Anurag Agarwal (DIN: 01360908), who was appointed as Government Nominee Director, by the President of India vide Ministry of Power letter No. 20/08/2016-Coord (Pt-V) dated 7th June, 2019 and subsequently appointed as an Additional Director by the Board of Directors with effect from 1st July 2019 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 Government Nominee Director of the Company on terms & conditions as may be fixed by the Government of India and he shall not be liable to retire by rotation.

6. To re-appoint Dr. Gauri Trivedi (DIN: 06502788), as Independent Director of the Company and in this regard to consider and if thought fit, to pass the following resolution as a **Special 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, Dr. Gauri Trivedi (DIN: 06502788), who was re-appointed as Independent Director, by the President of India vide letter no. 20/06/2017-Coord dated 22nd November, 2018 issued by the Ministry of Power for a period of one year from the date of completion of existing tenure i.e. 15th November 2018 or until further orders whichever is earlier and subsequently appointed as an Additional Director by the Board of Directors with effect from 16th November 2018, subject to approval of shareholders, be and is hereby re-appointed as Independent Director of the Company on terms & conditions as may be fixed by the Government of India.

7. To Increase borrowing limit of the Company from Rs. 1,50,000 Crore to Rs. 2,00,000 Crore and in this regard to consider and if thought fit, to pass the following resolution as a **Special Resolution:**

   Resolved that in supersession of the resolution approved by shareholders through postal ballot on 5th September, 2014, consent of the Company be and is hereby accorded to the Board of Directors (hereinafter referred to as "the Board" which term shall be deemed to include any Committee thereof constituted for this purpose) under Section 180(1)(c) and other applicable provisions, if any, of the Companies Act, 2013 (including any statutory modification(s) or re-enactment(s) thereof) and applicable laws, rules and regulations, guidelines etc., if any, to borrow money for the purposes of the business of the Company as may be required from time to time either in foreign currency and / or in Indian rupees, as may be deemed necessary, on such terms and conditions and with or without security as the Board may think fit, which together with the monies already borrowed by the Company (apart from the temporary loans obtained from the bankers of the Company in the ordinary course of business) at any time shall not exceed in the aggregate Rs.2,00,000 Crore (Rupees Two Lakh Crore only) irrespective of the fact that such aggregate amount of borrowings outstanding at any one time may exceed the aggregate, for the time being, of the paid-up capital, securities premium and free reserves of the Company.

Further resolved that the Board be and is hereby authorised to do or cause to be done all such acts, matters, deeds and other things as may be required or considered necessary or incidental thereto, for giving effect to the aforesaid resolution.

8. To create Mortgage and/or charge over the movable and immovable properties of the Company and in this regard to consider and if thought fit, to pass the following resolution as a **Special Resolution:**

Resolved that pursuant to provisions of Section 180(1)(a) and other applicable provisions, if any, of the Companies Act, 2013 (including any statutory modification(s) or re-enactment(s) thereof), the consent of the Company be and is hereby accorded to the Board of Directors (hereinafter referred to as "the Board" which term shall be deemed to include any Committee thereof constituted for this purpose) to create such charges, mortgages and hypothecations in addition to existing charges, mortgages and hypothecations created by the Company, on such movable and immovable properties, both present and future and in such form and manner as the Board may deem fit in favour of Banks/ Financial Institutions/ Agents/ Trustees etc. (hereinafter referred to as "Lenders") for securing the borrowings availed/to be availed by way of rupee/foreign currency loans, other external commercial borrowings, issue of debentures / Bonds etc. on such terms and conditions as may be mutually agreed with the lenders of the Company towards security for borrowing of funds for the purposes of business of the Company.

Resolved further that the Board be and is hereby authorized and it shall always be deemed to have been so authorized to finalize and execute with the Lenders the requisite agreement, documents, deeds and writings for borrowing and/ or creating the aforesaid mortgage(s) and/ or charge(s) and to do all such other acts, deeds and things as may be necessary to give effect to the above resolution.

9. To ratify the remuneration of the Cost Auditors for the financial year 2019-20 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. 37,21,250/-(Rupees thirty seven lacs twenty one thousand two hundred fifty only) excluding statutory levies,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 2019-20 as per detail set out in the Statement annexed to the Notice convening this Meeting.

Resolved further that the Board of Directors of the Company be and is hereby authorized to do all acts, deeds, matters and things as may be considered necessary, desirable or expedient for giving effect to this resolution.

10. To raise funds up to Rs.15,000 Crore through issue of Bonds/Debentures 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 is 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 ("Bonds") upto Rs.15,000 Crore in one or more tranches/ series not exceeding 30 (thirty), 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 2020-21 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.

Resolved further 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 Bonds 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 Bonds as it may, in its absolute discretion, consider necessary.

By order of the Board of Directors

Nandini Sarkar

(Nandini Sarkar)
Company Secretary

Place: New Delhi
Date: 8th July, 2019

Notes: -

1. 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.

2. **A member entitled to attend and vote at the meeting is entitled to appoint a proxy to attend and vote instead of himself/ herself and the proxy need not be a member of the company. In order to be effective, the proxy form duly completed should be deposited at the registered office of the company not less than forty-eight hours before the scheduled time of the Annual General Meeting. Blank proxy form is enclosed.**

   Pursuant to the provisions of Section 105 of the Companies Act, 2013, a person can act as a proxy on behalf of members not exceeding fifty and holding in the aggregate not more than ten percent of the total share capital of the company carrying voting rights. A member holding more than ten percent of the total share capital of the company carrying voting rights may appoint a single person as proxy and such person shall not act as a proxy for any other person or shareholder. Proxies submitted on behalf of limited companies, societies, etc. must be supported by an appropriate resolution / authority, as applicable.

3. Every member entitled to vote at a meeting of the company or on any resolution to be moved thereat, shall be entitled during the period beginning twenty-four hours before the time fixed for the commencement of the meeting and ending with the conclusion of the meeting, to inspect the proxies lodged, at any time during the business hours of the company, provided not less than three days' notice in writing of the intention to inspect is given to the company.

4. Corporate Members intending to send their authorized representatives to attend the Meeting are requested to send a certified copy of the Board Resolution authorizing their representative to attend and vote on their behalf at the Meeting.

5. Brief resume of the Directors seeking appointment or re-appointment at Annual General Meeting (AGM), as required under Regulation 36 of SEBI (Listing Obligations and Disclosure Requirements) Regulations 2015, is annexed hereto and forms part of the Notice.

6. Members are requested to: -

   i. note that copies of Annual Report will not be distributed at the Annual General Meeting.

   ii. bring their copies of Annual Report, Notice and Attendance Slip duly completed and signed at the meeting.

   iii. note that the attendance slip/ proxy form should be signed as per the specimen signature registered with the Alankit Assignments Limited, Registrar & Transfer Agent (RTA)/ Depository Participant (DP).

   iv. deliver duly completed and signed Attendance Slip at the entrance of the meeting venue, as entry to the Hall will be strictly on the basis of the entry slip available at the counters at the venue to be exchanged with the attendance slip.

   v. note that in case of joint holders attending the meeting, only such joint holder whose name is higher in the register of member will be entitled to vote.

   vi. quote their Folio / Client ID & DP ID Nos. in all correspondence.

   vii. note that due to strict security reasons mobile phones, briefcases, eatables and other belongings will not be allowed inside the Hall.

   viii. note that no gifts/coupons will be distributed at the Annual General Meeting.

7. The Board of Directors, in its meeting held on January 30, 2019, had declared an interim dividend @ 35.80% (Rs. 3.58 per share) on the paid-up equity share capital of the company which was paid on February 14, 2019. Members who have not encashed or not received their dividend warrants may approach RTA of the Company for revalidating the warrants or for obtaining duplicate warrants. The Board of Directors, in its Meeting held on May 25, 2019, has recommended a final dividend @ 25.00% (Rs. 2.50 per share) on the paid-up equity share capital of the company.

8. The Register of Members and Share Transfer Books of the Company will remain closed from August 15, 2019 to August 21, 2019 (both days inclusive). The final dividend on equity shares, as recommended by the Board of Directors, subject to the provisions of Section 91 of the Companies Act, 2013, if declared at the Annual General Meeting, will be paid on September 3, 2019 to the Members whose names appear on the Company's Register of Members in respect of physical shares on August 21, 2019. In respect of dematerialized shares, the dividend will be payable to the "beneficial owners" of the shares whose names appear in the Statement of Beneficial Ownership furnished by National Securities Depository Limited and Central Depository Services (India) Limited as at the close of business hours on August 14, 2019.

9. Pursuant to the provisions of the Companies Act, 2013, the Company has transferred the unpaid or unclaimed final dividend for the financial year 2010-11 and interim dividend for the financial year 2011-12, on or before due dates, to the

Investor Education and Protection Fund (IEPF) established by the Central Government. Pursuant to the provisions of IEPF Rules, the Company has uploaded the details of unpaid and unclaimed amounts lying with the Company as on September 20, 2018 (date of last Annual General Meeting) on the website of the Company (www.ntpc.co.in) and also on the website of the Ministry of Corporate Affairs (http://www.iepf.gov.in).

10. Attention of the members is drawn to the provisions of Section 124(6) of the Act which require a company to transfer in the name of IEPF Authority, all shares in respect of which dividend has not been paid or claimed for 7 (seven) consecutive years or more. In accordance with the aforesaid provision of the Act read with the Investor Education and Protection Fund Authority (Accounting, Audit, Transfer and Refund) Rules, 2016, the Company has taken appropriate action for transferring the shares to the Demat Account opened by the IEPF Authority. Members are advised to visit the web-link: https://www.ntpc.co.in/en/Investors/miscellaneous-download to check details of shares transferred to IEPF authority. The procedure for claiming shares from IEPF account is also available on the website.

11. Unclaimed final dividend for the financial year 2011-12 and Interim dividend for the financial year 2012-13 will be due for transfer to the Investor Education and Protection Fund of the Central Government on or before 16th November, 2019 and 1st May, 2020 respectively 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 7 (seven) consecutive years shall also be liable to be transferred to the account of IEPF.

12. Members, who have not registered their NECS Mandate, are requested to send their NECS Mandate Form to the RTA / Investor Service Department of the Company or to their DP, as the case may be. For any change in bank particulars due to bank had migrated their operations to core banking solutions, Members are requested to register a fresh NECS Mandate with the revised bank particulars.

13. 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.

14. **SEBI has notified the SEBI (Listing Obligations and Disclosure Requirements) (Fourth Amendment) Regulations, 2018 on June 8, 2018 to permit transfer of listed securities only in the dematerialized form with a depository. In view of the above, Shareholders holding shares in physical form, are advised to dematerialize their shares.**

15. 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) Rule, 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.

16. Members are requested to notify immediately any change of address:

    i. to their DP in respect of shares held in dematerialized form, and

    ii. to the Company at its Registered Office or to its RTA in respect of their physical shares, if any, quoting their folio number.

17. Members desirous of getting any information on any items of business proposed to be transacted at this Meeting are requested to address their queries to Company Secretary of the Company at the registered office of the company at least ten days prior to the date of the meeting, so that the information required can be made readily available at the meeting.

18. Annual listing fee for the year 2019-20 has been paid to all Stock Exchanges wherein shares of the Company are listed. Also, the Annual Custodian Fee for the year 2019-20 was paid to both Depositories i.e. Central Depository Services (India) Limited and National Securities Depository Limited.

19. 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 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 42nd Annual General Meeting held on September 20, 2018, had authorized the Board of Directors to fix the remuneration of Statutory Auditors for the financial year 2018-19. Accordingly, the Board of Directors has fixed audit fee of Rs. 1,77,10,000/- (Rupees One Crore Seventy Seven Lakh Ten Thousand only) for the Statutory Auditors for the financial year 2018-19 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 2019-20 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 2019-20.

20. None of the Directors of the Company is in any way related with each other.

21. All documents referred to in the accompanying notice are open for inspection at the registered office of the Company on

all working days (barring Saturday and Sunday) between 11.00 a.m. to 1.00 p.m. prior to the Annual General Meeting.

22. To support the 'Green Initiative', Members who have not registered their e-mail addresses are requested to register the same with Depositories/ RTA. **Members who have not registered their e-mail addresses so far or who want to update their e-mail address, are requested to approach their respective DP (for electronic holding) or with RTA/ Company (for physical holding), for receiving all communication including Annual Report, Notices, Circulars, NECS intimation etc. of the Company electronically.**

23. The Notice of the AGM along with the Annual Report 2018-19 is being sent by electronic mode to those Members whose e-mail addresses are registered with the Company/Depositories, unless any Member has requested for a physical copy of the same. For Members who have not registered their e-mail addresses, physical copies are being sent by the permitted mode.

24. In compliance with provisions of Regulation 44 of the SEBI (Listing Obligations and Disclosure Requirements) Regulations 2015 as well as Section 108 of the Companies Act, 2013 read with the Companies (Management and Administration) Rules, 2014, the Company is offering remote E- voting facility to all the Shareholders of the Company in respect of items to be transacted at this Annual General Meeting. User ID and Password including instructions for e-voting are given overleaf of Proxy form. All members are requested to read those instructions carefully before casting their e-vote. Once the vote on a resolution is cast by a Member, the Member shall not be allowed to change it subsequently. Further, the Members who have cast their vote electronically shall not be allowed to vote again at the Meeting. Members who have not voted electronically can cast their vote at the meeting.

25. **In compliance with the provisions of Regulation 44(6) of the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015, the Company shall provide live webcast of proceedings of AGM from 10.30 A.M. onwards till the conclusion of the meeting on Wednesday, August 21, 2019 on the NSDL website. You may access the same at https://www.evoting.nsdl.com by using your remote e-voting credentials. The link will be available in shareholder login where the EVEN of Company will be displayed.**

26. Members and Proxy holders may please carry photo-ID card for identification/verification purposes.

27. Route Map for venue of the meeting is enclosed.

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Annexure to Notice of AGM

EXPLANATORY STATEMENT

Item No. 5

Shri Anurag Agarwal (DIN: 01360908), was appointed as Government Nominee Director of the Company by the President of India vide letter No. 20/08/2016-Coord. (Pt-V) dated 7th June 2019 and was accordingly appointed as Additional Director w.e.f. 1st July 2019, to hold office up to this Annual General Meeting. Shri Anurag Agarwal, if appointed, shall not be liable to retire by rotation.

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 Anurag Agarwal, is in any way, concerned or interested, financially or otherwise, in the resolution.

The Board recommends the resolution for your approval.

Item No. 6

In pursuance of Article 40/41 of the Articles of Association of NTPC Ltd., Ministry of Power acting on behalf of the President of India had appointed Dr. Gauri Trivedi (DIN: 06502788) as Non-Official part-time Director i.e. Independent Director of the Company vide letter No.08/06/2013-Th-I dated 16th November, 2015 for a period of three years. Her tenure of appointment was completed on 15th November, 2018. Subsequently, President of India vide Ministry of Power, letter no. 20/6/2017-Coord dated 22nd November, 2018, re-appointed Dr. Gauri Trivedi as Non-official Independent Director on the Board of NTPC for a period of one year w.e.f. the date of completion of her existing tenure, or until further orders, whichever is earlier. Accordingly, Dr. Gauri Trivedi was appointed as Additional Director w.e.f. 16th November 2018 subject to approval of shareholders in General Meeting as per the provisions of Section 149(10) of the Companies Act, 2013. Appointment of Dr. Gauri Trivedi was also recommended by the Nomination & Remuneration Committee of the Board.

Her brief resume, inter-alia, giving nature of expertise in specific functional area, shareholding in the Company, other Directorship, Membership/ Chairperson of Committees and other particulars are provided elsewhere, which forms part of this notice. Dr. Gauri Trivedi has wide experience in the area of Public Administration, Academics and Management. Her association would be of immense benefit to the Company. Accordingly, it is proposed to appoint Dr.Gauri Trivedi as an Independent Director. Dr. Gauri Trivedi has given a declaration to the effect that she meets the criteria of Independence as prescribed under Section 149 of the Companies Act, 2013, read with the Companies (Appointment and Qualifications of Directors) Rules, 2014 and Regulation 16 of the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015.

None of the Directors or Key Managerial Personnel of the Company or their relatives except Dr. Gauri Trivedi, is in any way, concerned or interested, financially or otherwise, in the special resolution.

The Board recommends the resolution for your approval.

Item No. 7

NTPC is India's largest energy conglomerate and a Maharatna Company having presence in the entire value chain of the power generation business. NTPC is primarily engaged in the business of generation of electricity from thermal, hydro or Renewable energy sources. The Company has installed capacity of 55,126 MW (including generation from subsidiaries & joint ventures) as on 31st March 2019. To strengthen its core business, the Company has diversified into the fields of Coal Mining, Consultancy, Ash utilization etc. The Company is in rapid capacity addition mode. The projects, except renewable energy projects, of the Company are to be financed by debt & equity in the ratio of 70:30. Renewable Energy Projects are financed by debt & equity in the ratio of 80:20. The main constituents of the Company's borrowings are generally in the form of bonds/ debentures, rupee term loans from banks and financial institutions, foreign currency borrowings, foreign currency bonds etc.

As per the requirements of Section 180(1)(c) of the Companies Act, 2013, the shareholders of the Company by a special resolution passed through Postal ballot on 5th September, 2014 had authorized Board of Directors to borrow upto Rs. 1,50,000 Crore i.e. in excess of paid up share capital and free reserves. Keeping in view of fund requirements of the Company due to capacity addition programme, the limit of Rs. 1,50,000 Crore is required to be increased. As per estimates, on the basis of capital outlay envisaged, the proposed debt requirement of both ongoing projects and new projects upto 2022 will be approx. Rs. 2,00,000 Crore, which will exceed paid up share capital, free reserves and securities premium of the Company.

In view of the above, approval of the Shareholders of the Company is being sought by way of Special Resolution(s), for authorizing the Board of Directors to borrow money from time to time , exceeding the paid up share capital of the Company, its free reserves and share premium provided that total amount so borrowed (apart from the temporary loans obtained from the bankers of the Company in the ordinary course of business) shall not at any time exceed Rs. 2,00,000 Crore.

The Board of Directors of the Company, in its 471st Meeting held on 3rd May, 2019, had approved the above proposal and recommended the proposal for approval of shareholders.

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.

Item No. 8

In terms of the provisions of Section 180(1) (a) of the Companies Act, 2013, a Company cannot sell, lease or otherwise dispose off the whole or substantially the whole of the undertaking or undertakings of the Company without the consent of the Shareholders of the Company by way of a Special Resolution.

As the Company is under a rapid capacity expansion mode, large portion of capital expenditure requirement of the Company has to be funded by debt. The raising of funds through debt usually requires creation of security on the immovable/movable properties, present or future, of the Company in favour of lenders. As creation of charge / mortgage tantamount to otherwise disposing off the undertakings of the Company, it shall be necessary to pass a Special Resolution under Section 180(1)(a) of the Companies Act, 2013 .

The Board of Directors of the Company, in its 471st Meeting held on 3rd May, 2019, had approved the above proposal and recommended the proposal for approval of shareholders.

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.

Item No. 9

Based on recommendation of Audit Committee, appointment of Cost Auditors for the Financial year 2019-20 was decided by the Board of Directors on the outcomes of Expression of Interest (EOI). Total fee of Rs.37,21,250/- (Rupees thirty seven lacs twenty one thousand two hundred fifty only) excluding statutory levies, is payable for cost audit for the Financial year 2019-20 as approved by the Board of Directors in its meeting held on 1st July, 2019. The fee structure for cost audit is broadly based on station capacity and number of stations.

As per Rule 14 of Companies (Audit and Auditors) Rules, 2014 read with section 148(3) of the Companies Act, 2013, the remuneration as 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 2019-20.

The Board of Directors of the Company, in its 473rd Meeting held on 1st July, 2019, had approved the above proposal and recommended the proposal for ratification by the Shareholders.

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.

Item No. 10

The Company is the largest power producer in India with installed capacity of 55,126 MW (including generation from subsidiaries & joint ventures) as on 31st March, 2019. The projects of the Company (except Renewable Energy Projects) are to be financed by debt & equity in the ratio of 70:30. Renewable Energy Projects are to be financed by debt & equity in the ratio of 80:20. As the Company is under a rapid 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 non-convertible bonds/debentures, rupee term loans from banks and financial institutions, foreign currency borrowings, foreign currency bonds etc. The non-convertible bonds/debentures 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 purpose which is partly proposed to be met through issuance of non-convertible bonds.

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 ("Bonds") upto Rs.15,000 Crore in one or more tranches/series not exceeding 30 (thirty), 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 2020-21 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 473rd Meeting held on 1st July 2019, had approved the proposal and recommends the passing of the proposed Special Resolution.

The Directors or key managerial personnel or their relatives do not have 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

Nandini Sarkar

(Nandini Sarkar)
Company Secretary

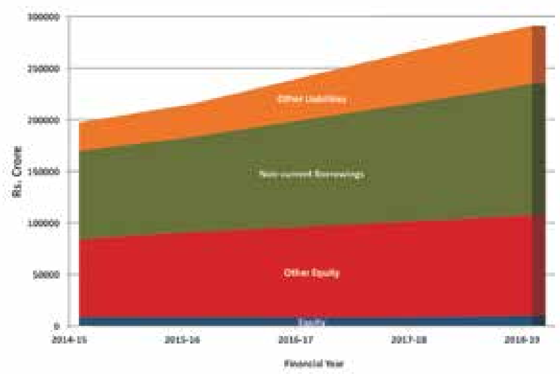
Place: New Delhi
Date: 8th July, 2019

Brief resume of Director seeking appointment/reappointment:

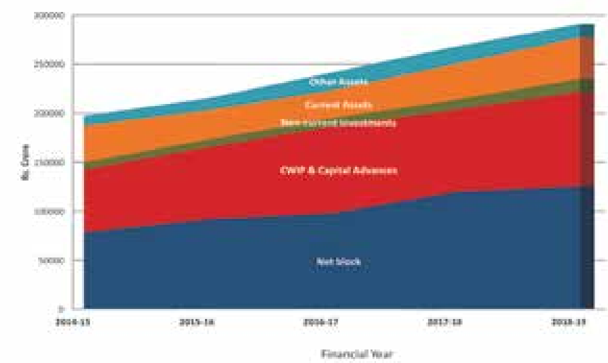
Name	Shri A.K. Gupta	Shri Anurag Agarwal	Dr. Gauri Trivedi
Date of Birth & Age	15/07/1960 59 Years	11/03/1966 53 Years	18/05/1960 59 Years
Date of Appointment	03/02/2017	01/07/2019	16/11/2018
Qualifications	Graduate in Electrical Engineering	B.Tech (Mechanical), IIT Kanpur	M.A. (Political Science) from JNU, Delhi, M. Phil (Soviet Studies), JNU, Delhi, Doctorate in Philosophy from Institute of Social & Economic Change, Bangalore and Institute of Development Studies, Mysore and PGPPM from Indian Institute of Management (IIM), Bangalore.
Expertise in specific functional area	Shri A.K. Gupta was appointed as Director (Commercial) w.e.f. 3rd February, 2017. Before joining as Director (Commercial) during his career of over 38 years, he headed various departments including Commercial, Business Development and Engineering. He made major contributions in development of international business for NTPC, evolving commercial strategies for changing business scenario, development of new projects and improving plant operations.	Shri Anurag Agarwal is an Indian Administrative Service Officer of Punjab Cadre (1990 Batch). He is presently working as Additional Secreatry & Financial Advisor, Ministry of Power.	Dr. Gauri Trivedi had held number of administrative posts in Karnataka. She had also been General Manager (Handloom & Handicrafts Export Corporation), Director of Tea Promotion (WANA), Managing Director (HESCOM), a power distribution company, Managing Director (Karnataka State Food & Civil Supplies Corporation), Secretary to Government, Revenue Department, Govt. of Karnataka and Secretary to the Governor of Karnataka. She had been guest faculty in a number of reputed institutes teaching governance, public policy, rural planning and management.
Directorship held in other companies	1. NTPC GE Power Services (P) Ltd.- Part – Time Chairman 2. PTC India Limited- Part – Time Nominee Director (Listed) 3.Nabinagar Power Generating Co. Ltd.-Part Time Chairman 4.Bhartiya Rail Bijlee Company Ltd.-Part Time Chairman 5. Trincomalee Power Co. Ltd.-Part Time Director (Foreign Company)	Power Grid Corporation of India Limited - Govt. Nominee Director (Listed)	1. Sintex Plastic Limited (Listed) 2. Denis Chem Lab Limited (Listed) 3. Adani Power Limited (Listed) 4.Energy Efficiency Services Limited (Listed) 5.Sintex-BAPL Limited 6.Udupi Power Corporation Limited
Memberships/ Chairmanship of Committees across all Public Companies*	NIL	NIL	**Audit Committee:** 1. NTPC Limited – Chairperson **Stakeholders' Relationship Committee:** 1. Energy Efficiency Services Limited- Member
No. of Shares held in NTPC Limited as on 31.03.2019	7224	NIL	NIL
Attendance in Board Meetings during FY 2018-19	No. of Meetings during FY 2018-19= 12 No. of Meetings attended = 12	N.A.	No. of Meetings during FY 2018-19 =12 No. of Meetings attended = 8

*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.

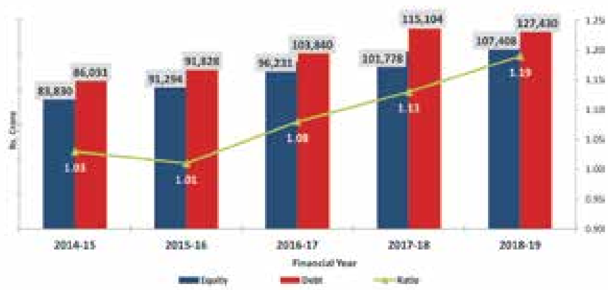
Source of Funds



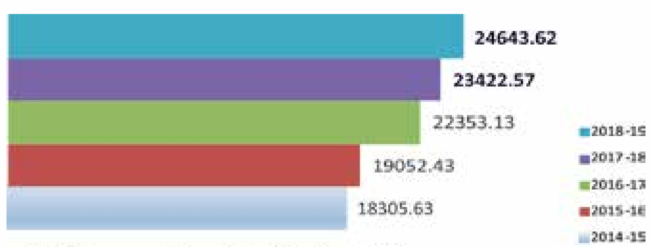
Application of Funds



Debt to Equity

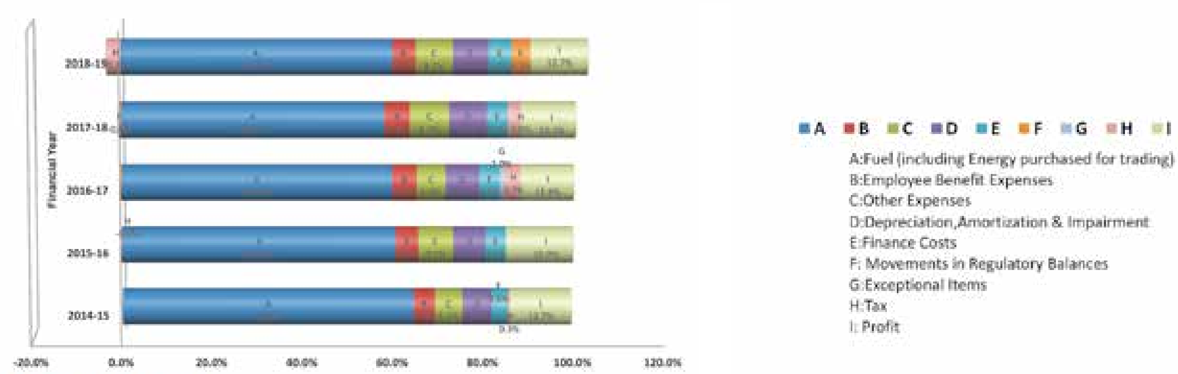


EBITDA* (Rs. in Crore)



** Excluding movements in regulatory deferral account balances*

Distribution of Revenue



STATION - WISE GENERATION 2018-19

Station	Fuel Type	*Gross Capacity (MW)	*Gross Capacity (MW)
Northern Region		**7653**	**47643**
Singrauli	Coal	2000	14798
Rihand	Coal	3000	22687
Unchahar	Coal	1550	7241
Tanda	Coal	440	2372
Auraiya	Gas	663	545
DBF		**3081**	**14194**
Dadri Coal	Coal	1820	10534
Badarpur	Coal	0	1400
Dadri Gas	Gas	830	1662
Faridabad	Gas	432	597
Western Region		**17313**	**100547**
Mouda	Coal	2320	11880
Korba	Coal	2600	20083
Vindhyachal**	Coal	4760	37539
Sipat	Coal	2980	23907
Solapur	Coal	1320	1944
Lara	Coal	800	270
Gadarwara	Coal	800	299
Anta	Gas	419	551
Kawas	Gas	656	2499
Gandhar	Gas	657	1574
Southern Region		**7360**	**38564**
Ramagundam	Coal	2600	18548
Simhadri	Coal	2000	12449
Kudgi	Coal	2400	7566
Rajiv Gandhi CCP	Liquid Fuel	360	1
Eastern Region		**10190**	**68957**
Farakka	Coal	2100	14846
Kahalgaon	Coal	2340	16486
Barh	Coal	1320	9845
Barauni	Coal	220	0
Talcher Kaniha	Coal	3000	21242
Talcher Thermal	Coal	460	3605
Bongaigaon	Coal	750	2932
Hydro Region		**800**	**3014**
Koldam Hydro	Water	800	3014
Total* **		**46397**	**272918**

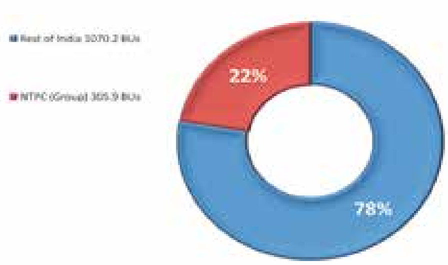
*As on 31.03.2019

**As per NTPC, regional location of Vindhyachal is Northern Region

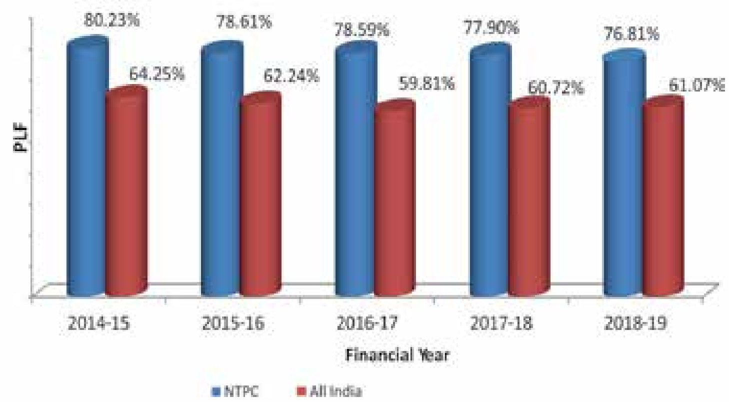
***Excludes 1425.21 MU Solar Power Generation and 870 MW Capacity, 97.59 MU Wind Generation and 50 MW Capacity, 13.74 MU Small Hydro and 8 MW Capacity.

Share of Installed Capacity (as on 31st March 2019)

Share of Electricity Generated (FY 2018-19)

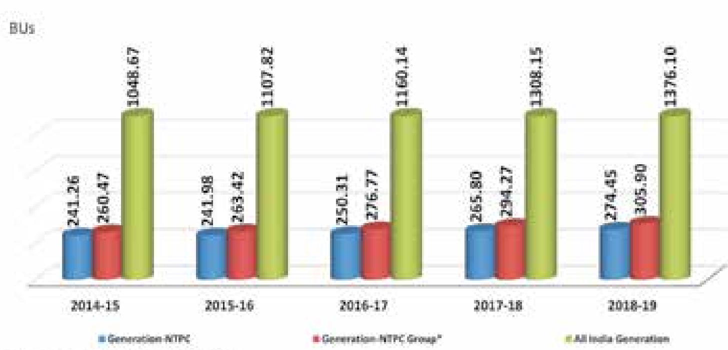


NTPC PLF Vs All India PLF



Growth in Installed Capacity NTPC, NTPC Group and All India

Growth in Generation NTPC, NTPC Group and All India Generation



*Includes generation from captive capacity of 814 MW

SELECTED FINANCIAL INFORMATION*

(₹ Crore)

		2018-19#	2017-18#	2016-17#	2015-16#	2014-15^
A	**Revenue**					
	Revenue from operations	90,307.43	83,452.70	78,273.44	70,843.81	73,236.94
	Other income	1,872.13	1,755.25	1,068.86	1,165.35	2,100.42
	Total revenue	**92,179.56**	**85,207.95**	**79,342.30**	**72,009.16**	**75,337.36**
B	**Expenses**					
	Fuel	52,493.74	48,315.47	47,572.19	43,798.59	48,833.57
	Energy purchased for trading	2,713.68	1,313.51	-	-	-
	Employee benefits expense	4,779.89	4,734.67	4,324.60	3,581.65	3,620.71
	Other expenses	7,548.63	7,421.73	5,092.38	5,576.49	4,911.28
	Prior period items (net)	-	-	-	-	(333.83)
	Profit before depreciation, finance cost and tax	**24,643.62**	**23,422.57**	**22,353.13**	**19,052.43**	**18,305.63**
	Depreciation, amortization and impairment expense	7,254.36	7,098.86	5,920.82	5,172.34	4,911.65
	Profit before finance cost and tax	**17,389.26**	**16,323.71**	**16,432.31**	**13,880.09**	**13,393.98**
	Finance costs	4,716.74	3,984.25	3,597.20	3,296.41	2,743.62
	Profit before exceptional items tax and regulatory deferral account balances	**12,672.52**	**12,339.46**	**12,835.11**	**10,583.68**	**10,650.36**
	Exceptional Items (+) income/ (-) loss	-	-	(782.95)	-	-
	Profit before tax	**12,672.52**	**12,339.46**	**12,052.16**	**10,583.68**	**10,650.36**
	Total Tax expense	(2,918.71)	5,257.14	2,930.82	(173.83)	255.79
	Profit for the year before regulatory deferral account balances	**15,591.23**	**7,082.32**	**9,121.34**	**10,757.51**	**10,394.57**
	Net movement in regulatory deferral account balances (net of tax)**	(3,841.34)	3,260.85	263.92	12.09	(103.71)
	Profit for the year	**11,749.89**	**10,343.17**	**9,385.26**	**10,769.60**	**10,290.86**
	Other comprehensive income/(expense) for the year (net of income tax)	(201.87)	(14.48)	(203.38)	(58.63)	-
	Total comprehensive income for the year	**11,548.02**	**10,328.69**	**9,181.88**	**10,710.97**	**10,290.86**
	Dividend	4,922.55	4,040.28	3,595.03	2,762.24	2,061.38
	Dividend tax	1,000.49	816.40	727.79	562.32	417.40
	Retained profit	5,826.85	5,486.49	5,062.44	7,445.04	7,812.08
C	**Assets**					
	Property, plant & equipment	1,25,290.68	1,19,427.57	97,443.34	91,499.36	78,153.38
	Capital work-in-progress	90,808.89	78,606.91	81,921.82	66,205.59	56,463.11
	Intangible assets	329.94	331.60	293.02	273.89	262.16
	Intangible assets under development	397.80	469.36	434.63	217.61	30.38
	Total Fixed Assets (Net block)	2,16,827.31	1,98,835.44	1,80,092.81	1,58,196.45	1,34,909.03
	Investments in Subsidiaries, JVs & Others (Non-current)	13,145.94	10,047.48	8,248.11	8,014.32	7,239.15
	Other non-current financial assets	1,968.67	2,288.53	2,440.36	1,534.30	1,449.94
	Other non-current assets	13,269.30	11,547.73	16,852.53	17,636.80	16,343.85
	Current assets	42,260.55	36,731.25	28,420.85	29,756.45	37,228.29
	Regulatory deferral account debit balances	3,406.00	8,381.66	5,450.67	-	-
	Total Assets	**2,90,877.77**	**2,67,832.09**	**2,41,505.33**	**2,15,138.32**	**1,97,170.26**
D	**Liabilities**					
	Borrowings					
	Non-current borrowings	1,19,698.08	1,08,697.60	97,339.28	85,096.95	78,564.51
	Current maturities of non-current borrowings	7,732.40	6,406.69	6,500.37	6,730.79	7,466.17
	Total borrowings	1,27,430.48	1,15,104.29	1,03,839.65	91,827.74	86,030.68
	Other Non-current liabilities	6,151.34	12,716.06	9,153.62	4,645.94	4,311.98
	Current liabilities	55,480.81	42,554.76	36,177.32	31,758.74	28,785.96
	Less: Current maturities of non-current borrowings	7,732.40	6,406.69	6,500.37	6,730.79	7,466.17
	Net Current liabilities	47,748.41	36,148.07	29,676.95	25,027.95	21,319.79
	Deferred Revenue	2,139.37	2,085.90	2,121.14	2,047.34	1,369.97
	Regulatory deferral account credit balances	-	-	482.74	295.65	307.74
E	**Net-worth**					
	Equity	9,894.56	8,245.46	8,245.46	8,245.46	8,245.46
	Other Equity	97,513.61	93,532.31	87,985.77	83,048.24	75,584.64
	Networth	1,07,408.17	1,01,777.77	96,231.23	91,293.70	83,830.10
	Networth excluding Fly ash utilisation reserve fund & Corporate social responsibility (CSR) reserve	106,771.54	101,146.56	95,674.55	90,815.49	83,350.66
	Total Liabilities	**2,90,877.77**	**2,67,832.09**	**2,41,505.33**	**2,15,138.32**	**1,97,170.26**
F	**Capital employed (other than related to under construction projects)**	1,31,354.03	1,19,711.03	1,00,757.21	94,930.73	94,740.61
G	**Value added**	33,570.80	31,163.69	29,159.02	27,439.65	25,089.64
H	**Number of shares @**	9,89,45,57,280	9,89,45,57,280	9,89,45,57,280	9,89,45,57,280	9,89,45,57,280
I	**Number of employees**	18,359	19,739	20,593	21,633	22,496
J	**Ratios**					
	Return on capital employed (%)	12.51	11.52	13.39	14.56	13.68
	Return on net worth (%)	16.72	15.14	17.68	19.56	16.78
	Book value per Share (₹)	108.55	102.86	97.26	92.27	84.72
	Earnings per share (₹)	11.88	10.45	9.49	10.88	10.40
	Current ratio	0.76	0.86	0.79	0.94	1.29
	Debt to equity	1.19	1.14	1.09	1.01	1.03
	Value added per employee (₹ crore)	1.83	1.58	1.42	1.27	1.12

#Balance-Sheet & P&L figures for FY 2015-16, 2016-17,2017-18 & 2018-19 are as per Ind AS.

^For FY 2014-15 Balance-Sheet figures are as per Ind AS while P&L figures are as per previous GAAP.

@ During FY 2018-19 164,90,92,880 bonus shares have been issued. Number of shares for all previous years have been changed accordingly for comparability.

* Standalone

** Net movements in regulatory deferral account balances have been shown net of tax for FY 2016-17, 2017-18 & 2018-19.
Figures for FY 2016-17 & 2017-18 have been restated.

DIRECTORS' PROFILE

Chairman & Managing Director

Shri Gurdeep Singh, (DIN: 00307037), (aged 54 years), took over as Chairman & Managing Director on 4th February 2016.

He has an illustrious career spanning over three decades in the power sector. He started his career in 1987 as an Engineer Trainee with NTPC and has worked his way through various ranks in both public and private sectors. He has worked at CxO/Senior positions in Indian companies (GSECL, IDFC and CESC) as well as in multi-national companies (PowerGen, CLP and AES). His wide ranging experience entailing all aspects of power generation business, in different organisations and cross cultural environment, has provided him with the unique ability to deal with intricate and complex issues of power sector.

Prior to joining NTPC, he was Managing Director of Gujarat State Electricity Company (GSECL). His sustained focus on cost reduction resulted in conceptualisation of coal swapping and freight rationalisation much ahead of time. His visionary leadership transformed GSECL and made the company highly cost-competitive and forward looking.

He graduated in mechanical engineering from NIT Kurukshetra and has undergone Management Education Program from IIM Ahmedabad. He has also received management and leadership training inputs from global institutions like Saïd Business School-Oxford (UK), Harvard-Kennedy School (USA), Darden School of Management - Virginia (USA), Singapore Civil Services College (Singapore) and ISB Hyderabad (India) etc.

He firmly believes that the key to excellence is occupational health and safety,employee empowerment, capability augmentation and process optimization. He has placed greater emphasis on global exposure to NTPC executives to make them ready for future business challenges.

He has launched a series of initiatives to sustain NTPC's growth and bring about cultural changes necessary to maintain NTPC's position as a leading global power company. His thrust on minimizing environmental footprint, maximizing sustainability efforts and a focussed approach of 'Low Cost Low Emission' aligns with India's ambitious target of cleaner and affordable power for all.

Director (HR)

Saptarshi Roy, (DIN:03584600), (aged 59 years), a firm believer in institutionalizing the best practices and implementation of innovative initiatives, has a notable distinction of having a career, which has an excellent blend of technical and people management. His career spanning over 37 years, encompasses the erection, commissioning & operation of power plants and human resource management. Shri Roy (59 years) a graduate in Electrical Engineering from Visvesvaraya National Institute of Technology (erstwhile Regional Engineering College), Nagpur, joined NTPC as Engineering Executive Trainee in 1980.

He has taken over the charge of Director (Human Resources), NTPC Limited with effect from forenoon of 1st November 2016.

A thorough professional Shri Roy has been instrumental in introducing various pioneering HR initiatives in the areas of talent acquisition, employee welfare, industrial relations, wages and superannuation benefits. He made participative management a corner stone of NTPC's successful 'Industrial Relations Framework' and introduced a number of novel methods of employee engagement.

An outstanding contribution of Shri Roy in NTPC's march towards excellence is to lead from front in the takeover and turnaround of power stations, running at abysmally low performance level, in the states of Odisha and Uttar Pradesh from the erstwhile State Electricity Boards. Through his innovative HR initiatives and trust building, these power plants today are among the best in the country. He played a critical role in managing transition and people integration issues during the process.

Prior to assuming his current role, he was the Regional head of NTPC's Northern Region, Eastern Region-I, ED (Corporate Planning & Corporate Communications) and ED to CMD. He also led a team of World Energy Council, India (WEC- India) secretariat.

As Director (Human Resources), he is responsible for the activities relating to Human Resource Management of NTPC i.e. leadership identification and grooming, talent management, career development of employees, performance management system and other organizational development interventions. In addition, he also oversees the functioning of Security, Medical Services, Business Excellence, Corporate Communications, CSR, R&R and Sustainable Development.

Director (Commercial)

Shri Anand Kumar Gupta (DIN: 07269906), (aged 59 years), an electrical engineering graduate from MNIT, Allahabad, joined NTPC in 1980 as Executive Trainee (5th Batch). He has an illustrious career, spanning over 38 years, in NTPC which entails all areas of power generation business viz. engineering & design of power projects, plant operations and Maintenance, marketing & business development and commercial & regulatory affairs.

As head of engineering division, Sh. Gupta was responsible for selection of technologies, investment decisions for new projects, complete engineering of power projects including quality assurance and operations support for complete portfolio of NTPC stations i.e. Thermal, Hydro and renewable projects.He was a member of standing committee on transmission planning and was instrumental in introduction of 765 KV transmission voltage in India and the very first 765 KV substation of the country.

Sh. Gupta headed the Operation and Maintenance team at Unchahar and was instrumental in implementing many innovative strategies of plant operations & maintenance philosophies such as Bi-annual overhaul, Activity based budgeting, overhauling preparedness index etc. As head of Business Development, he created international business for NTPC by successfully negotiating with Bangladesh & Sri Lanka governments to set up NTPC power projects in joint venture mode.

Sh. Gupta has represented NTPC in many international forums like CIGRE and IEA and was part of the Indian delegation to Paris for the COP21 accord. He has visited many international power plants, substation installations and equipment manufacturing plants across the globe and is well versed with international best practices. He has also participated in several managerial and leadership programmes from the best global institutions.

He joined NTPC board in February 2017 as Director (Commercial) and is responsible for customer relationship management, marketing of power, payment realization, regulatory affairs, developing new businesses,formation of JV's and subsidiaries and managing consultancy business of NTPC. He is also the nominated owner of mines of NTPC and is In-charge of coal mining division of the company.

Director (Projects)

Shri Susanta Kumar Roy (DIN: 07940997), (aged 59 years), is a Mechanical Engineering Graduate. He joined NTPC in 1981 as Executive Trainee. He is having more than 37 years of experience in large size coal power stations in the area of operation, maintenance, commissioning and project construction. He has worked at different large thermal stations Korba, Unchahar, Singrauli, Rihand and Vindhyachal of NTPC in various capacities. He was associated as Business Unit Head in managing largest power station of the country at Vindhyachal.

He has also worked as Executive Director (Operation Services) at Corporate Centre looking after thermal, hydro and renewable energy generation of NTPC including Subsidiary/Joint Venture companies.

As Director (Projects), he is responsible for overall planning and execution of under construction Thermal and Hydro projects of NTPC and Subsidiary/Joint Venture companies.

Director (Technical)

Shri Prasant Kumar Mohapatra (DIN: 07800722), (aged 60 years), graduated in Mechanical Engineering from REC Rourkela in the year 1980. He joined NTPC in 1980 as an Executive Trainee and has more than 39 years of experience from concept to commissioning of power plants. Sh.Mohapatra served as Business Unit Head at many NTPC stations i.e. Kawas (656 MW), Sipat (298 0MW), Kahalgaon (2340 MW) & Ramagundam (2600 MW). It was under his leadership that the first three 660 MW super-critical units of NTPC were commissioned and declared commercial within a short span of 10 months. He had also headed Western Region –II of NTPC as Regional Executive Director where he was responsible for Sustainable operation of 5630 MW capacity & Construction work of 3 nos. mega size projects of capacity 4520 MW and one no. solar power project of 250 MW. Prior to joining the NTPC board as Director (Technical), he worked as ED (Technical) at the Corporate Centre.

As Director (Technical), Shri Mohapatra is responsible for investment approval of projects/New Schemes, Complete engineering during the development of the project, engineering support during O&M phase of the station and engineering for R&M of NTPC's aged power stations for enhancing life and efficiency of power plant, for the entire portfolio of NTPC i.e. Thermal, Hydro, Renewable. In case of Renewable, he has whole responsibility i.e. policy advocacy, business development, Project contracting, Engineering & Commissioning.

He is also responsible for R & D activities through NETRA (NTPC Energy Technology and Research Alliance), information technology function and Enterprise Resource Planning.

Shri Mohapatra is also Chairman of Aravali Power Company Private Limited (APCPL) & NTPC Vidyut Vyapar Nigam Limited (NVVN) and Part-Time Director on the Board of Madhya Pradesh Power Generating Company Limited (MPGENCO) and TELK (Transformer and Electricals Kerala Limited).

Director (Operations)

Shri Prakash Tiwari, (DIN: 08003157), (aged 59 years), Director (Operations), is a Mechanical Engineering Graduate from NIT Raipur. He joined NTPC as 6th batch Executive Trainee in 1981. He has an illustrious career spanning over 37 years of outstanding contribution in management of large size plants in the area of power plant operation & maintenance and in project construction as a Professional Manager, Strategic Planner and a Business Leader. He has led several initiatives for achieving operational excellence of Plants.

Shri Tiwari's experience in power sector includes more than 7 years at senior management level as a "Business Unit Head" of NTPC Stations i.e Unchahar, Korba and Solapur. Prior to elevation to the post of Director (Operations), he was working as ED (Operations) & was looking after all activities related to operation of NTPC power plants.

Shri Tiwari is also Chairman of NTPC Tamil Nadu Energy Company Ltd. (NTECL) and Kanti Bijlee Utpadan Nigam Ltd. (KBUNL).He is Part Time Director on the Board of West Bengal Power Development Corporation Limited (WBPDCL) and permanent Invitee on the Board of Northern Coalfields Limited

As Director (Operations), he shall be responsible for overall planning for smooth & safe operation of all NTPC power generating stations of more than 55000 MW capacity including fuel security & environment compliance of all NTPC Power Plants.

Director (Finance)

Shri K. Sreekant (DIN: 06615674), (about aged 56 years), is CMA and PGDM (Finance) from Management Development Institute, Gurgaon. He is currently whole-time Director (Finance) of Power Grid Corporation of India Limited (PGCIL) with additional charge of Director (Finance), NTPC Limited.

He has over 33 years of experience in the power sector in the area of Long Term Financial Planning, Investment Appraisals, formulation of Capital Budgets, Resource Mobilization from domestic and international markets, Corporate Accounts, Commercial, regulatory Affairs and Enterprise Resource Planning Systems.

Government Nominee Director

Shri Vivek Kumar Dewangan (DIN 01377212), (aged 52 years), an Indian Administrative Service (IAS) Officer of Manipur Cadre (1993 Batch), is a Gold Medalist in B.E. Electronics from NIT, Bhopal and First Class P.G. in Opto-Electronics & Optical Communication from IIT, Delhi. During his illustrious career of 26 years as an IAS Officer, he has held various administrative positions in the areas of Finance, Power, Petroleum & Natural Gas/ Energy, Commerce & Industries, Planning , Economics & Statistics, Education/ Human Resource Development, Economic Affairs, Revenue Administration, Rural & Urban Development, Sericulture/ Agriculture, Election/ Law & Justice as Chief Electoral Officer (CEO), Minister's Office [Corporate Affairs/ Agriculture & Food Processing Industries], District Collector & District Magistrate [Surguja & Raipur Districts in Chhattisgarh and Senapati District in Manipur], Chief Executive Officer, Zilla Panchayat, Project Director/DRDA, Municipal Commissioner etc. Present assignment as Joint Secretary (Thermal & International Co-operation) in Ministry of Power, Government of India, New Delhi.

Government Nominee Director

Shri Anurag Agarwal (DIN: 01360908), (age: 53 years), is an Indian Administrative Service Officer of Punjab Cadre (1990 Batch), is B. Tech from IIT, Kanpur. He is presently working as Additional Secretary and Financial Advisor, Ministry of Power.

Shri Anurag Agarwal has been appointed as Government Nominee Director on the Board of the Company w.e.f. 1st July, 2019.

Independent Director

Dr. Gauri Trivedi, (DIN: 06502788), (aged 59 years), M.A. (Political Science) from JNU, Delhi, M. Phil (Soviet Studies), JNU, Delhi, Doctorate in Philosophy from Institute of Social & Economic Change, Bangalore and Institute of Development Studies, Mysore and PGPPM from Indian Institute of Management (IIM), Bangalore. During her illustrious career, she had held a number of administrative posts in Karnataka. She had also been General Manager (Handloom & Handicrafts Export Corporation), Director of Tea Promotion (WANA), Managing Director (HESCOM), a power distribution Company, Managing Director (Karnataka State Food & Civil Supplies Corporation), Secretary to Government, Revenue Department, Govt. of Karnataka and Secretary to the Governor of Karnataka.

In August 2007, Dr. Gauri Trivedi took Voluntary Retirement from the Government of India due to her personal reasons.

After VRS, she was Vice President RRL and Director SIRD, Gujarat. She had been guest faculty in a number of reputed institutes teaching governance, public policy, rural planning and management.

She has done a project for World Bank on Street vendors and a project for the Government of MP on Women Beneficial Programs.

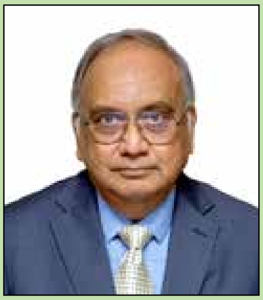
Independent Director

Shri Shashi Shekhar, IAS (DIN: 01747358), (aged 62 years), is B.Sc (Geology) Hons.He retired as Secretary of Ministry of Water Resources, River Development and Ganga Rejuvenation. Prior to this, he was Additional Secretary of Ministry of Environment and Forests, Government of India. He served as the Managing Director of Tamil Nadu Minerals Limited, Tamil Nadu Transport Development Finance Corporation, Tamil Nadu Urban Development Fund and Tamil Nadu Urban Infrastructure Financial Services Limited. He had held various senior positions in the State as well as the Central Governments. He also served as a Finance Commissioner to raise extra budgetary resources from the market. He was a Director and later Joint Secretary in the Ministry of Power from 1998 to 2003, during which period he served as a Director General of Bureau of Energy Efficiency (BEE) in charge. He served as a Whole- Time Director of PTC India Ltd. from January 25, 2008 to January 17, 2011. He served as a Director of Power Grid Corporation of India Ltd. He served as a Non-Executive Director of Indian Energy Exchange Limited. He has presented papers on sustainable power development at various international conferences.

Independent Director

Shri Subhash Joshi, IPS (DIN: 07946219), (aged 65 years), is B.Sc. (Hons.) in Mathematics and has graduate Diploma in Business from Curtin University, Perth Australia. He joined Indian Police Service in 1976 and retired in 2014. He served as DG, Border Security Force (BSF), DG, National Security Guard (NSG), Special DG, Central Reserve Police Force (CRPF), Director General of Police, Uttarakhand, Additional DG, Intelligence/ Security, Uttarakhand and many other posts in UP/Uttarakhand and Government of India. His area of expertise includes Human Resouce Management, Vigilance and anti-corruption, Training and Development, Public Order Management, Border Management, Intelligence and Security, General Adminstration, Public Grievance Redressal and Law.

After retirement he was re-employed by Uttarakhand state government in 2014 as Commissioner Right to Service Commission and he demitted office in February 2019.

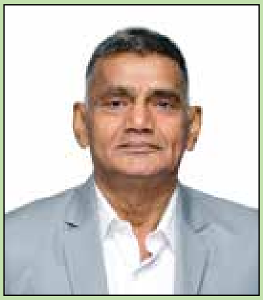


Independent Director

Shri Pradeep Kumar Deb, IAS (DIN: 03424714), (aged about 66 years), has a Master Degree in Physics from St. Stephens College, Delhi University. He started his career as a Probationary officer in the State Bank of India before switching to the Indian Administrative Service in 1977. In his 37 years as an IAS officer, he had held a number of posts of crucial importance in the State of Rajasthan and in Government of India in diverse areas like Finance and Taxation, Human Resources, Agriculture and Irrigation, Home Affairs among others, before retiring as Secretary, Department of Sports in the Government of India in 2013. Prior to this posting, he was Additional Chief Secretary, Home Affairs of the Government of Rajasthan. Shri Deb considers Finance and Human Resource Development as his areas of special interest.

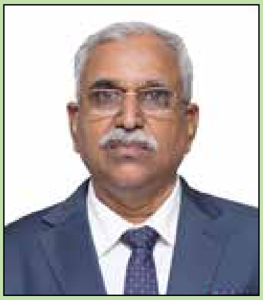
Independent Director

Shri Vinod Kumar, IFS (DIN: 00955992), (aged 63 years), graduated in 1975 with honours in Botany and obtained his Masters Degree in Botany from Banaras Hindu University in 1977. He superannuated from the Indian Forest Service on 30th April 2016 as the Director of Indira Gandhi National Forest Academy (IGNFA) with experience of achievements over 38 years of Administration, Forest Management, Policy Analysis, Planning, Corporate Management, Tribal Development and Community Empowerment, Manpower Planning and Capacity Building with innovative contributions at Odisha State in field of Governance and Capacity Building. He had served both the Odisha Government as well as the Union Government in various capacities. His area of expertise includes Forest Governance, Biodiversity Management, Community Development & Livelihoods and Capacity Building.



Independent Director

Shri M.P. Singh, (DIN:07937931), (aged 64 years), is M.Com and Chartered Accountant. He has wide and varied experience since 1988 in financial and management consultancy services including taxation work. He is a critical analytical reviewer of financial statements and leads plan in realty.



Independent Director

Dr. K.P. Kylasanatha Pillay (DIN:08189583), (aged 63 years), a Senior Advocate in Supreme Court is a post graduate in English, post graduate in History and LL.M. He did research in the School of Legal Studies, Cochin University of Science and Technology, Kochi and obtained Ph.D.in law. He started practice of law in the District and Subordinate Courts of Thiruvananthapuram in 1987 and later shifted to High Court of Kerala at Ernakulam in 1990. Subsequently he shifted practice to Delhi in 2005. Presently, he appears mainly before the Hon'ble Supreme Court of India. He had worked as Part-time and visiting faculty of the Law Colleges of different Universities in Kerala at different periods of time. He had been a resource person for the training programme of Judicial Officers in National Judicial Academy, Bhopal. Now, he is an approved Guide for Ph. D. in the National University for Advanced Legal Studies in Kochi and two Assistant Professors are doing research under him. He was elected to the Bar Council of Kerala twice and for one term, he was the Vice-Chairman of the Bar Council of Kerala.

He was designated as a Senior Advocate by the Hon'ble High Court of Kerala in 2009. As a lawyer, he had been attending matters relating to Civil, Criminal, Constitutional and Corporate jurisdiction. He had conducted a number of Public Interest Litigations before the Hon'ble High Court of Kerala and Hon'ble Supreme Court of India. In the Supreme Court, he had been on the panel of lawyers of the National Textile Corporation. He had also been in the Senior Panel of Central Government and Maharashtra Government in the Supreme Court. He was also actively involved in socio-political organisations and have held positions of responsibility.

Independent Director

Dr.Bhim Singh, (DIN: 08189580), (aged 63 years), is B.E. (Electrical) from the University of Roorkee, UP, M.Tech. (Power Apparatus & Systems) and Ph.D. from the Indian Institute of Technology Delhi. In 1983, he joined the Department of Electrical Engineering, University of Roorkee (Now IIT Roorkee), as a Lecturer. He became a Reader there in 1988. In December 1990, he joined the Department of Electrical Engineering, IIT Delhi, India, as an Assistant Professor, where he has become an Associate Professor in 1994 and a Professor in 1997. He has been ABB Chair Professor from September 2007 to September 2012. He has also been CEA Chair Professor from October 2012 to September 2017. He has been Head of the Department of Electrical Engineering at IIT Delhi from July 2014 to August 2016. Since, August 2016, he is the Dean, Academics at IIT Delhi. He is JC Bose Fellow of DST, Government of India since December 2015.

Prof. Singh has guided 79 Ph.D. dissertations, and 167 M.E./M.Tech./M.S.(R) theses. He has been filed 43 patents. He has executed more than eighty sponsored and consultancy projects. He has co-authored a text book on power quality, Power Quality Problems and Mitigation Techniques published by John Wiley & Sons Ltd. 2015.

His areas of interest include solar PV grid interface systems, microgrids, power quality monitoring and mitigation, solar PV water pumping systems, improved power quality AC-DC converters, power electronics, electrical machines, drives, flexible alternating transmission systems, and high voltage direct current systems.

He has received Khosla Research Prize of University of Roorkee in the year 1991. He is recipient of JC Bose and Bimal K Bose awards of The Institution of Electronics and Telecommunication Engineers (IETE) for his contribution in the field of Power Electronics. He is also a recipient of Maharashtra State National Award of Indian Society for Technical Education (ISTE) in recognition of his outstanding research work in the area of Power Quality. He has received PES Delhi Chapter Outstanding Engineer Award for the year 2006. Professor Singh has received Khosla National Research Award of IIT Roorkee in the year 2013. He is a recipient of Shri Om Prakash Bhasin Award-2014 in the field of Engineering including Energy & Aerospace. Professor Singh has received IEEE PES Nari Hingorani Custom Power Award-2017. He is also a recipient of "Faculty Research Award as a Most Outstanding Researcher" in the field of Engineering-2018 of Careers-360, India.

SENIOR MANAGEMENT TEAM
(As on 01.07.2019)

S. No.	Executive Directors S/Shri	Position Held
1	K. K. Singh	RED, NR
2	Sudhir Arya	ED (Finance) & CFO
3	Dilip Kumar Dubey	RED (SR)
4	Tilak Raj Datta	ED(Arbitration)
5	A. K. Juneja	ED (CC&M)
6	P. P. Kulkarni	ED (RSTPS)
7	S. Narendra	RED (ER-I)
8	Rajnish Bhagat	ED (Comml.)
9	K. S. Rajeev	ED (Tanda)
10	C. V. Anand	ED (OS)
11	Ms. S. Bhatia	ED (Finance)
12	Sanjeev Kishore	ED (Darlipalli)
13	A. N. Verma	ED (HR)
14	N. K. Sinha	ED (Korba)
15	C. K. Mondal	RED (WR-I)
16	Vinod Choudhary	ED (PP & M)

S. No.	Executive Directors S/Shri	Position Held
17	G. Venu	ED (Engg.)
18	M. S. D. Bhattamishra	ED (Safety & R & R)
19	A. K. Mukherjee	ED (Barh)
20	Sanjay Madan	ED (Lara)
21	Anil Kumar Gautam	ED (Finance)
22	Ajit Kumar Tewary	ED (Vindhyachal)

Posted in Subsidiary / Joint Venture Companies and others

S. No.	Executive Directors S/Shri	Position Held
1	A. N. Goyal	WTD-NBPPL
2	D. Sarkar	CEO-NTECL
3	Sudarsan Chakrabarti	CEO-PVUNL
4	Naresh Anand	MD-BIFPC

Young Engineers of NTPC

DIRECTORS' REPORT

Dear Members,

Your Directors are pleased to present the 43rd Annual Report on the business and operations of the Company along with audited financial statements for the year ended March 31, 2019.

Financial Year 2018-19 had been yet another year of achievements for your Company.

Major highlights of your Company for the year 2018-19 are:

- Declared 2,180 MW Power Projects (including subsidiaries) on commercial generation.
- PLF of 76.81% as against all India PLF of 60.91% with Sipat Super Thermal station of your Company recording 91.58% PLF. 11 Stations (including JVs) were in the top 25 in the country in terms of PLF. 6 coal based Stations out of 20 commercial Stations achieved more than 85% PLF.
- Excellent MOU rating by Government of India for the year 2017-18.
- Group Capital Expenditure (CAPEX) including CAPEX of JV/ subsidiaries of your Company for the year 2018-19 was ₹ 33,494.24 crore and on stand-alone was ₹ 27,363.24 crore on cash basis.
- 100% realization of current bills from customers.
- Revenue from operations was ₹ 90,307.43 crore and total revenue was ₹ 92,179.56 crore. Net Profit after Tax (PAT) was ₹ 11,749.89 crore.
- Dividend of ₹ 6.08 per share comprising interim dividend of ₹ 3.58 per equity share paid in February 2019 and recommended final dividend of ₹ 2.50 per equity share for the year 2018-19, subject to approval of the shareholders.
- Cash contribution of ₹ 7017.40 crore to Government of India's exchequer through dividend, dividend distribution tax and income tax in the financial year 2018-19.
- Market capitalization of ₹ 1,33,922.83 crore as on 31.03.2019.
- Planted approx. 1 million trees during 2018-19 to mitigate the GHG emissions arising out of plant operations, thereby bringing total to about 34 million planted trees till end of 31.03.2019.
- About 4.54 crore fly ash bricks produced by fly ash brick plants of your Company's stations, which are being utilised in construction of areas of plant, ash dyke and of township.
- Your Company is one of the Best Workplaces (19) in Asia 2019 in the category of the "25 Best Large Workplaces in Asia, 2019" by the Great Place to Work Institute.
- Your Company was conferred with The Dun & Bradstreet Infra Award-2018 for Excellence in Power Generation.
- Your Company was felicitated at the Economic Times' 5th Annual Summit -"Power Focus" for its remarkable contribution to the power sector.

You will appreciate the fact that the Company recorded growth and excellent performance despite numerous challenges before the sector like coal shortage, strict emission norms, etc.

1. FINANCIAL RESULTS (STAND-ALONE)

Particulars	2018-19		2017-18	
	₹ Crore	US $ Mn*	₹ Crore	US $ Mn*
Revenue				
Revenue from operations (including energy sales, sale of energy through trading, consultancy fee etc.)	90,307.43	12,943.59	83,452.70	11,961.12
Other income	1,872.13	268.33	1,755.25	251.58
Total Revenue	**92,179.56**	**13,211.92**	**85,207.95**	**12,212.70**
Expenses				
Fuel cost	52,493.74	7,523.83	48,315.47	6,924.96
Electricity purchased for trading	2,713.68	388.95	1,313.51	188.26
Employee benefits expense	4,779.89	685.09	4,734.67	678.61
Finance costs	4,716.74	676.04	3,984.25	571.05
Depreciation, amortization and impairment expense	7,254.36	1,039.75	7,098.86	1,017.47
Other expenses	7,548.63	1,081.93	7,421.73	1,063.74
Total expenses	**79,507.04**	**11,395.59**	**72,868.49**	**10,444.09**
Profit before tax and regulatory deferral account balances	**12,672.52**	**1,816.33**	**12,339.46**	**1,768.61**
Tax expense	(2,918.71)	(418.33)	5,257.14	753.50
Profit for the year before regulatory deferral account balances	**15,591.23**	**2,234.66**	**7,082.32**	**1,015.11**
Net movement in regulatory deferral account balances (net of tax)	(3,841.34)	(550.57)	3,260.85	467.37
Profit for the year	**11,749.89**	**1,684.09**	**10,343.17**	**1,482.48**

Appropriations	2018-19		2017-18	
	₹ Crore	US $ Mn*	₹ Crore	US $ Mn*
Transfer to bonds/ debentures redemption reserve	1,732.37	248.30	1,637.75	234.74
Transfer to general reserve	4,500.00	644.98	4,000.00	573.31
Dividend paid	4,922.55	705.54	4,040.28	579.09
Tax on dividend paid	1,000.49	143.40	816.40	117.01

*1US $= ₹69.77 as on March 31, 2019

2. BONUS ISSUE

Your Company capitalized its reserves to the extent of ₹ 1649,09,28,800/- and issued bonus shares in the proportion of 1 (One) new equity share of ₹ 10/- each for every 5 (Five) existing equity shares of ₹ 10/- each fully paid up i.e. 1:5 held by the members on 20.03.2019. The paid-up share capital of the Company was increased to 9,89,45,57,280 shares.

3. DIVESTMENT OF SHAREHOLDING BY GOVERNMENT OF INDIA

The Government of India has, from time to time, disinvested its stake in your company. During 2018-19, the Government of India divested 5.86% of shares as under:

Sl. No.	Particulars	No. of Shares Divested during 2018-19	Percentage sold
1.	Bharat 22 ETF during June 2018	4,15,67,567	0.50
2.	CPSE ETF during December 2018	23,40,12,589	2.84
3.	Bharat 22 ETF during February 2019	7,06,46,260	0.85
4.	CPSE ETF during March 2019	16,51,51,343	1.67
	Total	**51,13,77,759**	**5.86**

As on 31st March 2019, President of India acting through Ministry of Power held 5,55,01,20,301 shares (56.09%) of your Company. 3,10,46,970 shares were held in CPSE ETF Account and credited back to Ministry of Power's Account on 01.04.2019, thus making Ministry of Power's holding in your Company as 5,58,11,67,271 (including bonus shares) shares (56.41%) of the total paid-up share capital of the Company.

4. DIVIDEND

Interim and Final Dividend:

Your Company paid interim dividend of ₹3.58 per equity share in February 2019 and the Board of your Company has recommended a final dividend of ₹2.50 per equity share for the year 2018-19.

The dividend payout is 41.89% and the total dividend payout including dividend tax is 50.41% of profit after tax.

The final dividend shall be paid after your approval at the Annual General Meeting.

The dividend has been recommended in accordance with your Company's Dividend Distribution Policy which is available at the website link https://www.ntpc.co.in/sites/default/files/downloads/DividendDistributionPolicyofNTPCLimited.pdf.

5. OPERATIONAL PERFORMANCE

During the year, the power stations of your Company generated 274.45 BUs (305.90 BUs including JVs & Subsidiaries) of electricity (including solar, hydro, wind & small hydro power) which was 20.01% (22.30 % including generation by JVs and Subsidiaries) of the total power generated in India registering an increase of 3.26% (3.95% including JVs & Subsidiaries) over the previous years' generation of 265.80 BUs by your Company (294.27 BUs including JVs & Subsidiaries).

The total generation contributed by coal stations is 262.47 BUs during the year against generation of 252.36 BUs last year registering a growth of 4.01%. Generation from coal based units could have been still higher but due to less generation schedule there was opportunity loss of 36.02 BUs. The coal based stations operated at an average Plant Load Factor (PLF) of 76.81% (All India PLF was 60.91%) and average Availability Factor of 87.51% on bus bar during the year.

Sipat Super Thermal Power Station with a PLF of 91.58% was ranked 2nd in the country and 11 Stations (including JVs) of your Company were in the top 25 in the country in terms of PLF. Six coal based stations out of twenty commercial Stations achieved PLF more than 85%.

The gas stations having a capacity of 4,017 MW achieved annual generation of 7.43 BUs at a PLF of 21.11% as against 8.82 BUs last year.

Opportunity loss due to less generation schedule on Gas was still higher at 25.52 BUs.

Generation contributed by Koldam hydro station was 3.01 BUs against 3.31 BUs achieved last year. Generation from your Company's RE stations (Solar, wind, small hydro) was 1.54 BUs.

6. COMMERCIAL PERFORMANCE

6.1 Billing and Realisation

Your Company has realized 100% of its current bills raised for energy supplied in 2018-19, thus achieving this feat for the 16th consecutive year.

Most of the beneficiaries were making timely payments and had availed attractive rebates as per Company's Rebate Scheme.

Your Company has in place a robust payment security mechanism in the form of Letters of Credit (LC) and Tri-Partite Agreement. Tri-Partite Agreements (TPAs) has been signed amongst the State Governments, Govt. of India and RBI. As per the TPA, any default in payment by the Discoms of a State can be recovered directly from the account of the respective State Governments with RBI.

The original TPAs signed during 2000-01 were valid up to 31.10.2016. As per the decision of the Union Cabinet and as agreed by various States and RBI, these TPAs have been extended for a further period of 10 to 15 years. As of now, 29 States/ UTs out of total 31 have signed the TPA documents. The signing of TPA extension by balance States is being taken up.

6.2 Commercial Capacity:

The following units including those of subsidiary companies were declared commercial during the year 2018-19, adding 2,180 MW to commercial capacity of your Company:

Project/ Unit	Capacity (MW)	COD*
Units- Coal Based (I)		
Kudgi, Unit#3	800	15.09.2018
Solapur Unit#2	660	30.03.2019
Bongaigaon Unit#3	250	26.03.2019
Barauni, Unit#1 & 2@	220	15.12.2018
Total (I)	**1,930**	
Subsidiaries – Coal Based (II)		
Nabinagar Thermal Power Project, Unit#3 (BRBCL)	250	26.02.2019
Total (II)	**250**	
Total Capacity declared commercial during 2018-19 (I)+(II)	**2,180**	

* COD- Commercial Operation Date
@ - acquired from Bihar State Power Generation Company Limited effective from 00:00 hrs on 15.12.2018

Badarpur TPS of 705 MW commercial capacity was permanently closed down w.e.f 15.10.2018.

As on 31.03.2019, the Commercial Capacity of your Company stood at 45,725 MW (44,500 MW as on 31.03.2018) and your Company Group's Commercial Capacity stood at 52,866 MW (51,391 MW as on 31.03.2018):

Owned by your Company	MW
Coal based projects	39,980
Gas based projects	4,017
Renewable Energy Projects	928
Hydro Projects	800
Sub-total	**45,725**
Joint Ventures & Subsidiaries	
Coal based projects	5174
Gas based projects	1,967
Sub-total	**7,141**
Total	**52,866**

6.3 Tariff Regulations:

Central Electricity Regulatory Commission (CERC) has issued the CERC (Terms and Conditions of Tariff) Regulations, 2019 on 07.03.2019, which are applicable for the period 01.04.2019 to 31.03.2024. The tariff of electricity generated from the Company's stations would be determined by CERC based on these regulations for the above mentioned period. The salient features of Tariff Regulations 2019-24 are discussed in the Management Discussion and Analysis Report.

6.4 Security Constrained Economic Dispatch (SCED):

CERC vide its order dated 31.01.2019 has adopted the concept of SCED proposed by the National Load Despatch Center (NLDC) and has directed for its implementation w.e.f 01.04.2019 on pilot basis. This would lead to maximization of generation from cheap pit head stations and reduce the overall cost of power for the beneficiaries resulting into gains for all stakeholders.

6.5 Strengthening Customer Relationship:

Customer Focus is one of the core values of your Company (ICOMIT). In line with this, the Company has taken up several initiatives targeted towards the external Customers. Customer Relationship Management (CRM) and Customer Satisfaction Index (CSI) are some of the most important parts of these initiatives.

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 feedbacks and expectations and addressing their issues. Some of these activities are described below:

Your Company provides various support services to the beneficiaries, which involves identifying potential areas of cooperation and sharing of each other's best practices. In the financial year 2018-19, total 49 such programs have been conducted for the customers on the basis of requirement expressed by them.

Your Company offers training programs to the representatives of beneficiary companies at Power Management Institute (PMI), the apex training institute of your Company on free of cost basis. In 2018-19, 63 participants from various customer organizations attended training in 26 programs.

Your Company has also put in place Customer Satisfaction Index (CSI) survey scheme, to gather customer's feedbacks through a survey and respond to their requirements. This CSI survey has been conducted in 2018-19 and the Score falls under Excellent category.

6.6 Power Trading in Power Exchange:

In line with CERC (IEGC) (5^{th} Amendment) Regulations 2017, your Company sold more than 615 Million Units of Unrequisitioned Surplus (URS) power in the Power Exchange through its trading arm NVVN, based on consents received from most of the beneficiaries. The gains from the sale of URS are being shared with beneficiaries as per applicable provisions.

6.7 Renewable Energy:

Your Company signed Power Supply Agreements (PSAs) for 2,000 MW Solar & 1150 MW Wind power projects signed with State Discoms of Bihar, UP, Telangana and Punjab. Further, Power Purchase Agreements (PPAs) for 1100 MW Solar and 250 MW wind power projects was signed with Solar Power Developers (SPDs) & Wind Power Developers (WPDs). PPAs and PSAs was signed with SPDs and Discoms respectively for Ananthapuramu Phase-II 750 MW Solar PV power project.

For Company owned Renewable projects, PPA was signed for 225 MW Solar project at Bilhaur & 20 MW at Auraiya as a successful bidder under UPNEDA Bidding through two different tenders. PPA was signed with PuVVNL for supply of power from 200 kW waste to energy project at Varanasi. In addition, PPA was signed with Bihar Discom for sale of 500 MW from 980 MW Solar PV station to be set up at Nokh.

7. INSTALLED CAPACITY

During the year 2018-19, your Company added 2,180 MW to its installed capacity as per details given below:

Project/ Unit installed	Capacity (MW)
Coal Based Power Projects	
Bongaigaon, U#3	250
Solapur, U#2	660
Gadarwara, U#1	800
Barauni St-I*	220
Total	**1,930**
Under Subsidiaries and Joint Ventures (Coal Based Power Projects)	
BRBCL Unit#3 (subsidiary, a JV with Ministry of Railways)	250
Total by Subsidiaries and JV	**250**
Total Addition during FY 2018-19	**2,180**

*Your Company acquired Barauni TPS w.e.f. 15.12.2018

The total installed capacity of your Company Group as on 31.03.2019 has become 55,126 MW (53,651 MW as on 31.03.2018**) as tabulated below:

Owned by your company	MW
Coal based projects	41,580
Gas based projects	4,017
Renewable Energy Projects	928
Hydro Projects	800
Sub-total	**47,325**
Joint Ventures & Subsidiaries	
Coal based projects	5,834
Gas based projects	1,967
Sub-total	**7,801**
Total	**55,126**

**705 MW of Badarpur TPP got de-commissioned as being permanently closed w.e.f. 15.10.2018.

8 CAPACITY ADDITION PROGRAMME

8.1 Projects under Implementation

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.

Various projects of your Company having aggregate capacity of 19,956 MW (including 6,900 MW being undertaken by Joint Venture and subsidiary companies) are under implementation at 22 locations in India and abroad. Total capacity under construction comprises 18,800 MW of Coal (including 6,900 MW being undertaken by Joint Venture and subsidiary companies), 811 MW of Hydro and 345 MW of Renewable projects. The details of such projects are as under:

Ongoing Projects as on 17.06.2019	Capacity (MW)
I.A. Coal Based Projects	
1. Barh-I, Bihar	1,980
2. Lara-I, Chattisgarh	800
3. Gadarwara-I, Madhya Pradesh	800
4. Darlipalli-I, Odisha	1,600
5. North Karanpura, Jharkhand	1,980
6. Tanda-II, Uttar Pradesh	1,320
7. Khargone, Madhya Pradesh	1,320
8. Telangana Phase-I, Telangana	1,600
9. Barauni St.-II, Bihar	500
Sub Total (A)	**11,900**
I.B. Hydro Electric Power Projects (HEPP)	
10. Tapovan Vishnugad, Uttarakhand	520
11. Lata Tapovan, Uttarakhand@	171
12. Rammam Hydro, West Bengal	120
Sub Total (B)	**811**
Total I (A)+(B)	**12,711**
II Projects under JVs & Subsidiaries	
Coal Based Projects	
13. Nabinagar- JV with Railways (BRBCL), Bihar	250
14. Nabinagar (NPGCL), Bihar	1,980
15. Meja, JV with UPRVUNL (MUNPL), Uttar Pradesh	660
16. Patratu Expansion, JV with JBVNL	2,400
17. Rourkela, JV with SAIL (NSPCL), Odisha	250
18. Durgapur, JV with SAIL (NSPCL), West Bengal	40
19. Khulna, JV with BPDB (BIFPCL), Bangladesh	1,320
Total II	**6,900**
III Renewable Projects	
20. Auraiya, Uttar Pradesh	20
21. Bilhaur, Uttar Pradesh	225
22. Ramagundam, Telangana	100
Total III	**345**
Total On-Going Projects as on 17.06.2019 (I)+(II)+(III)	**19,956**

@Work of Lata Tapovan HEPP stopped as per orders of the Hon'ble Supreme Court dated 07.05.2014.

8.2 New Technology & Initiatives

Your Company has laid major stress on efficient utilization of resources and use of technological advancements for improving energy efficiency.

With emphasis on efficiency of electricity generation, your Company has adopted ultra super critical technology by improving the steam parameters for North Karanpura (3X660MW) to 260 kg/ cm², 593°C/ 593°C. For Khargone (2X660MW) and Telangana (2X800 MW), steam parameter are 270 kg/ cm², 600°C/ 600°C. Plant efficiency of these units is expected to increase by around 8% over that of a conventional sub-critical 500 MW unit and 3% over conventional super critical units using similar coal.

For the first time in your Company, Air Cooled Condenser System has been adopted at North Karanpura STPP and Patratu STPP which will bring a significant reduction in make-up water requirement for the project.

8.2.1 Development of Advance Ultra Super Critical technology-Ramping up cycle efficiency of coal fired units to reduce the emissions intensity

Cleaner power has been central to the Company since its inception. Over the timeline, we have witnessed focus change from local pollution to global emission concerns. Your Company has been voluntarily working on improving the energy conversion cycle efficiency by adopting more efficient technologies. Efficiency of units has been continuously improved from sub-critical to supercritical and onto ultra-supercritical technology. All new units are being ordered with USC parameters of 600°C/600°C. Adoption of USC parameters shall result in a reduction of CO_2 emission (as also others like NOx and SOx) intensity by around 8% when compared to conventional subcritical power plants for every unit of electricity generated.

To achieve an even higher efficiency, a program to develop Advanced Ultra supercritical (AUSC) technology is under way by a consortium of NTPC, BHEL and IGCAR. The AUSC Project envisages development of indigenous technology for steam parameters of 310 Kg/cm² and 710°C/720°C temperature. Such parameters are way higher than steam parameters used in contemporary plants globally and would result in top of line efficiency of 46%. This is sharp increase from the contemporary efficiency levels of 38% (sub-critical units) and 40% (super-critical units). It will result in reduction of CO_2 emissions to the tune of 20% compared to a sub-critical plant.

The activities of the R&D phase of the Indian AUSC are now in full swing and is likely to be completed by September, 2019. Proactive efforts are also under way for the second phase of the programme aimed at setting up of an 800 MW technology demonstration plant. Sipat plant located in Chhattisgarh has been selected as the site for setting up of the technology demonstration plant (TDP). Incidentally, the site is home to your Company's first Supercritical unit (660 MW). The technology tuning at the TDP shall hold the key for translation of the learning from the demo-plant to design, execution and operation subsequent units comprising of the fleet of AUSC units.

8.2.2 Biomass Co-firing for reducing greenhouse emission & reduce pollution

As part of its commitment to the environment, your Company has taken a new initiatives to utilise agro residue for power generation. This is intended to cut down carbon emissions and also to discourage crop residue burning by farmers after harvesting by adding economic value to the crop residue and providing extra income to farmers and employment in rural sector.

Biomass co-firing is a unique method to utilize coal based power plant infrastructure to produce renewable energy by simply replacing some of the coal with biomass based fuel. Being carbon neutral fuel, biomass co-firing is a technology recognized by UNFCCC as a measure of reducing greenhouse gas emission.

After successfully demonstrating biomass co-firing at Dadri, the Company has started commercial scale biomass co-firing at Dadri from December 2018 onwards for which your Company has placed purchase order for supply of 200 metric tonnes per day of pellets/ torrefied pellets. However, only part supply of biomass pellets are being done at present and full supply shall be commenced soon.

Further, in line with advisory of CEA, the Company has invited expression of interest from entrepreneurs and start-ups for production and supply of agro residue based pellets/ torrefied pellets to majority of its power plants (21 power stations including JV at Jhajjar) and more than hundred parties have participated in EOI. Bids from the interested parties shall be invited soon.

The Company had also arranged the workshop for these parties. Your Company shall again organise workshop in upcoming months with the intent to provide a common platform to all the stakeholder in the sector to create an enabling environment for this business by bringing the clarity on various aspect of the business and networking of different stakeholders.

8.2.3 Waste-to-energy (WtE) and disposing municipal solid waste

Keeping commitment to the environment and Swachh Bharat, your Company has taken several initiatives to support & leverage Government of India's effort towards realising Swachh Bharat Mission (SBM) thereby ensuring pollution free environment to people's health and welfare.

Your Company has successfully revamped & made it functional the "Waste to Compost" plant at Karsara, Varanasi and now managing Operation & Maintenance (O&M) of this entire 600 Tons per Day (TPD) capacity plant. The plant is processing about 600 TPD of MSW and generating about 60-80 TPD of compost. Sanitary land fill facility and Leachate treatment facility have also been created at Varanasi to ensure scientific disposal of municipal solid & liquid waste.

In addition, your Company has commissioned 24 TPD thermal gasification based demonstration scale WtE plant at Varanasi to support technology development in India. The Municipal Solid Waste (MSW) is first converted to producer gas, which is then used to generate approximately 200 kW of electric power. Further, to promote Make in India concept, this Project has been awarded to a MSME player.

Further, the Company has also signed in-principle MoU with Surat and East Delhi Municipal Corporations for setting up state of art WtE plant. Process for bid invitation is under progress.

8.2.4 Renewable energy

Renewable energy is one central focus for your Company. To be in step with ambitious targets, the Company is attempting all avenues for renewable capacity addition to look beyond conventional large scale solar and wind parks. Your Company is utilizing roofs of power plant buildings for solar power generation and integrating to the existing plant infrastructure. Your Company is also going ahead with floating solar at reservoirs of its projects which is a step towards saving of land and water conservation by reducing water surface evaporation.

8.2.5 Initiative for Use of Treated Sewage Water from Municipal Sewage Treatment Plants:

Your Company has already taken initiative to use treated sewage water from municipal STPs nearby for bulk water requirement in its power plants, replacing precious fresh water from rivers/ lakes/ reservoirs/ dams meant for other priority uses like agriculture, drinking, pisiculture, water body preservation, etc. Treated sewage water will be used for Condenser Cooling Water system make-up for the power stations wherever Municipal STPs are within 50 km distance from Power station complying Tariff Notification of GOI dated 28.01.2016. The Company has already identified some projects viz. Dadri, Patratu, Solapur, Meja, Mouda, Korba, Sipat and Ramagundam where there is feasibility of using the STP treated water as STPs already exist/are going to be constructed within 50 km radius of the power plants with substantial availability of STP water. For Dadri STPP, the Company has already signed in-principle MOU with NOIDA authority for utilization of 80 MLD treated sewage water from Noida STPs as a flagship project. The contract for installing Secondary Treatment and Tertiary Treatment of Sewage Water by Solapur Municipal Corporation is on the way to provide 52 MLD of treated sewage to Solapur Thermal Power Station. Agreements with Nagpur Municipal Corporation for Mouda Thermal Power Station and Ramagundam Municipal Corporation for Ramagundam Power Station are under discussion.

8.2.6 Advanced digital and control technology use

Your Company is on the Digital path and implementing its Digital Strategy Roadmap. The initiatives of Advance Process Control (Operation optimization suite) and Advanced Monitoring of Stockyard has already been awarded. Pilot for ART (Augmented reality based training) has been completed and the full-fledged development is under process. Other initiatives of APM (Maintenance optimization suite), AIG (IIOT to enhance process visibility), AIM (digital twin with lifecycle documentation) are under tendering process. The initiatives are being piloted at Simhadri power plant and subsequently shall be rolled-out across your Company's Fleet.

Technology intensive security system is being envisaged in place of manpower intensive security currently in place. It has centralized control and multiple layers of security to enhance security with optimized manpower. Pilot of the same has been completed in Dadri project. In first phase it is being implemented for six projects.

Your Company has taken initiative for setting up of Integrated command and control centre having functionalities such as weather forecast, market intelligence, demand forecasting, generation forecasting, integrated planning, scheduling and operation optimization covering hydro, thermal and RE portfolio.

8.2.7 Dry Bottom Ash Handling System

Your Company has taken initiative in recent times to minimize water consumption by adopting Dry Bottom Ash Handling System instead of conventional Wet Bottom Ash Handling System for upcoming Coal Based Thermal Power Plants at Patratu, Singrauli III and Lara II. Dry Bottom Ash Handling System facilitates extraction of bottom ash in dry form and practically, water requirement will be eliminated for handling Bottom Ash with meagre quantity of water which would be required for conditioning and dust suppression. The system not only reduces water consumption which is required for disposal of bottom ash in wet form but also results in reduction in power consumption for Bottom Ash disposal and facilitates separation of bottom ash and fly ash which will result in better utilization of ash.

8.2.8 Change-over to safer Chlorine-di-oxide system from conventional gas Chlorination system for disinfection of plant water system

Keeping commitment to environment and safety, your Company has already embarked upon the more advanced, safer and compact in-situ Chlorine-di-oxide generation system from earlier practice of Gas chlorination system through a comprehensive policy change for its entire fleet of existing power stations as well as all upcoming power stations, as conventional gas chlorination system of disinfecting plant water involved transportation of chlorine gas tonner for a long distance, apart from use of chlorine being leak-prone in gaseous form, a practice which is not entirely free of hazards. The change-over to Chlorine di-Oxide is under implementation in various projects and stations.

8.2.9 Energy Conservation, Technology Absorption and Foreign Exchange Earnings and outgo

Details of conservation of energy, technology absorption and foreign exchange earnings and outgo in accordance with Section 134(3)(m) of the Companies Act, 2013 read with Companies (Accounts) Rules, 2014 forms part of this report as Annexure-III.

8.3 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, 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 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 Web-based Milestone Monitoring System (Webmiles), 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 SMS based information delivery; 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.

8.4 Capacity addition through Subsidiaries and Joint Ventures (JVs)

Besides adding capacities on its own, your Company develops power projects through its subsidiaries and joint ventures, both in India and abroad.

The information of Indian Subsidiaries and JV Companies along with details of partners of joint ventures engaged in power generation is given below:

Name of Company	JV Partner(s)	Details
KBUNL (Kanti Bijlee Utpadan Nigam Ltd.)	Bihar State Power Generation Company Limited (erstwhile BSEB) On 29.06.2018, your Company acquired the paid-up share capital held by BSPGCL in KBUNL. KBUNL has now become wholly-owned subsidiary.	Both the units of Stage-I of KBUNL have been declared on commercial operation. This Company has also taken up expansion of the project by installation of 2X195 MW units. Unit#3 of Stage-II was declared commercial on 18.03.2017 and Unit#4 of Stage-II was declared commercial on 01.07.2017. Total generation in FY 2018-19 was 3041.368 MU at 56.92% PLF.
BRBCL (Bhartiya Rail Bijlee Company Ltd.)	Ministry of Railways	A subsidiary of your company in joint venture with Ministry of Railways with equity contribution in the ratio of 74:26 respectively for setting up power project of 1000 MW (4X250 MW) capacity at Nabinagar in Bihar. Unit#1, 2 & 3 was declared commercial on 15.01.2017, 10.09.2017 and 26.02.2019 respectively. Construction activities of last unit is in progress.
NSPCL (NTPC-SAIL Power Co. Ltd.) (now converted into a Public Limited Company from NTPC-SAIL Power Company Private Limited)	Steel Authority of India Ltd. (SAIL)	A 50:50 Joint Venture Company between your Company and SAIL, owns and operate Captive Power Plants of SAIL at Durgapur (2x60 MW), Rourkela (2x60 MW) and Bhilai (2 x 30 + 1 x 14 MW). NSPCL has also implemented (2x250 MW) Bhilai Expansion Power Plant. Total installed capacity of NSPCL is 814 MW. NSPCL generated 5886.88 MU at 82.56% PLF in FY' 2018-19. NSPCL has paid final dividend of ₹ 20 Cr for FY' 2018-19 to your Company. Under Implementation- New Coal based Capacity at Rourkela PP-II Expansion (1 x 250 MW) & Durgapur PP-III (2 x 20 MW) is under construction.
NTECL (NTPC Tamil Nadu Energy Co. Ltd.)	Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO) (erstwhile TNEB)	A 50:50 JVC has commissioned 3x500 MW coal based power project at Vallur, Tamil Nadu. All the units have been declared on commercial operation. Total generation of NTECL during FY 2018-19 was 7706.873 MUs at 58.62% PLF and 75.40 % PAF.
APCPL (Aravali Power Company Pvt. Ltd.)	Indraprastha Power Generation Company Ltd. (IPGCL) and Haryana Power Generation Corporation Ltd. (HPGCL)	This JVC is operating (3X500 MW) coal based Indira Gandhi Super Thermal Power Project. Your Company, IPGCL and HPGCL have contributed equity in the ratio of 50:25:25. Total generation of APCPL during FY 2018-19 was 7396.263 MU. APCPL has paid interim dividend of ₹ 71.65 crore for FY 2018-19.
MUNPL (Meja Urja Nigam Pvt. Ltd.)	Uttar Pradesh Rajya Vidyut Utpadan Nigam Ltd. (UPRVUNL)	A 50:50 JVC is implementing 1,320 MW (2X660 MW) coal based power project in the state of Uttar Pradesh. Construction activities are in progress. Unit#1 achieved full load on 31.03.2018 and TG erection for Unit#2 started in January 2018.

Name of Company	JV Partner(s)	Details
NPGCL (Nabinagar Power Generating Company Ltd.) (now converted into a Public Limited Company from Nabinagar Power Generating Company Private Ltd.)	Bihar State Power Generation Company Limited (erstwhile BSEB) On 29.06.2018, your Company acquired the paid-up share capital held by BSPGCL in NPGCL. NPGCL has now become wholly-owned subsidiary.	NPGCL is setting up a 3x660 MW Coal based plant at Nabinagar. Construction activities are in progress. Unit#1 achieved full load on 29.03.19.
RGPPL (Ratnagiri Gas and Power Pvt. Ltd.)	GAIL, ICICI Bank, SBI, IDBI, Canara Bank and MSEB Holding Co. Ltd.	Your Company has a stake of 25.51% in RGPPL. PPAs have been signed by RGPPL with Indian Railways for supply of ~500 MW for 5 years w.e.f. 01.04.2017 and Gas Supply Agreements were signed with GAIL for supply of 1.75 MMSCMD of RLNG w.e.f. 01.04.2017 for 5 years. Demerger scheme was approved by NCLAT on 28.02.2018 thereby separating the R-LNG business from RGPPL to the new entity Konkan LNG Private Limited (KLPL). Accordingly, the paid-up share capital of RGPPL decreased from ₹ 3820.27 Cr to ₹ 3,272.30 Cr.
ASHVINI (Anushakti Vidhyut Nigam Ltd.)	Nuclear Power Corporation of India Ltd. (NPCIL)	Your Company is having a stake of 49%. The company was formed to set up Nuclear Power Project with two reactor units of mutually agreed capacity and at a mutually agreed location, which may be extended to setting up additional NPPs at the same location or elsewhere, as may be mutually discussed and agreed between the parties, subject to establishment of techno-commercial viability. JVC may also explore the possibilities of entering into business activities related with the Nuclear Power generation and front-end fuel cycle such as uranium mining, setting up of ancillary facilities, etc. at an appropriate stage. Currently, no activities are being taken up by the Company.

Name of Company	JV Partner(s)	Details
PVUNL (Patratu Vidyut Utpadan Nigam Limited)	Jharkhand Bijli Vitran Nigam Limited (JBVNL)	PVUNL has been incorporated on 15.10.2015 as a subsidiary of your Company with 74% stake in the Company and 26% of stake held by JBVNL to acquire, establish, operate, maintain, revive, refurbish, renovate and modernize the performing existing units and tie-lines, sub-stations and main power transmission lines connected therewith and setting up of the new units. For expansion units (Phase-I 3X800 MW), supplementary Joint Venture Agreement was signed on 01.03.2018 and EPC package was awarded to BHEL on 08.03.2018. Construction is in progress.

8.5 Hydro Power

A. **Koldam HEPP (4x200 MW)** is on the river Satluj at Barmana, District Bilaspur (Himachal Pradesh). All the four units of 200 MW each were declared commercially operational on 18.07.2015. Since then, the project is running successfully. The generation for the financial year 2018-19 was 3013.90 MU against GOI MoU target of 3000 MUs. Station had achieved best ever cumulative yearly DC of 107.92% in FY 2018-19 which was also the best in the country. Station had also achieved the best ever APC (% of Generation) of 0.54%, the best in the country. Station had also commissioned and tested its remote operation of Koldam HPS from corporate center at New Delhi, first time for any hydro project in the country.

B. **Tapovan Vishnugad HEPP (4x130 MW)** is on River Dhauliganga, District Chamoli (Uttarakhand). Project is under advanced stage of construction. In Powerhouse package, 98% works have been completed and significant progress has been made in HRT and Barrage packages. All other works such as Electro-mechanical, Hydro mechanical and Switchyard works are progressing as per commissioning schedule. The first Unit is likely to be commissioned by September 2020.

C. **Lata Tapovan HEPP (3x57 MW)** is in upstream of Tapovan-Vishnugad HEPP, in District Chamoli (Uttarakhand). All Construction activities at LTHPP have been stopped since 08.05.2014 in line with Hon'ble Supreme Court order dated 07.05.2014 for 24 Hydro Projects in the State of Uttarakhand including Lata-Tapovan. MOEF&CC had constituted an expert body which, in October 2015, recommended for implementation of Lata Tapovan with compliance of certain additional conditions. Your Company submitted in Court on 19.11.2015 that the conditions recommended by expert body shall be strictly complied. On the hearing held on 26.04.2016 also, Additional Solicitor General of India has also informed the Court that Lata – Tapovan Project must be implemented. Last hearing was held on 10.05.2016. The matter is still pending in Hon'ble Supreme Court for want of affidavit from Ministry of Water Resources (MoWR).

D. **Rammam-III HEPP (3x40MW)** is situated on river Rammam in Teesta Basin, Darjeeling (West Bengal). Construction activities are in progress at site and project is likely to be completed by February 2022.

8.6 Capacity Addition through Renewable Energy Sources

Your Company is adding capacity through renewable sources of energy, to broad base its generation mix to ensure long-term competitiveness, mitigation of fuel risks and promotion of sustainable power development. Your Company's Corporate Plan envisages a target of 32 GW of RE power comprising around 25% of the overall installed capacity of 130 GW by 2032. Your Company contributes to RE capacity addition in the following two pronged approach:

(a) **EPC Mode:** These projects are Company's own projects with its own investment. These projects are set up in surplus land/ reservoirs in the Company's stations. The offtake is tied up through direct PPA with state utilities.

Your Company has already commissioned 920 MW of RE projects comprising 870 MW of Solar projects and 50 MW of Wind projects under EPC mode. Your Company has won 245 MW of Solar projects under Tariff based competitive bidding and presently under implementation. Further, solar projects of aggregate capacity 406 MW comprising 134 MW ground mounted solar projects in the land available in our power stations and 272 MW floating solar projects in water reservoirs of our thermal stations are under various stages of tendering.

In addition, your Company has already installed Roof Top Solar projects and also planning to further install on some of its TG building Roofs, townships and office buildings wherever adequate shadow free area is available.

(b) **Developer Mode:** Under this mode, your Company acts as an intermediary procurer and calls for tenders from developers under tariff based bidding mode in accordance with the targets set by MNRE from time to time. Your Company purchases power from the developers shortlisted in the bidding and sells it to the Discoms with a margin. There is no investment from the Company.

Your Company is setting up developer mode projects under National Solar Mission (NSM) as well as on its own, the status of which are as under:

- **Under National Solar Mission(NSM):**

Your Company was entrusted to develop 15 GW Solar PV under National Solar Mission (NSM) Phase-II, Batch-II in three tranches between 2014-15 to 2018-19, where the Company was to be the facilitator/ trader between Discoms and developers. As per intimation from MNRE, the 15 GW under National Solar Mission (NSM) Phase-II, Batch-II has been reduced to 3 GW. Under Tranche-I of 3 GW(3000 MW) of Solar PV capacity, 2750 MW Solar PV capacity has been commissioned till date and balance 250 MW capacity is under implementation and expected to be commissioned in FY 19-20.

- **NTPC's own Developer Mode Projects :**

750 MW of solar projects under own developer mode is under implementation and expected to be commissioned in FY 19-20. The Company has recently awarded 3150 MW of RE projects comprising 2000 MW of Solar projects and 1150 MW of Wind projects with ISTS connectivity and located anywhere in India in developer mode. PPA/PSA for these projects are likely to be concluded shortly. Further, MNRE has accorded its approval to the Company to act as a designated agency for issue of tenders for setting up of renewable power projects including wind and solar power projects.

8.7 Capacity addition through acquisition:

Your Company acquired 27.36% equity of BSPGCL in KBUNL & 50% equity of BSPGCL in NPGCL on June 29, 2018. With this acquisition, KBUNL & NPGCL are now the wholly-owned subsidiaries of your Company.

Barauni TPS asset acquisition was completed on 00:00 hrs. of 15.12.2018. With this, the asset acquisition (equity in KBUNL, NPGCL and Barauni Project) with completed value of about ₹ 5571.60 Cr. was concluded with BSPGCL.

9. STRATEGIC DIVERSIFICATION- INCREASING SELF-RELIANCE

9.1 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 and distribution.

Your Company continuously explores business opportunities through market scanning and adopts new business plans accordingly.

9.2 The details of subsidiary companies engaged in business other than in power generation are as under:

9.2.1 NTPC Electric Supply Company Limited (NESCL), a wholly-owned subsidiary, transferred and vested all its operations, with effect from April 1, 2015, to your Company.

NESCL was incorporated for the distribution business and later started deposit and consultancy works. The transfer and vesting of existing operations would enable a focused business approach in the area of distribution, the objective for which NESCL was incorporated. 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.

9.2.2 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.

The Company has been designated as the nodal agency for cross border trading with Bhutan and Bangladesh and for National Solar Mission. The Company is also implementing a 50 MW gas power project in Andaman & Nicobar.

In the FY 2018-19, NVVN traded 17.44 billion units (BUs).

NVVN has paid an interim dividend of ₹ 20 Crore for FY 2018-19.

9.3 The details of joint venture companies incorporated in India which are taking up activities in other business related areas are given below:

Name of Company	JV Partner	Activities Undertaken
UPL (Utility Powertech Ltd.)	Reliance Infrastructure Limited, Space Trade Enterprises Private Limited, Skyline Global Trade Private Limited and Species Commerce And Trade Private Limited	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. UPL has paid dividend of ₹ 3.5 Cr. as final dividend to your Company for FY 2018-19.
NGPSL (NTPC GE Power Services Private Limited, earlier NTPC Alstom Power Services Private Limited)	GE Power Systems GmbH	To provide R&M services for coal based power plants in India. To renovate, modernise, refurbish, rehabilitate, upgrade, reverse engineering and component damage assessment. Also for undertaking residual life assessment, reengineering in India and on a project by project basis elsewhere abroad, utilising state-of-the-art technology. R&M including RLA work orders are under execution. Recent modification in JV agreement now allow NGPSL to also take up FGD work for state utilities. NGPSL is also in advance stage of finalization of JV partner for setting up waste-to-energyy plant across the country. NGPSL gave ₹ 0.23 Cr as final dividend for FY'18-19.
EESL (Energy Efficiency Services Ltd.)	PFC, PGCIL and REC	The Company was formed for implementation of Energy Efficiency projects and to promote energy conservation and climate change. EESL is working on Energy Audit of Buildings, Perform Achieve Trade (PAT) scheme work and standard & leveling work of BEE, Consultancy work, implementing Bachat Lamp Yojana and Agricultural & Municipal Pump replacement for various State Govts, Electric Vehicle, Smart metering etc. EESL gave ₹ 4.01 Cr as final dividend for FY'18-19.
NHPTL (National High Power Test Laboratory Pvt. Ltd.)	NHPC, PGCIL, DVC and CPRI	To establish a research and test facility for the power sector such as an "Online High Power Test Laboratory" for short circuit testing facility and other facilities as may be required for the same in the country. HVTR test Laboratory set up at Bina, M.P. was declared commercial w.e.f 01.07.17, MVTR test lab is expected to be commissioned by November 2019. First commercial transformer of 765 kV Class short circuit tested (online) on 11.09.17.
NBPPL (NTPC-BHEL Power Projects Pvt. Limited)	Bharat Heavy Electricals Limited	The Company was incorporated for taking up activities of engineering, procurement and construction (EPC) of power plants and manufacturing of equipments. The promoters have decided to wind-up the Company and the activities are in progress.
BF- NTPC (BF- NTPC Energy Systems Limited)	Bharat Forge Limited	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 BF-NTPC. Liquidator has been appointed. Voluntary liquidation of the Company is in progress.

Name of Company	JV Partner	Activities Undertaken
TELK (Transformers and Electricals Kerala Limited)	Acquisition of 44.6% stake in TELK from Government of Kerala on June 19, 2009	The Company deals in manufacturing and repair of Power Transformers. Your company has accorded in-principle approval for withdrawal of your company from TELK on 28.04.2016.
ICVL (International Coal Ventures Private Limited)	CIL, SAIL, RINL, NMDC	ICVL was formed 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 ICVL. As the Company was formed by a directive from the Government of India, approval of the Government is awaited for exit.
HURL (Hindustan Urvarak & Rasayan Limited)	Coal India Limited, Indian Oil Corporation Limited, Fertilizer Corporation of India Limited (FCIL), Hindustan Fertilizer Corporation Limited (HFCL)	HURL was incorporated on 15.06.2016 to establish and operate new fertilizer and chemicals complexes (urea-ammonia and associated chemical plants) at Gorakhpur & Sindri Units of FCIL and Barauni unit of HFCL and to market its products, taking into consideration the assets of FCIL and HFCL at Gorakhpur, Sindri and Barauni. Financial closure achieved for all 3 Projects. Loan Agreement was signed on 20.09.18 for Gorakhpur and 11.10.18 for Barauni & Sindri Projects. Lump sum Turnkey Contract(LSTK) for Gorakhpur project was awarded to Toyo Engineering on 27 Feb'18 with a completion schedule of 36 months. LSTK Contract for Barauni & Sindri project was awarded to Technip & L&T Hydro carbon Engineering (LTHE) consortium on 18th May 2018 with a completion schedule of 36 months. Pre Project-activities have been almost completed and basic infrastructure is in position at all three locations. Required major approvals and clearances obtained.

Name of Company	JV Partner	Activities Undertaken
KLPL (Konkan LNG Private Limited)	GAIL, ICICI Bank, SBI, IDBI, Canara Bank and MSEB Holding Co. Ltd.	Demerger scheme filed by RGPPL was approved by NCLAT on 28.02.2018 thereby separating the R-LNG business from RGPPL to the new entity Konkan LNG Private Limited (KLPL). The Demerger Scheme was filed with the Registrar of Companies on 26.03.2018 with appointed date of 01.01.2016.

NTPC-SCCL Global Ventures Private Limited was formed for acquisition/ development of mines, beneficiation processing, O&M of coal/lignite blocks and selling of coal/ lignite produced thereof. The Company has been dissolved.

9.4 Diversification in Electric Vehicle (EV) Segment

Your Company is envisaging to provide complete e-Mobility solution for public transport including creation of charging infrastructure and providing electric buses to State/City Transport Undertakings. In first phase, 500 Nos. electric buses are being procured through ICB (NIT issued on 28th February 2019) by NVVN, a wholly owned subsidiary of NTPC. Some of the states/cities where these solutions are expected to be provided are Goa, Kerala, A&N Islands, Bengaluru, Indore, Bhopal, Jaipur etc.

Award has been placed on 8th March 2019 for setting up of 400 Nos. of charging stations in locations across various cities and highways. In this regard, MoUs have already been signed with State/City administrations of Delhi-NCR, Guwahati, Pune, Hyderabad, Mumbai, DMRC (Delhi Metro Rail Corporation), Oil Marketing companies (IOCL, HPCL) as well as with major vehicle Aggregators & Fleet Operators.

Award has been placed on 11.02.2019 for setting up a pilot project for Battery Charging and Swapping infrastructure for 50 Nos. e-autos. The project shall be operational by July 2019.

Electric Vehicle chargers has been installed at your Company's Stations, Projects and Regional HQs to promote the usage of EVs.

9.5 Foray in Packaged Drinking Water Business

Your Company's research arm, NETRA, has developed technology for sea water desalination/waste water treatment using waste heat from flue gas from the power plant. The cost effective technology is now being utilized for packaged drinking water. An MoU in this regard has been signed with IRCTC on January 15, 2018 for setting up a packaged drinking water facility at your Company Simhadri Station. Award of contract by IRCTC for setting up packaged drinking water project is in progress.

10. GLOBALISATION INITIATIVES

10.1 **Trincomalee Power Company Limited (TPCL),** a 50:50 joint venture between your Company and Ceylon Electricity Board was formed to undertake the development, construction, establishment, operation and maintenance of a electricity generating station Trincomalee at Sri Lanka. Meeting of Joint Working Group (JWG) was held in November 2016 and August 2017 for discussion on project arrangements.

In 3rd JWG meeting held on 7th July 2018 in Colombo, it was agreed that LNG power projects shall be developed in phases. The Capacity of first phase was decided as 300 MW ±15%. The project shall be developed on BOOT basis.

SPV structure for implementation of LNG Power Project at Kerawalapitiya and Solar Power Project at Sampur has been finalized. Solar PP shall be developed by TPCL and a new JV Company shall be incorporated for LNG PP.

10.2 **Bangladesh-India Friendship Power Company Private Limited,** a 50:50 joint venture Company between your Company and Bangladesh Power Development Board (BPDB) was formed for developing a (2X660 MW) Coal based power project (Maitree Super Thermal Power Plant) at Khulna Division, Rampal, Bangladesh. EPC contract of the project except township was awarded to BHEL. Construction activities are in full swing.

10.3 **Other Opportunities Abroad:** Business opportunities in Sri Lanka, Bangladesh, Thailand, Nepal, Bhutan, Myanmar, Indonesia, Oman, UAE, Egypt, Ghana, Zimbabwe, Tanzania, Kenya and other African countries are being explored in the areas of power generation, O&M contracting, R&M of power plants, capability building and cross border power trading etc.

Your Company was registered as an overseas corporation in Myanmar and office is operational.

11. CONSULTANCY SERVICES

Consultancy Wing offers services "From Concept to Commissioning and beyond...." such as in Engineering, Operation & Maintenance Management, Project Management, Contracts & Procurement Management, Quality Management, Training & Development, Solar & renewable power projects, compliance to Environmental norms for power stations etc. These services have been provided in India and abroad viz. Gulf countries, Bangladesh, Nepal, Sri Lanka and Bhutan.

The Consultancy Wing is associated with a capacity of around 49,894 MW:

- Owner's Engineers Services & Project Management Services- 18,204 MW
- O&M Services / O&M studies (Performance Improvement Plan (PIP) & Gap Analysis) – 18,830 MW
- Due diligence of stress assets- 12,640 MW
- R&M Services- 220 MW

On international front, Consultancy Wing has successfully completed six (6) years of O&M management services at Siddhirganj Peaking Power Plant (2x120MW) in Bangladesh under a World Bank funded contract. There has been an all-round improvement in terms of plant parameters and capacity building due to implementation of best practices and systems in this power plant with involvement of your Company's experts.

On the domestic front, Consultancy Wing is providing "Complete Owner's Engineer Services for implementation of 2X660MW Khurja STPP from concept to commissioning" to THDC. It is also providing "Post Award review engineering and QA&I Services" for 2X660MW Jawaharpur TPS and 2X660MW Obra Extn. TPS of UPRVUNL.

Consultancy Wing is executing assignments for various clients like UPRVUNL, HPGCL, DVC, PSPCL, GSPGCL SCCL, OCPL, MPPGCL , RVUNL, REC, FACOR, LPGCL and your company's JVs for FGD Systems, Project Management, FR/DPR Preparation, Procurement & Inspections, Performance Improvement services and other advisory services.

Consultancy Wing has also carried out various technical due diligence assignments of stressed/stalled assets on behalf of financial institutions.

Highlights of FY 18-19

- Consultancy wing received orders of ₹ 227 Cr .
- About 24 nos. assignments pertaining to FGD & ESP augmentation works amounting to around Rs 92 Cr. are under various stages of execution.
- Post Award Review Engg. & Project Management services at (1X660MW) Panki Extn. TPP of UPRVUNL.
- Complete Engineering Services for implementation of (2X660MW) Khurja STPP from Pre-award till commissioning of THDC.
- Review Engineering services of (2X660MW) Obra Extn. TPS & (2X660MW) Jawaharpur TPS

Consultancy Wing is looking ahead for future business opportunities in areas such as Solar & Renewable power projects and O&M for power plants of other utilities in addition to new assignments as Owner's Engineer for major power projects, FGD & ESP R&M business for meeting new environmental norms etc.

12. FINANCING OF NEW PROJECTS

The capacity addition programs shall be financed with a debt to equity ratio of 70:30, in case of thermal and hydro projects and that of 80:20 in case of solar projects. Your Directors believe that internal accruals of the Company would be sufficient to finance the equity component for the new projects. Given its low geared capital structure and strong credit ratings, your Company is well positioned to raise the required borrowings.

Your Company is exploring domestic as well as international borrowing options including overseas development assistance provided by bilateral agencies to mobilize the debt required for the planned capacity expansion program.

The details of funding are discussed in the Management and Discussion Analysis Report which forms part of this Report.

13. FIXED DEPOSITS

Your Company has discontinued the acceptance of fresh deposits and renewals of deposits under Public Deposit Scheme with effect from 11.05.2013. As such, there were no deposits which were not in compliance with the requirements of Chapter-V of the Companies Act, 2013

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

(a)	Accepted during the year	Nil
(b)	Remained unpaid or unclaimed as at the end of the 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 year and if so, number of such cases and the total amount involved:	
	i. At the beginning of the year	NIL
	ii. Maximum during the year	NIL
	iii. At the end of the year	NIL

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

14. FUEL SECURITY

During the year 2018-19, the supply position of coal and gas are given as under:

14.1.1 Coal Supplies

- Your Company entered into long term Fuel Supply Agreement with Coal India Limited (CIL) & Singareni Collieries Company Limited (SCCL) for total Annual Contracted Quantity (ACQ) of 158.17 MMT & 11.2 MMT respectively and Bridge linkage of 4.65 MMT for Barh. The short-term MOU was done with The Singareni Collieries Company Limited (SCCL) for supply of 8.0 MMT of coal for Ramagundam, Simhadri, Mouda, Solapur and Kudgi (including 7.87 MMT under Bridge linkage) stations.
- In FY 18-19, your company signed new Long-Term Fuel Supply Agreements (FSA) for the quantity of 1.8059 MMTPA. This included 0.612 MMTPA from BCCL for Unchahar St-IV Unit -6, 0.228 MTPA from WCL for Mouda St-I Unit - 2 and 0.9659 MMTPA from WCL for Gadarwara (2X800MW). Further, fuel supply agreement of quantity 1.630 MMTPA from SECL and 2.805 MMTPA from NCL for Gadarwara and quantity of 1.851 MMTPA with NCL for Vindhyachal Unit # 13 Stage -V is expected to sign in next FY. In addition, FSA with CCL for 1.19 MMTPA for Unchahar Unit -6 of Stage –IV and Bongaigaon Unit # 3 for quantity of 0.85 MMTPA with ECL will also be signed in next FY.
- To leverage potential of rationalization of coal linkages, your Company had signed a Supplementary Agreement with CIL and CIL subsidiaries for all owned JV/ Subsidiary stations on 12.04.2017 for implementation of Govt. policy on "Flexibility in utilization of domestic coal for reducing cost of power generation". Under the Supplementary Agreement, your Company can allocate coal to any station of its own or any JV/ Subsidiary for optimising the Energy Charges. During the year, your Company has used 6.4 Lac Tons of coal under Flexibility Utilization.
- As per directives of Govt., CIMFR started coal sampling in January 2016. During the period 2018-19, sampling at all loading end sidings (except two sidings i.e. CCL-Amrapali & KD- old) and sampling at unloading end of all your Company's stations had started. Sampling at unloading end at Meja (JV) is expected to start in next FY. Further, Tripartite Agreement for Third Party Sampling of loading end for sampling of coal to be supplied from SECL, NCL and WCL to Gadarwara and bipartite agreement for Khargone un- loading end is expected to sign in this FY.
- Earlier, your company was also allocated Bridge Linkages for seven stations viz i) Barethi (4x660MW), ii) Barh – II (2x660 MW), iii) Darlipalli – I (2x800MW), iv) Tanda- II (2x660 MW), v) Lara-I (2x800 MW), vi) Kudgi-I (3x800 MW) & vii) Bilhaur (2x660 MW) for a period of three years from the date of allocation of captive block. Out of the above stations Bridge Linkage of Kudgi expiring on 31.03.2018 was extended by three months by MoC vide OM dated 28.03.2018 i.e upto June 2018. Subsequently, SLC (LT) in its meeting dated 10.04.2018 had recommended Bridge Linkage for Barh-II, Lara-I, Darlipalli, Tanda and Kudgi on tapering basis as per approved mining plan of the linked mines. The extension is valid upto 2022 for all the above stations except Barh-II which is valid upto 2023.
- Bridge Linkage MoUs have already been signed for (i) Barh St-II with CCL & ECL (ii) Lara with MCL & SECL and (iii) Darlipalli with MCL & SECL. For other projects, as and when COD is declared MOU will be signed.

14.1.2 Domestic Coal and Imported Coal

During 2018-19, your Company received 175.8 MMT of coal as against 168.2 MMT in 2017-18 marking an increase of (+) 4.5%. Out of 175.8 MMT of coal, 161 MMT was from Annual Contracted Quantity of coal, 6.6 MMT through Bridge linkage/ SCCL Bi-lateral MoU, 6.45 MMT from Pakri Barwadih and 1.75 MMT received through e-auction. For imported coal, after the last contracts placed in Aug 2015, during 2018-19, Company awarded contracts for procurement of 2.5 MMT imported coal in December 2018. 1.05 MMT of imported coal was received in this year, which includes spill over quantity of 2015 contracts.

14.1.3 Sourcing of coal through E-auction

To supplement import coal as well as deficiencies in FSA coal qty., your company participated in e-auctions of CIL subsidiaries & SCCL in the this financial year also. In the FY 2018-19, your Company has participated in e-auction of total 1,154 nos. rake of coal (4.54 MMT), out of which 545 nos. rake of coal (2.15 MMT) have been allotted.

14.1.4 Gas supplies

During 2018-19, your Company received total 3.66 MMSCMD of Domestic gas as against 4.48 MMSCMD of Domestic gas received during 2017-18. Long Term RLNG & Spot RLNG off-takes during 2018-19 were 0.13 & 0.86 MMSCMD respectively.

- Your Company has Administered Price Mechanism (APM) gas agreements up to July 2021, Panna-Mukta-Tapti (PMT) gas agreements up to December 2019 and Non-APM gas agreement upto July 2021 with GAIL.

  Your Company extended the Long Term RLNG agreements with GAIL till December 2023, introducing

RLNG offtake flexibility in peak power demand periods in the agreements. With the extension, the long pending LT RLNG ToP (Take-or-Pay) dispute with GAIL was settled and contingent liabilities of Rs 5821.61 crore in Company's books of accounts got cleared.

- For additional gas requirement over and above the supplies under long-term domestic gas & RLNG agreements, your Company has been making arrangements for supply of Spot RLNG from domestic suppliers on 'Reasonable Endeavour' basis based on requirement and availability from time to time. Further, adequate stock of liquid fuel is maintained for meeting Grid's requirement.

There has been no loss of station availability on account of lack of availability of Domestic gas / RLNG / Liquid fuel during the year.

14.2 Development of Coal Mining projects

Your Company has been allocated eight coal blocks namely: Pakri-Barwadih, Chatti-Bariatu & Chatti-Bariatu (South), Kerandari, Dulanga, Talaipalli, Banai, Bhalumuda and Mandakini-B by Government of India. In addition, Government of India has also allocated Kudanali-Luburi coal block jointly to your Company and the State of J&K, with your Company's share of coal reserves in this block being two-third and Banhardih coal block, allocated to Patratu Vidyut Utapadan Nigam Ltd. (PVUNL). Further, Ministry of Coal through letter dated 3.4.2019 has sought Bihar State Power Generation Company Limited's prior consent for assigning Badam coal block in favour of your Company.

From these 11 coal blocks, with a total estimated geological reserves of about 7.3 Billion Metric Tonnes, your Company (including JVs) expects to produce about 119 Million Metric Tonnes of coal per annum. Your Company expects to produce about 102 Million Metric tonnes per annum on standalone basis.

Coal production commenced from Pakri-Barwadih coal block (basket mine) in December 2016. During FY 2018-19, about 6.81 MMT coal have been extracted and 1775 no. of coal rakes have been dispatched to power stations through Indian Railways network.

In Dulanga block coal extraction started in March 2018. The end use plant of this mine is Darlipalli STPP located about 10 kms from the block. During FY 2018-19, about 0.5 MMT coal have been extracted and about 1.51 lac tonnes coal dispatched to Lara STPS whereas about 23,320 tonnes coal to Darlipalli STPS.

Mine Developer-cum-Operator (MDO) for Talaipalli and Chatti-Bariatu coal blocks were appointed on 13.11.17. MDO contract was suspended and the matter is sub-judice with Hon'ble Supreme Court. However, the block development activities like land acquisition payments and infrastructure development activities are in progress. In case of Chatti-Bariatu and Talaipalli, about 61% and 91% land payment has been completed respectively. Further, in Talaipalli-South pit, outside MDO scope, tender has also been floated for commencement of Mining Operation and other associated works.

For Kerandari coal block, mining operation would be carried out departmentally with limited outsourcing. Your Company has already floated tenders for appointing mine operator and also for other mine infrastructure facilities for this block.

As per Allotment Agreement with Ministry of Coal, scheduled target for coal production from the three blocks i.e. Talaipalli, Chatti-Bariatu and Kerendari is Nov'19.

In the above five coal blocks i.e. Pakri-Barwadih, Dulanga, Talaipalli, Chatti-Bariatu & Kerandari, on community development / CSR activities, your Company has incurred an expenditure about ₹ 25.5 crore in the FY 2018-19 (Cumulative expenditure more than ₹ 126 crore) which has helped in improving the socio-economic conditions of the local community.

For Mandakini-B coal block, Mining Plan & FR is under finalization. Mining infrastructure development activities are in progress. Section-7(CBA act) notification issued by MoC. Target for commencement of production is Oct' 23.

At the time of allotment the Banai & Bhalumuda coal blocks were unexplored. The exploration was completed and Geological Report(s) are available. There are issues in availability of land for external OB dump and therefore with a view to optimize exploitation, your Company has proposed to the Nominated Authority, Ministry of Coal, for merger of these coal blocks. The matter is under consideration at MoC.

14.3 Initiatives through Joint Ventures and Subsidiaries:

Banhardih coal block which was allocated to JUUNL as the linked mine for the Patratu Power Project has now been assigned to Patratu Vidyut Utapadan Nigam Ltd. (PVUNL), a JV company incorporated between your Company & Government of Jharkhand. For land acquisition Section 4(i) notification under CBA Act, has been notified by MOC.

Kudanali-Luburi Coal block in Odisha has been jointly allotted to your Company & State of J&K by MoC, GoI. Joint Venture Agreement between your company & JKSPDCL has been signed on 15.06.15 for incorporation of a Joint Venture Company for Exploration, Development & Operation of the Coal Block.

However, in view of various roadblocks in development of the Kudanali Luburi Coal Block, your Company has decided to surrender allocated share of coal mine in the said coal block allotted to the Company.

Your Company has decided to have coal mining business into a wholly owned subsidiary in order to meet various business/strategic objectives viz. fuel security, focused management, readiness for future, de-linking business risks and enhancement of shareholder value.

Consent of Niti Aayog has been obtained for formation of subsidiary. Your company has approached Ministry of Coal, GoI for no objection certificate in this regard.

15. BUSINESS EXCELLENCE: GLOBAL BENCHMARKING

Your Company has developed and adopted a customized business excellence Model called 'NTPC Business Excellence Model' on the lines of globally accepted Performance Excellence frameworks such as the Malcolm Baldrige Model USA and EFQM Model of Europe.

The assessment process is aimed at identifying the area for enhancing stakeholders' engagement, improving critical processes and developing leadership potential.

The outcome of this model is identification of organizational strength, opportunities for improvement, issues of concern and best practices.

In the financial year 2018-19, 21 generating stations were assessed by a team of certified assessors. Business Excellence Award for holistic excellence was given to Vindhyachal.

In its pursuit to embrace digital and paperless working environment, your Company has implemented an IT enabled initiative- Corporate Performance Management and Business Intelligence system to enable strategy execution and communication, analytics, query response, reporting and automating few business processes that provides effective decision support for the management across different tiers.

Other contemporary TQM concepts and techniques like ISO, Quality Circles, Professional Circles, 5S etc. have been deployed across the organization. Zen X Quality Circle team from Korba station of your Company had participated in International QC Convention held at Singapore during 22nd -25th October 2018.

16. RENOVATION & MODERNISATION

Renovation and Modernization (R&M) of various units of your Company and in particular the units which have completed 25 years of operations from commercial operation date is considered essential to achieve the objectives such as safe operation of the units, compliance of latest statutory norms/revised Environmental norms / IEGC Code, Recovery/improvement of Efficiency of the Units, Reliability Improvement, flexible operations to enable large scale integration of renewables, Sustenance of operations considering equipment health assessment observed during last 2-3 years, overcoming constraints on account of current operating conditions (changes in coal quality, water supply arrangements, change in law, etc.)

Investment approval accorded till date for R&M in 20 stations (Coal & Gas based) is of ₹ 14,116.12 crore. As against this, cumulative expenditure till 31.03.2019 was ₹ 7,518.56 Crores which included R&M capital expenditure of ₹ 701.36 Crore during FY 2018-19.

As a responsible corporate citizen, it has always been your Company's endeavour to ensure low levels of pollution from its power stations. With a view to maintain a clean atmosphere in and around the power plant by reduction of particulate emission levels from generating stations, Renovation and Retrofitting of Electrostatic Precipitator (ESP) packages have been awarded for 51 Units in 11 Stations namely Tanda – (4x110MW), Singrauli - I & II (5X200MW+2X500MW), Korba - I & II (3X200MW+3X500MW), Farakka - I & II (3X200MW+2X500MW), Vindhyachal - I & II (6X210MW+2X500MW), Rihand – I (2X500MW), Unchahar - I (2x210MW), Talcher TPS-II (2X110MW), Talcher STPS – I & II (2X500MW+4X500MW), Unchahar - II (2x210MW), Ramagundam - I (3x200 MW) and Kahalgaon - I (4x 210 MW), all awarded prior to FY 2018-19. ESP R&M work has been completed, during 2018-19, in 5 units namely (2x500 MW) of Talcher STPS, 1x210 MW of Vindhyachal and (2x200 MW) of Singrauli and total no. of units in which ESP R&M has been completed till Mar 2019 is 28 in 10 stations.

With a view to removing technological obsolescence, renovation of Control & Instrumentation (C&I) has been taken up in 9 coal based stations namely Singrauli-I (5X200MW) & Singrauli – II (2X500 MW), Korba –I (3X200MW) & Korba – II (3X500 MW), Ramagundam -I (3X200MW) & Ramagundam – II (3X500MW), Farakka-I (3X 200 MW) & Farakka-II (2X500 MW), Dadri Thermal- I (4X210MW), Unchahar- I (2X210MW), Talcher STPS-I (2X500MW), Kahalgaon-I (4X210 MW) and Rihand –(2X500 MW) comprising a total of 38 units. The total no. of units in which C&I R&M completed till date is 30. Renovation of Control & Instrumentation (C&I) has also been taken up in five gas based stations namely Anta (419.33 MW, 3 GT + 1 ST), Auraiya (663.36 MW, 4 GT + 2 ST), Kawas (656.20 MW, 4 GT + 2 ST), Dadri Gas (829.78 MW, 4 GT + 2 ST) and Faridabad (432 MW, 2 GT + 1 ST) prior to FY 2018-19. The total no. of units in which C&I R&M has been completed in Gas Stations till Mar'19 is 13 GT/WHRB and 6 STG. On completion of these schemes, C&I systems in these units have now been brought nearly on par with the new builds.

R&M of Gas Turbines was completed in 14 Gas Turbines in 4 stations namely (4x106MW) in Kawas, (4x111.19 MW) in Auraiya, (3x88.71MW) in Anta and (3x144.30MW) in Gandhar.

17. HUMAN RESOURCE MANAGEMENT

17.1 Your Company takes pride in its highly motivated and competent Human Resource that has contributed its best to bring the Company to its present heights. The productivity of employees is demonstrated by increase in generation per employee and consistent reduction of Man-MW ratio year after year. The overall Man-MW ratio for the year 2018-19 excluding JV/subsidiary capacity is 0.40 and 0.38 including capacity of JV/ Subsidiaries. Generation per employee was 14.95 MUs during the year based on generation of your Company's stations.

The total employee strength of the company (including JV/ subsidiaries) stood at 20,244 as on 31.3.2019 against 21,584 as on 31.3.2018.

	FY 2018-19	FY 2017-18
NTPC		
Number of employees	18,359	19,739
Subsidiaries & Joint Ventures		
Employees of NTPC in Subsidiaries & Joint Ventures	1,885	1,845
Total employees	**20,244**	**21,584**

The attrition rate of your Company executives during the year was 0.78% in comparison to last year at 0.53%.

17.2 Employee Relations

Employees are the driving force behind the sustained stellar performance of your company over all these years of Company's ascendancy. As a commitment towards your Company's core values, employees' participation in Management was made effective based on mutual respect, trust and a feeling of being a progressive partner in growth and success. Communication meetings with unions and associations, workshop on production and productivity, etc. were conducted at projects, regions and corporate level during the year. During the year, long term wage agreement for the employees in workmen cadre was successfully concluded with a win-win proposition for all the stakeholders.

Both employees and management complemented each others' efforts in furthering the interest of your Company as well as its stakeholders, signifying and highlighting overall harmony and cordial employee relations prevalent in your Company.

17.3 Safety and Security

Occupational health and safety at workplace is one of the prime concerns of Company Management. Utmost importance is given to provide safe working environment and to inculcate safety awareness among the employees. Your Company has a 3-tier structure for Occupational Health and Safety Management, namely at Stations/ Projects, at Regional Head Quarters and at Corporate Centre. Safety issues are discussed in the highest forum of Management like Risk Management Committee (RMC), Management Committee Meeting (MCM), Regional Operation Performance Review, Operation Reviews, Project Reviews etc. Ex-Director Operations (Nuclear Power Corporation Ltd) was engaged to enrich safety systems and strengthen process safety. On the occasion of "National Safety Day" CMD along with the Board addressed all project / Stations.

All of your Company's stations are certified with OHSAS-18001/IS-18001. Six of our stations are going for international level NOSA accreditation in Safety and Environment. Regular plant inspection and review with Head of Project/Station is being done. Internal Safety Audits by Safety Officers every year and External Safety Audits by reputed organizations as per statutory requirement are carried out for each Project/ Station. Recommendations of auditors are regularly reviewed and complied with. Company level Hazard Identification and Risk Analysis (HIRA) document has been prepared and shared with all stations.

Height permit and height check list are implemented to ensure safety of workers while working at height. Adequate numbers of qualified safety officers are posted at all units as per statutory rules/ provisions to look after safety of men & materials. Mock drills were conducted with NDRF to prepare for any extreme on site emergency. Sites are engaging the safety consultant of international repute to uplift safety standards.

For strict compliance & enforcement of safety norms and practices by the contractors, safety clauses are included in General Conditions of Contract/ Erection Conditions of Contract. Safety coordination procedure is a part of the safety activity of corporate awarded packages during tendering.

Detailed emergency plans have been developed and responsibilities are assigned to each concerned to handle the emergency situations. Mock drills are conducted regularly to check the healthiness of the system.

Most of your Company's plants have been awarded with prestigious safety awards conferred by various Institutions/ Bodies like Ministry of Labour & Employment-Govt. of India, National Safety Council, Institute of Directors, Institution of Engineers (India), in recognition of implementing innovative safety procedures and practices.

The standard operating procedures are being followed for maintaining utmost safety in operations and processes in your Company to avert accidents.

Security: Your Company recognizes and accepts its responsibility for establishing and maintaining a secured working environment for all its installations, employees and associates. This is being taken care of by deploying CISF at all units of your Company as per norms of Ministry of Home Affairs. Concrete steps are being taken for upgrading surveillance systems at all projects/ stations by installing state-of-the-art security systems.

17.4 Training and Development

Your Company is successfully attracting, grooming, motivating and engaging people talent. We believe in nurturing and managing the talent that leads to sustainable competitive advantage.

Power Management Institute (PMI), the apex learning and development (L&D) centre of your Company, is actively engaged in making our people future ready in terms of technology, business acumen and leadership. All the L&D initiatives are derived from business needs and designed to achieve Company's strategic objectives, actualize business plan and create value for stakeholders.

PMI has the state-of-the-art physical and digital infrastructure to impart learning in world class ambience. It classrooms are equipped with modern facilities including smart boards, video conferencing and session-recording which supports contemporary pedagogy.

Your Company takes pride in being people friendly organization and strives to insure safe work place with zero incident reported. PMI in its role espousing the safety as core value in L&D by establishing NTPC Safety Academy at Unchahar. The academy is conducting safety related certificate courses across the organization.

Our training delivery methods include a blend of classroom learning through simulation and case study methods, theater workshop, community service module (for first hand CSR feel to young ETs), e-learning platform, video and web platforms etc. PMI has covered 4,000 executives in management learning through HMM and 1000 in the power plant technical skills domain by licenses from General Physics (GPiLearn).

Various in-house e-platforms that provide access to diverse e-Learning resources to complement the learning to meet the unique learning needs across demographic spectrum of generations engaged at work place. An e-library of 25,000 e-books, 1,000,000 articles, reports and journals supports employees' knowledge up-gradation.

The L&D interventions are designed after a multidimensional 'Training Need Analysis' (TNA) for enhancing technical, functional, strategic and leadership skills with focus on business objectives of the Company. PMI conducted 321 training programs during FY 18-19, covering nearly 8,699 professionals, resulting in a total of approximately 45,987 learning man-days.

Your Company is aware of pivotal role of effective leadership and to ensure continuity in leadership pipeline, 379 middle level executives were given rigorous inputs under 2 weeks strategic leadership development program (10X). The program is designed to equip the participants with ten strategic competencies to enable them to take leadership roles and strategic positions in the days to come.

Your Company has aspiration of global growth and conscious of the fact that the emerging business complexities would need global mindset and competence to lead across. In pursuance of the objectives it sent one batch of senior executives (GMs/EDs) to Harvard Business School to learn from some of the best in the world.

Besides creating capabilities by training to the employees across Indian power sector, PMI is extending its support towards building capability among SAARC & Middle East countries. In the year 2018-19, PMI has trained multiple teams from Bangladesh, Saudi Arabia and Abu Dhabi.

In recognition to its pioneering efforts, PMI has received the globally acknowledged ATD Best 2017 and 2018 Awards (Two years in succession), nationally acclaimed ISTD award for 2017 and 2018 and the BML Munjal Award 2018 (Sustained Excellence Category). These awards recognize organizations that demonstrate enterprise-wide success as a result of L&D and talent development practices.

18. SUSTAINABLE DEVELOPMENT

Sustainability at your Company is being driven by two motives:

a. To make fundamental changes in the way we operate our businesses to transform ourselves as the most sustainable power producer.

b. To become more transparent in the timely disclosure of our social, environmental and economic performances.

To achieve the first objective, your Company has identified Decarbonization, Water, Biodiversity, Circular Economy, Safety, Supply chain and Business Ethics as priority sustainability areas and strategizing on them to ensure the Company's business sustainability. Your Company is developing short-term and long-term measurable goals and objectives pertaining to these areas which is also aligned to the Company's Corporate Plan 2032. To start with reducing water footprint, a cross functional water committee has been formed to do benchmarking of the Company's systems and practices with peers and identify best practices across industries.

Your Company has also implemented Sustainable Development projects at its stations and in the neighboring areas as part of Sustainable Development Plan FY 2018-19 (in accordance with CSR & SD policy). Major activities carried out under this plan included massive plantation of trees and its maintenance, installation of rooftop Solar PV around power stations on public utilities buildings and on schools, vermicomposting/ Bio-Methanation plant/ Paper re-cycling machines. Few activities under bio-diversity conservation taken up are conservation of Olive Ridley Sea Turtles and study on bio-productivity of Gangetic Dolphin at Kahalgaon Station. An expenditure of ₹ 34.42 Crore was incurred on these SD projects during FY 2018-19.

For the second objective, the Company keeps on publishing Sustainability Report every year based on latest GRI framework. For FY' 19, first time, your company is going to develop this report according to IIRC framework according to voluntarily guideline issued by SEBI. Beside this, your Company also publish Business Responsibility Report (BRR) each year as mandated by SEBI.

To improve the visibility at various sustainability related national and international forums, your Company participated in CII-ITC Sustainability Awards (qualified for final round) and Dow Jones Sustainability Indices (DJSI) in FY' 19.

Business Responsibility Report is attached as Annexure-X and forms part of the Annual Report.

18.1 Inclusive Growth –Initiatives for Social Growth

18.1.1 Corporate Social Responsibility:

CSR has been synonymous with your Company's core business of power generation. Your Company's spirit of caring and sharing is embedded in its 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 and thereafter-extensive community / peripheral development activities are taken up along with the project development. Separate CSR Community Development Policy, formulated in July 2004 and Sustainability Policy formulated in November 2012 were combined in 2015 and revised in 2016 as "**NTPC Policy for CSR & Sustainability**" in line with Companies Act, 2013 and DPE Guidelines for CSR. It covers a wide range of activities including implementation of key programmes through NTPC Foundation.

Focus areas of your Company's CSR & Sustainability activities are Health, Sanitation, Safe Drinking Water, Education, Capacity Building, Women Empowerment, Social Infrastructure livelihood creation and support through innovative agriculture & livestock development, support to Physically Challenged Person (PCPs), and activities contributing towards Environment Sustainability. Your Company commits itself to contribute to the society, discharging its corporate social responsibilities through initiatives that have positive impact on 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 & Environment Sustainability and to supplement Government effort, activities are also taken up anywhere in the country. During the year, about 500 villages and more than 450 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 10 lakh people, residing at remote locations.

Apart from the CSR activities undertaken in and around operations 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 ₹ 285.46 Crore during the financial year 2018-19 towards CSR initiatives, which surpassed the prescribed two percent amount of ₹ 237.01 Crore, thus achieving a CSR spend of 2.41%.

18.1.2 NTPC Foundation

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

Details of expenditure incurred and initiatives undertaken by your Company under CSR are covered in the Annual Report on CSR annexed as Annexure-VII to this Report.

18.1.3 Rehabilitation & Resettlement (R&R)

Your Company is committed to help the populace displaced for execution of its projects and has been making efforts to improve the Socio-economic status of Project Affected Families (PAFs). In line with its social objectives, your Company has focused on effective Rehabilitation and Resettlement (R&R) of PAFs and on

Community Development (CD) works in and around its projects.

R&R activities are initiated at your Company's projects by undertaking need based community development activities in the area of health, education, water, capacity building, infrastructure, etc. by formulating 'Initial Community Development (ICD) Plan' in consultation with concerned Panchayats, District Administration and opinion makers of the locality. Your Company addresses R&R issues in line with its R&R Policy with an objective that after a reasonable transition period, the conditions of affected families improve or at least they regain their previous standard of living, earning capacity and production levels. Your Company had revised its R&R Policy 2010 in the year 2017 to incorporate R&R entitlements as per 'The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013' (RFCT LARR Act) in order to extend facilities to PAFs. As per the Policy aligned in line with the RFCT LARR Act 2013, a Social Impact Assessment (SIA)/Census Survey will be conducted by the State Govt during the process of land acquisition for projects so as to collect detailed demographic details of the area which shall form the basis for the preparation of Rehabilitation and Resettlement (R&R) Scheme by the appropriate Govt. The R&R Scheme consists of measures for Rehabilitation & Resettlement and need based CD infrastructure in Resettlement Colony (RC).

In addition, in the R&R Policy of your Company a provision has been kept for need based community development (CD) activities to be taken up in project affected villages where Project Affected Families (PAFs) continue to reside even after land acquisition as also in vicinity of the project to ensure that the displaced families in the RC or the affected families in neighboring villages may secure for themselves a reasonable standard of community life.

R&R Plan expenditure is a part of Capital cost of the project and the Plan is implemented in a time bound manner so as to complete its implementation by the time the project is commissioned. On completion of the R&R Plan implementation, a Social Impact Evaluation (SIE) is conducted by a professional agency to know the efficacy of R&R Plan implementation for future learnings.

R&R activities were implemented at the new Greenfield/ Brownfield Thermal projects at Barh, North-Karanpura, Darlipali, Gadarwara, Khargone, Lara, Vindhyachal-V, Kudgi, Telangana, Mouda, Solapur, Tanda-II, Meja, NPGC, Kanti, Hydro projects at Tapovan Vishnugad & Rammam-III and Coal Mining Projects at Pakri-Barwadih, Chhatti-Bariatu, Kerendari, Dulanga and Talaipalli where R&R / CD Plans were finalized in consultation and participation of the stakeholders and approved earlier.

Re-appropriation of R&R / CD Plans under implementation as required on a case to case basis for specific projects was also approved to take care of the local requirements and requests from district administration/ stakeholders during implementation.

Focus areas for Community Development activities were:

- **Swachh Bharat Abhiyan** – Various initiatives were taken to make project affected villages open defecation free by taking up activities related to construction of individual toilets and awareness programmes.
- **Drinking water** – Planning and implementation for access to drinking water for 100% coverage of all project affected villages of projects under construction is being undertaken.
- **Capacity building / Skill upgradation** – Training programs conducted by various projects towards skill enhancement. The support to dependents of PAFs for ITI training was also extended by various projects.
- **Education** – Construction activities are in progress for Medical College cum Hospital at Sundargarh (Odisha) and an Engineering College at Shivpuri (MP). Support extended for Hydro Engineering College, Bilaspur (Himachal Pradesh). MOU has been signed with Govt. of Odisha for setting up a Polytechnic at Sundargarh (Odisha).
- **Health** - For the benefit of PAFs and neighboring population, Mobile Health Clinic, Medical camps and dispensaries are being operated for comprehensive health coverage of PAFs at various projects. Support is being extended to District Administration, Peddapalli (Telangana) for augmentation of Govt. Hospital.

18.2 Environment Management – Environment Policy of your Company:

"To provide cleaner energy by committing to highest possible levels of performance in environmental compliance, practices and stewardship."

Your Company has always envisaged environment protection and management as inherent feature at the time of inception of all project and focuses its efforts to minimize the impact of its plant operations on surrounding environment and concerned ecosystem.

Your Company undertakes comprehensive environment management plan right from conception of project, selection of site, resources (Land, Coal & Water source) and technology. In case of old stations, your Company undertakes massive renovation & modernization to upgrade pollution control equipments wherever necessary. Your Company has also taken initiative for installation of Flue gas desulfurization (FGD) system for SOx emission control and optimization & implementation of appropriate technology for NOx emission control to comply revised emission norms as per stipulated timeline.

In new projects, around 13-15% of the project cost is spent on core environment pollution control systems such as Electrostatic Precipitators (ESPs), Liquid Waste Treatment Plants (LWTP), Ash Water Recirculation System (AWRS), Coal Settling and Separation Pit (CSSP), Dry ash extraction system (DAES), dust extraction & suppression system, sewage treatment plant and desulfurization and deNOx systems. Continuous emission monitoring system (CEMS), Effluent quality monitoring system (EQMS), Continuous ambient air quality monitoring system (CAAQMS) are operational at all operating stations and included in the EPC packages of all new projects at the time of award of new units/ projects itself. Your Company has adopted advanced and high efficiency technologies such as super critical boilers at new stations, DeNOx and FGD in all upcoming green field projects.

Mercury analysers for emission and air monitoring are installed in all 800 MW units.

Your Company is augmenting its capacity with green power by installing wind power, solar power systems in a big way, hybrid power plant in combinations e.g. Wind & Solar, Solar & Thermal and small hydel power systems attached to its thermal power stations to encourage garnering of renewable energy resources. These measures are aimed not only to achieve reduction in pollution and to minimize use of precious natural resources but also to lead to reduction in specific water and Carbon footprints. All stations of your Company have been certified with ISO 14001 by reputed National and International certifying agencies in recognition of its sound environment management systems and practices.

Your Company has brought out Bio-Diversity Policy on 31.07.2018 for conservation and enrichment of bio-diversity in and around its business units.

18.2.1 Control of Air Emissions:

High efficiency Electro-static Precipitators (ESPs) with efficiency of the order of 99.97% and above, with advanced control systems have been provided in all coal based stations to keep Particulate Matter (PM) well below the prevailing permissible emission limits. All upcoming units have been planned with ESPs, DeNOx and FGD system designed to meet new emission norms. Performance enhancement of ESPs operating over the years is being enhanced to achieve the desired emission level to meet revised emission levels by augmentation of ESPs fields, retrofitting of advanced ESP controllers, new technology i.e. MEEP (Moving Electrode Electrostatic Precipitators) and adoption of sound O&M practices.

For control of SOx, first wet FGD has been commissioned and is operational at Vindhyachal Station. Erection of wet FGD at Bongaigaon and Dadri is in advance stage. FGD based on dry sorbent injection (DSI) system is under erection at Dadri (St-I) and Tanda (St-I) to meet the emission norms for SOx. Award and execution of contract for FGD packages for all stations are in various stages to comply with the new norms for SOx emission as per the timeline stipulated by concerned regulator.

NOx control in coal-fired plants is presently achieved by controlling its production by adopting best combustion practices (primarily through excess air and combustion temperatures optimization). Work for combustion modification awarded and under execution to lower down the NOx emission to extent possible levels. To comply with new norms for NOx emission, pilot study based on SCR/SNCR technology at 11 locations are in final stage of completion to find out the optimal solution and suitable technology for DeNOx system suitable for Indian Coal. In gas based stations, NOx control systems (hybrid burners or wet DeNOx) have been provided for good combustion practices.

Change of secondary fuel from HFO to alternative fuel (LDO or LSHS having low sulfur content) scheme implemented in all stations in NCR and state of UP and Haryana to minimize the SOx emission during the startup of coal based units. Your company has planned to make these changes in all station of company and conversion of these system is in progress.

18.2.2 Control of water pollution and adoption of ZLD approach:

Your Company as a responsible corporate entity for environment has proactively initiated steps towards water stewardship in power generation sector. Your Company released its Water Policy-2017 followed by Rain Water harvesting Policy-2018 to set its own benchmark in water consumption in power generation by setting its aim & objectives for various water conservation and management measures by using 3Rs

(Reduce, Recycle & Reuse) as guiding principle. Water bodies rehabilitation & restoration, water withdrawal optimization depending on the sustainable water withdrawal capacity and rejection of water bodies as water source, which are recognized as environmentally sensitive due to their relative size and habitat for ecologically sensitive species.

Provision of advanced waste water treatment facilities such as sewage Treatment Plant (STP), Liquid Waste Treatment Plants (LWTP), Coal Slurry Settlement Pit (CSSP), Ash Water Recirculation System (AWRS) and closed cycle condenser cooling water systems with higher Cycle of Concentration (COC), rain water harvesting and reuse of treated effluent in ash slurry disposal and reuse of treated sewage effluent for horticulture purposes are few measures implemented in all stations. For effective monitoring of water use, flow meters with integrators installed at all designated locations in all stations.

In view of water stressed scenario and new norms for specific water consumption, water conservation and reduction in specific water consumption enables your Company to ensure compliance of new norms on specific water consumption. Your Company has taken a proactive approach of making all its power stations to operate with ZLD (Zero liquid discharge) approach. Ten stations of your Company have completed work for ZLD during 2018-19 and remaining stations will complete the ZLD work during the current year. Your company has planned to install Air Cooled Condenser at new project at Patratu and North Karanpura which will be trend breaking initiative in specific water consumption in power sector of country.

18.2.3 **Real Time Environment Monitoring System:** All the power stations are equipped with continuous ambient air quality monitoring stations (CAAQMS) to capture the real time ambient air quality data for parameters namely PM10.0, PM2.5, SO_2, NOx and Ozone. Continuous Emission Monitoring Systems (CEMS) are installed in all units to monitor emissions of SO_2 and NOx and opacity meter for monitoring of particulate emission. Effluent Quality monitoring system (EQMS) installed for real time monitors for pollutants in effluents form all stations. Access of data from CAAQMS, CEMS and EQMS has been given to central and state regulators on real-time online basis through cloud server. Remote calibration access of SOx and NOx analyzers has been given to state and central regulator to comply the protocol established by CPCB. For all the upcoming projects, real time monitors for ambient air, effluents and emissions are included in the engineering packages during design stage itself.

18.2.4 **New Environmental Norms Implementation Plan and Challenges**

- **Online Coal Ash Analyser**

New environmental norms have mandated use of coal with ash content not exceeding 34% on quarterly average basis for coal based Thermal Power Plants located far away from coal mines/sources. To ensure its compliance, your Company has taken initiative and Online Coal Analyser is being installed in all such power plants and all upcoming coal based thermal power plants. Further, the type of analyser selected not only represents the ash content but also the various elements of coal which will be useful for enhancing the process efficiency and ease of operation & maintenance.

- **Fly Ash Classification & Bagging System**

With the changing environmental norms and land acquisition issues, ash disposal is a serious challenge. To mitigate the issue, increased ash utilization is a potential solution. Your Company, in its endeavour to promote ash utilization, is considering implementation of fly ash classification system and Bagging Plant for its upcoming coal based thermal power projects at Singrauli III and Lara II.

- **SOx, NOx & SPM reduction**

Indian power sector is undergoing a significant change that has redefined the industry outlook. The focus has now shifted to having a safer environment along with having sustainable power generation. Being the premier power generating company in the country, the onus has come on your Company for achieving the stringent new emission limits for the power plants across the country.

In order to comply with the applicable new environmental norms notified by MOEF&CC vide gazette notification dated 07.12.2015 pertaining to SO_2, FGD system will be required to be installed in the existing as well as under construction coal fired power plants. Your Company alongwith its JV is having around 155 units of 65 GW capacity i.e. all operating as well as under construction units. The Company is taking a lead role in the implementation of FGD. Till date, your Company has issued tenders for 137 units of around 63 GW capacity that covers all units operating as well as under construction except some smaller units. Further, FGD in Vindhyachal, Stage-V is already in operation. FGD installation work in 31,370 MW is underway. This has also set up an example in the industry for your Company's commitment towards greener environment.

For controlling NOx, various De-NOx techniques shall be implemented based on the limit prescribed in the norms. The work has been started. Combustion Modification in one unit of Dadri has already been completed. Further, award has already been placed for combustion modification for 33 units of around 17GW and tender of balance units issued/ issuing for around 4GW. Selective Catalytic Reduction (SCR) system will necessarily be required in all units, installed after 01.01.2017 to meet NOx emission limit of 100 mg/N.cu.m. SCR is a proven technology for low ash coal however, it is yet to be proven for abrasive & high ash Indian coal. In view of this, Pilot tests to assess the suitability of SCR technology for Indian coal started at 7 stations by various SCR system suppliers. Results of the test are yet to come. Based on these results, plan & strategy for future will be prepared and these results will decide the fate of SCR technology in the country. Entire power industry is looking forward on the outcome of the pilot test to assess its viability and efficacy.

For particulate emission reduction, most of units are complying with the SPM norms. ESP R&M is underway in around 6 GW capacity in 20 units for meeting the new environmental norm.

The SO_2 & NOx emission levels in the country will plummet to 30% of what it is presently after installation of FGD technology even after adding capacity of another 70 GW from the present year.

18.2.5 Tree Plantation:

Your Company has undertaking tree plantation covering vast areas of land in and around its projects and till date more than 34 million trees have been planted throughout the country including 10 million trees planted during 2018-19 under accelerated afforestation programme.

The afforestation has not only contributed to the 'aesthetics' but also helped in carbon sequestration by serving as a 'sink' for pollutants and thereby protecting the quality of ecology and environment. Further, your Company has embarked upon long-term Memorandums with State authorities to assist National Commitment of NDC in COP 21, by planting 7 million saplings during 2019-26 @ 1 million per year.

18.2.6 ISO 14001 & OHSAS 18001 Certification:

Amongst all commercially operational stations of your Company, 19 stations have ISO-14001 and OHSAS 18001 certifications and for four stations, certifications are under renewal by reputed National and International certifying agencies in recognition of its sound environmental management systems and practices. Certification is in process for newly commercial stations of your Company.

18.3 Quality Assurance and Inspection (QA&I)

Your Company lays great emphasis on the quality of plant and machinery that are sourced for power plant construction and also on the spares and consumables that are required to support the day to day operations of the plant.

The model followed for Quality Assurance seeks to ensure that the Plant Reliability is realized through thoughtful planning and building. Quality Attributes starting from raw materials up to erection and commissioning. Each item secured for construction is subject to rigorous tests and inspection at the appropriate stages to ensure conformity.

Your Company has committed adequate resources for maintaining effective Quality Management System. This includes Corporate level Quality Assurance team, Inspection Engineers at various demanding locations and projects.

Your Company's robust performance on all operational parameters, is a testimony to the soundness of the quality system which is in operation. Your Company is represented in various technical committees of ISO and IEC and is actively contributing to upgrade of power sector related standards and technology to promote alignment with best practices followed internationally.

18.4 Clean Development Mechanism (CDM)

Five renewable energy projects of your Company viz. 5 MW Solar PV Power Project at Dadri, 5 MW Solar PV Power Project at Port Blair (A&N), 5 MW Solar PV Power Project at Faridabad, 8 MW small hydro power project at Singrauli and 50 MW Solar PV Plant at Rajgarh (MP) have already been registered with United Nations Frame Work Convention on Climate Change (UNFCCC) CDM Executive Board.

15 MW Solar PV Power project at Singrauli, 10 MW Solar PV project at Talcher and 10 MW Solar PV Power Project at Unchahar are registered in UNFCCC CDM Programme of Activities (PoA).

6173 nos of Certified Emission Reductions (CERs) for 5 MW Solar PV Power Project at Port Blair (A&N) have been issued by UNFCCC CDM Executive Board. Further, another 5842 nos of CERs have also been issued by UNFCCC CDM Executive Board for 5 MW Solar PV Power Project at Dadri and 21011 nos. of Certified Emission Reductions (CERs) have been issued for 5 MW Solar PV Power Project at Faridabad.

Registration of new projects viz. 50 MW Solar PV power project at Anantpur, 260 MW Solar PV power project at Bhadla, 250 MW Solar PV power project at Mandsaur and 50 MW Wind power project at Rojmal has been done in Verified Carbon Standard (VCS) program.

Total 1085005 Voluntary Emission Reduction (VERs) has been issued for 50 MW Solar PV power project at Anantpur, 260 MW Solar PV power project at Bhadla, 250 MW Solar PV power project at Mandsaur and 50 MW Wind power project at Rojmal.

For remaining capacity of Anantpur Solar project, prior consideration form has been sent to UNFCCC and MOEF. Also, prior consideration form for 10 MW Solar PV Power Project at Ramagundam and for upcoming Solar Projects i.e. 140 MW and 85 MW at Bilhaur and 20 MW at Auraiya has been sent to UNFCCC and MOEF.

18.5 Ash Utilisation

During the year 2018-19, 610.32 lakh tonnes of ash was generated and 63.71 % viz. 388.81 lakh tonnes of ash had been utilized for various productive purposes.

Important areas of ash utilization are – cement & asbestos industry, ready mix concrete plants (RMC), road embankment, brick making, mine filling & land development. Your Company is also pursuing new initiatives for fly ash utilization like fly ash based geo-polymer road, transportation of fly ash from pithead power stations to fly ash consumption centers, setting up ash based light weight aggregate plant.

Pond ash from all stations of your Company is being issued free of cost to all users. Fly ash is also being issued free of cost to fly ash/ clay-fly ash bricks, blocks and tiles manufacturers on priority basis over the other users from all coal based thermal power stations. The funds collected from sale of ash is being maintained in the separate account and this fund is being utilized for development of infrastructure facilities, promotion and facilitation activities to enhance ash utilization.

Your Company has an Ash Utilization Policy, which is a vision document dealing with the ash utilization issue in an integral way from generation to end product. This policy aims at maximizing utilization of ash for productive usage along with fulfilling social and environmental obligations as a green initiative in protecting the nature and giving a better environment to future generations.

The quantity of ash produced, ash utilized and percentage of such utilization during 2018-19 from your Company's Stations is at Annexure- VIII.

18.6 CenPEEP – towards enhancing efficiency and protecting Environment

Your Company initiated a unique voluntary program of GHG emission reduction by establishing 'Center for Power Efficiency and Environmental Protection (CenPEEP)' and under this program, it is estimated that cumulative CO_2 avoided is 47.2 million tonnes since 1996, by sustained efficiency improvements.

CenPEEP is instrumental in implementation of Energy Efficiency Management System (EEMS) consisting of periodic assessments, field tests, performance gap analysis deviations and updation of action plans at all stations.

CenPEEP is working for efficiency and reliability improvement in stations through strategic initiatives, development and implementation of systems and introduction of new techniques & practices. Critical efficiency parameter, draft power consumption, efficiency improvement through overhauling are monitored. PI based real time programs and dashboards are in use for real time tracking of plant parameters. These programs also assist operating engineers in tracking the gaps in heat rate and auxiliary power consumption, trending the degradation of equipment performance and taking corrective measures.

CenPEEP is also working towards reduction in specific water consumption and auxiliary power consumption in coal and gas stations. A dedicated group conducts regular energy audits to identify potential improvement areas and improvement actions. Further CenPEEP is also associated in carrying out water audit of stations and taking corrective actions for reduction in water consumption.

Water Withdrawal per year (in lakh KL)

Sl. No.	Type of water	Quantity Consumed
		2018-19
1	Total Water withdrawal	**5932.45***
2	Per unit withdrawal	**3.04* Litre/kwh**
***Water calculated on closed loop systems**		

CenPEEP is also involved in structured and statutory energy audits, which helps to identify potential areas of improvement in APC reduction to be addressed within time bound implementation schedule.

CenPEEP is actively involved in training and development of power professionals for the Company and other utilities in the power sector in the areas of Boiler & Auxiliaries, Turbine & Auxiliaries, Cooling Towers, RCM, PdM technologies etc.

Your Company has taken Electric Power Research Institutes' membership in the areas of Boiler life & Availability improvement, Steam Turbine-Generators & Aux. system and Combustion & Coal Quality impacts to increase the knowledge, expertise of the company and undertake collaborative research projects for improving efficiency and reliability of units.

CenPEEP coordinated implementation of Perform, Achieve & Trade (PAT) scheme under Prime Minister's National Mission on Enhanced Energy Efficiency (NMEEE) in your Company's coal & gas plants. As per notification, Company's coal and gas stations exceeded the Net Heat Rate improvement targets and earned net 170653 EScerts (Energy saving certificates) in PAT-1 cycle. Your Company participated in EScerts trading & purchased required EScerts. Subsequent to the trading, your Company is having 161759 EScerts that will be used for PAT – II cycle.

Performance & Guarantee tests are being coordinated by CenPEEP which includes approval of procedure, conducting test & its evaluation.

Your Company has taken an initiative for complete replacement of existing lighting with LED light fittings at its all stations including townships. Till March 2019, 8.5 lakh LED fittings (70.4 % of the population) have been replaced.

19. NETRA

Your Company has assigned 1% of PAT for R&D activities focused to address the major concerns of the sector as well as the future technology requirements of the sector. In this effort, your Company has established NTPC Energy Technology Research Alliance (NETRA) as state-of-the-art center for research, technology development and scientific services in the domain of electric power to enable seamless work flow right from concept to commissioning. The focus areas of NETRA are - Efficiency Improvement & Cost Reduction; New & Renewable Energy; Climate Change & Environmental protection which includes water conservation, Ash utilization & Waste Management. NETRA also provides Advanced Scientific Services to its stations and other utilities in the area NDE, Metallurgy, failure analysis, oil/water chemistry, environment, electrical, Rotor dynamics etc. for efficient performances.

Research Advisory Council (RAC) of NETRA comprising eminent scientists and experts from India and abroad is in place to steer research direction. Padma Bhushan Dr. V.K. Saraswat, former Secretary, DRDO, and member of NITI Aayog is the Chairman of RAC.

Scientific Advisory Council (SAC) chaired by Director (Tech.) and Director (Operations), with Regional Executive Directors, ED (Engg.), ED (OS) and ED (NETRA) as its member, provides directions for undertaking specific applied research projects aimed to develop techniques in power plant for efficient, reliable and environment friendly operation with emphasis on reducing cost of generation.

Initiatives are taken to develop technologies for reducing forced outages, installing intelligent online monitoring of critical components, understanding the likely damages due to corrosion and providing appropriate solutions etc. Effort is being made for reducing cost of generation by either increasing the overhaul cycle or reducing overhaul duration through correct and proper health assessment of critical components, developing diagnostic tools and ensuring environmental & safety compliances. The prime thrust is towards clean and economic power generation. IPRs have also been generated for the work carried out by NETRA.

NETRA has collaborations with National Institutes like IIT's, IISc-Bangalore, NML, CSIR lab's, IOCL R&D, CPRI, CBRI Roorkee etc. to promote research in the field of CFD, Flow batteries, Renewable, environment, water chemistry, ash utilization, process development, etc.

NETRA also has collaborations with international institutions such as NETL-USA, Curtin University-Australia; Newcastle University-Australia, VGB-Germany, DLR / ISE-Germany, Tokyo University etc.

NETRA laboratories are ISO 17025 accredited and provide high end scientific services to all your Company's stations as well as many other utilities. NETRA NDT laboratory is also recognized as Remnant Life Assessment Organization under the Boiler Board Regulations,1950.

Phase-II of NETRA infrastructure is under construction with approx. 21000 sq. m floor area.

The details of activities undertaken by NETRA are given in Annexure-III.

20. IMPLEMENTATION OF OFFICIAL LANGUAGE

Your Company took 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 our 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 2018 and Hindi Fortnight was organized from 01-15 September 2018 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" was published (in digitized form) to promote creative writing in Hindi. A poetry collection of employees titled "Urja Pravah" was released by the Hon'ble M.Ps of Parliamentary Committee on Official Languages at Rajkot on 18.01.2019. Annual conference of Hindi Officers was organized on 6th and 7th October 2018 to review the progress of Rajbhasha in the Company.

Employees of your Company 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 important information of Rajbhasha for employees.

The second sub-committee of Parliament on official Language had inspected our units, reviewed the progress of Rajbhasha implementation and appreciated our efforts.

Your Company's website also has a facility of operating in a bilingual form, in Hindi as well as in English.

21. VIGILANCE

21.1 Vigilance Mechanism:

Your Company ensures transparency, objectivity and quality of decision making in its operations, and to monitor the same, the Company has a Vigilance Department headed by Chief Vigilance Officer, a nominee of Central Vigilance Commission. The Vigilance set up in your Company consists of Vigilance Executives in Corporate Centre and Projects. In Projects, the Vigilance Executives report to the Project Head in administrative matters but in functional matters, they report to Chief Vigilance Officer.

Your Company's Corporate Vigilance Department consists of four Cells as under:

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

These cells deal with various facets of vigilance mechanism. The vigilance works have been assigned region wise Vigilance Officers at Corporate Centre (Regional Vigilance Executive) for speedier disposal. Senior officials of Vigilance Department comprising GM (Vigilance), Regional Vigilance Executives and Head of DPC/MIS Cell meet regularly to discuss common issues having in order to ensure efficient and 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.

During 2018-19, 110 complaints were investigated by Vigilance department, out of which 58 complaints were finalized while the remaining 52 complaints were under various stages of investigation as on 31.03.2019. Appropriate disciplinary action was initiated against the involved employees along with system improvements, wherever found necessary. 170 surprise checks were conducted during the period and recovery of ₹ 2,86,17,617/- was affected against various discrepancies detected during investigation. During the last year, a total of 37 Preventive Vigilance Workshops were conducted at vaious projects/ places in which 1143 employees participated.

21.2 Implementation of Integrity Pact

The Integrity pact has been implemented in your Company since 2009. Presently, tenders having estimated value of ₹ 10 crore (excluding taxes and duties) and above are covered under the Integrity Pact.

21.3 Implementation of various policies

As per the provisions of Section 619(3) of the Companies Act, 1956, Fraud Prevention Policy has been implemented in your Company and suspected fraud cases, referred by the Nodal Officers to Vigilance Department are investigated immediately to avoid/ stop fraudulent behaviors as defined in "Fraud Prevention Policy". Whistle Blower Policy has also been in place in your Company as per SEBI guideline to strengthen a culture of transparency and trust in the organization, providing employees with a framework/ procedure for responsible and secure reporting of improper activities (whistle blowing) within the company and to protect employees wishing to raise a concern about improper activity/serious irregularities within your Company. A complaint handling policy is also in place which is designed to provide guidance on the manner in which your Company receives and handles complaints against its employees, suppliers / contractors etc.

21.4 Vigilance Awareness Week and Workshops

Vigilance Awareness Week-2018 (VAW) was observed in your Company, its Subsidiaries & Joint Venture companies from 29th October to 3rd November 2018. The observance of the Vigilance Awareness Week commenced with the Integrity Pledge taken by employees across the country on 29th October' 2018 steered by the respective heads of Projects/Stations/Regions/Offices & Corporate Centre. The beginning of Vigilance Awareness Week became a special event as Hon'ble Central Vigilance Commissioner addressed its employees on 29.10.18. During his address, he spoke about the need for promoting Transparency, Accountability and Integrity in public life and exhorted your Company's team to become a 'Model PSU.

The Activities during VAW-2018 were organized across India covering 20 states involving more than 35,000 students & 40,000 citizens besides employees of the Company, its Subsidiaries & Joint Ventures. With the collective efforts of your Company's Team, main thrust was given to outreach activities. Total 243 schools and 102 colleges were reached out during the week. Besides holding debates and essay competitions in these educational institutions, around 30 Integrity Clubs were made functional. 67 Gram Sabhas were organized with almost 10,000 plus participants. 54 workshops/seminars were conducted with 4,500 plus participants. 22,400 citizens including employees took the e-pledge, while around 20,000 plus citizens were motivated for taking oral pledge.

The events & activities across your Company were organized focusing on the theme of VAW-2018 "Eradicate Corruption - Build a New India". To ensure wider participation of students & citizens, events & activities were organized at Schools and Colleges. Gram Sabhas in the rural areas' & seminars in the urban areas were also organized in the vicinity of our Stations/Projects/ Offices/ Corporate Centre. Special focus was given to the cities assigned to your Company for outreach activities namely New Delhi, Varanasi, Farakka, Korba & Talcher. For general awareness, the FM Radio medium was also used to air the CVC message against corruption at New Delhi, Patna, Hyderabad & Visakhapatnam.

Wide publicity to these events was given across cities near establishments viz. Delhi, NCR, Lucknow, Patna, Varanasi, Dehradun, Raipur, Mumbai, Bhubaneswar, Hyderabad and Ranchi, through newspaper advertisements, distribution of pamphlets etc.

Besides, E-magazine special issues were released at many projects & regional offices.

21.5 System improvement measures undertaken during 2018-19

- Major System improvement initiative with regard to security issues at our Coal Mines was taken up by Corporate Vigilance to ensure no pilferage / theft of coal from Mines of your Company. In this regard the recommendations of the cross functional committee have been approved by CVO and CMD and the same have been put in place from April 2018.
- Uniform guidelines for DGR sponsored security contracts operated at our units have been finalized and issued for implementation in November 2018.
- On recommendations of Vigilance department, Corporate contracts has issued a circular modifying the guidelines for evaluation of bids relating to abnormally high and low quoted rates by the Agencies.
- Various system improvement measures have also been suggested by Vigilance relating to TA claims by employees like Hotel Booking through Travel SBT, Standardization of Hotels in B – Class cities, payment of Hotel Bills through Online Mode etc. A system of issuing SBI travel card to executives for payment of hotel bills has already been implemented in this regard.
- A monthly publication of Vigilance in house e-flyer named "VIGdom" has been introduced from November 2018 for sharing vigilance related learnings/knowledge with employees.

22. REDRESSAL OF PUBLIC GRIEVANCES

Your Company is committed for resolution of public grievance in efficient and time bound manner. Chief General Manager(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 two months time. If it is not possible to resolve the same within two months' period, an interim reply is to be given. Your company is making all efforts to resolve grievances in above time frame.

23. RIGHT TO INFORMATION

Your Company has implemented Right to Information Act, 2005 in order to provide information to citizens and to maintain accountability and transparency. The Company has put RTI manual on its website for access to all citizens of India and has designated a Central Public Information Officer (CPIO), an Appellate Authority and APIOs at all sites and offices of the Company.

During 2018-19, 1,558 applications (including pending applications from FY 2017-18) were replied to, under the RTI Act, 2005.

24. USING INFORMATION AND COMMUNICATION TECHNOLOGY FOR PRODUCTIVITY ENHANCEMENT

The Information Technology in your Company is not only a service provider but also being used as a key business driver. Since 2008, your Company has implemented Enterprise Resource Planning (ERP) application to integrate all its business functions. PI data system has been implemented to capture, display and analyze the plant performance parameters on real time basis which is helping the operation and maintenance of our power plants. Non-ERP web based applications have been developed in balance areas such as Engineering Drawings approval, Quality Control Management, Hospital Management, Labour Management, Transit Camp Management, RTI, Security Control etc.

As a commitment towards environment, your Company has reengineered and redesigned the business processes to paperless mode. The digitization initiative "**Project PRADIP**" resulted in implementation of e-Office, digitization of documents and paperless processes for different functions. This has not only saved tons of paper but also resulted in faster decision making, transparency and improved efficiency for your Company.

Your Company's plants and Offices across India, are connected to Corporate Office and main Data-Centre (DC) through 2x34 mbps MPLS links to facilitate seamless communication. The DC and DR (Disaster Recovery) site is connected with 486 mbps MPLS links for data backup. The progress of ongoing projects and issues of the running power stations are discussed regularly over high definition Video Conferencing system at Project Monitoring Centre of Corporate Office. Desktop to desktop VC facility also has been provided to senior executives to conduct review meeting from their seat.

To further leverage IT in your Company, an IT Strategy has been finalized. The IT Strategy aims to achieve 100% Paperless Office, Data Analytics for decision making, induction of new technology such as IIOT, AI, Machine learning etc. over next 2 years.

Some of the highlights of the progress in IT/ERP area during the year 2018-19 were as follows:

- Digitization - e-Office was implemented. Processes were redesigned for working in paperless mode.
- ERP – A number of new modules were introduced in ERP. An all new PMS system with many new features was launched. A new process for procurement budget and automatic PR creation put in place. New CERC tariff norms for 2019-24 implemented.
- Mail and Messaging Services – The mail and messaging services were upgraded. All users were provided with min. 10GB of mail box size. DR set up for mailing system was commissioned.
- Security – No major security breach was observed during the year 2018-19. A 24x7 Security Operation Centre(SOC) is in operation where round the clock monitoring of all external and internal data traffic is being done with latest tools through SOC and latest threat management tools are being applied to prevent any cyber-attack or data theft. Timely communication being sent to all users based on threat perception. Your Company's data centers at Noida and Hyderabad are ISO 27001 certified for security compliance.
- A number of new web applications and mobile apps such as Coal Monitoring Portal, Ash Management Portal, CPSE Conclave action points monitoring portal etc. have been launched to take care of requirements of various internal departments and Ministry of Power.

25. GROUP COMPANIES : SUBSIDIARIES AND JOINT VENTURES

Your Company has currently 6 subsidiary companies (including Nabinagar Power Generating Company Limited which has become a wholly-owned subsidiary company upon acquisition of stake of BSPGCL in NPGCL in June 2018) and 18 joint venture companies for undertaking specific business activities.

Besides 18 joint venture companies, NTPC-SCCL Global Ventures Private Limited has been dissolved and your Company has decided to exit from International Coal Ventures Private Limited, in view of lack of suitable commercially viable opportunities for thermal coal.

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 in the consolidated financial statements.

26. INFORMATION PURSUANT TO STATUTORY AND OTHER REQUIREMENTS

Information required to be furnished as per the Companies Act, 2013 and as per SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015 are as under:

26.1 Statutory Auditors

The Statutory Auditors of your Company are appointed by the Comptroller & Auditor General of India. Joint Statutory Auditors for the financial year 2018-19 were (i) M/s T R Chadha & Co LLP, Chartered Accountants, New Delhi (ii) M/s S.N. Dhawan & Co. LLP, Chartered Accountants, New Delhi, (iii) M/s Sagar & Associates, Chartered Accountants, Hyderabad, (iv) M/s Kalani & Co., Chartered Accountants, Jaipur, (v) M/s P A & Associates, Chartered Accountants, Bhubaneshwar, (vi) M/s S.K. Kapoor & Co., Chartered Accountants, Kanpur and (vii) M/s B M Chatrath & Co LLP, Chartered Accountants, Kolkata.

The appointment of the Statutory Auditors for the financial year 2019-20 are yet to be made by the Comptroller & Auditor General of India.

26.2 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 2018-19. However, they have drawn attention under 'Emphasis of Matter' to the following notes:

(i) Note No. 32 (a) regarding billing and recognition of sales on provisional basis pending disposal of the Company's petition before CERC on the measurement of GCV of coal on 'As received' basis measured on wagon top at the unloading point, on the adjustment of loss of GCV for the period 2014-19 and other related matters as mentioned in the said note.

(ii) Note No. 42 in respect of a Company's project consisting of three units of 800 MW each where the order of NGT has been stayed by the Hon'ble Supreme Court of India; the matter is sub-judiced and the units have since been declared commercial.

(iii) Note No. 57(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.

The issues have been adequately explained in the respective Notes referred to by the Auditors.

26.3 Review of accounts by Comptroller & Auditor General of India (C&AG)

The Comptroller & Auditor General of India, through letter dated 01.07.2019, has given 'NIL' Comments on the Standalone Financial Statements of your Company for the year ended 31 March 2019 after conducting supplementary audit under Section 143 (6) (a) of the Companies Act, 2013.

The Comptroller & Auditor General of India, through letter dated 01.07.2019, has also given 'NIL' Comments on the Consolidated Financial Statements of your Company for the year ended 31 March 2019 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), the comments of C&AG for both the standalone and consolidated financial statements of your Company for the year ended 31 March 2019 are being placed with the report of Statutory Auditors of your Company elsewhere in this Annual Report.

26.4 COST AUDIT

As prescribed under the Companies (Cost Records and Audit) Rules, 2014, the Cost Accounting records are being maintained by all stations of your Company.

The firms of Cost Accountants appointed under Section 148(3) of the Companies Act, 2013 for the financial year 2018-19 were (i) M/s R M Bansal & Co., Cost Accountants, U.P., (ii) M/s ABK & Associates, Cost Accountants, Mumbai, (iii) Dhananjay V Joshi & Associates, Cost Accountants, Pune, (iv) M/s DGM & Associates, Cost Accountants, Kolkata, (v) M/s Tanmaya S Pradhan & Co., Cost Accountants, Sambalpur, (vi) M/s K L Jaisingh & Co., Cost Accountants, U.P. and (vii) M/s Niran & Co., Cost Accountants, Bhubaneshwar.

The due date for filing consolidated Cost Audit Report in XBRL format for the financial year ended March 31, 2018 was upto September 27, 2018 and the consolidated Cost Audit Report for your Company was filed with the Central Government on August 24, 2018.

The Cost Audit Report for the financial year ended March 31, 2019 shall be filed within the prescribed time period under the Companies (Cost Records & Audit) Rules, 2014.

26.5 Exchange Risk Management

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.

During financial year 2018-19, your Company has not entered into any derivative contract in respect of foreign currency loans exposure.

26.6 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 provides about manner of performance evalution of Board of Directors, Committee of Board of Directors and Director by the Nomination and Remuneration Committee. The aforesaid circular of MCA further exempted listed 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.

Now, MCA, through Notification dated 05.07.2017, has amended Schedule IV to the Companies Act, 2013 with respect to performance evaluation of directors of the Government Companies that in case of 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, such provisions of Schedule IV are exempt for the Government Companies.

Similar exemption has been requested from SEBI under the SEBI LODR.

In this regard, Deptt. 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 and Board of Directors are evaluated by the Department of Public Enterprises vis-à-vis MOU entered into with the Government of India.

26.7 Secretarial Audit

The Board had appointed M/s J.K. Gupta & Associates, Company Secretaries, to conduct Secretarial Audit for the financial year 2018-19. The Secretarial Audit Report for the financial year ended March 31, 2019 is annexed here and marked as Annexure- XI to this Report.

The Managements' Comments on Secretarial Audit Report are as under:

Observations	Management's Comments
Compliance of Regulation 17 (1) of Securities and Exchange Board of India (Listing Obligations & Disclosure Requirements) Regulations, 2015 and Clause 3.1.4 of the DPE Guidelines on Corporate Governance for Central Public Sector Enterprises with respect to the appointment of requisite no. of Independent Directors on the Board of the Company.	During the financial year 2018-19, for the period 01.04.2018 to 29.07.2018, the number of independent directors on the Board of the Company was less as required under SEBI LODR and DPE Guidelines on Corporate Governance. As per the provisions of the Articles of Association of the Company, the power to appoint Directors vests with the President of India. The Company had requested Ministry of Power to appoint requisite number of Independent Directors on the Board of the Company for compliance of the above regulations and guidelines. The Company became compliant with LODR and with the Guidelines w.e.f. 30.07.2018.
Compliance of Regulation 17(10) & 25(4) of Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015, the Company has not carried out the performance evaluation of the Directors.	Refer Para 26.6

26.8 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 with its subsidiaries and associates. All related party transactions were in the ordinary course of business and were negotiated on an arm's length basis except with Utility Powertech Limited, which are covered under the disclosure of Related Party Transactions in Form AOC-2 (Annexure- IX) as required under Section 134(3)(h) of the Companies Act, 2013. They were intended to further enhance your Company's interests.

Web-links for Policy on Materiality of Related Party Transactions and also on Dealing with Related Party Transactions have been provided in the Report on Corporate Governance, which form part of the Annual Report.

26.9 Significant and material orders passed by the regulators or courts or tribunals impacting the going concern status and company's operations in future: NIL

26.10 Adequacy of internal financial controls with reference to the financial reporting: The Company has in place adequate internal financial controls with reference to financial reporting. During the year, such controls were tested and no reportable material weakness in the design or operation was observed.

26.11 Loans and Investments

Details of Investments covered under the provisions of Section 186 of the Companies Act, 2013 forms part of financial statement, attached as a separate section in the Annual Report for FY 2018-19.

The loan granted by your Company to its Joint Venture Company namely National High Power Test Laboratory Private Limited (NHPTL) during 2017-18 for a period of six months was extended upto 31st March 2021. Loans granted to subsidiaries and Joint venture companies are disclosed at Note 53 to the stand-alone financial statements for the year 2018-19.

26.12 Prevention, Prohibition and Redressal of Sexual Harassment of Women at Workplace

Your Company has in place a Policy on Prevention, Prohibition and Redressal of Sexual Harassment of Women at Workplace in line with the requirements of the Sexual Harassment of Women at the Workplace (Prevention, Prohibition & Redressal) Act, 2013. Internal Complaints Committees (ICC) have been constituted at all Projects/ locations to redress complaints received regarding sexual harassment. All female employees (permanent, contractual, temporary, trainees) are covered under this policy. Every three years, the constitution of these committees is changed and new members are nominated.

During the year 2018-19, three cases were reported to different ICCs across your Company, out of which one case was resolved and the other two cases are under process/ investigation.

26.13 Procurement from MSEs

The Government of India has notified a Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012. The total procurement made from MSEs (including MSEs owned by SC/ST entrepreneurs) during the year 2018-19 was ₹ 1530.79* crore, which was 37.59% of total annual procurement of ₹ 4072.58* crore against target of 25% of total procurement made by your Company.

The total procurement made from MSEs owned by SC/ ST entrepreneurs during the year 2018-19 was ₹25.09* crore, which was 0.62% against the target of 4% of total procurement value.

*It excludes Primary fuel, Secondary fuel, Steel & Cement, the Project procurement including R&M packages and procurement from OEM, OES & PAC sources.

Your Company orgainsed 21 vendor development programmes for MSEs across the Company, out of which 2 vendor development programmes were exclusively organized for SC/ST MSE entrepreneurs. Annual procurement plan for 2018-19 from MSEs is uploaded on www.ntpc.co.in.

26.14 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 as part of Directors' Report.

26.15 Extract of Annual Return:

Extract of Annual Return of your Company is annexed herewith as Annexure- VI to this Report.

26.16 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, 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.

26.17 Para on development of risk management policy including therein the elements of risks are given elsewhere in the Annual Report.

26.18 Your Company has complied with the applicable Secretarial Standards.

26.19 No disclosure or reporting is required in respect of the following items as there were no transactions on these items during the year under review:

1. Issue of equity shares with differential rights as to dividend, voting or otherwise.
2. Issue of shares (including sweat equity shares) to employees of the Company under any scheme.

The particulars of annexures forming part of this report are as under:

Particulars	Annexure
Management Discussion & Analysis	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
Information on Differently Abled persons	V
Extract of Annual Return	VI
Annual Report on CSR Activities	VII
Project Wise Ash produced and utilized	VIII
Disclosure of Related Party Transactions in Form AOC-2	IX
Business Responsibility Report for the year 2018-19	X
Secretarial Audit Report in Form MR-3	XI

27. BOARD OF DIRECTORS & KEY MANAGERIAL PERSONNEL

Shri Vivek Kumar Dewangan, JS&FA, Ministry of Power had been appointed as Government Nominee Director w.e.f. 28.04.2018.

Dr. K.P. Kylasanatha Pillay and Dr. Bhim Singh were appointed as Independent Directors on 30.07.2018.

Ms. Archana Agrawal, JS, Ministry of Power has been appointed as Government Nominee Director w.e.f. 07.08.2018. Ms. Archana Agrawal ceased to be Government Nominee Director w.e.f. 22.04.2019.

Shri Anniruddha Kumar, JS, Ministry of Power ceased to be Government Nominee Director w.e.f. 30.07.2018.

Dr. (Ms.) Gauri Trivedi ceased to be Independent Director w.e.f. 15.11.2018 on completion of three years' tenure. Dr. (Ms.) Gauri Trivedi was re-appointed as an Independent Director w.e.f. 16.11.2018 for a period of one year.

Shri K. Biswal ceased to be Director (Finance) of the Company w.e.f. 08.12.2018 consequent upon completion of five years' tenure.

Shri K. Sreekant, Director (Finance), Power Grid Corporation of India Limited had been entrusted with the additional charge of the post of Director (Finance) of your Company w.e.f. 19.03.2018. His tenure was extended from time to time as additional charge of the post of Director (Finance) of the Company till 02.11.2018.

Shri K. Sreekant was again entrusted with the additional charge of the post of Director (Finance) of your Company w.e.f. 12.02.2019.

Shri Seethapathy Chander ceased to be Independent Director w.e.f. 12.06.2019 on completion of three years' tenure.

Shri Anurag Agarwal, Additional Secretary and Financial Advisor, Ministry of Power has been appointed as Government nominee director w.e.f. 01.07.2019.

Shri K.P. Gupta ceased to be the Executive Director & Company Secretary on 31.07.2018 consequent upon his superannuation. Ms. Nandini Sarkar, General Manager was appointed as Company Secretary & Compliance Officer w.e.f. 01.08.2018.

The Board wishes to place on record its deep appreciation for the valuable services rendered by Shri Annirudha Kumar, Ms. Archana Agrawal, Shri K. Biswal, Shri Seethapathy Chander and Shri K.P. Gupta during their association with the Company.

In accordance with Section 152 of the Companies Act, 2013 and the provisions of the Articles of Association of your Company, Shri A.K. Gupta, Director, shall retire by rotation at the Annual General Meeting of your Company and, being eligible, offers himself for re-appointment.

28. DIRECTORS' RESPONSIBILITY STATEMENT

As required under Section 134 (5) of the Companies Act, 2013, your Directors confirm that:

1. in the preparation of the annual accounts, the applicable accounting standards had been followed along with proper explanation relating to material departures;
2. the Directors had selected such accounting policies and applied them consistently and made judgments and estimates that are reasonable and prudent so as to give a true and fair view of the state of affairs of the Company at the end of the financial year 2018-19 and of the profit of the Company for that period;
3. the Directors had taken proper and sufficient care 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. the Directors had prepared the Annual Accounts on a going concern basis;
5. the Directors, had laid down internal financial controls to be followed by the Company and that such internal financial controls are adequate and were operating effectively; and
6. the Directors had devised proper systems to ensure compliance with the provisions of all applicable laws and that such systems were adequate and operating effectively.

29. ACKNOWLEDGEMENT

The Directors of your Company acknowledge with deep sense of appreciation, the co-operation received from the Government of India, particularly the Prime Minister's Office, Ministry of Power, Ministry of New & Renewable Energy, Ministry of Finance, Ministry of Environment, Forests & Climate Change, Ministry of Coal, Ministry of Petroleum & Natural Gas, Ministry of Railways, Department of Public Enterprises, Department of Investment and Public Asset Management, Central Electricity Authority, Central Electricity Regulatory Commission, Comptroller & Auditor General of India, Appellate Tribunal for Electricity, State Governments, Regional Power Committees, State Utilities and Office of the Attorney General of India.

The Directors of your Company also convey their gratitude to the shareholders, various international and Indian Banks and Financial Institutions for the confidence reposed by them in the Company.

The Board also appreciates the contribution of contractors, vendors and consultants in the implementation of various projects of the Company.

We also acknowledge the constructive suggestions received from the Office of Comptroller & Auditor General of India, Statutory Auditors and Cost Auditors.

We wish to place on record our appreciation for the untiring efforts and contributions made by the employees at all levels to ensure that the Company continues to grow and excel.

For and on behalf of the Board of Directors

(Gurdeep Singh)
Chairman & Managing Director

Place: New Delhi
Date: 8th July, 2019

CSR Initiatives of NTPC

Annexure-I to Directors' Report

MANAGEMENT DISCUSSION AND ANALYSIS

ECONOMIC AND SECTOR OUTLOOK

As per the report on Annual National Income 2018-19, released by National Statistical Office of Ministry of Statistics and Programme Implementation (MoSPI) on 31 May 2019, the growth rate of Gross Domestic Product (GDP) at constant (2011-12) prices has been provisionally estimated to be 6.8% as against 7.2% for the previous year (2017-18). For the year 2019-20, World Bank has projected a 7.5% GDP growth rate.

Quarterly growth rate analysis depicts that during Q1, 2018-19 (April-June) GDP growth rate peaked at 8.0%, but it has moved in a downward trend with growth rate of 7.0%, 6.6% and 5.8% during Q2, 2018-19 (July-Sep), Q3, 2018-19 (Oct-Dec) and Q4, 2018-19 (Jan-Mar) respectively.

Indices of Industrial Production (IIP), as reported by MoSPI on 10 May 2019, reveal that the cumulative growth in Mining, Manufacturing and Electricity sectors during April-March 2018-19 over the corresponding period of 2017-18 has been 2.9%, 3.5% and 5.2% respectively.

During the year 2018-19, the growth in power sector has been possible due to major reforms focussed on enabling the sector to adapt to the disruptions such as flexibility in thermal power generation, environment protection and capacity addition in RE & Hydro and cross border trading of power etc.

INDUSTRY STRUCTURE AND DEVELOPMENTS

Power sector is a key enabler for India's economic growth. The sector with its three pillars of generation, transmission and distribution is crucial to India's infrastructure and economic growth. The achievements and various issues/challenges faced by the Power Sector are discussed in the ensuing paragraphs.

Snap Shot 2018-19

- Gross annual generation of the country (excluding import from Bhutan) increased by 5.2% from 1,308 BUs in the previous year to 1,376 BUs in the current year (including renewables). Generation from renewable sources increased by about 24% from 102 BUs to 127 BUs, while generation from conventional sources increased by 4% from 1,206 BUs to 1,249 BUs.

- Generation capacity of 3,479 MW (excluding renewables) was added during financial year 2018-19 compared to 5,392 MW added during the previous year.

- Renewable energy capacity of 8,619 MW added during the year. Renewable energy capacity has increased by about 12.5% from 69,022 MW as at 31 March 2018 to 77,642 MW as at 31 March 2019.

- 22,437 Ckms of transmission lines added during the year as compared to 23,119 Ckms in the previous year.

- 72,705 MVA of transformation capacity added during the year as against 86,193 MVA in the previous year.

- PLF of coal & lignite based stations increased to 61.1% in financial year 2018-19 from 60.7% in financial year 2017-18.

- During the financial year 2018-19, while the energy deficit decreased marginally from 0.7% to 0.6%, the peak power deficit decreased from 2.0% to 0.8% as compared to that in the previous year.

(Source: Central Electricity Authority)

Existing Installed Capacity

The total installed capacity in the country as on 31 March 2019 was 3,56,100 MW (including renewables) with Private Sector contributing 46.2% of the installed capacity followed by State Sector with 29.5% share and Central Sector with 24.3% share.

Sector	Total Capacity (MW)	% share
Private	1,64,428	46.2
State	1,05,076	29.5
Central	86,596	24.3
Total	**3,56,100**	**100.0**

Source-wise installed capacity in the country as on 31 March 2019 is as under:

Source	Total Capacity (MW)	% share
Thermal	2,26,279	63.6
Nuclear	6,780	1.9
Hydro	45,399	12.7
RES (Renewables)	77,642	21.8
Total	**3,56,100**	**100.0**

(Source: Central Electricity Authority-Installed Capacity report

Capacity Utilization and Generation

Sector wise PLF in % (Thermal- Coal & Lignite)

Sector	2018-19	2017-18
State	58.0	56.9
Central	72.6	72.3
Private-IPP	54.8	55.1
Private-Utilities	**61.3**	**60.4**
All India	**61.1**	**60.7**

(Source: Central Electricity Authority)

PLF of coal & lignite based power stations has increased marginally from 60.7% to 61.1% on Y-O-Y basis. PLF of Central Generating Thermal Stations has also increased marginally.

In the emerging scenario of high variable renewable energy infusion into the grid, supplying power with reliability has gained prominence over PLF. In this context, it is crucial that the thermal capacities are able to supply fast response balancing power and maintain adequate reserve capacity.

Generation

The total conventional power available in the country during the financial year 2018-19 was 1,249 BUs as compared to 1,206 BUs during previous year, registering a growth of 3.6%. (Generation figures pertain to capacity monitored by CEA).

Sector-wise and fuel-wise break-up of generation for the year 2018-19 is detailed as under:

In BUs

Sector	Thermal	Hydro	Nuclear	Bhutan Import	Total
Central	368	55	38	--	**461**
State	335	66	--	--	**401**
Private	369	14	--	--	**383**
Bhutan Import	--	--	--	4	**4**
Total	**1072**	**135**	**38**	**4**	**1249**

(Source: Central Electricity Authority)

As far as thermal generation is concerned, based on the monitored capacity by CEA, the generation contribution of central sector is 36.9% with installed capacity share of 24.3%, state sector contributes 32.1% of generation with installed capacity share of 29.5% and private sector contributes 30.6% of generation with installed capacity share of 46.2%. Central sector utilities have performed better as compared to those of state and private sector utilities.

Consumption

The per capita consumption of power in India was 1,149 units in financial year 2017-18 (provisional) (Source: Central Electricity Authority), which is almost one-third of the global average (3,052 units).

(Source: IEA Key World Energy Statistics 2017)

Major end users of power are broadly classified into industrial, agricultural, domestic and commercial consumers. Their shares of electricity consumption were approximately 40%, 18%, 24% and 9%, respectively. During the same period, Traction & Railways and others represented about 9% of power consumption.

(Source: Ministry of Statistics and Programme Implementation-Energy Statistics 2018).

With ambitious target of providing free electricity connections to all households in rural areas and poor families in urban areas by Dec. 2018, the Government of India launched Pradhan Mantri Sahaj Bijli Har Ghar Yojana (SAUBHAGYA) in September 2017. As indicated in the Saubhagya Dashboard, 99.99% households have been electrified and only 18,734 households in Chhattisgarh remains to be electrified.

(Source: Saubhagya dashboard)

Other key initiatives taken by Government of India include Integrated Power Development Scheme (for providing 24x7 power supply in the urban areas) and Deen Dayal Upadhyaya Gram Jyoti Yojana (agricultural feeders segregation, strengthening of sub-transmission & distribution infrastructure in rural areas and rural electrification). 100% village electrification has been achieved.

Transmission

The transmission network (at voltages of 220 kV and above) in the country has grown at an average rate of ~6% CAGR since the end of 12th Plan in terms of circuit kilometres added.

The total inter-regional transmission capacity of country has increased from 75,050 MW at the end of 12th plan to 99,050 MW as on 31 March 2019. During the financial year 2018-19, 12,600 MW inter-regional capacity was added.

This augmentation of the national grid will help promote competition and enable merit order dispatch of generation leading to lower cost of power for consumers. This is also essential for supporting higher injection of renewables into the grid for transfer of power from RE-rich states to other states. This large-scale integration of renewable energy along-with other factors such as increasing power generation capacity and reforms in fuel sector is slated to increase the demand for transmission capacity significantly in the coming years.

Distribution

Distribution is the key link to realize the Government of India's vision of supplying reliable 24x7 Power for All. For this, the distribution companies need to be healthy to be able to discharge their functions & responsibilities efficiently.

To improve the distribution segment's performance, Government of India launched a comprehensive power sector reform scheme, Ujwal Discom Assurance Yojana (UDAY) on 5 November 2015 for operational and financial turnaround of Discoms. The Average Cost of Supply (ACS) and Average Revenue Realised (ARR) gap has reduced from ₹ 0.59 per kWh in 2016 to ₹ 0.24 per kWh by May 2019 and AT&C have also reduced to 18.37%. The proposed amendments in Tariff Policy include several distribution related changes to address the sustainability issues of distribution sector, such as:

- Time-based service level agreements for service to end-consumers and penalties for non-technical outages.
- Discoms to assure adequate tie-up of capacities to enable them to meet their power requirements.
- Subsidy to be given by way of Direct Benefit Transfer directly into consumer accounts and cross subsidy charges for open access are to be brought within 20% of the average cost of supply.
- Electricity supply to be made pre-paid with 100% metering of consumers.
- Regulations by appropriate commissions to make open access information transparent, applications handling time-bound and Cross Subsidy Surcharge (CSS) payable for maximum period of 1 year.

Power Trading

In India, power is transacted largely through long-term Power Purchase Agreements (PPA) entered into between Generating companies and the Distribution utilities. A small portion is transacted through various short-term mechanisms like bilateral transactions through licensees, Day-ahead transactions through power exchanges and real time balancing market mechanism (i.e. Deviation Settlement Mechanism).

In the year 2018-19, around 88% of power generated in the Country was transacted through the long-term PPA route and about 12% of the power was transacted through short-term trading mechanisms. Short-term electricity transaction in the current financial year increased to 145 BU, as compared to 128 BU in the previous year, registering about 14% growth.

(Source: Central Electricity Regulatory Commission)

Key Initiatives/Reforms & Regulatory Changes in Power Sector

1. **Flexibility in Generation and Scheduling of Thermal Power Stations:** Government of India through its various policy interventions has been trying to enhance flexibility in thermal power generation in order to enable growth in RE. Subsequent to introduction of 'Flexibility in utilization of domestic coal for reducing the cost of power generation' in 2016-17, two more policies – (i) 'Flexibility in generation & scheduling of thermal power stations to reduce emissions' by partially replacing thermal power with cheaper renewable power and (ii) 'Flexibility in generation and scheduling of thermal power stations to reduce the cost of power to the consumer' through National Merit Order, have been introduced in 2018-19. These policies will help in reducing cost of power.

2. **Renewable Purchase Obligation (RPO) targets:** Ministry of Power in consultation with MNRE has notified trajectory to achieve 21% RPO target by the financial year 2021-22, comprising of 10.5% Solar and 10.5% Non-Solar renewables. SERCs may consider to notify RPO for their respective states in line with notification by MOP. To achieve the RPO trajectory, country will need to enhance its renewable assets.

3. **Hydro as renewable power:** To promote hydropower in the country, large hydro projects having capacity more than 25 MW have also been declared as Renewable Energy Source and similar to RPO targets, HPO (Hydro Power Obligations) targets would also be notified by MoP.

   GoI has in-principle agreed to provide budgetary support for flood moderation, enabling infrastructures like road and bridges.

4. **Regulatory certainty regarding new environment norms:** GoI has directed CERC for providing regulatory certainty to thermal power plants regarding recovery of cost involved in meeting new environment norms. CERC in its Tariff Regulations, 2019 has provisioned for supplementary tariff towards implementation of revised emission standards.

5. **Changes proposed in Electricity Act:** GoI has initiated the process to amend the Electricity Act with the objectives such as ensuring availability of electricity to all consumers, optimal utilisation of fossil & non-fossil resources, separation of distribution & supply functions, promote smart grid, ancillary support and decentralised distributed generation.

   For ensuring power supply to all, the distribution licensee or supply licensee, are proposed to have obligation to supply 24x7 power to their consumers and any subsidy to any category of consumer is proposed to be implemented through Direct Benefit Transfer.

6. **National Wind Solar Hybrid Policy:** MNRE has released National Wind Solar Hybrid Policy to promote large grid connected wind-solar PV hybrid system for optimal and efficient utilization of transmission infrastructure and land, reducing the variability in renewable power

generation and achieving better grid stability.

7. **Import/Export (Cross Border) of Electricity:** MoP has issued Guidelines for Import/Export (Cross Border) of Electricity in the current financial year with following key objectives:

   - Facilitate trade of electricity between India and neighbouring countries;
   - Evolve a dynamic and robust electricity infrastructure for trade of electricity;
   - Promote transparency, consistency and predictability in regulatory mechanism pertaining to trade of electricity in the country;
   - Reliable grid operation and transmission of electricity for trade

   All these reform initiatives and regulatory changes will open up opportunities for your Company and across the Indian Power Sector.

OPPORTUNITIES AND THREATS/CHALLENGES

Opportunities

1. **Renewable Energy:** GoI has targeted to achieve 175 GW capacity by 2022, comprising of 100 GW Solar, 60 GW Wind, 5 GW Small Hydro and 10 GW Bio-power (including biomass). Several measures in the renewable energy sector such as (i) Guidelines for Tariff Based Competitive Bidding Process for procurement of power from grid connected solar PV and wind power projects, (ii) Solar-wind hybrid policy are intended to create investment opportunities in the sector. These, coupled with historic lows in solar and wind tariffs have completely transformed business dynamics in the sector.

   Further, the RPO trajectories set by GoI of India is likely to enhance the opportunity for capacity growth in RE space.

   Your Company has made a target of achieving 32 GW of RE based capacity by 2032 under its long-term Corporate Plan. It is also assisting the GoI in its National Solar Mission.

   The variability caused due to integration of renewable energy into the grid has opened up many opportunities for possible energy solutions under the umbrella of ancillary services, such as battery energy storage, efficient ramping up and down of thermal generating units etc. In this regard, your Company has targeted a 25% market share in ancillary services and storage by 2032 under its long-term plan.

2. **Electric Vehicles:** GoI has approved FAME-II (Faster Adoption and Manufacturing of Hybrid and Electric Vehicles) Scheme with total outlay of ₹ 10,000 crore over the period of three years (2019-20 to 2021-22) effective from 1 April 2019. This scheme is the expanded version of the earlier scheme titled 'FAME India' which was launched on 1 April 2015, with total outlay of ₹795 crore, subsequently enhanced to ₹ 895 crore.

   The scheme envisages supporting 10 lakh e-2Wheeler, 5 lakh e-3Wheeler, 55,000 e-4Wheelers and 7,000 e-Buses. The scheme also proposes for establishment of charging infrastructure across the country so that there will be availability of at least one charging station in a grid of 3 km x 3 km. Establishment of charging stations are also proposed on major highways connecting major city clusters. On such highways, charging stations will be established on both sides of the road at an interval of about 25 km each. A total of about 2,700 charging stations will be established with emphasis in metros, other million plus cities, smart cities and cities of hill states.

   Your Company has already ventured into the e-mobility space and taken up various initiatives. Some of the key initiatives are as below.

   (i) Creation of charging infrastructure ecosystem, under which it is planned to set up fast charging stations, battery-swapping infrastructure etc. at several locations in major cities and across highways.

   (ii) Discussion with State Governments, State Transport Undertakings and City Administrators to implement e-bus projects.

3. **Cross Border Power Trading:** The guidelines issued by MoP for cross border trading of power will open up opportunities to export power to neighbouring countries for your Company and the Indian power sector.

   NVVN, 100% owned subsidiary of your Company, has been assigned the role of Nodal Agency for cross border trading of power with Bhutan, Bangladesh and Nepal by GoI. NVVN has signed various Power Purchase Agreements with Bangladesh and Nepal aggregating to 710 MW and 250 MW respectively. During the current financial year, it has supplied 4,098 MU and 1,358 MU to Bangladesh and Nepal respectively.

4. **International Business:** Your Company, by virtue of its growing project management and O&M experience with an expanding power generation portfolio, is looking at overseas opportunities.

   Your Company has formed a joint venture Company with Bangladesh Power Development Board (BPDB), called Bangladesh India Friendship Power Company Limited (BIFPCL), which is constructing a coal based power plant of 1,320 MW capacity at Rampal (Khulna).

   Your Company has opened an office in Yangon, Myanmar in April 2019, which will help exploring opportunities in BIMSTEC countries.

   Your Company is also exploring business opportunities in Sri Lanka, UAE, Egypt, Uzbekistan, Kazakhstan, Vietnam, Oman, Qatar, Morocco, Ireland, Greece, Maldives, and many other countries to maximise geostatic strategy.

5. **Environmental aspects:** Revised environmental norms for thermal power plants notified by Ministry of Environment, Forest and Climate Change (MoEF&CC) require modifications in power plants by 2022 to contain SPM, SOx, NOx and Mercury emissions & reduce specific water consumption and entails substantial investment. GoI has recognized such investments as "Change in Law", for the purpose of recovering the cost of such investment under regulated tariff.

   Your Company has been spearheading the adoption of Flue Gas Desulphurisation (FGD) and developing solutions for de-NOx that can be used for high ash content coal. Going forward, your Company shall be in a position to provide consultancy services for power plants across the nation for a smooth transition for meeting the new norms.

   Your Company has taken up study of Selective Catalytic Reduction (SCR) on pilot basis at its stations and after completion of pilot study, SCR would be retrofitted at its coal-based power stations. SCR would help in reduction of NOx emission.

   Further, to reduce water usage, Air-cooled condenser technology is under implementation at North Karanpura and Patratu.

   Your Company has taken a unique initiative by starting an ash park depot at Varanasi to provide dry fly ash to manufacturers of ash bricks, tiles, blocks etc. More such ash park depots would be developed to maximise ash utilisation.

6. **Efficiency improvement:** With emphasis on efficiency of electricity generation, your Company has adopted ultra-super critical technology by improving the steam parameters for its under construction projects aggregating to more than 7 GW, at North Karanpura, Khargone, Telangana and Patratu.

   A consortium of your Company, BHEL and IGCAR is developing Advanced Ultra Super Critical (AUSC) technology. The program envisages development of indigenous technology for higher steam parameters in order to reduce CO_2 emissions to the tune of 20% compared to a sub-critical plant. An 800 MW demonstration plant with this technology is being planned at Sipat.

7. **Blue Sky Initiative by your Company:**

   - **Biomass Co-firing for reducing greenhouse emission & reduce pollution:** Your Company has taken initiative to blend 10% of biomass with coal at its coal based plant at Dadri and has planned to procure farm residue based pellets to fire along with coal. This will help in reducing burning of farm stubble thereby improving air quality.

   - **Circular Economy Village at East Delhi for Cleaning Delhi:** Your Company is also planning to establish an integrated waste management facility in East Delhi, where biodegradable waste shall be used for production of bio-CNG, Concrete & Demolition (C&D) waste shall be used for producing recycled construction material and combustible fraction shall be used for energy recovery.

   - **Waste to Energy Plants:** Your Company have plans to develop Waste to Energy Power Plants, supporting the Government effort in improving the people's health & welfare. These are envisaged to be developed in association with Municipal Corporations across India. Your Company is planning to set up a waste to energy plant at Kawas, which will process municipal solid waste of Surat city.

Threats/Challenges/Concerns

1. **Solar and Wind Power:** With Tariff Based Competitive Bidding applicable for both solar and wind, their tariffs have been continuously falling. As the sector matures and consolidates, it is expected that more stable and realistic tariffs may be discovered.

   In order to integrate variable RE into the grid, coal based power plants have to regulate their generation to maintain grid balance. Therefore, influx of more RE power in the grid would require many coal-based plants to operate in a flexible manner. This cyclic operation has impact on coal-based power plants in terms of lower efficiency at partial load leading to higher cost of generation. Other factors like cost for balancing services, reduced life due to flexible operation of thermal plant would also adversely affect the cost of generation.

2. **Environmental Concerns:** The environmental concerns, particularly relating to coal based thermal stations, have emerged as a major challenge to the sector. In December 2015, MoEF&CC notified the new standards for water consumption, particulate matter, SOx, NOx and mercury for thermal power stations. To comply with these norms, thermal power plants need to implement emission control equipment like FGDs, SCRs (Selective Catalytic Reduction)/SNCRs (Selective Non Catalytic Reduction) along-with necessary combustion modifications and retrofit ESPs (Electrostatic Precipitator).

   Despite many challenges like non-availability of space, lack of proven technology for high ash domestic coal etc., these power plants have to undergo necessary retrofits to comply with the norms progressively by 2022. The cost of retrofitting appropriate systems to meet these norms will have an impact on tariff. Logistics and supply chain for sourcing the consumables and disposing of the waste generated impose additional challenges.

3. **Availability of Gas:** Power sector is the third priority for domestic gas allocation after City Gas and Fertilizers. Domestic gas availability under APM falls short of requirement. On account of this, the PLF of gas-based power plants in the country remained low and the power sector has been struggling to recover costs of capital investment in gas-based capacity.

OUTLOOK FOR THE COMPANY

Strategic focus of the Company

Your Company is market leader in power generation, supplying around 22% of the country's electricity and thus plays a key role in India's economic activity. As a state-owned utility, your Company's priority is to provide affordable and reliable power and support for country's rapid developing economy. It has a diversified portfolio of coal, gas, solar, wind, hydro and small hydro-based power plants and has integrated both backwards and forward into coal mining and power trading.

As per its long-term corporate plan, your Company has targeted to achieve total installed capacity of 130 GW by 2032, to be implemented through development of greenfield & brownfield projects, collaborations and acquisitions. The capacity will have a diversified fuel mix comprising 65.4% coal, 4.6% gas, 1.5% nuclear and 28.5% Renewable Energy Sources (RES) including hydro. Therefore, by 2032, non-fossil fuel based generation capacity shall make up nearly 30% of your Company's portfolio.

Your Company envisages enhancing its current presence in consultancy, power trading and ancillary services. It is also planning to make a foray into electric mobility and battery storage, supported by research & development and collaboration with OEM/OES, research institutes etc.

Inorganic Growth Opportunities

Your Company is looking for suitable opportunities for acquisition of power plants to fulfil its growth target, after due techno-commercial diligence and appropriate valuation.

Your Company acquired Barauni Thermal Power Project from Bihar State Power Generation Company Limited (BSPGCL) where two units of 110 MW each are in commercial operation and two units of 250 MW each are under construction. Your Company has also acquired 100% stake in Kanti Bijlee Utpadan Nigam Limited (KBUNL) and Nabinagar Power Generating Company Limited (NPGCL).

Fuel Security

Your Company has achieved fuel security through long-term coal supply agreements. The materialization of Annual Contracted Quantity remained 95% in current financial year.

Your Company has been allocated 10 coal blocks with estimated geological reserves of 7 billion tonnes with estimated mining capacity of 111 million tonnes per annum. With these coal blocks, your Company aspires to become one of the largest captive coal mining companies in the country.

Coal production from Pakri-Barwadih and Dulanga Captive Coal Mines started in financial year 2016-17 and 2017-18 respectively. Pakri-Barwadih Captive Coal Mine achieved COD on 1 April 2019. During the current financial year, the combined coal production from these two mines was about 7.3 MMT, which was supplied to your Company's thermal power plants at Barh, Kudgi, Mouda, Bongaigaon, Tanda, Solapur and Unchahar stations.

Your Company's reliance on imported coal is negligible, thereby contributing to reduction in cost of power. During the financial year 2018-19, less than 0.6% of your Company's coal consumption was from imported sources.

Renewable Energy

With 928 MW of renewable installed capacity, your Company has ventured into large-scale deployment of RE assets and is committed to add 10 GW of own renewable power capacity by 2022. The Company is also assisting the GoI in its National Solar Mission. Currently, 345 MW solar capacity is under construction.

Off-take and realisation

Your Company firmly believes that with structural reforms in the distribution segment through UDAY Scheme and SAUBHAGYA, proposed amendments in Tariff Policy, economic growth of the country and improving standard of living, the power demand will pick-up.

Your Company has, for the 16th consecutive year, realised 100% of its dues and is confident of maintaining its track record in future also. Further, with extension of Tri-partite Agreements by most of the states, the risk of realization is mitigated to a great extent.

Leveraging on Strengths for Delivering better Future Performance

Your Company derives competitive edge from its strengths and is confident of meeting future challenges in the sector.

a. **Project Management**

Your Company has adopted an integrated system for planning, scheduling, monitoring and controlling of approved projects under implementation. To coordinate and synchronise all the support functions of project management it 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. The IPMCS system provides regular monitoring, analysis of variations identified both within the external and internal control parameters and taking managerial action based on "Management by Exception" philosophy.

Your Company has established state of the art IT enabled Project Monitoring Centre (PMC) for facilitating fast track project implementation. PMC is an integrated enterprise-wide collaborative system to facilitate consolidation of project related issues and their resolution. PMC has helped in providing effective coordination between various agencies and has provided enhanced/efficient monitoring of the projects leading to better and faster project implementation.

Your Company has added 2,180 MW new capacity to its installed and commercial capacity in FY 2018-19. It includes acquisition of 220 MW Barauni Plant.

b. **Operational Efficiency**

The operating performance of your Company has been consistently above the national average. During the financial year 2018-19, PLF of Company's coal stations was 76.81% against all India PLF of Thermal stations of 61.07%. Over the years, the Company has consistently operated at much higher operating efficiency as compared to all India operating performance, however for thermal power stations on pan India basis, PLF is decreasing because of large scale integration of renewable power in the grid.

The Company's generation grew by 3.26% during financial year 2018-19. The total generation of the Company was 274.454 BUs during the financial year 2018-19 as against 265.798 BUs in financial year 2017-18.

In order to achieve cost-competitive, environment friendly, efficient & reliable power generation, the Company has adopted following strategies:

- ✓ To improve reliability of the units and to reduce the forced outages, monitoring of start-up and root cause analysis of outages are carried out and action plan generated to mitigate the outages.
- ✓ Continuous monitoring of critical parameters (both reliability & efficiency related) deviations 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 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 audit helps to identify potential areas of improvement in APC reduction and Implementation of action plan.
- ✓ To reduce cost of generation steps have been taken to reduce Energy Charge Rate (ECR) swapping of coal supply and maximise use of domestic coal.
- ✓ Use of Comprehensive Performance Evaluation Matrix for relative evaluation of the performance of various power plants over a set of comprehensive performance indicators to create an environment of in-house challenge and competition. The parameters are reviewed annually to include new set of parameters commensurate with market dynamics and development of power sector.
- ✓ Adopting advanced technologies in new units e.g. commissioning of super critical units, which improves system efficiency & reduces carbon footprint and introduction of DeNOx & DeSOx technologies and its retrofits 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 Cycle of Concentration (CoC) of circulating water, implementation of zero effluent discharge, increasing ash water recirculation, implementation of high concentration ash-slurry discharge, implementation of dry evacuation of ash etc. are being implemented.
- ✓ Strict compliance of Grid Code, Restricted Governor Mode Operation (RGMO) implementations, Automatic Generation Control in Dadri, Simhadri & Mouda stations.

c. 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 pool of ~20,000 employees creating value for the Company. Your Company has a very low executive attrition rate. The HR vision of your Company is "To enable its people to be a family of committed world class professionals, making NTPC a learning organisation." 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 terms of financial parameters such as sales per employee, value added per employee etc.

d. 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

e. 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 and CARE. 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 both in domestic as well international market.

RISK MANAGEMENT

Your Company has an elaborate Enterprise Risk Management framework in place. A Functional Director level Sub Committee of the Board, called Risk Management Committee (RMC) has been constituted in compliance with the Companies Act, 2013 and SEBI (LODR) Regulations. The RMC is responsible for identifying & reviewing the risks and to formulate action plans and strategies to mitigate risks on short term as well as long term basis. The RMC has identified 25 risks, out of which 9 risks have been classified as the top risks for the Company:

- Compliance of emission, ash utilization and regulatory norms
- Delay in execution of projects

- Difficulties in acquisition of land
- Inadequate fuel supply
- Risks pertaining to hydro projects
- Risks related to coal mining
- Sustaining efficient plant operations
- Threats to safety & security of people & property
- Legal risks

The risks are regularly monitored through reporting of key performance indicators. The risk assessment and the action plans to mitigate the risks are reported regularly to the Board of Directors.

Internal Control

To ensure regulatory and statutory compliance 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 power 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. In order 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 the experienced firms of Chartered Accountants in close co-ordination with the Company's own Internal Audit Department. Besides, the 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 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 your 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.

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 2018-19 placed elsewhere in this report.

Restatement of Financial Statements for year ended 31 March 2018 and as at 1 April 2017

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 2018 and 1 April 2017 (beginning of the preceding period) and Statement of Profit and Loss for the year ended 31 March 2018 for reasons as stated below:

a) **Regulatory deferral account balances**

During the year, as per an opinion pronounced by Expert Advisory Committee (EAC) of the Institute of Chartered Accountants of India (ICAI), the Company has recognised 'Deferred asset for deferred tax liability' as a 'Regulatory deferral account debit/credit balance' in accordance with Ind AS 114, Regulatory Deferral Accounts. Refer Note 47 & Note 65 of the financial statements for detailed disclosure.

b) **Property, plant and equipment**

The Company was capitalizing expenditure incurred under Rehabilitation and Resettlement (R&R) Schemes as cost of land. During the year, an opinion has been pronounced by the EAC of the ICAI stating that the R&R expenditure incurred for development activities associated with projects (not merely for acquisition of land) can be considered as directly attributable to the projects. Accordingly, R&R expenditure incurred for development activities associated with the projects which was capitalized as cost of land was reviewed and the cost of land was restated retrospectively.

c) Certain reclassifications have been made to the comparative period's financial statements to enhance comparability with the current year's financial statements.

Reconciliation of items which are retrospectively restated in the Balance Sheet and Statement of Profit and Loss are provided at Note 47 (A) of the financial statements.

A. Financial position

The items of the Balance Sheet are as discussed under:

1 Property, plant & equipment (PPE), Capital work-in-progress, Intangible assets and Intangible assets under development (Note-2 to Note-5)

The PPE, Intangible assets, Capital work-in-progress and Intangible assets under development of the Company are detailed as under:

(₹ Crore)

Particulars	As at March 31		% Change
	2019	2018	
Gross block of PPE (Note-2)	1,52,976.05	1,39,406.72	10%
Net block of PPE (Note-2)	1,25,290.68	1,19,427.57	5%
Capital work-in-progress (Note-3)	90,808.89	78,606.91	16%
Net block of Intangible assets (Note-4)	329.94	331.60	(1)%
Intangible assets under development (Note-5)	397.80	469.36	(15)%

During the year, total gross block of PPE increased by ₹13,569.33 crore over the previous year i.e. by 10%. This was mainly on account of declaration of commercial operation of 1,930 MW capacities during financial year 2018-19 and also capitalisation of some other assets. Correspondingly, net block has increased by 5%. Capital work-in-progress has increased by 16%. The increase in CWIP includes ₹ 2,520.81 crore on account of acquisition of Barauni Thermal Power Station. Intangible assets and intangible assets under development taken together have decreased by 9% over the last year.

2 Investments in subsidiary and joint venture companies (Note-6)

The break-up of investments in subsidiary and joint venture companies is as follows:

(₹ Crore)

Particulars	As at March 31	
	2019	2018
Investment in Subsidiaries	7,351.57	2,754.62
Investment in Joint ventures	5,702.45	7,186.58
Total	13,054.02	9,941.20

During the year, investments in subsidiary and joint venture companies increased by 31%. The movement of the Company's investment in the subsidiary and joint venture companies is as under:

(₹ Crore)

Name of Company	Amount
Kanti Bijlee Utpadan Nigam Ltd.*	467.79
Patratu Vidyut Utpadan Nigam Ltd.	142.00
Nabinagar Power Generating Company Ltd.*	2,327.22
NTPC Tamil Nadu Energy Company Ltd.	5.62
Meja Urja Nigam Private Ltd.	50.00
BF-NTPC Energy Systems Ltd.@	(6.85)
Energy Efficiency Services Ltd.	99.00
Hindustan Urvarak & Rasayan Ltd.	107.07
Bangladesh-India Friendship Power Co. Private Ltd.	78.92
Total investment	**3,270.77**
Less: Provision for impairment made during the year	
Ratnagiri Gas and Power Private Ltd.	157.97
NTPC BHEL Power Projects Private Ltd.	4.41
BF-NTPC Energy Systems Ltd.@	(4.43)
Net increase in Investment	**3,112.82**

* The Company entered into a Memorandum of Understanding (MoU) with State Government of Bihar and its affiliate companies on 15 May 2018 for buy-out of equity of Bihar State Power Generation Company Limited (BSPGCL) in Kanti Bijlee Utpadan Nigam Limited (KBUNL) and Nabinagar Power Generating Company Private Limited (NPGCL). Consequently, the Company bought the equity shares of BSPGCL in KBUNL and NPGCL for an amount of ₹ 392.78 crore and ₹ 1,737.19 crore respectively. As a result, KBUNL and NPGCL became wholly-owned subsidiaries of the Company with effect from 29 June 2018.

@ Liquidator has been appointed in the extra-ordinary general meeting of BF-NTPC held on 9 October 2018, and 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'.

3 Non-current financial assets (Note-7 to Note-9)

Non-current financial assets mainly comprise of investment in equity 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
	2019	2018	
Investments (Note-7)	91.92	106.28	(14)%
Loans (Note-8)	544.38	655.67	(17)%
Other financial assets (Note-9)	1,424.29	1,632.86	(13)%
Total	**2,060.59**	**2,394.81**	**(14)%**

Investments mainly comprise of investment in equity instruments of PTC India Ltd. The carrying value of equity instruments of PTC India Ltd. has decreased from ₹ 104.88 crore as at 31 March 2018 to ₹ 88.14 crore as at 31 March 2019 due to decrease in market value of shares of PTC India Ltd.

Loans have decreased from ₹ 655.67 crore as at 31 March 2018 to ₹ 544.38 crore as at 31 March 2019. Decrease in loans is mainly due to decrease in outstanding loan to subsidiary Company, Kanti Bijlee Utpadan Nigam Ltd. by ₹ 91.00 crore.

Other financial assets include share application money pending allotment in subsidiary and joint venture companies, claims recoverable, finance lease receivables and mine closure deposit.

(₹ Crore)

Other financial assets (Note-9)	As at March 31		% Change
	2019	2018	
Share application money pending allotment in subsidiary and joint venture companies	181.59	407.85	(55)%
Claims recoverable	739.54	704.22	5%
Finance lease receivables	470.96	502.32	(6)%
Mine closure deposit	32.20	18.47	74%
Total	**1,424.29**	**1,632.86**	**(13)%**

Claims recoverable includes ₹ 719.71 crore (31 March 2018: ₹ 680.11 crore) towards the cost incurred upto 31 March 2019 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. It includes ₹ 413.40 crore (31 March 2018: ₹ 390.59 crore) in respect of arbitration awards challenged by the Company before Hon'ble High Court of Delhi. In the event the Hon'ble High Court grants relief to the Company, the amount would be adjusted against Current liabilities - Provisions - Provision for others (Note-30). 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. Hence, no provision is considered necessary.

Keeping in view the provisions of Appendix C to Ind AS-17-'Leases' w.r.t. determining whether an arrangement contains a lease, 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 had been derecognized from PPE and accounted for as 'Finance lease receivable' (FLR) as at the transition date to Ind AS. Recovery of capacity charges towards depreciation (including AAD), interest on loan capital and return on equity (pre-tax) components from the beneficiary are adjusted against the 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 recognised as 'Interest income on assets under finance lease' under 'Revenue from operations' (Note 32).

4 Other non-current assets (Note-10)

Total other non-current assets as at 31 March 2019 were ₹ 13,269.30 crore as against ₹ 11,547.73 crore as at 31 March 2018. Other non-current assets consist of advances for capital expenditure, advances other than capital advances, security deposits, advance tax net of provision for tax, deferred foreign currency fluctuation asset and deferred payroll expenditure.

Other non-current assets have increased by ₹ 1,721.57 crore, an increase of 15%. The increase is mainly due to increase in advance tax net of provision for tax from ₹ 3,216.14 crore to ₹ 4,541.90 crore. Capital advances have also increased from ₹ 4,701.29 crore to ₹ 4,994.45 crore

Exchange differences on account of translation of foreign currency borrowings which are recoverable from the beneficiaries in subsequent periods as per CERC Tariff Regulations are accounted as 'Deferred foreign currency fluctuation asset'. Accordingly, an amount of ₹ 1,370.53 crore has been accounted under this head up to 31 March 2019 (31 March 2018: ₹ 1,119.00 crore).

5 Current assets (Note-11 to Note-17)

The current assets as at 31 March 2019 and 31 March 2018 and the changes therein are as follows:

(₹ Crore)

Particulars	As at March 31		Y o Y	%
Current assets	2019	2018	Change	Change
Inventories (Note-11)	7,988.02	6,057.38	1,930.64	32%
Trade receivables (Note-12)	8,433.86	7,577.97	855.89	11%
Cash & cash equivalents (Note-13)	24.38	60.49	(36.11)	(60)%
Bank balances other than cash and cash equivalents (Note-14)	2,119.96	3,917.89	(1,797.93)	(46)%
Loans (Note-15)	305.79	280.22	25.57	9%
Other financial assets (Note-16)	8,331.84	7,938.12	393.72	5%
Other current assets (Note-17)	15,056.70	10,899.18	4,157.52	38%
Total current assets	**42,260.55**	**36,731.25**	**5,529.30**	**15%**

(a) Inventories (Note-11)

Inventories as at 31 March 2019 were ₹ 7,988.02 crore as against ₹ 6,057.38 crore as at 31 March 2018. Inventories mainly comprise of coal and stores & spares which are maintained for operating plants. Value of coal inventory increased from

₹ 2,085.38 crore as at 31 March 2018 to ₹ 3,569.62 crore as at 31 March 2019, which signifies improvement in coal stock at our power plants.Stores and spares inventory also increased from ₹ 2,915.56 crore as at previous year end to ₹ 3,307.09 crore.

(b) Trade receivables (Note-12)

Trade receivables as at 31 March 2019 are ₹ 8,433.86 crore as against ₹ 7,577.97 crore as at 31 March 2018. Trade receivables have increased by 11% over the previous year however it is in line with increase in sales and accordingly on number of day's sales basis, receivables have remained same at 34 days. The Company has collected 100% dues for the 16th year in succession.

Based on arrangements between Company, banks and beneficiaries, the bills of the beneficiaries have been discounted. Accordingly, trade receivables have been disclosed net off bills discounted amounting to ₹ 9,998.75 crore (31 March 2018: ₹ 602.12 crore).

(c) Cash and cash equivalents (Note-13) & Bank balances other than cash and cash equivalents (Note-14)

Cash and cash equivalents & bank balances other than cash and cash equivalents have decreased from ₹ 3,978.38 crore as at 31 March 2018 to ₹ 2,144.34 crore as at 31 March 2019. This decrease is mainly due to utilization of balance of Medium Term Notes (MTNs), amounting ₹ 1,743.89 crore as at 31 March 2018, for the stated purposes during the current year.

(d) Loans (Note-15)

Loans have increased from ₹ 280.22 crore as at 31 March 2018 to ₹ 305.79 crore as at 31 March 2019. This increase is mainly due to increase in loan to subsidiary companies from ₹ 41.79 crore as at 31 March 2018 to ₹ 67.50 crore as at 31 March 2019.

(e) Other financial assets (Note-16)

Other financial assets excluding unbilled revenue are as under:

(₹ Crore)

Particulars	As at March 31	
	2019	**2018**
Other financial assets (Note-16)	8,331.84	7,938.12
Less: Unbilled revenue	7,870.83	7,574.60
Net Other current financial assets	461.01	363.52

Unbilled revenue consists of items viz. (i) sales for the month of March which is billed in April and (ii) other credits which are to be passed on to beneficiaries. For the financial year 2018-19, the credits, which are to be passed on to beneficiaries, have already been accounted for in sales. Unbilled revenue of ₹ 7,870.83 crore (31 March 2018: ₹ 7,574.60 crore) is net of credits to be passed to beneficiaries at the time of billing and includes ₹ 6,961.66 crore (31 March 2018: ₹ 6,932.84 crore) billed to the beneficiaries after 31 March for energy sales.

Other current financial assets mainly include advances to subsidiary and joint venture companies and other related parties, employees & others and finance lease receivables.

(f) Other current assets (Note-17)

Other current assets comprise of security deposits, advances to related parties, contractors and suppliers, short term advances to employees, claims recoverable etc.

(₹ Crore)

Particulars	As at March 31		% Change
	2019	**2018**	
Security deposits (unsecured)	1,480.21	1,021.21	45%
Advances	9,302.26	7,251.02	28%
Claims recoverable	4,095.57	2,547.98	61%
Others	178.66	78.97	126%
Total	**15,056.70**	**10,899.18**	**38%**

Other current assets have increased from ₹ 10,899.18 crore as at 31 March 2018 to ₹ 15,056.70 crore as at 31 March 2019. This increase is due to increase in advance to Indian Railways, towards advance railway freight to be adjusted against freight payable on coal transportation, by ₹ 769 crore and increase in claims recoverable from ₹ 2,547.98 crore as at 31 March 2018 to ₹ 4,095.57 crore as at 31 March 2019.

Claims recoverable include claims against railways of ₹ 1,912.55 crore (31 March 2018: ₹ 1,227.75 crore) which are mainly towards diverted out coal wagons.

6 Regulatory deferral account debit balances (Note-18)

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.

CERC Tariff Regulations provide for truing up of capital expenditure, subject to prudence check, considering, inter-alia, change in laws. Considering the methodology followed by the CERC in the previous pay revision and the provisions of CERC Tariff Regulations, 2014, regulatory asset has been created towards the increase in O&M expenditure due to the pay revision and increase in the gratuity limit from ₹ 0.10 crore to ₹ 0.20 crore. Accordingly, an amount of ₹ 118.26 crore for the year ended 31 March 2019 has been accounted for as 'Regulatory deferral account debit balance' (31 March 2018: ₹ 118.32 crore).

Further, 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 'Movements in Regulatory deferral account balances' during construction period and adjusted from the year in which the same becomes recoverable from or payable to the beneficiaries. Accordingly, an amount of (-) ₹ 35.38 crore for the year ended 31 March 2019 has been accounted for as 'Regulatory deferral account debit balance' (31 March 2018: ₹ 578.71 crore).

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 Regulations, 2014 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 deferred asset for above deferred tax liabilities (Net) in its financial statements (referred to as 'Deferred asset for deferred tax liability'). Deferred asset 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. The Company was recognising such deferred asset for deferred tax liability as part of 'Deferred tax liabilities (Net)' under Note 25. During the year, in line with the opinion of the EAC of the ICAI, the same has been reclassified as a 'Regulatory deferral account debit balance'. Accordingly, an amount of (-) ₹ 5,160.22 crore (31 March 2018: ₹ 2,707.85 crore) for the year ended 31 March 2019 has been accounted for as 'Regulatory deferral account debit balance'.

The petition filed by the Company before CERC seeking to reimburse the expenditure on transportation of ash, has been favorably considered by the CERC vide order dated 5 November 2018 and was allowed to be reimbursed 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' has been created towards ash transportation expenses in respect of stations where there is shortfall in ash transportation expenses over and above the revenue from sale of ash. Accordingly, an amount of ₹ 179.29 crore (31 March 2018: ₹ Nil) for the year ended 31 March 2019 has been accounted for as 'Regulatory deferral account debit balance'.

The regulatory assets recognized in the books to be recovered from the beneficiaries in future periods are as follows:

(₹ Crore)

Particulars	Regulatory Deferral Account Debit Balances
A. Opening balance as on 1 April 2018	8,381.66
B. Addition during the year	(4,898.05)
C. Adjustments during the year	(79.19)
D. Amount collected/refunded during the year	1.58
E. Regulatory deferral account balances recognized in the statement of profit and loss (B+D)	(4,896.47)
F. Closing balance as on 31 March 2019 (A+C+E)	**3,406.00**

The Company expects to recover the carrying amount of regulatory deferral account debit balance over a period of 10 years.

7 Total equity (Note-19 & Note-20)

The total equity of the Company at the end of financial year 2018-19 increased to ₹ 107,408.17 crore from ₹ 101,777.77 crore in the previous year, an increase of 6%. Major reasons for the same are tabulated below:

(₹ Crore)

Particulars	Total Equity (₹ crore)	Book value per Share (₹)*
Opening balance as on 1 April 2018	101,777.77	102.86
Profit for the year	11,749.89	11.88
Other comprehensive income and other adjustments to reserves	(196.45)	(0.20)
Dividend & dividend tax	(5,923.04)	(5.99)
Balance as on 31 March 2019	**107,408.17**	**108.55**

*On post-bonus fully paid-up equity shares. During the year, the Company has issued 164,90,92,880 fully paid up bonus shares of ₹10/- each in the ratio of one equity share for every five equity shares. Accordingly, total no. of paid-up equity shares has increased from 824,54,64,400 to 989,45,57,280 during the year.

The increase in total equity resulted in book value per share rising to ₹ 108.55 from ₹ 102.86 as at the end of previous year.

During the financial year 2018-19, Government of India (GoI) sold 5.86% of its stake in the Company through tranches of Bharat 22 ETF (1.35%) and CPSE ETF (4.51%). Accordingly, GoI's stake in the Company came down from 62.27% as at 31 March 2018 to 56.41% as at 31 March 2019.

8 Non-current and current liabilities (Note-21 to Note-30)

Details of non-current and current liabilities are discussed below:

a. Non-current financial liabilities-Borrowings (Note-21):

Total borrowings as at 31 March 2019 were ₹ 1,27,430.48 crore in comparison to ₹ 1,15,104.29 crore as at 31 March 2018. Current maturities out of long-term borrowings have been shown under current liabilities. Details of the total borrowings are as under:

(₹ Crore)

Particulars	As at March 31	
	2019	2018
Non-current borrowings in Non-current financial liabilities-Borrowings (Note-21)	1,19,698.08	1,08,697.60
Current maturities of non-current borrowings included in current liabilities-Other financial liabilities (Note-28)	7,732.40	6,406.69
Total borrowings*	**1,27,430.48**	**1,15,104.29**

*Includes adjustments for transaction costs on borrowings as per Ind-AS.

A summary of the borrowings outstanding is given below:

(₹ Crore)

Particulars	Non-current financial liabilities (Note-21)		Other current financial liabilities (Note-28)		Total borrowings		% Change
	2019	2018	2019	2018	2019	2018	
Secured							
Domestic bonds	33,068.40	30,850.32	1,782.00	2,209.00	34,850.40	33,059.32	5%
Others	0.65	0.70	0.75	0.72	1.40	1.42	(1)%
Sub-total	**33,069.05**	**30,851.02**	**1,782.75**	**2,209.72**	**34,851.80**	**33,060.74**	**5%**
Unsecured							
Foreign currency term loans/Notes/ Masala bonds	36,331.48	36,241.67	3,289.17	1,405.02	39,620.65	37,646.69	5%
Rupee term loans	50,147.89	41,455.53	2,625.13	2,758.41	52,773.02	44,213.94	19%
Others	149.66	149.38	35.35	33.54	185.01	182.92	1%
Sub-total	**86,629.03**	**77,846.58**	**5,949.65**	**4,196.97**	**92,578.68**	**82,043.55**	**13%**
Total	**1,19,698.08**	**1,08,697.60**	**7,732.40**	**6,406.69**	**1,27,430.48**	**1,15,104.29**	**11%**

As on 31 March 2019, the foreign currency loan basket comprises of loans denominated in US Dollar, Japanese Yen and Euro which contributed about 65%, 19% and 16% respectively of the total foreign currency loans.

Over the last financial year, total borrowings have increased by 11%. Debt amounting to ₹ 24,844.83 crore was raised during the financial year 2018-19. The amount raised through term loans, bonds 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 2018-19 are as under:

(₹ Crore)

Source (Principal Amount)	Debt raised	Repayment	Net
Rupee term loans	18,715.00	10,155.92	8,559.08
Domestic bonds	4,000.00	2,209.00	1,791.00
Foreign currency debts	2,129.83	1,474.55	655.28
Total	**24,844.83**	**13,839.47**	**11,005.36**
FERV on foreign currency borrowings			1,372.75
Transaction costs			(53.99)
Others (Finance lease obligations)			2.07
Total			**12,326.19**

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 2018-19, agreements for term loans of ₹ 16,000.00 crore were entered into with various banks. An amount of ₹ 18,715.00 crore was drawn from domestic banks & financial institutions during the year and an amount of ₹ 10,155.92 crore was repaid during the year. The undrawn balance available under various sanctioned loans from domestic banks and financial institutions was ₹ 4,845.00 crore as on 31 March 2019.

Domestic bonds: During the financial year 2018-19, Company raised highest ever amount of ₹ 4,000 crore through a single private placement issue. Bonds amounting to ₹ 2,209 crore were redeemed during the year.

Foreign currency debts:

During the financial year 2018-19, the Company has signed a syndicated loan facility agreement of US $ 300 million equivalent in Japanese Yen amounting to JPY 32.85 billion with a consortium of three Japanese banks viz. Mitsubishi UFJ Financial Group (MUFG), Mizuho Bank Ltd. (Mizuho) and Sumitomo Mitsui Banking Corporation (SMBC). The loan is having an average maturity of 10 years. The proceeds of the loan amounting to ₹ 2,119.02 crore have been utilised to finance the capital expenditure incurred on various ongoing power projects of the Company. During the financial year 2018-19, the Company has also drawn ₹ 10.81 crore under the existing loan facility available from JBIC towards capital expenditure of its Kudgi project.

In addition to above the Company has priced USD 450 million notes due 2024 on 26 March 2019 under its USD 6 billion Medium Term Note (MTN) programme and drawdown of the same was completed on 3 April 2019. These bonds are in the nature of senior unsecured fixed rate notes having a coupon of 3.75% p.a. payable semi-annually and are due for bullet repayment in April 2024. The proceeds of the bonds shall be utilised to part finance the capital expenditure being incurred on various ongoing/new projects of the Company during the financial year 2019-20.

In all, the Company has drawn ₹ 2,129.83 crore during the year from foreign currency loans and repaid foreign currency debts amounting to ₹ 1,474.55 crore.

The Company continues to enjoy highest credit ratings for its bonds programme 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	Highest ratings
ICRA	ICRA AAA (Stable)	
CARE	CARE AAA	
International		
S&P	BBB-Stable	Equivalent to sovereign ratings
Fitch	BBB-Stable	
Moody's	Baa2	

The debt to equity ratio at the end of financial year 2018-19 of the Company increased to 1.19. The Debt Service Coverage Ratio (DSCR) and Interest Service Coverage Ratio (ISCR) for financial year 2018-19 are 2.21 and 5.26 respectively.

Formula used for computation of coverage ratios DSCR = Earnings before Interest, Depreciation, Tax and Exceptional items/(Interest net of transfer to expenditure during construction + Scheduled principal repayments of the long term borrowings) and ISCR = Earnings before Interest, Depreciation, Tax and Exceptional items/(Interest net of transfer to expenditure during construction).

The maturity profile of the principal amount of borrowings by the Company is as under:

(₹ Crore)

Particulars	Domestic Borrowings	Foreign Borrowings	Total
Within 1 year	4,407.13	3,289.17	7,696.30
Beyond 1 and within 3 years	10,008.98	8,464.60	18,473.58
Beyond 3 and within 5 years	19,019.39	7,156.41	26,175.80
Beyond 5 and within 10 years	38,150.64	20,073.78	58,224.42
Beyond 10 years	16,040.22	854.68	16,894.90
Total	**87,626.36**	**39,838.64**	**1,27,465.00**

*Excluding transaction costs

b. Non-current financial liabilities - Trade payables (Note-22) & Other financial liabilities (Note-23)

Non-current trade payables has increased from ₹ 23.31 crore as at 31 March 2018 to ₹ 48.17 crore as at 31 March 2019.

Other financial liabilities primarily consist of liabilities for capital expenditure and others. Liabilities for capital expenditure has decreased from ₹ 1,970.71 crore as at 31 March 2018 to ₹ 1,255.92 crore as at 31 March 2019. Liabilities for capital expenditure which are due for payment within 12 months from the reporting date have been classified under 'Other current financial liabilities' (Note-28).

c. Non-current liabilities- Provisions (Note-24):

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 as at 31 March 2019 were ₹ 588.74 crore as compared to ₹ 480.90 crore as at 31 March 2018.

Disclosures as per Ind AS 19 'Employee benefits' are provided in Note 50 to the financial statements.

d. Non-current liabilities - Deferred tax liabilities (net) (Note-25):

As explained in para 6 above, 'Deferred asset for the deferred tax liability' which was hitherto shown as a deduction from 'deferred tax liabilities (net)' has been transferred to 'Regulatory deferral account debit balance'.

Now, restated figure of Deferred tax liabilities (net) has decreased from ₹ 10,047.16 crore as at 31 March 2018 to ₹ 4,200.14 crore as at 31 March 2019. Decrease in deferred tax provision is mainly due to recognition of MAT credit entitlement during the year. The Company has recognised MAT credit available to the Company in future amounting to ₹ 8,257.38 crore (31 March 2018: ₹ Nil) as the same is likely to give future economic benefits in the form of availability of set off against future income tax liability. Out of the above, an amount of ₹ 7,615.10 crore (31 March 2018: ₹ Nil) has been recognized as payable to beneficiaries through regulatory deferral account balances.

The net decrease in deferred tax liability during the year amounting to ₹ 5,767.83 crore has been credited to the Statement of profit and loss (31 March 2018: net increase of ₹ 3,631.64 crore debited to Statement of profit and loss).

e. Current liabilities (Note-26 to Note-30):

The current liabilities as at 31 March 2019 were ₹ 55,480.81 crore as against ₹ 42,554.76 crore as at the end of previous year. The break-up of current liabilities is as under:

(₹ Crore)

Particulars	As at March 31		Y-o-Y Change	% Change
	2019	2018		
Borrowings (Note-26)	15,502.90	6,500.32	9,002.58	138%
Trade payables (Note-27)	7,550.94	5,592.64	1,958.30	35%
Other financial liabilities (Note-28)	24,902.27	21,408.98	3,493.29	16%
Other current liabilities (Note-29)	684.34	963.99	(279.65)	(29)%
Provisions (Note-30)	6,840.36	8,088.83	(1,248.47)	(15)%
Total	**55,480.81**	**42,554.76**	**12,926.05**	**30%**

In order to finance the mismatches in the short-term fund requirement, short term borrowings (Note-26) in the form of commercial papers was resorted to by the Company. The commercial papers outstanding as on 31 March 2019 were ₹ 15,500.00 crore as against ₹ 6,500.00 crore as on 31 March 2018.

The trade payables (Note-27) mainly comprise amount payable towards supply of goods & services, deposits & retention money from contractors. Trade payables have increased by ₹ 1,958.30 crore i.e. from ₹ 5,592.64 crore as at 31 March 2018 to ₹ 7,550.94 crore as at 31 March 2019.

Other current financial liabilities (Note-28) mainly comprise of current maturities of long term borrowings, 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	
	2019	2018
Other current financial liabilities	24,902.27	21,408.98
Less: Current maturities of long term borrowings and finance lease obligations	7,732.40	6,406.69
Less: Interest accrued but not due on borrowings	1,377.39	1,254.96
Other current financial liabilities (net)	15,792.48	13,747.33

Other current financial liabilities have increased mainly due to increase in payables for capital expenditure which has increased from ₹ 11,813.97 crore as on 31 March 2018 to ₹ 13,609.93 crore as on 31 March 2019.

Other current liabilities (Note-29) consists mainly of advances from customers and others and statutory dues. The main reasons for decrease of other current liabilities is due to decrease in advance received for the implementation of DDUGJY Scheme of the GOI from ₹ 313.97 crore as on 31 March 2018 to ₹ 58.28 crore as on 31 March 2019.

Current liabilities-provisions (Note-30) mainly consist of provisions for employee benefits, provision for obligations incidental to land acquisition, provision for tariff adjustment and other provisions. As at 31 March 2019, the Company had outstanding current liabilities - provisions of ₹ 6,840.36 crore as against ₹ 8,088.83 crore as at 31 March 2018.

The provision for employee benefits has decreased from ₹ 2,936.65 as on 31 March 2018 to ₹ 1,244.92 crore as on 31 March 2019. The decrease in provision in the current year is mainly on account of provision towards revision of pay-scales of employees as of 31 March 2018 amounting ₹ 1,203.28 crore which has been used during the year and decrease in provision for gratuity amounting to ₹ 659.73 crore which has also been paid during the year.

Provision for tariff adjustment has become ₹ 98.77 crore as at 31 March 2019 as against ₹ 330.10 crore as at 31 March 2018 as detailed below:

(₹ Crore)

Opening Balance as at 1 April 2018	**330.10**
Less: Reversal of provision for tariff adjustment on account of Barh Stage-II consequent to the order of the Hon'ble Supreme Court of India against the Company	(276.69)
Add: Provision for interest, which could be payable on the differential amount considered for revenue recognition and billing	45.36
Closing Balance as at 31 March 2019	**98.77**

Provision for others mainly comprise ₹ 85.14 crore (31 March 2018: ₹ 73.15 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-60), ₹ 1,908.43 crore (31 March 2018: ₹ 1,279.31 crore) towards provision for cases under litigation and ₹ 3.36 crore (31 March 2018: ₹ 4.62 crore) towards provision for shortage in property, plant and equipment on physical verification pending investigation.

9 Deferred revenue (Note-31)

Deferred revenue consists of three items detailed as under:

(₹ Crore)

Deferred revenue on account of	As at March 31	
	2019	2018
Advance Against Depreciation (AAD)	-	74.35
Income from foreign currency fluctuation	1,602.20	1,435.35
Government grants	537.17	576.20
Total	**2,139.37**	**2,085.90**

The amount of AAD considered as deferred revenue in earlier years is included in sales, to the extent depreciation recovered in tariff during the year is lower than corresponding depreciation charged in accounts. Thus, an amount of ₹ 74.35 crore (31 March 2018: ₹ 297.91 crore) has been recognized as sales during the year ended 31 March 2019. The AAD recognized during the previous year includes ₹ 125.24 crore for the tariff period 2004-09 in respect of one of the stations as per CERC order and the same was also recognized as energy sales during that year.

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 fixed assets, which is recoverable from the customers in future years as per 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 under Equities and Liabilities.

Government grants include ₹ 535.38 crore (31 March 2018: ₹ 575.93 crore) received from Solar Energy Corporation of India under MNRE Scheme for setting up Solar PV power projects.

B. Results from operations

1 Total revenue (Note-32 & Note-33)

Sl.	Particulars	FY 2018-19	FY 2017-18	Change
	Units of electricity sold (MUs)	**255,715**	**247,905**	**3%**
	Revenue			**₹ Crore**
1	Energy sales (Including electricity duty)	86,420.90	79,673.58	8%
2	Sale of energy through trading	2,894.74	1,439.58	101%
3	Consultancy & other services	215.96	182.80	18%
4	Lease rentals on assets on operating lease	233.63	233.13	0.21%
5	Energy internally consumed	64.07	63.41	1%
6	Interest from beneficiaries	90.02	487.54	(82)%
7	Provisions for tariff adjustments written back	276.69	1158.97	(76)%
8	Interest income on assets under finance lease	70.84	166.52	(57)%
9	Recognized from deferred revenue-government grant	40.58	36.00	13%
10	Sale of energy saving certificates	-	11.17	(100)%
	Revenue from operations	**90,307.43**	**83,452.70**	**8%**
11	Other income	1,872.13	1,755.25	7%
	Total revenue	**92,179.56**	**85,207.95**	**8%**

The revenue 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 and dividend income from mutual funds and long-term investment in subsidiary & joint venture companies. The total revenue for financial year 2018-19 is ₹ 92,179.56 crore as against ₹ 85,207.95 crore in the previous year registering an increase of 8%. The main reasons for increase in total revenue are increase in the energy sales, increase in sale of energy through trading, increase in revenue from consultancy & other services and increase in late payment surcharge received from beneficiaries.

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 (Note-32)

The CERC notified the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (Regulations, 2014) on 21 February 2014 for the period 2014-19. Pending issue of final/provisional tariff orders for some stations under Regulations, 2014 by the CERC, sales have been provisionally recognized on the basis of principles enunciated in Regulations, 2014. As per the Regulations, 2014, the tariff for supply of electricity comprises of two parts i.e. capacity charges for recovery of annual fixed cost based on plant availability and energy charges for recovery of fuel cost. In addition, Regulations also provide for the recovery of certain miscellaneous charges. The CERC sets tariff for each stage of a station in accordance with the notified tariff regulations/ norms.

Capacity charges

With effect from 1 April 2017, the capacity charges are allowed to be recovered in full if normative annual plant availability factor is at least 85%. If the availability of the plant is lower than 85%, the capacity charges are recovered on a pro-rata basis based on normative parameters as specified in the said Regulations.

Energy charges

Energy charges for the electricity sold are determined based on the landed cost of fuel applied on the quantity of fuel consumption derived considering norms for heat rate, auxiliary power consumption and specific oil consumption etc.

Other charges

Besides the capacity and energy charges, the other elements of tariff are:

- Deferred tax liability for the period before 1 April 2009 on generation income is allowed to be recovered from the customers on materialization.
- Cost of hedging in respect of interest and repayment of foreign currency loans and exchange rate fluctuations for the un-hedged portion of interest and repayment of foreign currency loans on a normative basis.

In addition, the CERC (Deviation Settlement Mechanism and related matters) Regulations, 2014, provides for charges for the deviations in generation with respect to schedule, payable (or receivable) at rates linked to average frequency to bring grid discipline and security.

Further, compensation for degradation of heat rate, auxiliary power consumption and secondary fuel consumption due to part load operations and Multiple Start/Stop of Units are being accounted as per CERC order dated 5 May 2017 relating to operating procedures and the compensation mechanism in terms of Grid Code, which has come in force w.e.f. 15 May 2017. Each element of total revenue is 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 2018-19 was ₹ 86,420.90 crore constituting 94% of the total revenue. The income from energy sales (including electricity duty) has increased by 8% over the previous year's income of ₹ 79,673.58 crore.

During the year, there is an increase in the commercial capacity by 1,930 MW as detailed below:

Project/Unit	Capacity (MW)	Commercial Operation Date
Kudgi U# 3	800	15 September 2018
Bongaigaon U# 3	250	26 March 2019
Solapur U# 2	660	30 March 2019
Barauni	220	15 December 2018
Total	**1,930**	

Further, the commercial capacity of 3,978 MW comprising Unit#1 and 2 of 800 MW each of Kudgi, 250 MW of Solar capacity at Mandsaur , Unit#4 of 660 MW at Mauda-II, Unit#1 of 660 MW at Solapur, Unit#6 of 500 MW at Unchahar, Unit#2 of 250 MW at Bongaigaon, 50 MW of Wind capacity at Rojmal, 8 MW of Small Hydro at Vindhyachal, which were declared under commercial operation during the financial year 2017-18, were available for the entire financial year 2018-19 as compared to part of financial year 2017-18.

The CERC has issued tariff orders for some of the stations for the period 2014-19 under Regulations 2014, and beneficiaries are billed based on such tariff orders issued by the CERC. For other stations, beneficiaries are billed in accordance with the principles given in the Regulations 2014. The energy charges in respect of the coal-based stations are provisionally billed based on the GCV of coal 'as received', measured at wagon top samples in respect of most of the stations barring a few on the grounds of safety issues, for the quantity supplied through conveyors/road and other difficulties. The amount provisionally billed is ₹ 88,278.09 crore (31 March 2018: ₹ 79,231.07 crore).

Your Company has filed a writ petition before the Hon'ble Delhi High Court contesting certain provisions of the Regulations, 2014. As per directions from the Hon'ble High Court on the issue of point of sampling for measurement of GCV of coal on 'as received' basis, CERC has issued an order dated 25 January 2016 that samples for measurement of coal on 'as received' basis should be collected from wagon top at the generating stations. Consequent to this order, wagon top sampling for measurement of 'as received' GCV was implemented at NTPC stations w.e.f 1 October 2016. Thereafter, your Company approached the CERC with the difficulties being faced in implementation of the order through Petition No. 244/MP/2016 with the CERC seeking inter-alia a margin in the GCV measured at wagon top. The petition is pending with CERC.

Pending disposal of the petition by the CERC for the tariff period 2014-19, measurement of GCV of coal is being done from wagon top samples in respect of most of the stations barring a few on the grounds of safety issues, for the quantity supplied through conveyors/road and other difficulties.

The writ petition filed in Hon'ble High Court, Delhi was withdrawn without prejudice to the rights and contentions of the Company in the petition pending before the CERC for adjustments of loss of GCV relating the period 2014-19. Subsequently, in the Tariff Regulation for 2019-24, CERC has allowed a compensation of 85 kcal/kg on the weighted average GCV of coal 'As received' on account of compensation during storage at the generating stations.

Sales have been provisionally recognized at ₹ 89,007.64 crore (31 March 2018: ₹ 79,683.50 crore) on the said basis (Note 32(a)(iii)).

Sales include (-) ₹ 2,775.82 crore (31 March 2018: ₹ 6.44 crore) pertaining to previous years recognized based on the orders issued by the CERC/Appellate Tribunal for Electricity (APTEL).

This includes reversal of sales amounting to ₹ 2,926.47 crore in respect of one of the stations, considering the directions issued by the CERC.

The commercial operation date (COD) of one of the stations of the Company declared by the Company as 14 November 2014 was challenged by one of its beneficiaries. CERC vide order dated 20 September 2017, directed to consider the COD of the said unit as 8 March 2016 in place of 14 November 2014. The CERC further directed that the revenue earned over and above fuel cost from sale of infirm power from 15 November 2014 to 7 March 2016, be adjusted in the capital cost of the said unit. The Company filed an appeal against this order in APTEL on 11 October 2017. Pending disposal of the appeal and considering the said order of the CERC, sales for the year 2017-18 was recognized as per CERC order and provision for tariff adjustment was made for the sales recognised till March 2017.

On 25 January 2019, APTEL disposed off the Company's appeal by upholding the said CERC order. Further, the Company's appeal against the said CERC order has also been dismissed by the Hon'ble Supreme Court of India on 5 April 2019.

Consequently, provision for tariff adjustment amounting to ₹ 276.69 crore, expenditure of ₹ 2,708.88 crore and sales of ₹ 2,926.47 crore for the period from 15 November 2014 to 31 March 2018 have been reversed and related adjustment have been carried out in the property, plant and equipment (Note-2) during the year. This has resulted in increase in profit for the year by ₹ 59.10 crore and reduction in PPE amounting to ₹ 499.37 crore (Note-32 (d)).

Energy sales include ₹ 0.02 crore (31 March 2018: ₹ 210.33 crore) on account of income tax refundable to the beneficiaries as per Regulations, 2004. Sales also include ₹ 82.68 crore (31 March 2018: ₹ 66.98 crore) on account of deferred tax materialized which is recoverable from beneficiaries as per Regulations, 2014. Energy sales include electricity duty amounting to ₹ 904.35 crore (31 March 2018: ₹ 879.77 crore) (Note-32(e)).

The average tariff for the financial year 2018-19 is ₹ 3.38/kWh as against ₹ 3.23/kWh in 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 ₹ 3.49/kWh in financial year 2018-19 as against ₹ 3.23/kWh in the previous year.

There has been 100% realization of the dues within the stipulated period for the sixteenth year in succession. Most of the beneficiaries have opened and are maintaining letter of credit equal to or more than 105% of average monthly billing. In order to ensure prompt and early payment of bills for supply of energy to beneficiaries, your Company has formulated a rebate scheme by way of providing graded incentive for early payment based on the bill (s) raised on state utilities who are the members of NTPC's rebate scheme. The rebate is netted off from energy sales.

Tripartite agreements have been signed/extended by 29 states/union territories. The tri-partite agreements for remaining states are likely to be signed shortly.

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 ₹ 2,894.74 crore (31 March 2018: ₹ 1,439.58).

Consultancy and other services

Accredited with an ISO 9001:2008 certification, the Consultancy division of your Company undertakes consultancy and turnkey project contracts for domestic and international clients in the different phases of power plants viz. engineering, project management, construction management, operation & maintenance of power plants, research & development, management consultancy etc.

During the financial year 2018-19, Consultancy division posted a revenue of ₹ 215.96 crore as against ₹ 182.80 crore achieved in the last financial year.

Lease rentals on assets on operating lease

As per the provisions of Appendix C to Ind AS-17 on Leases w.r.t. determining whether an arrangement contains a lease, the Company has ascertained that the PPA entered into for two of the power stations fall under operating lease. Recovery of capacity charges towards depreciation (including AAD), interest on loan capital & return on equity (pre-tax) components from the beneficiaries are considered as lease rentals on the assets which are on operating lease. Accordingly, the lease rentals amounting to ₹ 233.63 crore has been recognised in the financial year 2018-19 as compared to ₹ 233.13 crore in the last financial year.

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. There is 1% increase in the value of energy internally consumed during the year over the previous year mainly due to increase in fuel cost.

Interest from beneficiaries

CERC Regulations provide that where after the truing-up, the tariff recovered is less than the tariff approved by the CERC, the Company shall recover from the beneficiaries the under recovered amount along-with simple interest. Accordingly, the interest recoverable from the beneficiaries amounting to ₹ 90.02 crore (31 March 2018: ₹ 487.54 crore) has been recognised as Interest from beneficiaries.

Provisions written back

During the financial year 2018-19, the Company had written back provisions for tariff adjustments made in earlier years amounting to ₹ 276.69 crore in comparison to ₹ 1,158.97 crore in the financial year 2017-18.

Interest income on assets on finance lease

As per the provisions of Appendix C to Ind AS-17 on Leases w.r.t. determining whether an arrangement contains a lease, the Company has 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 has been derecognized from PPE and accounted as 'Finance lease receivable' (FLR). Recovery of capacity charges towards depreciation (including AAD), interest on loan capital & return on equity (pre-tax) components from the beneficiary are 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 recognised as 'Interest income on assets under finance lease'. Accordingly, an amount of ₹ 70.84 crore has been recognised in the financial year 2018-19 as compared to ₹ 166.52 crore in the last financial year.

Other income (Note 33)

'Other income' mainly comprises income from interest on term deposits with banks, interest on loan to employees, dividend from investments in subsidiary & joint venture companies and 'Other non-operating income' comprising mainly surcharge received from beneficiaries, gain on sale of current investments, sale of scrap & miscellaneous income.

'Other income' in financial year 2018-19 was ₹ 1,872.13 crore as compared to ₹ 1,755.25 crore in the financial year 2017-18. Broadly, the break-up of other income is as under:

(₹ Crore)

Particulars	FY 2018-19	FY 2017-18
Income from deposits/loans, current investment in mutual funds, profit on redemption of current investments	43.35	229.39
Dividend from JVs and Subsidiary Companies/Interest from Subsidiary Company	143.69	202.39
Income earned on other heads such as surcharge from beneficiaries, hire charges, profit on disposal of assets, etc.	1,741.45	1,377.97
Total	**1,928.49**	**1,809.75**
Less: Transfer to EDC/ development of coal mines/ hedging cost recoverable/ (payable) to/from beneficiaries	56.36	54.50
Net other income	**1,872.13**	**1,755.25**

The Company has earned income of ₹ 43.35 crore during the financial year 2018-19 on account of term deposits made in banks, investments in mutual funds and redemption of current investments as against ₹ 229.39 crore earned last year. The income from investment in bank term deposits, mutual funds etc. has registered a decrease of 81% from last financial year attributed to decrease in earnings on account of decrease in average annual investment from ₹ 4,713.03 crore in financial year 2017-18 to ₹ 1,008.12 crore in financial year 2018-19.

The Company has earned ₹ 119.39 crore as dividend from our investments in subsidiaries and joint venture companies. Further, ₹ 24.30 crore has been earned as interest from loan to subsidiary companies. Also, an amount of ₹ 1,741.45 crore has been earned from various other sources mainly consisting of surcharge from beneficiaries ₹ 1,299.28 crore, miscellaneous income ₹ 138.84 crore, sale of scrap ₹ 123.26 crore, interest on loans to employees ₹ 64.81 crore and advance to contractors ₹ 41.83 crore.

2. Expenses (Statement of Profit & Loss and Note-34, 35, 36 & 37)

2.1 Expenses related to operations

Year	FY 2018-19		FY 2017-18	
Commercial generation (MUs)	273,540		265,003	
Expenses	**₹ Crore**	**₹ per kWh**	**₹ Crore**	**₹ per kWh**
Fuel	52,493.74	1.92	48,315.47	1.82
Employee benefits expense	4,779.89	0.17	4,734.67	0.18
Other expense	7,548.63	0.28	7,421.73	0.28
Total	**64,822.26**	**2.37**	**60,471.87**	**2.28**

The expenditure incurred on fuel, employee benefits expense and other expenses for the financial year 2018-19 was ₹ 64,822.26 crore as against the expenditure of ₹ 60,471.87 crore incurred during the previous year. In terms of expenses per unit of power produced, it was ₹ 2.37 per unit in financial year 2018-19 as against ₹ 2.28 per unit in financial year 2017-18. Component-wise, there has been increase in the fuel cost, employee benefits expenses and in the other expenses. The increase in commercial generation due to commercial operation of new units i.e. units declared under commercial operations during the year as well as units declared under commercial operation during financial year 2017-18 which were under operation for part of the previous year as against under operation for the full year during the current year has resulted in an additional operational expenditure of ₹ 3,817.91 crore.

A discussion on each of these components is given below:

2.1.1 Fuel

Expenditure on fuel constituted 81% of the total expenditure relating to operations. Expenditure on fuel was ₹ 52,493.74 crore in financial year 2018-19 in comparison to ₹ 48,315.47 crore in financial year 2017-18 representing an increase of 8.65%. The break-up of fuel cost in percentage terms is as under:

Particulars	FY 2018-19	FY 2017-18
Fuel cost (₹ Crore)	**52,493.74**	**48,315.47**
		% break-up
Coal	93.29%	94.02%
Gas	5.77%	5.28%
Oil	0.89%	0.66%
Naphtha	0.05%	0.04%

For the financial year 2018-19, the expenditure towards coal has increased, due to increase in the coal-based commercial generation from 251.561 BUs to 261.561 BUs.

The expenditure towards gas has increased due to increase in the expenditure towards gas attributable to the increase in average price of gas during the financial year 2018-19 as compared to previous year.

The expenditure towards other component of fuel cost i.e. oil and naphtha have also increased. The increase in the expenditure towards oil and naphtha is due to higher average price during the financial year 2018-19 as compared to previous year.

An increase of ₹ 3,365.76 crore in fuel cost is attributable to new commercial capacity added during the year as well as on commercial capacity added during previous year which was operational for part of the previous year as compared to full year operations during the current year.

Overall, fuel cost per unit generated increased to ₹ 1.92 in financial year 2018-19 from ₹ 1.82 in financial year 2017-18.

The power plants of the Company use coal and natural gas as the primary fuels. Oil is used as a secondary fuel for coal-fired plants and naphtha as an alternate fuel in gas-fired plants. Under the tariff norms set by the CERC, your Company is allowed to pass on fuel charges through the tariff, provided the Company meets specified operating parameters.

2.1.2 Employee benefits expense (Note-34)

Employee remuneration and benefits expense include salaries & wages, bonuses, allowances, benefits, contribution to provident & other funds and welfare expenses.

Employee benefits expense have increased from ₹ 4,734.67 crore in financial year 2017-18 to ₹ 4,779.89 crore in financial year 2018-19.

An increase of ₹ 127.24 crore is attributable to new commercial capacity added during the year as well as on commercial capacity added during previous year which was operational for part of the previous year as compared to full year operations during the current year. Also, there is an increase in employee benefit expenses due to issue of Presidential Directive to the Company on 10 May 2018 for the revision of pay scales of employees which has been implemented in the Company w.e.f. 1 January 2017.

In terms of expenses per unit of generation, it is ₹ 0.17 in financial year 2018-19 as compared ₹ 0.18 in previous financial year. These expenses account for approximately 7% of operational expenditure in financial year 2018-19.

2.1.3 Other expenses (Note 37)

Other expenses consist primarily the expenses for repair and maintenance of plant & machinery, buildings, water charges, security, corporate social responsibility, electricity duty, travelling, power charges, insurance, training and recruitment and provisions. These expenses are approximately 12% of operational expenditure in financial year 2018-19. In absolute terms, these expenses increased to ₹ 7,548.63 crore in financial year 2018-19 from ₹ 7,421.73 crore in financial year 2017-18, registering an increase of 1.71%.

Repair & maintenance expenses constitute 41% of total other expenses and have increased by ₹ 314.97 crore in comparison with previous year, resulting in an increase of 11%.

In terms of expenses per unit of generation, it is ₹ 0.28 in financial year 2018-19 and same as in previous financial year. An increase of ₹ 324.91 crore is on account of new commercial capacity added during the year as well as on commercial capacity added during previous year which was operational for part of the previous year as compared to full year operations during the current year.

Other expenses also include provisions amounting to ₹ 1,150.07 crore made during the year as against ₹ 842.99 crore in previous year. Provisions mainly include an amount of ₹ 394.07 crore (31 March 2018: ₹ Nil) for arbitration case pertaining to the dispute with the operator and provided against the award pronounced by the arbitral tribunal for which the Company has filed an appeal before Hon'ble High Court of Delhi.

2.2 Energy purchased for trading

Company has incurred expenditure of ₹ 2,713.68 crore in financial year 2018-19 as compared to ₹ 1,313.51 crore in previous year on purchase of energy for trading from solar power plants set up under National Solar Mission.

2.3 Finance costs (Note 35)

The finance costs for the financial year 2018-19 are ₹ 4,716.74 crore in comparison to ₹ 3,984.25 crore in financial year 2017-18. The details of interest and other borrowing costs are tabulated below:

(₹ Crore)

Particulars	FY 2018-19	FY 2017-18
Interest on:		
Borrowings	8,565.34	7,476.64
Unwinding of discount on vendor liabilities and discount on commercial papers	653.49	349.41
Others	1.98	1.73
Total interest	**9,220.81**	**7,827.78**
Other borrowing costs	39.52	38.31
Exchange differences regarded as adjustment to interest costs	156.43	274.05
Total	**9,416.76**	**8,140.14**
Less: Transfers to		
Expenditure during construction period	4,430.26	3,958.95
Development of coal mines	269.76	196.94
Total Finance costs	**4,716.74**	**3,984.25**

Total interest (including interest during construction) has increased by 18% over last financial year due to increase in both long-term and short-term borrowings. The total borrowings as on 31 March 2019 was ₹ 127,430.48 crore as against ₹ 115,104.29 crore as on 31 March 2018. Further, short-term borrowing also increased to ₹ 15,502.90 crore as on 31 March 2019 from ₹ 6,500.32 crore as on 31 March 2018. For the financial year 2018-19, the average cost of borrowing has decreased to 6.92% from 6.99% in previous financial year. The decrease in the average cost of borrowing is because of lower rate of interest on new borrowings.

For the financial year 2018-19, an amount of ₹ 4,430.26 crore relating to finance costs of projects under construction was capitalized while the corresponding amount for the previous year was ₹ 3,958.95 crore. In addition, ₹ 269.76 crore has been capitalized in respect of development of coal mines as against ₹ 196.94 crore in previous year.

2.4 Depreciation, amortization and impairment expense (Note-36)

The depreciation and amortization expense charged to the Statement of Profit and Loss during the financial year 2018-19 was ₹ 7,254.36 crore as compared to ₹ 7,098.86 crore in financial year 2017-18, registering an increase of 2%. This is due to increase in the gross PPE by ₹ 13,569.33 crore in financial year 2018-19 over previous financial year. The increase in gross block is largely on account of increase in commercial capacity by 1,930 MW resulting in additional capitalization on account of commercial declaration of new units. The depreciation on new units capitalized during the year is on pro-rata basis.

Further, depreciation for units declared commercial during financial year 2017-18 aggregating to 3,978 MW has been charged for the entire financial year 2018-19 as against a pro-rata charge during the financial year 2017-18. The impact on depreciation on this account for the financial year 2018-19 is ₹ 760.13 crore.

As per the accounting policy of the Company, depreciation on the assets of the generation of electricity business is charged on straight-line method following the rates and methodology notified by the CERC Tariff Regulations in accordance with Schedule II of the Companies Act, 2013 and depreciation on the assets of the coal mining, oil & gas exploration and consultancy business, is charged on straight line method following the rates specified in Schedule II of the Companies Act, 2013.

In case of certain assets, the Company has continued to charge higher depreciation based on technical assessment of useful life of those assets.

2.5 Net movement in regulatory deferral account balance (Net of tax) (Note-65)

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. During the year, as per an opinion pronounced by EAC of the ICAI, the Company has recognised 'Deferred asset for deferred tax liability' as a 'Regulatory deferral account debit/credit balance' in accordance with Ind AS 114, Regulatory Deferral Accounts.

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 'Movements in regulatory deferral account balances' during construction period and adjusted from the year in which the same becomes recoverable from or payable to the beneficiaries. Accordingly, an amount of (-) ₹ 35.38 crore for the year ended as at 31 March 2019 has been accounted for as 'Regulatory deferral account debit balance' (31 March 2018: ₹ 578.71 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 (Regulatory deferral account debit balance) towards the increase in O&M expenditure due to the pay revision. Accordingly, an amount of ₹ 118.26 crore for the year ended 31 March 2019 has been accounted for as 'Regulatory deferral account debit balance' (31 March 2018: ₹ 118.32 crore).

CERC Regulations provide that deferred tax liability upto 31 March 2009 shall be recovered from the beneficiaries as and when the same gets materialised. Further, for the period commencing from 1 April 2014, CERC Regulations, 2014 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 deferred asset for above deferred tax liabilities (Net) in its financial statements (referred to as 'Deferred asset for deferred tax liability'). Deferred asset 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. The Company was recognising such deferred asset for deferred tax liability as part of Deferred tax liabilities (Net). During the year, in line with the opinion of the EAC of the ICAI, the same has been reclassified as a 'Regulatory deferral account debit balance'. Accordingly, an amount of (-) ₹ 5,160.22 crore for the year ended 31 March 2019 (31 March 2018: ₹ 2,707.85 crore) has been accounted for as 'Regulatory deferral account debit balance'.

The petition filed by the Company before CERC seeking to reimburse the expenditure on transportation of ash, has been favourably considered by the 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' has been created towards ash transportation expenses in respect of stations where there is shortfall in ash transportation expenses over and above the revenue from sale of ash. Accordingly, an amount of ₹ 179.29 crore (31 March 2018: ₹ Nil) for the year ended 31 March 2019 has been accounted for as 'Regulatory deferral account debit balance'.

Accordingly, for the financial year 2018-19, net movement in regulatory deferral account balances (net of tax) is (-) ₹ 3,841.34 crore whereas for the financial year 2017-18, ₹ 3,260.85 crore was recognized as net movement in regulatory deferral account balances (net of tax).

3. Profit before tax

The profit of the Company before tax and exceptional items is tabulated below:

(₹ Crore)

Particulars	FY 2018-19	FY 2017-18
Total revenue	92,179.56	85,207.95
Less:		
Expenditure related to operations	64,822.26	60,471.87
Energy purchased for trading	2,713.68	1,313.51
Finance cost	4,716.74	3,984.25
Depreciation, amortization and impairment expenses	7,254.36	7,098.86
Profit before tax	**12,672.52**	**12,339.46**

4. Tax expense (Note 48)

The Company provides for current tax in accordance with provisions of Income Tax Act, 1961 and for deferred tax considering the accounting policy of the Company.

Provision for current tax

A provision of ₹ 2,849.12 crore has been made towards current tax for the financial year 2018-19 as against the provision of ₹ 1,625.50 crore made in financial year 2017-18.

Provision for deferred tax

Regulations, 2014 provide for recovery of deferred tax liability as on 31 March 2009 from the beneficiaries. Accordingly, deferred tax liability as on 31 March 2009 is recoverable on materialisation from the beneficiaries. For the period commencing from 1 April 2014, Regulations, 2014 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. Deferred asset for deferred tax liability for the year will be reversed in future years when the related deferred tax liability forms part of current tax. Accordingly, the same has been accounted as 'Deferred asset for deferred tax liability'.

The deferred tax for the year on account of timing difference is (-) ₹ 5,767.83 crore as against ₹ 3,631.64 crore made in financial year 2017-18.

Details of tax provision

(₹ Crore)

Particulars	FY 2018-19		
	Current tax	Deferred tax	Total
Provision for financial year 2018-19	2,955.00	2,489.55	5,444.55
Adjustments for earlier years	(105.88)	-	(105.88)
MAT credit entitlement	-	(8,257.38)	(8,257.38)
Net provision as per Statement of Profit and Loss	2,849.12	(5,767.83)	(2,918.71)

(₹ Crore)

Particulars	FY 2017-18		
	Current tax	Deferred tax	Total
Provision for financial year 2017-18	2,576.80	3,631.64	6,208.44
Adjustments for earlier years	(951.30)	-	(951.30)
Net provision as per Statement of Profit and Loss	1,625.50	3,631.64	5,257.14

Net provision of tax for the financial year 2018-19 was (-) ₹ 2,918.71 crore in comparison to ₹ 5,257.14 crore in the financial year 2017-18.

5. Profit after tax

The profit of the Company after tax is tabulated below:

(₹ Crore)

Particulars	FY 2018-19	FY 2017-18
Profit before tax	12,672.52	12,339.46
Less: Tax expense	(2,918.71)	5,257.14
Add: Net movement in regulatory deferral account balances (net of tax)	(3,841.34)	3,260.85
Profit after tax	**11,749.89**	**10,343.17**

6. Other comprehensive income

The other comprehensive income net of tax for the financial year 2018-19 is (-) ₹ 201.87 crore in comparison to (-) ₹ 14.48 crore in the financial year 2017-18. For the financial year 2018-19, net actuarial loss on defined benefit plans is (-) ₹ 185.13 crore, while net loss on fair value of equity instruments is (-) ₹ 16.74 crore as against net actuarial loss on defined benefit plan and net loss on fair value of equity instrument amounting to (-) ₹ 7.28 crore and (-) ₹ 7.20 crore respectively in the previous financial year.

7. Segment-wise performance

The Company has two reportable segments i.e. 'Generation of energy' and 'Others'. The Company's principal business is generation and sale of bulk power to State Power Utilities. Other segment include providing consultancy, project management and supervision, energy trading, oil and gas exploration and coal mining.

The profit before unallocated corporate interest and other income & unallocated corporate expenses, interest and finance charges, in the generation business for the financial year 2018-19 was ₹ 13,724.83 crore as against ₹ 20,509.21 crore for financial year 2017-18. The profit before unallocated corporate interest and other income & unallocated corporate expenses, interest and finance charges from other segment was ₹389.72 crore for financial year 2018-19 as against a profit of ₹157.64 crore in the previous financial year.

C. Cash flows

Cash & cash equivalents and cash flows on various activities are given below:

(₹ Crore)

Particulars	FY 2018-19	FY 2017-18
Opening cash & cash equivalents	**60.49**	**157.12**
Net cash from operating activities	16,030.47	19,249.75
Net cash used in investing activities	(20,894.22)	(20,389.59)
Net cash flow from financing activities	4,827.65	1,043.21
Exchange difference arising from translation of foreign currency cash and cash equivalents	(0.01)	-
Change in cash and cash equivalents	(36.11)	(96.63)
Closing cash & cash equivalents	**24.38**	**60.49**

Statement of cash flows comprises of cash flows from operating activities, investing activities and financing activities.

Net cash generated from operating activities was ₹ 16,030.47 crore during the financial year 2018-19 as compared to ₹ 19,249.75 crore in the previous year primarily due to refund of income tax received during the previous year.

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 & dividend income from joint ventures and subsidiaries and mutual funds. Cash invested on purchase of fixed assets decreased from ₹ 18,016.86 crore in financial year 2017-18 to ₹ 17,701.26 crore in financial year 2018-19. Cash outflow on account of acquisition of Barauni Thermal Power Station was ₹ 2,145.33 crore during the year. Considering all the investing activities, the net cash used in investing activities was ₹ 20,894.22 crore in financial year 2018-19 as compared to ₹ 20,389.59 crore in the previous year.

During the financial year 2018-19 the Company had an inflow of ₹ 24,844.83 crore from long-term borrowings as against ₹ 17,230.49 crore in the previous year and inflow of ₹ 9,002.58 crore from short-term borrowings (Commercial papers & cash credit) as against ₹ 3,499.76 crore in the previous year. Cash used for repayment of long-term borrowings during the financial year 2018-19 was ₹ 13,839.47 crore as against ₹ 6,966.57 crore repaid in the previous year. Interest paid during the year was ₹ 9,248.74 crore as compared to ₹ 7,857.17 crore during the previous year. Cash used for paying dividend was ₹ 4,922.55 crore (previous year ₹ 4,040.28 crore) and the dividend tax thereon was ₹ 1,000.49 crore (previous year ₹ 816.40 crore). Thus, from financing activities during the year, the Company has an inflow of ₹ 4,827.65 crore as against an inflow of ₹ 1,043.21 crore in the previous year.

FINANCIAL SUMMARY OF SUBSIDIARY COMPANIES

Your Company has six subsidiary companies as at 31 March 2019 out of which four (NESCL, NVVN, KBUNL & NPGCL) are wholly owned.

A summary of the financial performance of the subsidiary companies during the financial year 2018-19 based on their audited results is given below:

(₹ Crore)

Sl.	Company	NTPC's investment in equity	Total Income	Profit/ (Loss) for the year
1	NTPC Electric Supply Company Ltd. #	0.08	-	(0.09)
2	NTPC Vidyut Vyapar Nigam Ltd.	20.00	4,503.14	65.56
3	Kanti Bijlee Utpadan Nigam Ltd.	1,510.68	1,610.41	98.74
4	Bhartiya Rail Bijlee Company Ltd.	1,599.53	1,210.02	8.88
5	Patratu Vidyut Utpadan Nigam Ltd.	234.12	-	(1.38)
6	Nabinagar Power Generating Company Ltd.	3,987.16	2.59	(3.21)
	Total	**7,351.57**	**7,326.16**	**168.50**

Operations of the Company are suspended since 1 April, 2015.

FINANCIAL SUMMARY OF JOINT VENTURE COMPANIES

Your Company has interests in the following joint venture companies. Proportion of ownership and financial performance of the companies for the financial year 2018-19 are given below:

(₹ Crore)

Sl.	Company	NTPC's interest (Ex. Share application Money) (%)	NTPC's investment in equity (net of impairment)	Total Income	Profit/ (Loss) for the year
A.	Joint venture companies incorporated in India				
1	Utility Powertech Ltd. @*	50.00	1.00	1,056.58	28.55
2	NTPC-GE Power Services Private Ltd.	50.00	3.00	232.35	2.92
3	NTPC-SAIL Power Company Ltd.	50.00	490.25	2,739.21	362.33
4	NTPC Tamil Nadu Energy Company Ltd.	50.00	1,415.61	4,104.70	119.20
5	Ratnagiri Gas and Power Private Ltd.	25.51	59.53	2,118.05	(574.04)
6	Konkan LNG Private Ltd.	14.82	-	334.70	(386.58)
7	Aravali Power Company Private Ltd.	50.00	1,433.01	4,385.00	781.22
8	Meja Urja Nigam Private Ltd.	50.00	1,259.33	-	(2.15)
9	NTPC BHEL Power Projects Private Ltd.	50.00	-	74.02	(53.02)
10	National High Power Test Laboratory Private Ltd.	20.00	30.40	26.44	(8.72)
11	Transformers & Electricals Kerala Ltd.	44.60	31.34	213.00	4.34
12	Energy Efficiency Services Ltd.	36.36	245.50	1,923.09	83.83
13	CIL NTPC Urja Private Ltd.	50.00	0.08	-	(0.01)
14	Anushakti Vidhyut Nigam Ltd.	49.00	0.05	-	-
15	Hindustan Urvarak & Rasayan Ltd.	33.33	440.32	32.06	13.41
B.	Joint venture companies incorporated outside India				
16	Trincomalee Power Company Ltd., Srilanka	50.00	15.20	0.11	(0.62)
17	Bangladesh-India Friendship Power Company Private Ltd., Bangladesh	50.00	277.83	-	-
	Total		**5,702.45**	**17,239.31**	**370.66**

@ excluding ₹ 1 crore equity issued as fully paid bonus shares

*Financial statements are audited.

As may be seen, out of 17 joint venture companies considered for consolidation, 11 companies listed at Sl. No.1 to 7 and 9 to 12 are operational. 7 of them registered an aggregate profit of ₹ 1,382.39 crore and balance companies have suffered an aggregate loss of ₹ 1,022.36 crore in the financial year 2018-19.

Consolidated financial results of NTPC Ltd.

A brief summary of the results on a consolidated basis is given below:

(₹ Crore)

Particulars	FY 2018-19	FY 2017-18
Total income	97,537.34	89,641.59
Profit before tax	13,627.94	12,529.27
Profit for the year	12,633.45	10,501.50
Other comprehensive income (expense) (net of tax)	(191.27)	(20.69)
Total comprehensive income for the year	**12,442.18**	**10,480.81**

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

(Gurdeep Singh)
Chairman & Managing Director

Place: New Delhi
Date: 8th July, 2019

Night view of NTPC Plant

Annexure-II to Directors' Report

REPORT ON CORPORATE GOVERNANCE

Corporate Governance is a process that aims to allocate resources of the Company in a manner that maximizes value for all stakeholders – shareholders, investors, employees, customers, suppliers, environment and the community. It is set of processes, policies and laws by which a company is directed, administered or controlled. Corporate Governance casts responsibility on the officials at the helm of the affairs of the Company to be accountable to its stakeholders by evaluating their decisions on the parameters of transparency, conscience, fairness, accountability and professionalism.

NTPC is adhering to the best recognized Corporate Governance practices and continuously benchmarking itself against each such practice in our endeavour to meet the expectations of the stakeholders.

1. CORPORATE GOVERNANCE PHILOSOPHY

Our Corporate Governance philosophy has been scripted as under:

"As a good corporate 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 long term success."

The above philosophy of Corporate Governance is guiding us in managing the company in a transparent manner for maximizing long-term value of the company for its shareholders and all other stakeholders.

2. THE BOARD OF DIRECTORS

The Board is at the core of our corporate governance practice and entrusted with the responsibility of the management, general affairs, direction, performance and long-term success of business as a whole. The Board reviews and approves management's strategic plan & business objectives and monitors the Company's strategic direction. The Board of Directors function in accordance with the powers delegated under the Companies Act, 2013, SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015 {hereinafter referred as SEBI LODR}, Memorandum & Articles of Association, Maharatna Guidelines issued by DPE vide Office Memorandum dated 19th May, 2010 and other guidelines issued by the Government of India from time to time, as may be applicable on the Company.

2.1 Size & Composition of the Board

NTPC is Government Company within the meaning of Section 2 (45) of the Companies Act, 2013. As per the provisions of the Articles of Association of the Company, the strength of Board shall not be less than four Directors or more than twenty Directors. The Articles of Association further provide that the power to appoint Directors vests with the President of India. Presently, the sanctioned strength of the Board of Directors is as under:

(i) Seven Functional Directors including the Chairman & Managing Director,

(ii) Two Government Nominee Directors and;

(iii) Nine Independent Directors as per the requirement of the SEBI LODR.

As on 31st March, 2019, the Board of Directors has an optimum combination of Executive/ Functional Directors and Non-Executive Directors. Details of the Board of Directors as on 31st March 2019 including details of other directorships & Membership/Chairmanship of Committees of Directors are as follows:

Sl. No.	Names of Directors	Designation	No. of other Directorship	Directorship in Listed entity	No. of Committee membership[3]	
					As Chairman	As Member
1.	Shri Gurdeep Singh	Chairman & Managing Director	2	-	-	-
2.	Shri Saptarshi Roy	Director (HR)	3	-	-	-
3.	Shri A.K. Gupta	Director (Commercial)	5	PTC India Limited	-	-
4.	Shri S.K. Roy	Director (Projects)	4	-	-	1
5.	Shri P.K.Mohapatra	Director (Technical)	5	-	-	-
6.	Shri Prakash Tiwari	Director (Operations)	2	-	-	1
7.	Shri K. Sreekant[1]	Director (Finance)	1	Power Grid Corporation of India Ltd.	-	2
8.	Shri Vivek Kumar Dewangan	Govt. Nominee Director	1	Power Grid Corporation of India Ltd.	-	2
9.	Ms. Archana Agrawal[2]	Govt. Nominee Director & Woman Director	-	-	-	-

Sl. No.	Names of Directors	Designation	No. of other Directorship	Directorship in Listed entity	No. of Committee membership[3]	
					As Chairman	As Member
10.	Dr. Gauri Trivedi	Independent Woman Director	6	1. Adani Power Limited 2. Energy Efficiency Services Ltd. 3. Sintex Plastics Technology Ltd. 4. Denis Chem Lab Ltd	-	2
11.	Shri Seethapathy Chander	Independent Director	2	Energy Efficiency Services Ltd.	2	-
12.	Shri M.P. Singh	Independent Director	-	-	1	1
13.	Shri P.K. Deb	Independent Director	-	-	-	1
14.	Shri Shashi Shekhar	Independent Director	1	-	-	1
15.	Shri Vinod Kumar	Independent Director	-	-	-	-
16.	Shri Subhash Joshi	Independent Director	-	-	-	1
17.	Dr. K. P. Kylasanatha Pillay	Independent Director	-	-	-	-
18.	Dr. Bhim Singh	Independent Director	-	-	-	-

1. Shri K. Sreekant was appointed as Director and given additional charge of Director (Finance) w.e.f. 29th March 2018 to 2nd November 2018 and again from 12th February 2019 for a period of 6 months or till further order.
2. Ceased to be Director w.e.f. 22nd April 2019.
3. Membership of only Stakeholders' Relationship Committee and Audit Committee has been considered (including NTPC).

The number of independent directors during the financial year 2018-19 vis-a-vis the number of independent directors required under SEBI LODR, Companies Act 2013 and DPE Guidelines on Corporate Governance were as under:

Period	Functional Directors	Govt. Nominee Directors	Independent Directors	No. of ID required under SEBI LODR Regulation 17(1)(b)	No. of ID required under Companies Act, 2013 Sec. 149(4)	Requirement as per DPE Guidelines	Remarks
01.04.2018-27.04.2018*	7	1	7	8	5	8	-
28.04.2018-29.07.2018*	7	2	7	9	6	9	Shri Vivek Kumar Dewangan was appointed as Govt. Nominee Director w.e.f. 28th April 2018.
30.07.2018-06.08.2018*	7	1	9	8	6	8	Dr. Bhim Singh & Dr. K.P.K. Pillay were appointed as Independent Director w.e.f. 30th July,2018. Shri Aniruddha Kumar ceased to be Govt. Nominee Director w.e.f. 30th July, 2018.
07.08.2018-02.11.2018*	7	2	9	9	6	9	Ms. Archana Agrawal was appointed as Govt. Nominee Director w.e.f. 7th August, 2018.
03.11.2018-07.12.2018	7	2	9	9	6	9	Shri K. Biswal reported for joining on 3rd November, 2018 & Shri K. Sreekant ceased to have additional charge of Director (Fin.).
08.12.2018-11.02.2019	6	2	9	8	6	8	Shri K. Biswal ceased to be director w.e.f 8th December, 2018.
12.02.2019-31.03.2019	7	2	9	9	6	9	Shri K. Sreekant was given additional charge of Director (Fin.) w.e.f. 12th February, 2019 by the MoP vide letter dated 13th February, 2019.

*Shri K. Sreekant, Director (Finance), Power Grid Corporation of India Limited was given the additional charge of Director (Finance), NTPC during the period Shri K. Biswal was under suspension.

Dr. Gauri Trivedi ceased to be Independent Director w.e.f. 15th November 2018. She was re-appointed as an Independent Director for a period of one (1) year by the Ministry of Power vide letter dated 22nd November, 2018. Subject to approval of shareholders, she was re-appointed as Independent Director w.e.f. 16th November 2018.

None of Directors of the Company is related to each other.

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 generally appointed by the Government of India for tenure of three years.

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:

Being a Government Company, appointment of Directors is made by the Government of India in accordance with the DPE Guidelines.

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 i.e. Finance, Operations, Projects, Technical, Human Resource and Commercial. 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 have expertise in the following areas:

I. Economics
II. Human Resources Management
III. Regulatory Framework
IV. Eminent industrialist from manufacturing concern
V. Management Consultant
VI. Environment
VII. Finance & Banking
VIII. Energy & Power Sector
IX. Academics
X. Research and Development

Accordingly, requests are made to the Government of India for appointment of Independent Directors in case of vacancy.

2.5 Board Meetings

The meetings of the Board of Directors are convened by giving appropriate advance notices. To address any urgent needs, sometimes Board meetings are also called at a shorter notice subject to observance of statutory provisions. In case of urgency, resolutions are also passed through circulation, if permitted under the statute.

Detailed agenda notes, management reports and other explanatory statements are normally circulated at least a week before the Board Meeting in a defined format amongst the Board Members for facilitating meaningful, informed and focused discussions in the meeting. In exceptional cases, where it is not possible to circulate documents in advance, the same is tabled during the meeting with the approval of Chairman & Managing Director and with the consent of a majority of the Directors present in the Meeting, including at least one Independent Director present at the meeting. As a part of green initiative, agenda for the meetings are sent through electronic mode ensuring encryption and password protection.

The meetings of the Board of Directors are generally held at the Company's registered office at New Delhi.

During the financial year 2018-19, twelve (12) meetings of the Board of Directors were held on 28th April 2018, 28th May 2018, 1st July 2018, 28th July 2018, 8th September 2018, 20th September 2018, 13th October 2018, 2nd November 2018, 19th December 2018, 30th January 2019, 27th February 2019 and 19th March 2019. The maximum interval between any two meetings was well within the permissible gap of 120 days.

The table below shows attendance of the Board members in Board meetings held during the FY 2018-19 and their attendance in last AGM:

Name of Director	Meeting Date												Whether Attended Last AGM	Total Meetings held during the tenure	No. of Meetings Attended	% of Attendance
	28/4/2018	28/5/2018	1/7/2018	28/7/2018	8/9/2018	20/9/2018	13/10/2018	02/11/2018	19/12/2018	30/1/2019	27/2/2019	19/3/2019				
Shri Gurdeep Singh Chairman & Managing Director	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Y	12	12	100%
Dr. Gauri Trivedi[1] Independent Woman Director	✓	x	x	✓	x	✓	✓	✓	✓	x	✓	✓	Y	12	8	66.67%
Shri Aniruddha Kumar[2] Joint Secretary (Thermal), MoP & Govt. Nominee Director	✓	✓	✓	x	-	-	-	-	-	-	-	-	-	4	3	75%
Shri S. Chander Independent Director	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Y	12	12	100%
Shri Saptarshi Roy Director (HR)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Y	12	12	100%
Shri A.K. Gupta Director (Commercial)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Y	12	12	100%
Shri M.P. Singh Independent Director	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Y	12	12	100%
Shri Pradeep Kumar Deb Independent Director	✓	✓	✓	✓	✓	✓	✓	✓	x	✓	✓	✓	Y	12	11	91.67%
Shri Shashi Shekhar Independent Director	✓	✓	x	✓	✓	✓	✓	✓	✓	✓	✓	✓	Y	12	11	91.67%
Shri Subhash Joshi Independent Director	✓	x	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Y	12	11	91.67%
Shri Vinod Kumar Independent Director	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Y	12	12	100%
Shri S.K. Roy Director (Projects)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Y	12	12	100%
Shri P.K. Mohapatra Director (Technical)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Y	12	12	100%
Shri Prakash Tiwari Director (Operations)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Y	12	12	100%
Shri K. Sreekant[3] Director (Finance)	✓	✓	✓	✓	✓	x	✓	✓	-	-	✓	✓	Y	10	9	90%
Shri Vivek Kumar Dewangan[4] Govt. Nominee Director	✓	x	x	✓	✓	x	✓	x	✓	✓	✓	✓	-	12	8	66.67%
Dr. Bhim Singh[5] Independent Director	-	-	-	-	x	x	✓	x	x	✓	✓	✓	-	8	4	50%
Dr. K. P. Kylasanatha Pillay[5] Independent Director	-	-	-	-	✓	✓	✓	✓	✓	✓	✓	✓	Y	8	8	100%
Ms. Archana Agrawal[6] Govt. Nominee Director	-	-	-	-	x	x	v	✓	✓	✓	✓	x	-	8	4	50%

1. Tenure of 3 years was completed on 15th November 2018. Subject to approval of the shareholders, Dr. Gauri Trivedi was re-appointed w.e.f. 16th November 2018 for a period of 1 year vide the order of Ministry of Power dated 22nd November 2018. 2. Ceased to be Govt. Nominee Director w.e.f. 30th July, 2018. 3. Shri K.Sreekant was appointed as Director and given additional charge of Director (Finance) w.e.f. 29th March 2018 to 2nd November 2018 and again from 12th February 2019 for a period of 6 months or till further order. 4. Appointed as Govt. Nominee Director w.e.f. 28th April 2018. 5. Appointed as Independent Director w.e.f. 30th July 2018. 6. Appointed as Govt. Nominee Director w.e.f. 7th August, 2018.

2.6 Board Independence:

All the Independent Directors have given the declaration that they meet the criteria of independence as per the provisions of the Companies Act, 2013 and SEBI LODR.

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. Similar exemption is also expected from SEBI under the SEBI LODR. 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 maybe, the State Government as per its own evaluation methodology. In this regard, Deptt. of Public Enterprise(DPE) has already laid down a mechanism for performance appraisal of all functional directors. DPE has also initiated evaluation of Independent Directors.

It may also be noted that NTPC enters into Memorandum of Understanding (MoU) with Government of India each year, containing key performance parameters for the company. The MoU targets are cascaded down and form an integral part of the performance appraisal of the individuals. The internal MoU covers all operational and performance parameters like Plant Performance and Efficiency, Financial targets, Cost cutting targets, Environment, Welfare, Community development and any other relevant factor. The performance of the Company is evaluated by the Department of Public Enterprise vis-à-vis MoU entered into with the Government of India.

2.8 Separate Meeting of Independent Directors:

Ministry of Corporate Affairs vide Notification dated 5th July, 2017 has exempted Government Companies from applicability of clause (a) and (b) of sub-paragraph (3) of paragraph VII of Schedule IV of the Companies Act, 2013 which requires that the Independent Directors in their separate meeting shall review the performance of non-independent directors, performance of the Board as a whole, performance of the Chairman of the company, taking into account the views of executive directors and non-executive directors. Representation has been given to SEBI for exemption from these requirements as given in Regulation 25(4) of SEBI LODR inline with exemption available under Companies Act, 2013.

A separate meeting of Independent Directors was held on 27th February, 2019. The meeting was attended by all Independent Directors. In this meeting, independent directors assessed the performance of the Board as a whole and also the quality, quantity and timeliness of flow of information between the Company management and the Board which is necessary for the Board to effectively and reasonably perform their duties.

2.9 Information placed before the Board of Directors:

The Board has complete access to any information within the Company to be able to take informed decisions, exercise control over the organisation as well as to review the progress of implementation of the strategic decisions and corporate plans formulated by the Board. Information provided to the Board normally includes:

- Annual operating plans and budgets and any updates.
- Capital Budgets and any updates.
- Quarterly financial results.
- Annual Accounts, Directors' Report.
- Major investments, formation of subsidiaries and Joint Ventures or collaboration agreement, Strategic Alliances, etc.
- Minutes of meetings of Audit Committee 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 CMD, 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 and Company Secretary.
- Any significant development in Human Resources/ Industrial Relations like signing of wage agreement, implementation of Voluntary Retirement Scheme, etc.
- 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. COMMITTEES OF THE BOARD OF DIRECTORS

With a view to ensure effective decision making, the Board of Directors has constituted various Committees to have focused attention on crucial issues. Some of these committees have been constituted voluntarily.

3.1 Audit Committee

The composition, quorum, scope, etc. of the Audit Committee are in line with the Companies Act, 2013, SEBI LODR and Guidelines on Corporate Governance as issued by Department of Public Enterprises, Govt. of India.

Composition

As on 31st March 2019, the Audit Committee comprised the following members:-

S.No.	Name of the Member	Designation
1	Shri Seethapathy Chander, Independent Director	Chairman
2	Dr. Gauri Trivedi, Independent Director	Member
3	Shri Pradeep Kumar Deb, Independent Director	Member
4	Shri M.P. Singh, Independent Director	Member
5.	Govt. Nominee Director (Joint Secretary & Finance advisor, MoP)	Member

Director (Finance), Head of Internal Audit Department and Senior Executives are invited to the Audit Committee Meetings for interacting with the members of the Committee. The Statutory Auditors and Cost Auditors of the Company are also invited to the meetings of the Audit Committee while discussing financial statements & 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 follows:-

1. Before commencement of Audit, discussion with the auditors about the nature and scope of audit and after the completion of Audit, deliberation on area of concern.
2. Provide an open avenue of communication between 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 statements 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.
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 Chief Internal Auditor.

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. 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 Guidelines issued by DPE.

Meetings and Attendance

During the financial year 2018-19, five (5) meetings of the Audit Committee were held and details including attendance of members of the Committee are as follows:

Name of Directors	Meeting Date					Total Meetings held during the tenure	No. of Meetings Attended	% of Attendance
	28/4/2018	28/5/2018	28/7/2018	2/11/2018	30/01/2019			
Shri S. Chander	✓	✓	✓	✓	✓	5	5	100%
Dr. Gauri Trivedi	✓	X	✓	✓	X	5	3	60%
Shri M.P. Singh	✓	✓	✓	✓	✓	5	5	100%
Shri P.K. Deb	✓	✓	✓	✓	✓	5	5	100%
Shri Vivek Kumar Dewangan[1]	✓	X	✓	X	✓	5	3	60%

1. Ceased to be member of the Audit Committee consequent upon change in designation from Joint Secretary & FA to Joint Secretary (Thermal) w.e.f. 30th April, 2019.

Shri S. Chander, Chairman of the Audit Committee was present in the Annual General Meeting held on 20th September, 2018 to answer the queries of the shareholders.

3.2 Stakeholders' Relationship Committee

This Committee considers and resolves the grievances of security holders of the Company inter-alia including grievances related to transfer of shares, non-receipt of Annual Report, non-receipt of dividend etc. The Committee also reviews measures taken for effective exercise of voting rights by shareholders, adherence to the service standards adopted by the listed entity in respect of various services being rendered by the Registrar & Share Transfer Agent and 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.

Composition

As on 31st March 2019, this committee was constituted with the following Directors:

S.No.	Name	Designation
1.	Shri M.P. Singh, Independent Director	Chairman
2.	Shri K. Sreekant*	Director (Finance)
3.	Shri Subhash Joshi	Independent Director
4.	Shri Shashi Shekhar	Independent Director

*Shri K.Sreekant was appointed as Director and given additional charge of Director (Finance) w.e.f. 29th March 2018 to 2nd November 2018 and again from 12th February 2019 for a period of 6 months or till further order.

Meeting and Attendance

During the financial year 2018-19, four (4) meetings of the Stakeholders' Relationship Committee were held and details including attendance of members of the Committee are as follows:

Name of Directors	Meeting Date				Total Meetings held during the tenure	Meetings Attended	% of Attendance
	28/4/2018	28/7/2018	2/11/2018	30/01/2019			
Shri M.P. Singh	✓	✓	✓	✓	4	4	100%
Shri Vinod Kumar[3]	✓	-	-	-	1	1	100%
Shri Shashi Shekhar[4]	-	✓	✓	✓	3	3	100%
Shri Subhash Joshi	✓	✓	✓	✓	4	4	100%
Shri K. Sreekant[1]	✓	✓	✓	-	3	3	100%
Shri Saptarshi Roy[2]	-	-	-	✓	1	1	100%

1. Additional charge of post of Director (Fin.) was given to Shri K.Sreekant by the Ministry of Power from 29th March 2018 to 2nd November 2018 and again from 12th February 2019 for a period of 6 months or till further order. 2.Had additional charge of Director (Finance) from 5th January 2019 to 11th February 2019. 3. Ceased to be member of the Committee due to reconstitution w.e.f. 11st July 2018. 4. Appointed as member of the Committee due to reconstitution w.e.f. 1st July 2018.

Name and designation of Compliance Officer

The Board of Directors had appointed Ms. Nandini Sarkar, as the Company Secretary & Compliance Officer in terms of Regulation 6 of SEBI LODR.

Investor Grievances:

The Company has always valued its investor's relationship. During the financial year ending 31st March 2019, Company has attended its investor grievances expeditiously except for the cases constrained by disputes or legal impediments. The details of the complaints received, resolved and disposed off during the year are as under:

Particulars	Opening Balance	Received	Resolved	Pending
Complaints relating to				
Equity Shares	0	798	798	0
Bonus Debentures	1	869	870	0
Private Placement of Bonds	0	0	0	0
Public Issue of Bonds	0	113	113	0

Number of pending share transfers

Share Transfers have been affected within 30 days from the date of lodgement of valid transfer deeds as prescribed under SEBI LODR. A certificate to this effect duly signed by a Practising Company Secretary was furnished to Stock Exchanges as per requirement of Regulation 40 (9) of SEBI LODR. As on 31st March, 2019, no transfer request was pending with the Company.

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 including PRP has been constituted. The scope of the Committee includes approval of annual bonus/ variable pay pool and policy for its distribution across the executives and non-unionized supervisors within the prescribed limit in addition to scope as defined under the Companies Act, 2013 and SEBI LODR. The Committee also 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 Chairman & Managing Director are appointed by the Govt. of India. Their tenure and remuneration are also fixed by the Government of India. The remuneration of Functional Directors and employees of the Company is fixed as per extant guidelines issued by Department of Public Enterprises (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.

As appointment of Directors are made by the Government of India, accordingly, evaluation of Directors are 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. Similar exemption is anticipated from SEBI under SEBI LODR.

As on 31st March 2019, the Nomination and Remuneration Committee including PRP comprised the following Members:

S. No.	Name	Designation
1.	Dr. Gauri Trivedi, Independent Director	Chairperson
2.	Shri S. Chander, Independent Director	Member
3.	Shri Vinod Kumar, Independent Director	Member
4.	Shri P.K. Deb, Independent Director	Member

Meeting and Attendance

During financial year 2018-19, five (5) meetings of Nomination and Remuneration Committee including PRP were held. Details of the meeting including attendance of members of the Committee are as follows:

Name of Directors	Meeting Date					Total Meetings held during the tenure	Meetings Attended	% of attendance
	28/5/2018	28/7/2018	20/9/2018	5/10/2018	28/11/2018			
Dr. Gauri Trivedi[1]	X	✓	✓	✓	-	4	3	75%
Shri S. Chander	✓	✓	✓	✓	✓	5	5	100%
Shri Vinod Kumar	✓	✓	✓	✓	✓	5	5	100%
Shri P.K. Deb	✓	✓	✓	✓	✓	5	5	100%

1. Tenure of 3 years was completed on 15th November 2018. Subject to approval of the shareholders, Dr. Gauri Trivedi was re-appointed w.e.f. 16th November 2018 for a period of 1 year vide the order of Ministry of Power dated 22nd November 2018.

3.4 Corporate Social Responsibility and Sustainability Committee

This Committee has been constituted as per the requirements of Section 135 of the Companies Act, 2013 and DPE guidelines on sustainability (SD). CSR committee formulates and recommends the Corporate Social Responsibility & Sustainability Policy to the Board along with the amount of expenditure to be incurred on the activities specified in the CSR & SD Policy and monitors the CSR Policy of the Company apart from looking into such matter as the Board may delegate from time to time.

As on 31st March 2019, the Committee comprised the following members:

S. No.	Name	Designation
1.	Dr. Gauri Trivedi	Independent Director & Chairperson of the Committee
2.	Shri Saptarshi Roy	Director (HR)
3.	Shri P.K. Deb	Independent Director
4.	Shri Vinod Kumar	Independent Director
5.	Shri Vivek Kumar Dewangan*	Government Nominee Director (JS&FA, MOP)

*Ceased to be member of the CSR Committee consequent upon change in designation from Joint Secretary & FA to Joint Secretary (Thermal), MoP w.e.f. 30th April, 2019.

NTPC's Policy on CSR & Sustainability can be viewed at the weblink:https://www.ntpc.co.in/sites/default/files/downloads/ntpc-policy-csr-sustainability.pdf.

Meeting and Attendance

During 2018-19, eight (8) meetings of the Committee for CSR & Sustainability were held and details including attendance of members of the Committee are as follows:

Name of Directors	No. of Meetings								No. of Meetings held during tenure	Total Meetings attended	% Attendance
	27/4/2018	28/5/2018	30/06/2018	8/9/2018	2/11/2018	19/12/2018	29/01/2019	27/02/2019			
Dr. Gauri Trivedi	✓	X	X	X	✓	✓	X	✓	8	4	50%
Shri Saptarshi Roy	✓	✓	✓	✓	✓	✓	✓	✓	8	8	100%
Shri P.K. Deb	✓	✓	✓	✓	✓	X	✓	✓	8	7	87.5%
Shri Vinod Kumar	✓	✓	✓	✓	✓	✓	✓	✓	8	8	100%
Shri Vivek Kumar Dewangan*	-	-	X	✓	X	X	✓	✓	6	3	50%

*Ceased to be member of the CSR Committee consequent upon change in designation from Joint Secretary & FA to Joint Secretary (Thermal), MoP w.e.f. 30th April, 2019.

3.5 Risk Management Committee

Pursuant to Regulation 21 of SEBI LODR, Risk Management Committee has been constituted for risk assessment under the Risk Management Framework, monitoring and reviewing risk management plan/ framework as approved by the Board, informing the Board about the risk assessed and action required to be taken/ already taken for mitigating the risks on quarterly basis by the Chief Risk Officer (CRO) and taking up any other matter as directed by the Board from time to time. The terms of reference of the Committee has been amended to include review of cyber security risk.

The Risk Management Framework is being reviewed periodically by the Board. Details on risk management mechanism are given in the Management's Discussion and Analysis report annexed with the Directors' Report.

As on 31st March, 2019, the Committee comprised the following Members:

S. No.	Designation
1.	Director (Technical)
2.	Director (Projects)
3.	Director (Operations)
4.	Head of Coal Mining
5.	Chief General Manager-I/c (CP)/ Chief Risk Officer(CRO), Member

Meeting and Attendance

During 2018-19, three (3) meetings of the Risk Management Committee were held and details including attendance of members of the Committee are as follows:

Name of Members	16/7/2018	10/12/2018	12/02/2019	No. of Meetings held during tenure	Total Meetings attended	% Attendance
Shri S.K. Roy	✓	✓	✓	3	3	100%
Shri P.K. Mohapatra	✓	✓	✓	3	3	100%
Shri Prakash Tiwari	✓	✓	✓	3	3	100%
Head of Corporate Planning	✓	✓	✓	3	3	100%
Head of Mining	-	✓	x	2	1	50%

3.6 Other Committees of the Board of Directors:

Other sub-committees of the Board of Directors are as under:

S.No.	Name of the Company	Role & Responsibility	Members (as on 31.03.2019)
1.	**Committee on Management Controls**	Review of significant deviations in project implementation and construction, operation and maintenance budgets etc.	1. Shri Shashi Shekhar, Independent Director & Chairman of the Committee 2. Director (Finance) 3. Director (Operations) 4. Shri M. P. Singh, Independent Director 5. Shri Vinod Kumar, Independent Director 6. Government Nominee Director (JS&FA, MOP)
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. Director (Technical), Chairman of the Committee 2. Director (Finance) 3. Director (Projects) 4. Director (Operations) 5. Shri Subhash Joshi, Independent Director 6. Dr. Bhim Singh, Independent Director 7. Government Nominee Director (JS&FA, MOP)
3.	**Committee of Functional Directors for Contracts**	Award of works or purchase contracts or incurring of commitments exceeding ₹ 150 crore but not exceeding ₹ 250 crore.	1. Chairman & Managing Director 2. Director (HR) 3. Director (Commercial) 4. Director (Projects) 5. Director (Technical) 6. Director (Operations) 7. Director (Finance)
4.	**Contracts Sub-Committee**	Award of works or purchase contracts or incurring commitments of value exceeding ₹ 250 crore but not exceeding ₹ 500 crore, Consultancy assignments including foreign consultancy assignments exceeding ₹ 5 crore each and Appointment of Sponsor/ Agents for Overseas Consultancy Assignments involving sponsorship/ agency commission exceeding ₹ 5 crore each.	1. Chairman & Managing Director 2. Government Nominee Director,(JS&FA, MOP) 3. Dr. Gauri Trivedi, Independent Director 4. Director (Projects) 5. Director (Technical) 6. Director (Finance)
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. Director(Finance)/ Director (Technical) 2. Director (HR)/ Director (Projects) 3. Director (Commercial)/ Director (Operations)

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 Subhash Joshi, Independent Director & Chairman of the Committee 2. Director (HR) 3. Dr. Gauri Trivedi, Independent Director 4. Dr.K.P.K.Pillay, Independent Director (Note- In case where Director (HR) acts as a Disciplinary Authority, any other whole-time Director as may be decided by the Chairman & Managing Director on case to case basis, shall be the member in place of Director (HR). Further, for vigilance cases, Chief Vigilance Officer is co-opted.)
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, hedging proposals etc.	1. Shri M.P. Singh, Independent Director & Chairman of the Committee 2. Director (Finance) 3. Director (Commercial)* 4. Shri P.K. Deb, Independent Director 5. Shri Shashi Shekhar, Independent Director 6. Government Nominee Director (JS&FA, MOP) (*In the absence of Director (Commercial), either Director (Technical) or Director (Operations) shall be the Member of the Committee.)
8.	**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 Seethapathy Chander, Independent Director & Chairman of the Committee 2. Shri Subhas Joshi, Independent Director 3. Shri P.K.Deb, Independent Director 4. Shri Vinod Kumar, Independent Director 5. Director (Fin.) 6. Director (Commercial) 7. Director (Operations)
9.	**Business Development Committee**	For according in-principle approval for new business initiatives and use of Business Development Fund of Rs.50 Crore	1. Shri Pradeep Kumar Deb, Independent Director & Chairman of the Committee 2. Shri Seethapathy Chander, Independent Director 3. Shri Shashi Shekhar, Independent Director 4. Director (Commercial)
10.	**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 P.K.Deb, Independent Director & Chairman of the Committee 2. Shri S.Chander, Independent Director 3. Shri Shashi Shekhar, Independent Director 4. Dr.K.P.K.Pillay, Independent Director 5. Director (Commercial) 6. Director (Technical) 7.Director (Finance) 8. Govt. Nominee Director (JS&FA, MOP)
11.	**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 P.K.Deb, Independent Director & Chairman of the Committee 2. Shri Vinod Kumar, Independent Director 3. Dr. K.P.K.Pillay, Independent Director 4. Director (Projects) 5. Director (Finance)
12.	**Committee for Supervising Legal Matters**	For supervising legal matters and giving guidance regarding handling of legal matters	1. Dr. K.P.K.Pillay, Independent Director & Chairman of the Committee 2. Dr.Bhim Singh, Independent Director 3. Director (In-charge of Legal Dept.) 4. Director (Commercial)

4. REMUNERATION OF DIRECTORS

The remuneration of Functional Directors of the Company is fixed as per extant guidelines issued by Department of Public Enterprises (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.

The Ministry of Power, Government of India vide their letter dated 8th August 2018 has conveyed approval for enhancement of sitting fee payable to Independent Directors from Rs. 20,000/- to Rs. 40,000/- for attending each meeting of the Board and Rs. 30,000/- for attending each meeting of the Committee.

No stock option was given to any Director during the financial year 2018-19.

Details of remuneration of Functional Directors for the financial year 2018-19 are given below:-

(in Rs.)

Name of the Director	Salary	Benefits	Performance Linked Incentives[2]	Total[3]
Sh. Gurdeep Singh	7941944	2453853	4831256	15227053
Sh. Saptarshi Roy	6429602	835714	2647381	9912697
Sh. Anand Kumar Gupta	5667085	726785	2458169	8852039
Sh. Susanta Kumar Roy	6085049	1131602	2104894	9321545
Sh. P K Mohapatra	5912112	688053	2031485	8631650
Sh. Prakash Tiwari	5019192	1377690	1848471	8245353
Sh. Kulamani Biswal[1]	2794815	1097631	1996364	5888810

1. Ceased to be director w.e.f. 8th December 2018.
2. Performance linked incentive is paid based on the DPE Guidelines and incentive scheme of the Company.
3. Besides above, Functional Directors are also entitled for medical benefit as per the applicable employees' rules of the company.

Details of payments towards sitting fee to Independent Directors during the financial year 2018-19 are given below:

(in Rs.)

Name of Part-Time Non Official Directors	Sitting Fees (Excluding GST)		Total
	Board Meeting	Committee Meeting	
Dr. Gauri Trivedi	280000	470000	750000
Sh. Seethapathy Chander	400000	630000	1030000
Sh. Pradeep Kumar Deb	360000	830000	1190000
Sh. Mahendra Pratap Singh	400000	450000	850000
Sh. Subhash Joshi	380000	460000	840000
Sh. Vinod Kumar	400000	620000	1020000
Sh. Shashi Shekhar	380000	540000	920000
Dr. K.P. Kylasanatha Pillay	320000	180000	500000
Dr. Bhim Singh	160000	90000	250000

5. MATERIAL SUBSIDIARY:

The Company has formulated a Policy for determining 'Material' Subsidiaries as per Regulation 16(1)(c) of SEBI LODR. The same is available at the weblink: http://www.ntpc.co.in/download/policy-determining-material.

In the year 2018-19, the Company had no 'Material Subsidiary' as defined under Regulation 16(1) (c) of SEBI LODR or the subsidiaries as defined under Guidelines on Corporate Governance for Central Public Sector Enterprises issued by Department of Public Enterprises, Govt. of India.

6. FAMILIARIZATION PROGRAMME FOR DIRECTORS

With a view to augmenting leadership qualities, knowledge and skills, Directors are being imparted training organised from time to time by the Company and other agencies/ institutions. 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. Web link of details of familiarization programme imparted to independent directors is as under: https://www.ntpc.co.in/en/Familiarisation%20Program%20to%20Directors.

7. GENERAL BODY MEETINGS

Annual General Meetings

Date, time and location where the last three Annual General Meetings alongwith details of Special Resolutions passed are as under:

Date & Time	20th September, 2016	20th September , 2017	20th September , 2018
Time	10:30 A.M.	10:30 A.M.	10.30 A.M.
Venue	Manekshaw Centre, Parade Road, New Delhi - 110 010	Manekshaw Centre, Parade Road, New Delhi - 110 010	Manekshaw Centre, Parade Road, New Delhi - 110 010
Special Resolution	i) Authorization to Board to raise funds upto Rs. 15,000/- Crore through issue of secured/ unsecured, redeemable, taxable/ tax-free, cumulative/ non-cumulative, non-convertible Bonds/ Debentures on Private Placement Basis in one or more tranches through Private Placement in domestic market and authorising the Board to decide the terms and conditions of the Issue.	i) Authorization to Board to raise funds upto Rs. 15,000/- Crore through issue of secured/ unsecured, redeemable, taxable/ tax-free, cumulative/ non-cumulative, non-convertible Bonds/ Debentures on Private Placement Basis in one or more tranches through Private Placement in domestic market and authorising the Board to decide the terms and conditions of the Issue. ii) Approval of Shareholders for amending Articles of Association of the Company with a view to insert provision regarding Consolidation and re-issuance of debt Securities.	(i) Authorization to Board to raise funds upto Rs. 12,000/- Crore through issue of secured/ unsecured, redeemable, taxable/ tax-free, cumulative/ non-cumulative, non-convertible Bonds/ Debentures on Private Placement Basis in one or more tranches through Private Placement in domestic market and authorising the Board to decide the terms and conditions of the Issue.

The Annual General Meeting held on 20th September 2018, was attended by Partner/authorised representative of two Statutory Auditors firms out of seven Statutory Auditors. Leave of absence was given to the other statutory auditors, as per their request pursuant to section 146 of the Companies Act, 2013. Meeting was also attended by the Scrutiniser appointed by the Board for E-voting/ Polling at AGM and Secretarial Auditor of the Company.

In accordance with Regulation 44 of the SEBI LODR and Section 108 of Companies Act 2013, E-voting facility was provided to the shareholders, in respect of resolutions passed at the AGM held on 20th September 2018. In addition to above, facility of voting through electronic mode (through tablets) was also provided to those shareholders, who did not cast their vote through E-voting.

Special Resolution passed through Postal Ballot

No special resolution was passed during last year through postal ballot. However, approval of Share holders was sought through ordinary resolution for issuing bonus shares. M/s A.Kaushal & Associates, Practising Company Secretary was appointed as scrutinizer by the Board of Directors. Further, as of now, no special resolution is proposed to be conducted 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 RPT Policy is available at the web link:https://www.ntpc.co.in/sites/default/files/downloads/related-party-transaction-policy-ntpc.pdf

The Company had obtained the approval of shareholders, by way of special resolution, for entering into related party transaction with Utility Powertech Limited, an associate company, subject to cumulative ceiling of 2% of the annual turnover of the Company as per the Annual Audited financial statement of preceding financial year or Rs. 1,000 crore, whichever is more, in any financial year. Review of transactions with Utility Powertech Limited, in pursuance of special resolution, is being done periodically by the Audit Committee. Other related party transactions are being approved by the Audit Committee as and when required. The details of Related Party Transactions are given in form AOC-2 forming part of Board's Report.

(b) The Company has broadly complied with all the requirements of SEBI LODR, the Companies Act, 2013 and Guidelines on Corporate Governance for Central Public Sector Enterprises issued by Department of Public Enterprises, Ministry of Heavy Industries and Public Enterprises, Government of India except as mentioned above in the Report.

(c) The Company had received notices from the NSE and BSE for non-compliance with the provisions of Regulation 17 (1) of the SEBI LODR in respect of Q 2 and Q 3 of 2018-19. 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 the Penalty. 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. Non-compliance, if any, of the Regulations of SEBI LODR has been specifically mentioned in the Report. The discretionary requirements as specified in Part E of Schedule II adopted by the Company are at Annex-I of the Report.

(e) Schedule of Compliances with Presidential Directive issued during the financial year 2018-19 and during last three years preceding the financial year 2018-19 is at Annex-II.

(f) Credit Ratings:

Domestic Credit Instruments:

	CRISIL	ICRA	CARE
Long Term Loans	CRISIL AAA/ Stable	ICRA AAA/ Stable	CARE AAA/ Stable
Domestic Bonds	CRISIL AAA/ Stable	ICRA AAA/ Stable	CARE AAA/ Stable
Commercial Papers	CRISIL A1+	ICRA A1+	CARE A1+
Bank Guarantees	CRISIL A1+	ICRA A1+	CARE A1+
Letter of Credit	CRISIL A1+	ICRA A1+	CARE A1+
Cash credit	CRISIL AAA/ Stable	ICRA AAA/ Stable	CARE AAA/ Stable

International Credit Instruments:

	S&P	Moody's	Fitch
Company Rating	BBB-/ Stable	Baa2	BBB-/ Stable
Rating of USD 6 billion MTN Programme	BBB-	Baa2	BBB-
Bonds issued thereunder the USD 6 billion MTN Programme during 2018-19	-	Baa2	BBB-

There has not been any revision in credit rating of above mentioned domestic credit instruments during the relevant financial year.

(g) Disclosure under the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013:

No. of cases reported during the 2018-19	No. of cases disposed off during the 2018-19	No. of cases under process/ investigation as on end of the 2018-19
3	1	2

(h) Dis-qualification of Directors:

M/s A.Kaushal & Associates, Practising Company Secretary 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 Company by the SEBI/Ministry of Corporate Affairs/ any such authority as on 31st March, 2019. Copy of certificate is enclosed as Annex-III.

(i) During the year 2018-19, there was no Preferential Allotment / Qualified Institutional Placement of Shares which is required to be reported under Regulation 37(A) of the SEBI LODR.

(j) During the year 2018-19, 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 2018-19, total fee of Rs. 439.53 lakh 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.

9. CEO/CFO CERTIFICATION

As required under Regulation 17 (8) of SEBI LODR, the certificate duly signed by Chairman & Managing Director and CFO was placed before the Board of Directors at the meeting held on 22nd May 2019 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 the close of each quarter.

Information, latest updates and announcements regarding the Company can be accessed at company's website: www.ntpc.co.in including the following:-

- Quarterly/ Half-yearly/ 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.

During 2018-19, Quarterly Results have been published as per details given below:

Quarter	Date of Publication	Newspaper (s)
Q1	29/07/2018	Financial Express (English), Hindustan Times (English), Business Standard (English), The Times of India (English), Jansatta (Hindi), Hindustan (Hindi).
	30/07/2018	Economic Times (English), Business Standard (Hindi).
Q2	3/11/2018	Business Standard (English), The Pioneer (English), Business Line (English), Millennium Post (English), Financial Express (English) , Economic Times (English), Times of India (English), Hindustan Times (English), Mint (English)
	4/11/2018	Jansatta (Hindi), Hindustan (Hindi),
	5/11/2018	Business Standard (Hindi)
Q3	31/01/2019	Hindustan Times (English), Mint (English), Hindustan (Hindi), Economic Times (English), The Times of India (English)

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(s) of the Company. A copy of the Code of Conduct is available at the website of the Company at the weblink:http://www.ntpc.co.in/en/investors/code-of-conduct.

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, 2019.

New Delhi **(Gurdeep Singh)**
8th May, 2019 **Chairman & Managing Director**

12. CODE OF INTERNAL PROCEDURES AND CONDUCT 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) with the objective that insiders of the company shall not derive any benefit or assist others to derive any benefit from the access to and possession of Unpublished Price Sensitive Information (UPSI) about the Company which is not in public domain. Company Secretary has been designated as Compliance Officer for this Code. Further, in line with the SEBI Regulations, a "Code of Practices and Procedures for Fair Disclosure Of UPSI" & "Policy for Determination of Legitimate Purposes" have also been formulated by the Board of Directors. Under the "Code of Practices and Procedures for Fair Disclosure Of UPSI", Company Secretary/ General Manager (Finance-ISD) or any other person authorised by the Chairman & Managing Director shall be responsible for prompt dissemination of information and disclosure of Unpublished Price Sensitive Information. Copy of the Insider trading code is available on following weblink:https://www.ntpc.co.in/en/investors/insider-trading.

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 safeguards against victimization of employees, who avail the mechanism and for direct access to the Chairman of the Audit Committee.

No personnel of the company had been denied access to the Chairman of audit committee. The Whistle Blower Policy is available at the web link:http://www.ntpc.co.in/sites/default/files/downloads/WhistleBlowerPolicy.pdf.

14. SECURITYHOLDERS' INFORMATION

i) Annual General Meeting

Date	:	21st August , 2019 (Tentative)
Time	:	10.30 a.m.
Venue	:	Manekshaw Centre Parade Road New Delhi – 110 010

ii) Financial Calendar for FY 2019-20

Particulars	Date
Accounting Period	1st April, 2019 to 31st March, 2020
Unaudited Financial Results for the first three quarters	Announcement within stipulated period under SEBI LODR
Fourth Quarter Results	Announcement of Audited Accounts on or before 30th May, 2020
AGM (Next year)	August, 2020 (Tentative)

iii) Book Closure

The Register of Members and Share Transfer Books of the Company will remain closed tentatively from 15th August, 2019 to 21st August, 2019 (both days inclusive).

iv) Payment of Dividend

The Board of Directors of the Company has recommended payment of final Dividend of Rs. 2.50 per share (25.00% on the paid-up share capital) for the financial year ended 31st March, 2019 in addition to the Interim Dividend of Rs.3.58 per share (35.80% on the paid-up share capital) paid on 14th February, 2019.

The final dividend on equity shares, if declared at the Annual General Meeting, will be paid on 3rd September, 2019 to the Members whose names appear on the Company's Register of Members on 21st August, 2019 in respect of physical shares. In respect of dematerialized shares, the dividend will be payable to the "beneficial owners" of the shares whose names appear in the Statement of Beneficial Ownership furnished by NSDL and CDSL as at the close of business hours on 14th August, 2019.

v) Dividend History

Year	Total paid-up capital (₹ in crore)	Total amount of dividend paid (₹ in crore) and amount per share	Date of AGM in which dividend was declared	Date of payment of Dividend (Interim and Final)
2013-14	8245.46	4741.15 (Rs.5.75)	28/01/2014* 27/08/2014	10/02/2014 09/09/2014
2014-15	8245.46	2061.38 (Rs.2.50)	30/01/2015* 18/09/2015	13/02/2015 30/09/2015
2015-16	8245.46	2762.22 (Rs. 3.35)	29/01/2016* 20/09/2016	15/02/2016 30/09/2016
2016-17	8245.46	3941.33 (Rs.4.78)	08/02/2017* 20/09/2017	22/02/2017 29/09/2017
2017-18	8245.46	4221.67 (Rs.5.12)	31/01/2018* 20/09/2018	15/02/2018 01/10/2018
2018-19	8245.46**	2951.87# (Rs.3.58)	30/01/2019*	14/02/2019

* Date of Board Meeting in which interim dividend was declared.

amount represents the interim dividend paid for the year 2018-19.

** paid up share capital was increased to Rs.9894.56 Crore consequent upon Bonus issue.

vi) Listing on Stock Exchanges:

NTPC equity shares are listed on the following Stock Exchanges:

National Stock Exchange of India Limited Address: Exchange Plaza, Plot No. C/1, G Block, Bandra (E), Mumbai - 400051 **Scrip Code of NTPC: NTPC EQ**	**BSE Limited** Address: Phiroze Jeejeebhoy Towers, Dalal Street, Mumbai - 400001 **Scrip Code+ of NTPC: 532555**

Stock Code : ISIN – INE733E01010

The Annual Listing Fee for the financial year 2019-20 have been paid to National Stock Exchange of India Limited and BSE Limited.

vii) **Market Price Data :**

Month	BSE				NSE				INDEX	
	Price (in ₹)			Volume	Price (in ₹)			Volume	BSE	NSE
	HIGH	LOW	CLOSE		HIGH	LOW	CLOSE			
Apr-18	179.85	165.5	172.05	4549609	180	165.5	172.15	77079268	35160.36	10739.35
May-18	175.85	162.55	166.95	11543337	176.2	162.7	167.55	133110986	35322.38	10736.15
Jun-18	167.55	149.45	159.45	1990900	167.5	149.5	159.65	104109790	35423.48	10714.3
Jul-18	159.55	149.95	155.15	18000638	159.6	149.85	154.85	129196141	37606.58	11356.5
Aug-18	174.25	153	170.85	2310654	174.55	152.75	171.5	85742375	38645.07	11680.5
Sep-18	175.5	164.55	166.6	3726446	175.4	164.4	166.85	84432560	36227.14	10930.45
Oct-18	170.2	154.7	159.8	3030957	170.3	154.8	159.65	180561666	34442.05	10386.6
Nov-18	160.25	137.65	139.95	5856709	160.6	137.55	140.3	154366015	36194.3	10876.75
Dec-18	151.3	134.5	148.65	5769678	151.6	134.05	149.05	228705829	36068.33	10862.55
Jan-19	150.1	136.75	139.9	12932142	150.3	136.65	139.7	187304513	36256.69	10830.95
Feb-19	142.7	128.1	141.55	7406068	142.95	128	141.25	263748003	35867.44	10792.5
Mar-19	160.8	128.1	135.35	16783470	160.8	128.1	134.7	440289316	38672.91	11623.9

viii) **Performance in comparison to indices**

NSE NIFTY 50 and NTPC Share Price

BSE Sensex and NTPC Share Price

ix) (a) **Registrar and Transfer Agent for Equity Shares,**
M/s Alankit Assignments Limited,
Alankit Heights,1E/13,Jhandewalan Extension, New Delhi-110055

Contact person:
Shri Mahesh Pandey & Shri Surinder Sharma
Tel No.: 011-42541234 Fax No.: 011-41543474
E-mail: alankit_ntpc@alankit.com

(b) **Registrar and Transfer Agent for Tax Free Bonds (Series 50) and Bonus Debentures (Series 54) and Tax Free Bonds 2015 (Series 56).**

Karvy Fintech Private Limited
Karvy Selenium Tower B, Plot No. 31 & 32,
Gachibowli Financial District,
Nanakramguda, Serilingampally, Hyderabad-500008
Phone No: 040-67161518; Fax: (+91 40) 2343 1551
Email: ntpc.bond@karvy.com; einward.ris@karvy.com
Website: www.karisma.karvy.com

(c) **Registrar and Transfer Agent for Bonds (Series 19 to 26)**

MAS Services Ltd.
T-34, 2nd Floor, Okhla Industrial Area, Phase-II,
New Delhi-110020.
Phone No: 011-26387281 / 82 / 83;
Fax: 011-26387384
Email: sm@masserv.com; info@masserv.com
Website: www.masserv.com

(d) **Registrar and Transfer Agent for Bonds (Series 13A, 13B, 16, 17, 27 to 49, 51 to 53, 55 and 57 to 66)**

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: beetalrta@gmail.com

x) **Share Transfer System**

The share transfer system consists of activities like receipt of shares along with transfer deed from transferees, verification, preparation of Memorandum of Transfers etc. Shares transfers are approved by Sub-Committee of the Board for Allotment and Post-Allotment activities of NTPC's Securities.

Entire share transfer activities under physical segment are being carried out by our Registrar & Transfer Agent M/s Alankit Assignments Limited (Alankit). Half yearly Compliance certificate as required under Regulation 7(3) of SEBI LODR duly signed by the Compliance Officer (Company Secretary) and Share Transfer Agent had been submitted to the Stock Exchanges.

Further, pursuant to Regulation 40(10) of SEBI LODR, certificate from Practicing Company Secretary on half-yearly basis confirming that all certificates had been issued within thirty days of the date of lodgement for transfer, sub-division, consolidation, renewal, exchange or endorsement of calls/ allotment monies had been submitted to Stock Exchange within stipulated time.

xi) Transfer of Unclaimed Amount of Dividend to Investor Education and Protection Fund (IEPF)

In accordance with Section 125 of the Companies Act, 2013, during the financial year 2018-19, an amount of Rs.37.70 lakh pertaining to unclaimed final dividend for financial year 2010-11 and Rs. 161.41 lakh pertaining to unclaimed interim dividend for financial year 2011-12 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 who have not preferred their claims, to submit their claims towards the unpaid and unclaimed dividend.

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 period of seven years or more, is required to be transfer to Investor Education and Protection Fund (IEPF) Authority account.

In line with the provisions Section 124(6) and rules made thereunder as well as in accordance with the circulars/ notifications issued by the MCA from time to time, during the financial year 2018-19, 154750 shares of 1957 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/en/Investors/miscellaneous-download. 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 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: http://www.ntpc.co.in/en/investors/procedure-claiming-dividend-shares-iepf-authority-0.

xiv) Divestment of NTPC's Equity Shares by Government of India

During the financial year 2018-19, Government of India has divested 5.86% of the paid-up capital in NTPC in four tranches as under:

Particulars	Month	% holding sold
Bharat 22 ETF FFO-1	June 2018	0.50%
CPSE ETF FFO-3	December 2018	2.84%
Bharat 22 ETF FFO-2	February 2019	0.85%
CPSE ETF FFO-4	March 2019	1.67%

Pursuant to these four rounds of divestment, the Government of India's stake in NTPC has come down from 62.27% to 56.09% (0.32% was kept in separate demat account) as at 31st March 2019.

xv) Debenture Trustees for various Series

For Series 16, 17,19, 44 to 50, 53 to 55, 57 to 66	For Series 20 to 43, 51, 52 and 56
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.itclindia.com	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** AXIS TRUSTEE SERVICES LTD. GDA House, Plot No. 85, Axis House, Bombay Dyeing Mills Compound, Pandurang Budhkar Marg, Worli, Mumbai- 400 025 Email: debenturetrustee@axistrustee.com Website: www.axistrustee.com

xvi) Distribution of Shareholding

Shares held by different categories of shareholders and according to the size of holdings as on 31st March 2019 are given below:

According to Size

a. Distribution of shareholding according to size, % of holding as on 31st March 2019:

Number of shares	Number of shareholders	% of shareholders	Total No. of shares	% of shares
1-5000	558359	99.41	136692452	1.38
5001-10000	1766	0.32	11857109	0.12
10001-20000	580	0.10	7967700	0.08
20001-30000	186	0.03	4524625	0.05
30001-40000	75	0.01	2608336	0.03
40001-50000	52	0.01	2374843	0.02
50001-100000	142	0.03	10242905	0.10
100001 and above	529	0.09	9718289310	98.22
Total	**561689**	**100**	**9894557280**	**100**

b. **Shareholding pattern on the basis of ownership:**

Category	As on 31.03.2018			As on 31.03.2019			Change
	No. of shareholders	Total Shares	%	No. of shareholders	Total Shares	%	
GOVERNMENT OF INDIA	1	5134825262	62.27	1	5550120301	56.09*	-6.18
INDIAN FINANCIAL INSTITUTIONS/ BANK	85	1114712717	13.52	36	1254883764	12.68	-0.84
MUTUAL FUNDS	230	718235556	8.71	32	1520472666	15.37	6.66
FOREIGN PORTFOLIO INVESTORS/ FII	579	949663777	11.49	537	1135551735	11.48	-0.01
RESIDENT INDIVIDUALS	562080	125204965	1.52	535520	153815432	1.55	0.03
BODIES CORPORATES	2290	115511879	1.4	1912	103748293	1.05	-0.35
INSURANCE COMPANIES	41	47813323	0.58	21	66120794	0.67	0.09
TRUSTS	79	17530761	0.21	55	30079729	0.30	0.09
H U F	10415	4052431	0.05	10010	4761007	0.05	0.00
Others	13779	17913729	0.22	13565	75003559	0.76	0.54
	589579	**8245464400**	**100**	**561689**	**9894557280**	**100**	**0**

(*As on 31st March, 2019, 0.32% was kept in separate demat account.)

c. **Major Shareholders**

Details of Shareholders holding more than 1% of the paid-up capital of the Company as on 31st March, 2019 are given below:

Name of the Share Holder	No. of Shares	%	Category
PRESIDENT OF INDIA	5550120301	56.09*	INDIAN PROMOTER
LIFE INSURANCE CORPORATION OF INDIA P & GS FUND	1138416080	11.51	FI
ICICI PRUDENTIAL VALUE FUND SERIES 8	545342820	5.51	MUTUAL FUND
HDFC TRUSTEE COMPANY LTD. A/C HDFC TOP 100 FUND	344588316	3.48	MUTUAL FUND
RELIANCE CAPITAL TRUSTEE COMPANY LIMITED A/C RELIANCE VISION FUND.	288549830	2.92	MUTUAL FUND
THE INCOME FUND OF AMERICA	132306417	1.34	FOREIGN PORTFOLIO INVESTOR
T. ROWE PRICE INTERNATIONAL STOCK FUND	103429996	1.05	FOREIGN PORTFOLIO INVESTOR

(*As on 31st March, 2019, 0.32% was kept in separate demat account.)

xvii) **Dematerialisation of Shares and 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.

No. of shares held in dematerialized and physical mode as on 31st March, 2019 are as under:

TYPE	HOLDERS	SHARE	HOLDING%
DEMAT			
CDSL	169092	66149398	0.669
NSDL	407143	9828184243	99.329
PHYSICAL	6035	223639	0.002
TOTAL	**582270**	**9894557280**	**100.000**

xviii) **The names and addresses of the Depositories are as under:**

1. National Securities Depository Ltd.
   Trade World, 4th Floor, Kamala Mills Compound
   Senapathi Bapat Marg, Lower Parel, Mumbai-400 013
2. Central Depository Services (India) Limited
   Phiroze Jeejeebhoy Towers
   28th Floor, Dalal Street, Mumbai-400 023

xix) **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, Employee OFS (held in July 2016 & September 2017) and Bonus Debentures as on 31st March, 2019 is furnished below:

Details of "NTPC LIMITED – IPO – Unclaimed Shares Demat Suspense Account" (account opened and maintained after IPO):

Opening Balance (as on 01/04/2018)		Requests Disposed off during 2018-19		Closing Balance (as on 31/03/2019)	
Cases	Shares	Cases	Shares	Cases	Shares
9	1732	-	-	9	2072*

*The company had issued Bonus shares in March, 2019. In this regard, 340 shares have been credited in the IPO suspense account.

Details of "NTPC LIMITED – FPO Unclaimed Shares Demat Suspense Account" (account opened and maintained after FPO):

Opening Balance (as on 01/04/2018)		Disposed off during 2018-19		Closing Balance (as on 31/03/2019)	
Cases	Shares	Cases	Shares	Cases	Shares
23	2828	16	1820**	7	1206*

*The company had issued Bonus shares in March 2019. In this regard, 198 shares have been credited in the FPO suspense account. ** Transferred to IEPF Authority.

Details of "NTPC Limited-Employee OFS (issued in September, 2017) - unclaimed shares Demat Suspense Account" (account opened and maintained after Employee OFS):

Opening Balance (as on 01/04/2018)		Requests Disposed off during 2018-19		Closing Balance(as on 31/03/2019)	
Cases	Shares	Cases	Shares	Cases	Shares
1	3132	1	3132	-	-

Details of "NTPC LIMITED – Bonus Debentures – Unclaimed Debentures Demat Suspense Account" (account opened and maintained after Issue of Bonus Debentures):

Opening Balance (as on 01/04/2018)		Requests received and Disposed off during 2018-19		Closing Balance (as on 31/03/2019)	
Cases	Shares	Cases	Shares	Cases	Shares
29	5474	-	-	29	5474

xx) **Outstanding GDRs/ ADRs/ Warrants or any Convertible instruments, conversion date and likely impact on equity**

No Warrants or any Convertible instruments has been issued by the Company.

xxi) **Number of Shares held by the Directors :**

Directors	No. of shares (as on 31/03/2019)
Shri Gurdeep Singh	5828
Shri Saptarshi Roy	1341
Shri A.K.Gupta	7224
Shri S.K.Roy	5658
Shri P.K.Mohapatra	6974
Shri Prakash Tiwari	NIL
Dr. Gauri Trivedi	NIL
Shri Seethapathy Chander	NIL
Shri M.P.Singh	NIL
Shri P.K.Deb	NIL
Shri Shashi Shekhar	829
Shri Vinod Kumar	4700
Shri Subhash Joshi	NIL
Shri K. Sreekant	510
Shri Vivek Kumar Dewangan	NIL
Dr. Bhim Singh	NIL
Dr. K. P. K. Pillay	NIL

xxii) **Locations of NTPC plants**

Dadri, Badarpur & Faridabad (DBF) Region:

Thermal Power Stations

i) National Capital Thermal Power Station - Distt. Gautam Budh Nagar, Uttar Pradesh

Gas Power Stations

i) Faridabad Gas Power Project – Distt. Faridabad, Haryana

ii) National Capital Gas Power Project- Distt. Gautam Budh Nagar, Uttar Pradesh

Solar Power Stations

i) 5MWp, Dadri Solar Power Plant, Dadri, Distt. Gautam Budh Nagar, Uttar Pradesh

ii) 5MWp, Faridabad Solar Power Plant, Distt. Faridabad, Haryana

Eastern Region - I

Thermal Power Stations

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

Eastern Region - II

Thermal Power Stations

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

Solar Power Station

10MWp Talcher Kaniha Solar Power Station, Distt. Angul, Odisha

Northern Region

Thermal Power Stations

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

Gas Power Stations

Auraiya Gas Power Project – Distt. Auraiya, Uttar Pradesh

Solar Power Station

i) 10 MWp Unchahar PV Solar Power Station, Distt. Raebareli, Uttar Pradesh

ii) 15MWp Singrauli Solar PV Power Stations, Distt. Sonebhadra, Uttar Pradesh

iii) 140 MWp Bilhaur Solar Power Project, Dist. Kanpur, Uttar Pradesh

iv) 20 MWp Auraiya Solar Power Project – Distt. Auraiya, Uttar Pradesh

Southern Region

Thermal Power Stations

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

Gas Power Stations

i) Rajiv Gandhi Combined Cycle Power Project – Distt. Alappuzha, Kerala

Solar Power Station

i) 5 MWp Solar PV Power Plant, Port Blair, A&N Islands

ii) 10 MWp Ramagundam Solar Power Station, Distt. Karimnagar, Andhra Pradesh

iii) 250 MWp Anantapur Solar PV Project, Distt. Anantapur, Andhra Pradesh

Western Region -I

Thermal Power Stations

i) Solapur Super Thermal Power Project – Distt. Solapur, Maharashtra

ii) Mouda Super Thermal Power Project – Distt. Nagpur, Maharashtra

Gas Power Stations

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 Power Project

i) 260MWp Bhadla Solar Power Project, Distt. Jodhpur, Rajasthan

Wind Power Project:

i) Rojmal Wind (50 MW) Project, Gujarat

Western Region -II

Thermal Power Stations

ii) Korba Super Thermal Power Station - Distt. Korba, Chhattisgarh

iii) Sipat Super Thermal Power Project - Distt. Bilaspur, Chattisgarh

iv) Gadarwara Super Thermal Power Project, Distt. Narsinghpur, Madhya Pradesh

v) Lara Super Thermal Power Project, Distt. Raigarh, Chattisgarh

vi) Khargone Super Thermal Power Project, Distt. Khargone, Madhya Pradesh

vii) Barethi Super Thermal Power, Distt. Chhatarpur, Madhya Pradesh

Solar Power Station

i) 50 MWp Solar PV Power Plant, Rajgarh, Madhya Pradesh

ii) 250 MWp Mandsaur Solar Power Project, Distt. Mandsaur, Madhya Pradesh

HYDRO POWER PROJECTS

i) Koldam Hydro Power Project – Distt. Bilaspur, Himachal Pradesh

ii) Tapovan – Vishnugad Hydro Power Project – Distt. Chamoli, Uttarakhand

iii) Lata Tapovan Hydro Power Projects – Distt. Chamoli, Uttarakhand

iv) Rammam – III Hydro Electric Power Project Distt. Darjeeling, West Bengal.

v) Singrauli Small Hydro Power Projects, Distt. Sonebhadra, Uttar Pradesh

POWER PROJECTS UNDER SUBSIDIARY COMPANIES

Thermal Power Projects

i) Kanti Bijlee Utpadan Nigam Limited : Muzaffarpur Thermal Power Station, Muzaffarpur, Bihar

ii) Bhartiya Rail Bijlee Co. Ltd. : Nabinagar Thermal Power Project, Distt. Aurangabad, Nabinagar, Bihar (in JV with Railways)

iii) Patratu Vidyut Utpadan Nigam Limited: Patratu Thermal Power Project, Patratu, Jharkhand

iv) Nabinagar Power Generating Company Limited : Nabinagar Super Thermal Power Project – Distt. Aurangabad, Nabinagar, Bihar

JOINT VENTURE POWER PROJECTS

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. Ratnagiri Gas and Power Pvt. Ltd. : Ratnagiri Power Project - Maharashtra

c. NTPC Tamil Nadu Energy Co. Ltd: Vallur Thermal Power Project – Chennai, Tamil Nadu

d. Aravali Power Co. Pvt. Ltd.: Indira Gandhi Super Thermal Power Project - Distt. Jhajjar, Haryana

e. Meja Urja Nigam Pvt. Ltd.: Meja Super Thermal Power Project – Tehsil Meja, Allahabad

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) Banai Coal Mining Project, Raigarh, Chattisgarh

vii) Bhalumunda Coal Mining Project, Raigarh, Chattisgarh

viii) Mandakini-B Coal Mining Project, Angul, Odisha

JOINT VENTURE COAL MINES

ix) Banhardih Coal Mining Project, Latehar, Jharkhand (in JV with JVBNL)

x) Kudanali-Luburi Coal Mining Project, Angul, Odisha (In JV with J&K)

xxiii) 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:

	Telephone No.	Fax No.
Registered Office NTPC Limited NTPC Bhawan, Core-7, 7 Institutional Area, SCOPE Complex, Lodhi Road, New Delhi -110003	011-24360100	011-24361018
Company Secretary & Compliance Officer Ms. Nandini Sarkar	011-24360959	011-24360241
E-mail id	nsarkar@ntpc.co.in	
Chief Investor Relations Officer Shri Aditya Dar	011-24367072	011-24361724
E-mail id	adityadar@ntpc.co.in	
E-mail ID (exclusive) for redressal of investors complaints	**For Shares and Tax Free Bonds, 2015:** isd@ntpc.co.in **For Tax Free Bonds, 2013:** tfb@ntpc.co.in **For Bonds including Bonus Debentures:** powerbonds@ntpc.co.in	

15. CORPORATE GOVERNANCE AWARDS & RECOGNITIONS

NTPC has been conferred various awards in area of Corporate Governance from time to time including:

(i) ASSOCHAM Corporate Governance Excellence Award – 2014-15 for Listed Companies in PSU category in recognition for outstanding governance practices undertaken by the Company.

(ii) 'Golden Peacock Global Award for Excellence in Corporate Governance' by World Council for Corporate Governance for the year 2014. This award was also received by the Company during the years 2007, 2009 and 2012.

(iii) Award for Excellence 2011 - Good Corporate Citizen Award by PHD Chamber of Commerce and Industry.

(iv) 'ICSI National Award for Excellence in Corporate Governance – 2009 by the Institute of Company Secretaries of India.

For and on behalf of Board of Directors

(Gurdeep Singh)
Chairman & Managing Director

Place: New Delhi
Date: 8th July, 2019

Annex-I

DISCRETIONARY REQUIREMENTS

Besides the mandatory requirements, as mentioned in preceding pages, the status of compliance with discretionary requirements under Regulation 27(1) of SEBI LODR are as under:

1. **The Board:** The Company is headed by an Executive Chairman.

2. **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.

3. **Modified opinion(s) in audit report:** The Auditor's report is unmodified.

4. **Reporting of the Internal Auditor:** The Internal Auditor reports to the Audit Committee of the Board.

Annex-II

Schedule of Compliances with Presidential Directives issued during the financial year 2018-19 and during last three years preceding the financial year 2018-19:

Year	Content of Presidential Directives	Compliance
2018-19	Presidential Directive for wage revision	Complied
2017-18	NIL	NIL
2016-17	NIL	NIL
2015-16	NIL	NIL

Annex-III

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, 2019 (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

Place: New Delhi
Date: 24/05/2019

Chief Executive Officer (CEO) & Chief Financial Officer (CFO) Certification

We, Gurdeep Singh, Chairman & Managing Director and Sudhir Arya, Chief Financial Officer & Executive Director (Finance) of NTPC Limited, certify that:

(a) We have reviewed financial statements and the cash flow statement for the year ended March 31, 2019 (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 : May 25, 2019

(Sudhir Arya)
Chief Financial Officer & ED (Fin)

(Gurdeep Singh)
Chairman & Managing Director

AUDITORS' CERTIFICATE ON CORPORATE GOVERNANCE

To
The Members of
NTPC Limited

1. We have examined the compliance of conditions of Corporate Governance by NTPC Limited for the year ended on 31st March 2019 as per the relevant provisions of Securities Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015 ("Listing Regulations") as referred to in Regulation 15 (2) of the Listing Regulations and as stipulated in the Guidelines on Corporate Governance for Central Public Sector Enterprises issued by Department of Public Enterprises (DPE), Ministry of Heavy Industries and Public Enterprises, Government of India.

2. The compliance of conditions of Corporate Governance is the responsibility of the management. Our examination is limited to review of procedures and implementation thereof, adopted by the Company for ensuring the compliance of the conditions of the Corporate Governance as stipulated in the Listing Regulations. It is neither an audit nor an expression of opinion on the financial statements of the Company.

3. In our opinion and to the best of our knowledge and information and according to the explanations given to us, we certify that the Company has complied with the mandatory conditions of Corporate Governance as stipulated in the Listing Regulations and DPE Guidelines on Corporate Governance for Central Public Sector Enterprises, except:

   (a) As stated in Point No. 2.1 of the Corporate Governance Report, the Company has not complied with the Listing Regulations, with regard to the appointment of minimum number of Independent Directors in the composition of the Board of Directors as per details given below, for the period 1/4/2018 to 29/7/2018, where company has not appointed sufficient number of Independent Directors:

Period (DD/MM/YYYY)	Independent Director (ID) in position	No. of ID required under SEBI LODR Regulation 17(1)(b)	No. of ID required under Companies Act, 2013 Sec 149(4)
As on 01/04/2018	7	8	5
01.04.2018-27.04.2018	7	8	5
28.04.2018-29.07.2018	7	9	6
30.07.2018-06.08.2018	9	8	6
07.08.2018-02.11.2018	9	9	6
03.11.2018-07.12.2018	9	9	6
08.12.2018-11.02.2019	9	8	6
12.02.2019-31.03.2019	9	9	6

   As stated in Point No.2.7 regarding compliance with the Board Members Evaluation Policy of the Report on Corporate Governance.

4. We further 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 T R Chadha & Co LLP
Chartered Accountants
Firm Reg. No. 006711N/N500028

(Neena Goel)
Partner
M. No. 057986
(UDIN:19057986AAAABV3553)

For S.N.Dhawan & Co. LLP
Chartered Accountants
Firm Reg. No. – 000050N/N500045

(S.K.Khattar)
Partner
M. No. 084993
(UDIN:19084993AAAAAP9081)

For Sagar & Associates
Chartered Accountants
Firm Reg. No. 003510S

(V.Vidyasagar Babu)
Partner
M. No. 027357
(UDIN:19027357AAAAAP8943)

For Kalani & Co.
Chartered Accountants
Firm Reg. No. 000722C

(Vikas Gupta)
Partner
M. No. 077076
(UDIN:19077076AAAAAF7099)

For P.A. & Associates
Chartered Accountants
Firm Reg. No. 313085E

(S.S.Poddar)
Partner
M.No.051113
(UDIN:19051113AAAAAA5622)

For S.K. Kapoor & Co.
Chartered Accountants
Firm Reg.No. 000745C

(V.B.Singh)
Partner
M.No. 073124
(UDIN:19073124AAAAAF4215)

For B M Chatrath & Co LLP
Chartered Accountants
Firm Reg.No. 301011E/E300025

(Sanjay Sarkar)
Partner
M.No. 064305
(UDIN:19064305AAAAAE8004)

Place : New Delhi
Date: 25th May, 2019

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 important energy conservation measures taken during the year 2018-19 in different areas are as under:

ENERGY AUDITS

During 2018-19, 13 stations got Mandatory Energy Audit conducted as per BEE notification. Other stations (12 nos.) had conducted Auxiliary Power Consumption Energy Audits. A Conference of Energy Managers of all NTPC stations was organized to deliberate actions taken for energy / water conservation at various Stations.

AUXILIARY POWER CONSUMPTION

Some of the actions undertaken to reduce auxiliary power consumption at various stations are:

Retrofitting HT VFD in ID Fans of one unit of 500 MW, Replacement of inefficient BFP cartridges based on high SEC, Energy Efficient Coating on pump internals of Cooling Water / other large water pumps, Installation of VFD's in various LT drives, Installing grid-connected roof top Solar PV systems, Retrofitting FRP hollow blades in CT fans, Replacing existing motors with Energy Efficient motors, De-staging of BFP to optimize power consumption, Replacing old chiller compressor with energy efficient screw compressor, Optimizing nos. of running BFP's, CEP's, mills and CW pumps and fans during prolonged partial loading,

LIGHTING

Large scale replacement of existing lighting (FTL's, HPSV's, CFL's, Halogen) in main plant, off sites, office buildings, area and street lighting of the station and township, common facilities and residential units of township were undertaken at all stations during the year.

HEAT ENERGY

HP and IP cylinder efficiency improvement during capital overhaul, TDBFP cartridge replacement, Attending TDBFP recirculation valve passing were taken up at few stations.

b) **Additional investments and proposals for reduction in consumption of energy:**

Provision of Rs. 3,775 lacs has been kept in BE 2018-19 for different energy conservation schemes like:

- LED lighting
- Retrofitting VFD's in ID fans / CEP's/ HFO pump
- Grid-connected roof top Solar PV systems
- Energy efficient LT motors
- Solar water heaters
- Occupancy sensors
- Polymer coating of water pump internals.

c) **Impact of measures taken for energy conservation:**

Savings achieved during 2018-19 on account of specific efforts for energy conservation:-

S.No.	Area/Activities	Energy Unit	Savings Qty.	₹ (Crore)
1	Electrical	MU	127.50	28.26
2	Heat Energy (equivalent MT of coal)	MT	22474	8.14
3	Heat Energy (equivalent MCM of Gas)	MCM	0.122	0.34
	Grand Total			**36.74**

Savings achieved during 2017-18 - Rs. 56.71 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 (2018-19)	(₹ Crore)
1. Foreign Exchange Outgo	
-Capital Goods& Spare Parts	1,982.63
-Professional and Consultancy Fee	9.00
-Interest & Bond Issue Expenses	1,559.61
-Others	23.78
2. Foreign Exchange Earned	
-Professional & Consultancy Fee	1.30

FORM B

Form for disclosure of particulars with respect to Absorption of Technology

1.0 Specific areas in which NETRA activities have been carried out during 2018-19:

a. **Recently Completed Projects:**

- Production of high quality solid fuel (01 TPD) from MSW by hydrothermal treatment
- Installation of 400KV Digital CT and Digitization of existing Bay
- Setup of Solar Thermal Lab comprising of Deflectometry, Photogrammetry, Optical Spectrography facility for Optical characterization of Solar Thermal components
- Development of Fiber optic temperature sensors for online temperature monitoring of flue gas in Air preheaters
- Development of Fiber optic vibration sensors for online vibration monitoring of generator overhang windings
- Solution for emissions reduction in coal based power Plant by modification in ESPs power supply with Pulsed power supply
- Retrofitting of flexible control to improve unit primary frequency response and ramp rate
- Ash Choking monitoring system
- Geo Polymeric concrete spun / Humepipes
- Power System Stabilization (PSS) Tuning on 500MW Unit at Dadri

b. **Developmental Projects (ongoing):**

- Development of Optimized design for Pneumatic Ash Conveying system
- Electro coagulation based Silica reduction –Solapur
- Solar Sea Water Desalination at NTECL – Vallur
- 1MW floating solar at Kawas
- Geo-polymeric concrete Roads at Ramagundam
- Light Weight Aggregate (LWA) Plant at Sipat
- Use of bottom ash as partial replacement of fine aggregated in concrete
- CFD Services for Aux Power Savings
- Cooling Tower Design & Performance Improvement,
- Setting up of 5 TPD Bio-CNG Production from biomass (Agri residue/waste)
- Development of High Accuracy Solar Forecasting model
- AUSC Projects

c. **Scientific Support to NTPC Stations (Continuous basis):**

- Life enhancement & availability improvement of components by NDE of boilers, steam turbine, Gas turbines and generator components and health assessment using advanced Non-destructive analysis tools such as Eddy current testing, video imaging, phased array etc.
- Enhancing reliability through robotic Inspections of LTSH tubes in Boiler.
- Performance enhancement through CFD Analysis of Flue gas ducts, CW sumps and ESP.
- Metallurgical Failure analysis of Boiler pressure parts components etc.
- Quantitative and Qualitative analysis of deposit, solvents election and post operational chemical cleaning recommendations for boilers.
- Corrosion analysis, monitoring, control of power plants such as cooling water treatments, coating selection, etc.
- Specialized analytical support for characterizing the turbine deposits, corrosion products, heavy metals in effluents using state of art equipment's such as SEM, XRD, IC, TOC, particle count analyzer etc.
- Condition Monitoring of:
  - High voltage transformers through tools such as FDS, SFR and chemical analysis such as dissolved gas analysis, Furfural content & degree of polymerization.
  - 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 it skinetics
  - Rotating machines through diagnosis of vibration problems.

2.0 Benefits derived as a result of above Research & Technology Development:

NETRA activities are aligned for solving some of major concerns of Company and power sector in today's scenario. In this regard NETRA has taken up major projects for addressing the concerns. Major Outcome & Impact derived as a result of Research & Technology Development are

Environment and climate change

By means of Fly Ash Utilization:

Development of Geo-polymeric road using Fly ash is a new method for bulk ash utilization and has a great positive impact on environment. NETRA is also working on other technologies for Bulk ash utilization such as Conversion of Fly Ash in to Light weight aggregate, Use of bottom ash as partial replacement of sands, Development of Geo-polymer concrete Spun/Hume pipes, Development of Geo- Polymer Tetra pods etc.

By means of Reducing the Water intensity:

Using low grade heat of flue gas from the power plant, NETRA has developed technology for desalination of sea water which can be used in power plant or for drinking purpose. The flagship project for this has been installed at NTPC- Simhadri having capacity of 120 TPD. The cost effective technology is now being utilized for packaged drinking water. An MoU in this regard has been signed with IRCTC on October 5, 2018 for setting up a packaged drinking water facility at Simhadri Station. We are also working on sea water desalination using solar energy and a plant for solar sea water desalination is in process of installation at NTECL –Vallur.

Other significant projects for water are Tertiary treatment of STP (Sewage treatment plant) based on AFM (Activated filter media) at Talcher-Kaniha, Electrocoagulation based Silica reduction in pretreatment at Solapur.

By means of Carbon Capture

NETRA is also working in the area of carbon capture and utilization and carrying out many projects such as development of modified amine absorption based process to separate CO_2 from flue gas, Development of micro-algae based process for utilization of CO_2 in flue Gas etc.

By means of Bio Mass and Waste to Energy

We have taken projects for generation of high quality fuel from MSW by hydrothermal treatment, Development of Microbial Fuel cell for onsite electricity generation by treatment of sewage water and production of Bio-CNG from Agri residues.

Efficiency Improvement and Reduction in Auxiliary Power consumption

NETRA has also used the low grade waste heat of flue gas for Air conditioning, a 400 TR flue gas based air conditioning has been installed at NTPC-Talcher Kaniha in this regard. NETRA by means of novel technologies like Nano particles based lubricants aims at reducing APC consumption at our stations. CFD based modifications of ESP have resulted in power saving and have been helpful in analyzing and resolving vibration problems in CW pumps. Outcome of the projects in the area of CFD such as Performance evaluation of cooling tower fans, CT Fan design development by CFD Modeling etc. is expected to reduce APC consumption. Development of AI based tools for power plant advisory, optimization and fault detection are helpful in increasing in availability of stations and reduction of costs.

Renewables

NETRA has successfully installed 100 KW floating solar PV plant at Kayamkulam and we are currently in process of installation 1MW floating solar PV plant at NTPC–Kawas. The low cost indigenous developed floaters will be helpful for Company for increasing its renewable portfolio and is a step towards affordable renewable energy.

NETRA has also completed 3.37 MW Solar Wind Hybrid project at Kudgi showcasing the resource optimization such as land and the grid power improvement. Under Indo German collaboration NETRA is in process of establishing Concentrated Solar Thermal and PV Labs.

Robotic dry cleaning system for Solar PV panels have been installed at Dadri and NETRA is in process of development of Dry and wet cleaning system in collaboration with IIT–Bombay. Performance & Degradation study of solar PV panels has been done for Dadri and one block of Ananthpur station.

Apart from above mentioned impacts of R&D projects, technology provided by NETRA is in process of being used for installation of Solar PV based induction cooking system at Govt girls school at Lakshadweep by Company under CSR scheme. NETRA activities have helped the stations in analysis of failures and its 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.

3.0 Technology Absorption, Adaptation and Innovation

Particulars of some of the important technology imported during last five (5) years are as follows:

S.No.	Technology	Year	Stations
1	Bio-Mass co-firing	2017-18	Successful trial testing of 10% bio-mass firing completed at Dadri Boiler.
2	Environmental norms compliance (SO_2 emission control by FGD)	2017-18	Wet lime stone based FGD packages awarded for Dadri-II (2X490MW), Khargone (2X660MW) and Telangana (2X800MW) and Lot-1A 14460 MW during 2018-19.
3	Replacement of Halon based (Ozone depleting CFC) Fire Fighting System with Inert gas based system	2017-18	Being implemented in NTPC Stations Control room and CER.
4	Waste to Energy Plant	2017-18	24TPD WTE plant implemented at Varanasi.
5	Cooling Tower of FRP construction	2016-19	Installed in BRBCL Nabinagar (4x250 MW) and under execution in CTs of Simhadri-I (2X500MW)
6	Ultra-supercritical Power plants with steam parameters 270 kg/cm^2 steam pressure and 600/600 deg ^{C} at turbine end.	2014-19	Being implemented in Khargone (2X660 MW), Telangana–I (2X800 MW), Patratu (3x800MW), Singrauli-III (2x800MW), and Lara-II (2x800MW)
7	Adoption of USC steam parameters 260 Kg/ cm^2 steam pressure and 593/593 degree at turbine end.	2013-14	Being implemented in (3x660 MW) North Karanpura.

S.No.	Technology	Year	Stations
8	Air-cooled condenser for super critical units.	2013-14	Being implemented in (3x660 MW) North Karanpura and Patratu (3x800MW).
9.	Super critical technology with 256 Kg/cm^2 Steam Pressure and 568/596 deg ^{C} MS/RH steam temperature is being adopted at steam generator end for improvement in thermal efficiency and reduced emission of green house gases.	2012-13	Implemented/Being implemented in Mauda (2X660MW), Solapur (2X660MW), Meja (2X660MW), Nabinagar (3X660MW) through bulk tendering mechanism & for 9 units of 800 MW units (Kudgi, Darlipalli, Gadarwara & Lara) through bulk tendering

For and on behalf of the Board of Directors

(Gurdeep Singh)
Chairman & Managing Director

Place: New Delhi
Date: 8th July, 2019


Waste to Energy Plant at Karsada, Varansai

Annexure-IV to Directors' Report

STASTICAL INFORMATION ON RESERVATION OF SCs/STs FOR THE YEAR 2018-19

Representation of SCs/STs as on 01.01.2019:

Group	Employees on Roll	SCs	%age	STs	%age
A	12832	1792	13.97	702	5.47
B	3895	656	16.84	367	9.42
C	3204	470	14.67	231	7.21
D	593	153	25.80	75	12.65
Total*	**20524**	**3071**	**14.96**	**1375**	**6.70**

*The above data is inclusive of manpower posted at JVs and Subsidiaries and manpower of taken over projects.

Recruitment of SCs/STs during the calendar year 2018:

Group	Total Recruitment	SCs	%age	STs	%age
A	248	40	16.13	26	10.48
B	0	0	0.00	0	0.00
C	70	9	12.86	3	4.29
D	8	0	0.00	0	0.00
Total	**326**	**49**	**15.03**	**29**	**8.90**

Promotions of SCs/STs during the calendar year 2018:

Group	Total Promotion	SCs	%age	STs	%age
A	2241	309	13.79	119	5.31
B	1747	314	17.97	168	9.62
C	535	75	14.02	33	6.17
D	112	22	19.64	10	8.93
Total	**4635**	**720**	**15.53**	**330**	**7.12**

For and on behalf of the Board of Directors

(Gurdeep Singh)
Chairman & Managing Director

Place: New Delhi
Date: 8th July, 2019

Annexure –V to Directors' Report

INFORMATION ON DIFFERENTLY ABLED PERSONS

With a view to focus on its role as a socially responsible and socially conscious organization, your Company has endeavored to take responsibility for adequate representation of physically challenged persons in its workforce. With this in view, total of 10 PwBD (Persons with Benchmark Disabilities) were recruited during the calendar year 2018. As on 01.01.2019, 511(2.5%) PwBD (98 VH, 110 HH and 303 OH) 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 your Company are as under:

- In compliance to RPwD Act 2016, NTPC came out with 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 an Employee with Disabilities on travel during Tour/ Training.
- Liaison Officer (PwBD) and Grievance Redressal Officer has been nominated at all Projects/stations/Regions.
- Your Company has entered into an agreement with Artificial Limbs Manufacturing Corporation(ALIMCO) to benefit around 5000 DAP in the Neighborhood of your Company stations/projects over period of three years starting 2016-17.
- For individual needs of the VH employees, screen reading software and Braille short hand 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 your Company 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.
- 20 number of Scholarships @ Rs.4000 per month/ per student are given to differently abled students pursuing MBA/ PGDBM/ Degree in Engineering Courses /MBBS.
- In order to encourage and motivate children and youth from neighborhood villages of NTPC Projects/Stations for higher studies, NTPC management has launched 'NTPC Utkarsh'-Merit Scholarship under "NTPC Foundation" for students(including Physically Challenged) from the neighborhood of its projects / stations w.e.f. FY 2016-17. The scheme will benefit about 7300 students every year 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

(Gurdeep Singh)
Chairman & Managing Director

Place: New Delhi
Date: 8th July, 2019

Annexure –VI to Directors' Report

FORM NO. MGT 9

EXTRACT OF ANNUAL RETURN

As on financial year ended on March 31, 2019

Pursuant to Section 92 (3) of the Companies Act, 2013 and rule 12(1) of the Company (Management & Administration) Rules, 2014

I. REGISTRATION & OTHER DETAILS:

1.	CIN	L40101DL1975GOI007966
2.	Registration Date	7th November 1975
3.	Name of the Company	NTPC Limited
4.	Category/Sub-category of the Company	Public Company / Government Company
5.	Address of the Registered office & contact details	NTPC Bhawan, Scope Complex, 7, Institutional Area, Lodhi Road, New Delhi-110003 Telephone No : 011 24360100 /7072 Fax No : 011 24361018 /1724 E-mail : csntpc@ntpc.co.in
6.	Whether listed company	Yes
7.	Name, Address & contact details of the Registrar & Transfer Agent, if any	**(a) Registrar and Transfer Agent for Equity Shares** M/s Alankit Assignments Limited, Alankit Heights,1E/13,Jhandewalan Extension, New-Delhi-110055 Contact person: Shri Mahesh Pandey & Shri Surinder Sharma Tel No.: 011-42541234 Fax No.: 011-41543474 E-mail: alankit_ntpc@alankit.com **(b) Registrar and Transfer Agent for Tax Free Bonds (Series 50) and Bonus Debentures (Series 54) and Tax Free Bonds 2015 (Series 56)** Karvy Computershare Pvt. Ltd. Karvy Selenium Tower B, Plot No. 31 & 32, Gachibowli Financial District, Nanakramguda, Serilingampally Hyderabad-500008 Phone No: 040-67161518 E-mail: einward.ris@karvy.com

II. PRINCIPAL BUSINESS ACTIVITIES OF THE COMPANY :

(All the business activities contributing 10% or more of the total turnover of the company shall be stated)

S. No.	Name and Description of main products / services	NIC Code of the Product/Service	% to total turnover of the company
1	Electric power generation by coal based thermal power plant	35102	88.01%

III. PARTICULARS OF HOLDING, SUBSIDIARY AND ASSOCIATE COMPANIES:

Sl. No.	Name and address of the company	CIN/GLN	% of shares held
Subsidiary Company {Section 2(87)(ii)}			
1	NTPC Vidyut Vyapar Nigam Limited NTPC Bhawan, SCOPE Complex Lodi Road, New Delhi-110003	U40108DL2002GOI117584	100.00
2	NTPC Electric Supply Co. Limited NTPC Bhawan, SCOPE Complex Lodi Road, New Delhi-110003	U40108DL2002GOI116635	100.00
3	Kanti Bijlee Utpadan Nigam Limited NTPC Bhawan, SCOPE Complex Lodi Road, New Delhi-110003	U40102DL2006GOI153167	100.00
4	Nabinagar Power Generating Company Limited (previously Nabinagar Power Generating Company Private Limited), NTPC Bhawan, SCOPE Complex Lodi Road, New Delhi-110003	U40104DL2008PLC183024	100.00
5	Bhartiya Rail Bijlee Co. Limited NTPC Bhawan, SCOPE Complex Lodi Road, New Delhi-110003	U40102DL2007GOI170661	74.00
6	Patratu Vidyut Utpadan Nigam Limited NTPC Bhawan, SCOPE Complex Lodi Road, New Delhi-110003	U40300DL2015GOI286533	74.00
Associate Company {Section 2(6)}			
1	Utility Powertech Limited, H block, 3rd Floor, Dhirubhai Ambani Knowledge City, Thane Belapur Road, Navi Mumbai, Mumbai-400710	U45207MH1995PLC094719	50.00
2	NTPC SAIL Power Company Limited, 4th FLOOR NBCC TOWER, 15th Bhikaji Kama Place, New Delhi-110066	U74899DL1999PLC098274	50.00
3	NTPC GE Power Services Pvt. Limited, NTPC Bhawan, SCOPE Complex Lodi Road, New Delhi-110003	U74899DL1999PTC101702	50.00
4	NTPC Tamil Nadu Energy Company Limited, NTPC Bhawan, SCOPE Complex Lodi Road, New Delhi-110003	U40108DL2003PLC120487	50.00
5	Ratnagiri Gas and Power Pvt. Limited, NTPC Bhawan, SCOPE Complex Lodi Road, New Delhi-110003	U40105DL2005PTC138458	25.51
6	Aravali Power Company Pvt. Limited, NTPC Bhawan, SCOPE Complex Lodi Road, New Delhi-110003	U40105DL2006PTC156884	50.00
7	NTPC SCCL Global Ventures Pvt. Limited, NTPC Bhawan, SCOPE Complex Lodi Road, New Delhi-110003	U40101DL2007PTC166472	50.00
8	Meja Urja Nigam Pvt. Limited, NTPC Bhawan, SCOPE Complex Lodi Road, New Delhi-110003	U74900DL2008PTC176247	50.00
9	NTPC BHEL Power Projects Private Limited, NTPC Bhawan, SCOPE Complex Lodi Road, New Delhi-110003%	U40102DL2008PTC177307	50.00
10	BF-NTPC Energy Systems Limited, 14th Floor, Antariksh Bhawan, 22 KG Marg, New Delhi-110003@	U40106DL2008PLC179793	49.00
11	Transformers and Electricals Kerala Limited, Angamaly South, Ernakulam District Cochin, Kerala-683573#	U31102KL1963SGC002043	44.60
12	National High Power Test Laboratory Pvt. Limited, NHPTL, POWERGIRD Complex, 765/400 K.V. Substation, Khimlasa Road, Bina, Sagar, M.P. 470113	U73100DL2009PTC190541	20.00
13	Energy Efficiency Services Limited, NFL Building, 5th & 6th Floor, Core-III, SCOPE Complex, Lodi Road, New Delhi-110003	U40200DL2009PLC196789	36.36
14	CIL NTPC Urja Private Limited, NTPC Bhawan, SCOPE Complex, Lodi Road, New Delhi-110003	U14105DL2010PTC202053	50.00
15	International Coal Ventures Pvt. Limited, 20th Floor, Scope Minar, (Core-2), North Tower, Laxmi Nagar District Centre, Delhi -110092%	U10100DL2009PTC190448	0.11

Sl. No.	Name and address of the company	CIN/GLN	% of shares held
16	Anushakti Vidhyut Nigam Limited, 16th Floor, Centre 1 , World Trade Centre, Cuffe Parade, Mumbai-400021.	U40300MH2011GOI212727	49.00
17	Hindustan Urvarak & Rasayan Limited, Coal Bhawan, 7th Floor, Plot No. AF-III, Action Area - 1A, Newtown, Kolkata, West Bengal 700156	U24100WB2016PLC216175	33.33
18	Konkan LNG Private Ltd, 16, Bhikaiji Cama Place R. K. Puram New Delhi-110066	U11100DL2015PTC288147	14.82
19	Trincomalee Power Company Limited, 3rd Floor, No.240, High Level Road, Kirulapone, Colombo – 00600, Sri Lanka	Not Applicable / Foreign Company	50.00
20	Bangladesh - India Friendship Power Company (P) Limited, 14th Floor, Bidyut Bhawan, 1 Abdul Gani Road, Dhaka	Not Applicable / Foreign Company	50.00

% NTPC has decided to exit from International Coal Ventures Pvt. Limited and NTPC BHEL Power Projects Private Limited (NBPPL), approval from Government of India is awaited.

@BF-NTPC Energy Systems Limited, after getting approval from Ministry of Power, is under the Process of Winding Up and Liquidator was appointed for voluntary Liquidation of JV Company.

NTPC has decided to exit from Transformers and Electricals Kerala Limited(TELK) and Ministry of Power, Government of India also accorded its approval for the same but Government of Kerala through Additional Chief Secretary to Government vide letter dated May 2,2017,requested NTPC to review and cancel decision to quit TELK. The matter is under examination.

Note: Hon'ble High Court of Delhi, based on satisfaction accorded by the official Liquidator, pronounced its order dated July 27, 2018 under (CO.PET No. 64/2017) that NTPC-SCCL, is hereby wound up and shall deemed to be dissolved with effect from the date of filing the petition i.e November, 2017.

Rooftop Solar at NTPC-PMI

IV. (A) SHARE HOLDING PATTERN (Equity Share Capital Breakup as percentage of Total Equity)

Category- wise Share Holding

CATEGORY OF SHAREHOLDER		NO. OF SHARES HELD AT THE BEGINNING OF THE YEAR i.e. 01/04/2018				NO. OF SHARES HELD AT THE END OF THE YEAR i.e. 31/03/2019				% CHANGE DURING THE YEAR
		DEMAT	PHYSICAL	TOTAL	% OF TOTAL SHARES	DEMAT	PHYSICAL	TOTAL	% OF TOTAL SHARES	
(I)	(II)	(III)	(IV)	(V)	(VI)	(VII)	(VIII)	(IX)	(X)	(XI)
(A)	**PROMOTER / AND PROMOTER GROUP**									
(1)	INDIAN									
(a)	Individual /HUF	0	0	0	0.00	0	0	0	0.00	0.00
(b)	Central Government/ State Government(s)	5134825262	0	5134825262	62.27	5550120301	0	5550120301	56.09	(6.18)
(c)	Bodies Corporate	0	0	0	0.00	0	0	0	0.00	0.00
(d)	Financial Institutions / Banks	0	0	0	0.00	0	0	0	0.00	0.00
(e)	Others	0	0	0	0.00	0	0	0	0.00	0.00
	Sub-Total A(1):	**5134825262**	**0**	**5134825262**	**62.27**	**5550120301**	**0**	**5550120301**	**56.09**	**(6.18)**
(2)	FOREIGN									
(a)	Individuals (NRIs/Foreign Individuals)	0	0	0	0.00	0	0	0	0.00	0.00
(b)	Bodies Corporate	0	0	0	0.00	0	0	0	0.00	0.00
(c)	Institutions	0	0	0	0.00	0	0	0	0.00	0.00
(d)	Qualified Foreign Investor	0	0	0	0.00	0	0	0	0.00	0.00
(e)	Others	0	0	0	0.00	0	0	0	0.00	0.00
	Sub-Total A(2):	**0**	**0**	**0**	**0.00**	**0**	**0**	**0**	**0.00**	**0.00**
	Total A=A(1)+A(2)	**5134825262**	**0**	**5134825262**	**62.27**	**5550120301**	**0**	**5550120301**	**56.09**	**(6.18)**
(B)	**PUBLIC SHARE-HOLDING**									
(1)	INSTITUTIONS									
(a)	Mutual Funds /UTI	719606124	0	719606124	8.73	1521970895	0	1521970895	15.39	6.66
(b)	Financial Institutions /Banks	1114712717	0	1114712717	13.52	1135551735	0	1135551735	11.48	(2.04)
(c)	Central Government / State Govt(s)	563152	0	563152	0.01	31846828	0	31846828	0.32	0.31
(d)	Venture Capital Funds	0	0	0	0.00	0	0	0	0.00	0.00
(e)	Insurance Companies	47813323	0	47813323	0.58	66120794	0	66120794	0.67	0.09
(f)	Foreign Institutional Investors	949663777	0	949663777	11.52	1254883764	0	1254883764	12.67	1.15
(g)	Foreign Venture Capital Investors	0	0	0	0.00	0	0	0	0.00	0.00
(h)	Qualified Foreign Investor	0	0	0	0.00	0	0	0	0.00	0.00
(i)	Others	0	0	0	0.00	0	0	0	0.00	0.00
	Sub-Total B(1):	**2832359093**	**0**	**2832359093**	**34.36**	**4010374016**	**0**	**4010374016**	**40.53**	**6.17**
(2)	NON-INSTITUTIONS									
(a)	Bodies Corporate	116080722	1	116080723	1.41	104348541	126480	104475021	1.06	(0.35)
(b)	Individuals									
	(i) Individuals holding nominal share capital upto Rs.2 lakh	115122475	43074	115165549	1.40	134434732	38779	134473511	1.36	(0.04)
	(ii) Individuals holding nominal share capital in excess of Rs.2 lakh	10039416	0	10039416	0.12	19341921	0	19341921	0.20	0.08

CATEGORY OF SHAREHOLDER		NO. OF SHARES HELD AT THE BEGINNING OF THE YEAR i.e. 01/04/2018				NO. OF SHARES HELD AT THE END OF THE YEAR i.e. 31/03/2019				% CHANGE DURING THE YEAR
		DEMAT	PHYSICAL	TOTAL	% OF TOTAL SHARES	DEMAT	PHYSICAL	TOTAL	% OF TOTAL SHARES	
(I)	(II)	(III)	(IV)	(V)	(VI)	(VII)	(VIII)	(IX)	(X)	(XI)
(c)	Others									
	Clearing Members	3154203	0	3154203	0.04	26688002	0	26688002	0.27	0.23
	Directors/Employees	7756470	0	7756470	0.09	8727858	0	8727858	0.09	0.00
	Foreign Bodies	2500	0	2500	0.00	3000	0	3000	0.00	0.00
	Foreign Nationals	0	0	0	0.00	0	0	0	0.00	0.00
	Non Resident Indians	4449792	48200	4497992	0.05	5454654	58260	5512914	0.06	0.01
	Trusts/HUF	21583192	0	21583192	0.26	34840616	120	34840736	0.35	0.09
(d)	**Qualified Foreign Investor**	0	0	0	0.00	0	0	0	0.00	0.00
	Sub-Total B(2) :	**278188770**	**91275**	**278280045**	**3.37**	**333839324**	**223639**	**334062963**	**3.38**	**0.01**
	Total B=B(1)+B(2) :	**3110547863**	**91275**	**3110639138**	**37.73**	**4344213340**	**223639**	**4344436979**	**43.91**	**6.18**
	Total (A+B) :	**8245373125**	**91275**	**8245464400**	**100.00**	**9894333641**	**223639**	**9894557280**	**100.00**	
(C)	**Shares held by custodians, for GDRs/ADRs**									
(1)	Promoter and Promoter Group	0	0	0	0.00	0	0	0	0.00	0.00
(2)	Public	0	0	0	0.00	0	0	0	0.00	0.00
	Total C	**0**	**0**	**0**	**0.00**	**0**	**0**	**0**	**0.00**	**0.00**
	GRAND TOTAL (A+B+C) :	**8245373125**	**91275**	**8245464400**	**100.00**	**9894333641**	**223639**	**9894557280**	**100.00**	

B) Shareholding of Promoter-

S. No.	Shareholder's Name	Shareholding at the beginning of the year			Shareholding at the end of the year			% change in shareholding during the year
		No. of Shares	% of total Shares of the company	% of Shares Pledged / encumbered to total shares	No. of Shares	% of total Shares of the company	% of Shares Pledged / encumbered to total shares	
1	PRESIDENT OF INDIA	5,13,48,25,262	62.27	0	5,55,01,20,301	56.09*	0	(6.18)

*(As on 31st March 2019, excluding 0.32% which was kept in separate demat account).

C) Change in Promoters' Shareholding (please specify, if there is no change)

S. No.	Particulars	Shareholding at the beginning of the year		Transaction during the year			Cumulative Shareholding during the year	
		No. of shares	% of total shares of the of the company	Date	Increase/ Decrease in share holding	Reason	No. of shares	% of total shares of the company
1	At the beginning of the year	5,13,48,25,262	62.27				5,13,48,25,262	62.27
2	Offer for sale- Thru. Bharat 22 ETF			June 2018	(4,15,67,567)	Offer for sale- Thru. Bharat 22 ETF	5,09,32,57,695	61.77
3	CPSE ETF			Dec. 2018	(23,40,12,589)	CPSE ETF	4,85,92,45,106	58.93
4	Offer for sale- Thru. Bharat 22 ETF			Feb 2019	(7,06,46,260)	Offer for sale- Thru. Bharat 22 ETF	4,78,85,98,846	58.08
5	CPSE ETF			March 2019	(16,51,51,343)	CPSE ETF	4,62,34,47,503	56.09*
6	Bonus Share			March 2019	92,66,72,798	Bonus Share	5,55,01,20,301	56.09*
7	At the end of the year	5,55,01,20,301	56.09*				5,55,01,20,301	56.09*

*(Excluding 0.32%, which was kept in Separate demat account)

D) Shareholding Pattern of top ten Shareholders (Closing Balance)
(Other than Directors, Promoters and Holders of GDRs and ADRs)

S. No.	For Each of the Top 10 Shareholders*	Shareholding at the beginning of the year		Cumulative Shareholding during the year	
		No. of shares	% of total shares of the company**	No. of shares	% of total shares of the company**
1	**LIC OF INDIA JEEVAN PLUS NON UNIT FUND**				
	At the beginning of the year	1003456797	10.14	1003456797	10.14
	Bought during the year	372593079	3.77	1376049876	15.94
	Sold during the year	237603045	2.40	1138446831	11.51
	At the end of the year	1138446831	11.51	1138446831	11.51
2	**ICICI PRUDENTIAL TOP 100 FUND**				
	At the beginning of the year	296672061	3.00	296672061	3.00
	Bought during the year	438514479	4.43	735186540	7.43
	Sold during the year	189843720	1.92	545342820	5.51
	At the end of the year	545342820	5.51	545342820	5.51
3	**HDFC TRUSTEE CO. LTD A/C HDFC EQUITY OPPORTUNITIES**				
	At the beginning of the year	216768334	2.19	216768334	2.19
	Bought during the year	186314067	1.88	403082401	4.07
	Sold during the year	58494085	0.59	344588316	3.48
	At the end of the year	344588316	3.48	344588316	3.48
4	**RELIANCE MUTUAL FUND**				
	At the beginning of the year	11308395	0.11	11308395	0.11
	Bought during the year	505049401	5.10	516357796	5.21
	Sold during the year	227807966	2.29	288549830	2.92
	At the end of the year	288549830	2.92	288549830	2.92
5	**THE INCOME FUND OF AMERICA**				
	At the beginning of the year	110255348	1.11	110255348	1.11
	Bought during the year	44102138	0.45	154357486	1.56
	Sold during the year	22051069	0.22	132306417	1.34
	At the end of the year	132306417	1.34	132306417	1.34
6	**T. ROWE PRICE INTERNATIONAL STOCK FUND**				
	At the beginning of the year	74301562	0.76	74301562	0.76
	Bought during the year	49612428	0.50	123913990	1.26
	Sold during the year	20483994	0.21	103429996	1.05
	At the end of the year	103429996	1.05	103429996	1.05

7	**SBI - ETF SENSEX**				
	At the beginning of the year	53527224	0.54	53527224	0.54
	Bought during the year	74100649	0.75	127627873	1.29
	Sold during the year	42805717	0.43	84822156	0.86
	At the end of the year	84822156	0.86	84822156	0.86
8	**ADITYA BIRLA SUN LIFE MUTUAL FUND**				
	At the beginning of the year	35023999	0.35	35023999	0.35
	Bought during the year	53797789	0.54	88821788	0.89
	Sold during the year	17236183	0.17	71585605	0.72
	At the end of the year	71585605	0.72	71585605	0.72
9	**FRANKLIN TEMPLETON MUTUAL FUND**				
	At the beginning of the year	54862231	0.55	54862231	0.55
	Bought during the year	38168708	0.39	93030939	0.94
	Sold during the year	23947655	0.24	69083284	0.70
	At the end of the year	69083284	0.70	69083284	0.70
10	**ABU DHABI INVESTMENT AUTHORITY-IDNENT**				
	At the beginning of the year	16588586	0.17	16588586	0.17
	Bought during the year	40164746	0.41	56753332	0.58
	Sold during the year	8042334	0.09	48710998	0.49
	At the end of the year	48710998	0.49	48710998	0.49

*The shares of the Company are traded on a daily basis and hence the date wise increase / decrease in shareholding is not indicated. Shareholding is consolidated based on permanent account number (PAN) of the shareholder.

**Percentage has been calculated as on 31st March 2019 total shares of the Company.

E) Shareholding of Directors and Key Managerial Personnel:

S.No	Shareholding of Directors and Key Managerial Personnel	Shareholding at the beginning of the year		Transaction during the year			Cumulative Shareholding during the year	
		No. of shares	% of total shares of the company	Date/Period	Increase/ Decrease in share holding	Reason	No. of shares	% of total shares of the company
1	Shri Gurdeep Singh	4857	0.00	01/04/2018			4857	0.00
				March 2019	971	Bonus Share by NTPC	5828	0.00
				31/03/2019			5828	0.00
2	Shri K Biswal[1]	4857	0.00	01/04/2018			4857	0.00
				8/12/2018			4857	0.00
3	Shri Anand Kumar Gupta	6020	0.00	01/04/2018			6020	0.00
				March 2019	1204	Bonus Share by NTPC	7224	0.00
				31/03/2019			7224	0.00

S.No	Shareholding of Directors and Key Managerial Personnel	Shareholding at the beginning of the year		Transaction during the year			Cumulative Shareholding during the year	
		No. of shares	% of total shares of the company	Date/Period	Increase/ Decrease in share holding	Reason	No. of shares	% of total shares of the company
4	Shri Saptarshi Roy	1156	0.00	01/04/2018			1156	0.00
				March 2019	231	Bonus Share by NTPC	1387	0.00
					(46)	Sale	1341	0.00
				31/03/2019			1341	0.00
5	Shri S.K. Roy	4715	0.00	01/04/2018			4715	0.00
				March 2019	943	Bonus Share by NTPC	5658	0.00
				31/03/2019			5658	0.00
6	Shri P.K. Mohapatra	5812	0.00	01/04/2018			5812	0.00
				March 2019	1162	Bonus Share by NTPC	6974	0.00
				31/03/2019			6974	0.00
7	Shri Shashi Shekhar	691	0.00	01/04/2018			691	0.00
				March 2019	138	Bonus Share by NTPC	829	0.00
				31/03/2019			829	0.00
8	Shri Vinod Kumar	1000	0.00	01/04/2018			1000	0.00
					2917	Purchase	3917	0.00
				March 2019	783	Bonus Share by NTPC	4700	0.00
				31/03/2019			4700	0.00
9	Shri K.Sreekant	425	0.00	1/4/2018			425	0.00
				March 2019	85	Bonus Share by NTPC	510	0.00
				31/3/2019			510	0.00
10	Shri K P Gupta[2]	1500	0.00	01/04/2018			1500	0.00
				31/07/2018			1500	0.00
11	Ms. Nandini Sarkar[3]	2529	0.00	01/08/2018			2529	0.00
				March 2019	505	Bonus Share by NTPC	3034	0.00
				31/03/2019			3034	0.00

1. Ceased to be Director w.e.f. 8th December 2018 after completion of his five year tenure.
2. Ceased to be Company Secretary w.e.f. 31st July 2018 after attaining the age of his superannuation.
3. Appointed as Company Secretary w.e.f. 1st August 2018

V) **INDEBTEDNESS** - Indebtedness of the Company including interest outstanding/accrued but not due for payment.

Amount in Rs. Crore

Particulars	Secured Loans excluding deposits	Unsecured Loans	Deposits	Total Indebtedness
Indebtedness at the beginning of the financial year (as at 01.04.2018)				
i) Principal Amount	33,060.74	88,543.87	-	1,21,604.61
ii) Interest due but not paid	-	-	-	-
iii) Interest accrued but not due	786.75	468.21	-	1,254.96
Total (i+ii+iii)	**33,847.49**	**89,012.08**	-	**1,22,859.57**
Change in Indebtedness during the financial year (2018-19)				
i) Addition in principal amount	4,000.80	36,357.51	-	40,358.31
ii) Reduction in principal amount	(2,209.82)	(18,138.48)	-	(20,348.30)
iii) Change in principal amount due to ERV	-	1,372.75	-	1,372.75
iv) Change due to unamortised borrowing cost	0.08	(54.07)	-	(53.99)
v) Change in interest accrued but not due	22.29	100.14	-	122.43
Net Change (i-ii+iii+iv+v)	**1,813.35**	**19,637.85**	-	**21,451.20**
Indebtedness at the end of the financial year (as on 31.03.2019)				
i) Principal Amount	34,851.80	1,08,081.58	-	1,42,933.38
ii) Interest due but not paid	-	-	-	-
iii)Interest accrued but not due	809.04	568.35	-	1,377.39
Total (i+ii)	**35,660.84**	**1,08,649.93**	-	**1,44,310.77**

VI. REMUNERATION OF DIRECTORS AND KEY MANAGERIAL PERSONNEL:

A. Remuneration to Managing Director, Whole-time Directors and/or Manager

In Rs.

S. No.	Particulars of Remuneration	Name of MD /WTD /Manager							Total Amount
		CMD/CEO	WTD	WTD	WTD	WTD	WTD	WTD	
		Sh. Gurdeep Singh	Sh.Kulamani Biswal[1]	Sh. S.Roy	Sh A. K. Gupta	Sh.S.K.Roy	Sh. Prakash Tiwari	Sh. P.K.Mohapatra	
1	Gross salary								
	(a) Salary as per provisions contained in section 17(1) of the Income-tax Act, 1961	123,50,475	51,67,347	87,87,401	77,90,644	79,07,582	65,07,302	75,39,098	**5,60,49,849**
	(b) Value of perquisites u/s 17(2) Income-tax Act, 1961	15,29,167	5,32,021	1,17,915	41,394	4,23,640	7,47,883	89,385	**34,81,405**
	(c) Profits in lieu of salary under section 17(3) Income- tax Act, 1961	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**

S. No.	Particulars of Remuneration	Name of MD /WTD /Manager							Total Amount
		CMD/CEO	WTD	WTD	WTD	WTD	WTD	WTD	
		Sh. Gurdeep Singh	Sh.Kulamani Biswal[1]	Sh. S.Roy	Sh A. K. Gupta	Sh.S.K.Roy	Sh. Prakash Tiwari	Sh. P.K.Mohapatra	
2	Stock Option	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	Sweat Equity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	Commission - as % of Profit - Others,specify	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	Others, please specify	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total (A)	**138,79,642**	**56,99,368**	**89,05,316**	**78,32,038**	**83,31,222**	**72,55,185**	**76,28,483**	**5,95,31,254**

Ceiling as per the Act : Not Applicable *

1 Ceased to be Director w.e.f. 8th December 2018

* Section 197 of Companies Act, 2013 shall not apply vide MCA notification dated 5.6.2015

B. Remuneration to other directors: (Refer Corporate Governance Report for details) **In Rs.**

S. No.	Particulars of Remuneration	Fee for attending board / committee meetings	Commission	Others, please specify- Honorarium	Total Amount
1.	**Independent Directors**				
	Dr.(Mrs.) Gauri Trivedi	7,50,000	-	60,000	8,10,000
	Shri Seethapathy Chander	10,30,000	-	-	10,30,000
	Shri M.P.Singh	8,50,000	-	-	8,50,000
	Shri P.K.Deb	11,90,000	-	-	11,90,000
	Shri Shashi Shekhar	9,20,000	-	-	9,20,000
	Shri Vinod Kumar	10,20,000	-	-	10,20,000
	Shri Subhash Joshi	8,40,000	-	-	8,40,000
	Dr K P Kylasanatha Pillay[1]	5,00,000	-	-	5,00,000
	Dr Bhim Singh[1]	2,50,000	-	-	2,50,000
	Total (1)	**73,50,000**	-	**60,000**	**74,10,000**
2.	**Other Non-Executive Directors**	-	-	-	-
	Total (2)	-	-	-	-
	Total (B)=(1+2)	**73,50,000**	-	**60,000**	**74,10,000**
	Total Managerial Remuneration (A+B)				**6,69,41,254**
	Ceiling as per the Act (@ 1% of profits calculated under Section 198 of the Companies Act, 2013)*	Not Applicable			

* Section 197 of Companies Act, 2013 shall not apply vide MCA notification dated 5.6.2015

[1] Appointed as Director w.e.f. 30th July,2018

C. REMUNERATION TO KEY MANAGERIAL PERSONNEL OTHER THAN MD/MANAGER/WTD

In Rs.

S. No.	Particulars of Remuneration	Key Managerial Personnel			
		Company Secretary	Company Secretary	CFO	Total
		Sh. K P Gupta*	Ms. Nandini Sarkar$	Sh. Sudhir Arya	
1	Gross salary				
	(a) Salary as per provisions contained in section 17(1) of the Income-tax Act, 1961	7,807,715	6,444,729	72,53,654	**2,15,06,098**
	(b) Value of perquisites u/s 17(2) Income-tax Act, 1961	17,621	82,263	43,392	**1,43,276**
	(c) Profits in lieu of salary under section 17(3) Income-tax Act, 1961	0.00	0.00	0.00	**0.00**
2	Stock Option	0.00	0.00	0.00	**0.00**
3	Sweat Equity	0.00	0.00	0.00	**0.00**
4	Commission - as % of profit	0.00	0.00	0.00	**0.00**
5	Others, please specify	0.00	0.00	0.00	**0.00**
	Total	**78,25,336**	**65,26,992**	**72,97,046**	**2,16,49,374**

* Ceased to be Company Secretary & Compliance Officer w.e.f. 31st July 2018.

$ Appointed as Company Secretary & Compliance Officer w.e.f. 1st August 2018, however Salary for entire period (i.e for FY 2018-19) was considered.

VII. PENALTIES / PUNISHMENT/ COMPOUNDING OF OFFENCES:

Type	Section of the Companies Act	Brief Description	Details of Penalty / Punishment/ Compounding fees imposed	Authority [RD / NCLT/ COURT]	Appeal made, if any (give Details)
There were no penalties/ punishment / compounding of offences for breach of any section of Companies Act against the Company or its Directors or other officers in default, if any, during the year.					

For and on behalf of the Board of Directors

(Gurdeep Singh)
Chairman & Managing Director

Place: New Delhi
Date: 8th July, 2019

Taking Care of people in Vicinity of NTPC Stations

Annexure-VII to Directors' Report

FORMAT FOR THE ANNUAL REPORT ON CSR ACTIVITIES TO BE INCLUDED IN THE BOARD'S REPORT

1. **A brief outline of the company's CSR policy, including overview of projects or programs proposed to be undertaken and a reference to the web-link to the CSR policy and projects or programs**

   CSR has been synonymous with Company's core business of power generation. The Company's spirit of caring and sharing is embedded in its mission statement. The 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 and thereafter-extensive community / peripheral development activities are taken up along with the project development. Separate CSR Community Development Policy, formulated in July 2004 and Sustainability Policy formulated in Nov 2012 were combined in 2015 and revised in 2016 as "**NTPC Policy for CSR & Sustainability**" in line with Companies Act 2013 and DPE Guidelines for CSR. It covers a wide range of activities including implementation of key programmes through NTPC Foundation.

   CSR & Sustainability programs undertaken by Company include activities specified in Schedule VII of the Companies Act 2013 & rules made there under and any other activity for benefit of community at large. Focus areas of NTPC CSR & Sustainability activities are Health, Sanitation, safe Drinking Water, Education, Capacity Building, Women Empowerment, Social Infrastructure livelihood creation and support through innovative agriculture & livestock development, support to Physically Challenged Person (PCPs), and activities contributing towards Environment Sustainability. The Company commits itself to contribute to the society, discharging its corporate social responsibilities through initiatives that have positive impact on 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 & Environment Sustainability and to supplement Government effort, activities are also taken up anywhere in the country. During the year, about 500 villages and more than 450 schools have been benefitted by NTPC's various CSR initiatives at different locations. NTPC's CSR initiatives have touched, in one way or the other, the lives of around 10 lakhs people, residing at remote locations.

   Apart from the CSR activities undertaken around operations, support has also been provided for some of the following major CSR initiatives all across the country:

   - Construction of school & hostel for tribal children near NTPC Rihand, in UP .
   - Construction of school building at Varanasi, UP, Hoshangabad MP & Sambalpur Odisha.
   - Setting of Smart Tab labs in Government schools in vicinity of 03 NTPC Stations
   - Setting up NTPC - All girls Super 30 at Varanasi, UP for providing free residential coaching and mentoring for admission's in IIT, NIT and prestigious Engineering Institutes.
   - One-month residential summer workshops for about 400 girl children in the age group of 10-12 yrs through Flagship Program Girl Empowerment Mission (GEM) wherein interventions were taken to make the girls self-reliant and confident in all walks of life. The girls were chosen from various Govt schools in villages surrounding NTPC power stations in Singrauli and Sonbhadra districts (Aspirational districts) around NTPC stations.
   - Setting up Sanitary Napkin "Stree Swabhiman" Mini Manufacturing units (MMU) in the state of Odisha.
   - Creating infrastructure & support for equipment at National Cancer Institute Nagpur for combating cancer.
   - Setting up Burn Units at AIIMS Patna, AIIMS Bhubaneswar & King George Medical University Lucknow.
   - Construction of Eye Hospital at Dadri, UP and also of operating room complex at Eye hospital in Bhubaneswar.
   - Revival and operation of Mechanized Solid Waste Management plant at Karsada, UP.

- Developmental & beautification works at Charminar, Hyderabad under 'Swachh Iconic places Project' of Govt. of India.
- Installation of Energy Efficient Pump System in the fields of farmers residing near NTPC stations located in five districts of Uttar Pradesh.
- Promotion of Archery Sports by funding National Ranking Archery Tournaments and National Archery championships.
- Provision for income generation opportunities through vocational training, skill upgradation and income generation programs. NTPC has adopted 18 Industrial Training Institutes (ITIs) and is setting up 8 new ones. NTPC has signed Memorandum of Understanding (MoU) with National Skill Development Corporation (NSDC) to develop the skills of 30000 youth over a period of 05 years spread in 12 states in order to make them self-employable by NTPC.

NTPC, being a member of Global Compact Network, India, confirms its involvement in various CSR activities in line with 10 principles of UN Global Compact.

Web Link to the CSR Policy & Projects or programs

http://www.ntpc.co.in/en/corporate-citizenship/corporate-social-responsibility

2. **The Composition of the CSR Committee**

As on 31.03.2019, the Board Level Corporate Social Responsibility & Sustainability Committee comprises

One functional Director	:	Shri Saptarshi Roy
Three Independent Directors	:	Dr. (Mrs) Gauri Trivedi
	:	Shri Pradeep Kumar Deb
	:	Shri Vinod Kumar
One Govt. Nominee Director	:	Shri Vivek Kumar Dewangan*

*Ceased to be member of the CSR Committee consequent upon change in designation from Joint Secretary & FA to Joint Secretary (Thermal), MoP w.e.f. 30th April 2019.

The committee recommends to the Board for approval, the amount of expenditure to be incurred on the activities and monitors from time to time the Policy for Corporate Social Responsibility & Sustainability approved by the Board.

3.	Average net profit of the Company for the previous 3 financial years	- Rs 11850.34 Cr
4.	Prescribed CSR Expenditure (2% of the amount as in item 3 above)	- Rs 237.01 Cr
	Previous Year Shortfall	NIL
	Total Prescribed CSR Expenditure	- Rs 237.01 Cr
5.	Details of CSR spent during the financial year	
	(a) Total amount to be spent for the financial year	- Rs 237.01 Cr
	Amount spent	- Rs 285.46 Cr (2.41%)
	Amount exceeding prescribed CSR Exp	- Rs 48.45 Cr
	(b) Amount unspent, if any	- NIL
	(c) Manner in which the amount spent during the financial year is detailed below:	**(Table enclosed)**

Amount (Rs. Cr)

5(c) Manner in which the amount spent during the financial year is detailed below :							
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Sl. No.	CSR project or activity identified	Sector in which the Project is covered./ Relevant Section of Schedule VII in which the project is covered (Note)	Project or programs (1) Local area or other (2) Specify the State and district where projects or programs was undertaken	Amount outlay (budget) project or programs wise	Amount spent on the projects or programs Sub-heads*: (1) Direct expenditure on projects or programs (2) Overheads	Cumulative expenditure upto to the reporting period*	Amount spent: Direct or through implementing agency
1	Eradicating Hunger and Poverty, Health Care and Sanitation	(i)	CSR initiatives during the Financial Year 2018-19 have been taken up on PAN India basis around NTPC operations primarily in 19 states mentioned below: Andhra Pradesh, Assam, Bihar, Chhattisgarh, Delhi, Gujarat, Haryana,Himachal Pradesh, J&K, Jharkhand, Kerala, Madhya Pradesh, Maharashtra, Odisha, Rajasthan, Telangana, Uttar Pradesh, Uttarakhand, West Bengal	94.16	70.10	70.10	Through Implementing / Contracting Agency/NTPC Foundation/ Trusts/ societies
2	Education and Skill Development	(ii)		100.65	132.03	132.03	
3	Empowerment of Women and other Economically Backward Sections	(iii)		3.94	1.55	1.55	
4	Environmental Sustainability	(iv)		52.83	42.51	42.51	
5	Art & Culture	(v)		7.40	0.85	0.85	
6	Sports	(vii)		5.59	3.61	3.61	
7	Rural Development	(x)		39.45	34.81	34.81	
	Total			**304.02**	**285.46**	**285.46**	

Note * Including expenditure on activities carried forward from previous years , which have been completed during 2018-19

6. In case the company has failed to spend the two percent of the average net profit of the last three financial years or any part thereof, the company shall provide the reasons for not spending the amount in its Board Report.

   By spending Rs. 285.46 Cr during the financial year, the company has surpassed the prescribed two percent amount of Rs. 237.01 Cr by Rs. 48.45 Cr, thus achieving a CSR spend of 2.41%.

7. This is to state that the implementation and monitoring of CSR policy is in compliance with CSR objectives and policy of the Company.

For and on behalf of the Board of Directors

(Gurdeep Singh)
Chairman & Managing Director

Place: New Delhi
Date: 8th July, 2019

Annexure-VIII to Directors' Report

PROJECT-WISE ASH PRODUCED AND UTILISED

The quantity of ash produced, ash utilized and percentage of such utilization during 2018-19 from NTPC Stations is as under:

Sl. No.	Stations	Ash Produced	Ash Utilization	% Utilization
		Lakh MTs	Lakh MTs	%
1	Badarpur	2.94	2.91*	98.98
2	Dadri	22.35	22.36*	100.04
3	Singrauli	28.90	10.17	35.19
4	Rihand	35.16	13.04	37.09
5	Unchahar	17.21	20.30*	117.95
6	Tanda	5.44	15.59*	286.58
7	Vindhyachal	81.86	26.29	32.12
8	Mouda	26.47	23.88	90.22
9	Solapur	4.24	5.39	127.12
10	Korba	54.12	27.65	51.09
11	Sipat	48.00	23.78	49.54
12	Ramagundam	42.75	47.16*	110.32
13	Simhadri	29.76	29.81*	100.17
14	Kudgi	13.70	8.86	64.67
15	Farakka	31.34	25.11	80.12
16	Kahalgaon	43.18	20.87	48.33
17	Barh	22.97	11.50	50.07
18	Kanti	8.12	3.29	40.52
19	Talcher-Thermal	11.29	11.34*	100.44
20	Talcher-Kaniha	75.85	38.07	50.19
21	Bongaigaon	4.68	1.44	30.77
	Total	**610.33**	**388.81**	**63.70**

***Figure includes Ash utilized from ash produced during previous years**

For and on behalf of the Board of Directors

(Gurdeep Singh)
Chairman & Managing Director

Place: New Delhi
Date: 8th July, 2019


Water treatment plant at NTPC Station

Annexure-IX 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 there to

1. **Details of contracts or arrangements or transactions not at arm's length basis –**

   NTPC is assigning Jobs on contract basis, for sundry works in Plants/Station/office to Utility Powertech Limited (UPL) (a 50:50 Joint Venture between NTPC and Reliance Infrastructure Limited). UPL inter-alia undertakes jobs such as overhauling, repair, refurbishment of various mechanical and electrical equipment of power stations. NTPC has entered into Power station Maintenance Agreement with UPL from time to time. The rates are fixed on cost plus basis after mutual discussion and after taking into account the prevailing market conditions.

   Approval of the Members of the Company was taken in the Annual General Meeting held on 18.09.2015 for transactions with UPL subject to cumulative ceiling of 2% of the annual turnover of the Company as per the Audited Annual financial statement of the preceding financial year or ₹ 1,000 crore, whichever is more, in any financial year.

   On the basis of above, NTPC has entered into Power Station and Office Maintenance Agreement with Utility Powertech Limited for a period of five years.

2. **Details of material contracts or arrangement or transactions at arm's length basis:** There was no material contract or arrangement or transaction at arm's length basis during the period under review

   a. Name(s) of the related party and nature of relationship - NA

   b. Nature of contracts/arrangements/transactions - NA

   c. Duration of the contracts / arrangements/transactions– NA

   d. Salient terms of the contracts or arrangements or transactions including the value, if any – NA

   e. Date(s) of approval by the Board, if any - NA

   f. Amount paid as advances, if any - NA

For and on behalf of the Board of Directors

(Gurdeep Singh)
Chairman & Managing Director

Place: New Delhi
Date: 8th July, 2019

Coal Mining Activities in full swing at Dulanga Coal Mine

Annexure -X to Directors' Report

NTPC BUSINESS RESPONSIBILITY REPORT (2018-19)

Section A : General information about the Company

1. **CIN (Corporate identity number)** L40101DL1975GOI007966
2. **Name of the company** NTPC LIMITED
3. **Registered address** NTPC Bhawan, Scope Complex, 7, Institutional Area, Lodhi Road, New Delhi-110003
4. **Website** www.ntpc.co.in
5. **Email id** csntpc@ntpc.co.in
6. **FY reported** 2018-19
7. **Sector that company is engaged in** Power
8. **Product/services that the company manufacturers /provides (as in balance sheet):**
   i. Generation of Electricity
   ii. Consultancy
   iii. Coal Mining
9. **Total number of location where business activity is undertaken by the company:**
   International locations - 02 nos.
   a. Trincomalee Power Project, Srilanka
   b. Bangladesh- India Friendship Power Company (Pvt) Ltd. : Maitree Power Project at Khulna, Bangladesh
   National Location- 74 Nos.
10. **Markets served by the Company:** National & International

Section B : Financial details of the Company

1.	Paid up capital (Rs. Crore)	Rs. 9894.56 Cr.
2.	Total Turnover(Gross) (Rs. Crore)	Rs. 89,765.23 Cr.
3.	Total profit after taxes (Rs. Crore)	Rs. 11,749.89 Cr.
4.	Total spending on CSR and Sustainable Development (SD) as % of PAT	2.43% (Rs 285.46 Crore) of PAT of FY 2018-19
5.	List of activities in which expenditure in 4 above has been incurred	Broad areas of the activities : - Education & skill development - Swachh Vidhyalya Abhiyaan - Health care & Sanitation - Rural Development - Protection of National Culture and Heritage - Capacity Building - Women Empowerment - Roads & Infrastructure strengthening - Providing Drinking Water - Art & Culture and Sports - Biodiversity, Tree Plantation - Waste management - Environmental Studies - Promotion of Renewable Energy - Water management

Section C: Other Details

Subsidiaries: The Company has the following Six Subsidiary Companies as on 31-03-2019:

i. NTPC Electric Supply Company limited
ii. NTPC Vidyut Vyapar Nigam Limited
iii. Kanti Bijlee Utpadan Nigam Ltd.
iv. Nabinagar Power Generating Company Ltd. (previously Nabinagar Power Geneating Company Private Ltd.)
v. Bhartiya Rail Bijlee Company Limited
vi. Patratu Vidyut Utpadan Nigam Ltd.

The Business Responsibility Initiatives of the parent company are applicable to the subsidiary companies also. However, none of the entities that the Company does business with, participate in the BR initiatives of the Company.

Section D: BR information

1. Individual Directors responsible for implementation of the BR policy / policies:

Principle No	Description	Policy / Policies	Director(s) Responsible
Principle 1 (P1)	Businesses should conduct and govern themselves with Ethics, Transparency and Accountability.	1. Code of Conduct* 2. Core Values 3. Fraud Prevention Policy 4. CDA Rules 5. Whistle Blower Policy 6. Internal code of conduct for prevention of insider trading. 7. Code of Corporate Fair Disclosure Practices for prevention of insider trading. 8. Related Party Transaction Policy. 9. Policy for determination of materiality of events or information for disclosure. 10. Policy on maintenance & preservation of documents. 11. Policy for Determining Material Subsidiaries. 12. Training Policy for Directors of NTPC.	All Directors & Chief Vigilance Officer
Principle 2 (P2)	Businesses should provide goods and services that are safe and contribute to sustainability throughout their life cycle.	1. Safety Policy 2. NTPC Policy for CSR and Sustainability 3. Ash Policy	Director (Operations) Director (HR)
Principle 3 (P3)	Businesses should promote the well-being of all employees.	1. Human Resource (HR) Policies 2. Placement and Transfer Policy 3. Human Rights Policy	Director (HR)
Principle 4 (P4)	Businesses should respect the interests of, and be responsive towards all stakeholders, especially those who are disadvantaged, vulnerable and marginalized.	1. R&R Policy 2. Initial Community Development (ICD) Policy 3. Human Rights Policy	Director (HR)
Principle 5 (P5)	Businesses should respect and promote human rights.	1. Human Rights Policy	Director (HR)
Principle 6 (P6)	Businesses should respect, protect, and make efforts to restore the environment.	1. Environment Policy 2. NTPC Policy for CSR and Sustainability 3. Biodiversity Policy 4. E-waste Policy 5. Water Policy 6. Rain Water Harvesting Policy	Director (Operations) Director (HR) Director (Technical)
Principle 7 (P7)	Businesses, when engaged in influencing public and regulatory policy, should do so in a responsible manner.	1. Code of Conduct* 2. Core Values	All Directors

Principle 8 (P8)	Businesses should support inclusive growth and equitable development.	1. R&R Policy 2. NTPC Policy for CSR and Sustainability 3. Initial Community Development (ICD) Policy	Director (HR)
Principle 9 (P9)	Businesses should engage with and provide value to their customers and consumers in a responsible manner.	Commercial systems & Procedures	Director (Commercial)

* Code of Conduct for Board Members & Senior Management Personnel

2. Details of Director/Directors responsible for BR as a whole

a. Details of the Director/Directors responsible for implementation of the BR policy/policies:

S.No.	Particulars	Details
1.	DIN Number	00307037
2.	Name	Gurdeep Singh
3.	Designation	Chairman & Managing Director
4.	Telephone number	011-24360044
5.	E-mail id	cmd@ntpc.co.in

b. Details of BR head: Same as above

3. Principle wise reply to each question on BR Policy / Policies:

Sl. No.	Question	P1	P2	P3	P4	P5	P6	P7	P8	P9
1.	Do you have a policy/ policies for the Principle?	Y	Y	Y	Y	Y	Y	Y	Y	N
2.	Has the policy being formulated in consultation with the relevant stakeholders?	Y	Y	Y	Y	Y	Y	Y	Y	-
3.	Does the policy conform to any national /inter-national standards?	Y	Y	Y	Y	Y	Y	Y	Y	-
4.	Has the policy being approved by the Board? If yes, has it been signed by MD/owner/CEO/ appropriate Board Director?	Y	Y	Y	Y	Y	Y	Y	Y	-
5.	Does the company have a specified committee of the Board/ Director/ Official to oversee the implementation of the policy?	Y	Y	Y	Y	Y	Y	Y	Y	-
6.	Indicate the link for the policy to be viewed online?	(i)	(i)	(i)	(i)	(i)	(i)	(i)	(i)	-
7.	Has the policy been formally communicated to all relevant internal and external stakeholders?	Y	Y	Y	Y	Y	Y	Y	Y	-
8.	Does the company have in-house structure to implement the policy/ policies?	Y	Y	Y	y	Y	Y	Y	Y	-
9.	Does the Company have a grievance redressal mechanism related to the policy / policies to address stakeholders' grievances related to the policy / policies?	y	Y	y	y	Y	Y	Y	Y	-
10.	Has the company carried out independent audit / evaluation of the working of this policy by an internal or external agency?	Y	Y	Y	Y	Y	Y	Y	Y	-

(i) **Web links for the Policies :**

a. Code of Conduct

http://www.ntpc.co.in/investors/code-of-conduct

b. CSR and Sustainability Policy

http://www.ntpc.co.in/download/ntpc-policy-csr-sustainability

c. Fraud Prevention Policy

http://www.ntpctender.com/about/FraudPolicy.asp

d. Code for Prevention of Insider Trading in the Securities of NTPC

https://www.ntpc.co.in/en/investors/insider-trading

e. Code of Practices and Procedures for Fair Disclosure of Unpublished Price Sensitive Information

https://www.ntpc.co.in/en/investors/insider-trading

f. Related Party Transaction Policy

http://www.ntpc.co.in/download/related-party-transaction-policy-ntpc

g. Whistle Blower Policy

https://www.ntpc.co.in/sites/default/files/downloads/WhistleBlowerPolicy2014.pdf

h. Policy for determination of materiality of events or information for disclosure

http://www.ntpc.co.in/sites/default/files/downloads/NTPC%20-%20Policy%20For%20Determination%20of%20Materiality%20of%20events.pdf

i. Policy on maintenance & preservation of documents

http://www.ntpc.co.in/sites/default/files/downloads/Document%20Preservation%20Policy.pdf

j. Policy for Determining Material Subsidiaries

http://www.ntpc.co.in/download/policy-determining-material

k. Training Policy for Directors of NTPC

http://www.ntpc.co.in/download/training-policy-directors-ntpc

l. Initial Community Development Policy

http://www.ntpc.co.in/download/initial-community-development-policy-2009

m. HR Policies & Placement and Transfer Policy: Available for internal stakeholders only and not hosted on web

n. NTPC Human Rights Policy

https://www.ntpc.co.in/sites/default/files/downloads/NTPCHuman%20RightsPolicy_0.pdf

o. NTPC Rain Water Harvesting Policy 2018

https://www.ntpc.co.in/sites/default/files/downloads/NTPC%20Rain%20Water%20Harvesting%20Policy%202018.pdf

p. Ash Policy 2015

https://www.ntpc.co.in/sites/default/files/downloads/AshPolicy2015.pdf

q. Biodiversity Policy 2018

https://www.ntpc.co.in/sites/default/files/downloads/BiodiversityPolicy2018.pdf

r. CSR & Sustainability 2016

https://www.ntpc.co.in/sites/default/files/downloads/CSR%26Sustainability2016.pdf

s. Environment Policy 2017

https://www.ntpc.co.in/sites/default/files/downloads/EnvironmentPolicy2017.pdf

t. E-waste Policy 2014

https://www.ntpc.co.in/sites/default/files/downloads/e-wastePolicy2014.pdf

u. Fraud Prevention Policy 2007

https://www.ntpc.co.in/sites/default/files/downloads/FraudPreventionPolicy2007.pdf

v. ICD Policy 2009

https://www.ntpc.co.in/sites/default/files/downloads/ICDPolicy2009.pdf

w. R&R Policy 2017

https://www.ntpc.co.in/sites/default/files/downloads/R%26RPolicy2017.pdf

x. Safety Policy 2016

https://www.ntpc.co.in/sites/default/files/downloads/SafetyPolicy2016.pdf

y. Water Policy 2017

https://www.ntpc.co.in/sites/default/files/downloads/WaterPolicy2017.pdf

4. If answer against any principle is 'No', please explain why:

Principle 9: All the sub-principles identified under principle -9 are duly followed by NTPC through its commercial systems and procedures. However, NTPC feels that a separate Policy on Principle -9 is not required because:

- NTPC supplies power to the Bulk Customers (State Electricity Distribution companies) majority of which are owned by the respective State Govt.
- The CERC, while finalizing Tariff and other Regulations engages all Stakeholders and takes views of them. CERC Tariff Regulations and relevant orders are being displayed on CERC Website www.cercind.gov.in.
- NTPC & our bulk customers i.e. Discoms work under regulated Environment. NTPC strives for supplying cheapest power deploying all resources optimally in best possible ways resulting in well being of customers & society.
- NTPC being a Government company is also subject to the various checks and balances mechanism such as audits etc.
- CERC while determining the tariff of NTPC stations does prudence check on the costs of NTPC.

- NTPC never restricts the freedom of choice and free competition in any manner while supplying bulk Power.
- Needs of the customers is taken into account and accordingly PPA are signed and Allocation of Power is made by Ministry of Power as per existing guidelines & Policy. Unallocated quota of power is allocated by MoP as per demand and requirement of different States hence customers are always kept first.
- Central Electricity Regulatory Commission governs power supply rules and regulations, performance and all other commercial parameters related to power generation. NTPC always excels in satisfying customers by adhering to these norms and disclosing all relevant information.
- Issues, if any, regarding operational issues etc. are being discussed and resolved in common forums such as Regional Power Committees.
- NTPC has developed a Customer Satisfaction Index (CSI), which is administered through a questionnaire and based on the feedbacks received, actions are taken.

NTPC regularly engages with the customers and provides value to them in a responsible manner.

5. Governance related to BR

i.	Indicate the frequency with which the Board of Directors, Committee of the Board or CEO to assess the BR performance of the Company.	Within 3-6 months
ii.	Does the Company publish a BR or a Sustainability Report? What is the hyperlink for viewing this report? How frequently it is published?	The company publishes both Business Responsibility Report (as a part of annual report)and Sustainability Report annually.They can be accessed from the below link. https://www.ntpc.co.in/en/sustainability/compliances-and-reports

Section E: Principle – wise performance

Principle 1: Businesses should conduct and govern themselves with Ethics, Transparency and Accountability

1. Does the policy relating to ethics, bribery and corruption cover only the Company? Does it extend to the Group/ Joint Ventures/ Suppliers/ Contractors/ NGOs / Others?

i Code of Conduct for Board Members & Senior Management Personnel covers all the Directors and Senior Management Personnel of the Company.

ii Fraud Prevention Policy applies to any fraud, or suspected fraud involving employees of NTPC as well as representatives of vendors, suppliers, contractors, consultants, service providers or any outside agency (ies) doing any type of business with NTPC.

iii However, in line with NTPC, RGPPL and NTECL, JVs of NTPC have also adopted Fraud Prevention Policy and CDA rules.

iv CDA Rules are applicable to all employees of NTPC and employees posted in JVs/Subsidiaries.

v Insider Trading Code is applicable to designated employees of the Company.

vi Related Party Transaction Policy is framed intended to ensure the proper approval and reporting of transactions between the Company and its Related Parties.

vii The objective of Whistle Blower Policy is to build and strengthen a culture of transparency and trust in the organization and to provide employees with a framework / procedure for responsible and secure reporting of improper activities (whistle blowing) within the Company and to protect employees wishing to raise a concern about improper activity/ serious irregularities within the Company.

viii The Policy for determination of materiality of events or information for disclosure was framed in terms of Regulation 30 (1) of Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015 SEBI (LODR)

ix The Policy on maintenance & preservation of documents was framed in pursuance to Regulation 9 of the SEBI (LODR).

x The Policy for Determining Material Subsidiaries was framed in accordance with the requirement stated under the Listing Agreement.

xi The Training Policy aims at providing Orientation & Training programs to be offered to the Board of Directors NTPC

NTPC has a Vigilance Department headed by Chief Vigilance Officer of the rank of Joint Secretary, GOI, who is a nominee of the Central Vigilance Commission. Vigilance set up in NTPC comprises of Vigilance Executives in Corporate Centre and Projects. In Projects, the VEs report to the Project Head in administrative matters but in functional matters, they report to Chief Vigilance Officer. Corporate Vigilance consists of 04 Cells, namely, Investigation & Processing Cell, Departmental Proceedings Cell, Technical Examination Cell and MIS Cell. These Cells deal with various facets of vigilance mechanism. The vigilance works of each Region namely ER-I, ER-II, WR-I, WR-II, NR, NCR, SR and Hydro Region have been separately assigned to one Vigilance Executive of GM/AGM rank for speedier disposal of vigilance cases.

Integrity Pact has been implemented in NTPC since 2009. Presently tenders having estimated value of Rs.10 Crore(excluding taxes and duties) and above are covered under the Integrity Pact. Presently, NTPC is having 02 Independent External Monitor - Sh. Satyananda Mishra, IAS (Retd.) & Ex-CIC and Sh. M.F.Farooqui, IAS (Retd.) to oversee the implementation of Integrity Pact Programme.

As per the provisions of Section 619(3) of the Companies Act, 1956, Fraud Prevention Policy has been implemented in NTPC and suspected fraud cases referred by the Nodal Officers to Vigilance Dept. are investigated immediately to avoid/stop fraudulent behaviours as defined in "Fraud Prevention Policy".

2. **How many stakeholder complaints have been received in the past financial year and what percentage was satisfactorily resolved by the management? If so, provide details thereof, in about 50 words or so.**

During the period, total 1780 new complaints were received. Total 1781 complaints were resolved after verification, out of which one complaint pertained to the previous financial year. No complaint is pending as on 31.03.2019. These complaints are received related to Equity Shares, Bonus Debentures, Private Placement of Bonds, and Public Issue of Bonds.

<u>Principle 2: Businesses should provide goods and services that are safe and contribute to sustainability through out their life cycle</u>

1. List up to 3 of your products or services whose design has incorporated social or environmental concerns, risks and/or opportunities

   i. Generation of Electricity: NTPC has been conventionally producing Electricity through Coal and Gas. Many design upgradations such as supercritical and ultra-supercritical based new capacity additions and process innovation such as High Concentration slurry disposal (HCSD), Real time monitoring of Pollutants and Zero Liquid discharge has been done to reduce the environment footprint.NTPC has also increased its solar, wind and hydro based capacities which has zero emissions.

   ii. Coal Mining: Efforts have been taken to reduce water use.

   iii. E-Mobility: NTPC is trying to promote adoption of EVs through developing charging infrastructure. This will curb the rising air pollution.

2. For each such product, provide the following details in respect of resource use (energy, water, raw material etc.) per unit of product(optional):

   a. Reduction during sourcing/production/distribution achieved since the previous year throughout the value chain.

   b. Reduction during usage by consumers (energy, water) has been achieved since the previous year.

Raw Material (Energy) Consumption per year:

Energy Source	2016-17		2017-18		2018-19	
	Qty.	Per Unit Consumption	Qty.	Per Unit Consumption	Qty.	Per Unit Consumption
Coal	162.47 MMT	0.683kg/kwh	168.95 MMT	0.67 Kg/kwh	172.22 MMT	0.66 Kg/kwh
Gas	5.16 MMSCMD	0.22 scm/kwh	5.34 MMSCMD	0.22 scm/kwh	4.65 MMSCMD	0.23 scm/kwh
LDO	21545 KL	0.09 ml/kwh	27557 KL	0.35 ml/kwh (LDO & HFO combined)	41790.86 KL	0.37 ml/kwh (LDO & HFO combined)
HFO	68354 KL	0.29 ml/kwh	59725 KL		56254.26 KL	
Naptha	2882 MT	0.25 ml/kwh	4283 MT		5886.77 MT	
HSD	96.975 KL		3118 KL		9561.29 KL	

Water Withdrawal per year (in million KL):				
Sl. No.	Type of water	Quantity Consumed		
		2016-17	2017-18	2018-19
1.	Total Water withdrawal	553.31*	561.01*	593.24
2.	Per unit withdrawal	3.22* Litre/kwh	3.06* Litre/ Kwh	3.04* Litre/kwh
* Water calculated on closed loop systems				

Energy saving per year:			
Energy saved by the initiatives taken in NTPC power plants for energy conservation / efficiency improvement	2016-17	2017-18	2018-19
	118.60 MU	120.50 MU	127.52 MU

3. **Does the company have procedures in place for sustainable sourcing (including transportation)? If yes, what percentage of your inputs was sourced sustainably? Also, provide details thereof,**

   The Following procedures are in place for the sustainable sourcing of coal by NTPC for its different power station:

   i) **Coal Linkage:** Coal linkage for a new project is accorded by Standing Linkage Committee-Long Team (SLC-LT) under the aegis of Ministry of Coal, GOI. Accordingly, NTPC applies for coal linkage to SLC(LT) for its new projects on the direction of SLC-LT, Coal companies issue Letter of Assurance (LoA) to the Buyer valid for 24 months. On receipt of LOA, NTPC completes all the formalities enabling for signing of FSA.

   ii) **Fuel Supply Agreement (FSA):** FSA is signed between the Buyer and Coal Companies for a period of 20 years with a provision of review after every 5 years. Based on the terms & conditions of FSA, coal companies supply coal to the power stations.

   iii) **Bilateral MoUs:** Short-term coal procurements are done as per requirement through Bilateral MoUs with coal companies for the quantity, price & period mutually agreed by buyer & Coal Company.

   iv) **E-Auctions:** Coal is also procured for critical stations by participating in E-Auctions conducted by Coal companies as approved by NTPC Board.

   v) **Import:** NTPC imports coal with the approval of NTPC Board. NTPC procures the coal on short-term basis and in multi-packages to enable cost benefit to NTPC.

   During 2018-19, NTPC sourced about 174.9 Million Metric Tons of domestic coal and 0.8 Million Metric Tons of imported coal.

4. **Has the Company taken any steps to procure goods and services from local & small producers, including communities surrounding their place of work? If yes, what steps have been taken to improve their capacity and capability of local and small vendors?**

The Company adopts fair, equitable and transparent tendering procedures. To encourage Indian bidders and suppliers, provisions regarding price preference and deemed export benefits are stipulated in the bidding documents as per the extant policy of Government of India. Company has taken various initiatives to encourage participation in tender for local & small manufacturer including SMEs. The benefits include EMD exemption, tender document fee exemption and purchase preference of 15%.

Further, NTPC is organizing regular vendor meet for local SMEs for development of items and services and encourage the local vendor for SME registration under Udyog Aadhaar.

There are certain economic opportunities arising out of need for goods and services by the project and its township. NTPC provides opportunities to the local communities including Project Affected Persons (PAPs) for gainful employment by formation of Co-operative Societies and Self Help Groups. The preference for award of petty contracts etc., for supplying goods and services is given to Project Affected Persons (PAPs).

NTPC conducts regular capacity- building programmes for local communities including PAPs for better employability. The programs are conducted based on the findings of Need Assessment Surveys and Individual requirements and after due consultation with the community. The people are trained under various training programs through training institutes engaged by NTPC/ State Govt.

5. **Does the Company have a mechanism to recycle products and waste? If yes what is the percentage of recycling of products and waste (separately as <5%, 5-10%, >10%). Also, provide details thereof, in about 50 words or so.**

Our Product viz. Electricity gets completely consumed and hence there is no scope of its recycling. Guidelines have been issued in line with National Environment Policy for disposal of hazardous wastes from NTPC power stations. The hazardous wastes generated at our power stations such as used transformer oil, used lubricants, lead acid batteries etc. are sold only to government approved recyclers or given back to the sellers for recycling under buy back arrangements, which takes care of 100% recycling of such wastes.

Around 64% of the total ash generation from electricity generation has been used for various productive purposes during 2018-19. Important areas of ash utilization are – cement & asbestos industries, ready mix concrete plant (RMC), road embankment construction, brick/ block/ tile manufacturing, mine filling, ash dyke raising, and land development.Seven NTPC stations and two JV companies (Dadri, Unchahar, Tanda, Solapur, Ramagundam, Simhadri and Talcher-Thermal, IGSTPP-Jhajjar, NSPCL-Bhilai) have achieved more than 100% Ash utilization in F.Y 2018-19.

Principle 3: Businesses should promote the wellbeing of all employees

1. **Number of Employees:**

Category	2016-17	2017-18	2018-19
Executives	11636	11567	12698
Non- Executives	8957	8317	7459

2. **Number of Employees hired on Temporary / Contractual / Casual basis:**

NTPC does not hire employees on temporary / casual basis. The no. of workers with Contractors are dynamic in nature and vary from time to time.

3. **Number of permanent Women Employees:**1287

4. **Number of permanent Employees with Disabilities:**514

5. **Do you have an employee association that is recognized by management:?**

NTPC Limited is a multi-unit organization. Association(s) comprising of executives of NTPC need not be recognized in the absence of any statutory mandate. Workmen of various NTPC Units have formed unions. The same are accorded recognition by NTPC Limited as per applicable law / practice.

6. **What percentage of your permanent employees is members of this recognized employee association?**

   About 70 % of the permanent employees in workmen category are members of the recognized union of workmen.

7. **Please indicate the Number of complaints relating to child labour, forced labour, involuntary labour, sexual harassment in the last financial year and pending, as on the end of the financial year.**

Sl. No.	Category	No. of previous year pending complaints	No. of complaints filed during the FY 18-19	No. of complaints pending as on 31-03-2019
1	Child labour / forced labour / involuntary labour	NIL	NIL	NIL
2	Sexual harassment	NIL	3	2
3	Discriminatory employment	NIL	NIL	NIL

8. **What percentage of your under mentioned employees were given safety & skill up-gradation training in the last year? (Excluding joint venture companies)**

Category of employee	Training for safety (% covered)	Training for skill up -gradation (% covered)
Permanent Employees	33.70	56.30
Permanent Women Employees	15.80	44.60
Employees with Disabilities	23.90	42.60

Principle 4: Businesses should respect the interests of, and be responsive towards all stakeholders, especially those who are disadvantaged, vulnerable and marginalized.

1. **Has the Company mapped its internal and external stakeholders?** Yes

2. **Out of the above, has the Company identified the disadvantaged, vulnerable & marginalized stakeholders**

   The Company has a well structure R&R and CSR Policy to take care of the disadvantaged, vulnerable and marginalized people in and around the plants.

   Vulnerable category of persons has been detailed in NTPC's CSR and R&R Policies. These include old-aged, women, PCPs, SC/ST/OBC etc. They are identified through Socio Economic Survey (SES), Need Assessment Survey (NAS) and other consultations with the stakeholders etc. at the time of formulation of CSR/ R&R Plans.

3 **Are there any special initiatives taken by the Company to engage with the disadvantaged, vulnerable and marginalized stakeholders? If so, provide details thereof, in about 50 words or so.**

   Yes.

   NTPC has always been sensitive to the needs of disadvantaged, vulnerable and marginalized stakeholders. As part of R&R, in addition to the entitlements and packages as envisaged for PAP's, NTPC makes special efforts for the welfare measures for this section of the society in the neighborhood community of NTPC locations. The measures include special vocational training programmes for making them self-employable, priority in engagement for suitable jobs, pension under Widow Pension Scheme, old age pension scheme etc as per provisions outlined in extant policies or as decided in Village Development Advisory Committee VDAC/ R&R plan. Furthering these efforts under CSR, NTPC regularly undertakes Skill upgradation programs for improving employability of youth/ women in the neighborhood of its operations, some of which also fall in the Aspirational Districts identified by 'NITI Aayog. NTPC has also taken up the activities for women empowerment, construction of SC/ST multipurpose halls & hostels, relief through distribution of various articles & support to orphanages & old age homes in the vicinity of its stations. Some of the initiatives to address the needs of differently abled include Information and Communication Technology (ICT) Centres and Disability Rehabilitation Centres by NTPC Foundation and inclusive education, distribution of equipments like tricycles, wheelchairs, vocational training etc.

Principle 5: Businesses should respect and promote human rights

1. **Does the policy of the Company on human rights cover only the company or extend to the Group / Joint Ventures / Suppliers / Contractors / NGOs / Others?**

   The Human Rights policy of NTPC is applicable to all its employees posted in various stations, projects, offices, JVs and Subsidiaries. Human Rights provisions are also built in our bidding documents for supply cum erection and civil packages invited on competitive bidding basis covering our suppliers and contractors.

2. **How many stakeholder complaints have been received in the past financial year and what percent was satisfactorily resolved by the management?**

   No complaint on human rights, such as child labour, forced labour, involuntary labour, sexual harassment, discrimination, rights of the disabled etc. was pending as on 31.3 2019. (Refer principle 3)

Principle 6: Business should respect, protect, and make efforts to restore the environment

1. **Does the policy relate to Principle 6 cover only the Company or extends to the Group / Joint Ventures / Suppliers / Contractors / NGOs /Others?**

   All the policies of NTPC as mentioned under principle 6 and their implementation thereof covers all NTPC business units as well as its JVs and subsidiaries. However, the Suppliers / Contractors / Other stake holders are free to adopt the same voluntarily.

2. **Does the Company have strategies/ initiatives to address global environmental issues such as climate change, global warming, etc? If yes, please give hyperlink for webpage etc.**

   Yes,

   NTPC is one of the premier PSU under MoP and has been doing its bit in tackling the issue of global warming & climate change. NTPC, as a responsible global citizen, has taken various steps i.e readjustment of NTPC's fuel / power generation mix by adopting more renewables, introduction of clean coal technologies etc. in line with various GoI missions under National Action Plan on Climate Change (NAPCC).

   NTPC low carbon initiatives may be categorized into following broad categories:

   i) Re-adjustment of NTPC's fuel/ power generation mix

   ii) Introduction of Thermo dynamically Efficient Technologies

   iii) Renovation & Modernization of old power stations

   iv) Induction of advanced clean coal technologies for power generation

   v) Establishment of NETRA for addressing climate change concerns

3. **Does the Company identify and assess potential environmental risks?**

   NTPC has an elaborate and structured methodology for identifying and assessing potential environmental risks through an institutionalized "Enterprise Risk Management (ERM)" framework. ERM comprises of a functional Director level committee, which meets every quarter to review and mitigate risks. NTPC's risk portfolio includes "Compliance of emission, ash utilization and regulatory norms" risk, under which environmental risks are regularly identified, assessed & reviewed and steps for mitigation are evolved.

4. **Does the Company have any project related to Clean Development Mechanism? If so, provide details thereof, in about 50 words or so. Also, if yes, whether any environmental compliance report is filed?**

   NTPC is pioneer in undertaking climate change issues proactively. The Company has taken several initiatives in CDM Projects in Power Sector.

Six of its renewable energy projects viz. 5 MW Solar PV Power Project at NTPC-Dadri, 5 MW Solar PV Power Project at Port Blair (A&N), 5 MW Solar PV Power Project at NTPC-Faridabad and 8 MW small hydro power project at NTPC-Singrauli, 50 MW Solar PV Plant at Rajgarh (MP) and 10 MW Solar PV Project at NTPC Unchahar has already been registered with United Nations Frame Work Convention on Climate Change (UNFCCC) CDM Executive Board.

Coordinating / Managing Entity (CME) has been appointed for 15 MW Solar PV Power project at NTPC-Singrauli and 10 MW Solar PV project at NTPC Talcher and is in process to include the same in registered UNFCCC CDM Programme of Activities (PoA).

6173 nos. of Certified Emission Reductions (CERs) for 5 MW Solar PV Power Project at Port Blair (A&N) has been issued by UNFCCC CDM Executive Board. Further, another 5842 nos of CERs have also been issued by UNFCCC CDM Executive Board for 5 MW Solar PV Power Project at NTPC-Dadri.

The methodology prepared by NTPC viz. "Consolidated base line and monitoring methodology for new grid connected fossil fuel fired power plants using less GHG intensive technology" for Super Critical technology has been approved by "United Nations Frame Work Convention on Climate Change (UNFCCC)" under 'Approved Consolidated Methodology 13 (ACM0013)'. More green field CDM projects are in pipeline.

Further registration of new projects 250 MW Solar PV power project at Anantpur, 260 MW Solar PV power project at Bhadla, 250 MW Solar PV power project at Mandsaur and 50 MW Wind power project at Rojmal in Verified Carbon Standard (VCS) program has been initiated and will earn Voluntary Emission Reduction (VERs) in due course of time."

5. **Has the Company undertaken any other initiatives on – clean technology, energy efficiency, renewable energy, etc? Y/N. If yes, please give hyperlink for web page or write up.**

   Yes, the Company has taken up several initiatives for clean technology, energy efficiency and renewable energy. Details are as follows:

   NTPC as the leading power utility of the country has assigned 1% of PAT for R&D activities. Company has focused its research efforts to address the major concerns of the sector as well as the futuristic technology requirements of the sector.

   The NTPC Energy Technology Research Alliance (NETRA) as state-of-the-art centre for research, technology development and scientific services is working on the focus areas of - Efficiency Improvement, New & Renewable Energy, Climate Change & Environmental Protection, Recovery of energy from Waste and Advanced Scientific Services. Major research initiative has been taken by the Company to achieve break through technologies for efficiency improvement & carbon emission reduction, efficient solar energy utilization, low-grade waste heat utilization etc. The main initiatives taken in FY 18-19 are listed below:

A – New & Renewable Energy

1. Integration of Solar thermal energy with conventional rankine cycle for efficient use of solar thermal energy
2. Indigenous production of solar floating platforms for economical floating solar PV fields
3. Setting up of solar thermal cooking system
4. Ground Source Heat Pump (GSHP) for Cooling/ Heating Application

B – Clean coal & carbon Capture

1. CO_2 Capture and Utilization Technologies:
   i. CO_2 fixation by micro-algae
   ii. Development of modified amine absorption based process to separate CO_2 from flue gas
2. Setting Up Fly Ash Based Light Weight Aggregate Pilot Plant at NTPC-SIPAT

C – Energy Efficiency

1. Utilization of low grade heat from power plant flue gas for various industrial applications:

   (a) Development of HVAC system using low grade heat from Steam generator (SG) flue gas

   (b) Design and Engineering of FG based desalination plant:

2. Performance on PAT (Perform, Achieve and Trade)

3. Heat rate improvement using Wind-Solar Hybrid

4. Capacity building in areas CFD modelling, online performance optimization tools for thermal power stations using Artificial Neural Network, fuzzy system, Genetic algorithm etc.

D-Renewable Energy:

Renewable energy is one central focus for NTPC. To be in step with ambitious targets of adding 32 GW of renewables capacity by 2032 the Company is attempting all avenues for renewable capacity addition to look beyond conventional large scale solar and wind parks. NTPC is also utilizing roofs of power plant buildings for solar power generation and integrating them to the existing plant infrastructure. NTPC is also going ahead with Floating Solar at reservoirs of Projects which is a step towards saving of land and water conservation by reducing water surface evaporation.

NTPC contributes to RE capacity addition in a two pronged approach i.e

a) EPC Mode (NTPC's own projects)

   EPC Mode projects are NTPC's own projects with Investment from NTPC. These projects are setup in surplus land/reservoirs in NTPC stations. The offtake is tied up either through direct PPA with state utilities or by winning through tariff based competitive bidding (TBCB).

   NTPC has already commissioned 920 MW of RE projects comprising of 870 MW of Solar projects and 50 MW of Wind projects under EPC mode. NTPC has won 245 MW of Solar projects under Tariff based competitive bidding and presently under implementation.

   Further, solar projects of aggregate capacity 431 MW comprising of Ground Mounted Solar projects in the land available in NTPC's Power stations and Floating Solar projects in water reservoirs of NTPC thermal stations are under various stages of tendering and award. In addition, NTPC has already installed Roof Top Solar projects and also planning to further install on some of its TG building Roofs, townships and office buildings wherever adequate shadow free area is available.

b) Developer Mode(NTPC as an intermediary procurer)

   Under Developer Mode, NTPC acts as an intermediary procurer and calls for tenders from developers under tariff based bidding mode in accordance with the targets set by MNRE from time to time. NTPC purchases power from the developers shortlisted in the bidding and sells it to the Discoms with a margin. There is no investment from NTPC. NTPC is setting up Developer Mode projects under National Solar Mission(NSM) as well as on its own. The status is as under:

   - **Under National Solar Mission(NSM):**

     NTPC has been entrusted to develop 15 GW Solar PV under National Solar Mission (NSM) Phase-II, Batch-II in three tranches between 2014-15 to 2018-19, where NTPC will be the facilitator/trader between Discoms and developers. NTPC will purchase power from the developers and sell it to the Discoms. As per intimation from MNRE, the 15 GW under National Solar Mission (NSM) Phase-II, Batch-II has been reduced to 3 GW. Under Tranche-I of 3 GW(3000 MW) of Solar PV capacity, 2750 MW Solar PV capacity has been commissioned till date and balance 250 MW capacity is under implementation and expected to be commissioned in FY 19-20.

   - **NTPC's own Developer Mode Projects :**

     750 MW of Solar projects under Developer mode is under implementation and expected to be commissioned in FY 19-20. NTPC has recently awarded 3150 MW of RE projects comprising of 2000 MW of Solar projects and 1150 MW

with ISTS connectivity and located anywhere in India in Developer Mode. Further MNRE has accorded its approval to NTPC to act as a designated agency for issue of tenders for setting up of Renewable Power Projects including wind and solar power projects.

6. **Are the Emissions / Waste generated by the company within the permissible limits given by CPCB/SPCB for the financial year being reported?**

   All the legal parameters including emission norms and effluent (wastes) norms are being adhered to by NTPC stations. Change of Law in certain cases, has necessitated up-gradation of pollution control equipments which are being addressed through R&M Schemes for which actions plans have been submitted to the Regulators.

7. **Number of show cause/ legal notices received from CPCB/SPCB which are pending (i.e. not resolved to satisfaction) as on end of Financial Year.**

   All the complaints / notices are addressed timely.

Principle 7: Businesses, when engaged in influencing public and regulatory policy, should do so in a responsible manner

1. Is your Company a member of any trade and chamber or association? If Yes, Name only those major ones that your business deals with.

   Yes. The detail of major corporate membership with which Company had a business dealing are as under:

   SCOPE, FICCI, CII, TERI, WEC, CBIP, IERE, POWER SECTOR SKILL COUNCIL, EPRI, ICSI, POWER HR FORUM, ICC, IFC etc.

2. Have you advocated / lobbied through above associations for the advancement or improvement of public good? if yes specify the broad areas (drop box: Governance and Administration, Economic Reforms, Inclusive Development Policies, Energy security, Water, Food Security, Sustainable Business Principles, Others).

   NTPC is a member of World Energy Council. Chairman and Managing Director of NTPC is also an ex-officio Member Secretary WEC India and its international counterpart WEC work towards sustainable use and supply of energy. Their work enables promoting policies which balance Energy Security, Energy Equity (Energy access/inclusive growth) and Environmental Sustainability.

Principle 8: Businesses should support inclusive growth and equitable development

1. **Does the company have specified programmes / initiatives / projects in pursuit of the policy related to Principle 8? If yes details thereof. Yes,**

   To achieve the aim of inclusive growth and equitable development, the 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 and thereafter extensive community / peripheral development activities are taken up along with the project development. Separate CSR community Development Policy, formulated in July 2004 and Sustainability Policy formulated in Nov 2012 have been combined in 2015 and revised in 2016 as “NTPC Policy for CSR & Sustainability” in line with Companies Act 2013 and DPE Guidelines for CSR . It covers a wide range of activities for inclusive growth including implementation of key programmes through a NTPC Foundation. Focus areas of NTPC CSR & Sustainability activities are Health, Sanitation, Drinking Water, Education, Capacity Building, Women Empowerment, Social Infrastructure Development, support to Physically Challenged Person (PCPs), and activities contributing towards Environment Sustainability.

2. **Are the programmes/projects undertaken through in-house team/own foundation/external NGO/government structures/ any other organization?**

   Programmes are undertaken by well-defined in – house team through specialized agencies, NGO’s, government agencies/ bodies etc. Some of the activities are carried by NTPC Foundation.

3. **Have you done any impact assessment of your initiative? Yes**

Social Impact Evaluation (SIE) studies/ surveys are conducted by NTPC as per policy provisions for all its major community development activities at various stations/ projects at regular interval. Annual Internal Audit of CSR Activities are also carried out.This year SIE has been conducted at 05 locations.

4. **What is your company's direct contribution to community development projects- Amount in INR and the details of the projects undertaken? Yes**

Company as specified programmes for inclusive growth & equitable development not only at station level but also at National level. Details of the programmes and spending are listed below:

Total spending on CSR –Rs.285.46 Cr for FY 2018-19. The details of major projects for community are given in Annexure-VII of Director Report.

Further, as most of the stations are located in remote rural areas, NTPC during 2018-19 undertook activities in the neighborhood area of stations addressing primarily the basic needs like primary education, community health, drinking water, sanitation, vocational training, women empowerment and village infrastructure like roads, community centre, solar street lights etc. In addition, Quality Circles (QCs) activities are being carried out in neighborhood villages of stations, which contribute for improvements in various areas. NTPC employees participate in various activities through Employee Voluntary Organization for Initiative in Community Empowerment (EVOICE). NTPC has been taking up CSR Activities in all the major sectors, in the vicinity of its operating stations, benefitting communities in about 500 villages in FY 2018-19.

Apart from above during Project construction stage NTPC is also taking up big ticket projects like establishment of ITIs/ Polytechnic/ Engineering / Medical Colleges / Big infrastructure projects like construction of 4 lane roads, water supply scheme etc. as part of Community Development (CD) activities under R&R Plan.

5. **Have you taken steps to ensure that this community development initiative is successfully adopted by the community? Please explain in 50 words or so.**

Community Development initiatives in NTPC are taken in a planned way. The community is engaged in all steps of activities from planning to completion.

Bottom up approach is adopted for taking up these activities. CSR activities/ CD plans are identified after consultations with relevant stakeholders like community, village panchayats, local/ district administration & Village Development Advisory Committee based on Need Assessment Surveys.

Stakeholders participate at each stage of the activity and also execution of some of the activities is supervised by the local authorities. People's involvement is also ensured during implementation and monitoring.

NTPC's flexible & open approach in this regard coupled with community participation along with local administration & village Panchayats leads to successful adoption & acceptability of initiatives by community. Assets are handed over to local authorities and gram panchayats for maintenance

Social Impact Evaluation (SIE) study/ survey are conducted through external agencies on completion of developmental initiatives. Social audit is done from time to time to evaluate whether all activities have been completed satisfactorily that gives recommendation for necessary modification/ corrective measures, if any, for the future projects.

Principle 9: Businesses should engage with and provide value to their customers and consumers in a responsible manner

1 **Customer complaints / consumer cases are pending as on the end of financial year:There are no complaints as such from customers. However, as part of the tariff determination process under the overall regulatory system, different cases have been filed by NTPC against CERC/ Customers or filed at the Appellate Tribunal/ Courts by different Beneficiaries against NTPC/ CERC.**

APTEL: 41 Cases

Supreme Court and Other courts: 28 Cases

Total: 69 Cases as on 31.3.2019

2 Does the company display product information on the product label, over and above what is mandated as per local laws?

Not Applicable

3 Is there any case filed by any stakeholder against the company regarding unfair trade practices, irresponsible advertising and / or anti-competitive behaviour during the last five years and pending as on end of financial year? If so, provide details thereof, in about 50 words or so.

Nil

4 Did your company carry out any consumer survey/ consumer satisfaction trends?

Yes.

As part of the Customer Relationship Management programme, NTPC conducts a Customer Satisfaction Survey to assess the satisfaction level of the customers, captured through an Index and to get feedback from the customers.

For and on behalf of the Board of Directors

(Gurdeep Singh)
Chairman & Managing Director

Place: New Delhi
Date: 8th July, 2019

Winner of NTPC Grand Challenge for Ash utilisation ideas Award

Girl Empowerment Mission (GEM) programme of NTPC

Annexure- XI to Directors' Report

Form No. MR-3

SECRETARIAL AUDIT REPORT

For The Financial Year Ended 31st March 2019

[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

We have conducted the secretarial audit of the compliance of applicable statutory provisions and the adherence to good corporate practices by NTPC Limited (hereinafter called NTPC/the company). 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 NTPC Limited's 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 31st March, 2019 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 the company for the financial year ended on 31st March, 2019 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 Byelaws 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, 1992;

  (c) The Securities and Exchange Board of India (Issue of Capital and Disclosure Requirements) Regulations, 2009;

  (d) The Securities and Exchange Board of India (Employee Stock Option Scheme and Employee Stock Purchase Scheme) Guidelines, 1999; [Not applicable to the Company during the Audit Period]

  (e) The Securities and Exchange Board of India (Issue and Listing of Debt Securities) Regulations, 2008;

  (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;

  (g) The Securities and Exchange Board of India (Delisting of Equity Shares) Regulations, 2009: [Not applicable to the Company during the Audit Period]

  (h) The Securities and Exchange Board of India (Buyback of Securities) Regulations, 1998; Not applicable to the Company during the Audit Period]

(vi) Certain other laws which are applicable to the company mentioned herein below:

  (a) The 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 Bombay Stock Exchange and National Stock Exchange;

(iii) DPE Guidelines on Corporate Governance for CPSE.

During the period under review the Company has complied with the provisions of the Act, Rules, Regulations, Guidelines. Standards, etc. mentioned above except the following observations:

1. Compliance of Regulation 17 (1) of Securities and Exchange Board of India (Listing Obligations & Disclosure Requirements) Regulations, 2015 and Clause 3.1.4 of the DPE Guidelines on Corporate Governance for Central Public Sector Enterprises with respect to the appointment of requisite no. of Independent Directors on the Board of the Company.
2. Compliance of Regulation 17(10) & 25(4) of Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015, the Company has not carried out the performance evaluation of the Directors.

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 of the Board of Directors 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 under review were carried out in compliance with the provisions of the Act.

Generally, 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 meeting from whole time directors.

All the decisions made in the Board/Committee meeting(s) were carried out with unanimous consent of all the Directors/Members present during the meeting and dissent, if any, have been duly incorporated in 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, regulations and guidelines.

We further report that during the audit period the Company has-

Obtained approval of members by way of special resolution passed in the Forty-Second Annual General Meeting dated September 20, 2018 to raise funds up to Rupees 12,000 Crore through issue of Non-Convertible Debentures in one or more tranches/ series not exceeding 30(thirty), through Private Placement, made in pursuance of the above referred laws, rules, regulations, guidelines, standards etc.

Obtained approval of members by way of ordinary resolution passed through Postal Ballot including e-voting process i.r.t. which results declared on March 12, 2019 to capitalize a not exceeding Rs. 1649,09,28,800/- (Rupees One Thousand Six Hundred Forty-Nine Crore Nine Lakh Twenty-Eight Thousand Eight Hundred only) out of the General Reserves for allotment of new Equity Shares of the Company of Rs. 10/- (Rupees Ten) each as fully paid-up Bonus Shares existing Equity Shares of Rs. 10/- (Rupees Ten) each of the Company, in the proportion of 1 (One) new Equity Share for every 5 (Five) existing Equity Shares to the shareholders of the Company.

For **J. K. Gupta & Associates**

JITESH GUPTA
FCS No. 3978
C P No.: 2448

Place: Delhi
Date: 11/06/2019

This report is to be read with our letter of even date which is annexed as “Annexure A” and forms an integral part of this report.

'ANNEXURE A'

To,

The Members
NTPC Limited

NTPC Bhawan, Scope Complex, 7,
Institutional Area, Lodhi Road, New Delhi-110003

Our report of even date is to be read along with this letter.

1. Maintenance of secretarial record is the responsibility of the management of the company. Our responsibility is to express an opinion on these secretarial records based on our audit.
2. We have followed the audit practices and processes as were appropriate to obtain reasonable assurance about the correctness of the contents of the Secretarial records. The verification was done on test basis to ensure that correct facts are reflected in secretarial records. We believe that the processes and practices, we followed provide a reasonable basis for our opinion.
3. We have relied on the Internal Auditors' Report for the period under review; hence we have verified the correctness and appropriateness of Statutory Compliances of the Company on sample basis. The qualifications/Observations mentioned in their Audit report also forming part of this report.
4. We have relied on the Statutory Auditors' Report for the period under review; hence we have not verified the correctness and appropriateness of financial records and Books of Accounts of the company. The qualifications/Observations mentioned in their Audit report also forming part of this report.
5. Wherever required, we have obtained the Management representation about the compliance of laws, rules and regulations and happening of events etc.
6. The compliance of the provisions of Corporate and other applicable laws, rules, regulations, standards is the responsibility of management. Our examination was limited to the verification of procedures on test basis.
7. The Secretarial Audit report is neither an assurance as to the future viability of the company nor of the efficacy or effectiveness with which the management has conducted the affairs of the company.

For **J. K. Gupta & Associates**

JITESH GUPTA
FCS No. 3978
C P No.: 2448

Place: Delhi
Date: 11/06/2019

Students of Asha Kiran School for differently abled at NTPC-Vindhayachal

BALANCE SHEET AS AT 31 MARCH 2019

₹ Crore

Particulars	Note No.	As at 31 March 2019	As at 31 March 2018*	As at 1 April 2017*
ASSETS				
Non-current assets				
Property, plant and equipment	2	**1,25,290.68**	1,19,427.57	97,443.34
Capital work-in-progress	3	**90,808.89**	78,606.91	81,921.82
Intangible assets	4	**329.94**	331.60	293.02
Intangible assets under development	5	**397.80**	469.36	434.63
Investments in subsidiary and joint venture companies	6	**13,054.02**	9,941.20	8,134.63
Financial assets				
Investments	7	**91.92**	106.28	113.48
Trade receivables		**-**	-	35.59
Loans	8	**544.38**	655.67	530.59
Other financial assets	9	**1,424.29**	1,632.86	1,874.18
Other non-current assets	10	**13,269.30**	11,547.73	16,852.53
Total non-current assets		**2,45,211.22**	2,22,719.18	2,07,633.81
Current assets				
Inventories	11	**7,988.02**	6,057.38	6,504.81
Financial assets				
Trade receivables	12	**8,433.86**	7,577.97	8,137.92
Cash and cash equivalents	13	**24.38**	60.49	157.12
Bank balances other than cash and cash equivalents	14	**2,119.96**	3,917.89	2,773.37
Loans	15	**305.79**	280.22	236.92
Other financial assets	16	**8,331.84**	7,938.12	6,053.32
Other current assets	17	**15,056.70**	10,899.18	4,557.39
Total current assets		**42,260.55**	36,731.25	28,420.85
Regulatory deferral account debit balances	18	**3,406.00**	8,381.66	5,450.67
TOTAL ASSETS		**2,90,877.77**	2,67,832.09	2,41,505.33
EQUITY AND LIABILITIES				
Equity				
Equity share capital	19	**9,894.56**	8,245.46	8,245.46
Other equity	20	**97,513.61**	93,532.31	87,985.77
Total equity		**1,07,408.17**	1,01,777.77	96,231.23
Liabilities				
Non-current liabilities				
Financial liabilities				
Borrowings	21	**1,19,698.08**	1,08,697.60	97,339.28
Trade payables	22			
Total outstanding dues of micro and small enterprises		**6.41**	5.49	5.18
Total outstanding dues of creditors other than micro and small enterprises		**41.76**	17.82	7.99
Other financial liabilities	23	**1,314.29**	2,164.69	2,247.13
Provisions	24	**588.74**	480.90	463.15
Deferred tax liabilities (net)	25	**4,200.14**	10,047.16	6,412.68
Other non-current liabilities		**-**	-	17.49
Total non-current liabilities		**1,25,849.42**	1,21,413.66	1,06,492.90

BALANCE SHEET AS AT 31 MARCH 2019

₹ Crore

Particulars	Note No.	As at 31 March 2019	As at 31 March 2018*	As at 1 April 2017*
Current liabilities				
Financial liabilities				
Borrowings	26	**15,502.90**	6,500.32	3,000.56
Trade payables	27			
Total outstanding dues of micro and small enterprises		**353.41**	276.11	186.65
Total outstanding dues of creditors other than micro and small enterprises		**7,197.53**	5,316.53	4,689.43
Other financial liabilities	28	**24,902.27**	21,408.98	19,179.40
Other current liabilities	29	**684.34**	963.99	1,081.16
Provisions	30	**6,840.36**	8,088.83	7,964.92
Current tax liabilities (net)		**-**	-	75.20
Total current liabilities		**55,480.81**	42,554.76	36,177.32
Deferred revenue	31	**2,139.37**	2,085.90	2,121.14
Regulatory deferral account credit balances		**-**	-	482.74
TOTAL EQUITY AND LIABILITIES		**2,90,877.77**	2,67,832.09	2,41,505.33
* Restated - Refer Note 47				
Significant accounting policies	1			

The accompanying notes 1 to 70 form an integral part of these financial statements.

For and on behalf of the Board of Directors

(Nandini Sarkar)
Company Secretary

(Sudhir Arya)
Chief Financial Officer

(K. Sreekant)
Director (Finance)

(Gurdeep Singh)
Chairman & Managing Director

This is the Balance Sheet referred to in our report of even date

For T R Chadha & Co LLP
Chartered Accountants
Firm Reg. No. 006711N/N500028

(Neena Goel)
Partner
M. No. 057986

For S.N.Dhawan & Co LLP
Chartered Accountants
Firm Reg. No. 000050N/N500045

(S.K.Khattar)
Partner
M No.084993

For Sagar & Associates
Chartered Accountants
Firm Reg. No. 003510S

(V.Vidyasagar Babu)
Partner
M No.027357

For Kalani & Co.
Chartered Accountants
Firm Reg. No. 000722C

(Vikas Gupta)
Partner
M. No. 077076

For P. A. & Associates
Chartered Accountants
Firm Reg. No. 313085E

(S.S. Poddar)
Partner
M. No. 051113

For S. K. Kapoor & Co.
Chartered Accountants
Firm Reg. No. 000745C

(V.B. Singh)
Partner
M.No.073124

For B M Chatrath & Co LLP
Chartered Accountants
Firm Reg. No. 301011E/E300025

(Sanjay Sarkar)
Partner
M.No.064305

Place : New Delhi
Dated : 25 May 2019

STATEMENT OF PROFIT AND LOSS FOR THE YEAR ENDED 31 MARCH 2019

₹ Crore

Particulars	Note No.	For the year ended 31 March 2019	For the year ended 31 March 2018*
Income			
Revenue from operations	32	**90,307.43**	83,452.70
Other income	33	**1,872.13**	1,755.25
Total income		**92,179.56**	85,207.95
Expenses			
Fuel cost		**52,493.74**	48,315.47
Electricity purchased for trading		**2,713.68**	1,313.51
Employee benefits expense	34	**4,779.89**	4,734.67
Finance costs	35	**4,716.74**	3,984.25
Depreciation, amortisation and impairment expense	36	**7,254.36**	7,098.86
Other expenses	37	**7,548.63**	7,421.73
Total expenses		**79,507.04**	72,868.49
Profit before tax and regulatory deferral account balances		**12,672.52**	12,339.46
Tax expense	48		
Current tax			
Current year		**2,955.00**	2,576.80
Earlier years		**(105.88)**	(951.30)
Deferred tax		**(5,767.83)**	3,631.64
Total tax expense		**(2,918.71)**	5,257.14
Profit for the year before regulatory deferral account balances		**15,591.23**	7,082.32
Net movement in regulatory deferral account balances (net of tax)	65	**(3,841.34)**	3,260.85
Profit for the year		**11,749.89**	10,343.17
Other comprehensive income/(expense)			
Items that will not be reclassified to profit or loss (net of tax)			
Net actuarial gains/(losses) on defined benefit plans		**(185.13)**	(7.28)
Net gains/(losses) on fair value of equity instruments		**(16.74)**	(7.20)
Other comprehensive income/(expense) for the year, net of income tax		**(201.87)**	(14.48)
Total comprehensive income for the year		**11,548.02**	10,328.69

₹ Crore

Particulars	Note No.	For the year ended 31 March 2019	For the year ended 31 March 2018*
Earnings per equity share (Par value ₹ 10/- each)	55		
Basic & Diluted (₹) (from operations including regulatory deferral account balances)		**11.88**	10.45
Basic & Diluted (₹) (from operations excluding regulatory deferral account balances)		**15.76**	7.16

* Restated - Refer Note 47

Significant accounting policies 1

The accompanying notes 1 to 70 form an integral part of these financial statements.

For and on behalf of the Board of Directors

(Nandini Sarkar)
Company Secretary

(Sudhir Arya)
Chief Financial Officer

(K. Sreekant)
Director (Finance)

(Gurdeep Singh)
Chairman & Managing Director

This is the Statement of Profit and Loss referred to in our report of even date

For T R Chadha & Co LLP
Chartered Accountants
Firm Reg. No. 006711N/N500028

(Neena Goel)
Partner
M. No. 057986

For S.N.Dhawan & Co LLP
Chartered Accountants
Firm Reg. No. 000050N/N500045

(S.K.Khattar)
Partner
M No.084993

For Sagar & Associates
Chartered Accountants
Firm Reg. No. 003510S

(V.Vidyasagar Babu)
Partner
M No.027357

For Kalani & Co.
Chartered Accountants
Firm Reg. No. 000722C

(Vikas Gupta)
Partner
M. No. 077076

For P. A. & Associates
Chartered Accountants
Firm Reg. No. 313085E

(S.S. Poddar)
Partner
M. No. 051113

For S. K. Kapoor & Co.
Chartered Accountants
Firm Reg. No. 000745C

(V.B. Singh)
Partner
M.No.073124

For B M Chatrath & Co LLP
Chartered Accountants
Firm Reg. No. 301011E/E300025

(Sanjay Sarkar)
Partner
M.No.064305

Place : New Delhi
Dated : 25 May 2019

STATEMENT OF CHANGES IN EQUITY FOR THE YEAR ENDED 31 MARCH 2019

(A) Equity share capital

For the year ended 31 March 2019

₹ Crore

Particulars	**Amount**
Balance as at 1 April 2018	**8,245.46**
Changes in equity share capital during the year (refer Note 19)	**1,649.10**
Balance as at 31 March 2019	**9,894.56**

For the year ended 31 March 2018

₹ Crore

Particulars	Amount
Balance as at 1 April 2017	8,245.46
Changes in equity share capital during the year (refer Note 19)	-
Balance as at 31 March 2018	8,245.46

(B) Other equity

₹ Crore

For the year ended 31 March 2019

Particulars	Reserves & surplus						Equity instruments through OCI	Total
	Capital reserve	Securities premium	Bonds/ Debentures redemption reserve	Fly ash utilisation reserve fund	General reserve	Retained earnings		
Balance as at 1 April 2018	50.08	2,228.46	7,274.56	631.21	80,831.63	2,508.57	7.80	**93,532.31**
Profit for the year	-	-	-	-	-	11,749.89	-	**11,749.89**
Other comprehensive income/(expense)	-	-	-	-	-	(185.13)	(16.74)	**(201.87)**
Total comprehensive income	-	-	-	-	-	**11,564.76**	**(16.74)**	**11,548.02**
Transfer to retained earnings	-	-	(1,104.50)	-	-	1,104.50	-	-
Transfer from retained earnings	-	-	1,732.37	-	4,500.00	(6,232.37)	-	-
Transfer to fly ash utilisation reserve fund (net) (Note 20)	-	-	-	5.42	-	-	-	**5.42**
Issue of bonus shares (Note 20)	-	-	-	-	(1,649.10)	-	-	**(1,649.10)**
Final dividend paid for FY 2017-18 (Note 20)	-	-	-	-	-	(1,970.67)	-	**(1,970.67)**
Tax on final dividend	-	-	-	-	-	(400.96)	-	**(400.96)**
Interim dividend paid for FY 2018-19 (Note 20)	-	-	-	-	-	(2,951.88)	-	**(2,951.88)**
Tax on interim dividend	-	-	-	-	-	(599.53)	-	**(599.53)**
Balance as at 31 March 2019	**50.08**	**2,228.46**	**7,902.43**	**636.63**	**83,682.53**	**3,022.42**	**(8.94)**	**97,513.61**

For the year ended 31 March 2018

₹ Crore

Particulars	Reserves & surplus						Equity instruments through OCI	Total
	Capital reserve	Securities premium	Bonds/ Debentures redemption reserve	Fly ash utilisation reserve fund	General reserve	Retained earnings		
Balance as at 1 April 2017	50.08	2,228.46	5,961.81	556.68	76,831.63	2,342.11	15.00	87,985.77
Profit for the year	-	-	-	-	-	10,343.17	-	10,343.17
Other comprehensive income/(expense)	-	-	-	-	-	(7.28)	(7.20)	(14.48)
Total comprehensive income	-	-	-	-	-	10,335.89	(7.20)	10,328.69
Transfer to retained earnings	-	-	(325.00)	-	-	325.00	-	-
Transfer from retained earnings	-	-	1,637.75	-	4,000.00	(5,637.75)	-	-
Transfer to fly ash utilisation reserve fund (net) (Note 20)	-	-	-	74.53	-	-	-	74.53
Issue of bonus shares (Note 20)	-	-	-	-	-	-	-	-
Final dividend paid for FY 2016-17 (Note 20)	-	-	-	-	-	(1,789.27)	-	(1,789.27)
Tax on final dividend	-	-	-	-	-	(358.15)	-	(358.15)
Interim dividend paid for FY 2017-18 (Note 20)	-	-	-	-	-	(2,251.01)	-	(2,251.01)
Tax on interim dividend	-	-	-	-	-	(458.25)	-	(458.25)
Balance as at 31 March 2018	50.08	2,228.46	7,274.56	631.21	80,831.63	2,508.57	7.80	93,532.31

For and on behalf of the Board of Directors

(Nandini Sarkar)
Company Secretary

(Sudhir Arya)
Chief Financial Officer

(K. Sreekant)
Director (Finance)

(Gurdeep Singh)
Chairman & Managing Director

This is the Statement of Changes in Equity referred to in our report of even date

For T R Chadha & Co LLP
Chartered Accountants
Firm Reg. No. 006711N/N500028

(Neena Goel)
Partner
M. No. 057986

For S.N.Dhawan & Co LLP
Chartered Accountants
Firm Reg. No. 000050N/N500045

(S.K.Khattar)
Partner
M No.084993

For Sagar & Associates
Chartered Accountants
Firm Reg. No. 003510S

(V.Vidyasagar Babu)
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(S.S. Poddar)
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For S. K. Kapoor & Co.
Chartered Accountants
Firm Reg. No. 000745C

(V.B. Singh)
Partner
M.No.073124

For B M Chatrath & Co LLP
Chartered Accountants
Firm Reg. No. 301011E/E300025

(Sanjay Sarkar)
Partner
M.No.064305

Place : New Delhi
Dated : 25 May 2019

STATEMENT OF CASH FLOWS FOR THE YEAR ENDED 31 MARCH 2019

₹ Crore

Particulars		For the year ended 31 March 2019	For the year ended 31 March 2018*
A. CASH FLOW FROM OPERATING ACTIVITIES			
Profit before tax		**12,672.52**	12,339.46
Add: Net movements in regulatory deferral account balances (net of tax)		**(3,841.34)**	3,260.85
Add: Tax on net movements in regulatory deferral account balances		**(1,055.13)**	150.04
Profit before tax including movements in regulatory deferral account balances		**7,776.05**	15,750.35
Adjustment for:			
Depreciation, amortisation and impairment expense	**7,254.36**		7,098.86
Provisions	**1,150.07**		842.99
Deferred revenue on account of advance against depreciation	**(74.35)**		(172.67)
Deferred revenue on account of government grants	**(39.03)**		78.75
Deferred foreign currency fluctuation asset	**(251.53)**		(86.32)
Deferred income from foreign currency fluctuation	**371.78**		214.72
Regulatory deferral account credit balances	**-**		(482.74)
Regulatory deferral account debit balances	**4,896.47**		(2,928.15)
Fly ash utilisation reserve fund	**5.42**		74.53
Exchange differences on translation of foreign currency cash and cash equivalents	**0.01**		-
Finance costs	**4,699.00**		3,969.35
Unwinding of discount on vendor liabilities	**17.74**		14.90
Interest/income on term deposits/bonds/investments	**(67.65)**		(246.21)
Dividend income	**(124.19)**		(189.17)
Provisions written back	**(316.22)**		(1,200.46)
Profit on de-recognition of property, plant and equipment	**(2.72)**		(2.37)
Loss on de-recognition of property, plant and equipment	**173.84**		110.67
		17,693.00	7,096.68
Operating profit before working capital changes		**25,469.05**	22,847.03
Adjustment for:			
Trade receivables	**(855.89)**		595.40
Inventories	**(1,607.99)**		810.85
Trade payables, provisions, other financial liabilities and other liabilities	**588.34**		1,451.16
Loans, other financial assets and other assets	**(4,537.50)**		(8,430.97)
		(6,413.04)	(5,573.56)
Cash generated from operations		**19,056.01**	17,273.47
Income taxes (paid) / refunded		**(3,025.54)**	1,976.28
Net cash from/(used in) operating activities - A		**16,030.47**	19,249.75
B. CASH FLOW FROM INVESTING ACTIVITIES			
Purchase of property, plant and equipment & intangible assets	**(17,701.26)**		(18,016.86)
Payment for business acquisition	**(2,145.33)**		-
Disposal of property, plant and equipment & intangible assets	**71.06**		8.94
Investment in subsidiaries and joint venture companies	**(3,051.35)**		(1,501.61)

₹ Crore

Particulars		For the year ended 31 March 2019	For the year ended 31 March 2018*
Loans and advances to subsidiaries	**(17.65)**		(92.40)
Interest/income on term deposits/bonds/investments received	**55.93**		250.38
Income tax paid on interest income	**(39.46)**		(78.52)
Dividend received	**124.19**		189.17
Bank balances other than cash and cash equivalents	**1,809.65**		(1,148.69)
Net cash from/(used in) investing activities - B		**(20,894.22)**	(20,389.59)
C. CASH FLOW FROM FINANCING ACTIVITIES			
Proceeds from non-current borrowings	**24,844.83**		17,230.49
Repayment of non-current borrowings	**(13,839.47)**		(6,966.57)
Proceeds from current borrowings	**9,002.58**		3,499.76
Payment of finance lease obligations	**(8.51)**		(6.62)
Interest paid	**(9,248.74)**		(7,857.17)
Dividend paid	**(4,922.55)**		(4,040.28)
Tax on dividend	**(1,000.49)**		(816.40)
Net cash from/(used in) financing activities - C		**4,827.65**	1,043.21
D. Exchange differences on translation of foreign currency cash and cash equivalents		**(0.01)**	-
Net increase/(decrease) in cash and cash equivalents (A+B+C+D)		**(36.11)**	(96.63)
Cash and cash equivalents at the beginning of the year (see Note 1 and 2 below)		**60.49**	157.12
Cash and cash equivalents at the end of the year (see Note 1 and 2 below)		**24.38**	60.49

* Restated - Refer Note 47

Notes:

1 Cash and cash equivalents consist of cheques, drafts, stamps in hand, balances with banks and deposits with original maturity of upto three months.

2 Reconciliation of cash and cash equivalents:

Cash and cash equivalents as per Note 13	**24.38**	60.49

3 Refer Note 62 for details of undrawn borrowing facilities that may be available for future operating activities and to settle capital commitments.

4 Reconciliation between the opening and closing balances in the balance sheet for liabilities arising from financing activities:

For the year ended 31 March 2019

₹ Crore

Particulars	Non-current borrowings**	Finance lease obligations	Current borrowings
Opening balance as at 1 April 2018	**1,16,174.91**	**184.34**	**6,500.32**
Cash flows during the year	**1,756.62**	**(8.51)**	**9,002.58**
Non-cash changes due to:			
- Acquisitions under finance lease	-	**10.58**	-
- Interest on borrowings	**9,371.17**	-	-
- Variation in exchange rates	**1,372.75**	-	-
- Transaction costs on borrowings	**(53.99)**	-	-
Closing balance as at 31 March 2019	**1,28,621.46**	**186.41**	**15,502.90**

For the year ended 31 March 2018

₹ Crore

Particulars	Non-current borrowings**	Finance lease obligations	Current borrowings
Opening balance as at 1 April 2017	1,04,855.55	145.02	3,000.56
Cash flows during the year	2,406.75	(6.62)	3,499.76
Non-cash changes due to:			
- Acquisitions under finance lease	-	45.94	-
- Interest on borrowings	7,951.21	-	-
- Variation in exchange rates	1,059.31	-	-
- Transaction costs on borrowings	(97.91)	-	-
Closing balance as at 31 March 2018	1,16,174.91	184.34	6,500.32

** Includes current maturities of non-current borrowings and interest accrued thereon, refer Note 21 and Note 28.

For and on behalf of the Board of Directors

(Nandini Sarkar)
Company Secretary

(Sudhir Arya)
Chief Financial Officer

(K. Sreekant)
Director (Finance)

(Gurdeep Singh)
Chairman & Managing Director

This is the Statement of Cash Flows referred to in our report of even date

For T R Chadha & Co LLP
Chartered Accountants
Firm Reg. No. 006711N/N500028

(Neena Goel)
Partner
M. No. 057986

For S.N.Dhawan & Co LLP
Chartered Accountants
Firm Reg. No. 000050N/N500045

(S.K.Khattar)
Partner
M No.084993

For Sagar & Associates
Chartered Accountants
Firm Reg. No. 003510S

(V.Vidyasagar Babu)
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For B M Chatrath & Co LLP
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Place : New Delhi
Dated : 25 May 2019

Note 1. Company Information and Significant Accounting Policies

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 publicly traded on the National Stock Exchange of India Limited and BSE Limited. The address of the Company's registered office is NTPC Bhawan, SCOPE Complex, 7 Institutional Area, Lodi Road, New Delhi - 110003. The Company is primarily involved in the generation and sale of bulk power to State Power Utilities. Other business 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) notified under the Companies (Indian Accounting Standards) Rules, 2015 and subsequent amendments thereto, the Companies Act, 2013 (to the extent notified and applicable), applicable provisions of the Companies Act, 1956, and the provisions of the Electricity Act, 2003 to the extent applicable.

These financial statements were authorised for issue by the Board of Directors on 25 May 2019.

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 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.

Historical cost is the amount of cash or cash equivalents paid or the fair value of the consideration given to acquire assets at the time of their acquisition or the amount of proceeds received in exchange for the obligation, or at the amounts of cash or cash equivalents expected to be paid to satisfy the liability in the normal course of business. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

3. Functional and presentation currency

These financial statements are presented in Indian Rupees (INR), which is the Company's functional currency. All financial information presented in INR has been rounded to the nearest crore (upto two decimals), except as stated otherwise.

4. Current and non-current classification

The Company presents assets and liabilities in the balance sheet based on current/non-current classification.

An asset is current when it is:

- Expected to be realised or intended to be sold or consumed in normal operating cycle;
- Held primarily for the purpose of trading;
- Expected to be realised within twelve months after the reporting period; or
- Cash or cash equivalent unless restricted from being exchanged or used to settle a liability for at least twelve months after the reporting period.

All other assets are classified as non-current.

A liability is current when:

- It is expected to be settled in normal operating cycle;
- It is held primarily for the purpose of trading;
- It is due to be settled within twelve months after the reporting period; or
- There is no unconditional right to defer settlement of the liability for at least twelve months after the reporting period.

All other liabilities are classified as non-current.

Deferred tax assets/liabilities are classified as non-current.

C. Significant accounting policies

A summary of the significant 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.

The Company has elected to utilise the option under Ind AS 101 by not applying the provisions of Ind AS 16 & Ind AS 38 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 recognised 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 recognised at cost. Subsequent measurement is done at cost less accumulated depreciation/amortisation and accumulated impairment losses. Cost includes expenditure that is directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management.

When parts of an item of property, plant and equipment have different useful lives, they are recognised 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, capitalisation 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 capitalised 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 capitalised. Other spare parts are carried as inventory and recognised in the statement of profit and loss on consumption.

1.2. Subsequent costs

Subsequent expenditure is recognised 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.

Expenditure on major inspection and overhauls of generating unit is capitalised, when it meets the asset recognition criteria.

The cost of replacing part of an item of property, plant and equipment is recognised 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 derecognised. The costs of the day-to-day servicing of property, plant and equipment are recognised in profit or loss as 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 derecognised 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 by comparing the proceeds from disposal, if any, with the carrying amount of property, plant and equipment, and are recognised in the statement of profit and loss.

1.5. Depreciation/amortisation

Depreciation is recognised in statement of profit and loss on a straight-line basis over the estimated useful lives of each part of an item of property, plant and equipment. Leased assets are depreciated over the shorter of the lease term and their useful lives unless it is reasonably certain that the Company will obtain ownership by the end of the lease term.

Depreciation on the assets of the generation of electricity business 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 CERC Tariff Regulations.

Depreciation on the assets of the coal mining, oil & gas exploration 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 in policy no. C.6.

Depreciation on the following assets is provided on their estimated useful life, which are different from the useful life as prescribed under Schedule II to the Companies Act, 2013, ascertained on the basis of technical evaluation:

a) Kutcha roads	2 years
b) Enabling works	
- residential buildings	15 years
- internal electrification of residential buildings	10 years
- non-residential buildings including their internal electrification, water supply, sewerage & drainage works, railway sidings, aerodromes, helipads and airstrips.	5 years
c) Personal computers & laptops including peripherals	3 years
d) Photocopiers, fax machines, water coolers and refrigerators	5 years
e) Temporary erections including wooden structures	1 year
f) Telephone exchange	15 years
g) Wireless systems, VSAT equipments, display devices viz. projectors, screens, CCTV, audio video conferencing systems and other communication equipments	6 years
h) Energy saving electrical appliances and fittings	2-7 years

Major overhaul and inspection costs which have been capitalised are depreciated over the period until the next scheduled outage or actual major inspection/overhaul, whichever is earlier.

Leasehold land and buildings relating to generation of electricity business are fully amortised over lease period or life of the related plant whichever is lower following the rates and methodology notified by the CERC Tariff Regulations.

Leasehold land and buildings relating to corporate and other offices are fully amortised over lease period or twenty-five years whichever is lower following the rates and methodology notified by the CERC Tariff Regulations.

Land acquired for mining business under Coal Bearing Areas (Acquisition & Development) Act, 1957 is amortised on the basis of balance useful life of the project. Other leasehold land acquired for mining business is amortised over the lease period or balance life of the project whichever is less.

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/disposed.

Where the cost of depreciable assets has undergone a change during the year due to increase/decrease in long-term liabilities on account of exchange fluctuation, price adjustment, change in duties or similar factors, the unamortised balance of such asset is charged off prospectively over the remaining useful life determined following the applicable accounting policies relating to depreciation/amortisation.

Where 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, subsequent expenditure on a PPE along-with its unamortised depreciable amount is charged off prospectively over the revised useful life determined by technical assessment.

In circumstance, where a property is abandoned, the cumulative capitalised costs relating to the property are written off in the same period.

The residual values, useful lives and method of depreciation of assets other than the assets of generation of electricity business are reviewed at each financial year end and adjusted prospectively, wherever required.

2. 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 borrowing costs.

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.

3. Intangible assets and intangible assets under development

3.1. Initial recognition and measurement

An intangible asset is recognised if and only if it is probable that the expected future economic benefits that are attributable to the asset will flow to the Company and the cost of the asset can be measured reliably.

Intangible assets that are acquired by the Company, which have finite useful lives, are recognised at cost. Subsequent measurement is done at cost less accumulated amortisation and accumulated impairment losses. Cost includes any directly attributable incidental expenses necessary to make the assets ready for its intended use.

Expenditure on development activities is capitalised only if the expenditure can be measured reliably, the product or process is technically and commercially feasible, future economic benefits are probable and the Company intends to & has sufficient resources to complete development and to use or sell the asset.

Expenditure incurred which are eligible for capitalisations under intangible assets are carried as intangible assets under development till they are ready for their intended use.

3.2. Subsequent costs:

Subsequent expenditure is recognised 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 derecognised when no future economic benefits are expected from their use or upon their disposal. Gains & losses on de-recognition of an item of intangible assets are determined by comparing the proceeds from disposal, if any, with the carrying amount of intangible assets and are recognised in the statement of profit and loss.

3.4. Amortisation

Cost of software recognised as intangible asset, is amortised on straight-line method over a period of legal right to use or 3 years, whichever is less. Other intangible assets are amortised on straight-line method over the period of legal right to use or life of the related plant, whichever is less.

The amortisation period and the amortisation 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 recognised 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 recognised 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.

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 derecognised.

5. Exploration for and evaluation of mineral resources

5.1. Oil and gas exploration costs

All exploration costs incurred in drilling and equipping exploratory and appraisal wells, cost of drilling exploratory type stratigraphic test wells are initially capitalised as 'Exploratory wells-in-progress' till the time these are either transferred to oil and gas assets on completion 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 as per the policy of the Company.

Cost of surveys and prospecting activities conducted in the search of oil and gas are expensed in the year in which these are incurred.

5.2. Coal mining exploration costs

Exploration and evaluation costs comprise capitalised costs which are attributable to the search for coal, pending the determination of technical feasibility and the assessment of commercial viability of an identified resource which comprises inter-alia the following:

- researching and analyzing historical exploration data;
- gathering exploration data through topographical, geo chemical and geo physical studies;
- exploratory drilling, trenching and sampling;
- determining & examining the volume and grade of the resource; and
- surveying transportation and infrastructure requirements.

Exploration and evaluation expenditure incurred after obtaining the mining right or the legal right to explore are capitalised as exploration and evaluation assets (intangible assets under development) and stated at cost less impairment. Exploration and evaluation assets are assessed for impairment indicators at least annually.

Exploration and evaluation expenditure incurred prior to obtaining the mining right or the legal right to explore are expensed as incurred.

6. Development expenditure on coal mines

Once 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. However, if proved reserves are not determined, the exploration and evaluation costs are derecognised.

The development expenditure capitalised is net of value of coal extracted during development phase.

Subsequent expenditure is capitalised 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.

Mines under development are brought to revenue on occurrence of earliest of the following milestones except otherwise when commercial readiness is stated in the project report:

a) From the beginning of the financial year immediately after the year in which the project achieves physical output of 25% of rated capacity as per approved project report; or

b) From the beginning of the financial year in which the value of production is more than total expenses; or

c) 2 years of touching of coal.

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 being brought to revenue, 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 tangible/intangible assets, as referred above, are determined by comparing the proceeds from disposal, if any, with the carrying amount of respective assets and are recognised 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 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.

6.2. 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 & 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 discount rate that reflect 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 records a corresponding asset under property, plant and equipment associated with the obligation.

The value of the obligation is progressively increased over time as the effect of discounting unwinds and the same is recognised as finance costs.

6.3. Amortisation

On being brought to revenue, the mines closure, site restoration and decommissioning obligations are amortised over the balance life of the mine. Mining property is amortised from the year in which the mine is brought under revenue, in 20 years or life of mine whichever is less.

7. Joint operations

The Company has entered into joint arrangements with others for operations in the nature of joint operations. The Company recognises, on a line-by-line basis its share of the assets, liabilities and expenses of these joint operations as per the arrangement which are accounted based on the respective accounting policies of the Company.

8. **Borrowing costs**

Borrowing costs consist of (a) interest expense calculated using the effective interest method as described in Ind AS 109, 'Financial Instruments' (b) finance charges in respect of finance leases recognised in accordance with Ind AS 17, '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 capitalised 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 capitalised. When Company borrows funds generally and uses them for the purpose of obtaining a qualifying asset, the capitalisation of the borrowing costs is computed based on the weighted average cost of general borrowing that are outstanding during the period and used for the acquisition, construction/exploration or erection of the qualifying asset.

Income earned on temporary investment of the borrowings pending their expenditure on the qualifying assets is deducted from the borrowing costs eligible for capitalisation.

Capitalisation of borrowing costs ceases when substantially all the activities necessary to prepare the qualifying assets for their intended uses are complete.

Other borrowing costs are recognised as an expense in the year in which they are incurred.

9. **Inventories**

Inventories are valued at the lower of cost and net realisable value. Cost includes cost of purchase, cost of conversion and other costs incurred in bringing the inventories to their present location and condition. Cost is determined on weighted average basis. Costs of purchased inventory are determined after deducting rebates and discounts. Net realisable value is the estimated selling price in the ordinary course of business, less estimated costs of completion and the estimated costs necessary to make the sale.

The diminution in the value of obsolete, unserviceable, surplus and non-moving items of stores and spares is ascertained on review and provided for.

Steel scrap is valued at estimated realisable value.

10. **Cash and cash equivalents**

Cash and cash equivalents in the balance sheet comprise cash at banks, cash on hand and short-term deposits with an original maturity of three months or less, which are subject to an insignificant risk of changes in value.

11. **Government grants**

Government grants are recognised initially as deferred income 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 an asset are recognised in profit or loss on a systematic basis over the useful life of the related asset. Grants that compensate the Company for expenses incurred are recognised over the period in which the related costs are incurred and deducted from the related expenses.

12. **Fly ash utilisation reserve fund**

Proceeds from sale of ash/ash products along-with income on investment of such proceeds are transferred to 'Fly ash utilisation reserve fund' in terms of provisions of gazette notification dated 3 November 2009 issued by Ministry of Environment and Forests, Government of India. The fund is utilised towards expenditure on development of infrastructure/ facilities, promotion & facilitation activities for use of fly ash.

13. **Provisions, contingent liabilities and contingent assets**

A provision is recognised 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 recognised as a finance costs.

The amount recognised 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 recognised 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 any reimbursement.

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.

14. Foreign currency transactions and translation

Transactions in foreign currencies are initially recorded at the functional currency spot rates at the date the transaction first qualifies for recognition.

Monetary assets and liabilities denominated in foreign currencies are translated at the functional currency spot rates of exchange at the reporting date. Exchange differences arising on settlement or translation of monetary items are recognised in profit or 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 recognised upto 31 March 2016 are adjusted to the carrying cost of property, plant and equipment.

Non-monetary items are measured in terms of historical cost in a foreign currency and translated 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 recognises the non-monetary asset or non-monetary liability arising from the payment or receipt of advance consideration.

15. Revenue

Company's revenues arise from sale and trading of energy, consultancy, project management & supervision services, income on assets under lease 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.

Effective 1 April 2018, the Company has adopted Ind AS 115 "Revenue from Contracts with Customers" using the cumulative effect method, applied to the contracts that were not completed as of 1 April 2018 and therefore the comparatives have not been restated and continues to be reported as per Ind AS 18 "Revenue" and Ind AS 11 "Construction Contracts". The details of accounting policies as per Ind AS 18 and Ind AS 11 are disclosed separately if they are different from those under Ind AS 115.

15.1. 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.

Revenue 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 products or services and excludes amounts collected on behalf of third parties. The Company recognises revenue when (or as) the performance obligation is satisfied, which typically occurs when (or as) control over the products or services is transferred to a customer.

In the comparative period, revenue from the sale of energy was measured at the fair value of the consideration received or receivable. Revenue was recognised when the significant risks and rewards of ownership had been transferred to the buyer, recovery of the consideration was probable, the associated costs could be estimated reliably, there was no continuing management involvement, and the amount of revenue could be measured reliably.

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 recognised 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. 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. 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 is recognised based on the rates, terms & conditions mutually agreed with the beneficiaries and trading of power through power exchanges.

Advance against depreciation considered as deferred revenue in earlier years is included in sales, to the extent depreciation recovered in tariff during the year is lower than the corresponding depreciation charged.

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 adjusted from the year in which the same becomes recoverable/payable.

Exchange differences on account of translation of foreign currency borrowings recognised upto 31 March 2016, recoverable from or payable to the beneficiaries in subsequent periods as per the CERC Tariff Regulations are accounted as 'Deferred foreign currency fluctuation asset'. The increase or decrease in depreciation for the year due to the accounting of such exchange differences as mentioned above is adjusted in depreciation. Fair value changes in respect of forward exchange contracts of derivative contracts recoverable from/payable to the beneficiaries as per the CERC Tariff Regulations, are recognised in sales.

Revenue from sale of energy through trading is recognised 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.

15.2. 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 and excludes amounts collected on behalf of third parties. The Company recognises revenue when (or as) the performance obligation is satisfied, which typically occurs when (or as) control over the services is transferred to a customer.

In the comparative period, revenue from consultancy, project management and supervision services rendered was recognised in profit or loss in proportion to the stage of completion of the transaction at the reporting date. The stage of completion was assessed by reference to actual progress/technical assessment of work executed, in line with the terms of the respective consultancy contracts.

Reimbursement of expenses are recognised 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 catchup 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.

15.3. Other income

Interest income is recognised, 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).

Scrap other than steel scrap is accounted for as and when sold.

Insurance claims for loss of profit are accounted for in the year of acceptance. Other insurance claims are accounted for based on certainty of realisation.

Revenue from rentals and operating leases is recognised on an accrual basis in accordance with the substance of the relevant agreement.

For debt instruments measured either at amortised cost or at fair value through other comprehensive income (OCI), interest income is recorded using the EIR. EIR is the rate that exactly discounts the estimated future cash payments or receipts over the expected life of the financial instrument or a shorter period, where appropriate, to the gross carrying amount of the financial asset or to the amortised cost of a financial liability. When calculating the EIR, the Company estimates the expected cash flows by considering all the contractual terms of the financial instrument (for example, prepayment, extension, call and similar options) but does not consider the expected credit losses. Interest income is included in other income in the statement of profit and loss.

The interest/surcharge on late payment/overdue trade receivables for sale of energy is recognised when no significant uncertainty as to measurability or collectability exists.

Interest/surcharge recoverable on advances to suppliers as well as warranty claims wherever there is uncertainty of realisation/acceptance are not treated as accrued and are therefore, accounted for on receipt/acceptance.

Dividend income is recognised 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.

16. Employee benefits

16.1. Defined contribution plans

A defined contribution plan is a post-employment benefit plan under which an entity pays fixed contributions into separate entities and will have no legal or constructive obligation to pay further amounts. Obligations for contributions to defined contribution plans are recognised as an employee benefits expense in profit or loss in the period during which services are rendered by employees. Prepaid contributions are recognised 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.

The Company has a defined contribution pension scheme which 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 contributions to the fund for the year are recognised as an expense and charged to the statement of profit and loss.

16.2. 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, 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.

The Company pays fixed contribution to the provident fund at predetermined rates to a separate trust, which invests the funds in permitted securities. The contributions to the fund for the year are recognised as expense and are charged to the profit or loss. The obligation of the Company is to make such fixed contributions and to ensure a minimum rate of return to the members as specified by the Government of India.

The gratuity is funded by the Company and is managed by separate trust. Pension scheme at one of the taken over projects is also funded by the Company and is managed by separate trust. The Company has PRMF, under which retired employee and the spouse are provided medical facilities in the Company hospitals/empaneled hospitals. They can also avail treatment as out-patient subject to a ceiling fixed by the Company.

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. Any unrecognised past service costs and the fair value of any plan assets are 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 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 recognised asset is limited to the total of any unrecognised past service costs and 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 realisable during the life of the plan, or on settlement of the plan liabilities. Any actuarial gains or losses are recognised in OCI in the period in which they arise.

When the benefits of a plan are improved, the portion of the increased benefit relating to past service by employees is recognised in profit or loss on a straight-line basis over the average period until the benefits become vested. To the extent that the benefits vest immediately, the expense is recognised immediately in statement of profit and loss.

16.3. 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 leave encashment is 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. The calculation is performed using the projected unit credit method. Any actuarial gains or losses are recognised in profit or loss in the period in which they arise.

As per the Company's economic rehabilitation scheme which is optional, the nominee of the deceased employee is paid a fixed amount based on the last salary drawn by the employee till the date of superannuation of the employee by depositing the final provident fund and gratuity amount which will be interest free.

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.

16.4. 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 recognised 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.

17. Other expenses

Expenses on ex-gratia payments under voluntary retirement scheme, training & recruitment and voluntary community development are charged to statement of profit and loss in the year incurred.

Expenditure on research is charged to revenue as and when incurred. Expenditure on development is charged to revenue as and when incurred unless it meets the recognition criteria for intangible asset as per Ind AS 38, 'Intangible assets'.

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.

Net pre-commissioning income/expenditure is adjusted directly in the cost of related assets and systems.

Transit and handling losses of coal as per Company's norms are included in cost of coal.

18. Income tax

Income tax expense comprises current and deferred tax. Current tax expense is recognised in profit or loss except to the extent that it relates to items recognised directly in other comprehensive income or equity, in which case it is recognised in OCI or equity, respectively.

Current tax is the expected tax payable on the taxable income for the year, using tax rates enacted or substantively enacted and as applicable at the reporting date, and any adjustment to tax payable in respect of previous years.

Deferred tax is recognised using the balance sheet method, providing for temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. Deferred tax is measured at the tax rates that are expected to be applied to temporary differences when they reverse, 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 liabilities and assets, and they relate to income taxes levied by the same tax authority.

Deferred tax is recognised in profit or loss except to the extent that it relates to items recognised directly in OCI or equity, in which case it is recognised in OCI or equity, respectively.

A deferred tax asset is recognised to the extent that it is probable that future taxable profits will be available against which the temporary difference can be utilised. Deferred tax assets are reviewed at each reporting date and are reduced to the extent that it is no longer probable that the related tax benefit will be realised.

Additional income taxes that arise from the distribution of dividends are recognised at the same time that the liability to pay the related dividend is recognised.

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 is recognised as deferred tax asset in the balance sheet when the asset can be measured reliably and it is probable that the future economic benefit associated with the asset will be realised.

19. Leases

19.1. As lessee

Accounting for finance leases

Leases of property, plant and equipment where the Company, as lessee has substantially all risks and rewards of ownership are classified as finance lease. On initial recognition, assets held under finance leases are recorded as property, plant and equipment and the related liability is recognised under borrowings. At inception of the lease, finance leases are recorded at amounts equal to the fair value of the leased asset or, if lower, the present value of the minimum lease payments. Minimum lease payments made under finance leases are apportioned between the finance cost and the reduction of the outstanding liability.

The finance cost is allocated to each period during the lease term so as to produce a constant periodic rate of interest on the remaining balance of the liability.

Accounting for operating leases

Leases in which a significant portion of the risks and rewards of ownership are not transferred to the Company as lessee are classified as operating lease. Payments made under operating leases are recognised as an expense on a straight-line basis over the lease term unless the payments are structured to increase in line with expected general inflation to compensate for the lessor's expected inflationary cost increases. Lease incentives received are recognised as an integral part of the total lease expense, over the term of the lease.

19.2. 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.

Accounting for finance leases

Where the Company determines a long term 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 recognised 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 recognised as finance income and capital repayments and recognised 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 of 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 capitalised as property, plant and equipment and depreciated over its economic life. Rental income from operating leases is recognised on a straight line basis over the term of the arrangement unless the receipts are structured to increase in line with expected general inflation to compensate for the expected inflationary cost increases.

20. 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 to 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 recognised if the carrying amount of an asset or its CGU exceeds its estimated recoverable amount. Impairment losses are recognised in profit or loss. Impairment losses recognised in respect of CGUs are reduced from the carrying amounts of the assets of the CGU.

Impairment losses recognised 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 depreciation or amortisation, if no impairment loss had been recognised.

21. Operating segments

In accordance with Ind AS 108, 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.

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.

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, and intangible assets other than goodwill.

Segment assets comprise property, plant and equipment, intangible assets, 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. Segment assets do not include investments, income tax assets, capital work in progress, capital advances, corporate assets and other current assets that cannot reasonably be allocated to segments.

Segment liabilities include all operating liabilities in respect of a segment and consist principally of trade and other payables, employee benefits and provisions. Segment liabilities do not include equity, income tax liabilities, loans and borrowings and other liabilities and provisions that cannot reasonably be allocated to segments.

22. Business Combinations

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 recognised 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 recognised as capital reserve. Acquisition-related costs are expensed as incurred.

23. Dividends

Dividends and interim dividends payable to the Company's shareholders are recognised as changes in equity in the period in which they are approved by the shareholders and the Board of Directors respectively.

24. 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.

25. 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 earnings amounts excluding the movements in regulatory deferral account balances.

26. Statement of cash flows

Statement of cash flows is prepared in accordance with the indirect method prescribed in Ind AS 7 'Statement of cash flows'.

27. 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.

27.1. Financial assets

Initial recognition and measurement

The company recognises financial assets when it becomes a party to the contractual provisions of the instrument. All financial assets are recognised 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 at fair value through profit or loss, are added to the fair value on initial recognition.

Subsequent measurement

Debt instruments at amortised cost

A 'debt instrument' is measured at the amortised 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 amortised cost using the EIR method. Amortised 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 amortisation is included in finance income in the profit or loss. The losses arising from impairment are recognised in the profit or 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 recognised in the OCI. However, the Company recognises interest income, impairment losses & reversals and foreign exchange gain or loss in the profit and loss. On derecognition of the asset, cumulative gain or loss previously recognised in OCI is reclassified from the equity to 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 categorisation as at amortised cost or as FVTOCI, is classified as at FVTPL.

In addition, the Company may elect to classify a debt instrument, which otherwise meets amortised 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 recognised in the profit and loss.

Equity investments

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 recognised in the OCI. There is no recycling of the amounts from OCI to statement of profit and loss, even on sale of investment. However, the Company may transfer the cumulative gain or loss within equity.

Equity instruments included within the FVTPL category are measured at fair value with all changes recognised in the profit and loss.

Equity investments in subsidiaries and joint ventures companies are measured at cost less impairment, if any.

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 derecognised (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 recognised in the Statement of Profit and Loss.

Impairment of financial assets

In accordance with Ind AS 109, 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 amortised 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 17.

(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 unbilled revenue, the Company applies the simplified approach required by Ind AS 109 Financial Instruments, which requires expected lifetime losses to be recognised from initial recognition of the receivables.

For recognition of impairment loss on other financial assets and risk exposure, 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 recognising impairment loss allowance based on 12 month ECL.

27.2. Financial liabilities

Initial recognition and measurement

Financial liabilities are classified, at initial recognition, as financial liabilities at fair value through profit or loss, borrowings, payables, or as derivatives designated as hedging instruments in an effective hedge, as appropriate. All financial liabilities are recognised initially at fair value and, in the case of borrowings and payables, net of directly attributable transaction costs. 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 amortised cost

After initial measurement, such financial liabilities are subsequently measured at amortised cost using the EIR method. Gains and losses are recognised in profit or loss when the liabilities are derecognised as well as through the EIR amortisation process Amortised 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 amortisation is included in finance costs in the profit or 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 recognised 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 are recognised 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. All other changes in fair value of such liability are recognised 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 derecognised 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 derecognition of the original liability and the recognition of a new liability. The difference in the respective carrying amounts is recognised in the statement of profit and loss.

27.3. 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 recognised 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.

27.4. 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 recognised amounts and there is an intention to settle on a net basis, to realise the assets and settle the liabilities simultaneously.

D. Use of estimates and management judgments

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, income, 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 recognised 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 recognised 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 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. **Post-employment benefit plans**

   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 under Appendix C to Ind AS 17 'Determining whether an arrangement contains a lease'. In assessing the applicability to 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 needs the criteria under Appendix C to Ind AS 17.

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 judgements 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 recognising 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 has required 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 non-financial assets**

    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 income taxes, including amount expected to be paid/recovered for uncertain tax positions.

2. Non-current assets - Property, plant and equipment

As at 31 March 2019 ₹ Crore

Particulars	Gross block				Depreciation, amortisation and impairment				Net block
	As at 1 April 2018	Additions	Deductions/ adjustments	As at 31 March 2019	Upto 1 April 2018	For the year	Deductions/ adjustments	Upto 31 March 2019	As at 31 March 2019
Land									
(including development expenses)									
Freehold	5,937.23	178.90	(44.11)	**6,160.24**	-	-	-	**-**	**6,160.24**
Leasehold	4,824.35	304.89	(148.06)	**5,277.30**	274.56	111.75	(24.38)	**410.69**	**4,866.61**
Under submergence (refer footnote (f) below)	755.47	0.04	(21.26)	**776.77**	79.66	31.23	-	**110.89**	**665.88**
Roads, bridges, culverts and helipads	1,032.43	25.34	(31.14)	**1,088.91**	109.95	43.86	0.03	**153.78**	**935.13**
Building									
Freehold									
Main plant	5,178.69	531.05	(83.71)	**5,793.45**	509.52	212.43	0.86	**721.09**	**5,072.36**
Others	3,557.04	441.48	16.36	**3,982.16**	411.90	185.61	10.79	**586.72**	**3,395.44**
Leasehold	18.91	-	-	**18.91**	5.56	1.86	-	**7.42**	**11.49**
Temporary erections	17.22	4.14	(0.13)	**21.49**	14.04	5.45	-	**19.49**	**2.00**
Water supply, drainage and sewerage system	601.10	52.42	(11.67)	**665.19**	80.67	32.20	0.50	**112.37**	**552.82**
Hydraulic works, barrages, dams, tunnels and power channel	4,236.12	-	(23.76)	**4,259.88**	604.74	226.10	-	**830.84**	**3,429.04**
MGR track and signalling system	1,065.29	-	(17.21)	**1,082.50**	192.83	70.55	-	**263.38**	**819.12**
Railway siding	1,460.83	174.83	(15.89)	**1,651.55**	150.82	86.28	0.08	**237.02**	**1,414.53**
Earth dam reservoir	318.54	-	(0.35)	**318.89**	39.54	18.65	-	**58.19**	**260.70**
Plant and equipment									
Owned	1,08,359.00	10,619.52	(477.18)	**1,19,455.70**	17,010.31	6,809.78	330.49	**23,489.60**	**95,966.10**
Leased	85.77	-	-	**85.77**	14.12	4.75	-	**18.87**	**66.90**
Furniture and fixtures	407.86	111.48	(2.62)	**521.96**	75.60	37.96	0.51	**113.05**	**408.91**
Vehicles including speedboats									
Owned	12.48	0.44	0.28	**12.64**	2.93	1.24	0.13	**4.04**	**8.60**
Leased	2.67	0.94	0.36	**3.25**	1.40	0.81	0.23	**1.98**	**1.27**
Office equipment	199.42	51.45	3.63	**247.24**	65.28	23.80	1.16	**87.92**	**159.32**
EDP, WP machines and satcom equipment	318.88	103.76	26.02	**396.62**	168.74	71.93	24.30	**216.37**	**180.25**
Construction equipment	180.74	27.24	6.88	**201.10**	36.47	17.28	2.53	**51.22**	**149.88**
Electrical installations	606.99	81.17	(7.70)	**695.86**	78.45	44.60	1.02	**122.03**	**573.83**
Communication equipment	79.62	9.83	0.98	**88.47**	31.96	8.02	0.73	**39.25**	**49.22**
Hospital equipment	29.79	3.06	0.89	**31.96**	4.80	1.83	0.20	**6.43**	**25.53**
Laboratory and workshop equipment	120.28	18.75	0.79	**138.24**	15.30	7.61	0.18	**22.73**	**115.51**
Assets for ash utilisation	39.29	1.42	-	**40.71**	-	-	-	**-**	**40.71**
Less: Adjusted from fly ash utilisation reserve fund	39.29	1.42	-	**40.71**	-	-	-	**-**	**40.71**
Total	**1,39,406.72**	**12,740.73**	**(828.60)**	**1,52,976.05**	**19,979.15**	**8,055.58**	**349.36**	**27,685.37**	**1,25,290.68**

STANDALONE FINANCIAL STATEMENTS

As at 31 March 2018 ₹ Crore

Particulars	Gross block				Depreciation, amortisation and impairment				Net block
	As at 1 April 2017	Additions	Deductions/ adjustments	As at 31 March 2018	Upto 1 April 2017	For the year	Deductions/ adjustments	Upto 31 March 2018	As at 31 March 2018
Land									
(including development expenses)									
Freehold	5,721.51	175.34	(40.38)	5,937.23	-	-	-	-	5,937.23
Leasehold	4,547.41	199.36	(77.58)	4,824.35	175.76	101.72	2.92	274.56	4,549.79
Under submergence (refer footnote (f) below)	732.83	0.48	(22.16)	755.47	49.26	30.40	-	79.66	675.81
Roads, bridges, culverts and helipads	878.90	139.35	(14.18)	1,032.43	69.54	41.95	1.54	109.95	922.48
Building									
Freehold									
Main plant	4,116.16	979.74	(82.79)	5,178.69	323.72	187.90	2.10	509.52	4,669.17
Others	2,848.90	630.12	(78.02)	3,557.04	272.46	168.23	28.79	411.90	3,145.14
Leasehold	18.91	-	-	18.91	3.70	1.86	-	5.56	13.35
Temporary erection	8.83	7.02	(1.37)	17.22	8.10	5.93	(0.01)	14.04	3.18
Water supply, drainage and sewerage system	473.30	123.47	(4.33)	601.10	49.39	31.29	0.01	80.67	520.43
Hydraulic works, barrages, dams, tunnels and power channel	4,130.91	46.17	(59.04)	4,236.12	381.71	223.02	(0.01)	604.74	3,631.38
MGR track and signalling system	1,027.30	17.92	(20.07)	1,065.29	123.83	69.00	-	192.83	872.46
Railway siding	757.58	695.29	(7.96)	1,460.83	80.14	70.68	-	150.82	1,310.01
Earth dam reservoir	211.36	106.36	(0.82)	318.54	22.39	17.15	-	39.54	279.00
Plant and equipment									
Owned	82,673.39	24,540.89	(1,144.72)	1,08,359.00	10,442.85	6,673.82	106.36	17,010.31	91,348.69
Leased	85.77	-	-	85.77	9.37	4.75	-	14.12	71.65
Furniture and fixtures	339.12	60.64	(8.10)	407.86	47.22	28.49	0.11	75.60	332.26
Vehicles including speedboats									
Owned	10.58	2.50	0.60	12.48	1.89	1.21	0.17	2.93	9.55
Leased	3.25	-	0.58	2.67	1.00	0.75	0.35	1.40	1.27
Office equipment	162.35	38.81	1.74	199.42	43.89	22.02	0.63	65.28	134.14
EDP, WP machines and satcom equipment	273.04	56.83	10.99	318.88	116.28	62.88	10.42	168.74	150.14
Construction equipment	134.23	47.99	1.48	180.74	23.09	14.76	1.38	36.47	144.27
Electrical installations	434.42	152.72	(19.85)	606.99	45.45	33.08	0.08	78.45	528.54
Communication equipment	68.27	11.88	0.53	79.62	24.64	7.90	0.58	31.96	47.66
Hospital Equipment	25.90	3.95	0.06	29.79	3.12	1.69	0.01	4.80	24.99
Laboratory and workshop equipment	86.64	33.34	(0.30)	120.28	8.72	6.58	-	15.30	104.98
Assets for ash utilisation	26.22	13.07	-	39.29	-	-	-	-	39.29
Less: Adjusted from fly ash utilisation reserve fund	26.22	13.07	-	39.29	-	-	-	-	39.29
Total	1,09,770.86	28,070.17	(1,565.69)	1,39,406.72	12,327.52	7,807.06	155.43	19,979.15	1,19,427.57

a) The conveyancing of the title to **10,124 acres** of freehold land of value ₹**1,478.01 crore** (31 March 2018: 10,126 acres of value ₹ 1,900.82 crore), buildings and structures of value ₹ **4.55 crore** (31 March 2018: ₹ 4.97 crore) and also execution of lease agreements for **10,592 acres** of land of value ₹ **1,543.62 crore** (31 March 2018: 10,824 acres of value ₹ 1,804.49 crore) in favour of the Company are awaiting completion of legal formalities.

b) Land includes **284.35 acres** of freehold land of value ₹ **0.52 crore** (31 March 2018: 284.35 acres of value ₹ 0.52 crore), and **1939.55 acres** of leasehold land of value ₹ **3.81 crore** (31 March 2018: 1939.55 acres of value ₹ 3.81 crore), the value thereof including periodical lease rent accruing thereon is subject to revision on final settlement with the State Government Authorities with demand of late payment charges, if any.

c) Land does not include value of **33 acre** (31 March 2018: 34 acres) of land in possession of the Company. This will be accounted for on settlement of the price thereof by the State Government Authorities.

d) Land includes **1,337 acres** of value ₹ **133.77 crore** (31 March 2018: 1,298 acres of value ₹133.93 crore) not in possession of the Company. The Company is taking appropriate steps for repossession of the same.

e) Land includes an amount of ₹ **282.92 crore** (31 March 2018: ₹ 262.91 crore) deposited with various authorities in respect of land in possession which is subject to adjustment on final determination of price.

f) Gross block of land under submergence represents ₹ **597.94 crore** (31 March 2018: ₹ 576.64 crore) of freehold land and ₹**178.83 crore** (31 March 2018: ₹178.83 crore) of leasehold land. The land has been amortised 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.

g) Possession of land measuring **98 acres** (31 March 2018: 98 acres) consisting of **79 acres** of freehold land (31 March 2018: 79 acres) and **19 acres** of lease hold land (31 March 2018: 19 acres) of value ₹ **0.21 crore** (31 March 2018: ₹ 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 28 - Current liabilities - Other financial liabilities.

h) Refer Note 49 (b) regarding property, plant and equipment under finance lease.

i) Based on impairment assessment, the Company has reversed an impairment loss of ₹ **Nil** (31 March 2018: ₹ 3.75 crore) in respect of plant and equipment of a Solar PV Station of the Company.

j) Spare parts of ₹ 5 lakh and above, stand-by equipment and servicing equipment which meet the definition of property, plant and equipment are capitalised.

k) Property, plant and equipment costing ₹5,000/- or less , are depreciated fully in the year of acquisition.

l) Refer Note 21 for information on property, plant and equipment pledged as security by the Company.

m) Refer Note 69 (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**

	Gross block		**Depreciation, amortisation and impairment**	
	For the year ended		**For the year ended**	
	31 March 2019	31 March 2018	**31 March 2019**	31 March 2018
Disposal of assets	**50.29**	8.39	**25.37**	6.07
Retirement of assets	**543.70**	231.61	**326.44**	116.69
Cost adjustments including exchange differences	**(1,494.87)**	(1,851.12)	-	-
Assets capitalised with retrospective effect/Write back of excess capitalisation	-	-	-	(1.11)
Others	**72.28**	45.43	**(2.45)**	33.78
	(828.60)	(1,565.69)	**349.36**	155.43

o) Exchange differences capitalised are disclosed in the ‘Addition’ column of Capital work-in-progress (CWIP) and allocated to various heads of CWIP in the year of capitalisation through ‘Deductions/Adjustments’ column of CWIP. 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 property, plant and equipment and CWIP through 'Addition' or 'Deductions/Adjustments' column are given below:

₹ Crore

	For the year ended 31 March 2019		For the year ended 31 March 2018	
	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	5.72	111.38	7.27	136.89
Others	0.35	107.16	0.76	100.11
Hydraulic works, barrages, dams, tunnels and power channel	18.52	96.67	(0.51)	84.18
MGR track and signalling system	-	12.24	(0.01)	19.21
Railway siding	-	95.59	(0.32)	44.20
Plant and equipment	760.60	3,648.61	338.44	3,213.79
Others including pending allocation	545.99	628.37	(35.15)	557.51
Total	1,331.18	4,700.02	310.48	4,155.89

p) Gross carrying amount of the fully depreciated property, plant and equipment that are still in use:

₹ Crore

	As at 31 March 2019	As at 31 March 2018
Leasehold land	39.93	37.22
Roads, bridges, culverts and helipads	18.28	18.34
Main plant building	68.08	68.30
Other building	88.28	89.74
Water supply, drainage and sewerage system	15.14	15.69
MGR track and signalling system	34.11	34.11
Plant and equipment - Owned	2,464.17	2,181.48
Furniture and fixtures	23.00	18.57
Other office equipment	48.88	46.99
EDP, WP machines and satcom equipment	113.76	88.87
Communication equipment	23.24	22.93
Others	51.11	41.17
	2,987.98	2,663.41

Others include temporary erections, railway sidings, earth dam reserviors, construction equipment and electrical installations etc.

q) **Business Combinations**

Additions column in gross block includes items of property, plant and equipment acquired under business combinations (Refer Note 59), details of which are as below:

₹ Crore

	As at 31 March 2019	As at 31 March 2018
Main plant building-Freehold	5.10	-
Other building-Freehold	36.33	-
Plant and equipment - Owned	21.54	-
Electrical installation	2.41	-
Roads, bridges ,culverts and helipads	0.61	-
Water supply, drainage and sewerage system	0.26	-
Communication equipment	0.04	-
Others	3.99	-
	70.28	-

r) Refer Note 47(A) relating to restatement of property, plant and equipment based on an opinion pronounced by EAC of ICAI.

3. Non-current assets - Capital work-in-progress

As at 31 March 2019 ₹ Crore

Particulars	As at 1 April 2018	Additions	Deductions/ adjustments	Capitalised	As at 31 March 2019
Development of land	721.00	222.87	89.34	18.64	**835.89**
Roads, bridges, culverts and helipads	184.31	109.60	1.58	25.34	**266.99**
Piling and foundation	645.05	34.30	2.54	-	**676.81**
Buildings					
Freehold					
Main plant	2,576.64	466.28	(266.39)	531.05	**2,778.26**
Others	1,953.67	746.48	(117.34)	441.48	**2,376.01**
Temporary erections	21.34	6.21	1.75	4.14	**21.66**
Water supply, drainage and sewerage system	72.85	57.85	(27.68)	52.42	**105.96**
Hydraulic works, barrages, dams, tunnels and power channel	2,837.37	420.54	0.91	-	**3,257.00**
MGR track and signalling system	481.31	432.92	22.48	-	**891.75**
Railway siding	1,111.62	1,655.15	23.94	174.83	**2,568.00**
Earth dam reservoir	76.17	161.53	(20.88)	-	**258.58**
Plant and equipment - owned	58,720.58	18,952.73	1,824.57	9,480.89	**66,367.85**
Furniture and fixtures	28.44	40.18	(9.17)	29.97	**47.82**
Vehicles	0.10	-	-	0.10	**-**
Office equipment	3.40	6.67	(0.01)	1.28	**8.80**
EDP/WP machines and satcom equipment	6.83	5.00	1.20	6.44	**4.19**
Construction equipment	0.22	0.34	0.14	0.42	**0.00**
Electrical installations	259.61	373.96	172.72	62.45	**398.40**
Communication equipment	0.42	3.18	(0.11)	1.36	**2.35**
Hospital equipment	0.01	0.04	-	0.01	**0.04**
Laboratory and workshop equipment	1.28	0.55	0.49	1.04	**0.30**
Development of coal mines	1,904.70	1,495.81	1,214.99	-	**2,185.52**
	71,606.92	25,192.19	2,915.07	10,831.86	**83,052.18**
Expenditure pending allocation					
Survey, investigation, consultancy and supervision charges	91.81	3.36	0.07	-	**95.10**
Difference in exchange on foreign currency loans	1,233.35	904.87	568.50	-	**1,569.72**
Pre-commissioning expenses (net)	139.96	550.59	225.68	-	**464.87**
Expenditure during construction period (net)*	534.35	6,524.91	22.35	-	**7,036.91**
Other expenditure directly attributable to project construction	1,884.15	66.09	(135.49)	-	**2,085.73**
Less: Allocated to related works	-	6,438.71	-	-	**6,438.71**
	75,490.54	26,803.30	3,596.18	10,831.86	**87,865.80**
Less: Provision for unserviceable works	451.98	53.60	0.64	-	**504.94**
Construction stores (net of provisions)	3,568.35	(120.32)	-	-	**3,448.03**
Total	**78,606.91**	**26,629.38**	**3,595.54**	**10,831.86**	**90,808.89**

As at 31 March 2018

₹ Crore

Particulars	As at 1 April 2017	Additions	Deductions/ adjustments	Capitalised	As at 31 March 2018
Development of land	878.51	114.38	271.89	-	721.00
Roads, bridges, culverts and helipads	99.21	131.73	(92.72)	139.35	184.31
Piling and foundation	655.93	32.74	43.62	-	645.05
Buildings					
Freehold					
Main plant	3,598.03	631.66	673.31	979.74	2,576.64
Others	1,699.35	815.67	(68.77)	630.12	1,953.67
Temporary erections	35.96	8.28	15.88	7.02	21.34
Water supply, drainage and sewerage system	61.22	58.16	(65.68)	112.21	72.85
Hydraulic works, barrages, dams, tunnels and power channel	2,319.77	517.36	(46.41)	46.17	2,837.37
MGR track and signalling system	37.62	447.67	(13.94)	17.92	481.31
Railway siding	1,142.23	804.39	139.71	695.29	1,111.62
Earth dam reservoir	89.25	65.16	(28.12)	106.36	76.17
Plant and equipment - owned	61,518.83	20,126.23	(479.26)	23,403.74	58,720.58
Furniture and fixtures	23.15	21.55	(0.04)	16.30	28.44
Vehicles	-	0.10	-	-	0.10
Office equipment	5.51	6.09	1.08	7.12	3.40
EDP/WP machines and satcom equipment	1.56	10.37	1.90	3.20	6.83
Construction equipment	0.03	6.50	0.14	6.17	0.22
Electrical installations	516.69	401.62	519.98	138.72	259.61
Communication equipment	2.95	2.11	(1.01)	5.65	0.42
Hospital equipment	0.50	0.04	0.12	0.41	0.01
Laboratory and workshop equipment	5.91	7.50	0.37	11.76	1.28
Development of coal mines	1,464.54	448.86	8.70	-	1,904.70
	74,156.75	24,658.17	880.75	26,327.25	71,606.92
Expenditure pending allocation					
Survey, investigation, consultancy and supervision charges	87.39	9.82	5.40	-	91.81
Difference in exchange on foreign currency loans	1,498.13	108.10	372.88	-	1,233.35
Pre-commissioning expenses (net)	273.59	466.99	600.62	-	139.96
Expenditure during construction period (net)*	382.73	5,441.33	11.22	-	5,812.84
Other expenditure directly attributable to project construction	2,122.08	94.04	331.97	-	1,884.15
Less: Allocated to related works	-	5,278.49	-	-	5,278.49
	78,520.67	25,499.96	2,202.84	26,327.25	75,490.54
Less: Provision for unserviceable works	98.73	359.48	6.23	-	451.91
Construction stores (net of provisions)	3,499.88	68.47	-	-	3,568.35
Total	81,921.82	25,208.95	2,196.61	26,327.25	78,606.91

* Brought from expenditure during construction period (net) - Note 38

a) Construction stores are net of provision for shortages pending investigation amounting to ₹ **25.39 crore** (31 March 2018: ₹ 26.26 crore).

b) Pre-commissioning expenses for the year amount to ₹ **622.41 crore** (31 March 2018: ₹ 544.39 crore) and after adjustment of pre-commissioning sales of ₹ **71.82 crore** (31 March 2018: ₹ 77.40 crore) resulted in net pre-commissioning expenditure of ₹ **550.59 crore** (31 March 2018: ₹ 466.99 crore).

c) Additions to the development of coal mines include expenditure during construction period (net) of ₹ **1,269.79 crore** (31 March 2018: ₹ 668.37 crore) - [Ref. Note 39] and are after netting off the receipts from coal extracted during the development phase amounting to ₹ **1,214.99 crore** (31 March 2018: ₹ 464.03 crore). Also refer Note 47 (B) relating to change in accounting policy relating to development of coal mines.

d) Details of exchange differences and borrowing costs capitalised are disclosed in Note 2 (o).

e) **Business Combinations**

Additions column includes items of capital work-in-progress acquired under business combinations (Refer Note 59), details of which are as below:

₹ Crore

	As at 31 March 2019	As at 31 March 2018
Roads, bridges, culverts and helipads	**1.46**	-
Main plant building	**589.38**	-
Other building	**108.31**	-
Water supply, drainage and sewerage system	**21.18**	-
Plant and equipment - Owned	**1,740.24**	-
Electrical installation	**51.98**	-
Construction stores	**8.26**	-
	2,520.81	-

f) Refer Note 47(A) relating to restatement of capital work-in-progress based on an opinion pronounced by EAC of ICAI.

4. Non-current assets - Intangible assets

As at 31 March 2019

₹ Crore

Particulars	**Gross block**				**Amortisation**				**Net block**
	As at 1 April 2018	**Additions**	**Deductions/ adjustments**	**As at 31 March 2019**	**Upto 1 April 2018**	**For the year**	**Deductions/ adjustments**	**Upto 31 March 2019**	**As at 31 March 2019**
Software	34.29	15.04	(3.95)	**53.28**	22.15	9.03	0.02	**31.16**	**22.12**
Right of use - Land	160.55	4.83	(0.52)	**165.90**	13.85	6.92	-	**20.77**	**145.13**
- Others	203.71	-	(0.26)	**203.97**	30.95	10.33	-	**41.28**	**162.69**
Total	**398.55**	**19.87**	**(4.73)**	**423.15**	**66.95**	**26.28**	**0.02**	**93.21**	**329.94**

As at 31 March 2018

₹ Crore

Particulars	Gross block				Amortisation				Net block
	As at 1 April 2017	Additions	Deductions/ adjustments	As at 31 March 2018	Upto 1 April 2017	For the year	Deductions/ adjustments	Upto 31 March 2018	As at 31 March 2018
Software	26.90	7.36	(0.03)	34.29	14.67	7.49	0.01	22.15	12.14
Right of use - Land	104.61	53.13	(2.81)	160.55	6.89	6.96	-	13.85	146.70
- Others	203.71	-	-	203.71	20.64	10.31	-	30.95	172.76
Total	335.22	60.49	(2.84)	398.55	42.20	24.76	0.01	66.95	331.60

a) The right of use of land and others are amortised over the period of legal right to use or life of the related plant, whichever is less.

b) Cost of acquisition of the right for drawl of water amounting to ₹ **203.97 crore** (31 March 2018: ₹ 203.71 crore) is included under intangible assets – Right of use - Others.

c) Deductions/adjustments from gross block and amortisation for the year includes:

₹ Crore

	Gross block		**Amortisation**	
	For the year ended		**For the year ended**	
	31 March 2019	31 March 2018	**31 March 2019**	31 March 2018
Cost adjustments	**(4.73)**	(2.84)	**-**	-
Others	**-**	-	**0.02**	0.01
Total	**(4.73)**	(2.84)	**0.02**	0.01

d) Gross carrying amount of the fully depreciated intangible assets that are still in use :

₹ Crore

	As at 31 March 2019	As at 31 March 2018
Software	**17.99**	13.64
Right of use - land	**0.14**	0.14
	18.13	13.78

5. Non-current assets - Intangible assets under development

As at 31 March 2019

₹ Crore

Particulars	As at 1 April 2018	Additions	Deductions/ Adjustments	Capitalised	As at 31 March 2019
Right of use - others	237.82	25.23	115.53	-	**147.52**
Exploration and evaluation assets - coal mines	222.94	16.08	0.06	-	**238.96**
Exploratory wells-in-progress	7.72	-	0.07	-	**7.65**
Software	8.52	1.45	(11.33)	9.99	**11.31**
	477.00	42.76	104.33	9.99	**405.44**
Less: Provision for unserviceable works	7.64	-	-	-	**7.64**
Total	**469.36**	**42.76**	**104.33**	**9.99**	**397.80**

As at 31 March 2018

₹ Crore

Particulars	As at 1 April 2017	Additions	Deductions/ Adjustments	Capitalised	As at 31 March 2018
Right of use - others	214.53	-	(23.29)	-	237.82
Exploration and evaluation assets - coal mines	220.09	28.65	25.80	-	222.94
Exploratory wells-in-progress	7.65	0.07	-	-	7.72
Software	-	8.52	-	-	8.52
	442.27	37.24	2.51	-	477.00
Less: Provision for unserviceable works	7.64	-	-	-	7.64
Total	434.63	37.24	2.51	-	469.36

6. Non-current assets - Investments in subsidiary and joint venture companies

₹ Crore

Particulars	Number of shares Current year/ (previous year)	Face value per share in ₹ Current year/ (previous year)		As at 31 March 2019	As at 31 March 2018
Equity instruments - Unquoted (fully paid up - unless otherwise stated, at cost)					
Subsidiary companies					
NTPC Electric Supply Company Ltd.	80,910	10		**0.08**	0.08
	(80,910)	(10)			
NTPC Vidyut Vyapar Nigam Ltd.	2,00,00,000	10		**20.00**	20.00
	(2,00,00,000)	(10)			
Kanti Bijlee Utpadan Nigam Ltd.	1,51,06,73,705	10		**1,510.68**	1,042.89
	(1,04,28,88,641)	(10)			
Bhartiya Rail Bijlee Company Ltd.	1,59,95,33,644	10		**1,599.53**	1,599.53
	(1,59,95,33,644)	(10)			
Patratu Vidyut Utpadan Nigam Ltd.	23,41,24,000	10		**234.12**	92.12
	(9,21,24,000)	(10)			
Nabinagar Power Generating Company Ltd. (previously Nabinagar Power Generating Company Private Ltd.) $	3,98,71,55,500	10		**3,987.16**	-
	(-)	(-)			
				7,351.57	2,754.62
Joint venture companies					
Utility Powertech Ltd. (includes 10,00,000 bonus shares)	20,00,000	10		**1.00**	1.00
	(20,00,000)	(10)			
NTPC-GE Power Services Private Ltd.	30,00,000	10		**3.00**	3.00
	(30,00,000)	(10)			
NTPC-SAIL Power Company Ltd.	49,02,50,050	10		**490.25**	490.25
	(49,02,50,050)	(10)			
NTPC Tamil Nadu Energy Company Ltd.	1,41,56,06,112	10		**1,415.61**	1,409.99
	(1,40,99,96,112)	(10)			
Ratnagiri Gas & Power Private Ltd.	83,45,56,046	10	**834.55**		834.55
	(83,45,56,036)	(10)			
Less: Provision for impairment			**775.02**		617.05
				59.53	217.50
Konkan LNG Private Ltd.	13,97,52,264	10	**139.75**		139.75
	(13,97,52,264)	(10)			
Less: Provision for impairment			**139.75**		139.75
				-	-
Aravali Power Company Private Ltd.	1,43,30,08,200	10		**1,433.01**	1,433.01
	(1,43,30,08,200)	(10)			
NTPC BHEL Power Projects Private Ltd.	5,00,00,000	10	**50.00**		50.00
	(5,00,00,000)	(10)			
Less: Provision for impairment			**50.00**		45.59
				-	4.41
Meja Urja Nigam Private Ltd.	1,25,93,29,800	10		**1,259.33**	1,209.33
	(1,20,93,29,800)	(10)			
BF-NTPC Energy Systems Ltd.@	-	-			6.85
	(68,48,681)	(10)			
Less: Provision for impairment			-		4.43
				-	2.42

Particulars	Number of shares Current year/ (previous year)	Face value per share in ₹ Current year/ (previous year)	As at 31 March 2019	As at 31 March 2018
Nabinagar Power Generating Company Ltd. (previously Nabinagar Power Generating Company Private Ltd.) [$]	- (1,65,99,35,500)	- (10)	**-**	1,659.94
Transformers and Electricals Kerala Ltd.	1,91,63,438 (1,91,63,438)	10 (10)	**31.34**	31.34
National High Power Test Laboratory Private Ltd.	3,04,00,000 (3,04,00,000)	10 (10)	**30.40**	30.40
Energy Efficiency Services Ltd.	24,55,00,000 (14,65,00,000)	10 (10)	**245.50**	146.50
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 & Rasayan Ltd.	44,03,25,000 (33,32,50,000)	10 (10)	**440.32**	333.25
Trincomalee Power Company Ltd. (* Srilankan rupees)	32,86,061 (32,86,061)	100* (100)*	**15.20**	15.20
Bangladesh-India Friendship Power Company Private Ltd. (** Bangladeshi Taka)	3,42,50,000 (2,42,50,000)	100** (100)**	**277.83**	198.91
			5,702.45	7,186.58
Total			**13,054.02**	9,941.20
Aggregate amount of unquoted investments			**13,054.02**	9,941.20
Aggregate amount of impairment in the value of investments			**964.77**	806.82

[$] Joint Venture Company till 28 June 2018 and Subsidiary Company w.e.f. 29 June 2018.
[@] Refer Note 7(d).

a) Investments have been valued as per accounting policy no. C.27.1 (Note 1).

b) The company entered into a Memorandum of Understanding (MoU) with State Government of Bihar and its affiliate companies on 15 May 2018 for buy-out of equity of Bihar State Power Generation Company Limited (BSPGCL) in Kanti Bijlee Utpadan Nigam Limited (KBUNL) and Nabinagar Power Generating Company Private Limited (NPGCL). Consequently, the Company bought the equity shares of BSPGCL in KBUNL and NPGCL for an amount of ₹ 392.78 crore and ₹ 1,737.19 crore respectively. As a result, KBUNL and NPGCL became wholly-owned subsidiaries of the Company with effect from 29 June 2018.

c) 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. (NTPC-BHEL), a joint venture of the Company. As NTPC-BHEL was formed by a directive from the GOI, approval of exit from GOI is awaited. Pending withdrawl, provision for impairment loss on the entire investment in NTPC-BHEL of ₹ **50.00 crore** (upto 31 March 2018: ₹ 45.59 crore) has been made based on the un-audited accounts of NTPC-BHEL as at 31 March 2019.

d) 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 decison of the Board of Directors of NTPC Limited and approval of GOI has been conveyed to the Government of Kerala (JV Partner) & TELK. The government of Kerala has requested NTPC to review the decision. The matter is under examination. Pending decision in this regard, no provision for impairment in the value of investment in TELK is required to be recognised.

e) The Company has an investment of ₹ **834.55 crore** as at 31 March 2019 (31 March 2018: ₹ 834.55 crore) in the equity shares of Ratnagiri Gas and Power Private Ltd. (RGPPL), a joint venture of the Company. During the year, as required by Ind AS 36, an assessment of impairment of the investment in RGPPL was carried out by an independent expert and the provision for impairment loss on the investment in RGPPL has been increased to ₹ **775.02 crore** (31 March 2018: ₹ 617.05 crore).

f) The Company has an investment of ₹ **139.75 crore** as at 31 March 2019 (31 March 2018: ₹ 139.75 crore) in the equity shares of Konkan LNG Private Ltd. (KLPL), a joint venture of the Company. Provision for impairment loss on the entire investment in KLPL made in earlier years of ₹ 139.75 crore has been continued.

g) Restrictions for the disposal of investments held by the Company and commitments towards certain subsidiary & joint venture companies are disclosed in Note 69 (C) (b) and (c).

7. Non-current financial assets - Investments

₹ Crore

Particulars	Number of shares Current year/ (previous year)	Face value per share in ₹ Current year/ (previous year)	As at 31 March 2019	As at 31 March 2018
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)	**88.14**	104.88
			88.14	104.88
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 (-)	10 (-)	**2.38**	-
			3.78	1.40
Co-operative societies			**#**	#
Total			**91.92**	106.28
Aggregate amount of quoted investments at cost			**12.00**	12.00
Aggregate market value of the quoted investments			**88.14**	104.88
Aggregate amount of unquoted investments			**3.78**	1.40

Equity shares of ₹ **30,200**/- (31 March 2018: ₹ 30,200/-) held in various employee co-operative societies.

a) Investments have been valued as per accounting policy no. C.27.1 (Note 1).

b) The Board of Directors of NTPC Limited 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 is awaited for exit by NTPC Limited.

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). As the Company was formed by a directive from the GOI, approval of the Ministry of Steel, GOI is awaited for exit by NTPC Limited. 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 withdrawl, no provision for impairment in the value of investment in ICVPL is required to be made.

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 has been 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'.

e) 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'.

f) No strategic investments in equity instruments measured at FVTOCI were disposed during the financial year 2018-19, and there were no transfers of any cumulative gain or loss within equity relating to these investments.

8. Non-current financial assets - Loans

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
Loans (Considered good, unless otherwise stated)		
Related parties		
Unsecured	**116.61**	201.71
Employees (including accrued interest)		
Secured	**229.26**	222.44
Unsecured	**174.33**	206.45
Others		
Secured	**24.18**	25.07
Total	**544.38**	655.67
a) Due from directors and officers of the Company		
Directors	**0.01**	0.11
Officers	-	-
b) Loans to related parties include:		
Key management personnel	**0.01**	0.11
Kanti Bijlee Utpadan Nigam Ltd. (Subsidiary Company)	**110.00**	201.00
National High Power Test Laboratory Private Ltd. (Joint Venture Company) [Refer Note 15 (b)]	**6.00**	-
NTPC Education and Research Society	**0.60**	0.60

c) Other loans represent loan of ₹ **24.18 crore** (31 March 2018: ₹ 25.07 crore) given to Andhra Pradesh Industrial Infrastructure Corporation Ltd. (APIIC).

d) Details of collateral held as security:

- 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.
- Loan to APIIC is secured by a guarantee given by the Government of Andhra Pradesh vide GO dated 3 April 2003.

9. Non-current assets - Other financial assets

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
Share application money pending allotment in		
Subsidiary companies		
Bhartiya Rail Bijlee Company Ltd.	**121.59**	-
Patratu Vidyut Utpadan Nigam Ltd.	-	32.00
	121.59	32.00

₹ Crore

Particulars		As at 31 March 2019	As at 31 March 2018
Joint venture companies			
Meja Urja Nigam Private Limited		**60.00**	-
Nabinagar Power Generating Company Ltd.#		-	197.93
Energy Efficiency Services Ltd.		-	99.00
Bangladesh-India Friendship Power Company Private Ltd.		-	78.92
		60.00	375.85
Claims recoverable		**739.54**	704.22
Finance lease receivables (Refer Note 49)		**470.96**	502.32
Mine closure deposit		**32.20**	18.47
Total		**1,424.29**	1,632.86

Nabinagar Power Generating Company Ltd. - Subsidiary Company w.e.f. 29 June 2018. (previously Nabinagar Power Generating Company Private Ltd.)

a) The shares are expected to be alloted within 60 days from the date of payment of the share application money.

b) Claims recoverable includes ₹ **719.71 crore** (31 March 2018: ₹ 680.11 crore) towards the cost incurred upto 31 March 2019 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 which includes ₹ **413.40 crore** (31 March 2018: ₹ 390.59 crore) in respect of arbitration awards challenged by the Company before Hon'ble High Court of Delhi. In the event the Hon'ble High Court grants relief to the Company, the amount would be adjusted against Current liabilities - Provisions - Provision for others (Note 30). 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. Hence, no provision is considered necessary.

c) Keeping in view the provisions of Appendix C to Ind AS 17, 'Leases' w.r.t. determining whether an arrangement contains a lease, 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 had been derecognised from PPE and accounted for as Finance lease receivable (FLR) as at the transition date to Ind AS. Recovery of capacity charges towards depreciation (including AAD), interest on loan capital and return on equity (pre-tax) components from the beneficiary are adjusted against the 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 recognised as 'Interest income on assets under finance lease' under 'Revenue from operations' (Note 32).

10. Other non-current assets

₹ Crore

Particulars		As at 31 March 2019	As at 31 March 2018
Capital advances			
(Considered good unless otherwise stated)			
Secured		**21.65**	22.39
Unsecured			
Covered by bank guarantee		**1,737.16**	1,898.56
Others		**3,235.64**	2,780.34
Considered doubtful		**45.04**	5.76
Less: Allowance for bad and doubtful advances		**45.04**	5.76
		4,994.45	4,701.29
Advances other than capital advances			
Security deposits		**81.55**	83.22
Advances to contractors and suppliers			
Unsecured	**2,149.72**		2,287.66
Considered doubtful	**112.57**		-
Less: Allowance for bad and doubtful advances	**112.57**		-
		2,149.72	2,287.66

₹ Crore

Particulars		As at 31 March 2019	As at 31 March 2018
Advance tax and tax deducted at source	15,989.67		11,245.66
Less: Provision for tax	11,447.77		8,029.52
		4,541.90	3,216.14
Deferred foreign currency fluctuation asset		1,370.53	1,119.00
Deferred payroll expenditure		131.15	140.42
Total		**13,269.30**	11,547.73

a) In line with accounting policy no. 15 (Note 1), deferred foreign currency fluctuation asset has been accounted and **(-) ₹ 120.25 crore** (31 March 2018: (-) ₹ 128.39 crore) being the exchange fluctuations on account of foreign currency loans have been recognised in 'Energy sales' under 'Revenue from operations' (Note 32).

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-GE Power Services Private Ltd.	**21.82**	45.39
NTPC BHEL Power Projects Private Ltd.	**139.52**	65.95
Aravali Power Company Private Ltd.	**0.09**	0.34

c) Capital advances include ₹ **224.29 crore** (31 March 2018: ₹ 224.29 crore), paid to a contractor pending settlement of certain claims which are under arbitration. The amount will be adjusted with the cost of related work or recovered from the party, depending upon the outcome of the arbitration proceedings.

d) Advances to contractors and suppliers include payments to Railways amounting to ₹ **2,097.65 crore** (31 March 2018: ₹ 2,226.22 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 said railway projects as per the agreement are yet to achieve the COD.

e) 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 amortised cost. The deferred payroll expenditure represents the benefits accruing to employees. The same is amortised on a straight-line basis over the remaining period of the loan.

11. Current assets - Inventories

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
Coal	3,569.62	2,085.38
Fuel oil	399.88	311.02
Naphtha	127.66	118.51
Stores and spares	3,307.09	2,915.56
Chemicals and consumables	138.57	120.62
Loose tools	9.30	8.47
Steel scrap	18.09	16.82
Others	668.99	610.68
	8,239.20	6,187.06
Less: Provision for shortages	111.85	22.06
Provision for obsolete/unserviceable items/ diminution in value of surplus inventory	139.33	107.62
Total	**7,988.02**	6,057.38

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
Inventories include material-in-transit		
Coal	**285.01**	293.39
Stores and spares	**34.23**	26.67
Chemicals and consumables	**2.21**	1.15
Loose tools	**0.04**	0.02
Others	**1.92**	0.71

a) Inventory items have been valued as per accounting policy no. C.9 (Note 1).

b) Inventories - Others includes steel, cement, ash bricks etc.

c) Refer Note 21 and 46 (b) for information on inventories pledged as security by the Company.

d) 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 realisable value of the inventories is not lower than the cost.

12. Current financial assets - Trade receivables

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
Trade receivables		
Unsecured, considered good	**8,433.86**	7,577.97
Credit impaired	**0.34**	0.34
	8,434.20	7,578.31
Less: Provision for credit impaired trade receivables	**0.34**	0.34
Total	**8,433.86**	7,577.97

a) Based on arrangements between Company, banks and benificiaries, the bills of the beneficiaries have been discounted. Accordingly, trade receivables have been disclosed net off bills discounted amounting to ₹ **9,998.75 crore** (31 March 2018 ₹ 602.12 crore). Also refer Note 69 A(c).

b) Amounts receivable from related parties are disclosed in Note 53.

13. Current financial assets - Cash and cash equivalents

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
Balances with banks in current accounts	**22.83**	**59.85**
Cheques and drafts on hand	**1.48**	**0.57**
Others (stamps on hand)	**0.07**	**0.07**
Total	**24.38**	**60.49**

14. Current financial assets - Bank balances other than cash and cash equivalents

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
Deposits with original maturity of more than three months and maturing within one year (including interest accrued)	**631.86**	2,607.01
Earmarked balances with banks#	**1,488.10**	1,310.88
Total	**2,119.96**	3,917.89
# Earmarked balances with banks towards:		
Redemption of bonds due for repayment within one year	**332.00**	100.00
Fly ash utilisation reserve fund*	**636.63**	631.21
DDUGJY Scheme of the GOI**	**466.16**	543.90

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
Unpaid dividend account balance	**17.68**	16.51
Amount deposited as per court orders	**5.00**	5.00
Unpaid interest/refund account balance - Bonds	**4.69**	3.88
Payment Security Fund - MNRE	**25.89**	10.33
Unpaid interest on public deposit	**0.03**	0.03
Security with government authorities	**0.02**	0.02
Total	**1,488.10**	1,310.88

*Refer Note 20 (d) regarding fly ash utilisation reserve fund.

**Out of advance for DDUGJY Scheme of the GOI. Refer Note 28 (c) and 29 (a).

a) In the previous year, deposits with original maturity of more than three months and maturing within one year included ₹ 1,743.89 crore which was kept in corporate liquid term deposits with a bank. These deposits represented unutilised balance of Medium Term Notes (MTNs) as per MTN programme to partly finance the capital expenditure of ongoing and/or new power projects, coal mining projects, and/or renovation and modernisation of power stations and has since been utilised for the stated purposes.

b) In line with the guidelines issued by Ministry of New and Renewable Energy (MNRE), GOI under National Solar Mission-II, a Payment Security Fund/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. The said fund is yet to be created by MNRE. Pending creation of the fund, amount deducted by the Company on account of liquidated damages/penalties from the SPDs is earmarked for the said fund and is not available for use by the Company. Further, presentation of previous years figures have also been stated.

15. Current financial assets - Loans

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
Loans (including interest accrued)		
(Considered good unless otherwise stated)		
Related parties		
Unsecured	**67.61**	47.95
Employees		
Secured	**67.61**	67.13
Unsecured	**169.68**	164.25
Others		
Secured	**0.89**	0.89
Total	**305.79**	280.22
a) Due from Directors and Officers of the Company		
Directors	**0.11**	0.13
Officers	**-**	0.03
b) Loans to related parties include:		
Key management personnel	**0.11**	0.16
Patratu Vidyut Utpadan Nigam Ltd. (Subsidiary company)	**7.00**	41.75
Kanti Bijlee Utpadan Nigam Ltd. (Subsidiary company)	**60.50**	0.04
National High Power Test Laboratory Private Ltd. (Joint venture company) (Classified as non-current during the current year due to change in terms) [Refer Note 8(b)]	-	6.00

c) Other loans represent loans of ₹ **0.89 crore** (31 March 2018: ₹ 0.89 crore) given to APIIC.

d) Details of collateral held as security:

- 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.
- Loan to APIIC is secured by a guarantee given by the Government of Andhra Pradesh vide GO dated 3 April 2003.

16. Current assets - Other financial assets

₹ Crore

Particulars		As at 31 March 2019	As at 31 March 2018
Advances			
(Considered good unless otherwise stated)			
Related parties			
Unsecured		**342.11**	217.11
Employees			
Unsecured	**12.93**		6.01
Considered doubtful	**0.06**		0.07
Less: Allowance for bad and doubtful advances	**0.06**		0.07
		12.93	6.01
Others			
Unsecured		**-**	0.50
		355.04	223.62
Claims recoverable			
Unsecured, considered good	**45.73**		54.24
Considered doubtful	**15.07**		0.12
Less: Allowance for doubtful claims	**15.07**		0.12
		45.73	54.24
Unbilled revenue		**7,870.83**	7,574.60
Hedging cost recoverable from beneficiaries		**5.93**	2.53
Derivative MTM asset		**1.28**	3.73
Finance lease receivables		**49.04**	40.00
Dividend receivable		**-**	20.00
Others		**3.99**	19.40
Total		**8,331.84**	7,938.12

a) Unbilled revenue is net of credits to be passed to beneficiaries at the time of billing and includes ₹ **6,961.66 crore** (31 March 2018: ₹ 6,932.84 crore) billed to the beneficiaries after 31 March for energy sales.

b) Advance to related parties include:

Subsidiary companies	**212.76**	129.82
Joint venture companies	**52.50**	74.61

c) Advances 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.	**0.83**	0.34
Aravali Power Company Private Ltd.	**2.25**	4.01
NTPC BHEL Power Projects Private Ltd.	**6.44**	5.99
Meja Urja Nigam Private Ltd.	**13.97**	10.00
Nabinagar Power Generating Company Ltd. (previously Nabinagar Power Generating Company Private Ltd.)	**-**	0.97
Bangladesh India Friendship Power Company Private Ltd.	**0.60**	1.43

d) In the previous year, the dividend receivable represents interim dividend declared by NTPC Vidyut Vyapar Nigam Ltd. (subsidiary of the Company) on 29 March 2018.

e) Other financial assets - Others include amount recoverable from contractors and other parties towards hire charges, rent/electricity etc.

17. Current assets - Other current assets

₹ Crore

Particulars		As at 31 March 2019	As at 31 March 2018
Security deposits (unsecured)		**1,480.21**	1,021.21
Advances			
(Considered good unless otherwise stated)			
Related parties			
Unsecured		**2,043.55**	1,684.66
Employees			
Unsecured		**6.07**	6.53
Contractors and suppliers			
Secured	**1.39**		2.76
Unsecured	**7,020.15**		5,381.01
Considered doubtful	**3.38**		1.90
Less: Allowance for bad and doubtful advances	**3.38**		1.90
		7,021.54	5,383.77
Others			
Unsecured		**231.10**	176.06
		9,302.26	7,251.02
Interest accrued on			
Advance to contractors		**45.60**	43.22
Claims recoverable			
Unsecured, considered good	**4,095.57**		2,547.98
Considered doubtful	**134.55**		39.20
Less: Allowance for doubtful claims	**134.55**		39.20
		4,095.57	2,547.98
Assets held for disposal		**100.81**	1.98
Deferred payroll expenses		**26.06**	27.92
Others		**6.19**	5.85
Total		**15,056.70**	10,899.18

a) Security deposits (unsecured) include ₹ **23.48 crore** (31 March 2018: ₹ 27.73 crore) towards sales tax deposited with sales/commercial tax authorities, ₹ **299.79 crore** (31 March 2018: ₹ 272.76 crore) deposited with Courts, ₹ **188.44 crore** (31 March 2018: ₹ 177.47 crore) deposited with LIC for making annuity payments to the land oustees, ₹ **275.05 crore** (31 March 2018: ₹ 275.05 crore) deposited with the Water Resource Department, Govt. of Chhattisgarh for drawl of water and ₹ **356.31 crore** (31 March 2018: ₹ 158.50 crore) deposited against bank guarantee with one of the party as per the direction of the Hon'ble Supreme Court of India, refer Note 57(iii)(b).

b) Advances - Contractors and suppliers - unsecured includes an amount of ₹ **5,769.00 crore** (31 March 2018: ₹ 5,000.00 crore) paid to Indian Railways to be adjusted against freight payable on coal transportation, pursuant to the agreement entered into with Indian Railways, Ministry of Railways, GOI.

c) Advances - Others include prepaid expenses amounting to ₹ **104.06 crore** (31 March 2018: ₹ 87.39 crore) and unamortised discount on commercial paper amounting to ₹ **126.81 crore** (31 March 2018: ₹ 88.40 crore).

d) 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.	**0.01**	0.01
NTPC BHEL Power Projects Private Ltd.	**1.33**	1.33
Aravali Power Company Private Ltd.	**19.05**	-

e) Loans given to employees are measured at amortised cost. The deferred payroll expenditure represents the benefits accruing to employees. The same is amortised on a straight-line basis over the remaining period of the loan.

f) Asset held for disposal includes an amount of ₹ 98.90 crore in respect of one of the power stations which has since been shut down. (Refer Note 44).

18. Regulatory deferral account debit balances

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
On account of		
Exchange differences	**68.19**	101.99
Employee benefits expense	**759.40**	641.14
Deferred tax	**2,399.12**	7,638.53
Ash transportation	**179.29**	-
Total	**3,406.00**	8,381.66

a) Regulatory deferral account balances have been accounted in line with Accounting policy no. C.4 (Note 1). Refer Note 65 for detailed disclosures.

b) CERC Tariff Regulations, 2014 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 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.

Hitherto the Company was disclosing tax expense recoverable from the beneficiaries as a deduction from the related tax expense. Further, 'Deferred asset for deferred tax liability' was hitherto disclosed as a deduction from the DTL (net).

During the year, the EAC of the ICAI has issued an opinion with regard to presentation of 'Deferred asset for the deferred tax liability', wherein it has opined that 'Deferred asset for DTL' is in the nature of a 'Regulatory Deferral Account Balance' and should be shown as 'Regulatory deferral account balance'. Considering the EAC opinion, 'Deferred asset for the deferred tax liability' which was hitherto presented as a deduction from 'deferred tax liabilities (net) has been transferred to 'Regulatory deferral account debit balance'. [Refer Note 47A].

c) During the year, the Company recognised MAT Credit entitlement for the period commencing from 1 April 2014 amounting to ₹ **8,257.38 crore** (31 March 2018 ₹ Nil). Utilisation of MAT Credit will result in lower effective tax rate in future years. Accordingly, 'Regulatory deferral account balance' of ₹ **7,615.10 crore** (31 March 2018 ₹ Nil) corresponding to the said MAT Credit entitlement has also been recognised pertaining to the beneficiaries.

19. Equity share capital

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
Equity share capital		
Authorised		
10,00,00,00,000 shares of par value ₹10/- each (10,00,00,00,000 shares of par value ₹10/- each as at 31 March 2018)	**10,000.00**	10,000.00
Issued, subscribed and fully paid up		
9,89,45,57,280 shares of par value ₹ 10/- each (8,24,54,64,400 shares of par value ₹10/- each as at 31 March 2018)	**9,894.56**	8,245.46

a) Reconciliation of the shares outstanding at the beginning and at the end of the year:

₹ Crore

Particulars	Number of shares	
	31 March 2019	31 March 2018
At the beginning of the year	**8,24,54,64,400**	8,24,54,64,400
Issued during the year - Bonus shares	**1,64,90,92,880**	-
Outstanding at the end of the year	**9,89,45,57,280**	8,24,54,64,400

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 2019	31 March 2018
(i) Dividends paid and recognised during the year		
Final dividend for the year ended 31 March 2018 of ₹ 2.39 (31 March 2017: ₹ 2.17) per fully paid share	**1,970.67**	1,789.27
Interim dividend for the year ended 31 March 2019 of ₹ 3.58 (31 March 2018: ₹ 2.73) per fully paid share	**2,951.88**	2,251.01

(ii) Dividends not recognised at the end of the reporting period	**31 March 2019**	31 March 2018
In addition to the above dividends, since year end the directors have recommended the payment of a final dividend of ₹ **2.50** (31 March 2018: ₹ 2.39) per fully paid equity share. This proposed dividend is subject to the approval of shareholders in the ensuing Annual General Meeting.	**2,473.64**	1,970.67

d) **Details of shareholders holding more than 5% shares in the Company:**

Particulars	As at 31 March 2019		As at 31 March 2018	
	No. of shares	**%age holding**	No. of shares	%age holding
- President of India*	**5,58,11,67,271**	**56.41**	5,13,48,25,262	62.27
- Life Insurance Corporation of India (including shares held in various Funds/Schemes)	**1,13,84,46,831**	**11.51**	1,00,34,56,797	12.17
- ICICI Prudential Mutual Fund	**54,53,42,820**	**5.51**	29,66,72,061	3.60

* Includes 3,10,46,970 (0.32%) shares held by GoI in CPSE ETF Account.

e) **Shares allotted as fully paid up by way of bonus shares:**

The Company has issued 1,64,90,92,880 equity shares of ₹ 10/- each as fully paid bonus shares during the year ended 31 March 2019 (31 March 2018: Nil) in the ratio of one equity share of ₹ 10/- each for every five equity shares held.

20. Other equity

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
Capital reserve	**50.08**	50.08
Securities premium	**2,228.46**	2,228.46
Bonds/debentures redemption reserve	**7,902.43**	7,274.56
Fly ash utilisation reserve fund	**636.63**	631.21
General reserve	**83,682.53**	80,831.63
Retained earnings	**3,022.42**	2,508.57
Reserve for equity instruments through OCI	**(8.94)**	7.80
Total	**97,513.61**	93,532.31

(a) **Capital reserve**

₹ Crore

Particulars	For the year ended 31 March 2019	For the year ended 31 March 2018
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 a erstwhile JV project. There is no movement in the capital reserve balance during the year.

(b) Securities premium

₹ Crore

Particulars	For the year ended 31 March 2019	For the year ended 31 March 2018
Opening balance and closing balance	**2,228.46**	2,228.46

Securities premium is used to record the premium on issue of shares/securities. This amount is utilised in accordance with the provisions of the Companies Act, 2013. There is no movement in the balance of securities premium during the year.

(c) Bonds/Debentures redemption reserve

₹ Crore

Particulars	For the year ended 31 March 2019	For the year ended 31 March 2018
Opening balance	**7,274.56**	5,961.81
Add: Transfer from retained earnings	**1,732.37**	1,637.75
Less: Transfer to retained earnings	**1,104.50**	325.00
Closing balance	**7,902.43**	7,274.56

In accordance with applicable provisions of the Companies Act, 2013 read with Rules and as per decision of Board of Directors, the Company has created Debenture Redemption Reserve out of profits of the Company @ 50% of the value of debentures on a prudent basis, every year in equal installments till the year prior to the year of redemption of debentures/bonds for the purpose of redemption of debentures/bonds.

(d) Fly ash utilisation reserve fund

₹ Crore

Particulars	For the year ended 31 March 2019	For the year ended 31 March 2018
Opening balance	**631.21**	556.68
Add: Transferred during the year:		
Revenue from operations	**172.02**	131.02
Other income	**40.65**	26.74
Less: Utilised during the year:		
Capital expenditure	**1.42**	13.07
Employee benefits expense	**18.42**	19.02
Other administration expenses	**187.41**	51.14
Closing balance	**636.63**	631.21

Pursuant to Gazette Notification dated 3 November 2009, issued by the Ministry of Environment and Forest (MOEF), Government of India (GOI), the amount collected from sale of fly ash and fly ash based products should be kept in a separate account head and shall be utilised only for the development of infrastructure or facility, promotion & facilitation activities for use of fly ash until 100 percent fly ash utilisation level is achieved.

During the year, proceeds of ₹**172.02 crore** (31 March 2018: ₹ 131.02 crore) from sale of ash/ash products, ₹ **40.65 crore** (31 March 2018: ₹ 26.74 crore) towards income on investment have been transferred to fly ash utilisation reserve fund. An amount of ₹ **207.25 crore** (31 March 2018: ₹ 83.23 crore) has been utilised from the fly ash utilisation reserve fund on expenses incurred for activities as specified in the aforesaid notification of MOEF.

The fund balance of ₹ **636.63 crore** (31 March 2018: ₹ 631.21 crore) has been kept in 'Bank balances other than cash & cash equivalents' (Note 14). Refer Note 18 & 65 for ash transportation cost.

(e) General reserve

₹ Crore

Particulars	For the year ended 31 March 2019	For the year ended 31 March 2018
Opening balance	80,831.63	76,831.63
Add : Transfer from retained earnings	4,500.00	4,000.00
Less : Utilised for issuance of Bonus Shares	1,649.10	-
Closing balance	83,682.53	80,831.63

General reserve is used from time to time to transfer profits from retained earnings for appropriation purposes. The Company has issued 1,64,90,92,880 equity shares of ₹ 10/- each as fully paid bonus shares during the year ended 31 March 2019 (31 March 2018: Nil) in the ratio of one equity share of ₹ 10/- each for every five equity shares held.

(f) Retained earnings

₹ Crore

Particulars	For the year ended 31 March 2019	For the year ended 31 March 2018
Opening balance	2,508.57	2,342.11
Add: Profit for the year as per statement of profit and loss	11,749.89	10,343.17
Transfer from bonds/debentures redemption reserve	1,104.50	325.00
Less: Transfer to bonds/debentures redemption reserve	1,732.37	1,637.75
Transfer to general reserve	4,500.00	4,000.00
Final dividend paid	1,970.67	1,789.27
Tax on final dividend paid	400.96	358.15
Interim dividend paid	2,951.88	2,251.01
Tax on interim dividend paid	599.53	458.25
	3,207.55	2,515.85
Items of other comprehensive income recognised directly in retained earnings:		
- Net actuarial gains/(losses) on defined benefit plans (net of tax)	(185.13)	(7.28)
Closing balance	3,022.42	2,508.57

Retained Earnings are the profits of the Company earned till date net of appropriations.

(g) Reserve for equity instruments through OCI

₹ Crore

Particulars	For the year ended 31 March 2019	For the year ended 31 March 2018
Opening balance	7.80	15.00
Add: Fair value gain/(loss) on equity instruments for the year	(16.74)	(7.20)
Closing balance	(8.94)	7.80

The Company has elected to recognise 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 derecognised.

21. Non-current financial liabilities -Borrowings

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
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)[X]	**188.96**	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)[X]	**171.72**	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**	322.04
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)[VII]	**319.80**	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)[VII]	**410.22**	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)[XII]	**4,010.36**	4,010.35
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)[XI]	**720.46**	720.59
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)[X]	**133.46**	133.45
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)[X]	**49.90**	49.89
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**	105.67
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) [XIII]	**4,068.88**	-
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)[VII]	**256.04**	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)[VII]	**93.69**	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)[XI]	**696.67**	696.79
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)[XI]	**836.51**	836.49

Particulars	As at 31 March 2019	As at 31 March 2018
		₹ Crore
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)[XI]	**1,072.80**	1,072.78
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)[XI]	**511.81**	511.79
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)[X]	**111.99**	111.97
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)[X]	**68.19**	68.17
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)[VIII]	**313.11**	313.11
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)[VIII]	**1,047.48**	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]	**751.34**	751.15
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**	75.45
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)[VII]	**499.83**	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)[VII]	**213.84**	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)[VII]	**542.07**	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]	**50.02**	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)[VII]	**217.46**	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)[IX]	**10,323.61**	10,321.21
8.73% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each redeemable at par in full on 7 March 2023 (Forty Eighth Issue - Private Placement)[VII]	**301.79**	301.79
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]	**508.14**	508.14

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
8.84% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each redeemable at par in full on 4 October 2022 (Forty Seventh Issue - Private Placement)[VII]	**406.91**	406.91
6.72% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each redeemable at par in full on 24 November 2021 (Sixty Fifth Issue - Private Placement)[XI]	**716.09**	716.30
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)[X]	**1,145.73**	1,145.48
8.33% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each redeemable at par in full on 24 February 2021 (Fifty Ninth Issue - Private Placement)[XI]	**660.12**	659.93
8.93% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each redeemable at par in full on 19 January 2021 (Thirty Seventh Issue - Private placement)[II]	**317.17**	317.17
8.18% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each redeemable at par in full on 31 December 2020 (Fifty Eight Issue - Private Placement)[XI]	**306.02**	305.90
8.73% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each redeemable at par in full on 31 March 2020 (Thirty Third Issue- Private Placement)[III]	**209.97**	209.97
8.78% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each redeemable at par in full on 9 March 2020 (Thirty First Issue- Private Placement)[III]	**531.27**	531.27
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]	**368.12**	368.02
7.89% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each redeemable at par in full on 5 May 2019 (Thirtieth Issue - Private Placement)[III]	**701.82**	701.82
8.65% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each redeemable at par in full on 4 February 2019 (Twenty Ninth Issue - Private Placement)[III]	-	552.87
7.50% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each redeemable at par in full on 12 January 2019 (Nineteenth Issue - Private Placement)[II]	-	50.92
11.00% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each redeemable at par in full on 21 November 2018 (Twenty Eighth Issue - Private Placement)[III]	-	1,027.12
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)[VII]	**74.75**	80.09
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)[VII]	**74.80**	80.14
8.00% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each redeemable at par in full on 10 April 2018 (Sixteenth Issue -Private Placement)[I]	-	103.33

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
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]	**69.37**	74.70
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]	**69.56**	74.92
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]	**69.51**	74.86
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]	**97.20**	104.68
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]	**63.99**	69.33
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]	**63.84**	69.16
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]	**102.12**	110.63
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]	**127.59**	138.22
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]	**81.95**	89.40
9.37% Secured non-cumulative non-convertible redeemable taxable bonds of ₹70,00,000/- each with fourteen separately transferable redeemable principal parts (STRPP) redeemable at par semi-annually commencing from 4 June 2012 and ending on 4 December 2018 (Twenty Fifth Issue - Private Placement)[III]	**-**	73.13

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
9.06% Secured non-cumulative non-convertible redeemable taxable bonds of ₹70,00,000/- each with fourteen separately transferable redeemable principal parts (STRPP) redeemable at par semi-annually commencing from 4 June 2012 and ending on 4 December 2018 (Twenty Sixth Issue - Private Placement)[III]	-	73.06
8.6077% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 20,00,000/- each with twenty equal separately transferable redeemable principal parts (STRPP) redeemable at par semi-annually commencing from 9 September 2011 and ending on 9 March 2021 (Twenty Fourth Issue - Private Placement)[IV]	**102.12**	153.15
8.3796% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 20,00,000/- each with twenty equal separately transferable redeemable principal parts (STRPP) redeemable at par semi-annually commencing from 5 August 2011 and ending on 5 February 2021 (Twenty Third Issue - Private Placement)[IV]	**102.07**	153.06
8.1771% Secured non-cumulative non-convertible redeemable taxable bonds of ₹20,00,000/- each with twenty equal separately transferable redeemable principal parts (STRPP) redeemable at par semi-annually commencing from 2 July 2011 and ending on 2 January 2021 (Twenty Second Issue - Private Placement)[IV]	**102.02**	152.99
7.7125% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 20,00,000/- each with twenty equal separately transferable redeemable principal parts (STRPP) redeemable at par semi-annually commencing from 2 August 2010 and ending on 2 February 2020 (Twenty First Issue - Private Placement)[V]	**101.90**	203.76
7.552% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 20,00,000/- each with twenty equal separately transferable redeemable principal parts (STRPP) redeemable at par semi-annually commencing from 23 September 2009 and ending on 23 March 2019 (Twentieth Issue - Private Placement)[VI]	-	50.92
	35,659.44	33,846.07
Foreign currency notes		
Unsecured		
4.500 % Fixed rate notes due for repayment on 19 March 2028	**2,771.92**	2,603.86
2.750 % Fixed rate notes due for repayment on 1 February 2027	**3,937.18**	4,045.23
4.250 % Fixed rate notes due for repayment on 26 February 2026	**3,482.35**	3,271.97
4.375 % Fixed rate notes due for repayment on 26 November 2024	**3,541.49**	3,331.35
4.750 % Fixed rate notes due for repayment on 3 October 2022	**3,570.43**	3,281.50
7.250 % Fixed global INR denominated bonds due for repayment on 3 May 2022	**2,127.39**	2,126.07
7.375 % Fixed green global INR denominated bonds due for repayment on 10 August 2021	**2,087.83**	2,085.26
5.625 % Fixed rate notes due for repayment on 14 July 2021	**3,530.47**	3,320.98
	25,049.06	24,066.22
Term loans		
From Banks		
Unsecured		
Foreign currency loans	**10,245.60**	8,499.07
Rupee term loans	**47,237.27**	37,790.81
From Others		
Unsecured		
Foreign currency loans (guaranteed by GOI)	**1,893.26**	2,033.65
Other foreign currency loans	**2,966.25**	3,466.13
Rupee term loans	**5,570.58**	6,472.96

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
Finance lease obligations		
Secured	**1.40**	1.42
Unsecured	**185.01**	182.92
	1,28,807.87	1,16,359.25
Less:		
Current maturities of		
Bonds-secured	**1,782.00**	2,209.00
Foreign currency loans from banks - unsecured	**2,568.74**	694.16
Rupee term loans from banks - unsecured	**1,726.61**	1,859.89
Foreign currency loans from others - unsecured (guaranteed by GOI)	**185.95**	181.85
Other foreign currency loans from others - unsecured	**534.48**	529.01
Rupee term loans from others - unsecured	**898.52**	898.52
Finance lease obligations - secured	**0.75**	0.72
Finance lease obligations - unsecured	**35.35**	33.54
Interest accrued but not due on borrowings	**1,377.39**	1,254.96
Total	**1,19,698.08**	1,08,697.60

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 15 to 24 semi annual installments as of 31 March 2019.

ii) Unsecured foreign currency loans – Banks include loans of ₹ **243.97 crore** (31 March 2018: ₹ 352.80 crore) which carry fixed rate of interest of 1.88% p.a. to 4.31% p.a. and loans of ₹ **10,001.63 crore** (31 March 2018: ₹ 8,146.27 crore) which carry floating rate of interest linked to 6M USD LIBOR/6M JPY LIBOR. These loans are repayable in 2 to 19 semi-annual/annual installments as of 31 March 2019, commencing after moratorium period if any, as per the terms of the respective loan agreements.

iii) Unsecured foreign currency loans – Others include loans of ₹ **2,906.14 crore** (31 March 2018: ₹ 3,342.55 crore) which carry fixed rate of interest ranging from 1.88% p.a. to 4.31% p.a and loans of ₹ **60.11 crore** (31 March 2018: ₹ 123.58 crore) which carry floating rate of interest linked to 6M EURIBOR. These loans are repayable in 2 to 20 semi annual installments as of 31 March 2019, commencing after moratorium period if any, as per the terms of the respective loan agreements.

iv) Unsecured rupee term loans carry interest rate ranging from 6.571% p.a. to 8.50% p.a. with monthly/half-yearly rests. These loans are repayable in quarterly/half-yearly/yearly installments as per the terms of the respective loan agreements. The repayment period extends from a period of 7 to 15 years after a moratorium period of 3 to 6 years.

b) The finance lease obligations are repayable in installments as per the terms of the respective lease agreements generally over a period of 4 to 99 years.

c) There has been no default in repayment of any of the loans or interest thereon as at the end of the year.

<u>Details of securities</u>

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.

II Secured by (I) English mortgage, on first pari-passu charge basis, of the office premises of the Company at Mumbai and (II) Hypothecation of all the present and future movable assets (excluding receivables) of Singrauli Super Thermal Power Station, Anta Gas Power Station, Auraiya Gas Power Station, Barh Super Thermal Power Project, Farakka Super Thermal Power Station, Kahalgaon Super Thermal Power Station, Koldam Hydel Power Project, Simhadri Super Thermal Power Project, Sipat Super Thermal Power Project, Talcher Thermal Power Station, Talcher Super Thermal Power Project, Tanda Thermal Power Station, Vindhyachal Super Thermal Power Station, National Capital Power Station, Dadri Gas Power Station, Feroze Gandhi Unchahar Power Station and Tapovan-Vishnugad Hydro Power Project as first charge, ranking pari-passu with charge, if any, already created in favour of the Company's Bankers on such movable assets hypothecated to them for working capital requirement.

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 (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 the title deeds of the immovable properties pertaining to Sipat Super Thermal Power Project.

V Secured by (I) English mortgage, on first pari-passu charge basis, of the office premises of the Company at Mumbai, (II) Hypothecation of all the present and future movable assets (excluding receivables) of Barh Super Thermal Power Project on first pari-passu charge basis, ranking pari passu with charge already created in favour of Trustee for other Series of Bonds and (III) Equitable mortgage of the immovable properties, on first pari-passu charge basis, pertaining to Ramagundam Super Thermal Power Station by extension of charge already created.

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, by way of first charge, by deposit of title deeds of the immovable properties pertaining to Ramagundam Super Thermal Power Station.

VII 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 by extension of charge already created.

VIII Secured by English mortgage of the immovable properties pertaining to Solapur Super Thermal Power Project on first charge basis.

IX Secured by Equitable mortgage of the immovable properties pertaining to Barh Super Thermal Power Project on first charge basis.

X Secured by English mortgage, on pari-passu charge basis, of the immovable properties pertaining to Solapur Super Thermal Power Project.

XI Secured by Equitable mortgage, on pari-passu charge basis, of the immovable properties pertaining to Barh Super Thermal Power Project.

XII Secured by Equitable mortgage of the immovable properties pertaining to Vindhyachal Super Thermal Power Station on first charge basis.

XIII Secured by Equitable mortgage, on pari-passu charge basis, of the immovable properties pertaining to Vindhyachal Super Thermal Power Station.

XIV Security cover mentioned at Sl. No. I to XIII is above 100% of the debt securities outstanding.

22. Non-current financial liabilities - Trade payables

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
Trade payable for goods and services		
Total outstanding dues of		
- micro and small enterprises	**6.41**	5.49
- creditors other than micro and small enterprises	**41.76**	17.82
Total	**48.17**	23.31

a) Disclosures as required under Companies Act, 2013 / Micro, Small and Medium Enterprises Development Act,2006 (MSMED) are provided in Note 67.

b) Amounts payable to related parties are disclosed in Note 53.

23. Non-current liabilities - Other financial liabilities

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
Payable for capital expenditure		
- micro and small enterprises	**10.85**	9.99
- other than micro and small enterprises	**1,245.07**	1,960.72

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
Deposits from contractors and others	1.64	1.72
Others	56.73	192.26
Total	**1,314.29**	2,164.69

a) Disclosures as required under Companies Act, 2013 / MSMED Act, 2006 are provided in Note 67.

b) Others mainly include amount payable to the Department of Water Resource, Government of Odisha pursuant to the Resolution No. 11011 dated 18 May 2015.

c) Amounts payable to related parties are disclosed in Note 53.

24. Non-current liabilities - Provisions

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
Provision for employee benefits	**588.74**	480.90

Disclosures as per Ind AS 19 'Employee benefits' are provided in Note 50.

25. Non-current liabilities - Deferred tax liabilities (net)

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
Deferred tax liability		
Difference in book depreciation and tax depreciation	**14,536.74**	11,996.40
Less: Deferred tax assets		
Provisions	**1,455.48**	1,103.19
Statutory dues	**277.25**	542.84
Leave encashment	**321.28**	273.35
MAT credit entitlement	**8,257.38**	-
Others	**25.21**	29.86
Total	**4,200.14**	10,047.16

a) Deferred tax assets and deferred tax liabilities have been offset as they relate to the same governing laws.

b) During the year, the Company has recognised MAT credit available to the Company in future amounting to ₹ **8,257.38 crore** (31 March 2018: ₹ Nil) as the same is likely to give future economic benefits in the form of availability of set off against future income tax liability. Out of the above, an amount of ₹**7,615.10 crore** (31 March 2018: ₹ Nil) has been recognised as payable to beneficiaries through regulatory deferral account balances.(Also refer Note 18 (c))

c) Refer Note 18(b) and 47(A) for reclassification of deferred asset for deferred tax liability as per Ind AS 8, 'Accounting Policies, Changes in Accounting Estimates and Errors' and Ind AS 1, 'Presentation of financial statements'.

d) Disclosures as per Ind AS 12, 'Income Taxes' are provided in Note 48.

Movement in deferred tax balances

As at 31 March 2019

₹ Crore

Particulars	**Net balance As at 1 April 2018**	**Recognised in statement of profit and loss**	**Recognised in OCI**	**Others**	**Net balance As at 31 March 2019**
Deferred tax liability					
Difference in book depreciation and tax depreciation	**11,996.40**	**2,646.65**	-	**(106.31)**	**14,536.74**
Less: Deferred tax assets					
Provisions	**1,103.19**	**353.43**	-	**(1.14)**	**1,455.48**
Statutory dues	**542.84**	**(265.59)**	-	-	**277.25**
Leave encashment	**273.35**	**47.93**	-	-	**321.28**
MAT credit entitlement	-	**8,257.38**	-	-	**8,257.38**
Others	**29.86**	**21.33**	-	**(25.98)**	**25.21**
Net tax (assets)/liabilities	**10,047.16**	**(5,767.83)**	-	**(79.19)**	**4,200.14**

As at 31 March 2018

₹ Crore

Particulars	Net balance As at 1 April 2017	Recognised in statement of profit and loss	Recognised in OCI	Others	Net balance As at 31 March 2018
Deferred tax liability					
Difference in book depreciation and tax depreciation	8,444.46	3,543.71	-	8.23	11,996.40
Less: Deferred tax assets					
Provisions	1,017.38	84.60	-	1.21	1,103.19
Statutory dues	490.63	51.58	-	0.63	542.84
Leave encashment	430.69	(157.34)	-	-	273.35
Others	93.08	(66.77)	-	3.55	29.86
Net tax (assets)/liabilities	6,412.68	3,631.64	-	2.84	10,047.16

26. Current financial liabilities -Borrowings

₹ Crore

Particulars	**As at 31 March 2019**	As at 31 March 2018
Loans repayable on demand		
From banks		
Unsecured		
Cash credit	**2.90**	0.32
Other loans		
Unsecured		
Commercial paper	**15,500.00**	6,500.00
Total	**15,502.90**	6,500.32

There has been no default in repayment of any of the loans or interest thereon as at the end of the year.

27. Current financial liabilities - Trade payables

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
Trade payable for goods and services		
Total outstanding dues of		
- micro and small enterprises	**353.41**	276.11
- creditors other than micro and small enterprises	**7,197.53**	5,316.53
Total	**7,550.94**	5,592.64

a) Disclosures as required under Companies Act, 2013 / MSMED Act, 2006 are provided in Note 67.
b) Amounts payable to related parties are disclosed in Note 53.

28. Current liabilities - Other financial liabilities

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
Current maturities of non-current borrowings		
Bonds - Secured	**1,782.00**	2,209.00
From Banks		
Unsecured		
Foreign currency loans	**2,568.74**	694.16
Rupee term loans	**1,726.61**	1,859.89
From Others		
Unsecured		
Foreign currency loans (guaranteed by GOI)	**185.95**	181.85
Other foreign currency loans	**534.48**	529.01
Rupee term loans	**898.52**	898.52
	7,696.30	6,372.43
Current maturities of finance lease obligations - Secured	**0.75**	0.72
Current maturities of finance lease obligations - Unsecured	**35.35**	33.54
Interest accrued but not due on borrowings	**1,377.39**	1,254.96
Unpaid dividends	**17.69**	16.51
Unpaid matured deposits and interest accrued thereon	**0.19**	0.19
Unpaid matured bonds and interest accrued thereon	**5.01**	4.20
Unpaid bond refund money-Tax free bonds	**0.26**	0.26
Book overdraft	**10.54**	1.29
Payable to customers	**162.27**	358.08
Payable for capital expenditure		
- micro and small enterprises	**216.84**	159.23
- other than micro and small enterprises	**13,393.09**	11,654.74
Hedging gain payable to beneficiaries	**7.21**	6.27
Other payables		
Deposits from contractors and others	**190.69**	162.95
Payable to employees	**772.08**	735.95
Payable to solar Payment Security Fund	**25.89**	10.33
Others	**990.72**	637.33
Total	**24,902.27**	21,408.98

a) 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 21.

b) 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 Investor Education and Protection Fund has been transferred.

c) 'Other payables - Others' mainly includes ₹ **472.27 crore** (31 March 2018: ₹ 263.10 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 ₹ **319.74 crore** (31 March 2018: ₹ 211.49 crore) payable to the Department of Water Resource, Government of Odisha and amount payable to hospitals, parties for stale cheques etc.

d) 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.

e) Disclosures as required under the Companies Act, 2013 / MSMED Act, 2006 are provided in Note 67.

f) Amounts payable to related parties are disclosed in Note 53.

29. Current liabilities - Other current liabilities

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
Advances from customers and others	**183.45**	454.33
Other payables		
Statutory dues	**500.89**	509.66
Total	**684.34**	963.99

(a) Advance received for the DDUGJY (including interest thereon) of ₹ **58.28 crore** (31 March 2018: ₹ 313.97 crore) is included in 'Advance from customers and others'. Refer Note 28 (c). Tax deducted at source on the interest is included in 'Advance tax and tax deducted at source' - Note 10.

30. Current liabilities - Provisions

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
Provision for		
Employee benefits	**1,244.92**	2,936.65
Obligations incidental to land acquisition	**3,499.74**	3,465.00
Tariff adjustment	**98.77**	330.10
Others	**1,996.93**	1,357.08
Total	**6,840.36**	8,088.83

a) Disclosures required by Ind AS 19, 'Employee Benefits' are provided in Note 50.

b) Disclosures required by Ind AS 37, 'Provisions, Contingent Liabilities and Contingent Assets' are provided in Note 57.

c) Provision for employee benefits as of 31 March 2018 included an amount of ₹ 1203.28 crore towards revision of payscales of employees which has been used during the year.

d) Provision for others mainly comprise ₹ **85.14 crore** (31 March 2018: ₹ 73.15 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 60), ₹ **1,908.43 crore** (31 March 2018: ₹ 1,279.31 crore) towards provision for cases under litigation and ₹ **3.36 crore** (31 March 2018: ₹ 4.62 crore) towards provision for shortage in property, plant and equipment on physical verification pending investigation.

31. Deferred revenue

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
On account of		
Advance against depreciation	-	74.35
Income from foreign currency fluctuation	**1,602.20**	1,435.35
Government grants	**537.17**	576.20
Total	**2,139.37**	2,085.90

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) In line with significant accounting policy no. C.15 (Note 1), an amount of ₹ **74.35 crore** (31 March 2018: ₹ 297.91 crore) has been recognised during the year from the AAD and included in energy sales (Note 32). The AAD recognised during the previous year includes ₹ 125.24 crore for the tariff period 2004-09 in respect of one of the stations as per CERC order dated 18 July 2017 which was recognised as energy sales during that year.

c) 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 recognising 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 no. C.15 (Note 1). This amount will be recognised 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.

d) Government grants include ₹ **535.38 crore** (31 March 2018: ₹ 575.93 crore) received from Solar Energy Corporation of India under MNRE Scheme for setting up Solar PV power projects.

32. Revenue from operations

₹ Crore

Particulars		For the year ended 31 March 2019	For the year ended 31 March 2018
Energy sales (including electricity duty)		**86,420.90**	79,673.58
Sale of energy through trading		**2,894.74**	1,439.58
Consultancy, project management and supervision fee		**215.96**	182.80
Lease rentals on assets on operating lease		**233.63**	233.13
		89,765.23	81,529.09
Sale of fly ash/ash products	**172.02**		131.02
Less: Transferred to fly ash utilisation reserve fund	**172.02**		131.02
		-	-
Other operating revenues			
Interest from beneficiaries		**90.02**	487.54
Energy internally consumed		**64.07**	63.41
Interest income on assets under finance lease		**70.84**	166.52
Recognised from deferred revenue - government grant		**40.58**	36.00
Sale of energy saving certificates		-	11.17
Provisions for tariff adjustments written back		**276.69**	1,158.97
		542.20	1,923.61
Total		**90,307.43**	83,452.70

a) (i) The CERC notified the Tariff Regulations, 2014 in February 2014 (Regulations, 2014). The CERC has issued tariff orders for all the stations except five stations for the period 2014-19, under Regulations, 2014, and beneficiaries are billed based on such tariff orders issued by the CERC. For other stations, beneficiaries are billed in accordance with the principles given in the Regulations, 2014. The energy charges in respect of the coal based stations are provisionally billed based on the GCV of coal 'As received', measured at wagon top samples in respect of most of the stations barring a few on the grounds of safety issues, for the quantity supplied through conveyors/road and other difficulties. The amount provisionally billed is ₹ **88,278.09 crore** (31 March 2018: ₹ 79,231.07 crore).

(ii) The Company filed a writ petition before the Hon'ble High Court of Delhi contesting certain provisions of the Regulations, 2014 including issue relating to the measurement of GCV. As per directions from the Hon'ble High Court on the issue of point of sampling for measurement of GCV of coal on 'As received' basis, CERC issued an order dated 25 January 2016 that samples for measurement of coal on 'As received' basis should be collected from wagon top at the generating stations. Consequent to this order, wagon top Sampling for measurement of 'As received' GCV was implemented at NTPC Stations w.e.f 1 October 2016. Thereafter the company approached the CERC with the difficulties being faced in implementation of said order through Petition No. 244/MP/2016 seeking inter-alia a margin in the GCV measured at wagon Top. This petition is pending in CERC.

Pending disposal of the petition by the CERC for the tariff period 2014-19, measurement of GCV of coal is being done from wagon top samples in respect of most of the stations barring a few on the grounds of safety issues, for the quantity supplied through conveyors/ road and other difficulties.

The Writ Petition filed in Hon'ble High Court of Delhi was withdrawn without prejudice to the rights and contentions of the Company in the above petition pending before the CERC for adjustments of loss of GCV relating to the period 2014-19. Subsequently, in the Tariff Regulation for the tariff period 2019-24, CERC has allowed a compensation of 85 kcal/kg on the Weighted Average GCV of coal 'as received' on account of compensation during storage at the generating stations.

(iii) Sales have been provisionally recognised at ₹ **89,007.64 crore** (31 March 2018: ₹ 79,683.50 crore) on the said basis.

b) Sales include ₹ **0.02 crore** (31 March 2018: ₹ 210.33 crore) on account of income tax refundable to the beneficiaries as per Regulations, 2004. Sales also include ₹ **82.68 crore** (31 March 2018: ₹ 66.98 crore) on account of deferred tax materialised which is recoverable from beneficiaries as per Regulations, 2014.

c) Sales include (-) ₹ **2,775.82 crore** (31 March 2018: ₹ 6.44 crore) pertaining to previous years recognised based on the orders issued by the CERC/Appellate Tribunal for Electricity (APTEL). This includes reversal of sales amounting to ₹ 2,926.47 crore in respect of one of the stations, considering the directions issued by the CERC and subsequent developments as detailed in Note 32 d) below.

d) The commercial operation date (COD) of one of the stations of the Company declared by the Company as 14 November 2014 was challenged by one of its beneficiaries. CERC vide order dated 20 September 2017, directed to consider the COD of the said unit as 8 March 2016 in place of 14 November 2014. The CERC further directed that the revenue earned over and above fuel cost from sale of infirm power from 15 November 2014 to 7 March 2016, be adjusted in the capital cost of the said unit. The Company filed an appeal against this order in APTEL on 11 October 2017. Pending disposal of the appeal and considering the said order of the CERC, sales for the year 2017-18 was recognised as per CERC order and provision for tariff adjustment was made for the sales recognised till March 2017.

On 25 January 2019, APTEL disposed off the Company's appeal by upholding the said CERC order. Further, the Company's appeal against the said CERC order has also been dismissed by the Hon'ble Supreme Court of India on 5 April 2019.

Consequently, provision for tariff adjustment amounting to ₹ 276.69 crores, expenditure of ₹ 2,708.88 crore and sales of ₹ 2,926.47 crore for the period from 15 November 2014 to 31 March 2018 have been reversed and related adjustment have been carried out in the property, plant and equipment (Note-2) during the year. This has resulted in increase in profit for the year by ₹ 59.10 crore and reduction in PPE amounting to ₹ 499.37 crore.

e) Energy sales include electricity duty amounting to ₹ **904.35 crore** (31 March 2018: ₹879.77 crore).

f) Energy sales are net of rebate to beneficiaries amounting to ₹ **815.80 crore** (31 March 2018: ₹752.78 crore).

g) Other operating revenue includes ₹ **64.07 crore** (31 March 2018: ₹ 63.41 crore) towards energy internally consumed, valued at variable cost of generation and the corresponding amount is included in power charges in Note 37.

h) 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/pay from/to the beneficiaries the under/over recovered amount along-with simple interest. Accordingly, the interest recoverable from the beneficiaries amounting to ₹ **90.02 crore** (31 March 2018: ₹ 487.54 crore) has been accounted as 'Interest from beneficiaries'. Further, the amount payable to the beneficiaries has been accounted as 'Interest to beneficiaries' in Note 37.

i) Keeping in view the provisions of Appendix C to Ind AS-17 on Leases w.r.t. determining whether an arrangement contains a lease, the Company has ascertained that the PPA entered into for two of the power stations of the Company fall under the definition of operating lease. Recovery of capacity charges towards depreciation (including AAD), interest on loan capital & return on equity (pre-tax) components from the beneficiaries are considered as lease rentals on the assets which are on operating lease.

j) Keeping in view the provisions of Appendix C to Ind AS-17 on Leases w.r.t. determining whether an arrangement contains a lease, the Company has 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 has been derecognised from PPE and accounted as Finance Lease Receivable (FLR). Recovery of capacity charges towards depreciation (including AAD), interest on loan capital & return on equity (pre-tax) components from the beneficiary are 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 recognised as 'Interest income on Assets under finance lease'.

33. Other income

₹ Crore

Particulars		For the year ended 31 March 2019	For the year ended 31 March 2018
Interest from			
Financial assets at amortised cost			
Loan to subsidiary companies		**24.30**	16.82
Loan to employees		**64.81**	59.35
Deposits with banks		**39.87**	91.88
Deposits with banks out of fly ash utilisation reserve fund	**40.65**		26.74
Less : Transferred to fly ash utilisation reserve fund	**40.65**		26.74
		-	-
Deposits with banks - DDUGJY funds	**27.04**		27.83
Less : Transferred to DDUGJY advance from customers	**27.04**		27.83
		-	-
Advance to contractors		**41.83**	38.48
Income tax refund	-		2,750.44
Less : Refundable to beneficiaries	-		2,344.75
		-	405.69
Others		**24.82**	19.24
Dividend from			
Non-current investments in			
Subsidiary companies		**20.00**	50.00
Joint venture companies		**99.39**	135.57
Equity instruments designated at fair value through OCI		**4.80**	3.60
Other non-operating income			
Late payment surcharge from beneficiaries		**1,299.28**	507.00
Hire charges for equipment		**1.56**	2.50
Sale of scrap		**123.26**	136.90
Gain on sale of current investments measured at fair value through profit or loss		**3.48**	137.51
Miscellaneous income		**138.84**	161.35
Profit on de-recognition of property, plant and equipment		**2.72**	2.37
Provisions written back			
Impairment of investments		-	26.15
Doubtful loans, advances and claims		**20.39**	1.40
Obsolescence in stores		**4.17**	10.61
Others		**14.97**	3.33
		1,928.49	1,809.75
Less: Transferred to expenditure during construction period (net) - Note 38		**50.07**	49.36
Transferred to expenditure during development of coal mines (net) - Note 39		**6.29**	5.14
Total		**1,872.13**	1,755.25

a) 'Interest from others' includes interest on advance to APIIC for drawal of water and deposits with LIC towards annuity to the land losers.

b) Miscellaneous income includes income from township recoveries and receipts towards insurance claims.

c) 'Provisions written back - Others' include provision for shortage in stores and shortage in property, plant and equipment.

34. Employee benefits expense

₹ Crore

Particulars	For the year ended 31 March 2019	For the year ended 31 March 2018
Salaries and wages	**4,837.92**	4,845.85
Contribution to provident and other funds	**758.69**	623.43
Staff welfare expenses	**595.92**	558.99
	6,192.53	6,028.27
Less: Allocated to fuel cost	**274.56**	265.29
Transferred to expenditure during construction period (net)- Note 38	**903.26**	851.39
Transferred to expenditure during development of coal mines (net) - Note 39	**97.10**	72.41
Transferred to fly ash utilisation reserve fund	**18.42**	19.02
Reimbursements for employees on deputation	**119.30**	85.49
Total	**4,779.89**	4,734.67

a) Disclosures as per Ind AS 19, 'Employee Benefits' in respect of provision made towards various employee benefits are provided in Note 50.

b) Subsequent to issue of Presidential Directive to the Company on 10 May 2018, the revision of pay scales of employees has been implemented in the Company w.e.f. 1 January 2017 and the special allowance which was hitherto paid by the Company to eligible employees serving in difficult and far flung area, has been discontinued.

35. Finance costs

₹ Crore

Particulars	For the year ended 31 March 2019	For the year ended 31 March 2018
Finance costs on financial liabilities measured at amortised cost		
Bonds	**2,762.43**	2,793.01
Foreign currency term loans	**411.07**	345.52
Rupee term loans	**4,016.98**	3,246.43
Foreign currency bonds/notes	**1,314.71**	1,087.98
Cash credit	**60.15**	3.70
Unwinding of discount on vendor liabilities	**99.58**	286.84
Discount on commercial papers	**553.91**	62.57
Others	**1.98**	1.73
	9,220.81	7,827.78
Exchange differences regarded as an adjustment to borrowing costs	**156.43**	274.05
Other borrowing costs		
Guarantee fee	**28.74**	28.97
Foreign currency bonds/notes expenses	**0.99**	0.22
Others	**9.79**	9.12
	39.52	38.31
Sub-total	**9,416.76**	8,140.14
Less: Transferred to expenditure during construction period (net) - Note 38	**4,430.26**	3,958.95
Transferred to expenditure during development of coal mines (net) - Note 39	**269.76**	196.94
Total	**4,716.74**	3,984.25

a) 'Other borrowing costs - Others' include bond issue and service expenses, commitment charges, exposure premium and insurance premium & other expenses on foreign currency loans.

36. Depreciation, amortisation and impairment expense

₹ Crore

Particulars	For the year ended 31 March 2019	For the year ended 31 March 2018
On property, plant and equipment - Note 2	**8,055.58**	7,807.06
On intangible assets - Note 4	**26.28**	24.76
	8,081.86	7,831.82
Less:		
Allocated to fuel cost	**453.29**	395.17
Transferred to expenditure during construction period (net) - Note 38	**117.71**	141.66
Transferred to expenditure during development of coal mines (net) - Note 39	**51.57**	40.09
Adjustment with deferred revenue from deferred foreign currency fluctuation	**204.93**	156.04
Total	**7,254.36**	7,098.86

37. Other expenses

₹ Crore

Particulars		For the year ended 31 March 2019	For the year ended 31 March 2018
Power charges	**842.98**		337.54
Less: Recovered from contractors and employees	**30.59**		28.88
		812.39	308.66
Water charges		**566.49**	841.12
Cost of captive coal		**786.40**	316.97
Stores consumed		**86.31**	73.61
Rent	**14.02**		29.41
Less: Recoveries	**0.47**		5.89
		13.55	23.52
Load dispatch centre charges		**34.01**	38.96
Repairs and maintenance			
Buildings	**268.26**		260.71
Plant and equipment	**2,443.04**		2,185.40
Others	**358.64**		308.86
		3,069.94	2,754.97
Insurance		**120.77**	116.24
Interest to beneficiaries		**-**	12.00
Rates and taxes		**99.40**	82.09
Water cess and environment protection cess		**3.96**	13.64
Training and recruitment expenses	**43.05**		50.55
Less: Receipts	**1.92**		0.52
		41.13	50.03
Communication expenses		**74.27**	51.71
Travelling expenses		**252.55**	199.08
Tender expenses	**6.84**		22.79
Less: Receipt from sale of tenders	**2.31**		1.65
		4.53	21.14

₹ Crore

Particulars		For the year ended 31 March 2019	For the year ended 31 March 2018
Payment to auditors		**4.40**	5.44
Advertisement and publicity		**20.52**	30.74
Electricity duty		**904.28**	881.51
Security expenses		**832.27**	710.85
Entertainment expenses		**56.76**	29.02
Expenses for guest house	**46.47**		35.94
Less: Recoveries	**0.69**		1.40
		45.78	34.54
Education expenses		**54.79**	52.19
Donation		**8.00**	8.00
Ash utilisation and marketing expenses		**342.60**	25.71
Directors sitting fee		**0.73**	0.34
Professional charges and consultancy fee		**84.57**	59.51
Legal expenses		**46.14**	44.83
EDP hire and other charges		**27.07**	22.04
Printing and stationery		**9.99**	10.96
Oil and gas exploration expenses		**0.47**	2.83
Hiring of vehicles		**102.40**	96.96
Reimbursement of LC charges on sales realisation		**0.01**	0.26
Net loss/(gain) in foreign currency transactions and translations		**(55.94)**	538.00
Cost of hedging		**(0.63)**	1.62
Derivatives MTM loss/(gain) (net)		**2.46**	(5.33)
Horticulture expenses		**54.74**	46.56
Hire charges of helicopter/aircraft		**12.36**	15.63
Hire charges of construction equipment		**11.52**	11.60
Transport vehicle running expenses		**7.58**	6.74
Demurrage charges		**0.40**	0.74
Loss on de-recognition of property, plant and equipment		**173.84**	110.67
Miscellaneous expenses		**181.21**	166.26
		8,894.02	7,811.96
Less: Allocated to fuel cost		**560.43**	490.57
Transferred to expenditure during construction period (net) - Note 38		**1,124.63**	532.92
Transferred to expenditure during development of coal mines (net) - Note 39		**857.75**	363.41
Transferred to derivative MTM loss/(gain) recoverable/(payable) from/to beneficiaries		**2.46**	(5.33)
Transferred to fly ash utilisation reserve fund		**187.41**	51.14
Transferred to corporate social responsibility expenses		**44.23**	39.60
		6,117.11	6,339.65
Corporate Social Responsibility (CSR) expenses		**281.45**	239.09

₹ Crore

Particulars	For the year ended 31 March 2019	For the year ended 31 March 2018
Provisions for		
Tariff adjustments	**45.36**	318.28
Impairment of investments	**162.42**	17.59
Obsolescence in stores	**35.98**	21.95
Shortages in stores	**98.83**	20.41
Unserviceable capital works	**53.60**	359.48
Unfinished minimum work programme for oil and gas exploration	**11.98**	4.92
Arbitration cases	**454.41**	56.05
Shortages in construction stores	**1.86**	12.41
Doubtful loans, advances and claims	**285.27**	28.67
Others	**0.36**	3.23
	1,150.07	842.99
Total	**7,548.63**	7,421.73

a) During the development stage of mine, transfer price of coal extracted from Company's captive mine has been determined considering the notified price of Coal India Ltd. for equivalent grade of coal. 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 39).

b) Details in respect of payment to auditors:

As auditor		
Audit fee	**1.76**	1.76
Tax audit fee	**0.61**	0.57
Limited review	**1.05**	0.97
In other capacity		
Other services (certification fee)	**0.63**	0.76
Reimbursement of expenses	**0.35**	1.38
Total	**4.40**	5.44

Payment to the auditors includes ₹ **0.24 crore** (31 March 2018: ₹ 0.33 crore) relating to earlier year.

c) 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 ₹ **Nil** (31 March 2018: ₹ 12.00 crore) has been accounted and disclosed as 'Interest to beneficiaries'.

d) Water charges include amount provided against the demand of ₹ **Nil** (31 March 2018: ₹ 305.55 crore) at one of the power stations by the state authority for earlier years.

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 arbitration cases include an amount of ₹ **394.07crore** (31 March 2018: ₹ Nil) pertaining to the dispute with the operator referred in Note 57 (iii) (b) estimated and provided against the award pronounced by the arbitral tribunal for which the Company has filed an appeal before Hon'ble High Court of Delhi.

g) Provisions for tariff adjustment include an amount of ₹ **Nil** (31 March 2018: ₹ 276.69 crore) pertaining to the period from 15 November 2014 to 31 March 2017 in respect of CERC order for shifting of COD of one of the stations of the Company. (Refer Note 32).

h) Provisions for shortages in stores include provision for shortage of coal observed on physical verification, beyond the Company's norms, amounting to ₹ **75.32 crore** (31 March 2018: ₹ 10.98 crore)

i) Provisions - Others include provision for doubtful debts and shortages in property, plant and equipment.

38. Expenditure during construction period (net) *

₹ Crore

Particulars		For the year ended 31 March 2019	For the year ended 31 March 2018
A. Employee benefits expense			
Salaries and wages		**727.58**	737.96
Contribution to provident and other funds		**102.76**	77.90
Staff welfare expenses		**72.92**	35.53
Total (A)		**903.26**	851.39
B. Finance costs			
Finance costs on financial liabilities measured at amortised cost			
Bonds		**1,260.04**	1,378.10
Foreign currency term loans		**193.27**	163.68
Rupee term loans		**2,106.39**	1,373.05
Foreign currency bonds/notes		**648.45**	531.03
Unwinding of discount on vendor liabilities		**81.75**	271.32
Exchange differences regarded as an adjustment to borrowing costs		**124.71**	233.64
Other borrowing costs			
Foreign currency bonds/notes expenses		**0.97**	0.15
Others		**14.68**	7.98
Total (B)		**4,430.26**	3,958.95
C. Depreciation and amortisation expense		**117.71**	141.66
D. Other expenses			
Power charges	**721.15**		232.33
Less: Recovered from contractors and employees	**6.06**		6.15
		715.09	226.18
Water charges		**1.76**	4.43
Rent		**2.29**	3.14
Repairs and maintenance			
Buildings	**3.91**		6.09
Plant and equipment	**0.66**		0.82
Others	**111.32**		48.07
		115.89	54.98
Insurance		**1.28**	0.51
Rates and taxes		**10.46**	9.80
Communication expenses		**11.26**	6.29
Travelling expenses		**46.33**	41.78
Tender expenses		**0.70**	2.49
Advertisement and publicity		**0.65**	2.91
Security expenses		**102.40**	80.94
Entertainment expenses		**6.10**	4.98
Expenses for guest house		**5.67**	3.96
Professional charges and consultancy fee		**12.32**	8.22
Legal expenses		**6.65**	8.83
EDP hire and other charges		**2.34**	2.10
Printing and stationery		**1.03**	1.44
Miscellaneous expenses		**82.41**	69.94
Total (D)		**1,124.63**	532.92

₹ Crore

Particulars	For the year ended 31 March 2019	For the year ended 31 March 2018
E. Less: Other income		
Interest from advances to contractors	**25.77**	22.31
Interest others	**14.64**	15.60
Hire charges for equipment	**1.14**	1.97
Sale of scrap	**4.04**	2.26
Miscellaneous income	**4.48**	7.22
Total (E)	**50.07**	49.36
F. Net actuarial losses on defined benefit plans	**(0.88)**	5.77
Grand total (A+B+C+D-E+F) **	**6,524.91**	5,441.33

* Other than for expenditure during development of coal mines- (Note 39)
** Carried to capital work-in-progress - (Note 3)

39. Expenditure during development of coal mines (net)

₹ Crore

Particulars		For the year ended 31 March 2019	For the year ended 31 March 2018
A. Employee benefits expense			
Salaries and wages		**77.11**	60.35
Contribution to provident and other funds		**9.44**	6.38
Staff welfare expenses		**10.55**	5.68
Total (A)		**97.10**	72.41
B. Finance costs			
Finance costs on financial liabilities measured at amortised cost			
Bonds		**67.56**	63.00
Rupee term loans		**201.97**	132.95
Unwinding of discount on vendor liabilities		**0.09**	0.62
Other borrowing costs - others		**0.14**	0.37
Total (B)		**269.76**	196.94
C. Depreciation and amortisation expense		**51.57**	40.09
D. Other expenses			
Power charges	**0.87**		0.72
Less: Recovered from contractors and employees	**0.13**		0.11
		0.74	0.61
Rent		**1.28**	1.03
Repairs and maintenance			
Buildings	**0.86**		0.63
Plant and equipment	**0.55**		0.25
Others	**2.42**		1.29
		3.83	2.17
Cost of captive coal		**785.42**	316.97
Insurance		**0.04**	0.02
Rates and taxes		**0.81**	0.50
Communication expenses		**1.96**	1.37

₹ Crore

Particulars	For the year ended 31 March 2019	For the year ended 31 March 2018
Travelling expenses	**5.52**	3.56
Tender expenses	**0.03**	0.16
Advertisement and publicity	**0.71**	0.56
Security expenses	**19.80**	14.94
Entertainment expenses	**0.91**	0.66
Expenses for guest house	**1.31**	0.61
Professional charges and consultancy fee	**7.51**	5.67
Legal expenses	**0.35**	0.76
EDP hire and other charges	**0.68**	0.55
Printing and stationery	**0.42**	0.26
Miscellaneous expenses	**26.43**	13.01
Total (D)	**857.75**	363.41
E. Less: Other income		
Interest from advances to contractors	**4.83**	4.03
Interest others	**1.20**	0.88
Miscellaneous income	**0.26**	0.23
Total (E)	**6.29**	5.14
F. Net actuarial losses on defined benefit plans	**(0.10)**	0.66
Grand total (A+B+C+D-E+F) *	**1,269.79**	668.37

* Carried to capital work-in-progress - (Note 3)

40. 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 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.

41. 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.

42. The environmental clearance ("clearance") granted by the Ministry of Environment and Forest, Government of India (MoEF) for one of the Company's project consisting of three units of 800 MW each, was challenged before the National Green Tribunal (NGT). The NGT disposed off the appeal, inter alia, directing that the order of clearance be remanded to the MoEF to pass an order granting or declining clearance to the project proponent afresh in accordance with the law and the judgement of the NGT and for referring the matter to the Expert Appraisal Committee ("Committee") for its re-scrutiny, which shall complete the process within six months from the date of NGT order. NGT also directed that the environmental clearance shall be kept in abeyance and the Company shall maintain status quo in relation to the project during the period of review by the Committee or till fresh order is passed by the MoEF, whichever is earlier. The Company filed an appeal challenging the NGT order before the Hon'ble Supreme Court of India which stayed the order of the NGT and the matter is sub-judice. All the three units of 800 MW each have since been declared commercial. Aggregate cost incurred on the project upto 31 March 2019 is ₹ **15,598.80 crore** (31 March 2018: ₹ 15,522.77 crore). Management is confident that the approval for the project shall be granted, hence no provision is considered necessary.

43. The Company is executing a hydro power project in the state of Uttrakhand, where all the clearances were accorded. A case was filed in Hon'ble Supreme Court of India after the natural disaster in Uttrakhand in June 2013 to review whether the various existing and ongoing hydro projects have contributed to environmental degradation. Hon'ble Supreme Court of India on 7 May 2014, ordered that no further construction shall be undertaken in the projects under consideration until further orders, which included the said hydro project of the Company. In the proceedings, Hon'ble Supreme Court is examining to allow few projects which have all clearances which includes the project of the Company where the work has been stopped. Aggregate cost incurred on the project up to 31 March 2019 is ₹ **163.33 crore** (31 March 2018: ₹ 163.23 crore). Management is confident that the approval for proceeding with the project shall be granted, hence no provision is considered necessary.

44. In compliance to order of Delhi Polution Control Committee (DPCC) dated 25 July 2018, operations of one of the power stations of the Company has been permanently discontinued w.e.f.15 October 2018. Consequently, plant & machinery and other assets of the power station are in the process of disposal and/or being utilised at other locations of the Company. Further, Property, plant and equipment of ₹ 47.16 crore has been derecognised and charged to the statement of profit and loss (Refer Note 37) and an amount of ₹ 98.90 crore transferred to 'Assets held for disposal' at their estimated net realisable value (Refer Note 17).

45. Disclosure as per Ind AS 1 'Presentation of financial statements'

a) Changes in significant accounting policies:

During the year, following changes to the accounting policies have been made:

i) Policy C.6 'Development expenditure on coal mines' has been modified considering the expected time for delivering sustainable operations by the coal mines. Refer Note 47(B) for nature, impact and detailed disclosures for this change in accounting policy.

ii) Policy C.22 'Business combinations' has been included in the significant accounting policies as the same is applicable during the current year as a result of acquisition of business of Barauni Thermal Power Station. Refer Note 59 for detailed disclosures.

iii) Certain other changes have also been made in the policies nos. C.1, C.3, C.14, C.15, C.18, C.19, C.21, C.23, C.25, C.27 and policy D for improved disclosures. There is no impact on the financial statements due to these changes, however, the policy numbers have been rearranged in the current year as required.

b) Refer Note 47(A) for disclosures relating to restatement.

46. 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 2019	For the year ended 31 March 2018
Fuel cost	**52,493.74**	48,315.47
Others (included in Note 37 - Other expenses)	**1,198.91**	1,125.63
Total	**53,692.65**	49,441.10

(b) Carrying amount of inventories pledged as security for borrowings as at 31 March 2019 is ₹ **5,138.41 crore** (31 March 2018: ₹ 4,069.58 crore).

47. Disclosure as per Ind AS 8 - 'Accounting Policies, Changes in Accounting Estimates and Errors'

(A) Restatement for the year ended 31 March 2018 and as at 1 April 2017

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 2018 and 1 April 2017 (beginning of the preceding period) and Statement of Profit and Loss and Statement of Cash Flows for the year ended 31 March 2018 for the reasons as stated in the notes below. Reconciliation of financial statement line items which are retrospectively restated are as under:

Reconciliation of restated items of Balance Sheet as at 31 March 2018 and 1 April 2017

₹ Crore

Particulars		31 March 2018			1 April 2017		
	Note	As previously reported	Adjustments	As restated	As previously reported	Adjustments	As restated
Property, plant and equipment	(b)	1,20,720.61	(1,293.04)	1,19,427.57	99,062.70	(1,619.36)	97,443.34
Capital work-in-progress	(b)	77,313.87	1,293.04	78,606.91	80,302.46	1,619.36	81,921.82
Other non-current assets	(c)	11,568.68	(20.95)	11,547.73	16,873.48	(20.95)	16,852.53
Other current assets	(c)	10,878.23	20.95	10,899.18	4,536.44	20.95	4,557.39
Regulatory deferral account debit balances	(a)	743.13	7,638.53	8,381.66	522.83	4,927.84	5,450.67
Others		38,969.04	-	38,969.04	35,279.58	-	35,279.58
Total Assets		**2,60,193.56**	**7,638.53**	**2,67,832.09**	**2,36,577.49**	**4,927.84**	**2,41,505.33**
Total equity		1,01,777.77	-	1,01,777.77	96,231.23	-	96,231.23
Deferred tax liabilities (Net)	(a)	2,408.63	7,638.53	10,047.16	1,484.84	4,927.84	6,412.68
Others		1,56,007.16	-	1,56,007.16	1,38,861.42	-	1,38,861.42
Total Equity and Liabilities		**2,60,193.56**	**7,638.53**	**2,67,832.09**	**2,36,577.49**	**4,927.84**	**2,41,505.33**

Reconciliation of restated items of Statement of Profit and Loss for the year ended 31 March 2018

₹ Crore

Particulars	**Note**	**As previously reported**	**Adjustments**	**As restated**
Deferred asset for deferred tax liability	(a)	2,707.85	(2,707.85)	-
Net movement in regulatory deferral account balances	(a)	553.00	2,707.85	3,260.85
Others		7,082.32	-	7,082.32
Profit after tax		**10,343.17**	-	**10,343.17**
Total comprehensive income for the year		**10,328.69**	-	**10,328.69**

Reconciliation of Statement of Cash Flows for the year ended 31 March 2018

₹ Crore

Particulars	**Note**	**As previously reported**	**Adjustments**	**As restated**
Net movement in regulatory deferral account balances (net of tax)	(a)	553.00	2,707.85	3,260.85
Regulatory deferral account debit balances	(a)	(220.30)	(2,707.85)	(2,928.15)
Others		18,915.65	-	18,915.65
Loans, other financial assets and other assets	(c)	(8,432.37)	1.40	(8,430.97)
Purchase of property, plant and equipment & intangible assets	(c)	(18,015.46)	(1.40)	(18,016.86)
Net cash flow from/(used in) operating activities		19,248.35	1.40	19,249.75
Net cash flow from/(used in) investing activities		(20,388.19)	(1.40)	(20,389.59)
Net cash flow from/(used in) financing activities		1,043.21	-	1,043.21
Net increase/ (decrease) in cash and cash equivalents during the year		**(96.63)**	-	**(96.63)**
Cash and cash equivalents at the beginning of the year		157.12	-	157.12
Cash and cash equivalent at the end of the year		**60.49**	-	**60.49**

Notes:

(a) Regulatory deferral account balances

As per CERC Regulations, 2014, the Company is entitled to a fixed return on its investment, net of tax. Consequently, tax is a pass-through cost. The Company followed a practice of recognising an asset ('Deferred assets for Deferred tax liability') for the tax liability recognised in the financial statements which is recoverable from the beneficiaries. The Company used to offset deferred asset for deferred tax liability recognised with the deferred tax liabilities (Net) and income on account of deferred asset for deferred tax liability was also offset with the tax expense recognised in the statement of profit and loss.

During the year, based on an opinion pronounced by Expert Advisory Committee (EAC) of the Institute of Chartered Accountants of India (ICAI), the Company has recognised Deferred asset for Deferred tax liability as a regulatory deferral account debit/credit balance in accordance with Ind AS 114, 'Regulatory Deferral Accounts'.

As a result, regulatory deferral account debit/credit balance has increased with a corresponding increase in Deferred tax liabilities (net) as under:

As at 1 April 2017 : ₹ 4,927.84 crore
As at 31 March 2018 : ₹ 7,638.53 crore

Further, for the year ended 31 March 2018, 'Net movement in regulatory deferral account balances' has increased by an amount of ₹ 2,707.85 crore in the statement of profit and loss with a corresponding increase in deferred tax expense.

(b) Property, plant and equipment

The Company was capitalising expenditure incurred under Rehabilitation and Resettlement (R&R) Schemes as cost of land. During the year, an opinion has been pronounced by Expert Advisory Committee (EAC) of Institute of Chartered Accountants of India (ICAI) stating that the R&R expenditure incurred for development activities associated with the project (not merely for acquisition of land) can be considered as directly attributable to the project. Accordingly, R&R expenditure incurred for development activities associated with the project capitalised as cost of land have been reviewed.

Impact of the above restatement is as under:

₹ Crore

Particulars	31 March 2018	1 April 2017
Decrease in cost of freehold land (Refer Note 2)	**1,298.22**	1,292.40
Decrease in cost of leasehold land (Refer Note 2)	**336.79**	336.96
Increase in cost of plant and equipment-owned (Refer Note 2)	**341.97**	10.00
Increase in expenditure pending allocation (Refer Note 3)	**1,293.04**	1,619.36

Earnings per share

As a result of the above-mentioned adjustments, basic and diluted earnings per share for the financial year 2017-18 changed as below:

Particulars	As previously reported	Adjustments due to		As restated
		Restatement (refer notes (a) and (b) above)	Issue of bonus shares during FY 2018-19	
Basic & Diluted (₹) (from operations including regulatory deferral account balances)	12.54	-	(2.09)	10.45
Basic & Diluted (₹) (from operations excluding regulatory deferral account balances)	11.87	(3.28)	(1.43)	7.16

(c) Certain reclassifications have been made to the comparative period's financial statements to enhance comparability with the current year's financial statements.

(B) Change in accounting policy for 'Development expenditure on coal mines':

During the year, the Company has voluntarily changed the accounting policy for 'Development expenditure on coal mines' considering the expected time for delivering sustainable operations by the coal mines. Consequently, one of the coal mines has been declared commercial w.e.f. 1 April 2019 instead of 7 December 2018.

The Company has modified the accounting policy with respect to bringing mine under development to revenue by inserting the words '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)'.

The following financial statement line items for the year ended 31 March 2019 were affected by the voluntary change in accounting policy.

Balance sheet

₹ Crore

Particulars	As per revised policy	As per previous policy	Effect of change
Property,plant and equipment	1,25,290.68	1,26,744.90	(1,454.22)
Capital work-in-progress	90,808.89	89,386.16	1,422.73
Other non-current assets	13,269.30	13,262.51	6.79
Other equity	97,513.61	97,538.31	(24.70)

Statement of Profit and Loss

₹ Crore

Particulars	As per revised policy	As per previous policy	Effect of change
Other Income	1,872.13	1,874.80	(2.67)
Fuel cost	52,493.74	51,969.21	524.53
Employee benefits expense	4,779.89	4,791.16	(11.27)
Finance costs	4,716.74	4,767.56	(50.82)
Depreciation, amortisation and impairment expense	7,254.36	7,290.18	(35.82)
Other expenses	7,548.63	7,946.43	(397.80)
Tax expenses	(2,918.71)	(2,911.92)	(6.79)
Profit for the year	11,749.89	11,774.59	(24.70)
EPS - Basic & diluted (including regulatory deferral account balances) (in ₹)	11.88	11.90	(0.02)
EPS - Basic & diluted (excluding regulatory deferral account balances) (in ₹)	15.76	15.78	(0.02)

Statement of cash flows

₹ Crore

Particulars	As per revised policy	As per previous policy	Effect of change
Net cash flow from/(used in) operating activities	16,030.47	16,055.17	(24.70)
Net cash flow from/(used in) investing activities	(20,894.22)	(20,918.92)	24.70
Net cash flow from/(used in) financing activities	4,827.65	4,827.65	-

As a result of this voluntary change in accounting policy, there is no impact in any prior period presented by the Company.

(C) Recent accounting pronouncements

Standards / amendments issued but not yet effective:

On 30 March 2019, Ministry of Corporate Affairs (MCA) has notified the following standards / amendments which will come into force from 1 April 2019:

1. Ind AS 116 'Leases'

Ind AS 116, 'Leases' will replace the existing Ind AS 17, 'Leases', and related Interpretations. The standard sets out the principles for the recognition, measurement, presentation and disclosure of leases for both parties to a contract i.e., the lessee and the lessor. Ind AS 116 introduces a single lessee accounting model and requires a lessee to recognise a right-of-use asset representing its right to use the underlying asset and a lease liability representing its obligation to make lease payments.

There are recognition exemptions for short-term leases and leases of low-value items. Currently, operating lease expenses are charged to the statement of profit and loss. Lessor accounting remains similar to the current standard – i.e. lessors continue to classify leases as finance or operating leases. Further, the new standard contains enhanced disclosure requirements for lessees. Ind AS 116 substantially carries forward the lessor accounting requirements in Ind AS 17.

The standard permits two possible methods of transition:

- Retrospective approach - Under this approach the standard will be applied retrospectively to each prior reporting period presented in accordance with Ind AS 8, 'Accounting Policies, Changes in Accounting Estimates and Errors'
- Retrospectively with cumulative effect of initially applying the standard recognised at the date of initial application (modified retrospective approach)

Under modified retrospective approach, the lessee records the lease liability as the present value of the remaining lease payments, discounted at the incremental borrowing rate and the right of use asset either as:

- Its carrying amount as if the standard had been applied since the commencement date, but discounted at lessee's incremental borrowing rate at the date of initial application or
- An amount equal to the lease liability, adjusted by the amount of any prepaid or accrued lease payments related to that lease recognised under Ind AS 17 immediately before the date of initial application. Certain practical expedients are available under both the methods.

The Company will adopt the standard on 1 April 2019 by using the modified retrospective approach and accordingly comparatives for the year ended 31 March 2019 will not be retrospectively adjusted.

2. Ind AS 12 Appendix C, Uncertainty over Income Tax Treatments

Appendix C of Ind AS 12, 'Uncertainty over Income Tax Treatments' is to be applied while performing the determination of taxable profit (or loss), tax bases, unused tax losses, unused tax credits and tax rates, when there is uncertainty over income tax treatments under Ind AS 12. According to the appendix, companies need to determine the probability of the relevant tax authority accepting each tax treatment, or group of tax treatments, that the companies have used or plan to use in their income tax filing which has to be considered to compute the most likely amount or the expected value of the tax treatment when determining taxable profit (tax loss), tax bases, unused tax losses, unused tax credits and tax rates.

The standard permits two possible methods of transition:

- Full retrospective approach – Under this approach, Appendix C will be applied retrospectively to each prior reporting period presented in accordance with Ind AS 8 – Accounting Policies, Changes in Accounting Estimates and Errors
- Retrospectively with cumulative effect of initially applying Appendix C recognised by adjusting equity on initial application

The Company will adopt the standard on 1 April 2019 and has decided to adjust the cumulative effect in equity on the date of initial application i.e. 1 April 2019 without adjusting comparatives.

3. Amendment to Ind AS 12 'Income taxes'

The amendments to the guidance in Ind AS 12, 'Income Taxes', clarifies that an entity shall recognise the income tax consequences of dividends in profit or loss, other comprehensive income or equity according to where the past transactions or events that generated distributable profits were originally recognised.

4. Amendment to Ind AS 19 'Employee benefits'

The amendments to the guidance in Ind AS 19, 'Employee Benefits', in connection with accounting for plan amendments, curtailments and settlements require an entity:

- to use updated assumptions to determine current service cost and net interest for the remainder of the period after a plan amendment, curtailment or settlement; and
- to recognise in profit or loss as part of past service cost, or a gain or loss on settlement, any reduction in a surplus, even if that surplus was not previously recognised because of the impact of the asset ceiling.

5. Amendment to Ind AS 23 'Borrowing Costs'

The amendments to the guidance in Ind AS 23, 'Borrowing Costs', clarifies the following:

• while computing the capitalisation rate for funds borrowed generally, borrowing costs applicable to borrowings made specifically for obtaining a qualified asset should be excluded, only until the asset is ready for its intended use or sale.

• borrowing costs (related to specific borrowings) that remain outstanding after the related qualifying asset is ready for its intended use or sale would subsequently be considered as part of the general borrowing costs.

6. **Amendment to Ind AS 28 'Investments in Associates and Joint Ventures'**

The amendments to the guidance in Ind AS 28, 'Investments in Associates and Joint Ventures', clarifies that an entity applies Ind AS 109, 'Financial Instruments', to long-term interests in an associate or joint venture that form part of the net investment in the associate or joint venture but to which the equity method is not applied.

7. **Amendment to Ind AS 103 'Business Combinations'**

The amendments to the guidance in Ind AS 103, 'Business Combinations', clarifies that when an entity obtains control of a business that is a joint operation, then the acquirer considers such an acquisiton as a business combination achieved in stages and re-measures previously held interests in that business.

8. **Amendment to Ind AS 111 'Joint Arrangements'**

The amendments to the guidance in Ind AS 111, 'Joint Arrangements', clarifies that when an entity obtains joint control of a business that is a joint operation, the entity does not re-measure previously held interests in that business.

9. **Amendment to Ind AS 109 'Financial Instruments'**

The amendments relate to the existing requirements in Ind AS 109, 'Financial Instruments' regarding termination rights in order to allow measurement at amortised cost (or, depending on the business model, at fair value through other comprehensive income) even in the case of negative compensation payments.

The Company is evaluating the requirements of the above amendments and the effect on the financial statements.

48. 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 2019	31 March 2018
Current tax expense		
Current year	**2,955.00**	2,576.80
Adjustment for earlier years	**(105.88)**	(951.30)
Pertaining to regulatory deferral account balances (A)	**(1,055.13)**	150.04
Total current tax expense (B)	**1,793.99**	1,775.54
Deferred tax expense		
Origination and reversal of temporary differences	**2,489.55**	3,631.64
Less: MAT credit entitlement	**8,257.38**	-
Total deferred tax expense (C)	**(5,767.83)**	3,631.64
Income tax expense (D=B+C-A)	**(2,918.71)**	5,257.14
Pertaining to regulatory deferral account balances	**(1,055.13)**	150.04
Total tax expense including tax on movement in regulatory deferral account balances	**(3,973.84)**	5,407.18

ii) Income tax recognised in other comprehensive income

₹ Crore

Particulars	For the year ended					
	31 March 2019			31 March 2018		
	Before tax	**Tax expense/ (benefit)**	**Net of tax**	Before tax	Tax expense/ (benefit)	Net of tax
Net actuarial losses on defined benefit plans	**(235.98)**	**(50.85)**	**(185.13)**	(9.26)	(1.98)	(7.28)
Net gains/(losses) on fair value of equity instruments	**(16.74)**	-	**(16.74)**	(7.20)	-	(7.20)
	(252.72)	**(50.85)**	**(201.87)**	(16.46)	(1.98)	(14.48)

iii) **Reconciliation of tax expense and the accounting profit multiplied by India's domestic tax rate**

₹ Crore

Particulars	For the year ended	
	31 March 2019	31 March 2018
Profit before tax including movement in regulatory deferral account balances	**7,776.05**	15,750.35
Tax using the Company's domestic tax rate of 34.944% (31 March 2018 - 34.608%)	**2,717.26**	5,450.88
Tax effect of:		
Non-deductible tax expenses	**250.67**	(16.53)
Tax-exempt income	**(26.76)**	(40.37)
Foreign exchange differences	**-**	0.26
Adjustment on account of restatement	**-**	1,770.72
Previous year tax liability	**(105.88)**	(951.30)
Minimum alternate tax adjustments	**(6,809.13)**	(806.48)
Total tax expense recognised in the statement of profit and loss	**(3,973.84)**	5,407.18

(b) Tax losses carried forward

There are no unused tax losses to be carried forward as on 31 March 2019 and 31 March 2018.

(c) Dividend distribution tax on proposed dividend not recognised at the end of the reporting period

Since year ended 31 March 2019, the Directors have recommended the payment of final dividend amounting to ₹ **2,473.64 crore** (31 March 2018: ₹ 1,970.67 crore). The dividend distribution tax on this proposed dividend amounting to ₹ **508.46 crore** (31 March 2018: ₹ 405.08 crore) has not been recognised since this proposed dividend is subject to the approval of shareholders in the ensuing Annual General Meeting.

(d) MAT credit available to the Company in future but not recognised:

MAT credit available to the Company in future but not recognised as at 31 March 2019 is ₹ **Nil** (31 March 2018: ₹ 7,194.00 crore).

49. Disclosure as per Ind AS 17 'Leases'

a) Operating leases

i. Leases as lessee:

a) The Company's significant leasing arrangements are in respect of operating leases of premises for residential use of employees, offices and guest houses/transit camps for a period of one to two years. These leasing arrangements are usually renewable on mutually agreed terms but are not non-cancellable. An amount of ₹**5.83 crore** (31 March 2018: ₹ 20.82 crore) towards lease payments (net of recoveries) in respect of premises for residential use of employees is included under 'Salaries and wages' in Note 34. Lease payments in respect of premises for offices and guest house/ transit camps amounting ₹**13.55 crore** (net of recoveries) (31 March 2018: ₹ 23.52 crore) are included under 'Rent' in Note 37.

b) The Company has taken a helicopter on wet lease basis for a period of eleven years and the amount of lease charges of ₹ **12.36 crore** (31 March 2018: ₹ 15.63 crore) is included under 'Hire charges of helicopter/aircraft' in Note 37. The lease is renewable on mutually agreed terms but are not non-cancellable.

c) Ministry of Power, Government of India vide its notification no. 2/38/99-BTPS (Volume VII) dated 22 September 2006 transferred land of a power station to the Company on operating lease of 50 years. Lease rent for the year amounting to ₹ **6.29 crore** (31 March 2018: ₹ 6.29 crore) has been charged to the statement of profit and loss and included under 'Rates and taxes' in Note 37. Also refer Note 44.

d) 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. The lease rental expense recognised in the statement of profit and loss for the year in respect of leases is ₹ **0.96 crore** (31 March 2018: ₹ 0.04 crore). The future minimum lease payments in respect of non-cancellable leases is as follows:

₹ **Crore**

Particulars	**As at 31 March 2019**	As at 31 March 2018
Less than one year	**1.06**	0.96
Between one and five years	**5.34**	4.92
More than five years	**-**	1.48
	6.40	7.36

ii. Leases as lessor

The Company has classified the arrangement with its customer for two power stations (one thermal and one gas) 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. The future minimum lease payments (MLPs) under non-cancellable leases in respect of the same are as follows:

(i) Thermal Power Station

Power Purchase Agreements (PPA) signed with the beneficiary was operative for a period of five years from the date of take over of the plant and the agreement may be mutually extended, renewed or replaced by another agreement on such terms and conditions for such further period as the parties may mutually agree.

(ii) 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 future minimum lease payments in respect of non-cancellable leases is as follows:

₹ **Crore**

Particulars	**As at 31 March 2019**	As at 31 March 2018
Less than one year	**233.34**	214.30
Between one and five years	**394.11**	467.79
More than five years	**78.52**	139.57
	705.97	821.66

b) **Finance leases**

i) **Leases as lessee:**

a) The Company has taken certain vehicles 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.

Reconciliation between the future minimum lease payments (MLPs) and their present value of MLPs is as under:

₹ **Crore**

Particulars	**As at 31 March 2019**		As at 31 March 2018	
	MLPs	**Present value of MLPs**	MLPs	Present value of MLPs
Less than one year	**0.87**	**0.74**	0.86	0.72
Between one and five years	**0.74**	**0.66**	0.76	0.70
More than five years	**-**	**-**	-	-
Total minimum lease payments	**1.61**	**1.40**	1.62	1.42
Less: amounts representing finance charges	**0.21**	**-**	0.20	-
Present value of minimum lease payments	**1.40**	**1.40**	1.42	1.42

b) 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/-. (Also refer Note 57 (iii)(b))

Reconciliation between the future minimum lease payments (MLPs) and their present value of MLPs is as under:

₹ **Crore**

Particulars	**As at 31 March 2019**		As at 31 March 2018	
	MLPs	**Present value of MLPs**	MLPs	Present value of MLPs
Less than one year	**56.66**	**37.97**	36.06	22.79
Between one and five years	**44.64**	**39.43**	65.24	54.61
More than five years	**-**	**-**	-	-
Total minimum lease payments	**101.30**	**77.40**	101.30	77.40
Less: amounts representing finance charges	**23.90**	**-**	23.90	-
Present value of minimum lease payments	**77.40**	**77.40**	77.40	77.40

The total contingent rents recognised as expense during the year is ₹ **Nil** (31 March 2018: ₹ Nil).

c) 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 'Finance lease obligation' at their present values. The leasehold land is amortised considering the signifcant accounting policies of the Company

₹ Crore

Particulars	As at 31 March 2019		As at 31 March 2018	
	MLPs	Present value of MLPs	MLPs	Present value of MLPs
Less than one year	**10.66**	**7.37**	11.17	10.20
Between one and five years	**34.98**	**25.24**	31.58	24.09
More than five years	**682.79**	**75.01**	692.85	71.25
Total minimum lease payments	**728.43**	**107.62**	735.60	105.54
Less: amounts representing finance charges	**620.81**	**-**	630.06	-
Present value of minimum lease payments	**107.62**	**107.62**	105.54	105.54

ii) Leases as lessor:

The Company has 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.

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.

₹ Crore

Particulars	As at 31 March 2019		As at 31 March 2018	
	MLPs	Present value of MLPs	MLPs	Present value of MLPs
Less than one year	**112.10**	**49.04**	111.59	40.00
Between one and five years	**448.42**	**271.42**	446.35	227.24
More than five years	**217.40**	**199.54**	326.78	275.08
Total minimum lease payments	**777.92**	**520.00**	884.72	542.32
Less: amounts representing unearned finance income	**257.92**	**-**	342.40	-
Present value of minimum lease payments	**520.00**	**520.00**	542.32	542.32

50. 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. An amount of ₹ **207.93 crore** (31 March 2018: ₹ 153.32 crore) for the year is recognised as expense on this account and charged to the statement of profit and loss.

(ii) **Defined benefit plans:**

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	For the year ended	
	31 March 2019	31 March 2018
Net defined benefit (asset)/liability - Current	**(44.88)**	(55.36)

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 2019	31 March 2018	**31 March 2019**	31 March 2018	**31 March 2019**	31 March 2018
Opening balance	**8,225.71**	7,535.63	**8,281.07**	7,588.80	**(55.36)**	(53.17)
Current service cost recognised in statement of profit and loss	**344.37**	254.28	**-**	-	**344.37**	254.28
Interest cost/(income)	**616.93**	565.18	**(616.93)**	(565.18)	**-**	-
Total	**961.30**	819.46	**(616.93)**	(565.18)	**344.37**	254.28
Remeasurement loss/(gain):						
Actuarial loss/(gain) arising from:						
Financial assumptions	**(0.20)**	(0.12)	**-**	-	**(0.20)**	(0.12)
Experience adjustment	**133.61**	113.01	**-**	-	**133.61**	113.01
Return on plan assets excluding interest income	**-**	-	**(122.93)**	(115.08)	**(122.93)**	(115.08)
Total	**133.41**	112.89	**(122.93)**	(115.08)	**10.48**	(2.19)
Other						
Contribution by participants	**886.20**	584.89	**886.20**	584.89	**-**	-
Contribution by employer	**-**	-	**344.37**	254.28	**(344.37)**	(254.28)
Benefits paid	**1,116.82**	827.16	**1,116.82**	827.16	**-**	-
Closing balance	**9,089.80**	8,225.71	**9,134.68**	8,281.07	**(44.88)**	(55.36)

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 ₹ **44.88 crore** (31 March 2018: ₹ 55.36 crore) determined through actuarial valuation. Accordingly, Company 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 Company.

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.

b) The Company has pension schemes at two of its stations in respect of employees taken over from erstwhile state government power utilities.

The existing schemes stated at (a) and at one of the power stations at (b) above are funded by the Company and are managed by separate trusts. Pension scheme of another power station in respect of employees taken from erstwhile State Government Power Utility is unfunded. The liability for gratuity and the pension schemes as above 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:

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
Net defined benefit (asset)/liability :		
Gratuity (funded)	-	659.73
Pension (funded)	168.72	140.67
Pension (non-funded)	358.68	278.11
	527.40	1,078.51
Non-current	335.61	256.86
Current	191.79	821.65

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 2019	31 March 2018	31 March 2019	31 March 2018	31 March 2019	31 March 2018
Opening balance	2,586.42	2,505.90	1,507.91	1,481.35	1,078.51	1,024.55
Included in profit or loss:						
Current service cost	94.85	97.60	-	-	94.85	97.60
Past service cost	-	-	-	-	-	-
Interest cost/(income)	196.57	187.94	(115.09)	(111.11)	81.48	76.83
Total amount recognised in profit or loss	291.42	285.54	(115.09)	(111.11)	176.33	174.43
Included in other comprehensive income:						
Remeasurement loss/(gain):						
Actuarial loss/(gain) arising from:						
Financial assumptions	(24.64)	38.70	-	-	(24.64)	38.70
Experience adjustment	54.53	(102.69)	-	-	54.53	(102.69)
Return on plan assets excluding interest income	-	-	(28.56)	(30.73)	(28.56)	(30.73)
Total amount recognised in other comprehensive income	29.89	(63.99)	(28.56)	(30.73)	1.33	(94.72)
Other						
Contribution by employer	-	-	699.29	-	(699.29)	-
Benefits paid	365.52	141.03	336.04	115.28	29.48	25.75
Closing balance	2,542.21	2,586.42	2,014.81	1,507.91	527.40	1,078.51

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 2019**	As at 31 March 2018
Net defined benefit (asset)/liability - Current (Funded)	**-**	149.88

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 2019	31 March 2018	**31 March 2019**	31 March 2018	**31 March 2019**	31 March 2018
Opening balance	**1,350.61**	1,159.40	**1,200.73**	1,061.96	**149.88**	97.44
Included in profit or loss:						
Current service cost	**40.36**	32.19	**-**	-	**40.36**	32.19
Past service cost	**-**	-	**-**	-	**-**	-
Interest cost/(income)	**102.65**	86.95	**(91.00)**	(79.64)	**11.65**	7.31
Total amount recognised in profit or loss	**143.01**	119.14	**(91.00)**	(79.64)	**52.01**	39.50
Included in other comprehensive income:						
Remeasurement loss/(gain):						
Actuarial loss/(gain) arising from:						
Demographic assumptions	**-**	-	**-**	-	**-**	-
Financial assumptions	**(16.19)**	62.69	**-**	-	**(16.19)**	62.69
Experience adjustment	**242.43**	62.48	**-**	-	**242.43**	62.48
Return on plan assets excluding interest income	**-**	-	**(5.56)**	(11.51)	**(5.56)**	(11.51)
Total amount recognised in other comprehensive income	**226.24**	125.17	**(5.56)**	(11.51)	**220.68**	113.66
Other						
Contribution by participants	**-**	-	**16.02**	3.98	**(16.02)**	(3.98)
Contribution by employer	**-**	-	**406.55**	96.74	**(406.55)**	(96.74)
Benefits paid	**84.00**	53.10	**84.00**	53.10	**-**	-
Closing balance	**1,635.86**	1,350.61	**1,635.86**	1,200.73	**-**	149.88

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 2019**	As at 31 March 2018
Net defined benefit (asset)/liability (non-funded):	**174.76**	148.93
Non-current	**153.70**	132.20
Current	**21.06**	16.73

Movement in net defined benefit (asset)/liability

₹ Crore

Particulars	Defined benefit obligation	
	As at 31 March 2019	As at 31 March 2018
Opening balance	**148.93**	138.18
Included in profit or loss:		
Current service cost	**8.21**	7.02
Past service cost	**-**	-
Interest cost /(income)	**11.32**	10.37
Total amount recognised in profit or loss	**19.53**	17.39
Included in other comprehensive income:		
Remeasurement loss/(gain):		
Actuarial loss/(gain) arising from:		
Financial assumptions	**(1.69)**	0.93
Experience adjustment	**14.66**	(4.19)
Return on plan assets excluding interest income	**-**	-
Total amount recognised in other comprehensive income	**12.97**	(3.26)
Other		
Contributions paid by the employer	**-**	-
Benefits paid	**6.67**	3.38
Closing balance	**174.76**	148.93

E. Plan assets

Plan assets comprise the following

₹ Crore

Particulars	As at 31 March 2019			As at 31 March 2018		
	Quoted	Unquoted	Total	Quoted	Unquoted	Total
State government securities	**3,975.85**	**-**	**3,975.85**	2,695.33	-	2,695.33
Central government securities	**1,851.20**	**-**	**1,851.20**	1,885.84	-	1,885.84
Corporate bonds and term deposits	**4,151.54**	**74.20**	**4,225.74**	3,458.49	94.67	3,553.16
Money market instruments/liquid mutual fund	**5.92**	**-**	**5.92**	-	14.20	14.20
Equity and equity linked investments	**193.94**	**-**	**193.94**	82.26	27.62	109.88
Investments with insurance companies	**-**	**2,377.88**	**2,377.88**	-	2,564.67	2,564.67
Total (excluding accrued interest)	**10,178.45**	**2,452.08**	**12,630.53**	8,121.92	2,701.16	10,823.08

As at 31 March 2019, an amount of ₹ **350.00 crore** (31 March 2018: ₹ 500.00 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 ₹ **980.08 crore** (31 March 2018: ₹ 913.25 crore).

F. Defined benefit obligations

i. Actuarial assumptions

The following were the principal actuarial assumptions at the reporting date:

Particulars	As at 31 March 2019	As at 31 March 2018
Discount rate	**7.75%**	7.60%
Expected return on plan assets		
Gratuity	**7.75%**	7.60%
Pension	**7.75%**	7.60%
PRMF	**7.75%**	7.60%
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 2019		As at 31 March 2018	
	Increase	**Decrease**	Increase	Decrease
Discount rate (0.5% movement)	**(135.01)**	**144.47**	(171.13)	179.88
Annual increase in costs (0.5% movement)	**61.27**	**(57.70)**	92.17	(90.32)
Salary escalation rate (0.5% movement)	**85.67**	**(80.84)**	89.54	(83.10)

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 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' bond 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 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 in 2019 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 2019					
Gratuity and pension	**307.22**	**348.51**	**623.57**	**1,262.91**	**2,542.21**
Post-retirement medical facility (PRMF)	**97.87**	**96.11**	**261.54**	**1,180.34**	**1,635.86**
Provident fund	**998.65**	**884.70**	**2,421.18**	**4,785.27**	**9,089.80**
Other post-employment benefit plans	**21.06**	**18.58**	**51.13**	**83.99**	**174.76**
Total	**1,424.80**	**1,347.90**	**3,357.42**	**7,312.51**	**13,442.63**
31 March 2018					
Gratuity and pension	406.54	529.07	613.69	1,037.12	2,586.42
Post-retirement medical facility (PRMF)	42.03	84.23	174.75	1,049.60	1,350.61
Provident fund	817.34	762.53	2,153.57	4,492.27	8,225.71
Other post-employment benefit plans	16.73	15.58	41.87	74.75	148.93
Total	1,282.64	1,391.41	2,983.88	6,653.74	12,311.67

Expected contributions to post-employment benefit plans for the year ending 31 March 2020 are ₹ 556.11 crore.

The weighted average duration of the defined benefit plan obligation at the end of the reporting period is **15.17 years** (31 March 2018: 15.21 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 ₹ **137.17 crore** has been made on the basis of actuarial valuation at the year end and debited to statement of profit and loss (31 March 2018: reversal of ₹ 462.23 crore on account of surge in the encashment of earned leaves by employees in the previous year)

B. Other employee benefits

Provision for long service award and family economic rehabilitation scheme amounting to ₹ **7.38 crore** (31 March 2018: ₹ 7.36 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.

51. Disclosure as per Ind AS 21 'The Effects of Changes in Foreign Exchange Rates'

The amount of exchange differences (net) credited to the statement of profit and loss is ₹ **20.59 crore** (31 March 2018: debited to Statement of profit and loss ₹ 145.03 crore).

52. Disclosure as per Ind AS 23 'Borrowing Costs'

Borrowing costs capitalised during the year is ₹ **4,700.02 crore** (31 March 2018: ₹ 4,155.89 crore).

53. Disclosure as per Ind AS 24 'Related Party Disclosures'

a) List of related parties:

i) Subsidiary companies:

1. Bhartiya Rail Bijlee Company Ltd.
2. Kanti Bijlee Utpadan Nigam Ltd.
3. NTPC Vidyut Vyapar Nigam Ltd.
4. NTPC Electric Supply Company Ltd.
5. Patratu Vidyut Utpadan Nigam Ltd.
6. Nabinagar Power Generating Company Ltd. (previously Nabinagar Power Generating Company Pvt. Ltd.)*

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. Ratnagiri Gas and Power Private Ltd.
6. Aravali Power Company Private Ltd.
7. NTPC BHEL Power Projects Private Ltd.
8. Meja Urja Nigam Private Ltd.
9. BF-NTPC Energy Systems Ltd. (under liquidation since 7 October 2018)
10. Nabinagar Power Generating Company Ltd. (previously Nabinagar Power Generating Company Pvt. Ltd.)*
11. Transformers and Electricals Kerala Ltd.
12. National High Power Test Laboratory Private Ltd.
13. Energy Efficiency Services Ltd.
14. CIL NTPC Urja Private Ltd.
15. Anushakti Vidhyut Nigam Ltd.
16. Hindustan Urvarak & Rasayan Ltd.
17. Konkan LNG Private Ltd.
18. Trincomalee Power Company Ltd.
19. Bangladesh-India Friendship Power Company Private Ltd.

iii) Key Management Personnel (KMP):

Whole Time Directors

Mr. Gurdeep Singh	Chairman and Managing Director	
Mr. Saptarshi Roy	Director (Human Resources)	
Mr. A.K.Gupta	Director (Commercial)	
Mr. S.K.Roy	Director (Projects)	W.e.f. 19 January 2018
Mr. P.K.Mohapatra	Director (Technical)	W.e.f. 31 January 2018
Mr. Prakash Tiwari	Director (Operations)	W.e.f. 31 January 2018

Mr. K.Sreekant[1]	Director (Finance)	W.e.f. 29 March 2018 to 2 November 2018 and W.e.f. 12 February 2019
Mr. A.K.Jha	Director (Technical)	Upto 31 July 2017
Mr. S.C.Pandey	Director (Projects)	Upto 31 August 2017
Mr. K.K.Sharma	Director (Operations)	Upto 31 October 2017
Mr. K.Biswal[2]	Director (Finance)	
Independent Directors		
Dr. Gauri Trivedi	Non-executive Director	
Mr. Seethapathy Chander	Non-executive Director	
Mr. M.P.Singh	Non-executive Director	W.e.f. 24 October 2017
Mr. Pradeep Kumar Deb	Non-executive Director	W.e.f. 24 October 2017
Mr. Shashi Shekhar	Non-executive Director	W.e.f. 24 October 2017
Mr. Subhash Joshi	Non-executive Director	W.e.f. 24 October 2017
Mr. Vinod Kumar	Non-executive Director	W.e.f. 24 October 2017
Dr. K.P.K.Pillay	Non-executive Director	W.e.f. 30 July 2018
Dr. Bhim Singh	Non-executive Director	W.e.f. 30 July 2018
Mr. Rajesh Jain	Non-executive Director	Upto 10 October 2017
Government Nominee Directors		
Mr. Vivek Kumar Dewangan	Non-executive Director	W.e.f. 28 April 2018
Ms. Archana Agrawal	Non-executive Director	W.e.f. 7 August 2018
Dr. Pradeep Kumar	Non-executive Director	Upto 31 July 2017
Mr. Aniruddha Kumar	Non-executive Director	Upto 30 July 2018
Chief Financial Officer and Company Secretary		
Mr. Sudhir Arya	Chief Financial Officer	W.e.f. 29 December 2017
Ms. Nandini Sarkar	Company Secretary	W.e.f. 1 August 2018
Mr. K.P.Gupta	Company Secretary	Upto 31 July 2018

1. Holding additional charge, in addition to Director (Finance), Power Grid Corporation of India Ltd.
2. Was under suspension w.e.f. 14 December 2017 (vide order from Ministry of Power). Re-joined on 3 November 2018 and continued upto 8 December 2018

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 majority of shares (Note 19). Pursuant to Paragraph 25 and 26 of Ind AS 24, entities over which the same government has control or joint control of, or significant influence, then the reporting entity and other entities shall be regarded as related parties. Transactions with these parties are carried out at market terms at arm length basis. The Company has applied the exemption available for government related entities and have made limited disclosures in the financial statements. Such entities with which the Company has significant transactions include but not limited to Coal India Ltd., Singareni Coalfields Ltd., GAIL (India) Ltd., BHEL Ltd., SAIL Ltd., Indian Oil Corporation Ltd., Bharat Petroleum Corporation Ltd.

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 2019	31 March 2018	31 March 2019	31 March 2018
i) Sales/purchase of goods and services				
- Contracts for works/services for services received by the Company	-	-	1,381.41	999.82
- Contracts for works/services for services provided by the Company	43.34	58.31	37.33	51.07
- Sale/purchase of goods	1,795.27	1,892.49	92.47	22.26
ii) Sales/purchase of assets	4.30	-	14.34	6.22
iii) Deputation of employees	62.06	63.89	199.87	127.30
iv) Dividend received	20.00	50.00	99.39	135.57
v) Equity contributions made	698.69	348.54	222.69	1,153.08
vi) Loans granted	30.00	96.75	-	6.00
vii) Interest on loan	24.30	16.82	0.60	-
viii) Guarantees received	-	-	13.99	13.10

Note: Refer Note 69 C(b) and (c) for other commitments with subsidiary and joint venture companies

₹ Crore

Particulars	For the year ended 31 March 2019	For the year ended 31 March 2018
Transactions with post employment benefit plans		
- Contributions made during the year	852.01	732.42
Compensation to Key management personnel		
- Short term employee benefits	7.93	4.13
- Post employment benefits	0.15	0.11
- Other long term benefits	0.33	0.20
- Termination benefits	0.35	0.69
- Sitting fee	0.73	0.34
Total compensation to key management personnel	9.49	5.47

Transactions with the related parties under the control of the same government:

₹ Crore

Sl. No.	Name of the Company	Nature of transaction by the Company	For the year ended 31 March 2019	For the year ended 31 March 2018
1	Bharat Coking Coal Ltd.	Purchase of coal	1,248.12	773.45
2	Central Coalfields Ltd.		2,906.89	3,298.58
3	Eastern Coalfields Ltd.		7,979.87	7,535.31
4	Mahanadi Coalfields Ltd.		4,464.44	4,535.47
5	Northern Coalfields Ltd.		9,429.26	9,509.18
6	South Eastern Coalfields Ltd.		5,328.59	4,803.59
7	Western Coalfields Ltd.		572.32	765.70
8	Singareni Collieries Company Ltd.		6,854.74	5,450.87
9	Bharat Heavy Electricals Ltd.	Purchase of equipments and erection services	2,245.50	2,793.50
		Purchase of spares	565.69	635.22
		Receipt of maintenance services	1,048.25	1,199.77
10	GAIL (India) Ltd.	Purchase of natural gas	2,304.37	2,097.96

₹ Crore

Sl. No.	Name of the Company	Nature of transaction by the Company	For the year ended 31 March 2019	For the year ended 31 March 2018
11	Indian Oil Corporation Ltd.	Purchase of oil products	**683.17**	484.36
12	Bharat Petroleum Corporation Ltd.	Purchase of natural gas and oil products	**203.36**	89.78
13	Steel Authority of India Ltd.	Purchase of steel and iron products	**202.21**	224.28
14	REC Ltd.	Consultancy services provided by the Company	**0.69**	4.03
15	RITES Ltd	Receipt of maintenance services	**1,085.81**	755.98
16	Other entities	Purchase of equipments and erection services	**209.94**	181.33
		Purchase of spares	**31.25**	18.83
		Receipt of maintenance services	**345.30**	645.32
		Consultancy and other services provided by the Company	**42.39**	39.19

₹ Crore

Transactions with others listed at (a)(vi) above	For the year ended 31 March 2019	For the year ended 31 March 2018
- Contracts for works/services for services received by the Company	**12.43**	16.25

c) Outstanding balances with related parties are as follows:

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
Amount recoverable towards loans from		
- Subsidiary companies	**177.50**	242.75
- Joint venture companies	**6.00**	6.00
- Key management personnel	**0.12**	0.27
- Others	**0.60**	0.60
Amount recoverable other than loans from		
- Subsidiary companies	**436.84**	385.55
- Joint venture companies	**99.70**	87.09
- Post employment benefit plans	**77.20**	13.78
- Others	**0.14**	0.07
Amount payable to		
- Joint venture companies	**409.57**	469.85
- Post employment benefit plans	**132.18**	221.72
- Others	**-**	3.62

d) **Individually significant transactions**

₹ Crore

Particulars	Nature of relationship	For the year ended 31 March 2019	For the year ended 31 March 2018
Contracts for works/services for services received by the Company			
Utility Powertech Ltd.	Joint venture company	**1,006.00**	838.60
NTPC BHEL Power Projects Private Ltd.	Joint venture company	**137.34**	130.32
NTPC-GE Power Services Private Ltd.	Joint venture company	**223.51**	17.86
Contracts for works/services for services provided by the Company			
Patratu Vidyut Utpadan Nigam Ltd.	Subsidiary company	**26.26**	48.05
Nabinagar Power Generating Company Ltd. (previously Nabinagar Power Generating Company Pvt. Ltd.)*	Subsidiary company	**6.46**	27.15
NTPC-SAIL Power Company Ltd.	Joint venture company	**11.10**	7.10
Meja Urja Nigam Private Ltd.	Joint venture company	**13.10**	5.20
Sale / purchase of goods			
NTPC Vidyut Vyapar Nigam Ltd.	Subsidiary company	**1,795.27**	1,892.49
Dividend received			
NTPC-SAIL Power Company Ltd.	Joint venture company	**20.00**	50.00
Aravali Power Company Private Ltd.	Joint venture company	**71.65**	69.93
NTPC Vidyut Vyapar Nigam Ltd.	Subsidiary company	**20.00**	50.00
Energy Efficiency Services Ltd.	Joint venture company	**4.01**	12.92
Utility Powertech Ltd.	Joint venture company	**3.50**	2.50
NTPC-GE Power Services Private Ltd.	Joint venture company	**0.23**	0.22
Equity contributions made			
Bhartiya Rail Bijlee Company Ltd.	Subsidiary company	**121.59**	178.99
Kanti Bijlee Utpadan Nigam Ltd.	Subsidiary company	**75.00**	80.00
Patratu Vidyut Utpadan Nigam Ltd.	Subsidiary company	**110.00**	89.55
Nabinagar Power Generating Company Ltd. (previously Nabinagar Power Generating Company Pvt. Ltd.)*	Subsidiary company	**392.10**	504.57
Meja Urja Nigam Private Ltd.	Joint venture company	**110.00**	42.89
Energy Efficiency Services Ltd.	Joint venture company	**-**	99.00
Aravali Power Company Private Ltd.	Joint venture company	**-**	34.50
Bangladesh-India Friendship Power Company Pvt.Ltd.	Joint venture company	**-**	143.62
NTPC Tamil Nadu Energy Company Ltd.	Joint venture company	**5.62**	-
Hindustan Urvarak & Rasayan Ltd.	Joint venture company	**107.07**	328.23
BF-NTPC Energy Systems Ltd.	Joint venture company	**-**	0.28
Loans disbursed			
Kanti Bijlee Utpadan Nigam Ltd.	Subsidiary company	**30.00**	80.00
Patratu Vidyut Utpadan Nigam Ltd.	Subsidiary company	**-**	16.75
National High Power Test Laboratory Private Ltd.	Joint venture company	**-**	6.00
Guarantees received			
Utility Powertech Ltd.	Joint venture company	**13.60**	12.60
NTPC-GE Power Services Private Ltd.	Joint venture company	**0.39**	0.50

e) **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 market rates.

ii) The Company is assigning jobs on contract basis, for sundry works in plants/stations/offices to M/s Utility Powertech Ltd. (UPL), a 50:50 joint venture between the Company and Reliance Infrastructure Ltd. UPL inter-alia undertakes jobs such as overhauling, repair, refurbishment of various mechanical and electrical equipment of power stations. The Company has entered into Power Station Maintenance Agreement with UPL from time to time. The rates are fixed on cost plus basis after mutual discussion and after taking into account the prevailing market conditions.

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	Year of grant of loan
1	Kanti Bijlee Utpadan Nigam Ltd. (S)	**121.00**	10% (quarterly rest)	In two installments on 30 June 2019 and 31 December 2019. First installment has since been adjusted.	2016-17
2	Patratu Vidyut Utpadan Nigam Ltd. (S)	**50.00**	10% (quarterly rest)	Initially repayable on 30 September 2018, extended to 30 September 2019.	2016-17
3	Kanti Bijlee Utpadan Nigam Ltd. (S)	**193.00**	10% (quarterly rest)	Repayable in six equal semi-annual installments from 30 September 2020.	2017-18
4	National High Power Test Laboratory Private Ltd. (JV)	**6.00**	10%	Principal and interest initially repayable on 30 September 2018, extended to 31 March 2021.	2017-18

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 and settlement occurs through banking transaction. These balances other than loans 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 56 (b) & (c) in respect of impairment loss on investment in Ratnagiri Gas and Power Private Ltd.and certain other joint venture companies.

viii) Refer Note 69 (C) towards restrictions on disposal of investment and commitment towards further investments in the subsidiary and joint venture companies.

* Joint Venture Company till 28 June 2018 and a Subsidiary Company w.e.f. 29 June 2018.

54. Disclosure as per Ind AS 27 'Separate financial statements'

a) Investment in subsidiary companies:*

Company name	Country of incorporation	Proportion of ownership interest	
		As at 31 March 2019	As at 31 March 2018
NTPC Electric Supply Company Ltd.	India	**100.00**	100.00
NTPC Vidyut Vyapar Nigam Ltd.	India	**100.00**	100.00
Kanti Bijlee Utpadan Nigam Ltd.	India	**100.00**	72.64
Bhartiya Rail Bijlee Company Ltd.	India	**74.00**	74.00
Patratu Vidyut Utpadan Nigam Ltd.	India	**74.00**	74.00
Nabinagar Power Generating Company Ltd. (previously Nabinagar Power Generating Company Pvt. Ltd.)***	India	**100.00**	-

b) Investment in joint venture companies:*

Company name	Country of incorporation	Proportion of ownership interest	
		As at 31 March 2019	As at 31 March 2018
Utility Powertech Ltd.	India	**50.00**	50.00
NTPC-GE Power Services Private Ltd.	India	**50.00**	50.00
NTPC-SAIL Power Company Ltd.	India	**50.00**	50.00
NTPC-Tamil Nadu Energy Company Ltd.	India	**50.00**	50.00
Ratnagiri Gas and Power Private Ltd.**	India	**25.51**	25.51
Konkan LNG Private Ltd.**	India	**14.82**	25.51
Aravali Power Company Private Ltd.	India	**50.00**	50.00
NTPC BHEL Power Projects Private Ltd.	India	**50.00**	50.00
Meja Urja Nigam Private Ltd.	India	**50.00**	50.00
BF-NTPC Energy Systems Ltd.@	India	-	49.00
Nabinagar Power Generating Company Ltd. (previously Nabinagar Power Generating Company Pvt. Ltd.)***	India	-	50.00
Transformers and Electricals Kerala Ltd.	India	**44.60**	44.60
National High Power Test Laboratory Private Ltd.	India	**20.00**	20.00
Energy Efficiency Services Ltd.	India	**36.36**	31.71
CIL NTPC Urja Private Ltd.	India	**50.00**	50.00
Anushakti Vidhyut Nigam Ltd.	India	**49.00**	49.00
Hindustan Urvarak & Rasayan Ltd.	India	**33.33**	33.33
Trincomalee Power Company Ltd.	Srilanka	**50.00**	50.00
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'.

** Refer Note 6 (f).

*** Joint Venture Company till 28 June 2018 and a Subsidiary Company w.e.f. 29 June 2018.

@ Under liquidation - Refer Note-7.

55. Disclosure as per Ind AS 33 'Earnings per share'

(i) Basic and diluted earnings per share (in ₹)

Particulars	For the year ended 31 March 2019	For the year ended 31 March 2018
From operations including regulatory deferral account balances (a) [A/D]	**11.88**	10.45
From regulatory deferral account balances (b) [B/D]	**(3.88)**	3.29
From operations excluding regulatory deferral account balances (a)-(b) [C/D]	**15.76**	7.16
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 2019	For the year ended 31 March 2018
From operations including regulatory deferral account balances (a) [A]	**11,749.89**	10,343.17
From regulatory deferral account balances (b) [B]	**(3,841.34)**	3,260.85
From operations excluding regulatory deferral account balances (a)-(b) [C]	**15,591.23**	7,082.32

(iii) Weighted average number of equity shares (used as denominator) (Nos.)

Particulars	For the year ended 31 March 2019	For the year ended 31 March 2018
Opening balance of issued equity shares	**8,24,54,64,400**	8,24,54,64,400
Bonus equity shares issued during financial year 2018-19*	**1,64,90,92,880**	1,64,90,92,880
Weighted average number of equity shares for Basic and Diluted EPS [D]	**9,89,45,57,280**	9,89,45,57,280

*The Company has issued 1,64,90,92,880 equity shares of ₹ 10/- each as fully paid bonus shares during the year ended 31 March 2019 (31 March 2018: Nil) in the ratio of one equity share of ₹ 10/- each for every five equity shares held. This has been considered for calculating weighted average number of equity shares for all comparitive periods presented as per Ind AS 33. In line with the above, EPS for the year ended 31 March 2018 has been restated.

56. 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 CGUs is value in use and amounts to ₹**1,64,752.24 crore** (31 March 2018: ₹ 1,90,627.27 crore). The discount rate used for the computation of value in use for the generating plant is **9.33%** (31 March 2018: 8.00%) and for solar plant is **8.49%** (31 March 2018: 7.13%).

b) The Company has investments in Ratnagiri Gas and Power Pvt. Ltd. (RGPPL), a joint venture of the Company. RGPPL had incurred losses during last few years which has resulted in erosion of net worth of RGPPL. Also, value of RGPPL's assets had declined significantly more than would be expected as a result of the passage of time or normal use. Further, Power Block (CGU) of RGPPL is not operating at its installed capacity from last many years. The recoverable amount of this investment was assessed at ₹ 217.50 crore and accordingly the Company had provision for impairment of ₹ 617.05 crore in respect of such investment as at 31 March 2018. During the year, the assessment of impairment of its investment in RGPPL has been carried out by an independent expert, impact of which is explained below:

Recoverable amount is based on the value in use as its fair value less cost of disposals cannot be estimated.

Recoverable amount of investment in RGPPL has been assessed at ₹ 59.53 crore and is based on the present value of future cash flows expected to be derived from gas based power plant of RGPPL till 31 March 2039. The period is based on the estimated useful life of the power plant. Decrease in recoverable amount of investment in RGPPL is due to decrease in the value in use as compared to the previous year. This has led to addition in provision for impairment by ₹ **157.97 crore** in the current year (31 March 2018: reversal of impairment provision of ₹ 165.90 crore).

Following are the key assumptions used to determine the recoverable amount of investment:

- Capacity : 1,967 MW
- Auxiliary consumption : 2.50%
- Plant Load Factor (PLF) : 25.40%
- Tariff : INR 5.5/kwh (net of transmission charges and losses)

No growth rates have been assumed and the past experience have been considered for future cash flows which are expected to be derived.

The post-tax discount rate used for the future cash flows is **11.20%** (31 March 2018: differential rates in the range of 10.00% to 11.20%).

Also refer Note 6 (e) in this regard.

c) In respect of certain investment in other companies, provision for impairment on investments has been recognised at ₹ **189.75 crore** (31 March 2018: ₹ 189.77 crore). Also refer Note 6 c) and f) in this regard.

57. 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		Others		Total	
	For the year ended		For the year ended		For the year ended		For the year ended	
	31 March 2019	31 March 2018	**31 March 2019**	31 March 2018	**31 March 2019**	31 March 2018	**31 March 2019**	31 March 2018
Carrying amount at the beginning of the year	**3,465.00**	3,695.78	**330.10**	1,170.79	**1,357.08**	710.30	**5,152.18**	5,576.87
Additions during the year	**746.65**	181.52	**45.36**	318.28	**603.40**	753.40	**1,395.41**	1,253.20
Amounts used during the year	**(445.51)**	(414.51)		-	**(1.94)**	(106.35)	**(447.45)**	(520.86)
Reversal/adjustments during the year	**(266.40)**	2.21	**(276.69)**	(1,158.97)	**38.39**	(0.27)	**(504.70)**	(1,157.03)
Carrying amount at the end of the year	**3,499.74**	3,465.00	**98.77**	330.10	**1,996.93**	1,357.08	**5,595.44**	5,152.18

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 is 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 2014. Provision for tariff adjustment of ₹ **45.36 crore** (31 March 2018: ₹41.59 crore) is mainly towards the estimated interest payable to beneficiaries at the time of issue of tariff orders has been made on an estimated basis

Further, consequent to the dismissal of the Company's appeal against the said CERC order by the Hon'ble Supreme Court of India, provision for tariff adjustments of ₹ **276.69 crore** (31 March 2018: ₹1,158.97 crore) was reversed by corresponding adjustment in revenue from operations. (Refer Note 32)

iii) Provision - Others

(a) Provision for others comprise ₹ **85.14 crore** (31 March 2018: ₹ 73.15 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 60 (b)], ₹ **1,908.43 crore** (31 March 2018: ₹ 1,279.31 crore) towards provision for cases under litigation and ₹ **3.36 crore** (31 March 2018: ₹ 4.62 crore) towards provision for shortage in property, plant and equipment on physical verification pending investigation.

(b) 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/-. After commencement of the operations, the operator had raised several disputes, invoked arbitration and raised substantial claims on the Company. An amount of ₹ **356.31 crore** (31 March 2018: ₹158.50 crore) has been deposited till 31 March 2019 based on the interim arbitral award and subsequent directions of the Hon'ble Supreme Court of India. During the year, the Arbitral Tribunal has awarded a claim of ₹ 1,891.09 crore plus applicable interest in favour of the operator vide their order dated 27 January 2019. The Company aggrieved by the arbitral award and considering a legal opinion obtained has filed an appeal before Hon'ble High Court of Delhi against the said arbitral award in its entirety. Considering the provisions of Ind AS 37 'Provisions, Contingent Liabilities and Contingent Assets', Significant Accounting Policies of the Company and the principle of conservatism, an amount of ₹ 394.07 crore has been estimated and provided for and an amount of ₹1,875.73 crore has been disclosed as contingent liability, along with applicable interest. Refer Note 37, 49(b) and Note 69A(c). The amount thus provided is included above under provisions for cases under litigation.

iv) In respect of provision for cases under litigation, outflow of econmic benefits is dependent upon the final outcome of such cases.

v) In all these cases, outflow of economic benefits is expected within next one year.

vi) 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 assumptions and estimates used in recognising these provisions.

vii) Contingent liabilities and contingent assets

Disclosure with respect to claims against the Company not acknowledged as debts and contingent assets are made in Note 69.

58. Disclosure as per Ind AS 38 'Intangible Assets'

Research expenditure charged to revenue during the year is ₹ **51.42 crore** (31 March 2018: ₹ 77.67 crore).

59. Disclosure as per Ind AS 103 'Business Combinations'

Acquisition of Barauni Thermal Power Station (BTPS)

(i) Pursuant to the Memorandum of Understanding dated 15 May 2018 amongst the Company and Government of Bihar ('GoB'), Bihar State Power Holding Company Ltd. ('BSPHCL'), Bihar State Power Generation Company Ltd. ('BSPGCL'), Bihar State Power Transmission Company Ltd. ('BSPTCL'), North Bihar Power Distribution Company Ltd. ('NBPDCL') and South Bihar Power Distribution Company Ltd. ('SBPDCL'), all assets and liabilities (including mining rights) of BTPS comprising Stage I (Unit# 6 and 7 - 2X110 MW) and Stage II (Unit# 8 and 9 - 2X250 MW) have been acquired by the Company via Transfer Scheme dated 27 June 2018 (as amended on 15 December 2018) and is effective from 15 December 2018.

Primary reasons for the business combination:

a. Business development of the Company;

b. Reduce cost of power generation for the consumers of the Bihar State by bringing in the vast management and operations experience of the Company;

c. Enhance operational performance of the acquired assets thereby enhancing reliability of power supply in the Bihar State.

(ii) Consideration transferred

Out of the total purchase consideration of ₹ 2,145.33 crore, the Company paid ₹ 2,018.48 crore as cash and cash equivalents and adjusted ₹ 126.85 crore towards the dues of a subsidiary company.

(iii) Acquisition related costs

The Company incurred acquisition related costs of ₹ 3.51 crore as general adminsitrative costs. These costs have been included in 'Employee benefits expense' and 'Other expenses' amounting to ₹ 3.09 crore and ₹ 0.42 crore respectively in the Statement of profit and loss.

(iv) Goodwill / Capital reserve

Assets and liabilities are recorded at fair value at the date of acquisition. As there is no difference between fair value of the assets & liabilities and the purchase consideration, no goodwill / capital reserve has been recognised.

(v) **Identifiable assets acquired and liabilities assumed**

The following table summarises the recognised amounts of assets acquired and liabilities assumed at the date of acquisition:

₹ Crore

Particulars	Amount
Building	41.43
Plant and equipment	21.54
Other tangible assets	7.31
Capital work-in-progress	2,520.81
Inventories	17.94
Other financial assets	13.10
Other financial liabilities	(476.80)
Total net identifiable assets acquired	**2,145.33**

(vi) **Revenue and profit contribution**

Acquisition of BTPS has contributed ₹ 0.07 crore of revenue and (-) ₹ 4.80 crore to profit before tax, from 15 December 2018 to 31 March 2019. Impact on revenue and profit for the year had the acquisition occurred on 1 April 2018, is not ascertainable.

(vii) **Purchase consideration – cash outflow**

₹ Crore

Particulars	Amount
Outflow of cash to acquire business, net of cash acquired	
Cash consideration	2,018.48
Adjusted with the dues of a subsidiary company	126.85
Less: Cash and cash equivalents acquired	-
Net outflow of cash – investing activities	**2,145.33**

60. Disclosure as per Ind AS 106, 'Exploration for and Evaluation of Mineral Resources'

a) The Company along-with some public sector undertakings has 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, the Company along-with the consortium partners has decided to relinquish both the blocks and Oil and Natural Gas Corporation Ltd. (ONGC), the operator, has submitted an application to Directorate General of Hydrocarbons (DGH) in this regard.

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 2019 (Unaudited)**	As at 31 March 2018 (Unaudited)
Assets	**0.01**	0.01
Liabilities	**0.49**	2.27
Capital commitments [Unfinished Minimum Work Programme (MWP)]	**-**	-

₹ Crore

Particulars	**For the year ended 31 March 2019 (Unaudited)**	For the year ended 31 March 2018 (Unaudited)
Expenses	**0.43**	2.28

For the year ended 31 March 2019 and 31 March 2018, there are no income and operating/investing cash flow from exploration activities.

The exploration activities in block KG-OSN-2009/4 were suspended w.e.f. 11 January 2012 due to non-clearance by the Ministry of Defence, GOI. Subsequently, DGH vide letter dated 29 April 2013 has informed ONGC that the block is cleared conditionally wherein block area is segregated between No Go zone, High-risk zone and Permitted zone. As the permitted area is only 38% of the total block area the consortium has submitted proposal to DGH for downward revision of MWP of initial exploration period. 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 in lieu of MoD proportionate reduced 317 Sq. Km. 3D survey, 589 LKM of 2D survey and drilling of 2 wells.

ONGC has completed drilling of one well. Airborne Full Tensor Gravity Gradiometer (FTG) survey work is also completed.

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 ₹ 85.14 crore from ₹ 73.15 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 ₹ **12.10 crore** (31 March 2018: ₹ 5.01 crore) towards the establishment expenses 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 and expenses is as under:

₹ **Crore**

Particulars	**As at 31 March 2019**	As at 31 March 2018
Assets	**9.19**	9.19
Liabilities	**87.29**	75.19

Provision of ₹ **8.26 crore** as at 31 March 2019 (31 March 2018: ₹ 8.26 crore) has been made towards the assets under exploration and estimated obsolescence in the inventory.

₹ **Crore**

Particulars	**For the year ended 31 March 2019**	For the year ended 31 March 2018
Expenses	**12.10**	5.01

For the year ended 31 March 2019 and 31 March 2018, there are no income and operating/investing cash flow from exploration activities.

c) The Company has 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, proposal for relinquishment of the block has been submitted to the GOI.

Based on the audited statement of the account for the above block, Company's share in assets and liabilities and expenses is as under:

₹ **Crore**

Particulars	**As at 31 March 2019**	As at 31 March 2018
Assets	**6.13**	6.23
Liabilities	**0.27**	0.85

₹ **Crore**

Particulars	**For the year ended 31 March 2019**	For the year ended 31 March 2018
Expenses	**0.39**	5.89
Operating cash flows from exploration activities	**0.40**	9.21

Provision of ₹ **6.07 crore** as at 31 March 2019 (31 March 2018: ₹ 5.59 crore) has been made towards estimated obsolescence in the inventory.

For the year ended 31 March 2019 and 31 March 2018, there are no income and investing cash flow from exploration activities.

d i) As per mining plan of Pakri Barwadih Coal Mining Project (PB), eastern and western quarry of the PB project are under development stage and disclosed in Note 3 - Development of coal mines. Exploration and evaluation activities are taking place at north-west quarry and under ground mine area/dip side area of PB block. At Dulanga mine extraction has already started and at Talaipalli, Chatti-Bariatu and Kerandari coal mining projects land acquisition and other mine development activities are in progress. these mines are also disclosed in Note-3-Development of coal mines.

d ii) Exploration and evaluation activities are in progress at Banai, Bhalumuda and Mandakini - B coal blocks allotted by the GOI. Request sent to Nominated Authority, Ministry of Coal (MoC) for integration of both Banai & Bhalumuda blocks. In respect of Mandakini - B coal block, mining plan has been submitted to MoC for approval.

Assets and liabilities of coal exploration and evaluation activities are as under:

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
Assets	**238.95**	222.94
Liabilities	**10.25**	3.50

For the year ended 31 March 2019 and 31 March 2018, there are no incomes, expenses and operating and investing cash flow from coal exploration activities.

d iii) MoC vide letter dated 3 April 2019 has intimated BSPGCL regarding its prior consent for assigning Badam coal block in favour of the Company. Transfer process of this block from BSPGCL to the Company is in progress. (Refer Note 59)

61. 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.

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 2019	31 March 2018	31 March 2019	31 March 2018	31 March 2019	31 March 2018
Segment revenue						
Sale of energy/consultancy, project management and supervision fee *	**86,654.53**	79,906.71	**3,110.70**	1,622.38	**89,765.23**	81,529.09
Other income	**2,047.85**	2,772.23	**130.81**	2.79	**2,178.66**	2,775.02
	88,702.38	82,678.94	**3,241.51**	1,625.17	**91,943.89**	84,304.11

₹ Crore

Particulars	Generation of energy		Others		Total	
	For the year ended		For the year ended		For the year ended	
	31 March 2019	31 March 2018	**31 March 2019**	31 March 2018	**31 March 2019**	31 March 2018
Unallocated corporate interest and other income					**235.67**	903.84
Total	**88,702.38**	82,678.94	**3,241.51**	1,625.17	**92,179.56**	85,207.95
Segment result (including net movements in regulatory deferral account balances)**	**13,724.83**	20,509.21	**389.72**	157.64	**14,114.55**	20,666.85
Unallocated corporate interest and other income					**235.67**	903.84
Unallocated corporate expenses, interest and finance costs					**6,574.17**	5,820.34
Profit before tax					**7,776.05**	15,750.35
Income tax expense (including tax on net movements in regulatory deferral account balances)					**(3,973.84)**	5,407.18
Profit after tax					**11,749.89**	10,343.17

₹ Crore

Particulars	Generation of energy		Others		Total	
	For the year ended		For the year ended		For the year ended	
	31 March 2019	31 March 2018	**31 March 2019**	31 March 2018	**31 March 2019**	31 March 2018
Depreciation, amortisation and impairment expense ***	**7,180.68**	7,037.58	**0.29**	0.29	**7,180.97**	7,037.87
Non-cash expenses other than depreciation	**634.23**	433.66	**14.32**	30.88	**648.55**	464.54
Capital expenditure	**24,936.53**	23,024.64	**1,032.47**	1,642.36	**25,969.00**	24,667.00

₹ Crore

Particulars	Generation of energy		Others		Total	
	As at		As at		As at	
	31 March 2019	31 March 2018	**31 March 2019**	31 March 2018	**31 March 2019**	31 March 2018
Segment assets	**1,63,073.92**	1,55,622.67	**4,661.17**	4,952.26	**1,67,735.09**	1,60,574.93
Unallocated corporate and other assets					**1,23,142.68**	1,07,257.16
Total assets	**1,63,073.92**	1,55,622.67	**4,661.17**	4,952.26	**2,90,877.77**	2,67,832.09
Segment liabilities	**15,748.31**	14,988.40	**2,869.85**	2,546.00	**18,618.16**	17,534.40
Unallocated corporate and other liabilities					**1,64,851.44**	1,48,519.92
Total liabilities	**15,748.31**	14,988.40	**2,869.85**	2,546.00	**1,83,469.60**	1,66,054.32

* Includes (-) ₹ **2,775.82 crore** (31 March 2018: ₹ 6.44 crore) for sales related to earlier years.

** Generation segment result would have been ₹ **13,515.08 crore** (31 March 2018: ₹ 20,502.77 crore) without including the sales related to earlier years amounting to (-) ₹ **2,775.82 crore** (31 March 2018: ₹ 6.44 crore) and related expenses amounting to (-) ₹ **2,985.57 crore** (31 March 2018: ₹ Nil) as explained in Note 32 c) and d).

***Includes ₹ **Nil** (31 March 2018: (-) ₹ 3.75 crore) towards reversal of impairment loss recognised in the profit or loss, in generation of energy segment.

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 2019		31 March 2018	
	Amount (₹ Crore)	**%age**	Amount (₹ Crore)	%age
Maharashtra State Electricity Distribution Company Ltd.	**9,506.31**	**10.54**	8,766.38	10.50

62. 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 institutionalise 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 TPA 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 was valid till October 2016. Govt of India has approved the extension of these TPAs for another period of 10 years. Most of the States have signed these 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 sixty days from the date of bill and levy of surcharge @ 18% p.a. on delayed payment beyond sixty days.

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 work completed 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 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 secured by 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 ₹ **24.38 crore** (31 March 2018: ₹ 60.49 crore). The cash and cash equivalents are held with banks with high rating.

Deposits with banks and financial institutions

The Company held deposits with banks and financial institutions of ₹ **2,119.96 crore** (31 March 2018: ₹ 3,917.89 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 2019	As at 31 March 2018
Financial assets for which loss allowance is measured using 12 months Expected Credit Losses (ECL)		
Non-current investments	**91.92**	106.28
Non-current loans	**544.38**	655.67
Other non-current financial assets*	**1,242.70**	1,225.01
Cash and cash equivalents	**24.38**	60.49
Bank balances other than cash and cash equivalents	**2,119.96**	3,917.89
Current loans	**305.79**	280.22
Other current financial assets**	**461.01**	363.52
Total (A)	**4,790.14**	6,609.08
Financial assets for which loss allowance is measured using life-time Expected Credit Losses (ECL) as per simplified approach		
Trade receivables	**8,433.86**	7,577.97
Unbilled revenue	**7,870.83**	7,574.60
Total (B)	**16,304.69**	15,152.57
Total (A+B)	**21,094.83**	21,761.65

* Excluding share application money pending allotment (Refer Note 9)

** Excluding unbilled revenue (Refer Note 16)

(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 revenues.

(iii) **Ageing analysis of trade receivables**

The ageing analysis of the trade receivables is as below:

₹ Crore

Ageing	Not due	0-30 days past due	31-60 days past due	61-90 days past due	91-120 days past due	More than 120 days past due	Total
Gross carrying amount as at 31 March 2019	**6,015.48**	**582.77**	**552.66**	**502.92**	**159.14**	**621.23**	**8,434.20**
Gross carrying amount as at 31 March 2018	4,736.30	799.19	234.30	325.96	312.14	1,170.42	7,578.31

(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	Trade receivables	Advances	Claims recoverable	Total
Balance as at 1 April 2017	0.20	0.04	0.12	0.36
Impairment loss recognised	0.14	0.03	-	0.17
Amounts written off	-	-	-	-
Balance as at 31 March 2018	0.34	0.07	0.12	0.53
Impairment loss recognised	-	-	14.95	14.95
Amounts written off	-	0.01	-	0.01
Balance as at 31 March 2019	**0.34**	**0.06**	**15.07**	**15.47**

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 2019	As at 31 March 2018
Fixed-rate borrowings		
Foreign currency loans	**3,207.17**	70.01
Floating-rate borrowings		
Bank overdraft	**3,500.00**	2,000.00
Term loans	**4,845.00**	10,357.50
Foreign currency loans	**45.01**	46.68
Total	**11,597.18**	12,474.19

(ii) Maturities of financial liabilities

The following are the contractual maturities of derivative and non-derivative financial liabilities, based on contractual cash flows:

31 March 2019 **₹ 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	954.20	1,636.84	1,542.00	10,414.26	21,115.08	**35,662.38**
Rupee term loans from banks	307.88	1,431.96	2,031.03	11,463.76	32,002.63	**47,237.26**
Rupee term loans from others	262.50	657.60	898.52	2,678.80	1,073.17	**5,570.59**
Finance lease obligations	5.04	32.92	36.85	49.74	682.68	**807.23**
Foreign currency notes	185.10	255.22	-	10,977.00	13,709.80	**25,127.12**
Unsecured foreign currency loans from banks and financial institutions	197.69	2,979.63	1,520.13	2,380.07	6,258.49	**13,336.01**
Unsecured foreign currency loans (guaranteed by GOI)	-	189.28	185.95	557.86	960.17	**1,893.26**
Commercial paper and cash credit	15,502.90	-	-	-	-	**15,502.90**
Trade and other payables	12,293.11	9,869.62	1,419.41	822.60	567.20	**24,971.94**
Derivative financial liabilities						
Full currency swaps	-	15.77	-	-	-	**15.77**

31 March 2018 **₹ 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	436.94	2,558.81	1,782.00	5,724.87	23,346.46	33,849.08
Rupee term loans from banks	215.83	1,668.46	1,756.60	9,455.55	24,694.37	37,790.81
Rupee term loans from others	266.36	657.59	898.52	2,695.57	1,954.92	6,472.96
Finance lease obligations	5.98	42.44	32.29	69.68	688.17	838.56
Foreign currency notes	181.96	170.20	-	10,563.00	13,240.70	24,155.86
Unsecured foreign currency loans from banks and financial institutions	168.03	1,101.57	2,929.75	3,124.10	4,683.60	12,007.05
Unsecured foreign currency loans (guaranteed by GOI)	-	184.10	181.85	545.54	1,120.83	2,032.32
Commercial paper and cash credit	6,500.32	-	-	-	-	6,500.32
Trade and other payables	15,157.46	3,558.01	1,905.63	999.38	84.81	21,705.29
Derivative financial liabilities						
Full currency swaps	-	17.54	16.21	-	-	33.75

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 2019 and 31 March 2018 are as below:

31 March 2019 **₹ Crore**

Particulars	**USD**	**EURO**	**JPY**	**Others**	**Total**
Financial assets					
Trade and other receivables	0.05	-	-	1.18	1.23
Cash and cash equivalents	0.53	-	-	3.67	4.20
Other financial assets	1.09	-	-	0.49	1.58
Total	**1.67**	**-**	**-**	**5.34**	**7.01**
Financial liabilities					
Foreign currency bonds	16,940.30	3,960.07	-	4,226.76 *	25,127.13
Unsecured foreign currency loans from banks and financial institutions	6,760.64	1,652.09	6,832.31	-	15,245.04
Trade payables and other financial liabilities	2,414.27	818.14	106.16	140.22	3,478.79
Total	**26,115.21**	**6,430.30**	**6,938.47**	**4,366.98**	**43,850.96**

* ₹ 2,000.00 crore - ₹ denominated USD settled Green Masala Bonds and ₹2,000.00 crore-₹ denominated USD settled Masala bonds.

31 March 2018 ₹ Crore

Particulars	USD	EURO	JPY	Others	Total
Financial assets					
Trade and other receivables	0.20	-	-	4.76	4.96
Cash and cash equivalents	0.96	-	-	3.49	4.45
Other financial assets	0.08	-	-	-	0.08
Total	1.24	-	-	8.25	9.49
Financial liabilities					
Foreign currency bonds	15,858.03	4,071.07	-	4,226.76*	24,155.86
Unsecured foreign currency loans from banks and financial institutions	7,218.89	1,996.59	4,857.64	-	14,073.12
Trade payables and other financial liabilities	2,198.07	1,033.89	144.25	9.47	3,385.68
Total	25,274.99	7,101.55	5,001.89	4,236.23	41,614.66

* ₹ 2,000.00 crore - ₹ denominated USD settled Green Masala Bonds and ₹2,000.00 crore-₹ denominated USD settled Masala bonds.

Out of the above, an amount of ₹ **15.77 crore** (31 March 2018: ₹ 33.75 crore) is hedged by derivative instruments. In respect of the balance exposure, gain/(loss) on account of exchange rate variations on all long-term foreign currency monetary items and short-term 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 Company for construction of power plants with vendors awarded through ICB (International competitive bidding) which are denominated in third currency (i.e. a currency which is not the functional currency of any of the parties to the contract) are falling under the purview of guidance provided as per Ind AS 109, 'Financial instruments' on derivatives and embedded derivatives. The Company has sought opinion from the Expert Advisory Committee (EAC) constituted by The Institute of Chartered Accountants of India on the above matter vide letter no NTPC/EAC/ICAI dated 29 September 2016. On receipt of opinion/clarification from EAC, Company will account for such contracts.

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 2019	31 March 2018
Financial Assets:		
Loans to related parties	**184.22**	249.66
Loans to others	**25.07**	25.96
Bank deposits	**2,066.65**	3,882.12
Total	**2,275.94**	4,157.74
Financial Liabilities:		
Fixed-rate instruments		
Bonds	**35,659.44**	33,846.07
Foreign currency loans/notes*	**30,092.43**	29,795.23
Rupee term loans	**152.39**	186.31
Commercial paper and cash credit	**15,502.90**	6,500.32
Finance lease obligations	**186.41**	184.34
	81,593.57	70,512.27
Variable-rate instruments		
Foreign currency loans/notes	**10,061.74**	8,269.84
Rupee term loans	**52,655.46**	44,077.46
	62,717.20	52,347.30
Total	**1,44,310.77**	1,22,859.57

* Includes ₹ 2,000.00 crore - ₹ denominated USD settled Green Masala Bonds and ₹ 2,000 crore ₹ denominated USD settled Masala bonds (31 March 2018: includes ₹ 2,000.00 crore - ₹ denominated USD settled Green Masala Bonds and ₹ 2,000 crore ₹ denominated USD settled Masala bonds).

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.

₹ Crore

Particulars	Profit or loss	
	50 bp increase	50 bp decrease
31 March 2019		
Foreign currency loans/notes	**(42.00)**	**42.00**
Rupee term loans	**(246.87)**	**246.87**
	(288.87)	**288.87**
31 March 2018		
Foreign currency loans/notes	(33.92)	33.92
Rupee term loans	(189.69)	189.69
	(223.61)	223.61

Of the above mentioned increase in the interest expense, an amount of ₹ **148.40 crore** (31 March 2018: ₹ 105.18 crore) is expected to be capitalised and recovered from beneficiaries.

63. Fair Value Measurements

a) Financial instruments by category

₹ Crore

Particulars	31 March 2019			31 March 2018		
	FVTPL	FVTOCI	Amortised Cost	FVTPL	FVTOCI	Amortised Cost
Financial assets						
Investments						
- Equity instruments	**3.78**	**88.14**	**-**	1.40	104.88	-
Trade Receivables	**-**	**-**	**8,433.86**	-	-	7,577.97
Loans	**-**	**-**	**850.17**	-	-	935.89
Cash and cash equivalents	**-**	**-**	**24.38**	-	-	60.49
Other bank balances	**-**	**-**	**2,119.96**	-	-	3,917.89
Finance lease receivables	**-**	**-**	**520.00**	-	-	542.32
Derivative financial assets	**1.28**	**-**	**-**	3.73	-	-
Other financial assets*	**-**	**-**	**9,053.26**	-	-	8,617.08
	5.06	**88.14**	**21,001.63**	5.13	104.88	21,651.64
Financial liabilities						
Borrowings	**-**	**-**	**1,28,621.46**	-	-	1,16,174.91
Commercial paper and cash credit	**-**	**-**	**15,502.90**	-	-	6,500.32
Finance lease obligations	**-**	**-**	**186.41**	-	-	184.34
Trade payables	**-**	**-**	**7,599.11**	-	-	5,615.95
Payable for capital expenditure	**-**	**-**	**14,865.85**	-	-	13,784.68
Other financial liabilities	**-**	**-**	**2,240.92**	-	-	2,127.34
	-	**-**	**1,69,016.65**	-	-	1,44,387.54

* Excluding share application money pending allotment (Refer Note 9)

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 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 2019	**Level 1**	**Level 2**	**Level 3**	**Total**
Financial assets:				
Derivative financial assets				
- Principal only swaps	-	-	**1.28**	**1.28**
Investments in quoted equity instruments - PTC India Ltd.	**88.14**	-	-	**88.14**
Investments in unquoted equity instruments	-	-	**3.78**	**3.78**
	88.14	-	**5.06**	**93.20**

₹ Crore

Financial assets and liabilities measured at fair value- recurring fair value measurement as at 31 March 2018	Level 1	Level 2	Level 3	Total
Financial assets:				
Derivative financial assets				
- Currency and interest rate swaps	-	-	0.02	0.02
- Principal only swaps	-	-	3.71	3.71
Investments in quoted equity instruments - PTC India Ltd.	104.88	-	-	104.88
Investments in unquoted equity instruments	-	-	1.40	1.40
	104.88	-	5.13	110.01

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.

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 observable current market transactions and dealer quotes of similar instruments. This level includes derivative MTM assets/liabilities. Fair value of derivative assets/liabilities such as interest rate swaps and foreign exchange forward contracts are valued using valuation techniques, which employs the use of market observable inputs. The most frequently applied valuation techniques include forward pricing and swap models & present value calculations.

There have been no transfers in either direction for the years ended 31 March 2019 and 2018.

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, 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 2019		As at 31 March 2018	
		Carrying amount	Fair value	Carrying amount	Fair value
Financial assets					
Loans	3	**850.17**	**849.29**	935.89	995.16
Finance lease receivables	3	**520.00**	**520.00**	542.32	542.32
Claims recoverable	3	**785.27**	**785.27**	704.22	704.22
Trade receivables	3	**8,433.86**	**8,433.86**	7,577.97	7,577.97
		10,589.30	**10,588.42**	9,760.40	9,819.67
Financial liabilities					
Bonds/Debentures	1	**-**	**-**	4,010.35	3,832.25
	2	**6,138.42**	**6,217.40**	23,993.92	24,816.19
	3	**29,521.03**	**30,974.07**	5,841.80	6,119.07
Foreign currency notes	1	**3,541.49**	**3,671.86**	3,271.97	3,260.60
	2	**13,355.18**	**13,805.43**	12,537.69	13,068.76
	3	**8,152.40**	**8,658.54**	8,256.56	8,558.48
Foreign currency loans	3	**15,105.11**	**15,297.59**	13,998.85	14,177.82
Rupee term loans	3	**52,807.85**	**52,805.40**	44,263.77	44,258.67
Trade payables and payable for capital expenditure	3	**1,304.09**	**1,201.70**	1,994.02	1,858.98
Other financial liabilities	3	**58.37**	**58.37**	193.98	193.98
		1,29,983.94	**1,32,690.36**	1,18,362.91	1,20,144.80

The carrying amounts of current trade receivables, trade payables, payable for capital expenditure, investment in bonds, 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.

For financial assets and liabilities that are measured at fair value, the carrying amounts are equal to the fair values.

64. 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 result from operating activities divided by total shareholders' equity. The Board of Directors also monitors the level of dividends to equity shareholders.

Under the terms of major borrowing facilities, the Company 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 1.25:1 and account receivable ratio not exceeding 3:1 (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 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 2019**	As at 31 March 2018
Borrowings	**1,44,310.77**	1,22,859.57
Less: Cash and cash equivalents	**24.38**	60.49
Net Debt	**1,44,286.39**	1,22,799.08
Total Equity	**1,07,408.17**	1,01,777.77
Net Debt to Equity Ratio	**1.34**	1.21

65. 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 (CO D) 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.

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 recognised on an undiscounted basis as 'Regulatory deferral account debit/credit balance' by credit/debit to 'Movements in Regulatory deferral account balances' during construction period and adjusted from the year in which the same becomes recoverable from or payable to the beneficiaries. Accordingly, an amount of **(-) ₹ 35.38 crore** for the year ended as at 31 March 2019 has been accounted for as 'Regulatory deferral account debit balance' (31 March 2018: ₹ 578.71 crore accounted as 'Regulatory deferral account dedit balance'.)

(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 from ₹ 0.10 crore to ₹ 0.20 crore falls under the category of 'Change in law' and a regulatory asset was created in the previous year. 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 (Regulatory deferral account debit balance) towards the increase in O&M expenditure due to the pay revision. This will be taken up with CERC through petition. Accordingly, an amount of ₹ **118.26 crore** for the year ended 31 March 2019 has been accounted for as 'Regulatory deferral account debit balance' (31 March 2018: ₹ 118.32 crore).

(c) CERC Regulations provide that deferred tax liability upto 31 March 2009 shall be recovered from the beneficiaries as and when the same gets materialised. Further, for the period commencing from 1 April 2014, CERC Regulations, 2014 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 deferred asset for above deferred tax liabilities (Net) in its financial statements (referred to as 'Deferred asset for deferred tax liability'). Deferred asset 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. The Company was recognising such deferred asset for deferred tax liability as part of Deferred Tax Liabilities (Net) under Note 25. During the year, in line with the opinion of the Expert Advisory Committee (EAC) of the Institute of Chartered Accountants of India (ICAI), the same has been reclassified as a regulatory deferral account debit balance. Refer Note 47 (A). Accordingly, an amount of **(-) ₹ 5,160.22 crore** (31 March 2018: ₹ 2,707.85 crore) for the year ended 31 March 2019 has been accounted for as 'Regulatory deferral account debit balance'.

(d) The petition filed by the Company before CERC seeking to reimburse the expenditure on transportation of ash, has been 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 has been created towards ash transportation expenses in respect of stations where there is shortfall in ash transportation expenses over and above the revenue from sale of ash. Accordingly, an amount of ₹ **179.29 crore** (31 March 2018: ₹ Nil) for the year ended 31 March 2019 has been accounted for as 'Regulatory deferral account debit balance'.

(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 recognised in the books to be recovered from or payable to beneficiaries in future periods are as follows:

a) Regulatory deferral account debit balance - Note 18

The regulatory assets recognised in the books to be recovered from the beneficiaries in future periods are as follows:

₹ **Crore**

Particulars	For the year ended 31 March 2019	For the year ended 31 March 2018
A. Opening balance	**8,381.66**	5,450.67
B. Addition during the year	**(4,898.05)**	3,404.88
C. Adjustments during the year	**(79.19)**	(479.90)
D. Amount collected/refunded during the year	**1.58**	6.01
E. Regulatory deferral account balances recognised in the statement of profit and loss (B+D)	**(4,896.47)**	3,410.89
F. Closing balance (A+C+E)	**3,406.00**	8,381.66

b) Net movements in regulatory deferral account balances [I]	**(4,896.47)**	3,410.89
c) Tax on net movements in regulatory deferral account balances [II]	**(1,055.13)**	150.04
d) Total amount recognised in the statement of profit and loss during the year [I-II]	**(3,841.34)**	3,260.85

The Company expects to recover the carrying amount of regulatory deferral account debit balance over a period of 10 years.

66. 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.

(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 opertion 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 Vojna (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.

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 For the year ended		Others For the year ended		Total For the year ended	
	31 March 2019	31 March 2018*	**31 March 2019**	31 March 2018*	**31 March 2019**	31 March 2018*
Geographical markets						
India	**86,654.53**	79,906.71	**3,108.66**	1,618.83	**89,763.19**	81,525.54
Others	**-**	-	**2.04**	3.55	**2.04**	3.55
	86,654.53	79,906.71	**3,110.70**	1,622.38	**89,765.23**	81,529.09
Timing of revenue recognition						
Products and services transferred over time	**86,654.53**	79,906.71	**3,110.70**	1,622.38	**89,765.23**	81,529.09
	86,654.53	79,906.71	**3,110.70**	1,622.38	**89,765.23**	81,529.09

* The Company has applied Ind AS 115 using the cumulative effect method. Under this method, the comparative information is not restated.

III. Reconciliation of revenue recognised with contract price:

₹ Crore

Particulars	As at 31 March 2019
Contract price	**90,581.03**
Adjustments for:	
Rebates	**(815.80)**
Revenue recognised	**89,765.23**

IV. Contract balances

Contract assets are recognised when there is excess of revenue earned over billings on contracts. Contract assets are transferred to unbilled 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'.

The following table provides information about trade receivables, unbilled revenue and advances from customers:

₹ Crore

Particulars	As at 31 March 2019		As at 1 April 2018**	
	Current	**Non-current**	Current	Non-current
Trade receivables	**8,433.86**	**-**	7,577.97	-
Unbilled revenue	**7,870.83**	**-**	7,574.60	-
Advances from customers	**183.45**	**-**	454.33	-

** The Company has applied Ind AS 115 using the cumulative effect method. Under this method, the comparative information is not restated.

The Company recognised revenue of ₹ 103.49 crore arising from opening advances from customers as at 1 April 2018.

The amount of revenue recognised in FY 2018-19 from performance obligations satisfied (or partially satisfied) in previous periods, mainly due to change in transaction prices is (-) ₹ 2,775.82 crore.

There have been no significant changes in unbilled revenue and advances from customers during the year ended 31 March 2019.

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 recognised 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 ₹ **715.45 crore** (31 March 2018: ₹ 782.83 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.

VII. The Company has not incurred any incremental costs of obtaining contracts with a customer and therefore, not recognised an asset for such costs.

VIII. The Company adopted Ind AS 115 using the cumulative effect method and therefore the comparatives have not been restated and continues to be reported as per Ind AS 11 and Ind AS 18. On account of adoption of Ind AS 115, no cumulative adjustment was required as at 1 April 2018. Further, no financial statement line items are affected in the current year as a result of applying Ind AS 115 as compared to Ind AS 11 and Ind AS 18.

67. Information in respect of micro and small enterprises as at 31 March 2019 as required by Micro, Small and Medium Enterprises Development Act, 2006 (MSMED Act)

₹ Crore

Particulars	**31 March 2019**	31 March 2018
a) Amount remaining unpaid to any supplier:		
Principal amount	**587.50**	450.82
Interest due thereon	**29.30**	1.50
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.	**-**	0.01
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.	**0.01**	0.01
d) Amount of interest accrued and remaining unpaid	**0.07**	1.50
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 disallowance as a deductible expenditure under Section 23 of MSMED Act	**-**	-

68. 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 2019	31 March 2018	**31 March 2019**	31 March 2018
Kanti Bijlee Utpadan Nigam Ltd.	**170.50**	201.00	**231.00**	201.00
Patratu Vidyut Utpadan Nigam Ltd.	**7.00**	41.75	**41.75**	50.00

2. To Joint venture companies

₹ Crore

Name of the Company	Outstanding balance as at		Maximum amount outstanding during the year ended	
	31 March 2019	31 March 2018	**31 March 2019**	31 March 2018
National High Power Test Laboratory Private Ltd.	**6.00**	6.00	**6.00**	6.00

3. To Firms/companies in which directors are interested : ₹ Nil

B. Investment by the loanee (as detailed above) in the shares of NTPC : ₹ Nil

69. Contingent liabilities and commitments

A. Contingent liabilities

a. Claims against the Company not acknowledged as debts

(i) Capital works

Some of the contractors for supply and installation of equipment and execution of works at our projects have lodged claims on the Company for ₹ **11,460.55 crore** (31 March 2018: ₹ 12,533.49 crore) 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.

(ii) Land compensation cases

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 ₹ **374.63 crore** (31 March 2018: ₹ 379.98 crore) has been estimated.

(iii) Fuel suppliers

a) Pending resolution of the issues with the coal companies, an amount of ₹**3,009.74 crore** (31 March 2018: ₹ 2,869.21 crore) towards grade slippage pursuant to third party sampling has been estimated by the Company as contingent liability. Further, an amount of ₹ **878.52 crore** (31 March 2018: ₹ 678.46 crore) towards surface transportation charges, custom duty on service margin on imported coal etc. has been estimated by the Company as contingent liability.

b) In the previous year, pending resolution of dispute with fuel company for supply of RLNG, an amount of ₹ 5,821.61 crore towards the take or pay claim was estimated by the Company as contingent liability. During the year, the said dispute has been resolved.

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

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, contingent liability of ₹ **427.24 crore** (31 March 2018: ₹ 339.17 crore) has been estimated.

(v) **Possible reimbursement in respect of (i) to (iii) above**

The contingent liabilities referred to in (i) above, include an amount of ₹ **682.19 crore** (31 March 2018: ₹ 648.26 crore) relating to the hydro power project stated in Note 9(b) - Other financial assets, for which Company envisages possible reimbursement from the GOI in full. In respect of balance claims included in (i) and in respect of the claims mentioned at (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 ₹ **3,639.64 crore** (31 March 2018: ₹ 9,199.87 crore).

b. **Disputed tax matters**

Disputed income tax/sales tax/excise and other tax matters pending before various Appellate Authorities amount to ₹ **8,047.86 crore** (31 March 2018: ₹ 7,907.61 crore). 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 ₹ **3,922.55 crore** (31 March 2018: ₹ 3,868.74 crore). The amount paid under dispute/adjusted by the authorities in respect of the cases amounts to ₹ **2,513.94 crore** (31 March 2018: ₹ 2,470.24 crore).

c. **Others**

Contingent liability in respect of bills discounted with banks against trade receivables amounts to ₹ **9,998.99 crore** (31 March 2018 ₹ 602.12. crore) (Refer Note-12). In case of any claim on the Company from the banks in this regard, entire amount shall be recoverable from the beneficiaries along with surcharge. Other contingent liabilities amount to ₹ **2,233.08 crore** (31 March 2018: ₹ 2,536.13 crore) which includes claim of ₹ **1,875.73 crore** (31 March 2018: ₹ 2,026.30 crore) not accepted by the Company. Refer Note 57 (iii)(b).

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.

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) CERC (Terms & Conditions of Tariff) Regulations 2014-19 provide for levy of Late Payment Surcharge by generating company in case of delay in payment by beneficiaries beyond 60 days from the date of presentation of bill. However, inview of significant uncertainties in the ultimate collection from some of the beneficiaries against partial bills as resolved by the management, an amount of ₹ **63.72 crore** as on 31 March 2019 (31 March 2018: ₹189.47 crore) has not been recognised.

C. Commitments

a) Estimated amount of contracts remaining to be executed on capital account (property, plant and equipment and intangible assets) and not provided for as at 31 March 2019 is ₹ **38,806.34 crore** (31 March 2018: ₹ 38,119.11 crore). Details of the same are as under:

₹ Crore

Particulars	**As at 31 March 2019**	As at 31 March 2018
Property, plant and equipment	**38,779.75**	38,118.24
Intangible assets	**26.59**	0.87
Total	**38,806.34**	38,119.11

b) In respect of investments of ₹ **7,453.08 crore** including share application money pending allotment of ₹ **121.59 crore** (31 March 2018: ₹ 2,766.54 crore including share application money pending allotment of ₹ 32.00 crore) in subsidiary companies, the Company has restrictions for their disposal as at 31 March 2019 as under:

₹ Crore

Name of the Subsidiary	**Period of restrictions for disposal of investments as per related agreements**	**Amount invested as at**	
		31 March 2019	31 March 2018
Bhartiya Rail Bijlee Company Ltd.	5 years from the date of commercial operation of the last unit of the project.	**1,721.12**	1,599.53

₹ Crore

Name of the Subsidiary	Period of restrictions for disposal of investments as per related agreements	Amount invested as at	
		31 March 2019	31 March 2018
Kanti Bijlee Utpadan Nigam Ltd.	5 years from the date of commercial operation. Further, as per loan agreement, minimum equity of 51% shall be maintained at all times until final settlement of loan i.e., 4 years moratorium period and subsequently 11 years for repayment.	**1,510.68**	1,042.89
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.	**234.12**	124.12
Nabinagar Power Generating Company Ltd.	NTPC shall not transfer/assign or pledge shares until final settlement of loan i.e. 5 years moratorium and subsequently 15 years for repayment.	**3,987.16**	-
Total		**7,453.08**	2,766.54

c) In respect of investments of ₹ **2,164.50 crore** including share application money pending allotment of ₹ **60 crore** (31 March 2018: ₹ 3,805.30 crore including share application money pending allotment of ₹ 276.85 crore) in the joint venture companies, the Company has restrictions for their disposal as at 31 March 2019 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 2019	31 March 2018
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 (d).	**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 (c).	**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.	**30.40**	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.	**15.20**	15.20
Bangladesh-India Friendship Power Company Private Ltd.	15 years from the date of commercial operation date.	**277.83**	277.83
Meja Urja Nigam Private Ltd.	5 years from the date of incorporation (i.e. 02.04.2008) or commercial operation whichever is later.	**1,319.33**	1,209.33
Nabinagar Power Generating Company Ltd. (previously Nabinagar Power Generating Company Private Ltd.)	5 years from the date of incorporation (09.09.2008) or commercial operation whichever is later. Further, NTPC shall not transfer/assign or pledge shares of the JV until final settlement of loan i.e. 5 years moratorium and subsequently 15 years for repayment.	**-**	1,857.87
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. (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).	**440.32**	333.25
Total		**2,164.50**	3,805.30

d) In respect of other investments of ₹ **1.40 crore** (31 March 2018: ₹ 1.40 crore), the Company has restrictions for their disposal as at 31 March 2019 as under:

₹ Crore

Name of the Company	Period of restrictions for disposal of investments as per related agreements	Amount invested as at	
		31 March 2019	31 March 2018
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. Also refer Note 7(c).	**1.40**	1.40
Total		**1.40**	1.40

e) The Company has commitments of ₹ **4,438.76 crore** (31 March 2018: ₹ 3,993.01 crore) towards further investment in the subsidiary companies as at 31 March 2019.

f) The Company has commitments of ₹ **3,504.83 crore** (31 March 2018: ₹ 3,748.92 crore) towards further investment in the joint venture entities as at 31 March 2019.

g) The Company has commitments of ₹ **507.79 crore** (31 March 2018: ₹ 507.60 crore) towards further investment in other investments as at 31 March 2019.

h) The Company 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 2018: ₹ 75.00 crore).

i) Company's commitment towards the minimum work programme in respect of oil exploration activities of joint operations has been disclosed in Note 60.

j) S.O. 254 (E) dated 25 January 2016 issued by the Ministry of Environment, Forest and Climate Change (MOEF), GOI provides that the cost of transportation of ash for road construction projects or for manufacturing of ash based products or use as soil conditioner in agricultural activity within a radius of hundred kilometres from a coal based thermal power plant shall be borne by such coal based thermal power plant and the cost of transportation beyond the radius of hundred kilometres and up to three hundred kilometres shall be shared equally between the user and the coal based thermal power plant. Further, the coal or lignite based thermal power plants shall within a radius of three hundred kilometres bear the entire cost of transportation of ash to the site of road construction projects under Pradhan Mantri Gramin Sadak Yojna and asset creation programmes of the Government involving construction of buildings, road, dams and embankments. Accordingly, the Company has commitment to bear/share the cost of transportation of fly ash from its coal based stations on lifting of the fly ash by the users for the said purpose. Based on an independent expert opinion, the Company's obligation towards the transportation cost of fly ash will arise only on lifting and transportation of the fly ash.

An appeal was filed before CERC under 'Change in Law' as stipulated in Regulation 8 of CERC 2014 Tariff Regulations, to provide relief in respect of additional expenditure being incurred by the company towards transportation of fly ash, considering the MOEF notification dated 25 January 2016.

During the year, CERC vide order dated 5 November 2018 has allowed reimbursement of actual expenditure incurred over and above the ash fund towards transportation of fly ash in terms of MOEF Notification, as additional O&M expenses, subject to prudence check.

k) Company's commitment in respect of lease agreements has been disclosed in Note 49.

70. 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	As at 31 March 2019	As at 31 March 2018
A. Amount required to be spent during the year	**237.01**	220.75
B. Amount spent during the year on:		
a) Construction/acquisition of any asset	**4.01**	2.45
b) On purposes other than (a) above	**281.45**	239.09
Total	**285.46**	241.54

i) Amount spent during the year ended 31 March 2019:

₹ Crore

Particulars	In cash	Yet to be paid in cash	Total
a) Construction/acquisition of any asset	**3.91**	**0.10**	**4.01**
b) On purposes other than (a) above	**268.57**	**12.88**	**281.45**

ii) Amount spent during the year ended 31 March 2018:

₹ Crore

Particulars	In cash	Yet to be paid in cash	Total
a) Construction/acquisition of any asset	2.44	0.01	2.45
b) On purposes other than (a) above	211.84	27.25	239.09

C. Break-up of the CSR expenses under major heads is as under:

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
1. Eradicating Hunger and Poverty, Health Care and Sanitation	**70.10**	59.82
2. Education and Skill Development	**132.03**	66.44
3. Empowerment of Women and other Economically Backward Sections	**1.55**	1.01
4. Environmental Sustainability	**42.51**	56.22
5. Art & Culture	**0.85**	14.57
6. Sports	**3.61**	1.58
7. Rural Development	**34.81**	41.90
Total	**285.46**	241.54

For and on behalf of the Board of Directors

(Nandini Sarkar)
Company Secretary

(Sudhir Arya)
Chief Financial Officer

(K. Sreekant)
Director (Finance)

(Gurdeep Singh)
Chairman & Managing Director

These are the notes referred to in Balance Sheet and Statement of Profit and Loss

For T R Chadha & Co LLP
Chartered Accountants
Firm Reg. No. 006711N/N500028

(Neena Goel)
Partner
M. No. 057986

For S.N.Dhawan & Co LLP
Chartered Accountants
Firm Reg. No. 000050N/N500045

(S.K.Khattar)
Partner
M No.084993

For Sagar & Associates
Chartered Accountants
Firm Reg. No. 003510S

(V.Vidyasagar Babu)
Partner
M No.027357

For Kalani & Co.
Chartered Accountants
Firm Reg. No. 000722C

(Vikas Gupta)
Partner
M. No. 077076

For P. A. & Associates
Chartered Accountants
Firm Reg. No. 313085E

(S.S. Poddar)
Partner
M. No. 051113

For S. K. Kapoor & Co.
Chartered Accountants
Firm Reg. No. 000745C

(V.B. Singh)
Partner
M.No.073124

For B M Chatrath & Co LLP
Chartered Accountants
Firm Reg. No. 301011E/E300025

(Sanjay Sarkar)
Partner
M.No.064305

Place : New Delhi
Dated : 25 May 2019

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 2019, 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 financial statements, including a summary of the significant accounting policies and other explanatory information (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 accounting principles generally accepted in India, of the state of affairs (financial position) of the Company as at 31 March, 2019, 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 Auditor's 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 there under, 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. 32(a) regarding billing and recognition of sales on provisional basis pending disposal of the Company's petition before CERC on the measurement of GCV of coal on 'as received' basis measured on wagon top at the unloading point, on the adjustment of loss of GCV for the period 2014-19 and other related matters as mentioned in the said note.

(b) Note No. 42 in respect of a Company's project consisting of three units of 800MW each, where the order of NGT has been stayed by the Hon'ble Supreme Court of India; the matter is sub-judiced and the units have since been declared commercial.

(c) Note No. 57(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.

Our opinion is not modified in respect of these 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.

Sr. No.	Key Audit Matter	How our audit addressed the Key Audit Matter
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 rates approved by the Central Electricity Regulatory Commission (CERC) as modified by the orders of Appellate Authorities. However, in cases where tariff rates are yet to be approved, provisional rates are adopted considering the applicable CERC Tariff Regulations. 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. 32 to the Standalone Financial Statements, read with the Significant Accounting Policy No. C.15)	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. - Verified the accounting of revenue from sale of energy based on tariff rates approved by the CERC as modified by the orders of Appellate Authorities. In case of power stations where the tariff rates are yet to be approved, provisional rates are adopted in accordance with the principles given in the CERC Tariff Regulations. Based on the above procedure performed, the recognition and measurement 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. 56(a) to the Standalone Financial Statements, read with the Accounting Policy No. C.20)	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 involving valuation experts to assist 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, 2019 (applicable for the tariff period of 5 years from 1 April 2019 to 31 March 2024) 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 corresponding to the said MAT credit entitlement has also been recognised,	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.

Sr. No.	Key Audit Matter	How our audit addressed the Key Audit Matter
	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 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. 18, 25, 48 & 65 to the Standalone Financial Statements, read with the Accounting Policy No. C.4 and C.18)	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 corresponding 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 corresponding 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. 69 to the Standalone Financial Statements, read with the Accounting Policy No. C.13)	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 any material developments 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 whether provisions are required; - considered the management assessments of those matters that are not disclosed as 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.

Other Matter

We audited the adjustments, as fully described in Note No. 47(A) 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 2019. In our opinion, such adjustments are appropriate and have been properly applied.

Information Other than the Standalone Financial Statements and Auditor's 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 (but does not include the Standalone Financial Statements and our auditor's report thereon), which we obtained prior to the date of this auditor's report (hereinafter referred to as 'CG report'), and the information included in the Director's Report including Annexures, Management Discussion and Analysis, Business Responsibility Report and other company related information (hereinafter referred to as 'Other reports'). The Other reports are expected to be made available to us after the date of this auditor's 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.

If, based on the work we have performed on the other information included in the CG report that we obtained prior to the date of this auditor's report, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

When we read the 'Other reports', 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 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.

Auditor's 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 auditor's 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 with reference to Standalone 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 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 auditor's 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 auditor's 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.

Materiality is the magnitude of misstatements in the Standalone Financial Statements that, individually or in aggregate, makes it probable that the economic decisions of a reasonably knowledgeable user of the Standalone Financial Statements may be influenced. We consider quantitative materiality and qualitative factors in (i) planning the scope of our audit work and in evaluating the results of our work; and (ii) to evaluate the effect of any identified misstatements in the Standalone Financial Statements.

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 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.

Report on Other Legal and Regulatory Requirements

1. As required by the Companies (Auditor's Report) Order, 2016 ("the Order") issued by the Central Government 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.

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 and sub-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 Flow 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 Standalone Financial Statements of the Company and the operating effectiveness of such controls, refer to our separate report in "Annexure 3".

(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 Auditor's Report in accordance with Rule 11 of the Companies (Audit and Auditors) Rules, 2014, 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. 69 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 no delay in transferring amounts, required to be transferred, to the Investor Education and Protection Fund by the Company.

For T R Chadha & Co LLP
Chartered Accountants
FRN 006711N/N500028

(Neena Goel)
Partner
M. No. 057986

For S. N. Dhawan & Co. LLP
Chartered Accountants
FRN 000050N/N500045

(S.K. Khattar)
Partner
M. No. 084993

For Sagar & Associates
Chartered Accountants
FRN 003510S

(V. Vidyasagar Babu)
Partner
M No. 027357

For Kalani & Co.
Chartered Accountants
FRN 000722C

(Vikas Gupta)
Partner
M. No. 077076

For P.A. & Associates
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For S.K. Kapoor & Co.
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(V. B. Singh)
Partner
M.No. 073124

For B M Chatrath & Co LLP
Chartered Accountants
FRN 301011E/E300025

(Sanjay Sarkar)
Partner
M. No. 064305

Place: New Delhi
Date: 25 May 2019

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 2019

(i) (a) The Company has generally maintained proper records showing full particulars including quantitative details and situation of fixed assets (Property, Plant & Equipment).

(b) The Company is having a regular programme of physical verification of all fixed assets (Property, Plant & Equipment) 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) The title deeds of all the immovable properties are held in the name of the Company except as follows:

Description of Asset	No. of cases	Area in acres	Gross block as on 31.03.2019 (₹ Crore)	Net block as on 31.03.2019 (₹ Crore)	Remarks (If Any)
Land					The Company is taking appropriate steps for completion of legal formalities
- Freehold	1183	10,124	1,478.01	1,478.01	
- Leasehold	669	10,592	1,543.62	1,362.57	
Building & Structures	2	-	4.97	3.04	

(ii) The inventory has been physically verified by the management at reasonable intervals. No material discrepancies were noticed on such physical verification.

(iii) The Company has not granted any loans, secured or unsecured to any companies, firms, limited liability partnership or other parties covered in the register maintained under Section 189 of the Act.

In view of the above, clause 3 (iii)(a), 3 (iii)(b) and 3 (iii)(c) of the Order are not applicable.

(iv) The Company has complied with the provisions of Section 185 and 186 of the Act, as applicable, in respect of loans advanced to subsidiary companies & joint venture company and investments made in the subsidiary and joint venture companies. The Company has not given any guarantee or provided any security to any party covered under Section 185 and 186 of the Act.

(v) The Company has not accepted deposits from the public. As such, the directives issued by the Reserve Bank of India, the provisions of Sections 73 to 76 or any other relevant provisions of the Act and the rules framed there under are not applicable to the Company. The Company has obtained deposits from the dependents of employees 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. 28 (d) 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 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) Undisputed statutory dues including provident fund, income tax, goods and service tax, service tax, duty of customs, duty of excise, value added tax, cess and other statutory dues (as applicable) have generally been regularly deposited with the appropriate authorities and there are no undisputed statutory dues outstanding as on 31 March 2019 for a period of more than six months from the date they became payable. We have been informed that employees' state insurance is not applicable to the Company.

(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 amounts to ₹**10,696.19 crore** in aggregate as on 31 March 2019, out of which ₹ **3,055.82 crore** has been deposited under protest/adjusted by tax authorities and the balance of ₹ **7,640.37 crore** of dues have not been deposited on account of matters pending before appropriate authorities as detailed below:

Sl. No.	Name of Statute	Nature of the disputed statutory dues	Period to which the amount relates (FY)	Forum where the dispute is pending	Gross disputed amount (₹ crore)	Amount deposited under protest/ adjusted by Tax Authorities (₹crore)	Amount not deposited (₹ crore)
1	Income Tax Act, 1961	Income Tax/ Penalty/ TDS	1978-79	Supreme Court	0.45	0.45	-
			2001-02, 2004-05 to 2011-12	Income Tax Appellate Tribunal*	8,371.26	1,661.87	6,709.39
			2009-10 to 2014-15	Commissioner of Income Tax (Appeals)	1,685.01	1,379.35	305.66
			2013-14 to 2014-15	Asst. Commissioner of Income Tax	0.32	0.12	0.20
			2006-07, 2009-10, 2017-18	ITO (TDS)/AO	0.81	0.78	0.03
			2003-04	Appeal not yet filed by IT department with High Court (Time limit not lapsed)	395.69	-	395.69
2	Income Tax Ordinance of Bangladesh, 1984	Income Tax	2012-13 to 2013-14	Commissioner of Taxes (Appeal), Dhaka, Bangladesh	2.63	0.26	2.37
3	Central Sales Tax and VAT Acts of various States	Central Sales Tax/VAT	1997-98, 2000-01	High Court	2.45	-	2.45
			1985-86, 2000-01 to 2011-12, 2013-14 to 2014-15	Appellate Tribunal/ Board of Revenue	31.40	8.28	23.12
			2005-06 to 2008-09	Commissioner of Sales Tax **	2.37	1.17	1.20
			2000-01, 2002-03, 2004-05, 2006-07 2014-15 to 2015-16	Additional Commissioner of Sales Tax ***	5.07	1.58	3.49
			1988-89 to 1997-98, 2011-12 2015-16	Additional Commissioner of Sales Tax (Appeal)	2.13	0.17	1.96
			2008-09	Deputy Commissioner of Sales Tax(Appeals)	0.05	-	0.05
			2001-02 to 2006-07	Deputy Commissioner of Sales Tax	11.70	0.01	11.69
			2000 -01, 2005-06	Joint Commissioner of Sales Tax****	1.04	0.36	0.68

Sl. No.	Name of Statute	Nature of the disputed statutory dues	Period to which the amount relates (FY)	Forum where the dispute is pending	Gross disputed amount (₹ crore)	Amount deposited under protest/ adjusted by Tax Authorities (₹crore)	Amount not deposited (₹ crore)
4	Central Excise Act, 1944	Duty of Excise	2009-10, 2011-12 to 2014-15	CESTAT*****	1.45	0.10	1.35
			2015-16 to 2016-17	Commissioner (Appeals)	0.24	0.04	0.20
5	Finance Act, 1994	Service Tax	2009-10 to 2012-13	High Court	0.18	-	0.18
			2009-10 to 2016-17	CESTAT	172.52	0.35	172.17
			2009-10 to 2016-17	Commissioner (Appeals)	3.35	0.64	2.71
			2015-16 to 2016-17	Assistant Commissioner (Appeals)	0.33	0.02	0.31
			2012-13 to 2016-17	Assistant Commissioner of CEST	0.57	0.25	0.32
			2012-13 to 2016-17	Appeal yet to be filed (Time limit not lapsed)	0.01	-	0.01
6	Customs Act, 1962	Duty of Customs	1999-2000, 2006-07 to 2010-11	CESTAT	4.87	-	4.87
			2005-06 to 2015-16	Commissioner of Customs (Appeals)	0.29	0.02	0.27
Total					**10,696.19**	**3,055.82**	**7,640.37**

* Includes disputed amount of ₹ 5,427.00 crore in respect of certain matters, where the first appellate authority has decided in favour of the company, although the Assessing Officer has disputed the same with appropriate Appellate Authority.

** Includes ₹ 2.08 crore and ₹ 0.29 crore towards the demand for VAT raised by Sales tax officer, which has been stayed by the Hon'ble High Court and Commissioner of Sales tax respectively.

*** Includes ₹ 5.01 crore towards the demand for VAT and CST raised by Sales tax authority, which has been stayed by Commissioner/Additional Commissioner of Sales Tax.

**** Includes ₹ 1.02 crore towards the demand for CST raised by Sales tax officer, which has been stayed by the Hon'ble High Court.

***** Includes ₹ 0.30 crore towards the demand for service tax raised by Commissioner, Central Excise Customs and Service Tax which has been stayed by CESTAT.

(viii) In our opinion and according to the information and explanations given to us, the Company has not defaulted in repayment of loans or borrowings to financial institutions, banks or dues to debenture holders. The company has not taken any loan from the Government.

(ix) The Company has not raised any money by way of initial public offer or further public offer (including debt instruments). According to the information and explanations given to us, the money raised by the Company by way of term loans have been applied for the purposes for which they were obtained.

(x) 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 frauds by the Company or any fraud on the Company by its officers or employees has been noticed or reported during the year.

xi) 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, provisions of clause 3 (xi) of the Order are not applicable to the Company.

(xii) The provisions of clause 3 (xii) of the Order, for Nidhi Company, are not applicable to the Company.

(xiii) The Company has complied with the provisions of Section 177 and 188 of the Act w.r.t. transactions with the related parties, wherever applicable. Details of the transactions with the related parties have been disclosed in the Standalone Financial Statements as required by the applicable Indian Accounting Standards.

(xiv) The Company has not made any preferential allotment or private placement of shares or fully or partly convertible debentures during the year under review. Accordingly, provisions of clause 3 (xiv) of the Order are not applicable to the Company.

(xv) The Company has not entered into any non-cash transactions with the directors or persons connected with them as covered under Section 192 of the Act.

(xvi) According to information and explanation given to us, the Company is not required to be registered under section 45-IA of Reserve Bank of India Act, 1934. Accordingly, provision of clause 3(xvi) of the Order is not applicable to the Company.

For T R Chadha & Co LLP
Chartered Accountants
FRN 006711N/N500028

(Neena Goel)
Partner
M. No. 057986

For S. N. Dhawan & Co. LLP
Chartered Accountants
FRN 000050N/N500045

(S.K. Khattar)
Partner
M. No. 084993

For Sagar & Associates
Chartered Accountants
FRN 003510S

(V. Vidyasagar Babu)
Partner
M No. 027357

For Kalani & Co.
Chartered Accountants
FRN 000722C

(Vikas Gupta)
Partner
M. No. 077076

For P.A. & Associates
Chartered Accountants
FRN 313085E

(S. S. Poddar)
Partner
M.No.051113

For S.K. Kapoor & Co.
Chartered Accountants
FRN 000745C

(V. B. Singh)
Partner
M.No. 073124

For B M Chatrath & Co LLP
Chartered Accountants
FRN 301011E/E300025

(Sanjay Sarkar)
Partner
M. No. 064305

Place: New Delhi
Date: 25 May, 2019

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 2019

Sl. No.	Directions u/s 143(5) of the Companies Act, 2013	Auditor's reply on action taken on the directions	Impact on financial statement
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.	Nil
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.	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 company due to the company's inability to repay the loan.	Nil
3	Whether funds received/receivable for specific schemes from Central/State 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 received/receivable for specific schemes from Central/State agencies were properly accounted for/utilized as per the respective terms and conditions.	Nil

For T R Chadha & Co LLP
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(S.K. Khattar)
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(V. B. Singh)
Partner
M.No. 073124

For B M Chatrath & Co LLP
Chartered Accountants
FRN 301011E/E300025

(Sanjay Sarkar)
Partner
M. No. 064305

Place: New Delhi
Date: 25 May, 2019

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 2019

Report on the Internal Financial Controls with reference to Standalone Financial Statements under Clause (i) of Sub-section 3 of Section 143 of the Act

We have audited the internal financial controls with reference to Standalone Financial Statements of NTPC Limited ("the Company") as of 31 March 2019 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 with reference to Standalone Financial Statements 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 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 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 system with reference to Standalone Financial Statements and their operating effectiveness. Our audit of internal financial control with reference to Standalone Financial Statements included obtaining an understanding of internal financial control with reference to 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 auditor's 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 Standalone Financial Statements.

Meaning of Internal Financial Controls with reference to Standalone Financial Statements

A Company's internal financial control with reference to 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 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 authorisations 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 Standalone Financial Statements

Because of the inherent limitations of internal financial controls with reference to 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 Standalone Financial Statements to future periods are subject to the risk that the internal financial controls with reference to 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 system with reference to Standalone Financial Statements in place and such internal financial controls with respect to Standalone Financial Statements were operating effectively as at 31 March 2019, 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 T R Chadha & Co LLP
Chartered Accountants
FRN 006711N/N500028

(Neena Goel)
Partner
M. No. 057986

For S. N. Dhawan & Co. LLP
Chartered Accountants
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(S.K. Khattar)
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(V. B. Singh)
Partner
M.No. 073124

For B M Chatrath & Co LLP
Chartered Accountants
FRN 301011E/E300025

(Sanjay Sarkar)
Partner
M. No. 064305

Place: New Delhi
Date: 25 May, 2019

Night view of NTPC Power Station

COMMENTS OF THE COMPTROLLER AND AUDITOR GENERAL OF INDIA UNDER SECTION 143 (6) (b) OF THE COMPANIES ACT, 2013 ON THE FINANCIAL STATEMENTS OF NTPC LIMITED FOR THE YEAR ENDED 31 MARCH 2019.

The preparation of financial statements of NTPC Limited for the year ended 31 March 2019 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 25.05.2019.

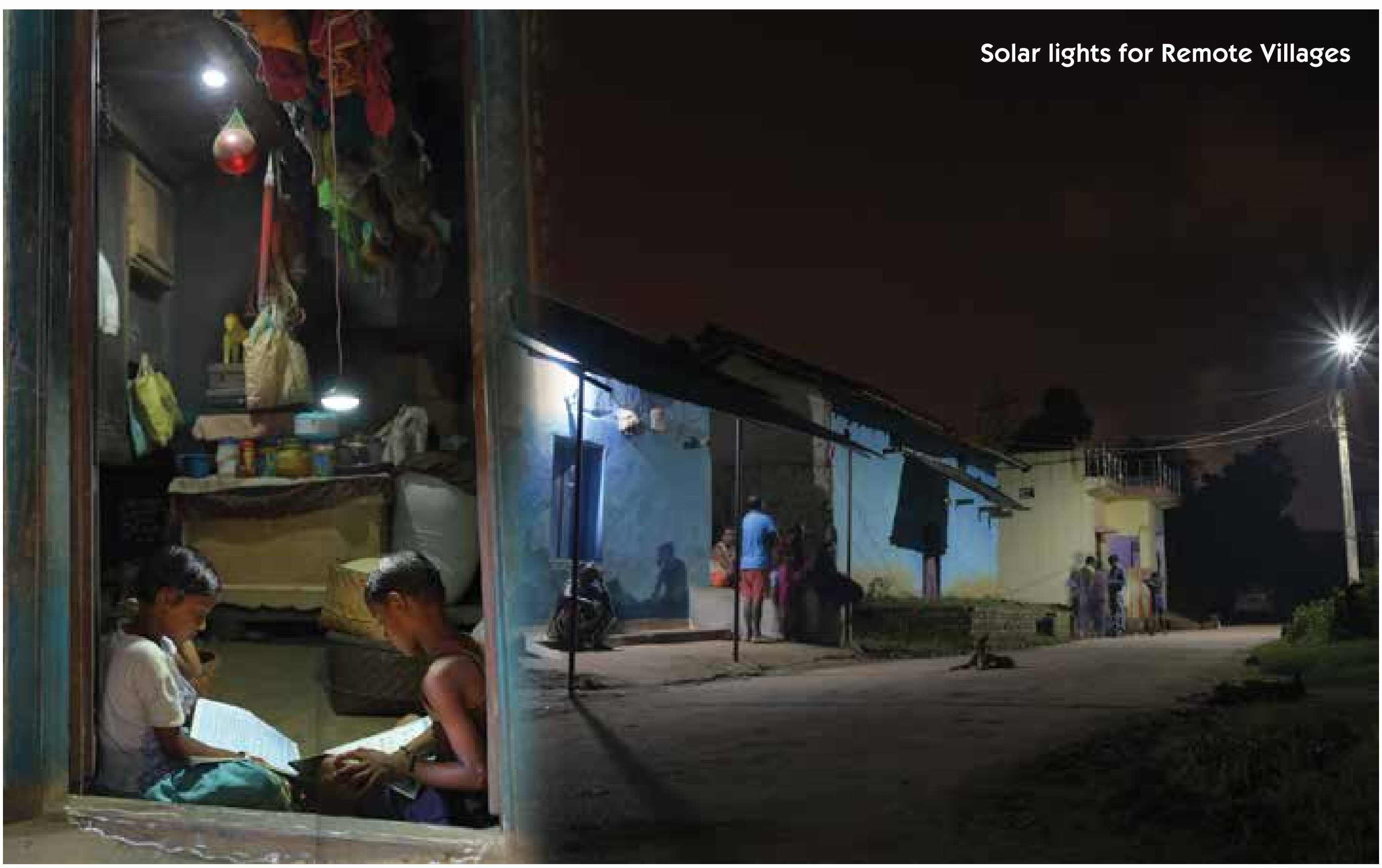
I, on behalf of the Comptroller and Auditor General of India, have conducted a supplementary audit of the financial statements of NTPC Limited for the year ended 31 March 2019 under section 143(6)(a) of the Act. This supplementary audit has been carried out independently without access to the working 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.

On the basis of my supplementary audit nothing significant has come to my knowledge which would give rise to any comment upon or supplement to statutory auditors' report under section 143(6)(b) of the Act.

For and on behalf of the
Comptroller & Auditor General of India

(Raj Kumar)
Principal Director of Commercial Audit &
Ex-officio Member, Audit Board – III,
New Delhi

Place : New Delhi
Dated : 1/7/2019



Solar lights for Remote Villages

EMPLOYEE COST SUMMARY

₹ Crore

Description		2014-15	2015-16	2016-17	2017-18	2018-19
A.	Salary, Wages and benefits (Incl. Provident fund and other contributions)	4043.06	4105.52	5114.83	5469.28	**5596.61**
B.	Other Benefits					
	1. Welfare Expenses	369.95	324.16	210.75	308.47	**302.11**
	2. Township	194.85	218.16	226.19	245.86	**260.94**
	3. Educational and School facilities	13.33	28.61	24.66	33.98	**31.12**
	4. Medical Facilities	168.76	178.79	185.40	192.03	**234.82**
	5. Subsidised Transport	7.51	8.26	12.25	11.51	**13.32**
	6. Social and Cultural activities	12.77	8.72	9.70	7.74	**9.31**
	7. Subsidised Canteen	39.29	40.78	47.62	62.42	**76.48**
	Total (B)	**806.46**	**807.48**	**716.57**	**862.01**	**928.10**
	Total (A+B)	**4849.52**	**4913.00**	**5831.40**	**6331.29**	**6524.71**
	8. Year end No. of Employees	22,496	21,633	20,593	19,739	**18,359**
	9. Average No. of Employees	22,954	22,065	21,113	20,166	**19,049**
	10. Average Salary, wages and benefits per employee per annum (₹)	1,761,375	1,860,648	2,422,597	2,712,129	**2,938,007**
	11. Average Cost of Other Benefits per employee per annum (₹)	351,337	365,955	339,398	427,457	**487,217**
	12. Average cost of employees remuneration and benefits per annum (₹)	2,112,712	2,226,603	2,761,995	3,139,586	**3,425,224**

Note: 1. Welfare expenses are net of amounts included in Sl. no. 2 to Sl. no. 7.

Note: 2. Information for 2016-17 onwards based on accounts prepared as per Indian Accounting Standards (Ind AS). Previous year information prepared as per the erstwhile applicable Accounting Standard (AS).

View of NTPC Solar Power Plant

Revenue expenditure on Social Overhead for the year ended on 31.03.2019

₹ Crore

S No	Particular	Township	Educational and School Facilities	Medical Facilities	Subsidised Transport	Social and Cultural Activities	Subsidised Canteen	Total	Previous Year
1	Payment to employees	67.28	-	176.15	-	-	-	243.43	222.25
2	Material consumed	18.38	-	6.96	-	-	-	25.34	26.79
3	Rates and taxes	2.26	-	-	-	-	-	2.26	2.34
4	Welfare expenses	4.22	23.61	180.73	12.93	8.98	76.27	306.74	257.67
5	Others including repairs & maintenance	197.38	6.14	49.23	0.55	-	0.01	253.31	230.70
6	Depreciation	60.31	1.37	3.12	-	0.33	0.20	65.33	65.93
7	**Sub-total (1 to 6)**	**349.83**	**31.12**	**416.19**	**13.48**	**9.31**	**76.48**	**896.41**	**805.68**
8	Less : Recoveries	21.61	-	5.22	0.16	-	-	26.99	29.89
9	**Net expenditure (7-8)**	**328.22**	**31.12**	**410.97**	**13.32**	**9.31**	**76.48**	**869.42**	**775.79**
10	Previous Year	298.44	33.98	361.70	11.51	7.74	62.42	775.79	

View of NTPC - Kudgi

REVENUE EXPENDITURE ON SOCIAL OVERHEADS

CONSOLIDATED BALANCE SHEET AS AT 31 MARCH 2019

₹ Crore

Particulars	Note No.	As at 31 March 2019	As at 31 March 2018*	As at 1 April 2017*
ASSETS				
Non-current assets				
Property, plant and equipment	2	**1,37,490.86**	1,27,913.66	1,02,619.18
Capital work-in-progress	3	**1,06,379.66**	82,916.74	88,080.44
Intangible assets	4	**330.50**	331.76	293.12
Intangible assets under development	5	**397.80**	469.36	434.63
Investments accounted for using the equity method	6	**8,008.06**	8,769.33	7,500.44
Financial assets				
Investments	7	**91.92**	106.28	113.48
Trade receivables		**-**	-	35.59
Loans	8	**434.38**	454.67	401.34
Other financial assets	9	**1,302.70**	1,600.86	1,358.32
Other non-current assets	10	**14,043.96**	11,789.94	17,107.95
Total non-current assets		**2,68,479.84**	2,34,352.60	2,17,944.49
Current assets				
Inventories	11	**8,119.43**	6,140.29	6,586.13
Financial assets				
Trade receivables	12	**10,147.68**	8,812.19	8,963.89
Cash and cash equivalents	13	**208.97**	383.11	363.83
Bank balances other than cash and cash equivalents	14	**2,573.35**	4,004.49	2,937.63
Loans	15	**238.29**	238.43	211.92
Other financial assets	16	**8,807.14**	8,424.03	6,128.92
Other current assets	17	**15,403.80**	11,267.13	4,837.72
Total current assets		**45,498.66**	39,269.67	30,030.04
Regulatory deferral account debit balances	18	**3,417.90**	8,739.40	5,448.68
TOTAL ASSETS		**3,17,396.40**	2,82,361.67	2,53,423.21
EQUITY AND LIABILITIES				
Equity				
Equity share capital	19	**9,894.56**	8,245.46	8,245.46
Other equity	20	**1,00,142.43**	95,318.01	89,592.56
Total equity attributable to owners of the parent		**1,10,036.99**	1,03,563.47	97,838.02
Non-controlling interests		**664.83**	947.77	803.26
Total equity		**1,10,701.82**	1,04,511.24	98,641.28
Liabilities				
Non-current liabilities				
Financial liabilities				
Borrowings	21	**1,37,792.88**	1,16,775.81	1,04,075.12
Trade payables	22			
Total outstanding dues of micro and small enterprises		**6.41**	5.49	5.18
Total outstanding dues of creditors other than micro and small enterprises		**41.80**	17.82	7.99
Other financial liabilities	23	**1,959.86**	2,187.31	2,355.69
Provisions	24	**589.09**	480.90	463.15
Deferred tax liabilities (net)	25	**4,199.72**	10,401.63	6,410.71
Other non-current liabilities		**-**	-	17.49
Total non-current liabilities		**1,44,589.76**	1,29,868.96	1,13,335.33
Current liabilities				
Financial liabilities				
Borrowings	26	**15,994.56**	6,680.38	3,119.54
Trade payables	27			
Total outstanding dues of micro and small enterprises		**361.79**	282.96	191.72
Total outstanding dues of creditors other than micro and small enterprises		**8,155.83**	6,424.59	5,380.98

₹ Crore

Particulars	Note No.	As at 31 March 2019	As at 31 March 2018*	As at 1 April 2017*
Other financial liabilities	28	**27,153.97**	22,853.28	20,392.82
Other current liabilities	29	**880.69**	1,156.99	1,263.24
Provisions	30	**7,150.20**	8,251.78	8,120.73
Current tax liabilities (net)	30A	**32.72**	-	81.40
Total current liabilities		**59,729.76**	45,649.98	38,550.43
Deferred revenue	31	**2,375.06**	2,331.49	2,406.84
Regulatory deferral account credit balances		**-**	-	489.33
TOTAL EQUITY AND LIABILITIES		**3,17,396.40**	2,82,361.67	2,53,423.21
* Restated - Refer Note 47				
Significant accounting policies	1			

The accompanying notes 1 to 70 form an integral part of these financial statements.

For and on behalf of the Board of Directors

(Nandini Sarkar)	(Sudhir Arya)	(K. Sreekant)	(Gurdeep Singh)
Company Secretary	Chief Financial Officer	Director (Finance)	Chairman & Managing Director

This is the Consolidated Balance Sheet referred to in our report of even date

For T R Chadha & Co LLP
Chartered Accountants
Firm Reg. No. 006711N/N500028

(Neena Goel)
Partner
M. No. 057986

For S. N. Dhawan & Co. LLP
Chartered Accountants
Firm Reg. No. 000050N/N500045

(S.K. Khattar)
Partner
M No. 084993

For Sagar & Associates
Chartered Accountants
Firm Reg. No. 003510S

(V. Vidyasagar Babu)
Partner
M. No. 027357

For Kalani & Co.
Chartered Accountants
Firm Reg. No. 000722C

(Varun Bansal)
Partner
M. No. 402856

For P. A. & Associates
Chartered Accountants
Firm Reg. No. 313085E

(Dinesh Agrawal)
Partner
M No.055955

For S. K. Kapoor & Co.
Chartered Accountants
Firm Reg. No. 000745C

(Sanjiv Kapoor)
Partner
M.No.070487

For B M Chatrath & Co LLP
Chartered Accountants
Firm Reg. No. 301011E/E300025

(Sanjay Sarkar)
Partner
M. No. 064305

Place : New Delhi
Dated : 25 May 2019

CONSOLIDATED STATEMENT OF PROFIT AND LOSS FOR THE YEAR ENDED 31 MARCH 2019

₹ Crore

Particulars	Note No.	For the year ended 31 March 2019	For the year ended 31 March 2018*
Income			
Revenue from operations	32	**95,742.03**	88,083.31
Other income	33	**1,795.31**	1,558.28
Total income		**97,537.34**	89,641.59
Expenses			
Fuel cost		**53,833.78**	48,992.80
Electricity purchased for trading		**5,288.12**	4,323.49
Employee benefits expense	34	**4,907.59**	4,791.97
Finance costs	35	**5,260.85**	4,434.59
Depreciation, amortisation and impairment expense	36	**7,688.10**	7,459.93
Other expenses	37	**7,603.03**	7,554.59
Total expenses		**84,581.47**	77,557.37
Profit before share of net profits of investments accounted for using equity method, tax and regulatory deferral account balances		**12,955.87**	12,084.22
Add: Share of net profits of joint ventures accounted for using equity method		**672.07**	445.05
Profit before tax and regulatory deferral account balances		**13,627.94**	12,529.27
Tax expense	48		
Current tax			
Current year		**3,020.12**	2,616.16
Earlier years		**(103.81)**	(951.30)
Deferred tax		**(6,122.72)**	3,988.08
Total tax expense		**(3,206.41)**	5,652.94
Profit for the year before regulatory deferral account balances		**16,834.35**	6,876.33
Net movement in regulatory deferral account balances (net of tax)	65	**(4,200.90)**	3,625.17
Profit for the year		**12,633.45**	10,501.50
Other comprehensive income/(expense)			
Items that will not be reclassified to profit or loss (net of tax)			
- Net actuarial gains/(losses) on defined benefit plans		**(185.13)**	(7.28)
- Net gains/(losses) on fair value of equity instruments		**(16.74)**	(7.20)
- Share of other comprehensive income/(expense) of joint ventures accounted for using the equity method		**(1.07)**	(0.16)
Items that will be reclassified to profit or loss (net of tax)			
- Exchange differences on translation of foreign operations		**11.67**	(6.05)
Other comprehensive income/(expense) for the year, net of income tax		**(191.27)**	(20.69)
Total comprehensive income for the year		**12,442.18**	10,480.81
Profit attributable to:			
Owners of the parent		**12,640.02**	10,543.95
Non-controlling interests		**(6.57)**	(42.45)
		12,633.45	10,501.50
Other comprehensive income/(expense) attributable to:			
Owners of the parent		**(191.27)**	(20.69)
Non-controlling interests		**-**	-
		(191.27)	(20.69)

Particulars	Note No.	For the year ended 31 March 2019	For the year ended 31 March 2018*
			₹ Crore
Total comprehensive income attributable to:			
Owners of the parent		**12,448.75**	10,523.26
Non-controlling interests		**(6.57)**	(42.45)
		12,442.18	10,480.81
Earnings per equity share attributable to owners of the parent (Par value ₹ 10/- each)	54		
Basic & Diluted (₹) (from operations including regulatory deferral account balances)		**12.77**	10.66
Basic & Diluted (₹) (from operations excluding regulatory deferral account balances)		**17.02**	6.99

* Restated - Refer Note 47

Significant accounting policies 1

The accompanying notes 1 to 70 form an integral part of these financial statements.

For and on behalf of the Board of Directors

(Nandini Sarkar) Company Secretary	(Sudhir Arya) Chief Financial Officer	(K. Sreekant) Director (Finance)	(Gurdeep Singh) Chairman & Managing Director

This is the Consolidated Statement of Profit and Loss referred to in our report of even date

For T R Chadha & Co LLP Chartered Accountants Firm Reg. No. 006711N/N500028	For S. N. Dhawan & Co. LLP Chartered Accountants Firm Reg. No. 000050N/N500045	For Sagar & Associates Chartered Accountants Firm Reg. No. 003510S
(Neena Goel) Partner M. No. 057986	(S.K. Khattar) Partner M No. 084993	(V. Vidyasagar Babu) Partner M. No. 027357

For Kalani & Co. Chartered Accountants Firm Reg. No. 000722C	For P. A. & Associates Chartered Accountants Firm Reg. No. 313085E	For S. K. Kapoor & Co. Chartered Accountants Firm Reg. No. 000745C	For B M Chatrath & Co LLP Chartered Accountants Firm Reg. No. 301011E/E300025
(Varun Bansal) Partner M. No. 402856	(Dinesh Agrawal) Partner M No.055955	(Sanjiv Kapoor) Partner M.No.070487	(Sanjay Sarkar) Partner M. No. 064305

Place : New Delhi
Dated : 25 May 2019

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY FOR THE YEAR ENDED 31 MARCH 2019

(A) Equity share capital

For the year ended 31 March 2019 ₹ Crore

Particulars	Amount
Balance as at 1 April 2018	8,245.46
Changes in equity share capital during the year (refer Note 19)	1,649.10
Balance as at 31 March 2019	9,894.56

For the year ended 31 March 2018 ₹ Crore

Particulars	Amount
Balance as at 1 April 2017	8,245.46
Changes in equity share capital during the year (refer Note 19)	-
Balance as at 31 March 2018	8,245.46

(B) Other equity

For the year ended 31 March 2019 ₹ Crore

Particulars	Attributable to owners of the parent									Other equity attributable to owners of the parent	Non-controlling interests	Total
	Reserves & surplus							Items of other comprehensive income (OCI)				
	Capital reserve	Securities premium	Bonds/ Debentures redemption reserve	Fly ash utilisation reserve fund	Corporate Social Responsibility reserve	General reserve	Retained earnings	Equity instruments through OCI	Foreign currency translation reserve			
Balance as at 1 April 2018	50.08	2,228.46	7,274.56	631.21	0.24	81,131.83	4,003.92	7.80	(10.09)	95,318.01	947.77	**96,265.78**
Profit for the year	-	-	-	-	-	-	12,640.02	-	-	12,640.02	(6.57)	**12,633.45**
Other comprehensive income/ (expense)	-	-	-	-	-	-	(186.20)	(16.74)	11.67	(191.27)	-	**(191.27)**
Total comprehensive income	-	-	-	-	-	-	**12,453.82**	**(16.74)**	**11.67**	**12,448.75**	**(6.57)**	**12,442.18**
Equity contribution by Non-Controlling Interest	-	-	-	-	-	-	-	-	-	-	(354.13)	**(354.13)**
Impact of change in ownership interest in Subsidiary [Refer Note 64 (d)]	-	-	-	-	-	-	(77.76)	-	-	(77.76)	77.76	-
On account of business combination [Refer Note 58 (B)]	22.78	-	-	-	-	-	-	-	-	22.78	-	**22.78**
Transactions with owners in their capacity as owners:												
Transfer to retained earnings	-	-	(1,104.50)	-	(0.19)	-	1,104.69	-	-	-	-	-
Transfer from retained earnings	-	-	1,732.37	-	2.34	4,539.50	(6,274.21)	-	-	-	-	-
Transfer to fly ash utilisation reserve fund (net) (Refer Note 20)	-	-	-	6.90	-	-	-	-	-	6.90	-	**6.90**
Issue of bonus shares (Refer Note 20)	-	-	-	-	-	(1,649.10)	-	-	-	(1,649.10)	-	**(1,649.10)**
Final dividend paid for FY 2017-18 (Refer Note 20)	-	-	-	-	-	-	(1,970.67)	-	-	(1,970.67)	-	**(1,970.67)**
Tax on final dividend	-	-	-	-	-	-	(400.96)	-	-	(400.96)	-	**(400.96)**
Interim dividend paid for FY 2018-19 (Refer Note 20)	-	-	-	-	-	-	(2,951.88)	-	-	(2,951.88)	-	**(2,951.88)**
Tax on interim dividend	-	-	-	-	-	-	(603.64)	-	-	(603.64)	-	**(603.64)**
Balance as at 31 March 2019	**72.86**	**2,228.46**	**7,902.43**	**638.11**	**2.39**	**84,022.23**	**5,283.31**	**(8.94)**	**1.58**	**1,00,142.43**	**664.83**	**1,00,807.26**

For the year ended 31 March 2018

₹ Crore

Particulars	Attributable to owners of the parent									Other equity attributable to owners of the parent	Non-controlling interests	Total
	Reserves & surplus							Items of other comprehensive income (OCI)				
	Capital reserve	Securities premium account	Bonds/ Debentures redemption reserve	Fly ash utilisation reserve fund	Corporate Social Responsibility reserve	General reserve	Retained earnings	Equity instruments through OCI	Foreign currency translation reserve			
Balance as at 1 April 2017	50.08	2,228.46	5,961.81	556.68	0.22	77,130.63	3,653.72	15.00	(4.04)	89,592.56	803.26	90,395.82
Profit for the year	-	-	-	-	-	-	10,543.95	-	-	10,543.95	(42.45)	10,501.50
Other comprehensive income/ (expense)	-	-	-	-	-	-	(7.44)	(7.20)	(6.05)	(20.69)	-	(20.69)
Total comprehensive income	-	-	-	-	-	-	10,536.51	(7.20)	(6.05)	10,523.26	(42.45)	10,480.81
Equity contribution by non-controlling interests	-	-	-	-	-	-	-	-	-	-	181.47	181.47
Impact of change in ownership interest in Subsidiary [Refer Note 64 (d)]	-	-	-	-	-	-	(5.49)	-	-	(5.49)	5.49	-
Transactions with owners in their capacity as owners:												
Transfer to retained earnings	-	-	(325.00)	-	(0.22)	-	325.22	-	-	-	-	-
Transfer from retained earnings	-	-	1,637.75	-	0.24	4,001.20	(5,639.19)	-	-	-	-	-
Transfer to fly ash utilisation reserve fund (net) (Refer Note 20)	-	-	-	74.53	-	-	-	-	-	74.53	-	74.53
Issue of bonus shares (Refer Note 20)	-	-	-	-	-	-	-	-	-	-	-	-
Final dividend paid for FY 2016-17 (Refer Note 20)	-	-	-	-	-	-	(1,789.27)	-	-	(1,789.27)	-	(1,789.27)
Tax on final dividend	-	-	-	-	-	-	(364.25)	-	-	(364.25)	-	(364.25)
Interim dividend paid for FY 2017-18 (Refer Note 20)	-	-	-	-	-	-	(2,251.01)	-	-	(2,251.01)	-	(2,251.01)
Tax on interim dividend	-	-	-	-	-	-	(462.32)	-	-	(462.32)	-	(462.32)
Balance as at 31 March 2018	50.08	2,228.46	7,274.56	631.21	0.24	81,131.83	4,003.92	7.80	(10.09)	95,318.01	947.77	96,265.78

For and on behalf of the Board of Directors

(Nandini Sarkar)
Company Secretary

(Sudhir Arya)
Chief Financial Officer

(K. Sreekant)
Director (Finance)

(Gurdeep Singh)
Chairman & Managing Director

This is the Consolidated Statement of Changes in Equity referred to in our report of even date

For T R Chadha & Co LLP
Chartered Accountants
Firm Reg. No. 006711N/N500028

(Neena Goel)
Partner
M. No. 057986

For S. N. Dhawan & Co. LLP
Chartered Accountants
Firm Reg. No. 000050N/N500045

(S.K. Khattar)
Partner
M No. 084993

For Sagar & Associates
Chartered Accountants
Firm Reg. No. 003510S

(V. Vidyasagar Babu)
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Firm Reg. No. 000722C

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Chartered Accountants
Firm Reg. No. 000745C

(Sanjiv Kapoor)
Partner
M.No.070487

For B M Chatrath & Co LLP
Chartered Accountants
Firm Reg. No. 301011E/E300025

(Sanjay Sarkar)
Partner
M. No. 064305

Place : New Delhi
Dated : 25 May 2019

CONSOLIDATED STATEMENT OF CASH FLOWS FOR THE YEAR ENDED 31 MARCH 2019

₹ Crore

Particulars		For the year ended 31 March 2019	For the year ended 31 March 2018*
A. CASH FLOW FROM OPERATING ACTIVITIES			
Profit before tax		**13,627.94**	12,529.27
Add: Net movement in regulatory deferral account balances (net of tax)		**(4,200.90)**	3,625.17
Add: Tax on net movement in regulatory deferral account balances		**(1,055.13)**	152.04
Profit before tax including movements in regulatory deferral account balances		**8,371.91**	16,306.48
Adjustment for:			
Depreciation, amortisation and impairment expense	**7,688.10**		7,459.93
Provisions	**991.17**		827.77
Share of net profits of joint ventures accounted for using equity method	**(672.07)**		(445.05)
Deferred revenue on account of advance against depreciation	**(74.35)**		(172.67)
Deferred revenue on account of government grants	**(48.93)**		38.64
Deferred foreign currency fluctuation asset	**(251.53)**		(86.32)
Deferred income from foreign currency fluctuation	**371.78**		214.72
Regulatory deferral account credit balances	**-**		(489.33)
Regulatory deferral account debit balances	**5,256.03**		(3,287.88)
Fly ash utilisation reserve fund	**6.90**		74.53
Exchange differences on translation of foreign currency cash and cash equivalents	**0.01**		-
Finance costs	**5,243.07**		4,415.95
Unwinding of discount on vendor liabilities	**17.78**		18.64
Interest/income on term deposits/bonds/investments	**(56.28)**		(238.52)
Dividend income	**(4.80)**		(3.60)
Provisions written back	**(317.03)**		(1,174.85)
Profit on de-recognition of property, plant and equipment	**(2.72)**		(2.37)
Loss on de-recognition of property, plant and equipment	**173.84**		110.67
		18,320.97	7,260.26
Operating profit before working capital changes		**26,692.88**	23,566.74
Adjustment for:			
Trade receivables	**(1,336.60)**		185.85
Inventories	**(1,643.28)**		812.72
Trade payables, provisions, other financial liabilities and other liabilities	**158.21**		2,084.83
Loans, other financial assets and other assets	**(4,465.09)**		(8,906.26)
		(7,286.76)	(5,822.86)
Cash generated from operations		**19,406.12**	17,743.88
Income taxes (paid) / refunded		**(3,038.99)**	1,925.73
Net cash from operating activities - A		**16,367.13**	19,669.61

₹ Crore

Particulars		For the year ended 31 March 2019	For the year ended 31 March 2018*
B. CASH FLOW FROM INVESTING ACTIVITIES			
Purchase of property, plant and equipment & intangible assets	(19,825.85)		(18,766.28)
Disposal of property, plant and equipment & intangible assets	71.06		8.94
Investment in joint venture companies	(222.69)		(1,153.08)
Payment for business acquisition	(2,145.33)		-
Acquisition of subsidiary, net of cash acquired	(1,689.42)		-
Interest/income on term deposits/bonds/investments received	44.16		242.69
Income tax paid on interest income	(40.44)		(78.52)
Dividend received from joint venture companies	99.39		135.57
Dividend received from other investments	4.80		3.60
Bank balances other than cash and cash equivalents	1,465.45		(1,071.03)
Net cash used in investing activities - B		(22,238.87)	(20,678.11)
C. CASH FLOW FROM FINANCING ACTIVITIES			
Proceeds from non-current borrowings	27,248.45		17,918.23
Repayment of non-current borrowings	(14,084.37)		(6,966.57)
Proceeds from current borrowings	9,314.18		3,560.84
Payment of finance lease obligations	(8.51)		(6.62)
Interest paid	(10,767.23)		(8,605.76)
Dividend paid	(4,922.55)		(4,040.28)
Tax on dividend	(1,004.60)		(826.57)
Changes in ownership interest in subsidiary company	(77.76)		(5.49)
Net cash from financing activities - C		5,697.61	1,027.78
D. Exchange differences on translation of foreign currency cash and cash equivalents		(0.01)	-
Net increase/(decrease) in cash and cash equivalents (A+B+C+D)		(174.14)	19.28
Cash and cash equivalents at the beginning of the year (see Note 1 and 2 below)		383.11	363.83
Cash and cash equivalents at the end of the year (see Note 1 and 2 below)		208.97	383.11

* Restated - Refer Note 47

Notes:

1 Cash and cash equivalents consist of cheques, drafts, stamps in hand, balances with banks and deposits with original maturity of upto three months.

2 Reconciliation of cash and cash equivalents:

Cash and cash equivalents as per Note 13		208.97	383.11

3 Refer Note 61 for details of undrawn borrowing facilities that may be available for future operating activities and to settle capital commitments.

4 Reconciliation between the opening and closing balances in the Balance Sheet for liabilities arising from financing activities:

For the year ended 31 March 2019 ₹ Crore

Particulars	Non-current borrowings**	Finance lease obligations	Current borrowings
Opening balance as at 1 April 2018	**1,24,512.44**	**184.34**	**6,680.38**
Cash flows during the year	**2,396.85**	**(8.51)**	**9,314.18**
Non-cash changes due to:			
- Acquisitions under finance lease	-	**10.58**	-
- Acquisition of subsidiary	**7,870.20**	-	-
- Interest on borrowings	**10,895.11**	-	-
- Variation in exchange rates	**1,372.75**	-	-
- Transaction costs on borrowings	**(53.99)**	-	-
Closing balance as at 31 March 2019	**1,46,993.36**	**186.41**	**15,994.56**

For the year ended 31 March 2018 ₹ Crore

Particulars	Non-current borrowings**	Finance lease obligations	Current borrowings
Opening balance as at 1 April 2017	1,11,734.12	145.02	3,119.54
Cash flows during the year	2,345.90	(6.62)	3,560.84
Non-cash changes due to:			
- Acquisitions under finance lease	762.14	45.94	-
- Interest on borrowings	8,708.88	-	-
- Variation in exchange rates	1,059.31	-	-
- Transaction costs on borrowings	(97.91)	-	-
Closing balance as at 31 March 2018	1,24,512.44	184.34	6,680.38

** Includes current maturities of non-current borrowings and interest accrued thereon, refer Note 21 and Note 28.

For and on behalf of the Board of Directors

(Nandini Sarkar) Company Secretary	(Sudhir Arya) Chief Financial Officer	(K. Sreekant) Director (Finance)	(Gurdeep Singh) Chairman & Managing Director

This is the Consolidated Statement of Cash Flows referred to in our report of even date

For T R Chadha & Co LLP Chartered Accountants Firm Reg. No. 006711N/N500028	For S. N. Dhawan & Co. LLP Chartered Accountants Firm Reg. No. 000050N/N500045	For Sagar & Associates Chartered Accountants Firm Reg. No. 003510S
(Neena Goel) Partner M. No. 057986	(S.K. Khattar) Partner M No. 084993	(V. Vidyasagar Babu) Partner M. No. 027357

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(Varun Bansal) Partner M. No. 402856	(Dinesh Agrawal) Partner M No.055955	(Sanjiv Kapoor) Partner M.No.070487	(Sanjay Sarkar) Partner M. No. 064305

Place : New Delhi
Dated : 25 May 2019

Notes forming part of Consolidated Financial Statements

1. Group Information and Significant Accounting Policies

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 publicly traded on the National Stock Exchange of India Limited and BSE Limited. The address of the Company's registered office is NTPC Bhawan, SCOPE Complex, 7 Institutional Area, Lodi 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 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) notified under the Companies (Indian Accounting Standards) Rules, 2015 and subsequent amendments thereto, the Companies Act, 2013 (to the extent notified and applicable), applicable provisions of the Companies Act, 1956, and the provisions of the Electricity Act, 2003 to the extent applicable.

These financial statements were authorised for issue by the Board of Directors on 25 May 2019.

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 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.

Historical cost is the amount of cash or cash equivalents paid or the fair value of the consideration given to acquire assets at the time of their acquisition or the amount of proceeds received in exchange for the obligation, or at the amounts of cash or cash equivalents expected to be paid to satisfy the liability in the normal course of business.

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

3. Functional and presentation currency

These consolidated financial statements are presented in Indian Rupees (INR), which is the Company's functional currency. All financial information presented in INR has been rounded to the nearest crore (upto two decimals), except as stated otherwise.

4. Current and non-current classification

The Group presents assets and liabilities in the balance sheet based on current/non-current classification.

An asset is current when it is:

- Expected to be realised or intended to be sold or consumed in normal operating cycle;
- Held primarily for the purpose of trading;

- Expected to be realised within twelve months after the reporting period; or
- Cash or cash equivalent unless restricted from being exchanged or used to settle a liability for at least twelve months after the reporting period.

All other assets are classified as non-current.

A liability is current when:

- It is expected to be settled in normal operating cycle;
- It is held primarily for the purpose of trading;
- It is due to be settled within twelve months after the reporting period; or
- There is no unconditional right to defer settlement of the liability for at least twelve months after the reporting period.

All other liabilities are classified as non-current.

Deferred tax assets/liabilities are classified as non-current.

C. Significant accounting policies

A summary of the significant 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.

The Group has elected to utilise the option under Ind AS 101 by not applying the provisions of Ind AS 16 & Ind AS 38 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 all entities over which the Group has control. The Group controls an entity when the Group is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power to direct the relevant activities of the entity. Subsidiaries are fully consolidated from the date on which control is acquired by the Group. They are deconsolidated from the date that control ceases.

The Group combines the financial statements of the parent and its subsidiaries line by line adding together like items of assets, liabilities, equity, income and expenses. Intercompany transactions, balances and unrealised gains on transactions between Group companies are eliminated. Unrealised losses are also eliminated unless the transaction provides evidence of an impairment of the transferred asset. Accounting policies of subsidiaries have been changed where necessary to ensure consistency with the policies adopted by the Group.

Non-controlling interests (NCI) in the results and equity of subsidiaries are shown separately in the consolidated statement of profit and loss, consolidated statement of changes in equity and consolidated balance sheet respectively.

Changes in the Group's equity 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 interest retained in the former subsidiary is measured at fair value at the date the control is lost. Any resulting gain or loss is recognised in profit or loss.

1.2 Joint ventures

A joint venture is a type of joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the joint venture. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require unanimous consent of the parties sharing control.

Interests in joint ventures are accounted for using the equity method, after initially being recognised at cost in the consolidated balance sheet.

Under the equity method of accounting, the investments are initially recognised at cost and adjusted thereafter to recognise the Group's share of the post-acquisition profits or losses of the investee in profit and loss, and the Group's share of other comprehensive income (OCI) of the investee in OCI. Dividends received or receivable from joint ventures are recognised as a reduction in the carrying amount of the investment.

When the Group's share of losses in an equity-accounted investment equals or exceeds its interest in the entity, including any other unsecured long-term receivables, the Group does not recognise further losses, unless it has incurred obligations or made payments on behalf of the other entity.

Unrealised gains on transactions between the Group and its joint ventures are eliminated to the extent of the Group's interest in these entities. Unrealised losses are also eliminated unless the transaction provides evidence of an impairment of the asset transferred. Accounting policies of equity accounted material investees have been changed where necessary to ensure consistency with the policies adopted by the Group.

The carrying amount of equity accounted as investments are tested for impairment in accordance with the policy described in D.11 below.

When the Group ceases to apply equity method of accounting for an investment because of a loss of joint control, any retained interest in the entity is re-measured to its fair value with the change in carrying amount recognised in profit or loss. In addition, any amounts previously recognised in OCI in respect of that entity are accounted for as if the Group had directly disposed of the related assets or liabilities. This may mean that amounts previously recognised in OCI are reclassified to profit or loss.

If the ownership interest in a joint venture is reduced but joint control is retained, only a proportionate share of the amounts previously recognised in OCI are reclassified to profit or loss where appropriate.

2. Property, plant and equipment

2.1. Initial recognition and measurement

An item of property, plant and equipment is recognised as an asset if and only if it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably.

Items of property, plant and equipment are initially recognised at cost. Subsequent measurement is done at cost less accumulated depreciation/amortisation and accumulated impairment losses. Cost includes expenditure that is directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management. When parts of an item of property, plant and equipment have different useful lives, they are recognised 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, capitalisation 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 capitalised 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 capitalised. Other spare parts are carried as inventory and recognised in the statement of profit and loss on consumption.

2.2. Subsequent costs

Subsequent expenditure is recognised 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.

Expenditure on major inspection and overhauls of generating unit is capitalised, when it meets the asset recognition criteria.

The cost of replacing part of an item of property, plant and equipment is recognised 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 derecognised. The costs of the day-to-day servicing of property, plant and equipment are recognised in profit or loss as 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 derecognised 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 by comparing the proceeds from disposal, if any, with the carrying amount of property, plant and equipment, and are recognised in the statement of profit and loss.

2.5. Depreciation/amortisation

Depreciation is recognised in statement of profit and loss on a straight-line basis over the estimated useful lives of each part of an item of property, plant and equipment. Leased assets are depreciated over the shorter of the lease term and their useful lives unless it is reasonably certain that the Group will obtain ownership by the end of the lease term.

Depreciation on the assets of the generation of electricity business 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 CERC Tariff Regulations.

Depreciation on the assets of the coal mining, oil & gas exploration 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 in policy no. C.7.

Depreciation on the following assets is provided on their estimated useful life, which are different from the useful life as prescribed under Schedule II to the Companies Act, 2013, ascertained on the basis of technical evaluation:

a) Kutcha roads	2 years
b) Enabling works	
- residential buildings	15 years
- internal electrification of residential buildings	10 years
- non-residential buildings including their internal electrification, water supply, sewerage & drainage works, railway sidings, aerodromes, helipads and airstrips.	5 years
c) Personal computers & laptops including peripherals	3 years
d) Photocopiers, fax machines, water coolers and refrigerators	5 years
e) Temporary erections including wooden structures	1 year
f) Telephone exchange	15 years
g) Wireless systems, VSAT equipments, display devices viz. projectors, screens, CCTV, audio video conferencing systems and other communication equipments	6 years
h) Energy saving electrical appliances and fittings	2-7 years

Major overhaul and inspection costs which have been capitalised are depreciated over the period until the next scheduled outage or actual major inspection/overhaul, whichever is earlier.

Leasehold land and buildings relating to generation of electricity business are fully amortised over lease period or life of the related plant whichever is lower following the rates and methodology notified by the CERC Tariff Regulations.

Leasehold land and buildings relating to corporate and other offices are fully amortised over lease period or twenty-five years whichever is lower following the rates and methodology notified by the CERC Tariff Regulations.

Land acquired for mining business under Coal Bearing Areas (Acquisition & Development) Act, 1957 is amortised on the basis of balance useful life of the project. Other leasehold land acquired for mining business is amortised over the lease period or balance life of the project whichever is less.

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/disposed.

Where the cost of depreciable assets has undergone a change during the year due to increase/decrease in long term liabilities on account of exchange fluctuation, price adjustment, change in duties or similar factors, the unamortised balance of such asset is charged off prospectively over the remaining useful life determined following the applicable accounting policies relating to depreciation/amortisation.

Where 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, subsequent expenditure on a PPE along-with its unamortised depreciable amount is charged off prospectively over the revised useful life determined by technical assessment.

In circumstance, where a property is abandoned, the cumulative capitalised costs relating to the property are written off in the same period.

The residual values, useful lives and method of depreciation of assets other than the assets of generation of electricity business are reviewed at each financial year end and adjusted prospectively, wherever required.

3. 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 borrowing costs.

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.

4. Intangible assets and intangible assets under development

4.1. Initial recognition and measurement

An intangible asset is recognised if and only if it is probable that the expected future economic benefits that are attributable to the asset will flow to the Group and the cost of the asset can be measured reliably.

Intangible assets that are acquired by the Group, which have finite useful lives, are recognised at cost. Subsequent measurement is done at cost less accumulated amortisation and accumulated impairment losses. Cost includes any directly attributable incidental expenses necessary to make the assets ready for its intended use.

Expenditure on development activities is capitalised only if the expenditure can be measured reliably, the product or process is technically and commercially feasible, future economic benefits are probable and the Group intends to & has sufficient resources to complete development and to use or sell the asset.

Expenditure incurred which are eligible for capitalisations under intangible assets are carried as intangible assets under development till they are ready for their intended use.

4.2. Subsequent costs

Subsequent expenditure is recognised 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 derecognised when no future economic benefits are expected from their use or upon their disposal. Gains & losses on de-recognition of an item of intangible assets are determined by comparing the proceeds from disposal, if any, with the carrying amount of intangible assets and are recognised in the statement of profit and loss.

4.4. Amortisation

Cost of software recognised as intangible asset, is amortised on straight-line method over a period of legal right to use or 3 years, whichever is less. Other intangible assets are amortised on straight-line method over the period of legal right to use or life of the related plant, whichever is less.

The amortisation period and the amortisation 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 recognised 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 recognised 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.

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 derecognised.

6. Exploration for and evaluation of mineral resources

6.1. Oil and gas exploration costs

All exploration costs incurred in drilling and equipping exploratory and appraisal wells, cost of drilling exploratory type stratigraphic test wells are initially capitalised as 'Exploratory wells-in-progress' till the time these are either transferred to oil and gas assets on completion 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 as per the policy of the Group.

Cost of surveys and prospecting activities conducted in the search of oil and gas are expensed in the year in which these are incurred.

6.2. Coal mining exploration costs

Exploration and evaluation costs comprise capitalised costs which are attributable to the search for coal, pending the determination of technical feasibility and the assessment of commercial viability of an identified resource which comprises inter-alia the following:

- researching and analyzing historical exploration data;
- gathering exploration data through topographical, geo chemical and geo physical studies;
- exploratory drilling, trenching and sampling;
- determining & examining the volume and grade of the resource; and
- surveying transportation and infrastructure requirements.

Exploration and evaluation expenditure incurred after obtaining the mining right or the legal right to explore are capitalised as exploration and evaluation assets (intangible assets under development) and stated at cost less impairment. Exploration and evaluation assets are assessed for impairment indicators at least annually.

Exploration and evaluation expenditure incurred prior to obtaining the mining right or the legal right to explore are expensed as incurred.

7. Development expenditure on coal mines

Once 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. However, if proved reserves are not determined, the exploration and evaluation costs are derecognised.

The development expenditure capitalised is net of value of coal extracted during development phase.

Subsequent expenditure is capitalised 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.

Mines under development are brought to revenue on occurrence of earliest of the following milestones except otherwise when commercial readiness is stated in the project report:

a) From the beginning of the financial year immediately after the year in which the project achieves physical output of 25% of rated capacity as per approved project report; or

b) From the beginning of the financial year in which the value of production is more than total expenses; or

c) 2 years of touching of coal.

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 being brought to revenue, 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 tangible/intangible assets, as referred above, are determined by comparing the proceeds from disposal, if any, with the carrying amount of respective assets and are recognised in the statement of profit and loss.

7.1. 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.

7.2. 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 & 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 discount rate that reflect 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 records a corresponding asset under property, plant and equipment associated with the obligation.

The value of the obligation is progressively increased over time as the effect of discounting unwinds and the same is recognised as finance costs.

7.3. Amortisation

On being brought to revenue, the mines closure, site restoration and decommissioning obligations are amortised over the balance life of the mine. Mining property is amortised from the year in which the mine is brought under revenue, in 20 years or life of mine whichever is less.

8. **Joint operations**

The Group has entered into joint arrangements with others for operations in the nature of joint operations. The Group recognises, on a line-by-line basis its share of the assets, liabilities and expenses of these joint operations as per the arrangement which are accounted based on the respective accounting policies of the Group.

9. **Borrowing costs**

Borrowing costs consist of (a) interest expense calculated using the effective interest method as described in Ind AS 109 – 'Financial Instruments' (b) finance charges in respect of finance leases recognised in accordance with Ind AS 17 – '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 capitalised 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 capitalised. When Group borrows funds generally and uses them for the purpose of obtaining a qualifying asset, the capitalisation of the borrowing costs is computed based on the weighted average cost of general borrowing that are outstanding during the period and used for the acquisition, construction/exploration or erection of the qualifying asset.

Income earned on temporary investment of the borrowings pending their expenditure on the qualifying assets is deducted from the borrowing costs eligible for capitalisation.

Capitalisation of borrowing costs ceases when substantially all the activities necessary to prepare the qualifying assets for their intended uses are complete.

Other borrowing costs are recognised as an expense in the year in which they are incurred.

10. **Inventories**

Inventories are valued at the lower of cost and net realisable value. Cost includes cost of purchase, cost of conversion and other costs incurred in bringing the inventories to their present location and condition. Cost is determined on weighted average basis. Costs of purchased inventory are determined after deducting rebates and discounts. Net realisable value is the estimated selling price in the ordinary course of business, less estimated costs of completion and the estimated costs necessary to make the sale.

The diminution in the value of obsolete, unserviceable, surplus and non-moving items of stores and spares is ascertained on review and provided for.

Steel scrap is valued at estimated realisable value.

11. **Cash and cash equivalents**

Cash and cash equivalents in the balance sheet comprise cash at banks, cash on hand and short-term deposits with an original maturity of three months or less, which are subject to an insignificant risk of changes in value.

12. **Government grants**

Government grants are recognised initially as deferred income 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 an asset are recognised in profit or loss on a systematic basis over the useful life of the related asset. Grants that compensate the Group for expenses incurred are recognised over the period in which the related costs are incurred and deducted from the related expenses.

13. **Fly ash utilisation reserve fund**

Proceeds from sale of ash/ash products along-with income on investment of such proceeds are transferred to 'Fly ash utilisation reserve fund' in terms of provisions of gazette notification dated 3 November 2009 issued by Ministry of Environment and Forests, Government of India. The fund is utilised towards expenditure on development of infrastructure/ facilities, promotion & facilitation activities for use of fly ash.

14. Provisions, contingent liabilities and contingent assets

A provision is recognised 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 recognised as a finance costs.

The amount recognised 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 recognised 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 any reimbursement.

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.

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.

15. Foreign currency transactions and translation

Transactions in foreign currencies are initially recorded at the functional currency spot rates at the date the transaction first qualifies for recognition.

Monetary assets and liabilities denominated in foreign currencies are translated at the functional currency spot rates of exchange at the reporting date. Exchange differences arising on settlement or translation of monetary items are recognised in profit or 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 recognised upto 31 March 2016 are adjusted to the carrying cost of property, plant and equipment.

Non-monetary items are measured in terms of historical cost in a foreign currency and translated 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 recognises 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 (unless this is not a reasonable approximation of the cumulative effect of the rates prevailing on the transaction dates, in which case income and expenses are translated at the dates of the transactions), and
- All resulting exchange differences are recognised in OCI.

On consolidation, exchange differences arising from the translation of any net investment in foreign entities are recognised in OCI. When a foreign operation is sold, the associated exchange differences are reclassified to profit or loss, as part of the gain or loss on sale.

16. Revenue

Group's revenues arise from sale and trading of energy, consultancy, project management & supervision services, income on assets under lease and other income. Revenue from other income comprises interest from banks, employees, contractors etc., dividend from mutual fund investments, surcharge received from beneficiaries for delayed payments, sale of scrap, other miscellaneous income, etc.

Effective 1 April 2018, the Group has adopted Ind AS 115 “Revenue from Contracts with Customers” using the cumulative effect method, applied to the contracts that were not completed as of 1 April 2018 and therefore the comparatives have not been restated and continues to be reported as per Ind AS 18 “Revenue” and Ind AS 11 “Construction Contracts”. The details of accounting policies as per Ind AS 18 and Ind AS 11 are disclosed separately if they are different from those under Ind AS 115.

16.1. 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.

Revenue 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 products or services and excludes amounts collected on behalf of third parties. The Group recognises revenue when (or as) the performance obligation is satisfied, which typically occurs when (or as) control over the products or services is transferred to a customer.

In the comparative period, revenue from the sale of energy was measured at the fair value of the consideration received or receivable. Revenue was recognised when the significant risks and rewards of ownership had been transferred to the buyer, recovery of the consideration was probable, the associated costs could be estimated reliably, there was no continuing management involvement, and the amount of revenue could be measured reliably.

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 recognised 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. 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. 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 is recognised based on the rates, terms & conditions mutually agreed with the beneficiaries and trading of power through power exchanges.

Advance against depreciation considered as deferred revenue in earlier years is included in sales, to the extent depreciation recovered in tariff during the year is lower than the corresponding depreciation charged.

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 adjusted from the year in which the same becomes recoverable/payable.

Exchange differences on account of translation of foreign currency borrowings recognised upto 31 March 2016, recoverable from or payable to the beneficiaries in subsequent periods as per the CERC Tariff Regulations are accounted as ‘Deferred foreign currency fluctuation asset’. The increase or decrease in depreciation for the year due to the accounting of such exchange differences as mentioned above is adjusted in depreciation. Fair value changes in respect of forward exchange contracts of derivative contracts recoverable from/payable to the beneficiaries as per the CERC Tariff Regulations, are recognised in sales.

Revenue from sale of energy through trading is recognised 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.

16.2. 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 and excludes amounts collected on behalf of third parties. The Group recognises revenue when (or as) the performance obligation is satisfied, which typically occurs when (or as) control over the services is transferred to a customer.

In the comparative period, revenue from consultancy, project management and supervision services rendered was recognised in profit or loss in proportion to the stage of completion of the transaction at the reporting date. The stage of completion was assessed by reference to actual progress/technical assessment of work executed, in line with the terms of the respective consultancy contracts.

Reimbursement of expenses are recognised 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.

16.3. Other income

Interest income is recognised, 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).

Scrap other than steel scrap is accounted for as and when sold.

Insurance claims for loss of profit are accounted for in the year of acceptance. Other insurance claims are accounted for based on certainty of realisation.

Revenue from rentals and operating leases is recognised on an accrual basis in accordance with the substance of the relevant agreement.

For debt instruments measured either at amortised cost or at fair value through OCI, interest income is recorded using the EIR. EIR is the rate that exactly discounts the estimated future cash payments or receipts over the expected life of the financial instrument or a shorter period, where appropriate, to the gross carrying amount of the financial asset or to the amortised cost of a financial liability. When calculating the EIR, the Group estimates the expected cash flows by considering all the contractual terms of the financial instrument (for example, prepayment, extension, call and similar options) but does not consider the expected credit losses. Interest income is included in other income in the statement of profit and loss.

The interest/surcharge on late payment/overdue trade receivables for sale of energy is recognised when no significant uncertainty as to measurability or collectability exists.

Interest/surcharge recoverable on advances to suppliers as well as warranty claims wherever there is uncertainty of realisation/acceptance are not treated as accrued and are therefore, accounted for on receipt/acceptance.

Dividend income is recognised 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.

17. Employee benefits

17.1. Defined contribution plans

A defined contribution plan is a post-employment benefit plan under which an entity pays fixed contributions into separate entities and will have no legal or constructive obligation to pay further amounts. Obligations for contributions to defined contribution plans are recognised as an employee benefits expense in profit or loss in the period during which services are rendered by employees. Prepaid contributions are recognised 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.

The Group has a defined contribution pension scheme which 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 contributions to the fund for the year are recognised as an expense and charged to the statement of profit and loss.

17.2. 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, 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.

The Group pays fixed contribution to the provident fund at predetermined rates to a separate trust, which invests the funds in permitted securities. The contributions to the fund for the year are recognised as expense and are charged to the profit or loss. The obligation of the Group is to make such fixed contributions and to ensure a minimum rate of return to the members as specified by the Government of India.

The gratuity is funded by the Group and is managed by separate trust. Pension scheme at one of the taken over projects is also funded by the Group and is managed by separate trust. The Group has PRMF, under which retired employee and the spouse are provided medical facilities in the Group hospitals/empaneled hospitals. They can also avail treatment as out-patient subject to a ceiling fixed by the Group.

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. Any unrecognised past service costs and the fair value of any plan assets are 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 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 recognised asset is limited to the total of any unrecognised past service costs and 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 realisable during the life of the plan, or on settlement of the plan liabilities. Any actuarial gains or losses are recognised in OCI in the period in which they arise.

When the benefits of a plan are improved, the portion of the increased benefit relating to past service by employees is recognised in profit or loss on a straight-line basis over the average period until the benefits become vested. To the extent that the benefits vest immediately, the expense is recognised immediately in statement of profit and loss.

17.3. 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 leave encashment is 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. The calculation is performed using the projected unit credit method. Any actuarial gains or losses are recognised in profit or loss in the period in which they arise.

As per the Group's economic rehabilitation scheme which is optional, the nominee of the deceased employee is paid a fixed amount based on the last salary drawn by the employee till the date of superannuation of the employee by depositing the final provident fund and gratuity amount which will be interest free.

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.

17.4. 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 recognised 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.

18. Other expenses

Expenses on ex-gratia payments under voluntary retirement scheme, training & recruitment and voluntary community development are charged to statement of profit and loss in the year incurred.

Expenditure on research is charged to revenue as and when incurred. Expenditure on development is charged to revenue as and when incurred unless it meets the recognition criteria for intangible asset as per Ind AS 38- 'Intangible assets'.

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.

Net pre-commissioning income/expenditure is adjusted directly in the cost of related assets and systems.

Transit and handling losses of coal as per Group's norms are included in cost of coal.

19. Income tax

Income tax expense comprises current and deferred tax. Current tax expense is recognised in profit or loss except to the extent that it relates to items recognised directly in OCI or equity, in which case it is recognised in OCI or equity, respectively.

Current tax is the expected tax payable on the taxable income for the year, using tax rates enacted or substantively enacted and as applicable at the reporting date, and any adjustment to tax payable in respect of previous years.

Deferred tax is recognised using the balance sheet method, providing for temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. Deferred tax is measured at the tax rates that are expected to be applied to temporary differences when they reverse, 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 liabilities and assets, and they relate to income taxes levied by the same tax authority.

Deferred tax is recognised in profit or loss except to the extent that it relates to items recognised directly in OCI or equity, in which case it is recognised in OCI or equity, respectively.

A deferred tax asset is recognised to the extent that it is probable that future taxable profits will be available against which the temporary difference can be utilised. Deferred tax assets are reviewed at each reporting date and are reduced to the extent that it is no longer probable that the related tax benefit will be realised.

Deferred tax liabilities are not recognised for temporary differences between the carrying amount and tax bases of investments in subsidiaries and interest 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 differences will not reverse in the foreseeable future.

Deferred tax assets are not recognised for 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 and taxable profit will not be available against which the temporary difference can be utilised.

Additional income taxes that arise from the distribution of dividends are recognised at the same time that the liability to pay the related dividend is recognised.

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 is recognised as deferred tax asset in the balance sheet when the asset can be measured reliably and it is probable that the future economic benefit associated with the asset will be realised.

20. Leases

20.1. As lessee

Accounting for finance leases

Leases of property, plant and equipment where the Group, as lessee has substantially all risks and rewards of ownership are classified as finance lease. On initial recognition, assets held under finance leases are recorded as property, plant and equipment and the related liability is recognised under borrowings. At inception of the lease, finance leases are recorded at amounts equal to the fair value of the leased asset or, if lower, the present value of the minimum lease payments. Minimum lease payments made under finance leases are apportioned between the finance cost and the reduction of the outstanding liability.

The finance cost is allocated to each period during the lease term so as to produce a constant periodic rate of interest on the remaining balance of the liability.

Accounting for operating leases

Leases in which a significant portion of the risks and rewards of ownership are not transferred to the Group as lessee are classified as operating lease. Payments made under operating leases are recognised as an expense on a straight-line basis over the lease term unless the payments are structured to increase in line with expected general inflation to compensate for the lessor's expected inflationary cost increases. Lease incentives received are recognised as an integral part of the total lease expense, over the term of the lease.

20.2. 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.

Accounting for finance leases

Where the Group determines a long term 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 recognised 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 recognised as finance income and capital repayments and recognised 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 of 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 capitalised as property, plant and equipment and depreciated over its economic life. Rental income from operating leases is recognised on a straight line basis over the term of the arrangement unless the receipts are structured to increase in line with expected general inflation to compensate for the expected inflationary cost increases.

21. 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 to 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 recognised if the carrying amount of an asset or its CGU exceeds its estimated recoverable amount. Impairment losses are recognised in profit or loss. Impairment losses recognised in respect of CGUs are reduced from the carrying amounts of the assets of the CGU.

Impairment losses recognised 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 depreciation or amortisation, if no impairment loss had been recognised.

22. Operating segments

In accordance with Ind AS 108, 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.

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.

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, and intangible assets other than goodwill.

Segment assets comprise property, plant and equipment, intangible assets, 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. Segment assets do not include investments, income tax assets, capital work in progress, capital advances, corporate assets and other current assets that cannot reasonably be allocated to segments.

Segment liabilities include all operating liabilities in respect of a segment and consist principally of trade and other payables, employee benefits and provisions. Segment liabilities do not include equity, income tax liabilities, loans and borrowings and other liabilities and provisions that cannot reasonably be allocated to segments.

23. Business combinations

Acquisition of subsidiaries and businesses 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 each business combination is measured at the aggregate of the acquisition date fair values of assets given, liabilities incurred by the Group to the former owners of the acquiree, and equity interests issued by the Group in exchange for control of the acquiree. The identifiable assets acquired and liabilities assumed are recognised at fair values on their acquisition date (except certain assets and liabilities which are required to be measured as per the applicable standard) and the non-controlling interest is initially recognised at the non-controlling interest's proportionate share of the acquiree's net identifiable assets.

Acquisition related costs are recognised in the consolidated statement of profit and loss.

Goodwill is initially measured at cost, being the excess of the consideration transferred over the Group's interest in the net fair value of the identifiable assets acquired, liabilities assumed and contingent liabilities recognised. Where the fair value of the 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 recognised as capital reserve on consolidation.

Business combinations arising from transfers of interests in entities that are under the common control are accounted for using the pooling of interest method. The difference between any consideration transferred and the aggregate historical carrying values of assets and liabilities of the acquired entity are recognised in shareholder's equity.

If the business combination is achieved in stages, the acquisition date carrying value of the acquirer's previously held equity interest in the acquiree is remeasured to fair value at the acquisition date. Any gains or losses arising from such remeasurement are recognised in statement of profit and loss or OCI, as appropriate.

24. Dividends

Dividends and interim dividends payable to the Group's shareholders are recognised as changes in equity in the period in which they are approved by the shareholders and the Board of Directors respectively.

25. 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.

26. Earnings per share

Basic earnings per equity share is computed by dividing the net profit or loss attributable to equity shareholders of the Group 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 Group 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 earnings amounts excluding the movements in regulatory deferral account balances.

27. Statement of cash flows

Statement of cash flows is prepared in accordance with the indirect method prescribed in Ind AS 7 'Statement of cash flows'.

28. 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.

28.1. Financial assets

Initial recognition and measurement

The Group recognises financial assets when it becomes a party to the contractual provisions of the instrument. All financial assets are recognised 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 at fair value through profit or loss, are added to the fair value on initial recognition.

Subsequent measurement

Debt instruments at amortised cost

A 'debt instrument' is measured at the amortised 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 amortised cost using the EIR method. Amortised 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 amortisation is included in finance income in the profit or loss. The losses arising from impairment are recognised in the profit or 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 recognised in the OCI. However, the Group recognises interest income, impairment losses & reversals and foreign exchange gain or loss in the profit and loss. On de-recognition of the asset, cumulative gain or loss previously recognised in OCI is reclassified from the equity to 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 categorisation as at amortised cost or as FVTOCI, is classified as at FVTPL.

In addition, the Group may elect to classify a debt instrument, which otherwise meets amortised 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 recognised in the profit and loss.

Equity investments

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 recognised in the OCI. There is no recycling of the amounts from OCI to statement of profit and loss, even on sale of investment. However, the Group may transfer the cumulative gain or loss within equity.

Equity instruments included within the FVTPL category are measured at fair value with all changes recognised in the 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-recognised (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 recognised in the Statement of Profit and Loss.

Impairment of financial assets

In accordance with Ind AS 109, 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 amortised 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 17.

(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 unbilled revenue, the Group applies the simplified approach required by Ind AS 109 Financial Instruments, which requires expected lifetime losses to be recognised from initial recognition of the receivables.

For recognition of impairment loss on other financial assets and risk exposure, 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 recognising impairment loss allowance based on 12-month ECL.

28.2. Financial liabilities

Initial recognition and measurement

Financial liabilities are classified, at initial recognition, as financial liabilities at fair value through profit or loss, borrowings, payables, or as derivatives designated as hedging instruments in an effective hedge, as appropriate. All financial liabilities are recognised initially at fair value and, in the case of borrowings and payables, net of directly attributable transaction costs. 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 amortised cost

After initial measurement, such financial liabilities are subsequently measured at amortised cost using the EIR method. Gains and losses are recognised in profit or loss when the liabilities are derecognised as well as through the EIR amortisation process Amortised 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 amortisation is included in finance costs in the profit or 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 recognised 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 are recognised 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. All other changes in fair value of such liability are recognised 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 derecognised 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 recognised in the statement of profit and loss.

28.3. **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 recognised 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.

28.4. **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 recognised amounts and there is an intention to settle on a net basis, to realise the assets and settle the liabilities simultaneously.

D. Use of estimates and management judgments

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, income, 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 recognised 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 recognised 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 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. **Post-employment benefit plans**

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 under Appendix C to Ind AS 17 'Determining whether an arrangement contains a lease'. In assessing the applicability to 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 needs the criteria under Appendix C to Ind AS 17.

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 judgements 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 recognising 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 has required best judgment by management regarding the probability of exposure to potential loss. Should circumstances change following unforeseeable developments, this likelihood could alter.

10. **Classification of joint arrangements**

    Group's joint arrangements in the nature of joint operations and joint ventures require unanimous consent from all parties for all relevant activities. Parties are jointly and severally liable for the liabilities incurred by the joint arrangements. These arrangements are classified and accounted for as either joint operation or joint venture in accordance with the provisions of Ind AS 111, 'Joint Arrangements'.

11. **Impairment test of non-financial assets**

    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.

12. **Income taxes**

    Significant estimates are involved in determining the provision for income taxes, including amount expected to be paid/recovered for uncertain tax positions.

2. Non-current assets - Property, plant and equipment

As at 31 March 2019 ₹ Crore

Particulars	Gross block				Depreciation, amortisation and impairment				Net block
	As at 1 April 2018	Additions	Deductions/ adjustments	As at 31 March 2019	Upto 1 April 2018	For the year	Deductions/ adjustments	Upto 31 March 2019	As at 31 March 2019
Land									
(including development expenses)									
Freehold	7,365.33	1,181.21	(108.11)	**8,654.65**	-	-	-	**-**	**8,654.65**
Leasehold	4,895.11	351.31	(148.06)	**5,394.48**	277.01	114.00	(24.38)	**415.39**	**4,979.09**
Under submergence (refer footnote (f) below)	755.47	0.04	(21.26)	**776.77**	79.66	31.23	-	**110.89**	**665.88**
Roads, bridges, culverts and helipads	1,062.85	77.82	(31.19)	**1,171.86**	112.64	46.57	0.03	**159.18**	**1,012.68**
Building									
Freehold									
Main plant	5,876.33	701.58	(83.71)	**6,661.62**	535.64	237.14	0.86	**771.92**	**5,889.70**
Others	3,702.48	606.87	3.80	**4,305.55**	425.54	193.24	10.77	**608.01**	**3,697.54**
Leasehold	18.91	-	-	**18.91**	5.56	1.86	-	**7.42**	**11.49**
Temporary erection	28.20	10.88	0.04	**39.04**	21.90	8.62	0.02	**30.50**	**8.54**
Water supply, drainage and sewerage system	608.30	52.54	(25.22)	**686.06**	80.94	32.71	0.50	**113.15**	**572.91**
Hydraulic works, barrages, dams, tunnels and power channel	4,236.12	-	(23.76)	**4,259.88**	604.74	226.10	-	**830.84**	**3,429.04**
MGR track and signalling system	1,129.55	-	(17.31)	**1,146.86**	195.48	74.62	-	**270.10**	**876.76**
Railway siding	1,460.83	174.83	(15.89)	**1,651.55**	150.82	86.28	0.08	**237.02**	**1,414.53**
Earth dam reservoir	318.54	-	(0.35)	**318.89**	39.54	18.65	-	**58.19**	**260.70**
Plant and equipment									
Owned	1,14,853.33	12,532.80	(1,139.30)	**1,28,525.43**	17,471.90	7,209.88	329.95	**24,351.83**	**1,04,173.60**
Leased	85.77	-	-	**85.77**	14.12	4.75	-	**18.87**	**66.90**
Furniture and fixtures	422.98	122.30	(5.19)	**550.47**	77.43	39.32	0.37	**116.38**	**434.09**
Vehicles including speedboats									
Owned	12.50	0.58	0.28	**12.80**	2.93	1.24	0.13	**4.04**	**8.76**
Leased	2.67	0.94	0.36	**3.25**	1.40	0.81	0.23	**1.98**	**1.27**
Office equipment	204.36	57.19	3.68	**257.87**	66.45	24.92	1.20	**90.17**	**167.70**
EDP, WP machines and satcom equipment	323.56	110.04	26.03	**407.57**	170.30	73.57	24.30	**219.57**	**188.00**
Construction equipment	192.94	32.13	6.88	**218.19**	39.62	18.23	2.53	**55.32**	**162.87**
Electrical installations	634.67	106.97	(4.79)	**746.43**	81.93	46.18	1.66	**126.45**	**619.98**
Communication equipment	80.51	10.10	0.93	**89.68**	32.23	8.16	0.76	**39.63**	**50.05**
Hospital equipment	29.83	3.25	0.89	**32.19**	4.81	1.85	0.20	**6.46**	**25.73**
Laboratory and workshop equipment	120.41	21.55	0.79	**141.17**	15.30	7.65	0.18	**22.77**	**118.40**
Assets for ash utilisation	39.29	1.42	-	**40.71**	-	-	-	**-**	**40.71**
Less: Adjusted from fly ash utilisation reserve fund	39.29	1.42	-	**40.71**	-	-	-	**-**	**40.71**
Total	**1,48,421.55**	**16,154.93**	**(1,580.46)**	**1,66,156.94**	**20,507.89**	**8,507.58**	**349.39**	**28,666.08**	**1,37,490.86**

As at 31 March 2018 ₹ Crore

Particulars	Gross block				Depreciation, amortisation and impairment				Net block
	As at 1 April 2017	Additions	Deductions/ adjustments	As at 31 March 2018	Upto 1 April 2017	For the year	Deductions/ adjustments	Upto 31 March 2018	As at 31 March 2018
Land									
(including development expenses)									
Freehold	6,338.45	984.81	(42.07)	7,365.33	-	-	-	-	7,365.33
Leasehold	4,617.91	199.36	(77.84)	4,895.11	175.97	103.96	2.92	277.01	4,618.10
Under submergence (refer footnote (f) below)	732.83	0.48	(22.16)	755.47	49.26	30.40	-	79.66	675.81
Roads, bridges, culverts and helipads	905.64	142.15	(15.06)	1,062.85	69.68	44.50	1.54	112.64	950.21
Building									
Freehold									
Main plant	4,673.32	1,194.20	(8.81)	5,876.33	328.68	209.68	2.72	535.64	5,340.69
Others	2,893.36	669.68	(139.44)	3,702.48	278.84	174.90	28.20	425.54	3,276.94
Leasehold	18.91	-	-	18.91	3.70	1.86	-	5.56	13.35
Temporary erection	18.10	7.98	(2.12)	28.20	13.97	7.92	(0.01)	21.90	6.30
Water supply, drainage and sewerage system	473.64	130.33	(4.33)	608.30	49.43	31.52	0.01	80.94	527.36
Hydraulic works, barrages, dams, tunnels and power channel	4,130.91	46.17	(59.04)	4,236.12	381.71	223.02	(0.01)	604.74	3,631.38
MGR track and signalling system	1,091.56	17.92	(20.07)	1,129.55	125.68	69.80	-	195.48	934.07
Railway siding	757.58	695.29	(7.96)	1,460.83	80.14	70.68	-	150.82	1,310.01
Earth dam reservoir	211.36	106.36	(0.82)	318.54	22.39	17.15	-	39.54	279.00
Plant and equipment									
Owned	86,549.99	26,866.34	(1,437.00)	1,14,853.33	10,579.11	6,998.85	106.06	17,471.90	97,381.43
Leased	85.77	-	-	85.77	9.37	4.75	-	14.12	71.65
Furniture and fixtures	365.63	63.77	6.42	422.98	48.35	29.46	0.38	77.43	345.55
Vehicles including speedboats									
Owned	10.59	2.51	0.60	12.50	1.89	1.21	0.17	2.93	9.57
Leased	3.25	-	0.58	2.67	1.00	0.75	0.35	1.40	1.27
Office equipment	165.83	40.26	1.73	204.36	44.55	22.52	0.62	66.45	137.91
EDP, WP machines and satcom equipment	276.49	58.06	10.99	323.56	116.99	63.76	10.45	170.30	153.26
Construction equipment	145.06	49.35	1.47	192.94	24.99	16.02	1.39	39.62	153.32
Electrical installations	461.17	152.72	(20.78)	634.67	47.14	34.86	0.07	81.93	552.74
Communication equipment	68.78	12.26	0.53	80.51	24.82	7.99	0.58	32.23	48.28
Hospital equipment	25.91	3.98	0.06	29.83	3.12	1.70	0.01	4.81	25.02
Laboratory and workshop equipment	86.64	33.47	(0.30)	120.41	8.72	6.58	-	15.30	105.11
Assets for ash utilisation	26.22	13.07	-	39.29	-	-	-	-	39.29
Less: Adjusted from fly ash utilisation reserve fund	26.22	13.07	-	39.29	-	-	-	-	39.29
Total	1,15,108.68	31,477.45	(1,835.42)	1,48,421.55	12,489.50	8,173.84	155.45	20,507.89	1,27,913.66

a) The conveyancing of the title to **10,511 acres** of freehold land of value ₹ **1,607.41 crore** (31 March 2018: 10,287 acres of value ₹ 1,969.80 crore), buildings and structures of value ₹ **4.55 crore** (31 March 2018: ₹ 4.97 crore) and also execution of lease agreements for **10,593 acres** of land of value ₹ **1,543.70 crore** (31 March 2018: 10,824 acres of value ₹ 1,804.49 crore) in favour of the Group are awaiting completion of legal formalities.

b) Land includes **284.35 acres** of freehold land of value ₹ **0.52 crore** (31 March 2018: 284.35 acres of value ₹ 0.52 crore), and **1,939.55 acres** of leasehold land of value ₹ **3.81 crore** (31 March 2018: 1,939.55 acres of value ₹ 3.81 crore), the value thereof including periodical lease rent accruing thereon is subject to revision on final settlement with the State Government Authorities with demand of late payment charges, if any.

c) Land does not include value of **33 acres** (31 March 2018: 34 acres) of land in possession of the Group. This will be accounted for on settlement of the price thereof by the State Government Authorities.

d) Land includes **1,337 acres** of value ₹ **133.77 crore** (31 March 2018: 1,298 acres of value ₹ 133.93 crore) not in possession of the Group. The Group is taking appropriate steps for repossession of the same.

e) Land includes an amount of ₹ **282.92 crore** (31 March 2018: ₹ 262.91 crore) deposited with various authorities in respect of land in possession which is subject to adjustment on final determination of price.

f) Gross block of land under submergence represents ₹ **597.94 crore** (31 March 2018: ₹ 576.64 crore) of freehold land and ₹ **178.83 crore** (31 March 2018: ₹ 178.83 crore) of leasehold land. The land has been amortised 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.

g) Possession of land measuring **98 acres** (31 March 2018: 98 acres) consisting of **79 acres** of freehold land (31 March 2018: 79 acres) and **19 acres** of lease hold land (31 March 2018: 19 acres) of value ₹ **0.21 crore** (31 March 2018: ₹ 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 Group. The consideration received from erstwhile UPSEB is disclosed under Note -28 - Current liabilities - Other financial liabilities.

h) Refer Note 49 (b) regarding property, plant and equipment under finance lease.

i) Based on impairment assessment, the Group has reversed an impairment loss of ₹ **Nil** (31 March 2018: ₹ 3.75 crore) in respect of plant and equipment of a Solar PV Station of the Group.

j) Spare parts of ₹ 5 lakh and above, stand-by equipment and servicing equipment which meet the definition of property, plant and equipment are capitalised.

k) Property, plant and equipment costing ₹ 5,000/- or less, are depreciated fully in the year of acquisition.

l) Refer Note 21 and Note 26 for information on property, plant and equipment pledged as security by the Group.

m) Refer Note 68 (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

	Gross block		Depreciation, amortisation and impairment	
	For the year ended		For the year ended	
	31 March 2019	31 March 2018	31 March 2019	31 March 2018
Disposal of assets	50.29	8.39	25.37	6.07
Retirement of assets	543.70	231.61	326.44	116.69
Cost adjustments including exchange differences	(2,180.86)	(1,851.12)	-	-
Assets capitalised with retrospective effect/Write back of excess capitalisation	(65.92)	-	-	(1.11)
Others	72.33	(224.30)	(2.42)	33.80
	(1,580.46)	(1,835.42)	349.39	155.45

o) Exchange differences capitalised are disclosed in the 'Addition' column of Capital work-in-progress (CWIP) and allocated to various heads of CWIP in the year of capitalisation through 'Deductions/Adjustments' column of CWIP. 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 property, plant and equipment and CWIP through 'Addition' or 'Deductions/Adjustments' column are given below:

₹ Crore

	For the year ended 31 March 2019		For the year ended 31 March 2018	
	Exchange Difference included in PPE/CWIP	Borrowing costs included in PPE/CWIP	Exchange Difference included in PPE /CWIP	Borrowing costs included in PPE/CWIP
Building - Freehold				
Main plant	5.72	127.17	7.27	156.18
Others	0.35	131.19	0.76	103.70
Hydraulic works, barrages, dams, tunnels and power channel	18.52	96.67	(0.51)	84.18
MGR track and signalling system	-	21.73	(0.01)	33.53
Railway siding	-	103.09	(0.32)	44.20
Plant and equipment	759.98	4,636.65	343.25	3,458.64
Others including pending allocation	545.99	756.63	(35.15)	596.11
Total	1,330.56	5,873.13	315.29	4,476.54

p) **Business Combinations**

Additions column in gross block includes items of property, plant and equipment acquired under business combinations (Refer Note 58), details of which are as below:

₹ Crore

	As at 31 March 2019	As at 31 March 2018
Freehold land	992.06	-
Roads, bridges, culverts and helipads	2.70	-
Main plant building-Freehold	5.10	-
Other building-Freehold	71.03	-
Water supply, drainage and sewerage system	0.26	-
Plant and equipment - Owned	21.54	-
Electrical installation	16.31	-
Communication equipment	0.15	-
Others	18.41	-
	1,127.56	-

q) Refer Note 47(A) relating to restatement of property,plant and equipment based on an opinion pronounced by EAC of ICAI.

3. Non-current assets - Capital work-in-progress

As at 31 March 2019 ₹ Crore

Particulars	As at 1 April 2018	Additions	Deductions/ adjustments	Capitalised	As at 31 March 2019
Development of land	793.83	469.21	226.83	18.64	**1,017.57**
Roads, bridges, culverts and helipads	188.22	112.78	(54.98)	75.74	**280.24**
Piling and foundation	645.05	34.30	2.54	-	**676.81**
Buildings					
Freehold					
Main plant	2,788.87	520.98	(293.75)	701.58	**2,902.02**
Others	2,012.32	1,170.29	(50.26)	571.92	**2,660.95**
Temporary erections	22.92	15.24	(5.45)	4.64	**38.97**
Water supply, drainage and sewerage system	74.01	58.76	(32.00)	52.54	**112.23**
Hydraulic works, barrages, dams, tunnels and power channel	2,837.37	420.54	0.91	-	**3,257.00**
MGR track and signalling system	728.37	468.90	260.95	0.11	**936.21**
Railway siding	1,114.22	1,772.90	23.94	174.83	**2,688.35**
Earth dam reservoir	76.37	174.22	(20.88)	-	**271.47**
Plant and equipment - owned	61,702.46	31,516.40	2,017.59	11,418.50	**79,782.77**
Furniture and fixtures	29.04	43.86	(8.70)	32.82	**48.78**
Vehicles	0.10	-	-	0.10	**-**
Office equipment	3.59	7.15	0.18	1.75	**8.81**
EDP/WP machines and satcom equipment	7.21	5.62	1.46	6.69	**4.68**
Construction equipment	0.35	0.34	0.14	0.42	**0.13**
Electrical installations	373.33	517.26	260.85	74.31	**555.43**
Communication equipment	0.42	4.06	0.02	1.37	**3.09**
Hospital equipment	0.01	0.04	-	0.01	**0.04**
Laboratory and workshop equipment	1.53	0.56	0.49	1.07	**0.53**
Development of coal mines	1,990.10	1,497.99	1,214.99	-	**2,273.10**
	75,389.69	38,811.40	3,544.87	13,137.04	**97,519.18**
Expenditure pending allocation					
Survey, investigation, consultancy and supervision charges	217.72	199.87	21.39	-	**396.20**
Difference in exchange on foreign currency loans	1,233.35	904.87	568.50	-	**1,569.72**
Pre-commissioning expenses (net)	144.30	668.99	261.65	-	**551.64**
Expenditure during construction period (net)*	628.30	7,787.03	21.14	-	**8,394.19**
Other expenditure directly attributable to project construction	1,897.68	67.67	(127.96)	-	**2,093.31**
Less: Allocated to related works	-	7,512.30	-	-	**7,512.30**
	79,511.04	40,927.53	4,289.59	13,137.04	**1,03,011.94**
Less: Provision for unserviceable works	452.01	53.60	0.64	-	**504.97**
Construction stores (net of provision)	3,857.71	14.98	-	-	**3,872.69**
Total	**82,916.74**	**40,888.91**	**4,288.95**	**13,137.04**	**1,06,379.66**

As at 31 March 2018 ₹ Crore

Particulars	As at 1 April 2017	Additions	Deductions/ adjustments	Capitalised	As at 31 March 2018
Development of land	944.56	123.11	273.58	0.26	793.83
Roads, bridges, culverts and helipads	104.10	133.80	(92.47)	142.15	188.22
Piling and foundation	655.93	32.74	43.62	-	645.05
Buildings					
Freehold					
Main plant	4,031.61	676.31	724.85	1,194.20	2,788.87
Others	1,766.86	848.09	(63.12)	665.75	2,012.32
Temporary erections	38.15	10.76	18.01	7.98	22.92
Water supply, drainage and sewerage system	61.57	59.07	(72.43)	119.06	74.01
Hydraulic works, barrages, dams, tunnels and power channel	2,319.77	517.36	(46.41)	46.17	2,837.37
MGR track and signalling system	223.53	510.91	(11.85)	17.92	728.37
Railway siding	1,144.24	804.98	139.71	695.29	1,114.22
Earth dam reservoir	89.45	65.16	(28.12)	106.36	76.37
Plant and equipment-owned	66,163.71	20,847.68	(414.92)	25,723.85	61,702.46
Furniture and fixtures	23.47	23.21	(0.13)	17.77	29.04
Vehicles	-	0.10	-	-	0.10
Office equipment	5.57	6.45	1.25	7.18	3.59
EDP/WP machines and satcom equipment	1.92	10.73	2.15	3.29	7.21
Construction equipment	0.16	6.50	0.14	6.17	0.35
Electrical installations	693.89	422.01	602.93	139.64	373.33
Communication equipment	2.95	2.11	(1.01)	5.65	0.42
Hospital equipment	0.50	0.04	0.12	0.41	0.01
Laboratory and workshop equipment	5.91	7.75	0.37	11.76	1.53
Development of coal mines	1,538.42	460.38	8.70	-	1,990.10
	79,816.27	25,569.25	1,084.97	28,910.86	75,389.69
Expenditure pending allocation					
Survey, investigation, consultancy and supervision charges	192.80	51.64	26.72	-	217.72
Difference in exchange on foreign currency loans	1,498.13	108.10	372.88	-	1,233.35
Pre-commissioning expenses (net)	276.97	500.73	633.40	-	144.30
Expenditure during construction period (net)*	398.59	5,866.58	13.55	-	6,251.62
Other expenditure directly attributable to project construction	2,139.83	95.74	337.89	-	1,897.68
Less: Allocated to related works	-	5,623.32	-	-	5,623.32
	84,322.59	26,568.72	2,469.41	28,910.86	79,511.04
Less: Provision for unserviceable works	98.76	359.48	6.23	-	452.01
Construction stores (net of provision)	3,856.61	1.10	-	-	3,857.71
Total	88,080.44	26,210.34	2,463.18	28,910.86	82,916.74

* Brought from expenditure during construction period (net) - Note 38

a) Construction stores are net of provision for shortages pending investigation amounting to ₹ **25.94 crore** (31 March 2018: ₹ 26.26 crore).

b) Pre-commissioning expenses for the year amount to ₹ **658.79 crore** (31 March 2018: ₹ 587.12 crore) and after adjustment of pre-commissioning sales of ₹ **76.57 crore** (31 March 2018: ₹ 86.39 crore) resulted in net pre-commissioning expenditure of ₹ **582.22 crore** (31 March 2018: ₹ 500.73 crore).

c) Additions to the development of coal mines include expenditure during construction period (net) of ₹ **1,269.79 crore** (31 March 2018: ₹ 669.35 crore) - [Ref. Note 39] and are after netting off the receipts from coal extracted during the development phase amounting to ₹ **1,214.99 crore** (31 March 2018: ₹ 464.03 crore). Also refer Note 47 (B) relating to change in accounting policy relating to development of coal mines.

d) Details of exchange differences and borrowing costs capitalised are disclosed in Note 2 (o).

e) **Business Combinations**

Additions column includes items of capital work-in-progress acquired under business combinations (Refer Note 58), details of which are as below:

₹ Crore

	As at 31 March 2019	As at 31 March 2018
Development of land	150.40	-
Roads, bridges, culverts and helipads	1.46	-
Main plant building	589.38	-
Other building	355.05	-
Water supply, drainage and sewerage system	25.45	-
Plant and equipment - Owned	12,488.72	-
Railway siding	75.90	-
Electrical installation	164.03	-
Survey, investigation, consultancy and supervision charges	166.97	-
Construction stores	122.96	-
Others	9.04	-
	14,149.36	-

f) Refer Note 47(A) relating to restatement of capital work-in-progress based on an opinion pronounced by EAC of ICAI.

4. Non-current assets - Intangible assets

As at 31 March 2019 ₹ Crore

Particulars	Gross block				Amortisation				Net block
	As at 1 April 2018	Additions	Deductions/ adjustments	As at 31 March 2019	Upto 1 April 2018	For the year	Deductions/ adjustments	Upto 31 March 2019	As at 31 March 2019
Software	34.70	15.31	(3.95)	53.96	22.40	9.17	0.02	31.55	22.41
Right of use - Land	160.55	5.11	(0.52)	166.18	13.85	6.93	-	20.78	145.40
- Others	203.71	-	(0.26)	203.97	30.95	10.33	-	41.28	162.69
Total	**398.96**	**20.42**	**(4.73)**	**424.11**	**67.20**	**26.43**	**0.02**	**93.61**	**330.50**

As at 31 March 2018 ₹ Crore

Particulars	Gross block				Amortisation				Net block
	As at 1 April 2017	Additions	Deductions/ adjustments	As at 31 March 2018	Upto 1 April 2017	For the year	Deductions/ adjustments	Upto 31 March 2018	As at 31 March 2018
Software	27.14	7.53	(0.03)	34.70	14.81	7.60	0.01	22.40	12.30
Right of use - Land	104.61	53.13	(2.81)	160.55	6.89	6.96	-	13.85	146.70
- Others	203.71	-	-	203.71	20.64	10.31	-	30.95	172.76
Total	335.46	60.66	(2.84)	398.96	42.34	24.87	0.01	67.20	331.76

a) The right of use of land and others are amortised over the period of legal right to use or life of the related plant, whichever is less.

b) Cost of acquisition of the right for drawl of water amounting to ₹ **203.97 crore** (31 March 2018: ₹ 203.71 crore) is included under intangible assets - Right of use - Others.

c) Deductions/adjustments from gross block and amortisation for the year includes:

₹ Crore

	Gross block		Amortisation	
	For the year ended		For the year ended	
	31 March 2019	31 March 2018	**31 March 2019**	31 March 2018
Cost adjustments	**(4.73)**	(2.84)	**-**	-
Others	**-**	-	**0.02**	0.01
Total	**(4.73)**	(2.84)	**0.02**	0.01

5. Non-current assets - Intangible assets under development

As at 31 March 2019 ₹ Crore

Particulars	**As at 1 April 2018**	**Additions**	**Deductions/ adjustments**	**Capitalised**	**As at 31 March 2019**
Right of use - others	237.82	25.23	115.53	-	**147.52**
Exploration and evaluation assets - coal mines	222.94	16.08	0.06	-	**238.96**
Exploratory wells-in-progress	7.72	-	0.07	-	**7.65**
Software	8.52	1.45	(11.33)	9.99	**11.31**
	477.00	42.76	104.33	9.99	**405.44**
Less: Provision for unserviceable works	7.64	-	-	-	**7.64**
Total	**469.36**	**42.76**	**104.33**	**9.99**	**397.80**

As at 31 March 2018 ₹ Crore

Particulars	As at 1 April 2017	Additions	Deductions/ adjustments	Capitalised	As at 31 March 2018
Right of use - others	214.53	-	(23.29)	-	237.82
Exploration and evaluation assets - coal mines	220.09	28.65	25.80	-	222.94
Exploratory wells-in-progress	7.65	0.07	-	-	7.72
Software	-	8.52	-	-	8.52
	442.27	37.24	2.51	-	477.00
Less: Provision for unserviceable works	7.64	-	-	-	7.64
Total	434.63	37.24	2.51	-	469.36

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 2019	As at 31 March 2018
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)	**59.07**	49.01
NTPC-GE Power Services Private Ltd.	30,00,000 (30,00,000)	10 (10)	**6.43**	4.49
NTPC-SAIL Power Company Ltd.	49,02,50,050 (49,02,50,050)	10 (10)	**1,249.12**	1,092.11
NTPC Tamil Nadu Energy Company Ltd.	1,41,56,06,112 (1,40,99,96,112)	10 (10)	**1,376.96**	1,311.70
Ratnagiri Gas and Power Private Ltd.	83,45,56,046 (83,45,56,036)	10 (10)	**-**	-
Konkan LNG Private Ltd.	13,97,52,264 (13,97,52,264)	10 (10)	**-**	-
Aravali Power Company Private Ltd.	1,43,30,08,200 (1,43,30,08,200)	10 (10)	**2,936.53**	2,618.06
NTPC BHEL Power Projects Private Ltd.	5,00,00,000 (5,00,00,000)	10 (10)	**-**	4.41
Meja Urja Nigam Private Ltd.	1,25,93,29,800 (1,20,93,29,800)	10 (10)	**1,284.75**	1,235.83
BF-NTPC Energy Systems Ltd.	- (68,48,681)	- (10)	**-**	2.43
Nabinagar Power Generating Company Ltd. (previously Nabinagar Power Generating Company Private Ltd.)$	- (1,65,99,35,500)	- (10)	**-**	1,682.73
Transformers and Electricals Kerala Ltd.	1,91,63,438 (1,91,63,438)	10 (10)	**41.67**	36.90
National High Power Test Laboratory Private Ltd.	3,04,00,000 (3,04,00,000)	10 (10)	**26.08**	27.79
Energy Efficiency Services Ltd.	24,55,00,000 (14,65,00,000)	10 (10)	**301.45**	179.69
CIL NTPC Urja Private Ltd.	76,900 (76,900)	10 (10)	**0.02**	0.02
Anushakti Vidhyut Nigam Ltd.	49,000 (49,000)	10 (10)	**0.01**	0.01
Hindustan Urvarak & Rasayan Ltd.	44,03,25,000 (33,32,50,000)	10 (10)	**443.54**	332.00
Trincomalee Power Company Ltd. (* Srilankan rupees)	32,86,061 (32,86,061)	100* (100)*	**1.58**	1.83
Bangladesh-India Friendship Power Company Private Ltd. (** Bangladeshi Taka)	3,42,50,000 (2,42,50,000)	100** (100)**	**280.85**	190.32
Total			**8,008.06**	8,769.33
Aggregate amount of unquoted investments			**8,008.06**	8,769.33

$ Joint Venture Company till 28 June 2018 and a Subsidiary Company w.e.f. 29 June 2018.

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 64.

7. Non-current financial assets - Investments

₹ Crore

Particulars	Number of shares Current year/ (previous year)	Face value per share in ₹ Current year/ (previous year)	As at 31 March 2019	As at 31 March 2018
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)	**88.14**	104.88
			88.14	104.88
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 (-)	10 (-)	**2.38**	-
			3.78	1.40
Co-operative societies			**#**	#
Total			**91.92**	106.28
Aggregate amount of quoted investments - at cost			**12.00**	12.00
Aggregate market value of the quoted investments			**88.14**	104.88
Aggregate amount of unquoted investments			**3.78**	1.40

Equity shares of ₹ **30,200**/- (31 March 2018: ₹ 30,200/-) held in various employee co-operative societies.

a) Investments have been valued as per accounting policy no. C.28.1 (Note 1).

b) The Board of Directors of NTPC Limited 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 is awaited for exit by NTPC Limited.

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). As the Company was formed by a directive from the GOI, approval of the Ministry of Steel, GOI is awaited for exit by NTPC Limited. Pending withdrawal, the Group had lost the joint control over the entity and accordingly, has classified the investment in ICVPL as 'Investment in unquoted equity instruments'. Pending withdrawl, no provision for impairment in the value of investment in ICVPL is required to be made.

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 company of the Group. As BF-NTPC was formed by a directive from the GOI, approval of the GOI was sought for exit by the parent company. Ministry of Power, GoI conveyed its approval for winding up of BF-NTPC on 8 January 2018. Consequently, liquidator has been 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 Group had lost the joint control over the entity and accordingly, has classified the investment in BF NTPC as 'Investment in unquoted equity instruments'.

e) The Group is of the view that the provisions of Ind AS 24 'Related Party Disclosures' and Ind AS 111- 'Joint arrangements' are not applicable to the investment 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'.

f) No strategic investments in equity instruments measured at FVTOCI were disposed during the financial year 2018-19, and there were no transfers of any cumulative gain or loss within equity relating to these investments.

8. Non-current financial assets - Loans

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
Loans (Considered good, unless otherwise stated)		
Related parties		
Unsecured	**6.61**	0.71
Employees (including accrued interest)		
Secured	**229.26**	222.44
Unsecured	**174.33**	206.45
Others		
Secured	**24.18**	25.07
Total	**434.38**	454.67

a) Due from directors and officers of the Group

Directors	**0.01**	0.11
Officers	-	-

b) Loans to related parties include:

Key management personnel	**0.01**	0.11
National High Power Test Laboratory Private Ltd. (Joint venture company) [Refer Note 15 (b)]	**6.00**	-
NTPC Education and Research Society	**0.60**	0.60

c) Other loans represent loan of ₹ **24.18 crore** (31 March 2018: ₹ 25.07 crore) given to Andhra Pradesh Industrial Infrastructure Corporation Ltd. (APIIC).

d) Details of collateral held as security:

- 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 Group.

- Loan to APIIC is secured by a guarantee given by the Government of Andhra Pradesh vide GO dated 3 April 2003.

9. Non-current assets - Other financial assets

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
Share application money pending allotment in		
Joint venture companies		
Meja Urja Nigam Private Limited	**60.00**	-
Nabinagar Power Generating Company Ltd. (previously Nabinagar Power Generating Company Private Ltd.)#	-	197.93
Energy Efficiency Services Ltd.	-	99.00
Bangladesh-India Friendship Power Company Private Ltd.	-	78.92
	60.00	375.85
Claims recoverable	**739.54**	704.22
Finance lease receivables (Note 49)	**470.96**	502.32
Mine closure deposit	**32.20**	18.47
Total	**1,302.70**	1,600.86

Joint Venture Company till 28 June 2018 and Subsidiary Company w.e.f. 29 June 2018.

a) The shares are expected to be alloted within 60 days from the date of payment of the share application money.

b) Claims recoverable includes ₹ **719.71 crore** (31 March 2018: ₹ 680.11 crore) towards the cost incurred upto 31 March 2019 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 which includes ₹ **413.40 crore** (31 March 2018: ₹ 390.59 crore) in respect of arbitration awards challenged by the Company before Hon'ble High Court of Delhi. In the event the Hon'ble High Court grants relief to the Company, the amount would be adjusted against Current liabilities - Provisions - Provision for others (Note 30). 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. Hence, no provision is considered necessary.

c) Keeping in view the provisions of Appendix C to Ind AS-17 'Leases' w.r.t. determining whether an arrangement contains a lease, the Parent 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 had been derecognised from PPE and accounted for as Finance lease receivable (FLR) as at the transition date to Ind AS. Recovery of capacity charges towards depreciation (including AAD), interest on loan capital and return on equity (pre-tax) components from the beneficiary are adjusted against the 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 recognised as 'Interest income on assets under finance lease' under 'Revenue from operations' (Note 32).

10. Other non-current assets

₹ Crore

Particulars		As at 31 March 2019	As at 31 March 2018
Capital advances			
(Considered good unless otherwise stated)			
Secured		**21.65**	22.39
Unsecured			
Covered by bank guarantee		**2204.90**	1,957.02
Others		**3395.58**	2,840.96
Considered doubtful		**45.04**	5.76
Less: Allowance for bad and doubtful advances		**45.04**	5.76
		5,622.13	4,820.37
Advances other than capital advances			
Security deposits		**92.14**	84.07
Advances to contractors and suppliers			
Unsecured	**2,149.72**		2,288.00
Considered doubtful	**112.57**		-
Less: Allowances for bad and doubtful advances	**112.57**		-
		2,149.72	2,288.00
Advance tax and tax deducted at source	**16,329.51**		11,570.99
Less: Provision for tax	**11,651.22**		8,232.91
		4,678.29	3,338.08
Deferred foreign currency fluctuation asset		**1,370.53**	1,119.00
Deferred payroll expenditure		**131.15**	140.42
Total		**14,043.96**	11,789.94

a) In line with accounting policy no. 16 (Note 1), deferred foreign currency fluctuation asset has been accounted and **(-) ₹ 120.25 crore** (31 March 2018: (-) ₹ 128.39 crore) being the exchange fluctuations on account of foreign currency loans have been recognised in 'Energy sales' under 'Revenue from operations' (Note 32).

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-GE Power Services Private Ltd.	**21.82**	45.39
NTPC BHEL Power Projects Private Ltd.	**139.52**	65.95
Aravali Power Company Private Ltd.	**0.09**	0.34

c) Capital advances include ₹ **224.29 crore** (31 March 2018: ₹ 224.29 crore), paid to a contractor pending settlement of certain claims which are under arbitration. The amount will be adjusted in the cost of related work or recovered from the party, depending upon the outcome of the arbitration proceedings.

d) Advances to contractors and suppliers include payments to Railways amounting to ₹ **2,097.65 crore** (31 March 2018: ₹ 2,226.22 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 said railway projects as per the agreement are yet to achieve the COD.

e) 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 amortised cost. The deferred payroll expenditure represents the benefits accruing to employees. The same is amortised on a straight-line basis over the remaining period of the loan.

11. Current assets - Inventories

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
Coal	**3,628.46**	2,105.08
Fuel oil	**404.43**	325.00
Naphtha	**127.66**	118.51
Stores and spares	**3,352.11**	2,941.63
Chemicals and consumables	**143.13**	122.69
Loose tools	**9.44**	8.55
Steel scrap	**18.90**	18.00
Others	**687.90**	631.42
	8,372.03	6,270.88
Less: Provision for shortages	**112.78**	22.48
Provision for obsolete/unserviceable items/ diminution in value of surplus inventory	**139.82**	108.11
Total	**8,119.43**	6,140.29
Inventories include material-in-transit		
Coal	**286.23**	295.31
Stores and spares	**34.52**	26.94
Chemicals and consumables	**2.21**	1.15
Loose tools	**0.04**	0.02
Others	**1.97**	0.73

a) Inventory items have been valued as per accounting policy no. C.10 (Note 1).

b) Inventories - Others includes steel, cement, ash bricks etc.

c) Refer Note 21 and 46 (b) for information on inventories pledged as security by the Group.

d) 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 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 realisable value of the inventories is not lower than the cost.

12. Current financial assets - Trade receivables

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
Trade receivables		
Unsecured, considered good	**10,147.68**	8,812.19
Credit Impaired	**2.77**	1.66
	10,150.45	8,813.85
Less: Provision for credit impaired trade receivables	**2.77**	1.66
Total	**10,147.68**	8,812.19

a) Based on arrangements between Company, banks and beneficiaries, the bills of the beneficiaries have been discounted. Accordingly, trade receivables have been disclosed net off bills discounted amounting to ₹ **9,998.75 crore** (31 March 2018 ₹ 602.12 crore). Also refer Note 68 A(c).

b) Amounts receivable from related parties are disclosed in Note 53.

c) The margin and other tariff have been billed to Discoms including Rajasthan as per the guidelines of MNRE for JNNSM-I uniformely by NVVN Ltd. However, three Rajasthan Discoms have not paid the bills issued amounting to ₹ **248.61 crore** (31 March 2018: ₹236.68 crore). The above cases are pending before Central Electricity Regulatory Commission (CERC). Management is of the opinion that there is a high probability of settlement of these disputes by the CERC in favour of the company. Further, legal opinion has also been sought from an independent expert and as per the opinion the probability of favourable outcome for the company is very high and hence no provision is considered necessary.

13. Current financial assets - Cash and cash equivalents

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
Balances with banks		
Current accounts	**113.78**	269.95
Deposits with original maturity upto three months (including interest accrued)	**93.62**	112.48
Cheques and drafts on hand	**1.50**	0.61
Others (stamps on hand)	**0.07**	0.07
Total	**208.97**	383.11

14. Current financial assets -Bank balances other than cash and cash equivalents

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
Deposits with original maturity of more than three months and maturing within one year (including interest accrued)	**942.61**	2,671.60
Earmarked balances with banks #	**1,630.74**	1,332.89
Total	**2,573.35**	4,004.49
# Earmarked balances with banks towards:		
Redemption of bonds due for repayment within one year	**332.00**	100.00
Fly ash utilisation reserve fund*	**638.11**	631.21
DDUGJY Scheme of the GOI**	**466.16**	543.90
Unpaid dividend account balance	**17.68**	16.51
Amount deposited as per court orders	**21.97**	21.01
Unpaid interest/refund account balance - Bonds	**4.69**	3.88
Payment Security Fund - MNRE(b)	**25.89**	15.33
Payment Security Scheme of MNRE(c)	**103.71**	-
Unpaid interest on public deposit	**0.03**	0.03
Margin money	**18.70**	1.00
Security with government authorities	**1.80**	0.02
Total	**1,630.74**	1,332.89

* Refer Note 20 (d) regarding fly ash utilisation reserve fund.

** Out of advance for DDUGJY Scheme of the GOI. Refer Note 28 (c) and 29 (a).

a) In the previous year, deposits with original maturity of more than three months and maturing within one year included ₹ **1,743.89 crore** which was kept in corporate liquid term deposits with a bank. These deposits represented unutilised balance of Medium Term Notes (MTNs) as per MTN programme to partly finance the capital expenditure of ongoing and/or new power projects, coal mining projects, and/or renovation and modernisation of power stations and has since been utilised for the stated purposes.

b) In line with the guidelines issued by Ministry of New and Renewable Energy (MNRE), GOI under National Solar Mission-II, a Payment Security Fund/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. The said fund is yet to be created by MNRE. Pending creation of the fund, amount deducted by the Company on account of liquidated damages/ penalties from the SPDs is earmarked for the said fund and is not available for use by the Company. Further, presentation of previous years figures have also been stated.

c) Funds received from MNRE under payment security scheme. For corresponding liability refer Note 28 (h).

15. Current financial assets - Loans

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
Loans (including interest accrued)		
(Considered good unless otherwise stated)		
Related parties		
Unsecured	**0.11**	6.16
Employees		
Secured	**67.61**	67.13
Unsecured	**169.68**	164.25
Others		
Secured	**0.89**	0.89
Total	**238.29**	238.43
a) Due from Directors and Officers of the Group		
Directors	**0.11**	0.13
Officers	-	0.03
b) Loans to related parties include:		
Key management personnel	**0.11**	0.16
National High Power Test Laboratory Private Ltd. (Joint venture company) (Classified as non-current during the current year due to change in terms) [Refer Note 8(b)]	-	6.00

c) Other loans represent loan of ₹ **0.89 crore** (31 March 2018: ₹ 0.89 crore) given to APIIC.

d) Details of collateral held as security:

- 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 Group.
- Loan to APIIC is secured by a guarantee given by the Government of Andhra Pradesh vide GO dated 3 April 2003.

16. Current assets - Other financial assets

₹ Crore

Particulars		As at 31 March 2019	As at 31 March 2018
Advances			
(Considered good unless otherwise stated)			
Related parties			
Unsecured		**129.36**	87.29
Employees			
Unsecured	**12.93**		6.01
Considered doubtful	**0.06**		0.07
Less: Allowance for bad and doubtful advances	**0.06**		0.07
		12.93	6.01
Others			
Unsecured		**0.12**	0.90
		142.41	94.20
Claims recoverable			
Unsecured, considered good	**45.73**		54.24
Considered doubtful	**15.07**		0.12
Less: Allowance for doubtful claims	**15.07**		0.12
		45.73	54.24
Unbilled revenue		**8,547.85**	8,209.31
Hedging cost recoverable from beneficiaries		**5.93**	2.53
Derivative MTM asset		**1.28**	3.73
Finance lease receivables		**49.04**	40.00
Others		**14.90**	20.02
Total		**8,807.14**	8,424.03

a) Unbilled revenue is net of credits to be passed to beneficiaries at the time of billing and includes ₹ **7,847.72 crore** (31 March 2018: ₹ 7,723.67 crore) billed to the beneficiaries after 31 March for energy sales.

b) Advances to related parties include:

Joint venture companies	**56.17**	74.61

c) Advances 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.	**0.83**	0.34
Aravali Power Company Private Ltd.	**2.25**	4.01
NTPC BHEL Power Projects Private Ltd.	**6.44**	5.99
Meja Urja Nigam Private Ltd.	**13.97**	10.00
Nabinagar Power Generating Company Ltd. (Previously Nabinagar Power Generating Company Private Ltd.	-	0.97
Bangladesh India Friendship Power Company Pvt.Ltd.	**0.60**	1.43

d) Other financial assets - Others include amount recoverable from contractors and other parties towards hire charges, rent/electricity etc.

17. Current assets - Other current assets

₹ Crore

Particulars		As at 31 March 2019	As at 31 March 2018
Security deposits (unsecured)		**1,510.40**	1,113.45
Advances			
(Considered good unless otherwise stated)			
Related parties			
Unsecured		**2,047.54**	1,684.66
Employees			
Unsecured		**6.31**	6.71
Contractors and suppliers			
Secured	**1.39**		2.76
Unsecured	**7,109.09**		5,454.16
Considered doubtful	**3.38**		1.90
Less: Allowance for bad and doubtful advances	**3.38**		1.90
		7,110.48	5,456.92
Others			
Unsecured		**242.32**	182.92
		9,406.65	7,331.21
Interest accrued on			
Advance to contractors		**46.34**	43.22
Claims recoverable			
Unsecured, considered good	**4,136.94**		2,557.90
Considered doubtful	**134.55**		39.20
Less: Allowance for doubtful claims	**134.55**		39.20
		4,136.94	2,557.90
Assets held for disposal		**259.02**	187.46
Deferred payroll expenses		**26.06**	27.92
Others		**18.39**	5.97
Total		**15,403.80**	11,267.13

a) Security deposits (unsecured) include ₹ **30.56 crore** (31 March 2018: ₹ 27.73 crore) towards sales tax deposited with sales/commercial tax authorities, ₹ **299.79 crore** (31 March 2018: ₹ 272.76 crore) deposited with Courts, ₹ **188.44 crore** (31 March 2018: ₹ 177.47 crore) deposited with LIC for making annuity payments to the land oustees, ₹ **275.05 crore** (31 March 2018: ₹ 275.05 crore) deposited with the Water Resource Department, Govt. of Chhattisgarh for drawl of water and ₹ **356.31 crore** (31 March 2018: ₹ 158.50 crore) deposited against bank guarantee with one of the party as per the direction of the Hon'ble Supreme Court of India, refer Note 56(iii)(b).

b) Advances - Contractors and suppliers - unsecured includes an amount of ₹ **5,769.00 crore** (31 March 2018: ₹ 5,000.00 crore) paid to Indian Railways to be adjusted against freight payable on coal transportation, pursuant to the agreement entered into with Indian Railways, Ministry of Railways, GOI.

c) Advances - others include prepaid expenses amounting to ₹ **111.03 crore** (31 March 2018: ₹ 90.02 crore) and unamortised discount on commercial paper amounting to ₹ **126.81 crore** (31 March 2018: ₹ 88.40 crore).

d) 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.	**0.01**	0.01
NTPC BHEL Power Projects Private Ltd.	**1.33**	1.33
Aravali Power Company Private Ltd.	**19.05**	-

e) Assets held for disposal includes an amount of ₹ **158.20 crore** (31 March 2018: ₹ 185.48 crore) of Patratu Vidyut Utpadan Nigam Ltd., a subsidiary, accounted at fair realisable value net of decommissioning cost based on assessment made by the subsidiary. 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 Jharkand (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 liability on account of these assets has been created and disclosed under 29 b) after setting off amount recoverable toward dismantling cost.

f) Assets held for disposal also includes an amount of ₹ **98.90 crore** in respect of one of the power stations which has since been shut down. (Refer Note 44)

g) Loans given to employees are measured at amortised cost. The deferred payroll expenditure represents the benefits accruing to employees. The same is amortised on a straight-line basis over the remaining period of the loan.

18. Regulatory deferral account debit balances

₹ **Crore**

Particulars	**As at 31 March 2019**	As at 31 March 2018
On account of		
Exchange differences	**80.09**	104.77
Employee benefits expense	**759.40**	641.14
Deferred tax	**2,399.12**	7,993.49
Ash transportation	**179.29**	-
	3,417.90	8,739.40

a) Regulatory deferral account balances have been accounted in line with Accounting policy no. C.5 (Note 1). Refer Note 65 for detailed disclosures.

b) CERC Tariff Regulations, 2014 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 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.

Hitherto the Group was disclosing tax expense recoverable from the beneficiaries as a deduction from the related tax expense. Further, 'Deferred asset for deferred tax liability' was hitherto disclosed as a deduction from the DTL (net).

During the year, the EAC of the ICAI has issued an opinion with regard to presentation of 'Deferred asset for the deferred tax liability', wherein it has opined that 'Deferred asset for DTL' is in the nature of a 'Regulatory Deferral Account Balance' and should be shown as 'Regulatory deferral account balance'. Considering the EAC opinion, 'Deferred asset for the deferred tax liability' which was hitherto presented as a deduction from 'deferred tax liabilities (net) has been transferred to 'Regulatory deferral account debit balance'. [Refer Note 47A].

c) During the year, the group recognised MAT Credit entitlement for the period commencing from 1 April 2014 amounting to ₹ **8,257.38 crore** (31 March 2018: ₹ Nil). Utilisation of MAT Credit will result in lower effective tax rate in future years. Accordingly, 'Regulatory deferral account balance' of ₹ **7,615.10 crore** (31 March 2018: ₹ Nil) corresponding to the said MAT Credit entitlement has also been recognised pertaining to the beneficiaries.

19. Equity share capital

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
Equity share capital		
Authorised		
10,00,00,00,000 shares of par value ₹10/- each (10,00,00,00,000 shares of par value ₹10/- each as at 31 March 2018)	**10,000.00**	10,000.00
Issued, subscribed and fully paid up		
9,89,45,57,280 shares of par value ₹ 10/- each (8,24,54,64,400 shares of par value ₹10/- each as at 31 March 2018)	**9,894.56**	8,245.46

a) Reconciliation of the shares outstanding at the beginning and at the end of the year:

Particulars	Number of Shares	
	As at 31 March 2019	As at 31 March 2018
At the beginning of the year	**8,24,54,64,400**	8,24,54,64,400
Issued during the year - Bonus shares	**1,64,90,92,880**	-
Outstanding at the end of the year	**9,89,45,57,280**	8,24,54,64,400

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 2019	31 March 2018
(i) Dividends paid and recognised during the year		
Final dividend for the year ended 31 March 2018 of ₹ **2.39** (31 March 2017: ₹ 2.17) per fully paid share	**1,970.67**	1,789.27
Interim dividend for the year ended 31 March 2019 of ₹ **3.58** (31 March 2018: ₹ 2.73) per fully paid share	**2,951.88**	2,251.01

₹ Crore

(ii) Dividends not recognised at the end of the reporting period	31 March 2019	31 March 2018
In addition to the above dividends, since year end the directors have recommended the payment of a final dividend of ₹ **2.50** (31 March 2018: ₹ 2.39) per fully paid equity share. This proposed dividend is subject to the approval of shareholders in the ensuing Annual General Meeting.	**2,473.64**	1,970.67

d) Details of shareholders holding more than 5% shares in the Company:

Particulars	As at 31 March 2019		As at 31 March 2018	
	No. of shares	%age holding	No. of shares	%age holding
- President of India*	**5,58,11,67,271**	**56.41**	5,13,48,25,262	62.27
- Life Insurance Corporation of India (including shares held in various Funds/ Schemes)	**1,13,84,46,831**	**11.51**	1,00,34,56,797	12.17
-ICICI Prudential Mutual Fund	**54,53,42,820**	**5.51**	29,66,72,061	3.60

* Includes 3,10,46,970 (0.32%) shares held by GoI in CPSE ETF Account.

e) Shares allotted as fully paid up by way of bonus shares:

The Company has issued 1,64,90,92,880 equity shares of ₹ 10/- each as fully paid bonus shares during the year ended 31 March 2019 (31 March 2018: Nil) in the ratio of one equity share of ₹ 10/- each for every five equity shares held.

20. Other equity

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
Capital reserve	**72.86**	50.08
Securities premium account	**2,228.46**	2,228.46
Bonds/debentures redemption reserve	**7,902.43**	7,274.56
Fly ash utilisation reserve fund	**638.11**	631.21
Corporate social responsibility (CSR) reserve	**2.39**	0.24
General reserve	**84,022.23**	81,131.83
Retained earnings	**5,283.31**	4,003.92
Items of other comprehensive income	**(7.36)**	(2.29)
Total	**1,00,142.43**	95,318.01

(a) Capital reserve

₹ Crore

Particulars	For the year ended 31 March 2019	For the year ended 31 March 2018
Opening balance	**50.08**	50.08
Add: On account of business combination	**22.78**	-
Closing balance	**72.86**	50.08

Opening capital reserve represents amount received by the parent company during 2001-02 as consideration under settlement for withdrawal from a erstwhile JV project. Additions during the year is on account of acquisition of M/s NPGCL. Refer Note 58 (B).

(b) Securities premium

₹ Crore

Particulars	For the year ended 31 March 2019	For the year ended 31 March 2018
Opening balance and closing balance	**2,228.46**	2,228.46

Securities premium is used to record the premium on issue of shares/securities. This amount is utilised in accordance with the provisions of the Companies Act, 2013. There is no movement in the balance of securities premium during the year.

(c) **Bonds/Debentures redemption reserve**

₹ Crore

Particulars	For the year ended 31 March 2019	For the year ended 31 March 2018
Opening balance	**7,274.56**	5,961.81
Add : Transfer from retained earnings	**1,732.37**	1,637.75
Less : Transfer to retained earnings	**1,104.50**	325.00
Closing balance	**7,902.43**	7,274.56

In accordance with applicable provisions of the Companies Act, 2013 read with Rules and as per decision of Board of Directors, the Parent Company has created Debenture Redemption Reserve out of profits of the Parent Company @ 50% of the value of debentures on a prudent basis, every year in equal installments till the year prior to the year of redemption of bonds/debentures for the purpose of redemption of bonds/debentures.

(d) **Fly ash utilisation reserve fund**

₹ Crore

Particulars	For the year ended 31 March 2019	For the year ended 31 March 2018
Opening balance	**631.21**	556.68
Add: Transferred during the year:		
Revenue from operations	**173.57**	131.02
Other income	**40.65**	26.74
Less: Utilised during the year		
Capital expenditure	**1.42**	13.07
Employee benefits expense	**18.49**	19.02
Other administration expenses	**187.41**	51.14
Closing balance	**638.11**	631.21

Pursuant to Gazette Notification dated 3 November 2009, issued by the Ministry of Environment and Forest (MOEF), Government of India (GOI), the amount collected from sale of fly ash and fly ash based products should be kept in a separate account head and shall be utilised only for the development of infrastructure or facility, promotion & facilitation activities for use of fly ash until 100 percent fly ash utilisation level is achieved.

During the year, proceeds of ₹ **173.57 crore** (31 March 2018: ₹ 131.02 crore) from sale of ash/ash products, ₹ **40.65 crore** (31 March 2018: ₹ 26.74 crore) towards income on investment have been transferred to fly ash utilisation reserve fund. An amount of ₹ **207.33 crore** (31 March 2018: ₹ 83.23 crore) has been utilised from the fly ash utilisation reserve fund on expenses incurred for activities as specified in the aforesaid notification of MOEF.

The fund balance of ₹ **638.11 crore** (31 March 2018: ₹ 631.21 crore) has been kept in 'Bank balances other than cash & cash equivalents' (Note 14). Refer Note 18 & 65 for ash transportation cost.

(e) Corporate social responsibility (CSR) reserve

₹ Crore

Particulars	For the year ended 31 March 2019	For the year ended 31 March 2018
Opening balance	**0.24**	0.22
Add : Transfer from retained earnings	**2.34**	0.24
Less: Transfer to retained earnings	**0.19**	0.22
Closing balance	**2.39**	0.24

In terms of Section 135 of the Companies Act, 2013 read with guidelines on corporate social responsibility issued by Department of Public Enterprises (DPE), GOI, the companies in the Group wherever applicable are required to spend, in every financial year, at least two per cent of the average net profits of the respective companies made during the three immediately preceding financial years in accordance with their CSR Policy. The Group has spent an amount of ₹ **286.64 crore** during the year (31 March 2018: ₹ 240.90 crore). The amount equivalent to unspent CSR expenditure transferred in the previous year to CSR reserve from retained earnings, has been transferred back to retained earnings on actual expenditure. Further, amount equivalent to unspent CSR expenditure has been transferred from retained earnings to CSR reserve.

(f) General reserve

₹ Crore

Particulars	For the year ended 31 March 2019	For the year ended 31 March 2018
Opening balance	**81,131.83**	77,130.63
Add : Transfer from retained earnings	**4,539.50**	4,001.20
Less : Utilised for issuance of bonus shares	**1,649.10**	-
Closing balance	**84,022.23**	81,131.83

General reserve is used from time to time to transfer profits from retained earnings for appropriation purposes. Further, the Company has issued 164,90,92,880 equity shares of ₹ 10/- each as fully paid bonus shares during the year ended 31 March 2019 (31 March 2018: Nil) in the ratio of one equity share of ₹ 10/- each for every five equity shares held.

(g) **Retained earnings**

₹ Crore

Particulars	For the year ended 31 March 2019	For the year ended 31 March 2018
Opening balance	**4,003.92**	3,653.72
Add: Profit for the year as per Statement of profit and loss	**12,640.02**	10,543.95
Impact of change in ownership interest in subsidiary company [Refer Note 64 (d)]	**(77.76)**	(5.49)
Transfer from bonds/debentures redemption reserve	**1,104.50**	325.00
Transfer from CSR reserve	**0.19**	0.22
Less: Transfer to bonds/debentures redemption reserve	**1,732.37**	1,637.75
Transfer to CSR reserve	**2.34**	0.24
Transfer to general reserve	**4,539.50**	4,001.20
Final dividend paid	**1,970.67**	1,789.27
Tax on final dividend paid	**400.96**	364.25
Interim dividend paid	**2,951.88**	2,251.01
Tax on interim dividend paid	**603.64**	462.32
	5,469.51	4,011.36
Items of other comprehensive income recognised directly in retained earnings:		
- Net actuarial gains/(losses) on defined benefit plans (net of tax)	**(185.13)**	(7.28)
- Share of other comprehensive income/(expense) of joint ventures accounted for using the equity method (net of tax)	**(1.07)**	(0.16)
Closing balance	**5,283.31**	4,003.92

Retained Earnings are the profits of the Group earned till date net of appropriations.

(h) **Items of other comprehensive income**

(i) **Reserve for equity instruments through OCI**

₹ Crore

Particulars	For the year ended 31 March 2019	For the year ended 31 March 2018
Opening balance	**7.80**	15.00
Add: Fair value gain/(losses) on equity instruments for the year	**(16.74)**	(7.20)
Closing balance (i)	**(8.94)**	7.80

The Group has elected to recognise 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 derecognised.

(ii) **Foreign currency translation reserve**

₹ Crore

Particulars	For the year ended 31 March 2019	For the year ended 31 March 2018
Opening balance	**(10.09)**	(4.04)
Add: Currency translation of foreign operations for the year	**11.67**	(6.05)
Closing balance (ii)	**1.58**	(10.09)
Total (i+ii)	**(7.36)**	(2.29)

Exchange differences arising on translation of the joint ventures are recognised in other comprehensive income as described in accounting policy and accumulated in a separate reserve within equity. The cumulative amount is reclassified to profit or loss when the net investment is disposed-off.

22. Non current financial liabilities -Borrowings

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
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)[X]	**188.96**	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)[X]	**171.72**	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**	322.04
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)[VII]	**319.80**	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)[VII]	**410.22**	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)[XII]	**4,010.36**	4,010.35
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)[XI]	**720.46**	720.59
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)[X]	**133.46**	133.45
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)[X]	**49.90**	49.89
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**	105.67
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) [XIII]	**4,068.88**	-
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)[VII]	**256.04**	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)[VII]	**93.69**	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)[XI]	**696.67**	696.79
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)[XI]	**836.51**	836.49

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
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)[XI]	**1,072.80**	1,072.78
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)[XI]	**511.81**	511.79
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)[X]	**111.99**	111.97
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)[X]	**68.19**	68.17
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)[VIII]	**313.11**	313.11
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)[VIII]	**1,047.48**	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]	**751.34**	751.15
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**	75.45
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)[VII]	**499.83**	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)[VII]	**213.84**	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)[VII]	**542.07**	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]	**50.02**	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)[VII]	**217.46**	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)[IX]	**10,323.61**	10,321.21
8.73% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each redeemable at par in full on 7 March 2023 (Forty Eighth Issue - Private Placement)[VII]	**301.79**	301.79

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
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]	**508.14**	508.14
8.84% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each redeemable at par in full on 4 October 2022 (Forty Seventh Issue - Private Placement)[VII]	**406.91**	406.91
6.72% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each redeemable at par in full on 24 November 2021 (Sixty Fifth Issue - Private Placement)[XI]	**716.09**	716.30
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)[X]	**1,145.73**	1,145.48
8.33% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each redeemable at par in full on 24 February 2021 (Fifty Ninth Issue - Private Placement)[XI]	**660.12**	659.93
8.93% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each redeemable at par in full on 19 January 2021 (Thirty Seventh Issue - Private placement)[III]	**317.17**	317.17
8.18% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each redeemable at par in full on 31 December 2020 (Fifty Eight Issue - Private Placement)[XI]	**306.02**	305.90
8.73% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each redeemable at par in full on 31 March 2020 (Thirty Third Issue- Private Placement)[III]	**209.97**	209.97
8.78% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each redeemable at par in full on 9 March 2020 (Thirty First Issue- Private Placement)[III]	**531.27**	531.27
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]	**368.12**	368.02
7.89% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each redeemable at par in full on 5 May 2019 (Thirtieth Issue - Private Placement)[III]	**701.82**	701.82
8.65% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each redeemable at par in full on 4 February 2019 (Twenty Ninth Issue - Private Placement)[III]	**-**	552.87
7.50% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each redeemable at par in full on 12 January 2019 (Nineteenth Issue - Private Placement)[II]	**-**	50.92
11.00% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each redeemable at par in full on 21 November 2018 (Twenty Eighth Issue - Private Placement)[III]	**-**	1,027.12
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)[VII]	**74.75**	80.09

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
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)[VII]	**74.80**	80.14
8.00% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each redeemable at par in full on 10 April 2018 (Sixteenth Issue -Private Placement)[I]	**-**	103.33
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]	**69.37**	74.70
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]	**69.56**	74.92
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]	**69.51**	74.86
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]	**97.20**	104.68
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]	**63.99**	69.33
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]	**63.84**	69.16
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]	**102.12**	110.63
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]	**127.59**	138.22

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
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]	**81.95**	89.40
9.37% Secured non-cumulative non-convertible redeemable taxable bonds of ₹70,00,000/- each with fourteen separately transferable redeemable principal parts (STRPP) redeemable at par semi-annually commencing from 4 June 2012 and ending on 4 December 2018 (Twenty Fifth Issue - Private Placement)[III]	**-**	73.13
9.06% Secured non-cumulative non-convertible redeemable taxable bonds of ₹70,00,000/- each with fourteen separately transferable redeemable principal parts (STRPP) redeemable at par semi-annually commencing from 4 June 2012 and ending on 4 December 2018 (Twenty Sixth Issue - Private Placement)[III]	**-**	73.06
8.6077% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 20,00,000/- each with twenty equal separately transferable redeemable principal parts (STRPP) redeemable at par semi-annually commencing from 9 September 2011 and ending on 9 March 2021 (Twenty Fourth Issue - Private Placement)[IV]	**102.12**	153.15
8.3796% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 20,00,000/- each with twenty equal separately transferable redeemable principal parts (STRPP) redeemable at par semi-annually commencing from 5 August 2011 and ending on 5 February 2021 (Twenty Third Issue - Private Placement)[IV]	**102.07**	153.06
8.1771% Secured non-cumulative non-convertible redeemable taxable bonds of ₹20,00,000/- each with twenty equal separately transferable redeemable principal parts (STRPP) redeemable at par semi-annually commencing from 2 July 2011 and ending on 2 January 2021 (Twenty Second Issue - Private Placement)[IV]	**102.02**	152.99
7.7125% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 20,00,000/- each with twenty equal separately transferable redeemable principal parts (STRPP) redeemable at par semi-annually commencing from 2 August 2010 and ending on 2 February 2020 (Twenty First Issue - Private Placement)[V]	**101.90**	203.76
7.552% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 20,00,000/- each with twenty equal separately transferable redeemable principal parts (STRPP) redeemable at par semi-annually commencing from 23 September 2009 and ending on 23 March 2019 (Twentieth Issue - Private Placement)[VI]	**-**	50.92
	35,659.44	33,846.07
Foreign currency notes		
Unsecured		
4.500 % Fixed rate notes due for repayment on 19 March 2028	**2,771.92**	2,603.86
2.750 % Fixed rate notes due for repayment on 1 February 2027	**3,937.18**	4,045.23
4.250 % Fixed rate notes due for repayment on 26 February 2026	**3,482.35**	3,271.97
4.375 % Fixed rate notes due for repayment on 26 November 2024	**3,541.49**	3,331.35
4.750 % Fixed rate notes due for repayment on 3 October 2022	**3,570.43**	3,281.50
7.250 % Fixed global INR denominated bonds due for repayment on 3 May 2022	**2,127.39**	2,126.07
7.375 % Fixed green global INR denominated bonds due for repayment on 10 August 2021	**2,087.83**	2,085.26
5.625 % Fixed rate notes due for repayment on 14 July 2021	**3,530.47**	3,320.98
	25,049.06	24,066.22

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
Term loans		
From Banks		
Secured		
Rupee term loans[XIV]	**3,655.26**	1,870.85
Unsecured		
Foreign currency loans	**10,245.60**	8,499.07
Rupee term loans	**47,237.27**	37,790.81
From Others		
Secured		
Rupee term loans[XIV]	**13,884.28**	5,672.33
Unsecured		
Foreign currency loans (guaranteed by GOI)	**1,893.26**	2,033.65
Other foreign currency loans	**2,966.25**	3,466.13
Rupee term loans	**6,402.94**	7,267.31
Finance lease obligations		
Secured	**1.40**	1.42
Unsecured	**185.01**	182.92
	1,47,179.77	1,24,696.78
Less:		
Current maturities of		
Bonds - secured	**1,782.00**	2,209.00
Rupee term loans from banks - secured	**169.60**	163.27
Foreign currency loans from banks - unsecured	**2,568.74**	694.16
Rupee term loans from banks - unsecured	**1,726.61**	1,859.89
Rupee term loans from others - secured	**28.41**	22.41
Foreign currency loans from other - unsecured (guaranteed by GOI)	**185.95**	181.85
Other foreign currency loans from others - unsecured	**534.48**	529.01
Rupee term loans from others - unsecured	**898.52**	898.52
Finance lease obligations - secured	**0.75**	0.72
Finance lease obligations - unsecured	**35.35**	33.54
Interest accrued but not due on borrowings	**1,456.48**	1,328.60
Total	**1,37,792.88**	1,16,775.81

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 AAA bond yield rate plus agreed margin or AAA bond yield rate plus agreed margin with reset after three years or one year MCLR plus annual reset or fixed interest rate of 9.36% p.a. These loans are repayable in installments as per the terms of the respective loan agreements. The repayment period extends from a period of eleven 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 carry fixed rate of interest ranging from 1.80% p.a. to 2.30% p.a. and are repayable in 15 to 24 semi annual installments as of 31 March 2019.

iii) Unsecured foreign currency loans – Banks include loans of ₹ **243.97 crore** (31 March 2018: ₹ 352.80 crore) which carry fixed rate of interest of 1.88% p.a. to 4.31% p.a. and loans of ₹ **10,001.63 crore** (31 March 2018: ₹ 8,146.27 crore) which carry floating rate of interest linked to 6M USD LIBOR/6M JPY LIBOR. These loans are repayable in 2 to 19 semi-annual/annual installments as of 31 March 2019, commencing after moratorium period if any, as per the terms of the respective loan agreements.

iv) Unsecured foreign currency loans – Others include loans of ₹ **2,906.14 crore** (31 March 2018: ₹ 3,342.55 crore) which carry fixed rate of interest ranging from 1.88% p.a. to 4.31% p.a and loans of ₹ **60.11 crore** (31 March 2018: ₹ 123.58 crore) which carry floating rate of interest linked to 6M EURIBOR. These loans are repayable in 2 to 20 semi annual installments as of 31 March 2019, commencing after moratorium period if any, as per the terms of the respective loan agreements.

v) Unsecured rupee term loans carry interest rate ranging from 6.571% p.a. to 8.50% p.a. with monthly/half-yearly rests. These loans are repayable in quarterly/half-yearly/yearly installments as per the terms of the respective loan agreements. The repayment period extends from a period of 7 to 15 years after a moratorium period of 3 to 6 years.

Unsecured rupee term loans include ₹ **832.36 crore** (31 March 2018: ₹ 794.35 crore) from Government of Jharkhand to 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 proposed to be utilised as consideration for subsequent issue and allotment of shares in its % ownership as prescribed in the related JV agreement. This also includes deemed loan on account of cost of land transferred to the subsidiary company.

b) The finance lease obligations are repayable in installments as per the terms of the respective lease agreements generally over a period of 4 to 99 years.

c) There has been no default in repayment of any of the loans or interest thereon as at the end of the year.

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.

II Secured by (I) English mortgage, on first pari-passu charge basis, of the office premises of the Company at Mumbai and (II) Hypothecation of all the present and future movable assets (excluding receivables) of Singrauli Super Thermal Power Station, Anta Gas Power Station, Auraiya Gas Power Station, Barh Super Thermal Power Project, Farakka Super Thermal Power Station, Kahalgaon Super Thermal Power Station, Koldam Hydel Power Project, Simhadri Super Thermal Power Project, Sipat Super Thermal Power Project, Talcher Thermal Power Station, Talcher Super Thermal Power Project, Tanda Thermal Power Station, Vindhyachal Super Thermal Power Station, National Capital Power Station, Dadri Gas Power Station, Feroze Gandhi Unchahar Power Station and Tapovan-Vishnugad Hydro Power Project as first charge, ranking pari-passu with charge, if any, already created in favour of the Company's Bankers on such movable assets hypothecated to them for working capital requirement.

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 (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 the title deeds of the immovable properties pertaining to Sipat Super Thermal Power Project.

V Secured by (I) English mortgage, on first pari-passu charge basis, of the office premises of the Company at Mumbai, (II) Hypothecation of all the present and future movable assets (excluding receivables) of Barh Super Thermal Power Project on first pari-passu charge basis, ranking pari passu with charge already created in favour of Trustee for other Series of Bonds and (III) Equitable mortgage of the immovable properties, on first pari-passu charge basis, pertaining to Ramagundam Super Thermal Power Station by extension of charge already created.

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, by way of first charge, by deposit of title deeds of the immovable properties pertaining to Ramagundam Super Thermal Power Station.

VII 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 by extension of charge already created.

VIII Secured by English mortgage of the immovable properties pertaining to Solapur Super Thermal Power Project on first charge basis.

IX Secured by Equitable mortgage of the immovable properties pertaining to Barh Super Thermal Power Project on first charge basis.

X Secured by English mortgage, on pari-passu charge basis, of the immovable properties pertaining to Solapur Super Thermal Power Project.

XI Secured by Equitable mortgage, on pari-passu charge basis, of the immovable properties pertaining to Barh Super Thermal Power Project.

XII Secured by Equitable mortgage of the immovable properties pertaining to Vindhyachal Super Thermal Power Station on first charge basis.

XIII Secured by Equitable mortgage, on pari-passu charge basis, of the immovable properties pertaining to Vindhyachal Super Thermal Power Station.

XIV (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 Kanti Bijlee Utpadan Nigam Ltd. expansion project. The security will rank pari-pasu with all term lenders of the project. The charge has been created in favor of Security trustee i.e. SBI Cap Trustee Co. Ltd. Legal mortgage of land in favour of security trustee has been executed for 877.18 acres out of 975.05 acres of land.

(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.

(iv) Secured by a first pari passu charge on land and building, plant and machinery and current assets of Nabinagar Power Generating Company Limited, a subsidiary of the Company. The creation of charge is under process.

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 Power Generating Company Limited, a subsidiary of the Company. The modification of charge is under process.

XV Security cover mentioned at Sl. No. I to XIV is above 100% of the debt securities outstanding.

22. Non-current financial liabilities - Trade payables

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
Trade payable for goods and services		
Total outstanding dues of		
- micro and small enterprises	6.41	5.49
- creditors other than micro and small enterprises	41.80	17.82
Total	**48.21**	23.31

a) Disclosures as required under Companies Act, 2013 / Micro, Small and Medium Enterprises Development Act, 2006 (MSMED) are provided in Note 69.

b) Amounts payable to related parties are disclosed in Note 53.

23. Non-current liabilities- Other financial liabilities

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
Payable for capital expenditure		
- micro and small enterprises	11.06	10.01
- other than micro and small enterprises	1,890.43	1,983.32
Deposits from contractors and others	1.64	1.72
Others	56.73	192.26
Total	**1,959.86**	2,187.31

a) Disclosures as required under Companies Act, 2013 / MSMED Act, 2006 are provided in Note 69.

b) Others mainly include amount payable to the Department of Water Resource, Government of Odisha pursuant to the Resolution No. 11011 dated 18 May 2015.

c) Amounts payable to related parties are disclosed in Note 53.

24. Non-current liabilities - Provisions

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
Provision for employee benefits	589.09	480.90

Disclosures as per Ind AS 19 'Employee benefits' are provided in Note 50.

25. Non-current liabilities - Deferred tax liabilities (net)

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
Deferred tax liability		
Difference in book depreciation and tax depreciation	**15,488.69**	12,360.71
Less: Deferred tax assets		
Provisions	**1,457.36**	1,103.66
Statutory dues	**277.25**	542.84
Leave encashment	**321.28**	273.35
Unabsorbed depreciation	**941.12**	-
MAT credit entitlement	**8,266.75**	9.37
Others	**25.21**	29.86
Total	**4,199.72**	10,401.63

a) Deferred tax assets and deferred tax liabilities have been offset as they relate to the same governing laws.

b) During the year, the Company has recognised MAT credit available to the Company in future amounting to ₹ **8,257.38 crore** (31 March 2018: ₹ Nil) as the same is likely to give future economic benefits in the form of availability of set off against future income tax liability. Out of the above, an amount of ₹ **7,615.10 crore** (31 March 2018: ₹ Nil) has been recognised as payable to beneficiaries through regulatory deferral account balances.(Refer Note 18 (c)). The cumulative amount of MAT credit available to Group as at the end of the year is ₹ **8,266.75 crore** (31 March 2018: ₹ 9.37 crore).

c) Refer Note 18 (b) and 47 (A) for reclassification of deferred asset for deferred tax liability as per Ind AS 8, 'Accounting Policies, Changes in Accounting Estimates and Errors' and Ind AS 1, 'Presentation of financial statements'.

d) Disclosures as per Ind AS 12, 'Income Taxes' are provided in Note 48.

Movement in deferred tax balances
As at 31 March 2019

₹ Crore

Particulars	Net balance As at 1 April 2018	Recognised in statement of profit and loss	Recognised in OCI	Other	Net balance As at 31 March 2019
Deferred tax liability					
Difference in book depreciation and tax depreciation	12,360.71	3,234.29	-	(106.31)	15,488.69
Less: Deferred tax assets					
Provisions	1,103.66	354.84	-	(1.14)	1,457.36
Statutory dues	542.84	(265.59)	-	-	277.25
Leave encashment	273.35	47.93	-	-	321.28
Unabsorbed depreciation	-	941.12	-	-	941.12
MAT credit entitlement	9.37	8,257.38	-	-	8,266.75
Others	29.86	21.33	-	(25.98)	25.21
Net tax (assets)/liabilities	10,401.63	(6,122.72)	-	(79.19)	4,199.72

As at 31 March 2018 ₹ Crore

Particulars	Net balance As at 1 April 2017	Recognised in statement of profit and loss	Recognised in OCI	Other	Net balance As at 31 March 2018
Deferred tax liability					
Difference in book depreciation and tax depreciation	8,444.52	3,907.96	-	8.23	12,360.71
Less: Deferred tax assets					
Provisions	1,017.42	85.03	-	1.21	1,103.66
Statutory dues	490.63	51.58	-	0.63	542.84
Leave encashment	430.69	(157.34)	-	-	273.35
MAT credit entitlement	1.99	7.38	-	-	9.37
Others	93.08	(66.77)	-	3.55	29.86
Net tax (assets)/liabilities	6,410.71	3,988.08	-	2.84	10,401.63

26. Current financial liabilities -Borrowings

₹ Crore

Particulars	**As at 31 March 2019**	As at 31 March 2018
Loans repayable on demand		
From banks		
Secured		
Cash credit	**491.66**	180.06
Unsecured		
Cash credit	**2.90**	0.32
Other Loans		
Unsecured		
Commercial paper	**15,500.00**	6,500.00
Total	**15,994.56**	6,680.38

a) Secured cash credit includes cash credit secured by hypothecation of trade receivables and inventory of Kanti Bijlee Utpadan Nigam Ltd., a subsidiary of the Company, with floating rate of interest linked to the bank's base rate. The loan is secured by second charges on all immovable properties, movable properties, both present & future, pertaining to project, including land measuring 975.05 acres.

b) There has been no default in repayment of any of the loans or interest thereon as at the end of the year.

27. Current financial liabilities - Trade payables

₹ Crore

Particulars	**As at 31 March 2019**	As at 31 March 2018
Trade payable for goods and services		
Total outstanding dues of		
- micro and small enterprises	**361.79**	282.96
- creditors other than micro and small enterprises	**8,155.83**	6,424.59
Total	**8,517.62**	6,707.55

a) Disclosures as required under Companies Act, 2013 / MSMED Act, 2006 are provided in Note 69.

b) Amounts payable to related parties are disclosed in Note 53.

28. Current liabilities - Other financial liabilities

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
Current maturities of non-current borrowings		
Bonds - Secured	**1,782.00**	2,209.00
From Banks		
Secured		
Rupee term loans	**169.60**	163.27
Unsecured		
Foreign currency loans	**2,568.74**	694.16
Rupee term loans	**1,726.61**	1,859.89
From Others		
Secured		
Rupee term loans	**28.41**	22.41
Unsecured		
Foreign currency loans (guaranteed by GOI)	**185.95**	181.85
Other foreign currency loans	**534.48**	529.01
Rupee term loans	**898.52**	898.52
	7,894.31	6,558.11
Current maturities of finance lease obligations -Secured	**0.75**	0.72
Current maturities of finance lease obligations -Unsecured	**35.35**	33.54
Interest accrued but not due on borrowings	**1,456.48**	1,328.60
Unpaid dividends	**17.69**	16.51
Unpaid matured deposits and interest accrued thereon	**0.19**	0.19
Unpaid matured bonds and interest accrued thereon	**5.01**	4.20
Unpaid bond refund money-Tax free bonds	**0.26**	0.26
Book overdraft	**12.09**	1.29
Payable to customers	**162.27**	358.08
Payable for capital expenditure		
- micro and small enterprises	**223.50**	163.49
- other than micro and small enterprises	**14,705.56**	12,541.60
Hedging gain payable to beneficiaries	**7.21**	6.27
Derivative MTM liability		
Other payables		
Deposits from contractors and others	**193.80**	164.97
Payable to employees	**814.43**	752.07
Retention on account of encashment of bank guarantee (solar)	**286.74**	233.55
Payable to Solar Payment Security account	**276.67**	-
Others	**1,061.66**	689.83
Total	**27,153.97**	22,853.28

a) 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 21.

b) 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 Investor Education and Protection Fund has been transferred.

c) Other payable - Others mainly includes ₹ **472.27 crore** (31 March 2018: ₹ 263.10 crore) towards the implementation of Deen Dayal Upadhyay Gram Jyoti Yojana (DDUGJY) Scheme of the GOI being carried out by the Group. The funds for the implementation of these schemes are provided by the agencies nominated by the GOI in this regard. Further, other payable - others also include ₹ **319.74 crore** (31 March 2018: ₹ 211.49 crore) payable to the Department of Water Resource, Government of Odisha and amount payable to hospitals, parties for stale cheques etc.

d) 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.

e) Retention on account of encashment of bank guarantee (solar) represents amounts retained by 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.

f) Disclosures as required under the Companies Act, 2013 / MSMED Act, 2006 are provided in Note 69.

g) Amounts payable to related parties are disclosed in Note 53.

h) 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 14).

29. Current liabilities - Other current liabilities

₹ **Crore**

Particulars	**As at 31 March 2019**	As at 31 March 2018
Advances from customers and others	**182.73**	458.74
Other payables		
Statutory dues	**514.53**	520.94
Others	**183.43**	177.31
Total	**880.69**	1,156.99

a) Advance received for the DDUGJY (including interest thereon) of ₹ **58.28 crore** (31 March 2018: ₹ 313.97 crore) is included in 'Advance from customers and others'. Refer Note 28 (c). Tax deducted at source on the interest is included in 'Advance tax and tax deducted at source' - Note 10.

b) Others include an amount ₹ **181.64 crore** (31 March 2018: ₹ 176.63 crore) payable to Government of Jharkand on disposal of the assets held for sale. Refer Note 17 (e).

30. Current liabilities - Provisions

₹ **Crore**

Particulars	**As at 31 March 2019**	As at 31 March 2018
Provision for		
Employee benefits	**1,245.05**	2,936.65
Obligations incidental to land acquisition	**3,763.80**	3,601.31
Tariff adjustment	**98.77**	330.10
Others	**2,042.58**	1,383.72
Total	**7,150.20**	8,251.78

a) Disclosures required by Ind AS 19 ‘Employee Benefits’ are provided in Note 50.

b) Disclosures required by Ind AS 37 ‘Provisions, Contingent Liabilities and Contingent Assets’ are provided in Note 56.

c) Provision for employee benefits as of 31 March 2018 included an amount of ₹ **1,203.28 crore** towards revision of payscales of employees which has been used during the year.

d) Provision for others mainly comprise ₹ **85.14 crore** (31 March 2018: ₹ 73.15 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 59), ₹ **1,952.13 crore** (31 March 2018: ₹ 1,305.68 crore) towards provision for cases under litigation and ₹ **5.13 crore** (31 March 2018: ₹ 4.89 crore) towards provision for shortage in property, plant and equipment on physical verification pending investigation.

30A. Current liabilities - Current tax liabilities (net)

₹ Crore

Particulars	**As at 31 March 2019**	As at 31 March 2018
Current tax liabilities (net)	**32.72**	-

31. Deferred revenue

₹ Crore

Particulars	**As at 31 March 2019**	As at 31 March 2018
On account of		
Advance against depreciation	-	74.35
Income from foreign currency fluctuation	**1,602.20**	1,435.35
Government grants	**772.86**	821.79
Total	**2,375.06**	2,331.49

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) In line with significant accounting policy no. C.16 (Note 1), an amount of ₹ **74.35 crore** (31 March 2018: ₹ 297.91 crore) has been recognised during the year from the AAD and included in energy sales (Note 32). The AAD recognised during the previous year includes ₹ 125.24 crore for the tariff period 2004-09 in respect of one of the stations as per CERC order dated 18 July 2017 which was recognised as energy sales during that year.

c) 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 Group is recognising 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 no. C.16 (Note 1). This amount will be recognised 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.

d) Government grants include ₹ **535.38 crore** (31 March 2018: ₹ 575.93 crore) received from Solar Energy Corporation of India under MNRE Scheme for setting up solar PV power projects and grant received from GOI through Government of Bihar for renovation & modernisation of Kanti Bijlee Utpadan Nigam Ltd. amounting to ₹ **235.69 crore** (31 March 2018: ₹ 245.58 crore).

32. Revenue from operations

₹ Crore

Particulars		For the year ended 31 March 2019	For the year ended 31 March 2018
Energy sales (including electricity duty)		**87,358.94**	79,298.08
Sale of energy through trading		**7,371.31**	6,450.23
Consultancy, project management and supervision fee		**189.60**	132.19
Lease rentals on assets on operating lease		**233.63**	233.13
Commission - energy trading business		**4.67**	4.62
		95,158.15	86,118.25
Sale of fly ash/ash products	**173.57**		131.02
Less: Transferred to fly ash utilisation reserve fund	**173.57**		131.02
		-	-
Other operating revenues			
Interest from beneficiaries		**90.02**	487.55
Energy internally consumed		**65.20**	64.73
Interest income on assets under finance lease		**70.84**	166.52
Recognised from deferred revenue - government grant		**81.13**	76.12
Sale of energy saving certificates		**-**	11.17
Provisions for tariff adjustments written back		**276.69**	1,158.97
		583.88	1,965.06
Total		**95,742.03**	88,083.31

a) (i) The CERC notified the Tariff Regulations, 2014 in February 2014 (Regulations, 2014). The CERC has issued tariff orders for all the stations except five stations for the period 2014-19, under Regulations, 2014, and beneficiaries are billed based on such tariff orders issued by the CERC. For other stations, beneficiaries are billed in accordance with the principles given in the Regulations, 2014. The energy charges in respect of the coal based stations are provisionally billed based on the GCV of coal 'As received', measured at wagon top samples in respect of most of the stations barring a few on the grounds of safety issues, for the quantity supplied through conveyors/road and other difficulties. The amount provisionally billed is ₹ **88,278.09 crore** (31 March 2018: ₹ 79,231.07 crore).

(ii) The Company filed a writ petition before the Hon'ble High Court of Delhi contesting certain provisions of the Regulations, 2014 including issue relating to the measurement of GCV. As per directions from the Hon'ble High Court on the issue of point of sampling for measurement of GCV of coal on 'As received' basis, CERC issued an order dated 25 January 2016 that samples for measurement of coal on 'as received' basis should be collected from wagon top at the generating stations. Consequent to this order, wagon top Sampling for measurement of 'As received' GCV was implemented at NTPC Stations w.e.f 1 October 2016. Thereafter the company approached the CERC with the difficulties being faced in implementation of said order through Petition No. 244/MP/2016 seeking inter-alia a margin in the GCV measured at wagon Top. This petition is pending in CERC.

Pending disposal of the above petition by the CERC for the tariff period 2014-19, measurement of GCV of coal is being done from wagon top samples in respect of most of the stations barring a few on the grounds of safety issues, for the quantity supplied through conveyors/road and other difficulties.

The writ Petition filed in Hon'ble High Court of Delhi was withdrawn without prejudice to the rights and contentions of the Company in the petition pending before the CERC for adjustments of loss of GCV relating to the period 2014-19. Subsequently, in the Tariff Regulation for the tariff period 2019-24, CERC has allowed a compensation of 85 kcal/kg on the Weighted Average GCV of coal 'As received' on account of compensation during storage at the generating stations.

(iii) Sales have been provisionally recognised at ₹ **89,324.30 crore** (31 March 2018: ₹ 79,348.78 crore) on the said basis.

b) Sales include ₹ **0.02 crore** (31 March 2018: ₹ 210.33 crore) on account of income tax refundable to the beneficiaries as per Regulations, 2004. Sales also include ₹ **82.68 crore** (31 March 2018: ₹ 66.98 crore) on account of deferred tax materialised which is recoverable from beneficiaries as per Regulations, 2014.

c) Sales include **(-)** ₹ **2,769.57 crore** (31 March 2018: ₹ 6.44 crore) pertaining to previous years recognised based on the orders issued by the CERC/Appellate Tribunal for Electricity (APTEL). This includes reversal of sales amounting to ₹ 2,926.47 crore in respect of one of the stations, considering the directions issued by the CERC and subsequent developments as detailed in Note 32 d) below.

d) The commercial operation date (COD) of one of the stations of the Company declared by the Company as 14 November 2014 was challenged by one of its beneficiaries. CERC vide order dated 20 September 2017, directed to consider the COD of the said unit as 8 March 2016 in place of 14 November 2014. The CERC further directed that the revenue earned over and above fuel cost from sale of infirm power from 15 November 2014 to 7 March 2016, be adjusted in the capital cost of the said unit. The Company filed an appeal against this order in APTEL on 11 October 2017. Pending disposal of the appeal and considering the said order of the CERC, sales for the year 2017-18 was recognised as per CERC order and provision for tariff adjustment was made for the sales recognised till March 2017.

   On 25 January 2019, APTEL disposed off the Company's appeal by upholding the said CERC order. Further, the Company's appeal against the said CERC order has also been dismissed by the Hon'ble Supreme Court of India on 5 April 2019.

   Consequently, provision for tariff adjustment amounting to ₹ 276.69 crores, expenditure of ₹ 2,708.88 crore and sales of ₹ 2,926.47 crore for the period from 15 November 2014 to 31 March 2018 have been reversed and related adjustment have been carried out in the property, plant and equipment (Note-2) during the year. This has resulted in increase in profit for the year by ₹ 59.10 crore and reduction in PPE amounting to ₹ 499.37 crore.

e) Energy sales include electricity duty amounting to ₹ **904.35 crore** (31 March 2018: ₹879.77 crore).

f) Energy sales are net of rebate to beneficiaries amounting to ₹ **852.52 crore** (31 March 2018: ₹ 793.56 crore).

g) Other operating revenue includes ₹ **65.21 crore** (31 March 2018: ₹ 64.73 crore) towards energy internally consumed, valued at variable cost of generation and the corresponding amount is included in power charges in Note 37.

h) 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/pay from/to the beneficiaries the under/over recovered amount along-with simple interest. Accordingly, the interest recoverable from the beneficiaries amounting to ₹ **90.02 crore** (31 March 2018: ₹ 487.54 crore) has been accounted as 'Interest from beneficiaries'. Further, the amount payable to the beneficiaries has been accounted as 'Interest to beneficiaries' in Note 37.

i) Keeping in view the provisions of Appendix C to Ind AS-17 on Leases w.r.t. determining whether an arrangement contains a lease, the Group has ascertained that the PPA entered into for two of the power stations of the Group fall under the definition of operating lease. Recovery of capacity charges towards depreciation (including AAD), interest on loan capital & return on equity (pre-tax) components from the beneficiaries are considered as lease rentals on the assets which are on operating lease.

j) Keeping in view the provisions of Appendix C to Ind AS-17 on Leases w.r.t. determining whether an arrangement contains a lease, the Group has 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 has been derecognised from PPE and accounted as Finance Lease Receivable (FLR). Recovery of capacity charges towards depreciation (including AAD), interest on loan capital & return on equity (pre-tax) components from the beneficiary are 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 recognised as 'Interest income on Assets under finance lease'.

33. Other income

₹ Crore

Particulars		For the year ended 31 March 2019	For the year ended 31 March 2018
Interest from			
Financial assets at amortised cost			
Loan to employees		**64.81**	59.35
Deposits with banks		**52.80**	101.01
Deposits with banks out of fly ash utilisation reserve fund	**40.65**		26.74
Less : Transferred to fly ash utilisation reserve fund	**40.65**		26.74
		-	-
Deposits with banks - DDUGJY funds	**27.04**		27.83
Less : Transferred to DDUGJY advance from customers	**27.04**		27.83
		-	-
Deposits with banks - Solar payment security account	**18.50**		-
Less: Transferred to Solar payment security account	**18.50**		-
		-	-
Advance to contractors		**45.04**	41.40
Income Tax refund	**-**		2,750.47
Less : Refundable to beneficiaries	**-**		2,344.75
		-	405.72
Others		**24.82**	19.24
Dividend from			
Non-current investment in equity instruments designated at fair value through OCI		**4.80**	3.60
Other non-operating income			
Late payment surcharge from beneficiaries		**1344.46**	513.47
Hire charges for equipment		**1.56**	2.50
Sale of scrap		**126.96**	138.25
Gain on sale of current investments measured at fair value through profit or loss		**3.48**	137.51
Miscellaneous income		**148.74**	175.70
Profit on de-recognition of property, plant and equipment		**2.72**	2.37
Provisions written back			
Doubtful loans, advances and claims		**20.39**	1.40
Obsolescence in stores		**4.17**	10.61
Others		**15.78**	3.87
		1,860.53	1,616.00
Less: Transferred to expenditure during construction period (net) - Note 38		**58.93**	52.58
Transferred to expenditure during development of coal mines (net) - Note 39		**6.29**	5.14
Total		**1,795.31**	1,558.28

a) 'Interest from others' includes interest on advance to APIIC for drawal of water and deposits with LIC towards annuity to the land losers.

b) Miscellaneous income includes income from township recoveries and receipts towards insurance claims.

c) 'Provisions written back - Others' include provision for shortage in stores and shortage in property, plant and equipment.

34. Employee benefits expense

₹ Crore

Particulars	For the year ended 31 March 2019	For the year ended 31 March 2018
Salaries and wages	**5,022.05**	4,915.69
Contribution to provident and other funds	**766.50**	623.43
Staff welfare expenses	**623.53**	567.95
	6,412.08	6,107.07
Less: Allocated to fuel cost	**278.58**	267.95
Transferred to expenditure during construction period (net) - Note 38	**1,036.83**	894.03
Transferred to expenditure during development of coal mines (net) - Note 39	**97.10**	72.41
Transferred to fly ash utilisation reserve fund	**18.49**	19.02
Reimbursements for employees on deputation	**73.49**	61.69
Total	**4,907.59**	4,791.97

a) Disclosures as per Ind AS 19, 'Employee Benefits' in respect of provision made towards various employee benefits are provided in Note 50.

b) Subsequent to issue of Presidential Directive to the Company on 10 May 2018, the revision of pay scales of employees has been implemented in the Company w.e.f. 1 January 2017 and the special allowance which was hitherto paid by the Company to eligible employees serving in difficult and far flung area, has been discontinued.

35. Finance costs

₹ Crore

Particulars	For the year ended 31 March 2019	For the year ended 31 March 2018
Finance costs on financial liabilities measured at amortised cost		
Bonds	**2,762.43**	2,793.01
Foreign currency term loans	**411.07**	345.52
Rupee term loans	**5,430.99**	3,963.06
Foreign currency bonds/notes	**1,314.71**	1,087.98
Cash credit	**91.12**	19.95
Unwinding of discount on vendor liabilities	**101.49**	300.16
Discount on commercial papers	**553.91**	62.57
Others	**79.52**	23.38
	10,745.24	8,595.63
Exchange differences regarded as an adjustment to borrowing costs	**156.43**	**274.05**
Other borrowing costs		
Guarantee fee	**28.74**	**28.97**
Foreign currency bonds/notes expenses	**0.99**	**0.22**
Others	**11.21**	**12.26**
	40.94	**41.45**
Sub-Total	**10,942.61**	8,911.13

₹ Crore

Particulars	For the year ended 31 March 2019	For the year ended 31 March 2018
Less: Transferred to expenditure during construction period (net) - Note 38	**5,412.00**	4,279.60
Transferred to expenditure during development of coal mines (net) - Note 39	**269.76**	196.94
Total	**5,260.85**	4,434.59

a) 'Other borrowing costs - Others' include bond issue and service expenses, commitment charges, exposure premium and insurance premium & other expenses on foreign currency loans.

In the previous year figures, an amount of ₹ 20.16 crore has been regrouped from rupee term loans to others under finance costs on financial liabilities measured at amortised cost to enhance comparability with the current year's financial statements.

36. Depreciation, amortisation and impairment expense

₹ Crore

Particulars	For the year ended 31 March 2019	For the year ended 31 March 2018
On property, plant and equipment - Note 2	**8,507.58**	8,173.84
On intangible assets - Note 4	**26.43**	24.87
	8,534.01	8,198.71
Less: Allocated to fuel cost	**467.01**	399.49
Transferred to expenditure during construction period (net) - Note 38	**122.40**	143.16
Transferred to expenditure during development of coal mines (net) - Note 39	**51.57**	40.09
Adjustment with deferred revenue from deferred foreign currency fluctuation	**204.93**	156.04
Total	**7,688.10**	7,459.93

37. Other expenses

₹ Crore

Particulars		For the year ended 31 March 2019	For the year ended 31 March 2018
Power charges	**896.39**		358.50
Less: Recovered from contractors and employees	**30.73**		28.92
		865.66	329.58
Water charges		**576.25**	846.22
Cost of captive coal		**786.40**	316.97
Stores consumed		**89.85**	76.11
Rent	**18.25**		34.95
Less: Recoveries	**0.47**		5.89
		17.78	29.06

₹ Crore

Particulars		For the year ended 31 March 2019	For the year ended 31 March 2018
Load dispatch centre charges		34.68	39.14
Repairs and maintenance			
Buildings	275.08		267.94
Plant and equipment	2,523.90		2,222.00
Others	401.62		328.84
		3,200.60	2,818.78
Insurance		137.63	128.77
Interest to beneficiaries		-	12.00
Rates and taxes		100.33	83.32
Water cess and environment protection cess		3.96	13.64
Training and recruitment expenses	46.49		50.83
Less: Receipts	1.92		0.52
		44.57	50.31
Communication expenses		79.20	54.15
Travelling expenses		267.83	206.04
Tender expenses	7.47		24.51
Less: Receipt from sale of tenders	2.35		1.93
		5.12	22.58
Payment to auditors		4.54	5.56
Advertisement and publicity		22.12	30.97
Electricity duty		904.28	881.51
Security expenses		905.50	753.73
Entertainment expenses		60.09	29.83
Expenses for guest house	47.36		37.65
Less: Recoveries	0.69		1.41
		46.67	36.24
Education expenses		54.79	52.19
Donation		8.00	8.00
Ash utilisation and marketing expenses		342.62	25.71
Directors sitting fee		0.73	0.34
Professional charges and consultancy fee		102.13	70.19
Legal expenses		50.10	46.26
EDP hire and other charges		27.58	22.23
Printing and stationery		11.21	11.19
Oil and gas exploration expenses		0.47	2.83
Hiring of vehicles		110.67	101.50
Reimbursement of LC charges on sales realisation		0.01	0.26
Net loss/(gain) in foreign currency transactions and translations		(59.01)	547.37
Cost of hedging		(0.63)	1.62

₹ Crore

Particulars	For the year ended 31 March 2019	For the year ended 31 March 2018
Derivatives MTM loss/(gain) (net)	**2.46**	(5.33)
Horticulture expenses	**54.74**	46.56
Hire charges of helicopter/aircraft	**12.36**	15.63
Hire charges of construction equipment	**13.03**	11.60
Transport vehicle running expenses	**7.58**	6.74
Demurrage charges	**0.40**	0.74
Loss on de-recognition of property, plant and equipment	**173.84**	110.67
Miscellaneous expenses	**195.58**	185.76
	9,261.72	8,026.57
Less: Allocated to fuel cost	**569.04**	494.25
Transferred to expenditure during construction period (net) - Note 38	**1,275.61**	596.60
Transferred to expenditure during development of coal mines (net) - Note 39	**857.75**	364.39
Transferred to derivative MTM loss/(gain) recoverable/(payable) from/to beneficiaries	**2.46**	(5.33)
Transferred to Corporate Social Responsibility (CSR) expense	**44.23**	39.60
Transferred to fly ash utilisation reserve fund	**187.41**	51.14
	6,325.22	6,485.92
Corporate Social Responsibility (CSR) expense	**286.64**	240.90
Provisions for		
Tariff adjustments	**45.36**	318.28
Obsolescence in stores	**35.98**	22.43
Shortages in stores	**99.34**	20.79
Unserviceable capital works	**53.60**	359.48
Unfinished minimum work programme for oil and gas exploration	**11.98**	4.92
Arbitration cases	**454.41**	56.05
Shortages in construction stores	**2.04**	12.41
Doubtful loans, advances and claims	**285.27**	28.67
Others	**3.19**	4.74
	991.17	827.77
Total	**7,603.03**	7,554.59

a) During the development stage of mine, transfer price of coal extracted from Group's captive mine has been determined considering the notified price of Coal India Ltd. for equivalent grade of coal. 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 39).

b) Details in respect of payment to auditors:

As Auditor		
Audit fee	**1.87**	1.86
Tax audit fee	**0.62**	0.57
Limited review	**1.06**	0.97

In other capacity		
Other services (certification fee)	**0.64**	0.76
Reimbursement of expenses	**0.35**	1.40
Total	**4.54**	5.56

Payment to the auditors includes ₹ **0.24 crore** (31 March 2018: ₹ 0.33 crore) relating to earlier year.

c) 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 ₹ **Nil** (31 March 2018: ₹ 12.00 crore) has been accounted and disclosed as 'Interest to beneficiaries'.

d) Water charges include amount provided against the demand of ₹ **Nil** (31 March 2018: ₹ 305.55 crore) at one of the power stations by the state authority for earlier years.

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 arbitration cases includes an amount of ₹ **394.07 crore** (31 March 2018: Nil) pertaining to the dispute with the operator referred in Note 56 (iii)(b) estimated and provided against the award pronounced by the arbitral tribunal for which the Company has filed an appeal before Hon'ble High Court of Delhi.

g) Provisions for tariff adjustment includes an amount of ₹ **Nil** (31 March 2018: ₹ 276.69 crore) pertaining to the period from 15 November 2014 to 31 March 2017 in respect of CERC order for shifting of COD of one of the stations of the Company. (Refer Note 32).

h) Provisions for shortages in stores include provision for shortage of coal observed on physical verification, beyond the Group's norms, amounting to ₹ **75.32 crore** (31 March 2018: ₹ 10.98 crore).

i) Provisions - Others include provision for doubtful debts and shortage in property, plant and equipment.

38. Expenditure during construction period (net)*

₹ **Crore**

Particulars	**For the year ended 31 March 2019**	For the year ended 31 March 2018
A. Employee benefits expense		
Salaries and wages	**818.94**	772.13
Contribution to provident and other funds	**130.45**	83.98
Staff welfare expenses	**87.44**	37.92
Total (A)	**1,036.83**	894.03
B. Finance costs		
Finance costs on financial liabilities measured at amortised cost		
Bonds	**1,260.04**	1,378.10
Foreign currency term loans	**193.27**	163.68
Rupee term loans	**3,086.26**	1,684.12
Foreign currency bonds/notes	**648.45**	531.03

₹ Crore

Particulars		For the year ended 31 March 2019	For the year ended 31 March 2018
Unwinding of discount on vendor liabilities		**83.62**	280.90
Exchange differences regarded as an adjustment to borrowing costs		**124.71**	233.64
Other borrowing costs			
Foreign currency bonds/notes expenses		**0.97**	0.15
Others		**14.68**	7.98
Total (B)		**5,412.00**	4,279.60
C. Depreciation and amortisation expense		**122.40**	143.16
D. Other expenses			
Power charges	**771.26**		251.07
Less: Recovered from contractors and employees	**6.07**		6.15
		765.19	244.92
Water charges		**1.76**	5.74
Rent		**2.32**	3.37
Repairs and maintenance			
Buildings	**5.77**		7.03
Plant and equipment	**0.66**		0.86
Others	**136.24**		59.66
		142.67	67.55
Insurance		**1.35**	0.76
Rates and taxes		**10.77**	10.14
Communication expenses		**12.92**	6.63
Travelling expenses		**52.28**	43.24
Tender expenses		**0.78**	2.71
Advertisement and publicity		**1.88**	2.97
Security expenses		**142.69**	102.83
Entertainment expenses		**7.85**	5.13
Expenses for guest house		**5.83**	4.43
Professional charges and consultancy fee		**22.36**	8.75
Legal expenses		**7.17**	9.19
EDP hire and other charges		**2.52**	2.19
Printing and stationery		**1.96**	1.55
Miscellaneous expenses		**93.31**	74.50
Total (D)		**1,275.61**	596.60
E. Less: Other income			
Interest from advances to contractors		**28.47**	25.12
Interest others		**17.31**	15.99

₹ Crore

Particulars	For the year ended 31 March 2019	For the year ended 31 March 2018
Hire charges for equipment	**1.14**	1.97
Sale of scrap	**6.78**	2.26
Miscellaneous income	**5.23**	7.24
Total (E)	**58.93**	52.58
F. Net actuarial losses on defined benefit plans	**(0.88)**	5.77
Grand total (A+B+C+D-E+F)**	**7,787.03**	5,866.58

* Other than for expenditure during development of coal mines- (Note 39)
** Carried to Capital work-in-progress - (Note 3)

39. Expenditure during development of coal mines (net)

₹ Crore

Particulars		For the year ended 31 March 2019	For the year ended 31 March 2018
A. Employee benefits expense			
Salaries and wages		**77.11**	60.35
Contribution to provident and other funds		**9.44**	6.38
Staff welfare expenses		**10.55**	5.68
Total (A)		**97.10**	72.41
B. Finance costs			
Finance costs on financial liabilities measured at amortised cost			
Bonds		**67.56**	63.00
Rupee term loans		**201.97**	132.95
Unwinding of discount on vendor liabilities		**0.09**	0.62
Other borrowing costs - others		**0.14**	0.37
Total (B)		**269.76**	196.94
C. Depreciation and amortisation expense		**51.57**	40.09
D. Other expenses			
Power charges	**0.87**		0.72
Less: Recovered from contractors and employees	**0.13**		0.11
		0.74	0.61
Rent		**1.28**	1.03
Repairs and maintenance			
Buildings	**0.86**		0.63
Plant and equipment	**0.55**		0.25
Others	**2.42**		1.29
		3.83	2.17

₹ Crore

Particulars	For the year ended 31 March 2019	For the year ended 31 March 2018
Cost of captive coal	**785.42**	316.97
Insurance	**0.04**	0.02
Rates and taxes	**0.81**	0.50
Communication expenses	**1.96**	1.37
Travelling expenses	**5.52**	3.56
Tender expenses	**0.03**	0.16
Advertisement and publicity	**0.71**	0.56
Security expenses	**19.80**	14.94
Entertainment expenses	**0.91**	0.66
Expenses for guest house	**1.31**	0.61
Professional charges and consultancy fee	**7.51**	5.67
Legal expenses	**0.35**	0.76
EDP hire and other charges	**0.68**	0.55
Printing and stationery	**0.42**	0.26
Miscellaneous expenses	**26.43**	13.99
Total (D)	**857.75**	364.39
E. Less: Other income		
Interest from advances to contractors	**4.83**	4.03
Interest others	**1.20**	0.88
Miscellaneous income	**0.26**	0.23
Total (E)	**6.29**	5.14
F. Net actuarial losses on defined benefit plans	**(0.10)**	0.66
Grand total (A+B+C+D-E+F) *	**1,269.79**	669.35

* Carried to Capital work-in-progress - (Note 3)

40. 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 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.

41. 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 subjudice at various courts. In case the Group gets refund/demand from fuel suppliers/tax authorities on settlement of these cases, the same will be passed on to respective beneficiaries.

42. The environmental clearance ("clearance") granted by the Ministry of Environment and Forest, Government of India (MoEF) for one of the Company's project consisting of three units of 800 MW each, was challenged before the National Green Tribunal (NGT). The NGT disposed off the appeal, inter alia, directing that the order of clearance be remanded to the MoEF to pass an order granting or declining clearance to the project proponent afresh in accordance with the law and the judgement of the

NGT and for referring the matter to the Expert Appraisal Committee ("Committee") for its re-scrutiny, which shall complete the process within six months from the date of NGT order. NGT also directed that the environmental clearance shall be kept in abeyance and the Company shall maintain status quo in relation to the project during the period of review by the Committee or till fresh order is passed by the MoEF, whichever is earlier. The Company filed an appeal challenging the NGT order before the Hon'ble Supreme Court of India which stayed the order of the NGT and the matter is sub-judice. All the three units of 800 MW each have since been declared commercial. Aggregate cost incurred on the project upto 31 March 2019 is ₹ **15,598.80 crore** (31 March 2018: ₹ 15,522.77 crore). Management is confident that the approval for the project shall be granted, hence no provision is considered necessary.

43. The Company is executing a hydro power project in the state of Uttrakhand, where all the clearances were accorded. A case was filed in Hon'ble Supreme Court of India after the natural disaster in Uttrakhand in June 2013 to review whether the various existing and ongoing hydro projects have contributed to environmental degradation. Hon'ble Supreme Court of India on 7 May 2014, ordered that no further construction shall be undertaken in the projects under consideration until further orders, which included the said hydro project of the Company. In the proceedings, Hon'ble Supreme Court is examining to allow few projects which have all clearances which includes the project of the Company where the work has been stopped. Aggregate cost incurred on the project up to 31 March 2019 is ₹ **163.33 crore** (31 March 2018: ₹ 163.23 crore). Management is confident that the approval for proceeding with the project shall be granted, hence no provision is considered necessary.

44. In compliance to order of Delhi Polution Control Committee (DPCC) dated 25 July 2018, operations of one of the power stations of the Group has been permanently discontinued w.e.f.15 October 2018. Consequently, plant & machinery and other assets of the power station are in the process of disposal and/or being utilised at other locations of the Group. Further, Property, plant and equipment of ₹ 47.16 crore has been derecognised and charged to the statement of profit and loss (Refer Note 37) and an amount of ₹ 98.90 crore transferred to 'Assets held for disposal' at their estimated net realisable value (Refer Note 17).

45. Disclosure as per Ind AS 1 'Presentation of financial statements'

a) Changes in significant accounting policies:

During the year, following changes to the accounting policies have been made:

i) Policy C.7 'Development expenditure on coal mines' has been modified considering the expected time for delivering sustainable operations by the coal mines. Refer Note 47(B) for nature, impact and detailed disclosures for this change in accounting policy.

ii) Policy C.23 'Business combinations' has been included in the significant accounting policies as the same is applicable as a result of acquisitions made during the current year. Refer Note 58 for detailed disclosures.

iii) Certain other changes have also been made in the policies nos. C.1, C.2, C.4, C.15, C.16, C.19, C.20, C.22, C.24, C.26, C.28 and policy D for improved disclosures. There is no impact on the financial statements due to these changes, however, the policy numbers have been rearranged in the current year as required.

b) Refer Note 47(A) for disclosures relating to restatement.

46. 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 2019**	For the year ended 31 March 2018
Fuel cost	**53,833.78**	48,992.80
Others (included in Note 37 - Other expenses)	**1,227.55**	1,131.66
Total	**55,061.33**	50,124.46

(b) Carrying amount of inventories pledged as security for borrowings as at 31 March 2019 is ₹ **5,269.82 crore** (31 March 2018: ₹ 4,152.49 crore).

47. Disclosure as per Ind AS 8 - 'Accounting Policies, Changes in Accounting Estimates and Errors'

(A) Restatement for the year ended 31 March 2018 and as at 1 April 2017

In accordance with Ind AS 8 'Accounting Policies, Changes in Accounting Estimates and Errors' and Ind AS 1 ' Presentation of Financial Statements', the Group has retrospectively restated its Balance Sheet as at 31 March 2018 and 1 April 2017 (beginning of the preceding period) and Statement of Profit and Loss and Statement of Cash Flows for the year ended 31 March 2018 for the reasons as stated in the notes below. Reconciliation of financial statement line items which are retrospectively restated are as under:

Reconciliation of restated items of Consolidated Balance Sheet as at 31 March 2018 and 1 April 2017

₹ Crore

Particulars	Note	31 March 2018			1 April 2017		
		As previously reported	Adjustments	As restated	As previously reported	Adjustments	As restated
Property, plant and equipment	(b)	1,29,206.70	(1,293.04)	1,27,913.66	1,04,238.54	(1,619.36)	1,02,619.18
Capital work-in-progress	(b)	81,623.70	1,293.04	82,916.74	86,461.08	1,619.36	88,080.44
Other non-current assets	(c)	11,810.89	(20.95)	11,789.94	17,128.90	(20.95)	17,107.95
Cash and cash equivalents	(c)	388.11	(5.00)	383.11	363.83	-	363.83
Other bank balances	(c)	3,999.49	5.00	4,004.49	2,937.63	-	2,937.63
Other current assets	(c)	11,246.06	21.07	11,267.13	4,816.77	20.95	4,837.72
Regulatory deferral account debit balances	(a)	745.91	7,993.49	8,739.40	522.83	4,925.85	5,448.68
Others		35,347.20	-	35,347.20	32,027.78	-	32,027.78
Total Assets		**2,74,368.06**	**7,993.61**	**2,82,361.67**	**2,48,497.36**	**4,925.85**	**2,53,423.21**
Total equity		1,04,511.24	-	1,04,511.24	98,641.28	-	98,641.28
Deferred tax liabilities (Net)	(a)	2,408.14	7,993.49	10,401.63	1,484.86	4,925.85	6,410.71
Other current liabilities	(c)	1,156.87	0.12	1,156.99	1,263.24	-	1,263.24
Others		1,66,291.81	-	1,66,291.81	1,47,107.98	-	1,47,107.98
Total Equity and Liabilities		**2,74,368.06**	**7,993.61**	**2,82,361.67**	**2,48,497.36**	**4,925.85**	**2,53,423.21**

Reconciliation of restated items of Consolidated Statement of Profit and Loss for the year ended 31 March 2018

₹ Crore

Particulars	Note	As previously reported	Adjustments	As restated
Deferred asset for deferred tax liability	(a)	3,064.80	(3,064.80)	-
Net movement in regulatory deferral account balances	(a)	560.37	3,064.80	3,625.17
Others		6,876.33	-	6,876.33
Profit after tax		**10,501.50**	-	**10,501.50**
Total comprehensive income for the year		**10,480.81**	-	**10,480.81**

Reconciliation of Consolidated Statement of Cash Flows for the year ended 31 March 2018

₹ Crore

Particulars	Note	As previously reported	Adjustments	As restated
Net movement in regulatory deferral account balances (net of tax)	(a)	560.37	3,064.80	3,625.17
Regulatory deferral account debit balances	(a)	(223.08)	(3,064.80)	(3,287.88)
Trade payables, provisions, other financial liabilities and other liabilities	(c)	2,079.22	5.61	2,084.83
Loans, other financial assets and other assets	(c)	(8,907.54)	1.28	(8,906.26)
Purchase of property, plant and equipment & intangible assets	(c)	(18,764.88)	(1.40)	(18,766.28)
Bank balances other than cash and cash equivalents	(c)	(1,066.03)	(5.00)	(1,071.03)
Changes in ownership interest in subsidiary company	(c)	-	(5.49)	(5.49)
Net cash flow from/(used in) operating activities		19,662.72	6.89	19,669.61
Net cash flow from/(used in) investing activities		(20,671.71)	(6.40)	(20,678.11)
Net cash flow from/(used in) financing activities		1,033.27	(5.49)	1,027.78
Net increase/ (decrease) in cash and cash equivalents during the year		**24.28**	**(5.00)**	**19.28**
Cash and cash equivalents at the beginning of the year		363.83	-	363.83
Cash and cash equivalent at the end of the year	(c)	**388.11**	**(5.00)**	**383.11**

Notes:

(a) Regulatory deferral account balances

As per CERC Regulations, 2014, the Group is entitled to a fixed return on its investment, net of tax. Consequently, tax is a pass-through cost. The Group followed a practice of recognising an asset ('Deferred assets for Deferred tax liability') for the tax liability recognised in the financial statements which is recoverable from the beneficiaries. The Group used to offset deferred asset for deferred tax liability recognised with the deferred tax liabilities (Net) and income on account of deferred asset for deferred tax liability was also offset with the tax expense recognised in the statement of profit and loss.

During the year, based on an opinion pronounced by Expert Advisory Committee (EAC) of the Institute of Chartered Accountants of India (ICAI), the Group has recognised Deferred asset for Deferred tax liability as a regulatory deferral account debit/credit balance in accordance with Ind AS 114, 'Regulatory Deferral Accounts.' As a result, regulatory deferral account debit/credit balance has increased with a corresponding increase in Deferred tax liabilities (net) as under:

As at 1 April 2017 : ₹ 4,925.85 crore

As at 31 March 2018 : ₹ 7,993.49 crore

Further, for the year ended 31 March 2018, 'Net movement in regulatory deferral account balances' has increased by an amount of ₹ 3,064.80 crore in the statement of profit and loss with a corresponding increase in deferred tax expense.

(b) Property, plant and equipment

The Group was capitalising expenditure incurred under Rehabilitation and Resettlement (R&R) Schemes as cost of land. During the year, an opinion has been pronounced by Expert Advisory Committee (EAC) of Institute of Chartered Accountants of India (ICAI) stating that the R&R expenditure incurred for development activities associated with the project (not merely for acquisition of land) can be considered as directly attributable to the project. Accordingly, R&R expenditure incurred for development activities associated with the project capitalised as cost of land have been reviewed.

Impact of the above restatement is as under:

₹ Crore

Particulars	31 March 2018	1 April 2017
Decrease in cost of freehold land (Refer Note 2)	**1,298.22**	1,292.40
Decrease in cost of leasehold land (Refer Note 2)	**336.79**	336.96
Increase in cost of plant and equipment-owned (Refer Note 2)	**341.97**	10.00
Increase in expenditure pending allocation (Refer Note 3)	**1,293.04**	1,619.36

Earnings per share

As a result of the above-mentioned adjustments, basic and diluted earnings per share for the financial year 2017-18 changed as below:

Particulars	As previously reported	Adjustments due to		As restated
		Restatement (refer notes (a) and (b) above)	Issue of bonus shares during FY 2018-19	
Basic & Diluted (₹) (from operations including regulatory deferral account balances)	12.11	-	(1.45)	10.66
Basic & Diluted (₹) (from operations excluding regulatory deferral account balances)	12.79	(3.72)	(2.08)	6.99

(c) Certain reclassifications have been made to the comparative period's financial statements to enhance comparability with the current year's financial statements.

(B) Change in accounting policy for 'Development expenditure on coal mines':

During the year, the Group has voluntarily changed the accounting policy for 'Development expenditure on coal mines' considering the expected time for delivering sustainable operations by the coal mines. Consequently, one of the coal mines has been declared commercial w.e.f. 1 April 2019 instead of 7 December 2018.

The Group has modified the accounting policy with respect to bringing mine under development to revenue by inserting the words '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)'.

The following financial statement line items for the year ended 31 March 2019 were affected by the voluntary change in accounting policy.

Consolidated Balance sheet

₹ Crore

Particulars	As per revised policy	As per previous policy	Effect of change
Property, plant and equipment	1,37,490.86	1,38,945.08	(1,454.22)
Capital work-in-progress	1,06,379.66	1,04,956.93	1,422.73
Other non-current assets	14,043.96	14,037.17	6.79
Other equity	1,00,142.43	1,00,167.13	(24.70)

Consolidated Statement of Profit and Loss

₹ Crore

Particulars	As per revised policy	As per previous policy	Effect of change
Other Income	1,795.31	1,797.98	(2.67)
Fuel cost	53,833.78	53,309.25	524.53
Employee benefits expense	4,907.59	4,918.86	(11.27)
Finance costs	5,260.85	5,311.67	(50.82)
Depreciation, amortisation and impairment expense	7,688.10	7,723.92	(35.82)
Other expenses	7,603.03	8,000.83	(397.80)
Tax expenses	(3,206.41)	(3,199.62)	(6.79)
Profit for the year	12,633.45	12,658.15	(24.70)
EPS - Basic & diluted (including regulatory deferral account balances) (in ₹)	12.77	12.79	(0.02)
EPS - Basic & diluted (excluding regulatory deferral account balances) (in ₹)	17.02	17.04	(0.02)

Consolidated Statement of cash flows

₹ Crore

Particulars	As per revised policy	As per previous policy	Effect of change
Net cash flow from/(used in) operating activities	16,367.13	16,391.83	(24.70)
Net cash flow from/(used in) investing activities	(22,238.87)	(22,263.57)	24.70
Net cash flow from/(used in) financing activities	5,697.61	5,697.61	-

As a result of this voluntary change in accounting policy, there is no impact in any prior period presented by the Group.

(C) Recent accounting pronouncements

Standards / amendments issued but not yet effective:

On 30 March 2019, Ministry of Corporate Affairs (MCA) has notified the following standards / amendments which will come into force from 1 April 2019:

1. Ind AS 116 'Leases'

Ind AS 116 'Leases' will replace the existing Ind AS 17 'Leases', and related Interpretations. The standard sets out the principles for the recognition, measurement, presentation and disclosure of leases for both parties to a contract i.e., the lessee and the lessor. Ind AS 116 introduces a single lessee accounting model and requires a lessee to recognise a right-of-use asset representing its right to use the underlying asset and a lease liability representing its obligation to make lease payments. There are recognition exemptions for short-term leases and leases of low-value items. Currently, operating lease expenses are charged to the statement of profit and loss. Lessor accounting remains similar to the current standard – i.e. lessors continue to classify leases as finance or operating leases. Further, the new standard contains enhanced disclosure requirements for lessees. Ind AS 116 substantially carries forward the lessor accounting requirements in Ind AS 17.

The standard permits two possible methods of transition:

- Retrospective approach - Under this approach the standard will be applied retrospectively to each prior reporting period presented in accordance with Ind AS 8 - Accounting Policies, Changes in Accounting Estimates and Errors
- Retrospectively with cumulative effect of initially applying the standard recognised at the date of initial application (modified retrospective approach)

Under modified retrospective approach, the lessee records the lease liability as the present value of the remaining lease payments, discounted at the incremental borrowing rate and the right of use asset either as:

- Its carrying amount as if the standard had been applied since the commencement date, but discounted at lessee's incremental borrowing rate at the date of initial application or
- An amount equal to the lease liability, adjusted by the amount of any prepaid or accrued lease payments related to that lease recognised under Ind AS 17 immediately before the date of initial application. Certain practical expedients are available under both the methods.

The Group will adopt the standard on 1 April 2019 by using the modified retrospective approach and accordingly comparatives for the year ended 31 March 2019 will not be retrospectively adjusted.

2. Ind AS 12 Appendix C, Uncertainty over Income Tax Treatments

Appendix C of Ind AS 12, 'Uncertainty over Income Tax Treatments' is to be applied while performing the determination of taxable profit (or loss), tax bases, unused tax losses, unused tax credits and tax rates, when there is uncertainty over income tax treatments under Ind AS 12. According to the appendix, companies need to determine the probability of the relevant tax authority accepting each tax treatment, or group of tax treatments, that the companies have used or plan to use in their income tax filing which has to be considered to compute the most likely amount or the expected value of the tax treatment when determining taxable profit (tax loss), tax bases, unused tax losses, unused tax credits and tax rates.

The standard permits two possible methods of transition:

- Full retrospective approach – Under this approach, Appendix C will be applied retrospectively to each prior reporting period presented in accordance with Ind AS 8 'Accounting Policies, Changes in Accounting Estimates and Errors.'
- Retrospectively with cumulative effect of initially applying Appendix C recognised by adjusting equity on initial application

The Group will adopt the standard on 1 April 2019 and has decided to adjust the cumulative effect in equity on the date of initial application i.e. 1 April 2019 without adjusting comparatives.

3. Amendment to Ind AS 12 'Income taxes'

The amendments to the guidance in Ind AS 12, 'Income Taxes', clarifies that an entity shall recognise the income tax consequences of dividends in profit or loss, other comprehensive income or equity according to where the past transactions or events that generated distributable profits were originally recognised.

4. Amendment to Ind AS 19 'Employee benefits'

The amendments to the guidance in Ind AS 19, 'Employee Benefits', in connection with accounting for plan amendments, curtailments and settlements require an entity:

- to use updated assumptions to determine current service cost and net interest for the remainder of the period after a plan amendment, curtailment or settlement; and
- to recognise in profit or loss as part of past service cost, or a gain or loss on settlement, any reduction in a surplus, even if that surplus was not previously recognised because of the impact of the asset ceiling.

5. **Amendment to Ind AS 23 'Borrowing Costs'**

The amendments to the guidance in Ind AS 23, 'Borrowing Costs', clarifies the following:

- while computing the capitalisation rate for funds borrowed generally, borrowing costs applicable to borrowings made specifically for obtaining a qualified asset should be excluded, only until the asset is ready for its intended use or sale.
- borrowing costs (related to specific borrowings) that remain outstanding after the related qualifying asset is ready for its intended use or sale would subsequently be considered as part of the general borrowing costs.

6. **Amendment to Ind AS 28 'Investments in Associates and Joint Ventures'**

The amendments to the guidance in Ind AS 28, 'Investments in Associates and Joint Ventures', clarifies that an entity applies Ind AS 109, 'Financial Instruments', to long-term interests in an associate or joint venture that form part of the net investment in the associate or joint venture but to which the equity method is not applied.

7. **Amendment to Ind AS 103 'Business Combinations'**

The amendments to the guidance in Ind AS 103, 'Business Combinations', clarifies that when an entity obtains control of a business that is a joint operation, then the acquirer considers such an acquisiton as a business combination achieved in stages and re-measures previously held interests in that business.

8. **Amendment to Ind AS 111 'Joint Arrangements'**

The amendments to the guidance in Ind AS 111, 'Joint Arrangements', clarifies that when an entity obtains joint control of a business that is a joint operation, the entity does not re-measure previously held interests in that business.

9. **Amendment to Ind AS 109 'Financial Instruments'**

The amendments relate to the existing requirements in Ind AS 109, 'Financial Instruments' regarding termination rights in order to allow measurement at amortised cost (or, depending on the business model, at fair value through other comprehensive income) even in the case of negative compensation payments.

The Group is evaluating the requirements of the above amendments and the effect on the financial statements.

48. Disclosure as per Ind AS 12 'Income taxes'

(a) Income tax expense

i) Income tax recognised in statement of profit and loss

₹ Crore

Particulars	**For the year ended**	
	31 March 2019	31 March 2018
Current tax expense		
Current year	**3,020.12**	2,616.16
Adjustment for earlier years	**(103.81)**	(951.30)
Pertaining to regulatory deferral account balances (A)	**(1,055.13)**	152.04
Total current tax expense (B)	**1,861.18**	1,816.90
Deferred tax expense		
Origination and reversal of temporary differences	**2,134.66**	3,988.08
Less: MAT credit entitlement	**8,257.38**	-
Total deferred tax expense (C)	**(6,122.72)**	3,988.08
Income tax expense (D=B+C-A)	**(3,206.41)**	5,652.94
Pertaining to regulatory deferral account balances	**(1,055.13)**	152.04
Total tax expense including tax on movement in regulatory deferral account balances	**(4,261.54)**	5,804.98

ii) Income tax recognised in other comprehensive income

₹ Crore

Particulars	For the year ended					
	31 March 2019			31 March 2018		
	Before tax	**Tax expense/ (benefit)**	**Net of tax**	Before tax	Tax expense/ (benefit)	Net of tax
Net actuarial gains/(losses) on defined benefit plans	**(235.98)**	**(50.85)**	**(185.13)**	(9.26)	(1.98)	(7.28)
Net gains/(losses) on fair value of equity instruments	**(16.74)**	**-**	**(16.74)**	(7.20)	-	(7.20)
Share of other comprehensive income/ (expense) of joint ventures accounted for using the equity method	**(1.07)**	**-**	**(1.07)**	(0.16)	-	(0.16)
Exchange differences on translation of foreign operations	**11.67**	**-**	**11.67**	(6.05)	-	(6.05)
	(242.12)	**(50.85)**	**(191.27)**	(22.67)	(1.98)	(20.69)

iii) Reconciliation of tax expense and the accounting profit multiplied by India's domestic tax rate

₹ Crore

Particulars	For the year ended	
	31 March 2019	31 March 2018
Profit before tax including movement in regulatory deferral account balances	**8,371.91**	16,306.48
Tax using the Group's domestic tax rate of 34.944 % (31 March 2018 - 34.608%)	**2,925.48**	5,643.35
Tax effect of:		
Non-deductible tax expenses	**123.97**	(44.61)
Tax-exempt income	**(26.09)**	(40.37)
Foreign exchange differences	**-**	0.26
Adjustment on account of restatement	**-**	2,004.13
Previous year tax liability	**(103.81)**	(951.30)
Minimum alternate tax adjustments	**(7,181.09)**	(806.48)
Total tax expense recognised in the statement of profit and loss	**(4,261.54)**	5,804.98

(b) Tax losses carried forward

There are no unused tax losses to be carried forward as on 31 March 2019 and 31 March 2018.

(c) Dividend distribution tax on proposed dividend not recognised at the end of the reporting period

Since year ended 31 March 2019, the Directors have recommended the payment of final dividend amounting to ₹ **2,473.64 crore** (31 March 2018: ₹ 1,970.67 crore). The dividend distribution tax on this proposed dividend amounting to ₹ **508.46 crore** (31 March 2018: ₹ 405.08 crore) has not been recognised since this proposed dividend is subject to the approval of shareholders in the ensuing Annual General Meeting.

(d) MAT credit available to the Group in future but not recognised:

MAT credit available to the Group in future but not recognised as at 31 March 2019 is ₹ **Nil** (31 March 2018: ₹ 7,194.00 crore).

49. Disclosure as per Ind AS 17 'Leases'

a) Operating leases

i) Leases as lessee:

a) The Group's significant leasing arrangements are in respect of operating leases of premises for residential use of employees, offices and guest houses/transit camps for a period of one to two years. These leasing arrangements are usually renewable on mutually agreed terms but are not non-cancellable. An amount of ₹ **6.40 crore** (31 March 2018: ₹ 21.70 crore) towards lease payments (net of recoveries) in respect of premises for residential use of employees is included under 'Salaries and wages' in Note 34. Lease payments in respect of premises for offices and guest house/transit camps amounting ₹ **17.78 crore** (net of recoveries) (31 March 2018: ₹ 29.06 crore) are included under 'Rent' in Note 37.

b) The Group has taken a helicopter on wet lease basis for a period of eleven years and the amount of lease charges of ₹ **12.36 crore** (31 March 2018: ₹ 15.63 crore) is included under 'Hire charges of helicopter/aircraft' in Note 37. The lease is renewable on mutually agreed terms but are not non-cancellable.

c) Ministry of Power, Government of India vide its notification no. 2/38/99-BTPS (Volume VII) dated 22 September 2006 transferred land of a power station to the Group on operating lease of 50 years. Lease rent for the year amounting to ₹ **6.29 crore** (31 March 2018: ₹ 6.29 crore) has been charged to the statement of profit and loss and included under 'Rates and taxes' in Note 37. Also refer Note 44.

d) The Group 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. The lease rental expense recognised in the statement of profit and loss for the year in respect of leases is ₹ **0.96 crore** (31 March 2018: ₹ 0.04 crore). The future minimum lease payments in respect of non-cancellable leases is as follows:

₹ Crore

Particulars	**As at 31 March 2019**	As at 31 March 2018
Less than one year	**1.06**	0.96
Between one and five years	**5.34**	4.92
More than five years	**-**	1.48
	6.40	7.36

ii) Leases as lessor :

The Group has classified the arrangement with its customer for two power stations (one thermal and one gas) 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. The future minimum lease payments (MLPs) under non-cancellable leases in respect of the same are as follows:

(i) Thermal Power Station

Power Purchase Agreements (PPA) signed with the beneficiary was operative for a period of five years from the date of take over of the plant and the agreement may be mutually extended, renewed or replaced by another agreement on such terms and conditions for such further period as the parties may mutually agree.

(ii) 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 future minimum lease payments in respect of non-cancellable leases is as follows:

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
Less than one year	**233.34**	214.30
Between one and five years	**394.11**	467.79
More than five years	**78.52**	139.57
	705.97	821.66

b) **Finance leases**

i) **Leases as lessee:**

a) The Group has taken certain vehicles 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 Group has purchase option for such vehicles at the end of the lease term.

Reconciliation between the future minimum lease payments (MLPs) and their present value of MLPs is as under:

₹ Crore

Particulars	As at 31 March 2019		As at 31 March 2018	
	MLPs	**Present value of MLPs**	MLPs	Present value of MLPs
Less than one year	**0.87**	**0.74**	0.86	0.72
Between one and five years	**0.74**	**0.66**	0.76	0.70
More than five years	**-**	**-**	-	-
Total minimum lease payments	**1.61**	**1.40**	1.62	1.42
Less: Amounts representing finance charges	**0.21**	**-**	0.20	-
Present value of minimum lease payments	**1.40**	**1.40**	1.42	1.42

b) 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/-. Also refer Note 56(iii)(b).

Reconciliation between the future minimum lease payments (MLPs) and their present value of MLPs is as under:

₹ Crore

Particulars	As at 31 March 2019		As at 31 March 2018	
	MLPs	**Present value of MLPs**	MLPs	Present value of MLPs
Less than one year	**56.66**	**37.97**	36.06	22.79
Between one and five years	**44.64**	**39.43**	65.24	54.61
More than five years	**-**	**-**	-	-
Total minimum lease payments	**101.30**	**77.40**	101.30	77.40
Less: Amounts representing finance charges	**23.90**	**-**	23.90	-
Present value of minimum lease payments	**77.40**	**77.40**	77.40	77.40

The total contingent rents recognised as expense during the year is ₹ **Nil** (31 March 2018: ₹ Nil).

c) The Group 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 'Finance lease obligation' at their present values. The leasehold land is amortised considering the signifcant accounting policies of the Group.

₹ Crore

Particulars	As at 31 March 2019		As at 31 March 2018	
	MLPs	Present value of MLPs	MLPs	Present value of MLPs
Less than one year	**10.66**	**7.37**	11.17	10.20
Between one and five years	**34.98**	**25.24**	31.58	24.09
More than five years	**682.79**	**75.01**	692.85	71.25
Total minimum lease payments	**728.43**	**107.62**	735.60	105.54
Less: Amounts representing finance charges	**620.81**	**-**	630.06	-
Present value of minimum lease payments	**107.62**	**107.62**	105.54	105.54

ii) **Leases as lessor:**

The Group has 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.

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.

₹ Crore

Particulars	As at 31 March 2019		As at 31 March 2018	
	MLPs	Present value of MLPs	MLPs	Present value of MLPs
Less than one year	**112.10**	**49.04**	111.59	40.00
Between one and five years	**448.42**	**271.42**	446.35	227.24
More than five years	**217.40**	**199.54**	326.78	275.08
Total minimum lease payments	**777.92**	**520.00**	884.72	542.32
Less: Amounts representing unearned finance income	**257.92**	**-**	342.40	-
Present value of minimum lease payments	**520.00**	**520.00**	542.32	542.32

50. 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. An amount of ₹ **207.93 crore** (31 March 2018: ₹153.32 crore) for the year is recognised as expense on this account and charged to the statement of profit and loss.

(ii) Defined benefit plans:

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 2019	As at 31 March 2018
Net defined benefit (asset)/liability - Current	**(44.88)**	(55.36)

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 2019	31 March 2018	31 March 2019	31 March 2018	31 March 2019	31 March 2018
Opening balance	**8,225.71**	7,535.63	**8,281.07**	7,588.80	**(55.36)**	(53.17)
Current service cost recognised in statement of profit and loss	**344.37**	254.28	**-**	-	**344.37**	254.28
Interest cost/(income)	**616.93**	565.18	**(616.93)**	(565.18)	**-**	-
Total	**961.30**	819.46	**(616.93)**	(565.18)	**344.37**	254.28
Remeasurement loss/(gain):						
Actuarial loss/(gain) arising from:						
Financial assumptions	**(0.20)**	(0.12)	**-**	-	**(0.20)**	(0.12)
Experience adjustment	**133.61**	113.01	**-**	-	**133.61**	113.01
Return on plan assets excluding interest income	**-**	-	**(122.93)**	(115.08)	**(122.93)**	(115.08)
Total	**133.41**	112.89	**(122.93)**	(115.08)	**10.48**	(2.19)
Other						
Contribution by participants	**886.20**	584.89	**886.20**	584.89	**-**	-
Contribution by employer	**-**	-	**344.37**	254.28	**(344.37)**	(254.28)
Benefits paid	**1,116.82**	827.16	**1,116.82**	827.16	**-**	-
Closing balance	**9,089.80**	8,225.71	**9,134.68**	8,281.07	**(44.88)**	(55.36)

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 ₹ **44.88 crore** (31 March 2018: ₹ 55.36 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.

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.

The existing schemes stated at (a) and at one of the power stations at (b) above are funded by the Group and are managed by separate trusts. Pension scheme of another power station in respect of employees taken from erstwhile State Government Power Utility is unfunded. The liability for gratuity and the pension schemes as above 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 2019	As at 31 March 2018
Net defined benefit (asset)/liability :		
Gratuity (funded)	-	659.73
Pension (funded)	168.72	140.67
Pension (non-funded)	358.91	278.11
	527.63	1,078.51
Non-current	335.78	256.86
Current	191.85	821.65

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 2019	31 March 2018	31 March 2019	31 March 2018	31 March 2019	31 March 2018
Opening balance	2,586.42	2,505.90	1,507.91	1,481.35	1,078.51	1,024.55
Included in profit or loss:						
Current service cost	94.88	97.60		-	94.88	97.60
Past service cost	0.20	-		-	0.20	-
Interest cost/(income)	196.57	187.94	(115.09)	(111.11)	81.48	76.83
Total amount recognised in profit or loss	291.65	285.54	(115.09)	(111.11)	176.56	174.43
Included in other comprehensive income:						
Remeasurement loss/(gain):						
Actuarial loss/(gain) arising from:						
Financial assumptions	(24.64)	38.70		-	(24.64)	38.70
Experience adjustment	54.53	(102.69)		-	54.53	(102.69)
Return on plan assets excluding interest income	-	-	(28.56)	(30.73)	(28.56)	(30.73)
Total amount recognised in other comprehensive income	29.89	(63.99)	(28.56)	(30.73)	1.33	(94.72)
Other						
Contribution by employer	-	-	699.29	-	(699.29)	-
Benefits paid	365.52	141.03	336.04	115.28	29.48	25.75
Closing balance	2,542.44	2,586.42	2,014.81	1,507.91	527.63	1,078.51

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 2019	As at 31 March 2018
Net defined benefit (asset)/liability - Current (funded)	-	149.88

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 2019	31 March 2018	31 March 2019	31 March 2018	31 March 2019	31 March 2018
Opening balance	1,350.61	1,159.40	1,200.73	1,061.96	149.88	97.44
Included in profit or loss:						
Current service cost	40.36	32.19	-	-	40.36	32.19
Past service cost	-	-	-	-	-	-
Interest cost/(income)	102.65	86.95	(91.00)	(79.64)	11.65	7.31
Total amount recognised in profit or loss	143.01	119.14	(91.00)	(79.64)	52.01	39.50
Included in other comprehensive income:						
Remeasurement loss/(gain):						
Actuarial loss/(gain) arising from:						
Demographic assumptions	-	-	-	-	-	-
Financial assumptions	(16.19)	62.69	-	-	(16.19)	62.69
Experience adjustment	242.43	62.48	-	-	242.43	62.48
Return on plan assets excluding interest income	-	-	(5.56)	(11.51)	(5.56)	(11.51)
Total amount recognised in other comprehensive income	226.24	125.17	(5.56)	(11.51)	220.68	113.66
Other						
Contribution by participants	-	-	16.02	3.98	(16.02)	(3.98)
Contribution by employer	-	-	406.55	96.74	(406.55)	(96.74)
Benefits paid	84.00	53.10	84.00	53.10	-	-
Closing balance	1,635.86	1,350.61	1,635.86	1,200.73	-	149.88

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 2019	As at 31 March 2018
Net defined benefit (asset)/liability (non-funded) :	174.76	148.93
Non-current	153.70	132.20
Current	21.06	16.73

Movement in net defined benefit (asset)/liability

₹ Crore

Particulars	Defined benefit obligation	
	As at 31 March 2019	As at 31 March 2018
Opening balance	148.93	138.18
Included in profit or loss:		
Current service cost	8.21	7.02
Past service cost	-	-
Interest cost/(income)	11.32	10.37
Total amount recognised in profit or loss	19.53	17.39
Included in other comprehensive income:		
Remeasurement loss/(gain):		
Actuarial loss/(gain) arising from:		
Financial assumptions	(1.69)	0.93
Experience adjustment	14.66	(4.19)
Return on plan assets excluding interest income	-	-
Total amount recognised in other comprehensive income	12.97	(3.26)
Other		
Contributions paid by the employer	-	-
Benefits paid	6.67	3.38
Closing balance	174.76	148.93

E. Plan assets

Plan assets comprise the following:

₹ Crore

Particulars	As at 31 March 2019			As at 31 March 2018		
	Quoted	Unquoted	Total	Quoted	Unquoted	Total
State government securities	3,975.85	-	3,975.85	2,695.33	-	2,695.33
Central government securities	1,851.20	-	1,851.20	1,885.84	-	1,885.84
Corporate bonds and term deposits	4,151.54	74.20	4,225.74	3,458.49	94.67	3,553.16
Money market instruments/liquid mutual fund	5.92	-	5.92	-	14.20	14.20
Equity and equity linked investments	193.94	-	193.94	82.26	27.62	109.88
Investments with insurance companies	-	2,377.88	2,377.88	-	2,564.67	2,564.67
Total (excluding accrued interest)	10,178.45	2,452.08	12,630.53	8,121.92	2,701.16	10,823.08

As at 31 March 2019, an amount of ₹ **350.00 crore** (31 March 2018: ₹ 500.00 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 ₹ **980.08 crore** (31 March 2018: ₹ 913.25 crore).

F. Defined benefit obligations

i. Actuarial assumptions

The following were the principal actuarial assumptions at the reporting date:

Particulars	As at 31 March 2019	As at 31 March 2018
Discount rate	**7.75%**	7.60%
Expected return on plan assets		
Gratuity	**7.75%**	7.60%
Pension	**7.75%**	7.60%
PRMF	**7.75%**	7.60%
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 2019		As at 31 March 2018	
	Increase	Decrease	Increase	Decrease
Discount rate (0.5% movement)	**(135.01)**	**144.47**	(171.13)	179.88
Annual increase in costs (0.5% movement)	**61.27**	**(57.70)**	92.17	(90.32)
Salary escalation rate (0.5% movement)	**85.67**	**(80.84)**	89.54	(83.10)

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 Group 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' bond 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 in 2019 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 2019					
Gratuity and pension	**307.22**	**348.51**	**623.57**	**1,262.91**	**2,542.21**
Post-retirement medical facility (PRMF)	**97.87**	**96.11**	**261.54**	**1,180.34**	**1,635.86**
Provident fund	**998.65**	**884.70**	**2,421.18**	**4,785.27**	**9,089.80**
Other post-employment benefit plans	**21.06**	**18.58**	**51.13**	**83.99**	**174.76**
Total	**1,424.80**	**1,347.90**	**3,357.42**	**7,312.51**	**13,442.63**
31 March 2018					
Gratuity and pension	406.54	529.07	613.69	1,037.12	2,586.42
Post-retirement medical facility (PRMF)	42.03	84.23	174.75	1,049.60	1,350.61
Provident fund	817.34	762.53	2,153.57	4,492.27	8,225.71
Other post-employment benefit plans	16.73	15.58	41.87	74.75	148.93
Total	1,282.64	1,391.41	2,983.88	6,653.74	12,311.67

Expected contributions to post-employment benefit plans for the year ending 31 March 2020 are ₹ 556.11 crore.

The weighted average duration of the defined benefit plan obligation at the end of the reporting period is **15.18 years** (31 March 2018: 15.21 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 Group 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 ₹ **137.41 crore** has been made on the basis of actuarial valuation at the year end and debited to statement of profit and loss (31 March 2018: reversal of ₹ 462.23 crore on account of surge in the encashment of earned leaves by employees in the previous year).

B. Other employee benefits

Provision for long service award and family economic rehabilitation scheme amounting to ₹ **7.38 crore** (31 March 2018: ₹ 7.36 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.

51. Disclosure as per Ind AS 21 'The Effects of Changes in Foreign Exchange Rates'

The amount of exchange differences (net) credited to the statement of profit and loss is ₹ **21.88 crore** (31 March 2018: debited to the statement of profit and loss ₹ 145.03 crore).

52. Disclosure as per Ind AS 23 'Borrowing Costs'

Borrowing costs capitalised during the year is ₹ **5,873.13 crore** (31 March 2018: ₹ 4,476.54 crore).

53. 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. Ratnagiri Gas and Power Private Ltd.
6. Aravali Power Company Private Ltd.
7. NTPC BHEL Power Projects Private Ltd.
8. Meja Urja Nigam Private Ltd.
9. BF-NTPC Energy Systems Ltd. (under liquidation since 7 October 2018)
10. Nabinagar Power Generating Company Ltd. (previously Nabinagar Power Generating Company Pvt. Ltd.)*

11. Transformers and Electricals Kerala Ltd.
12. National High Power Test Laboratory Private Ltd.
13. Energy Efficiency Services Ltd.
14. CIL NTPC Urja Private Ltd.
15. Anushakti Vidhyut Nigam Ltd.
16. Hindustan Urvarak & Rasayan Ltd.
17. Konkan LNG Private Ltd.
18. Trincomalee Power Company Ltd.
19. Bangladesh-India Friendship Power Company Private Ltd.

ii) **Key Management Personnel (KMP):**

Parent Company:

Whole Time Directors

Mr. Gurdeep Singh	Chairman and Managing Director	
Mr. Saptarshi Roy	Director (Human Resources)	
Mr. A.K. Gupta	Director (Commercial)	
Mr. S.K. Roy	Director (Projects)	W.e.f. 19 January 2018
Mr. P.K. Mohapatra	Director (Technical)	W.e.f. 31 January 2018
Mr. Prakash Tiwari	Director (Operations)	W.e.f. 31 January 2018
Mr. K. Sreekant[1]	Director (Finance)	W.e.f. 29 March 2018 to 2 November 2018 and W.e.f. 12 February 2019
Mr. A.K. Jha	Director (Technical)	Upto 31 July 2017
Mr. S.C. Pandey	Director (Projects)	Upto 31 August 2017
Mr. K.K. Sharma	Director (Operations)	Upto 31 October 2017
Mr. K. Biswal[2]	Director (Finance)	

Independent Directors

Dr. Gauri Trivedi	Non-executive Director	
Mr. Seethapathy Chander	Non-executive Director	
Mr. M.P. Singh	Non-executive Director	W.e.f. 24 October 2017
Mr. Pradeep Kumar Deb	Non-executive Director	W.e.f. 24 October 2017
Mr. Shashi Shekhar	Non-executive Director	W.e.f. 24 October 2017
Mr. Subhash Joshi	Non-executive Director	W.e.f. 24 October 2017

Mr. Vinod Kumar	Non-executive Director	W.e.f. 24 October 2017
Dr. K.P.K. Pillay	Non-executive Director	W.e.f. 30 July 2018
Dr. Bhim Singh	Non-executive Director	W.e.f. 30 July 2018
Mr. Rajesh Jain	Non-executive Director	Upto 10 October 2017
Government Nominee Directors		
Mr. Vivek Kumar Dewangan	Non-executive Director	W.e.f. 28 April 2018
Ms. Archana Agrawal	Non-executive Director	W.e.f. 7 August 2018
Dr. Pradeep Kumar	Non-executive Director	Upto 31 July 2017
Mr. Aniruddha Kumar	Non-executive Director	Upto 30 July 2018
Chief Financial Officer and Company Secretary		
Mr. Sudhir Arya	Chief Financial Officer	W.e.f. 29 December 2017
Ms. Nandini Sarkar	Company Secretary	W.e.f. 1 August 2018
Mr. K.P. Gupta	Company Secretary	Upto 31 July 2018

1. Holding additional charge, in addition to Director (Finance), Power Grid Corporation of India Ltd.
2. Was under suspension w.e.f. 14 December 2017 (vide order from Ministry of Power). Re-joined on 3 November 2018 and continued upto 8 December 2018.

Subsidiary Companies:

1. **NTPC Vidyut Vyapar Nigam Ltd.**

Mr. Gurdeep singh	Chairman	Upto 31 October 2017
Mr. Kulamani Biswal	Chairman	Upto 30 December 2017
Mr. Saptarshi Roy	Chairman	Upto 15 March 2018
Mr. A.K. Gupta	Chairman	Upto 29 June 2018
Mr. P.K. Mohapatra	Chairman	W.e.f. 29 June 2018
Mr. A.K Jha	Director	Upto 31 July 2017
Mr. K.K. Sharma	Director	Upto 31 October 2017
Mr. Pramod Kumar	Director	Upto 30 November 2018
Mr. C.V. Anand	Director	W.e.f. 15 March 2018
Ms. A. Satyabhama	Director	Upto 31 July 2018
Mr. A.K. Gautam	Director	W.e.f. 3 December 2018
Ms. Nandini Sarkar	Director	W.e.f. 3 August 2018
Mr. A.K. Garg	CEO	Upto 14 June 2018

Mr. A.K. Juneja	CEO	Upto 13 August 2018
Mr. Rajnish Bhagat	CEO	W.e.f. 14 August 2018
Mrs. Alka Sehgal	CFO	Upto 19 July 2017
Mr. Kumar Sanjay	CFO	W.e.f. 19 July 2017
Mr. Nitin Mehra	Company Secretary	

2. NTPC Electric Supply Company Ltd.

Mr. Saptarshi Roy	Chairman & Director	
Mr. Sudhir Arya	Director	W.e.f. 7 November 2017
Mr. Praveen Saxena	Director	W.e.f. 7 November 2017
Mr. Gurdeep Singh	Chairman & Director	Upto 9 November 2017
Mr. K.Biswal	Director	Upto 9 November 2017
Mr. Animesh Jain	Chief Executive Officer	

3. Kanti Bijlee Utpadan Nigam Ltd.

Mr. K.K. Sharma	Chairman (Non-Executive)	Upto 31 October 2017
Mr. A.K. Gupta	Chairman (Non-Executive)	W.e.f. 24 November 2017 Upto 28 February 2018
Mr. Prakash Tiwari	Non-Executive Director	W.e.f. 25 November 2017
Mr. Prakash Tiwari	Chairman (Non-Executive)	W.e.f. 9 March 2018
Mr. P. Amrit	Non-Executive Director	Upto 16 August 2018
Mr. R. Lakshmanan	Non-Executive Director	Upto 16 August 2018
Mr. K.S. Garbyal	Non-Executive Director	Upto 31 January 2018
Mr. Ajay Dua	Non-Executive Director	W.e.f. 12 March 2018
Mr. M.P. Sinha	Non-Executive Director	W.e.f. 9 March 2018 Upto 27 April 2018
Mrs. Sangeeta Bhatia	Non-Executive Director	
Mr. S. Narendra	Non-Executive Director	W.e.f. 4 May 2018
Mr. R.K. Sinha	Chief Executive Officer	Upto 6 September 2017
Mr. P.K. Sinha	Chief Executive Officer	W.e.f. 11 September 2017 Upto 21 July 2018
Mr. S. Gaurishankar	Chief Executive Officer	W.e.f. 22 July 2018 Upto 17 August 2018
Mr. U. Banerjee	Chief Executive Officer	W.e.f. 17 August 2018

Mr. K.K. Mishra	Chief Finance Officer	Upto 18 May 2017
Mr. V. K. Mittal	Chief Finance Officer	W.e.f. 18 May 2017
Mrs. Ruchi Aggarwal	Company Secretary	

4. Bhartiya Rail Bijlee Company Limited

Mrs. Sangeeta Bhatia	Non-executive Director	
Mr. S.C. Pandey	Non-executive Director	Upto 31 August 2017
Mr. Sudhir Garg	Non-executive Director	Upto 8 February 2018
Mr. S. Narendra	Non-executive Director	W.e.f. 23 May 18
Mr. R.K. Jain	Non-executive Director	W.e.f. 16 July 2018
Mr. Shalabh Goel	Non-executive Director	Upto 15 June 2018
Mr. K.S. Garbyal	Non-executive Director	Upto 31 January 2018
Mr. K.K. Sharma	Non-executive Director	W.e.f. 22 September 2017 Upto 31 October 2017
Mr. A.K. Gupta	Non-executive Director	W.e.f. 18 November 2017
Mr. M.P. Sinha	Non-executive Director	Upto 27 April 2018
Mr. C Sivakumar	Chief Executive Officer	
Mr. Dipankar Nandy	Chief Finance Officer	Upto 2 November 2017
Mr. Manoj Srivastava	Chief Finance Officer	W.e.f. 3 November 2017
Mr. Vishal Garg	Company Secretary	W.e.f. 30 October 2017

5. Patratu Vidyut Utpadan Nigam Ltd.

Mr. Saptarshi Roy	Chairman	Upto 25 June 2018
Mr. S.K. Roy	Director & Chairman	W.e.f. 18 July 2018
Mr. P.K. Mohapatra	Director	Upto 30 April 2018
Mr. G. Venu	Director	W.e.f. 21 May 2018 Upto 21 August 2018
Mr. T.R. Datta	Director	W.e.f. 18 July 2018
Mrs. Sangeeta Bhatia	Director	W.e.f. 23 August 2018
Dr. Nitin Madan Kulkarni, IAS	Director	Upto 31 October 2018
Ms. Vandana Dadel, IAS	Director	W.e.f. 21 November 2018
Mr. A.K. Sinha	CEO	W.e.f. 25 July 2018
Mr. Sudarsan Chakrabarti	CEO	W.e.f. 2 August 2018

Mr. A.K. Acharya	CFO	
Mr. Sipan K. Garg	Company Secretary	

6. **Nabinagar Power Generating Company Ltd.**

Mr. A.K. Gupta	Chairman	
Mr. Pratyaya Amrit	Non-Executive Director	Upto 16 August 2018
Mr. S. Narendra	Non-Executive Director	W.e.f. 28 April 2018
Mr. Sudhir Arya	Non-Executive Director	
Mr. Raju Lakshmanan	Non-Executive Director	Upto 16 August 2018
Mrs. Sangeeta Bhatia	Non-Executive Director	W.e.f. 6 August 2018
Mr. M.P. Sinha	Non-Executive Director	Upto 26 April 2018
Mr. Balaji Iyengar	Non-Executive Director	Upto 2 April 2018
Mr. M.K.Singh	Non-Executive Director	Upto 12 September 2018
Mr. Manish Kumar	Company Secretary	

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

iv) Entities under the control of the same government:

The Parent is a Central Public Sector Undertaking (CPSU) controlled by Central Government by holding majority of shares (Note 19). Pursuant to Paragraph 25 and 26 of Ind AS 24, entities over which the same government has control or joint control of, or significant influence, then the reporting entity and other entities shall be regarded as related parties. Transactions with these parties are carried out at market terms at arm length basis. The Group has applied the exemption available for government related entities and have made limited disclosures in the financial statements. Such entities with which the Company has significant transactions include but not limited to Coal India Ltd., Singareni Coalfields Ltd., GAIL (India) Ltd., BHEL Ltd., SAIL Ltd., Indian Oil Corporation Ltd., Bharat Petroleum Corporation Ltd.

v) Others:

1. NTPC Education and Research Society
2. NTPC Foundation

b) **Transactions with the related parties are as follows:**

₹ Crore

Particulars	Joint Venture Companies	
	For the year ended	
	31 March 2019	31 March 2018
i) Sales/purchase of goods and services during the year		
- Contracts for works/services for services received by the Group	1,430.54	1,030.72
- Contracts for works/services for services provided by the Group	37.33	51.07
- Purchase of goods	92.47	69.32
ii) Sales/purchase of assets	14.34	6.22
iii) Deputation of employees	199.87	127.30
iv) Dividend received	99.39	135.57
v) Equity contributions made	222.69	1,153.08
vi) Loans granted	-	6.00
vii) Interest on loan	0.60	-
viii) Guarantees received	13.99	13.10

Note: Refer Note no. 64 for other commitments with Joint Venture Companies.

₹ Crore

Particulars	For the year ended 31 March 2019	For the year ended 31 March 2018
Transactions with post employment benefit plans		
- Contributions made during the year	852.01	732.42
Compensation to Key management personnel		
- Short term employee benefits	13.68	11.30
- Post employment benefits	0.52	0.44
- Other long term benefits	0.94	0.86
- Termination benefits	0.35	0.88
- Sitting fee	0.73	0.34
Total compensation to key management personnel	16.22	13.82

Transactions with the related parties under the control of the same government:

₹ Crore

Sl. No.	Name of the Company	Nature of transaction by the company	For the year ended 31 March 2019	For the year ended 31 March 2018
1	Bharat Coking Coal Ltd.	Purchase of coal	1,248.12	773.45
2	Central Coalfields Ltd		3,573.72	3,609.32
3	Eastern Coalfields Ltd		8,175.98	7,655.23
4	Mahanadi Coalfields Ltd		4,464.44	4,535.47
5	Northern Coalfields Ltd.		9,429.26	9,509.18
6	South Eastern Coalfields Ltd		5,328.59	4,803.59
7	Western Coalfields Ltd.		572.32	765.70
8	Singareni Collieries Company Ltd.		6,854.74	5,450.87
9	Bharat Heavy Electricals Ltd.	Purchase of equipment & erection services	2,991.03	2,967.79
		Purchase of spares	565.69	635.22
		Receipt of maintenance services	1,048.25	1,199.77

₹ Crore

Sl. No.	Name of the Company	Nature of transaction by the company	For the year ended 31 March 2019	For the year ended 31 March 2018
10	GAIL (India) Ltd.	Purchase of natural gas	2,304.37	2,097.96
11	Indian Oil Corporation Ltd.	Purchase of oil products	683.41	484.52
12	Bharat Petroleum Corporation Ltd.	Purchase of natural gas and oil products	269.74	120.27
13	Steel Authority of India Ltd.	Purchase of steel and iron products	232.98	224.61
14	REC Ltd.	Consultancy services provided by the Group	0.69	4.03
15	Rites Ltd	Receipt of maintenance services	1,113.79	755.98
16	POSOCO	Open Access Booking	297.10	243.22
17	Damodar Valley Corporation	Sale of Bilateral Energy	917.06	244.03
18	Other entities	Purchase of equipment & erection services	210.99	286.00
		Purchase of spares	31.30	18.85
		Receipt of maintenance services	607.76	649.54
		Consultancy and Other Services provided by the Group	48.61	56.93
		Sale of Solar Energy	34.85	36.45

₹ Crore

Transactions with others listed at (a)(v) above	For the year ended 31 March 2019	For the year ended 31 March 2018
- Contracts for works/services for services received by the Group	12.43	16.25

c) Outstanding balances with related parties are as follows:

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
Amount recoverable towards loans from		
- Joint venture companies	6.00	6.00
- Key management personnel	0.12	0.27
- Others	0.60	0.60
Amount recoverable other than loans from		
- Joint venture companies	99.70	98.84
- Post employment benefit plans	77.20	13.78
- Others	0.14	0.07
Amount payable to		
- Joint venture companies	420.02	469.85
- Post employment benefit plans	132.18	221.72
- Others	-	3.62

d) **Individually significant transactions**

₹ Crore

Particulars	Nature of relationship	Amount	
		For the year ended 31 March 2019	For the year ended 31 March 2018
Contracts for works/services for services received by the Group			
Utility Powertech Ltd.	Joint venture company	**1,055.13**	869.50
NTPC BHEL Power Projects Private Ltd.	Joint venture company	**137.34**	130.32
NTPC-GE Power Services Private Ltd.	Joint venture company	**223.51**	17.86
Contracts for works/services for services provided by the Group			
Nabinagar Power Generating Company Ltd. (previously Nabinagar Power Generating Company Private Ltd.)*	Joint venture company	**-**	27.15
NTPC-SAIL Power Company Ltd.	Joint venture company	**11.10**	7.10
Meja Urja Nigam Private Ltd.	Joint venture company	**13.10**	5.20
Dividend received			
NTPC-SAIL Power Company Ltd.	Joint venture company	**20.00**	50.00
Aravali Power Company Private Ltd.	Joint venture company	**71.65**	69.93
Energy Efficiency Services Ltd.	Joint venture company	**4.01**	12.92
Utility Powertech Ltd.	Joint venture company	**3.50**	2.50
NTPC-GE Power Services Private Ltd.	Joint venture company	**0.23**	0.22
Equity contributions made			
Nabinagar Power Generating Company Ltd. (previously Nabinagar Power Generating Company Private Ltd.)*	Joint venture company	**-**	504.57
Meja Urja Nigam Private Ltd.	Joint venture company	**110.00**	42.89
Energy Efficiency Services Ltd.	Joint venture company	**-**	99.00
Aravali Power Company Private Ltd.	Joint venture company	**-**	34.50
Bangladesh-India Friendship Power Company Pvt. Ltd.	Joint venture company	**-**	143.62
NTPC Tamil Nadu Energy Company Ltd.	Joint venture company	**5.61**	-
Hindustan Urvarak & Rasayan Ltd.	Joint venture company	**107.08**	328.23
BF-NTPC Energy Systems Ltd.	Joint venture company	**-**	0.28
Loans granted			
National High Power Test Laboratory Private Ltd.	Joint venture company	**-**	6.00
Guarantees received			
Utility Powertech Ltd.	Joint venture company	**13.60**	12.60
NTPC-GE Power Services Private Ltd.	Joint venture company	**0.39**	0.50

* Joint Venture Company till 28 June 2018 and a Subsidiary Company w.e.f. 29 June 2018.

e) **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 market rates.

(ii) The Group is assigning jobs on contract basis, for sundry works in plants/stations/offices to M/s Utility Powertech Ltd (UPL), a 50:50 joint venture between the Parent Company and Reliance Infrastructure Ltd. UPL inter-alia undertakes jobs such as overhauling, repair, refurbishment of various mechanical and electrical equipment of power stations. The Group has entered into Power Station Maintenance Agreement with UPL from time to time. The rates are fixed on cost plus basis after mutual discussion and after taking into account the prevailing market conditions.

(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	Year of grant of loan
1	National High Power Test Laboratory Private Ltd.	6.00	10%	Principal and interest initially repayable on 30 September 2018, extended to 31 March 2021.	2017-18

(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) Restrictions on disposal of investments and commitments towards further investments in respect of joint venture companies are disclosed in Note 64.

54. Disclosure as per Ind AS 33 'Earnings per Share'

Basic and diluted earnings per share attributable to owners of the parent (in ₹)

Particulars	For the year ended 31 March 2019	For the year ended 31 March 2018
From operations including regulatory deferral account balances (a) **[A/D]**	**12.77**	10.66
From regulatory deferral account balances (b) **[B/D]**	**(4.25)**	3.67
From operations excluding regulatory deferral account balances (a)-(b) **[C/D]**	**17.02**	6.99
Nominal value per share	**10.00**	10.00

Profit attributable to equity shareholders (used as numerator) (₹crore)

Particulars	For the year ended 31 March 2019	For the year ended 31 March 2018
From operations including regulatory deferral account balances (a) **[A]**	**12,640.02**	10,543.95
From regulatory deferral account balances (b) **[B]**	**(4,200.90)**	3,625.17
From operations excluding regulatory deferral account balances (a)-(b) **[C]**	**16,840.92**	6,918.78

Weighted average number of equity shares (used as denominator) (in Nos.)

Particulars	For the year ended 31 March 2019	For the year ended 31 March 2018
Opening balance of issued equity shares	**8,24,54,64,400**	8,24,54,64,400
Bonus equity shares issued during financial year 2018-19*	**1,64,90,92,880**	1,64,90,92,880
Weighted average number of equity shares for Basic and Diluted EPS **[D]**	**9,89,45,57,280**	9,89,45,57,280

*The Parent Company has issued 1,64,90,92,880 equity shares of ₹ 10/- each as fully paid bonus shares during the year ended 31 March 2019 (31 March 2018: Nil) in the ratio of one equity share of ₹ 10/- each for every five equity shares held. This has been considered for calculating weighted average number of equity shares for all comparitive periods presented as per Ind AS 33. In line with the above, EPS for the year ended 31 March 2018 has been restated.

55. 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:

The recoverable amount of the property, plant and equipment & intangible assets of the CGUs of the parent company is value in use and amounts to ₹ **1,64,752.24 crore** (31 March 2018: ₹ 1,90,627.27 crore). The discount rate used for the computation of value in use for the generating plant is **9.33%** (31 March 2018: 8.00%) and for solar plant is **8.49%** (31 March 2018: 7.13%).

56. 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		Others		Total	
	For the year ended		For the year ended		For the year ended		For the year ended	
	31 March 2019	31 March 2018	31 March 2019	31 March 2018	31 March 2019	31 March 2018	31 March 2019	31 March 2018
Carrying amount at the beginning of the year	**3,601.31**	3,833.24	**330.10**	1,170.79	**1,383.72**	728.65	**5,315.13**	5,732.68
Additions during the year	**812.69**	181.52	**45.36**	318.28	**636.99**	761.71	**1,495.04**	1,261.51
Amounts used during the year	**(457.64)**	(415.66)	**-**	-	**(3.93)**	(106.37)	**(461.57)**	(522.03)
Reversal / adjustments during the year	**(192.56)**	2.21	**(276.69)**	(1,158.97)	**25.80**	(0.27)	**(443.45)**	(1,157.03)
Carrying amount at the end of the year	**3,763.80**	3,601.31	**98.77**	330.10	**2,042.58**	1,383.72	**5,905.15**	5,315.13

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 Group 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 is 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 2014. Provision for tariff adjustment of ₹ **45.36 crore** (31 March 2018: ₹41.59 crore) is mainly towards the estimated interest payable to beneficiaries at the time of issue of tariff orders has been made on an estimated basis.

Further, consequent to the dismissal of the Company's appeal against the said CERC order by the Hon'ble Supreme Court of India, provision for tariff adjustments of ₹ **276.69 crore** (31 March 2018: ₹1,158.97 crore) was reversed by corresponding adjustment in revenue from operations. (Refer Note 32).

iii) Provision - Others

(a) Provision for others comprise ₹ **85.14 crore** (31 March 2018: ₹ 73.15 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 59 (b)], ₹ **1,952.13 crore** (31 March 2018: ₹ 1,305.68 crore) towards provision for cases under litigation and ₹ **5.13 crore** (31 March 2018: ₹ 4.89 crore) towards provision for shortage in property, plant and equipment on physical verification pending investigation.

(b) 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/-. After commencement of the operations, the operator had raised several disputes, invoked arbitration and raised substantial claims on the Company. An amount of ₹ **356.31 crore** (31 March 2018: ₹ 158.50 crore) has been deposited till 31 March 2019 based on the interim arbitral award and subsequent directions of the Hon'ble Supreme Court of India. During the year, the Arbitral Tribunal has awarded a claim of ₹ 1,891.09 crore plus applicable interest in favour of the operator vide their order dated 27 January 2019. The Company aggrieved by the arbitral award and considering a legal opinion obtained has filed an appeal before Hon'ble High Court of Delhi against the said arbitral award in its entirety. Considering the provisions of Ind AS 37 'Provisions, Contingent Liabilities and Contingent Assets', Significant Accounting Policies of the Company and the principle of conservatism, an amount of ₹ 394.07 crore has been estimated and provided for and an amount of ₹ 1,875.73 crore has been disclosed as contingent liability, along with applicable interest. Refer Note 37, 49(b) and Note 68 A(c). The amount thus provided is included above under provisions for cases under litigation.

iv) In respect of provision for cases under litigation, outflow of econmic benefits is dependent upon the final outcome of such cases.

v) In all these cases, outflow of economic benefits is expected within next one year.

vi) 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 recognising these provisions.

vii) Contingent liabilities and contingent assets

Disclosure with respect to claims against the Group not acknowledged as debts and contingent assets are made in Note 68.

57. Disclosure as per Ind AS 38 'Intangible Assets'

Research expenditure charged to revenue during the year is ₹ **51.42 crore** (31 March 2018: ₹ 77.67 crore).

58. Disclosure as per Ind AS 103 'Business Combinations'

(A) Acquisition of Barauni Thermal Power Station (BTPS)

(i) Pursuant to the Memorandum of Understanding dated 15 May 2018 amongst the Parent Company and Government of Bihar ('GoB'), Bihar State Power Holding Company Ltd. ('BSPHCL'), Bihar State Power Generation Company Ltd.

('BSPGCL'), Bihar State Power Transmission Company Ltd. ('BSPTCL'), North Bihar Power Distribution Company Ltd. ('NBPDCL') and South Bihar Power Distribution Company Ltd. ('SBPDCL'), all assets and liabilities (including mining rights) of BTPS comprising Stage I (Unit# 6 and 7 - 2X110 MW) and Stage II (Unit# 8 and 9 - 2X250 MW) have been acquired by the Parent Company via Transfer Scheme dated 27 June 2018 (as amended on 15 December 2018) and is effective from 15 December 2018.

Primary reasons for the business combination:

a. Business development of the Company;

b. Reduce cost of power generation for the consumers of the Bihar State by bringing in the vast management and operations experience of the Company;

c. Enhance operational performance of the acquired assets thereby enhancing reliability of power supply in the Bihar State.

(ii) Consideration transferred

Out of the total purchase consideration of ₹ 2,145.33 crore, the Group paid ₹ 2,018.48 crore as cash and cash equivalents and adjusted ₹ 126.85 crore towards the outstanding dues.

(iii) Acquisition related costs

The Group incurred acquisition related costs of ₹ 3.51 crore as general adminsitrative costs. These costs have been included in 'Employee benefits expense' and 'Other expenses' amounting to ₹ 3.09 crore and ₹ 0.42 crore respectively in the statement of profit and loss.

(iv) Goodwill / Capital reserve

Assets and liabilities are recorded at fair value at the date of acquisition. As there is no difference between fair value of the assets & liabilities and the purchase consideration, no goodwill / capital reserve has been recognised.

(v) Identifiable assets acquired and liabilities assumed

The following table summarises the recognised amounts of assets acquired and liabilities assumed at the date of acquisition:

₹ Crore

Particulars	**Amount**
Building	41.43
Plant and equipment	21.54
Other tangible assets	7.31
Capital work-in-progress	2,520.81
Inventories	17.94
Other financial assets	13.10
Other financial liabilities	(476.80)
Total net identifiable assets acquired	**2,145.33**

(vi) Revenue and profit contribution

Acquisition of BTPS has contributed ₹ 0.07 crore of revenue and (-) ₹ 4.80 crore to profit before tax, from 15 December 2018 to 31 March 2019. Impact on revenue and profit for the year had the acquisition occurred on 1 April 2018, is not ascertainable.

(vii) **Purchase consideration – cash outflow**

₹ Crore

Particulars	**Amount**
Outflow of cash to acquire business, net of cash acquired	
Cash consideration	2,018.48
Adjusted with the outstanding dues	126.85
Less: Cash and cash equivalents acquired	-
Net outflow of cash – investing activities	**2,145.33**

(B) Acquisition of Nabinagar Power Generating Company Limited (previously Nabinagar Power Generating Company Private Limited)

(i) Pursuant to the Memorandum of Association dated 15 May 2018 with Government of Bihar ('GoB'), Bihar State Power Holding Company Ltd. ('BSPHCL'), Bihar State Power Generation Company Ltd. ('BSPGCL'), Bihar State Power Transmission Company Ltd. ('BSPTCL'), North Bihar Power Distribution Company Ltd. ('NBPDCL') and South Bihar Power Distribution Company Ltd. ('SBPDCL'), Parent Company has acquired further 50% of the issued share capital of Nabinagar Power Generating Company Limited ('NPGCL') via share sale and purchase agreement signed on 21 June 2018 and is effective from 29 June 2018. The acquisition was made for improvement of power sector in the state of Bihar.

(ii) **Consideration transferred**

The Group paid ₹ 1,737.19 crore as purchase consideration in cash and cash equivalents for acquisition of NPGCL.

(iii) **Identifiable assets acquired and liabilities assumed**

The following table summarises the recognised amounts of assets acquired and liabilities assumed at the date of acquisition:

₹ Crore

Particulars	**Amount**
Freehold land	992.06
Building	34.70
Other tangible assets	30.52
Capital work-in-progress	11,628.55
Non current financial assets	4.31
Other non current assets	174.56
Current assets	86.12
Regulatory deferral account balances	13.73
Non current liabilities	(8,379.70)
Current liabilities	(944.22)
Share application money pending allotment	(120.67)
Total net identifiable assets acquired	**3,519.96**

(iv) **Capital reserve**

₹ Crore

Particulars	**Amount**
Fair value of net identifiable assets	3,519.96
Less: Fair value of previously held equity interest	1,759.99
Less: Consideration transferred	1,737.19
Total capital reserve	**22.78**

(v) **Revenue and profit contribution**

Acquisition of NPGCL has contributed revenue of ₹ Nil and (-) ₹ 2.85 crore to profit before tax, from 29 June 2018 to 31 March 2019. Management estimates that if the acquisition had occurred on 1 April 2018, revenue and loss for the year would remain same.

(vi) **Purchase consideration – cash outflow**

₹ Crore

Particulars	**Amount**
Outflow of cash to acquire subsidiary, net of cash acquired	
Cash consideration	1,737.19
Less: Cash and cash equivalents acquired	47.77
Net outflow of cash – investing activities	**1,689.42**

(vii) **Contingent liabilities acquired on acquisition**

- A contingent liability relating to disputed income tax matters pending before Hon'ble High Court amounting to ₹ 7.15 crore. Many of these matters were adjudicated in favour of NPGCL but are disputed before higher authorities by the concerned department. In respect of these disputed cases, estimated possible reimbursement is ₹ 7.15 crore.

- A contingent liability relating to contractors providing infrastructure work, installation and fabrication works and supply and erection of electrical equipment at our projects have lodged claim for ₹ 24.74 crore seeking price escalation, compensation for extended period, idle charges, revision for work schedule. These claims are being contested as being not admissible in terms of provisions of respective contracts.

- A contingent liability relating to land acquired for the project wherein the erstwhile landowners have claimed for compensation of ₹ 1.64 crore on account of land acquisition and rehabilitation benefits before various authorities/courts which are under hearing and yet to be settled.

(viii) **Gain/(loss) on remeasurement of previously held equity interest**

The Group previously held 50% interest in NPGCL which was classified as investment in joint venture till 28 June 2018. There is no gain/(loss) recognised on existing equity interest in NPGCL by the Group as the acquisition date fair value is equal to the carrying value of the previously held equity interest.

59. Disclosure as per Ind AS 106, 'Exploration for and Evaluation of Mineral Resources'

a) The Group along-with some public sector undertakings has 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, the Group along-with the consortium partners has decided to relinquish both the blocks and Oil and Natural Gas Corporation Ltd (ONGC), the operator, has submitted an application to Directorate General of Hydrocarbons (DGH) in this regard.

Based on the un-audited statement of the accounts for the above blocks forwarded by ONGC, the operator, the Group's share in the assets and liabilities and expenses is as under:

₹ Crore

Particulars	**As at 31 March 2019 (Unaudited)**	As at 31 March 2018 (Unaudited)
Assets	**0.01**	0.01
Liabilities	**0.49**	2.27
Capital commitments [Unfinished Minimum Work Programme (MWP)]	**-**	-

₹ Crore

Particulars	For the year ended 31 March 2019 (Unaudited)	For the year ended 31 March 2018 (Unaudited)
Expenses	**0.43**	2.28

For the year ended 31 March 2019 and 31 March 2018, there are no income and operating/investing cash flow from exploration activities.

The exploration activities in block KG-OSN-2009/4 were suspended w.e.f. 11 January 2012 due to non-clearance by the Ministry of Defence, GOI. Subsequently, DGH vide letter dated 29 April 2013 has informed ONGC that the block is cleared conditionally wherein block area is segregated between No Go zone, High-risk zone and Permitted zone. As the permitted area is only 38% of the total block area the consortium has submitted proposal to DGH for downward revision of MWP of initial exploration period. 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 in lieu of MoD proportionate reduced 317 Sq. Km. 3D survey, 589 LKM of 2D survey and drilling of 2 wells.

ONGC has completed drilling of one well. Airborne Full Tensor Gravity Gradiometer (FTG) survey work is also completed.

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 ₹ 85.14 crore from ₹ 73.15 crore along-with interest. The Group has sought waiver of the claim citing force majeure conditions at site leading to discontinuation of exploratory activities.

The Group has accounted for expenditure of ₹ **12.10 crore** (31 March 2018: ₹ 5.01 crore) towards the establishment expenses of M/s Geopetrol International, the operator to complete the winding up activities of the Block. The Group's share in the assets and liabilities and expenses is as under:

₹ Crore

Particulars	As at 31 March 2019 (Unaudited)	As at 31 March 2018 (Unaudited)
Assets	**9.19**	9.19
Liabilities (including unfinished MWP)	**87.29**	75.19

Provision of ₹ **8.26 crore** as at 31 March 2019 (31 March 2018: ₹ 8.26 crore) has been made towards the assets under exploration and estimated obsolescence in the inventory.

₹ Crore

Particulars	For the year ended 31 March 2019	For the year ended 31 March 2018
Expenses	**12.10**	5.01

For the year ended 31 March 2019 and 31 March 2018, there are no income and operating/investing cash flow from exploration activities.

c) The Group has 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, proposal for relinquishment of the block has been submitted to the GOI.

Based on the audited statement of the account for the above block, Group's share in assets and liabilities and expenses is as under:

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
Assets	**6.13**	6.23
Liabilities	**0.27**	0.85

₹ Crore

Particulars	For the year ended 31 March 2019	For the year ended 31 March 2018
Expenses	**0.39**	5.89
Operating cash flows from exploration activities	**0.40**	9.21

Provision of ₹ **6.07 crore** as at 31 March 2019 (31 March 2018: ₹ 5.59 crore) has been made towards estimated obsolescence in the inventory.

For the year ended 31 March 2019 and 31 March 2018, there are no income and investing cash flow from exploration activities.

d) i) As per mining plan of Pakri Barwadih Coal Mining Project (PB), eastern and western quarry of the PB project are under development stage and disclosed in Note 3 - Development of coal mines. Exploration and evaluation activities are taking place at north-west quarry and under ground mine area/dip side area of PB block. At Dulanga mine extraction has already started and at Talaipalli, Chatti-Bariatu and Kerandari coal mining projects land acquisition and other mine development activities are in progress. these mines are also disclosed in Note 3 - Development of coal mines.

ii) Exploration and evaluation activities are in progress at Banai, Bhalumuda and Mandakini - B coal blocks allotted by the GOI. Request sent to Nominated Authority, Ministry of Coal (MoC) for integration of both Banai & Bhalumuda blocks. In respect of Mandakini - B coal block, mining plan has been submitted to MoC for approval.

Assets and liabilities of coal exploration and evaluation activities are as under:

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
Assets	**238.95**	222.94
Liabilities	**10.25**	3.50

For the year ended 31 March 2019 and 31 March 2018, there are no incomes, expenses and operating and investing cash flow from coal exploration activities.

iii) MoC vide letter dated 3 April 2019 has intimated BSPGCL regarding its prior consent for assigning Badam coal block in favour of the Group. Transfer process of this block from BSPGCL to the Group is in progress. (Refer Note 58)

60. 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.

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 2019	31 March 2018	**31 March 2019**	31 March 2018	**31 March 2019**	31 March 2018	**31 March 2019**	31 March 2018
Segment revenue								
Revenue from external customers*	**87,634.25**	79,572.66	**7,565.58**	6,587.04	**-**	-	**95,199.83**	86,159.70
Inter-segment revenue	**1,795.27**	1,892.49	**26.36**	50.61	**(1,821.63)**	(1,943.10)	**-**	-
	89,429.52	81,465.15	**7,591.94**	6,637.65	**(1,821.63)**	(1,943.10)	**95,199.83**	86,159.70
Other income	**2,092.82**	2,782.14	**44.88**	24.45	**-**	-	**2,137.70**	2,806.59
	91,522.34	84,247.29	**7,636.82**	6,662.10	**(1,821.63)**	(1,943.10)	**97,337.53**	88,966.29
Unallocated corporate interest and other income							**199.81**	675.30
Total	**91,522.34**	84,247.29	**7,636.82**	6,662.10	**(1,821.63)**	(1,943.10)	**97,537.34**	89,641.59
Segment result (including net movements in regulatory deferral account balances)**	**14,071.47**	21,186.43	**384.46**	252.79	**-**	-	**14,455.93**	21,439.22
Unallocated corporate interest and other income							**199.81**	675.30
Unallocated corporate expenses, interest and finance charges							**6,955.90**	6,253.09
Profit before share of net profits of investments accounted for using equity method and tax							**7,699.84**	15,861.43
Add: Share of net profits of joint ventures accounted for using equity method							**672.07**	445.05
Profit before tax							**8,371.91**	16,306.48
Income tax expense (including tax on net movements in regulatory deferral account balances)							**(4,261.54)**	5,804.98
Profit after tax							**12,633.45**	10,501.50

₹ Crore

Particulars	Generation of energy		Others		Total	
	For the year ended		For the year ended		For the year ended	
	31 March 2019	31 March 2018	**31 March 2019**	31 March 2018	**31 March 2019**	31 March 2018
Depreciation, amortisation and impairment***	**7,614.32**	7,398.60	**0.39**	0.34	**7,614.71**	7,398.94
Non-cash expenses other than depreciation	**637.71**	434.78	**14.32**	32.13	**652.03**	466.91
Capital expenditure	**40,872.67**	24,832.46	**1,032.48**	1,642.59	**41,905.15**	26,475.05

₹ Crore

Particulars	Generation of energy		Others		Inter-segment eliminations		Total	
	As at		As at		As at		As at	
	31 March 2019	31 March 2018	**31 March 2019**	31 March 2018	**31 March 2019**	31 March 2018	**31 March 2019**	31 March 2018
Segment assets	**1,77,305.53**	1,65,813.86	**6,587.89**	6,715.19	**(323.38)**	(259.13)	**1,83,570.04**	1,72,269.92
Unallocated corporate and other assets							**1,33,826.36**	1,10,091.75
Total assets	**1,77,305.53**	1,65,813.86	**6,587.89**	6,715.19	**(323.38)**	(259.13)	**3,17,396.40**	2,82,361.67
Segment liabilities	**18,103.12**	17,223.49	**4,401.86**	3,955.62	**(323.38)**	(259.13)	**22,181.60**	20,919.98
Unallocated corporate and other liabilities							**1,85,177.81**	1,57,878.22
Total liabilities	**18,103.12**	17,223.49	**4,401.86**	3,955.62	**(323.38)**	(259.13)	**2,07,359.41**	1,78,798.20

* Generation segment includes **(-) ₹ 2,769.57 crore** (31 March 2018: ₹ 6.44 crore) for sales related to earlier years.

** Generation segment result would have been ₹ **13,855.47 crore** (31 March 2018: ₹ 21,179.99 crore) without including the sales related to earlier years amounting to **(-) ₹ 2,775.82 crore** (31 March 2018: ₹ 6.44 crore) and related expenses amounting to **(-) ₹2,985.57 crore** (31 March 2018: ₹ Nil) as explained in Note 32 (c) and (d).

*** Includes ₹ **Nil** (31 March 2018: (-) ₹ 3.75 crore) towards reversal of impairment loss recognised in the profit or loss, in generation of energy segment.

The operations of the Group 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 Group's total revenues, are as under:_

Name of the customer	For the year ended			
	31 March 2019		31 March 2018	
	Amount (₹ Crore)	**%age**	Amount (₹ Crore)	%age
1. Maharashtra State Electricity Distribution Company Ltd.	**9,575.02**	**10.00**	8,993.01	10.21

61. 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 institutionalise 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.

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 Group has a robust payment security mechanism in the form of Letters of Credit (LC) backed by the Tri-Partite Agreement (TPA). The TPA 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 was valid till October 2016. Govt of India has approved the extension of these TPAs for another period of 10 years. Most of the States have signed these 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 sixty days from the date of bill and levy of surcharge @ 18% p.a. on delayed payment beyond sixty days.

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.

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 work completed 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 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 Group. Loan to APIIC is secured by 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 ₹ **208.97 crore** (31 March 2018: ₹ 383.11 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 ₹ **2,573.35 crore** (31 March 2018: ₹ 4,004.49 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 2019**	As at 31 March 2018
Financial assets for which loss allowance is measured using 12 months Expected Credit Losses (ECL)		
Non-current investments	**91.92**	106.28
Non-current loans	**434.38**	454.67
Other non-current financial assets*	**1,242.70**	1,225.01
Cash and cash equivalents	**208.97**	383.11
Bank balances other than cash and cash equivalents	**2,573.35**	4,004.49
Current loans	**238.29**	238.43
Other current financial assets**	**259.29**	214.72
Total (A)	**5,048.90**	6,626.71
Financial assets for which loss allowance is measured using Life time Expected Credit Losses (ECL) as per simplified approach		
Trade receivables	**10,147.68**	8,812.19
Unbilled revenue	**8,547.85**	8,209.31
Total (B)	**18,695.53**	17,021.50
Total (A+B)	**23,744.43**	23,648.21

* Excluding share application money pending allotment (Refer Note 9)

** Excluding unbilled revenue (Refer Note 16)

(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

The ageing analysis of the trade receivables is as below:

₹ Crore

Ageing	Not due	0-30 days past due	31-60 days past due	61-90 days past due	91-120 days past due	More than 120 days past due	Total
Gross carrying amount as at 31 March 2019	**6,139.64**	**1,160.30**	**735.58**	**728.55**	**233.74**	**1,152.64**	**10,150.45**
Gross carrying amount as at 31 March 2018	4,635.91	1,254.18	469.49	454.93	406.48	1,592.86	8,813.85

(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	Trade receivables	Advances	Claims recoverable	Total
Balance as at 1 April 2017	0.22	0.04	0.12	0.38
Impairment loss recognised	1.44	0.03	-	1.47
Amounts written off	-	-	-	-
Balance as at 31 March 2018	1.66	0.07	0.12	1.85
Impairment loss recognised	1.11	-	14.95	16.06
Amounts written off	-	0.01	-	0.01
Balance as at 31 March 2019	**2.77**	**0.06**	**15.07**	**17.90**

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.

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	**31 March 2019**	31 March 2018
Fixed-rate borrowings		
Term loans	**83.00**	-
Foreign currency loans	**3,207.17**	70.01
Floating-rate borrowings		
Bank overdraft	**3,986.34**	2,600.00
Term loans	**19,804.66**	25,785.56
Foreign currency loans	**45.01**	46.68
Total	**27,126.18**	28,502.25

(ii) Maturities of financial liabilities

The following are the contractual maturities of derivative and non-derivative financial liabilities, based on contractual cash flows:

31 March 2019 ₹ **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	954.20	1,636.84	1,542.00	10,414.26	21,115.08	**35,662.38**
Rupee term loans from banks	350.29	1,634.10	2,300.55	2,415.54	34,192.05	**50,892.53**
Rupee term loans from others	348.23	743.50	1,187.10	5,309.09	12,699.31	**20,287.23**
Finance lease obligations	5.04	32.92	36.85	49.74	682.68	**807.23**
Foreign currency notes	185.10	255.22	-	10,977.00	13,709.80	**25,127.12**
Unsecured foreign currency loans from banks and financial institutions	197.69	2,979.63	1,520.13	2,380.07	6,258.49	**13,336.01**
Unsecured foreign currency loans (guaranteed by GOI)	-	189.28	185.95	557.86	960.17	**1,893.26**
Commercial paper and cash credit	15,994.56	-	-	-	-	**15,994.56**
Trade and other payables	15,329.95	9,874.87	1,454.60	831.34	567.20	**28,057.96**
Derivative financial liabilities						
Full currency swaps	-	15.77	-	-	-	**15.77**

31 March 2018 ₹ 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	436.94	2,558.81	1,782.00	5,724.87	23,346.46	33,849.08
Rupee term loans from banks	215.83	1,668.46	1,756.60	9,455.55	24,694.37	37,790.81
Rupee term loans from others	386.42	796.85	1,275.18	4,248.59	8,304.45	15,011.49
Finance lease obligations	5.98	42.44	32.29	69.68	688.17	838.56
Foreign currency notes	181.96	170.20	-	10,563.00	13,240.70	24,155.86
Unsecured foreign currency loans from banks and financial institutions	168.03	1,101.57	2,929.75	3,124.10	4,683.60	12,007.05
Unsecured foreign currency loans (guaranteed by GOI)	-	184.10	181.85	545.54	1,120.83	2,032.32
Commercial paper and cash credit	6,680.38	-	-	-	-	6,680.38
Trade and other payables	17,176.91	3,686.26	1,930.84	999.43	84.81	23,878.25
Derivative financial liabilities						
Full currency swaps	-	17.54	16.21	-	-	33.75

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 2019 and 31 March 2018 are as below:

31 March 2019 ₹ **Crore**

Particulars	**USD**	**EURO**	**JPY**	**Others**	**Total**
Financial assets					
Trade and other receivables	0.05	-	-	1.18	**1.23**
Cash and cash equivalents	0.53	-	-	3.67	**4.20**
Other financial assets	1.09	-	-	0.49	**1.58**
Total	**1.67**	-	-	**5.34**	**7.01**
Financial liabilities					
Foreign currency bonds	16,940.30	3,960.07	-	4,226.76*	**25,127.13**
Unsecured foreign currency loans from banks and financial institutions	6,760.64	1,652.09	6,832.31	-	**15,245.04**
Trade payables and other financial liabilities	2,492.17	1,032.80	106.55	148.83	**3,780.35**
Total	**26,193.11**	**6,644.96**	**6,938.86**	**4,375.59**	**44,152.52**

* ₹ 2000.00 crore - ₹ denominated USD settled Green Masala Bonds and ₹2,000.00 crore-₹ denominated USD settled Masala bonds.

31 March 2018 ₹ Crore

Particulars	USD	EURO	JPY	Others	Total
Financial assets					
Trade and other receivables	0.20	-	-	4.76	4.96
Cash and cash equivalents	0.96	-	-	3.49	4.45
Other financial assets	0.08	-	-	-	0.08
Total	1.24	-	-	8.25	9.49
Financial liabilities					
Foreign currency bonds	15,858.03	4,071.07	-	4,226.76*	24,155.86
Unsecured foreign currency loans from banks and financial institutions	7,218.89	1,996.59	4,857.64	-	14,073.12
Trade payables and other financial liabilities	2,199.60	1,148.13	144.63	9.47	3,501.83
Total	25,276.52	7,215.79	5,002.27	4,236.23	41,730.81

* ₹ 2000.00 crore - ₹ denominated USD settled Green Masala Bonds and ₹2,000.00 crore-₹ denominated USD settled Masala bonds.

Out of the above, an amount of ₹ **15.77 crore** (31 March 2018: ₹ 33.75 crore) is hedged by derivative instruments. In respect of the balance exposure, gain/(loss) on account of exchange rate variations on all long-term foreign currency monetary items and short-term 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 ICB (International competitive bidding) which are denominated in third currency (i.e. a currency which not the functional currency of any of the parties to the contract) are falling under the purview of guidance provided as per Ind AS 109, 'Financial instruments' on derivatives and embedded derivatives. Parent Company has sought opinion from the Expert Advisory Committee (EAC) constituted by The Institute of Chartered Accountants of India on the above matter vide letter no NTPC/EAC/ICAI dated 29 September 2016. On receipt of opinion / clarification from EAC, Group will account for such contracts.

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 2019	31 March 2018
Financial Assets:		
Loan to related parties	**6.72**	6.87
Loans to others	**25.07**	25.96
Bank deposits	**2,472.50**	4,059.19
Total	**2,504.29**	4,092.02
Financial Liabilities:		
Fixed-rate instruments		
Bonds	**35,659.44**	33,846.07
Foreign currency loans/notes*	**30,092.43**	29,795.23
Rupee term loans	**1,780.05**	186.31
Commercial paper and cash credit	**15,502.90**	6,500.32
Finance lease obligations	**186.41**	184.34
Sub Total	**83,221.23**	70,512.27
Variable-rate instruments		
Foreign currency loans/notes	**10,061.74**	8,269.84
Rupee term loans	**69,321.07**	52,414.99
Cash credit	**491.66**	180.06
Sub Total	**79,874.47**	60,864.89
Total	**1,63,095.70**	1,31,377.16

* Includes ₹ 2000.00 crore - ₹ denominated USD settled Green Masala Bonds and ₹ 2,000 crore ₹ denominated USD settled Masala bonds (31 March 2018: includes ₹ 2000.00 crore - ₹ denominated USD settled Green Masala Bonds and ₹ 2,000 crore ₹ denominated USD settled Masala bonds).

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 2019		
Foreign currency loans/notes	**(42.00)**	**42.00**
Rupee term loans	**(326.68)**	**326.68**
Cash credit	**(1.86)**	**1.86**
	(370.54)	**370.54**
31 March 2018		
Foreign currency loans/notes	(33.92)	33.92
Rupee term loans	(225.83)	225.83
	(259.75)	259.75

Of the above mentioned increase in the interest expense, an amount of ₹ **148.40 crore** (31 March 2018: ₹ 105.18 crore) is expected to be capitalised and recovered from beneficiaries .

62. Fair Value Measurements

(a) Financial instruments by category

₹ Crore

Particulars	31 March 2019			31 March 2018		
	FVTPL	FVTOCI	Amortised Cost	FVTPL	FVTOCI	Amortised Cost
Financial assets						
Investments						
- Equity instruments	3.78	88.14	-	1.40	104.88	-
Trade Receivables	-	-	10,147.68	-	-	8,812.19
Loans	-	-	672.67	-	-	693.10
Cash and cash equivalents	-	-	208.97	-	-	383.11
Other bank balances	-	-	2,573.35	-	-	4,004.49
Finance lease receivables	-	-	520.00	-	-	542.32
Derivative financial assets	1.28	-	-	3.73	-	-
Other financial assets*	-	-	9,528.56	-	-	9,102.99
	5.06	88.14	23,651.23	5.13	104.88	23,538.20
Financial liabilities						
Borrowings	-	-	1,46,993.36	-	-	1,24,512.44
Commercial paper and cash credit	-	-	15,994.56	-	-	6,680.38
Finance lease obligations	-	-	186.41	-	-	184.34
Trade payables	-	-	8,565.83	-	-	6,730.86
Payable for capital expenditure	-	-	16,830.55	-	-	14,524.92
Other financial liabilities	-	-	2,896.39	-	-	2,421.20
	-	-	1,91,467.10	-	-	1,55,054.14

* Excluding share application money pending allotment (Refer Note 9)

(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 2019	Level 1	Level 2	Level 3	Total
Financial assets:				
Derivative financial assets				
- Principal only swaps	-	-	1.28	1.28
Investments in quoted equity instruments - PTC India Ltd.	88.14	-	-	88.14
Investments in unquoted equity instruments	-	-	3.78	3.78
	88.14	-	5.06	93.20

₹ Crore

Financial assets and liabilities measured at fair value- recurring fair value measurement as at 31 March 2018	Level 1	Level 2	Level 3	Total
Financial assets:				
Derivative financial assets				
- Currency and interest rate swaps	-	-	0.02	0.02
- Principal only swaps	-	-	3.71	3.71
Investments in quoted equity instruments - PTC India Ltd.	104.88	-	-	104.88
Investments in unquoted equity instruments	-	-	1.40	1.40
	104.88	-	**5.13**	**110.01**

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 observable current market transactions and dealer quotes of similar instruments. This level includes derivative MTM assets/liabilities. Fair value of derivative assets/ liabilities such as interest rate swaps and foreign exchange forward contracts are valued using valuation techniques, which employs the use of market observable inputs. The most frequently applied valuation techniques include forward pricing and swap models & present value calculations.

There have been no transfers in either direction for the years ended 31 March 2019 and 31 March 2018.

(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, 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 2019		As at 31 March 2018	
		Carrying amount	Fair value	Carrying amount	Fair value
Financial assets					
Loans	3	**672.67**	**671.79**	693.10	752.37
Finance lease receivables	3	**520.00**	**520.00**	542.32	542.32
Claims recoverable	3	**739.54**	**739.54**	704.22	704.22
Trade receivables	3	**10,147.68**	**10,147.68**	8,812.19	8,812.19
		12,079.89	**12,079.01**	10,751.83	10,811.10
Financial liabilities					
Bonds/Debentures	1	**-**	**-**	4,010.35	3,832.25
	2	**6,138.42**	**6,217.40**	23,993.92	24,816.19
	3	**29,521.03**	**30,974.07**	5,841.80	6,119.07
Foreign currency notes	1	**3,541.49**	**3,671.86**	3,271.97	3,260.60
	2	**13,355.18**	**13,805.43**	12,537.69	13,068.76
	3	**8,152.40**	**8,658.54**	8,256.56	8,558.48
Foreign currency loans	3	**15,105.11**	**15,297.59**	13,998.85	14,177.82
Rupee term loans	2	**7,744.07**	**7,826.54**	8,263.90	8,551.51
	3	**63,435.68**	**63,594.27**	44,263.77	44,258.67
Trade payables & payable for capital expenditure	2	**563.75**	**567.61**	22.57	13.17
	3	**1,907.08**	**1,748.49**	1,994.02	1,681.66
Other financial liabilities	3	**58.37**	**58.37**	193.98	193.98
		1,49,522.58	**1,52,420.17**	1,26,649.38	1,28,532.16

The carrying amounts of current trade receivables, trade payables, payable for capital expenditure, investment in bonds, 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 priodically 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.

For financial assets and liabilities that are measured at fair value, the carrying amounts are equal to the fair values.

63. 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 result from operating activities divided by total shareholders' equity. The Board of Directors also monitors the level of dividends to equity shareholders.

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 1.25:1 and account receivable ratio not exceeding 3:1 (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 2019**	As at 31 March 2018
Borrowings	**1,63,174.33**	1,31,377.16
Less: Cash and cash equivalent	**208.97**	383.11
Net Debt	**1,62,965.36**	1,30,994.05
Total Equity	**1,10,701.82**	1,04,511.24
Net Debt to Equity ratio	**1.47**	1.25

64. Disclosure as per Ind AS 112 'Disclosure of Interest in Other Entities'

(a) Subsidiary companies

The group's subsidiaries at 31 March 2019 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.

Name of subsidiary company	**Place of business/ country of incorporation**	**Ownership interest held by the group (in %)**		**Ownership interest held by non-controlling interests (in %)**		**Principal activities**
		As at 31 March 2019	As at 31 March 2018	**As at 31 March 2019**	As at 31 March 2018	
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
Kanti Bijlee Utpadan Nigam Ltd. (KBUNL)	India	**100.00**	72.64	-	27.36	Generation 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
Nabinagar Power Generating Company Ltd. (NPGCL)	India	**100.00**	NA	-	NA	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 Parent Company entered into a Memorandum of Understanding (MoU) with State Government of Bihar and its affiliate companies on 15 May 2018 for buy-out of equity of Bihar State Power Generation Company Limited (BSPGCL) in Kanti Bijlee Utpadan Nigam Limited (KBUNL) and Nabinagar Power Generating Company Private Limited (NPGCL). Consequently, the Parent Company bought the equity shares of BSPGCL in KBUNL and NPGCL for an amount of ₹ 392.78 crore and ₹ 1,737.19 crore respectively. As a result, KBUNL and NPGCL became wholly-owned subsidiaries of the Parent Company with effect from 29 June 2018.

(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	Kanti Bijlee Utpadan Nigam Ltd.		Bhartiya Rail Bijlee Company Ltd.		Patratu Vidyut Utpadan Nigam Ltd.	
	As at 31 March 2019	As at 31 March 2018	**As at 31 March 2019**	As at 31 March 2018	**As at 31 March 2019**	As at 31 March 2018
Current assets	**-**	416.80	**759.58**	584.85	**314.76**	334.49
Current liabilities	**-**	928.36	**973.21**	838.82	**348.43**	368.89
Net current assets/ (liabilities)	**-**	(511.56)	**(213.63)**	(253.97)	**(33.67)**	(34.40)
Non-current assets	**-**	4,375.31	**7,962.96**	7,476.33	**1,821.71**	1,076.49
Non-current liabilities	**-**	2,435.49	**5,384.14**	4,991.94	**1,473.08**	874.40
Net non-current assets	**-**	1,939.82	**2,578.82**	2,484.39	**348.63**	202.09
Regulatory deferral account debit balances	**-**	-	**-**	2.78	**-**	-
Regulatory deferral account credit balances	**-**	-	**0.05**	-	**-**	-
Deferred Revenue	**-**	245.58	**-**	-	**-**	-
Net assets	**-**	1,182.68	**2,365.14**	2,233.20	**314.96**	167.69
Accumulated NCI	**-**	323.56	**582.94**	580.63	**81.89**	43.58

Summarised statement of profit and loss for the year ended

₹ Crore

Particulars	Kanti Bijlee Utpadan Nigam Ltd.		Bhartiya Rail Bijlee Company Ltd.		Patratu Vidyut Utpadan Nigam Ltd.	
	31 March 2019*	31 March 2018	**31 March 2019**	31 March 2018	**31 March 2019**	31 March 2018
Total income	**271.15**	869.04	**1,210.02**	699.84	**-**	(0.53)
Profit/(loss) for the year	**(31.21)**	(181.09)	**8.88**	27.21	**(1.38)**	0.03
Other comprehensive income/(expense)	**-**	-	**-**	-	**-**	-
Total comprehensive income/(expense)	**(31.21)**	(181.09)	**8.88**	27.21	**(1.38)**	0.03
Profit/(loss) allocated to NCI	**(8.54)**	(49.55)	**2.31**	7.07	**(0.34)**	0.01
Dividends paid to NCI	**-**	-	**-**	-	**-**	-

Summarised cash flows for the year ended

₹ Crore

Particulars	Kanti Bijlee Utpadan Nigam Ltd.		Bhartiya Rail Bijlee Company Ltd.		Patratu Vidyut Utpadan Nigam Ltd.	
	31 March 2019*	31 March 2018	**31 March 2019**	31 March 2018	**31 March 2019**	31 March 2018
Cash flows from/(used in) operating activities	**(14.21)**	71.97	**475.84**	202.06	**(280.64)**	15.94
Cash flows from/(used in) investing activities	**(54.57)**	(155.22)	**(663.08)**	(692.28)	**(340.56)**	(132.04)
Cash flows from/(used in) financing activities	**63.21**	92.49	**205.03**	603.76	**617.58**	117.04
Net increase/(decrease) in cash and cash equivalents	**(5.57)**	9.24	**17.79**	113.54	**(3.62)**	0.94

* For the period from 1 April 2018 to 28 June 2018.

(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 2019	As at 31 March 2018
Bhartiya Rail Bijlee Company Ltd	5 years from the date of commercial operation of the last unit of the project.	**1,721.12**	1,599.53
Kanti Bijlee Utpadan Nigam Ltd.	5 years from the date of commercial operation. Further, as per loan agreement, minimum equity of 51% shall be maintained at all times until final settlement of loan i.e., 4 years moratorium period and subsequently 11 years for repayment.	**1,510.68**	1,042.89
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.	**234.12**	124.12
Nabinagar Power Generating Company Ltd. (previously Nabinagar Power Generating Company Pvt. Ltd.)	NTPC shall not transfer/assign or pledge shares until final settlement of loan i.e. 5 years moratorium and subsequently 15 years for repayment.	**3,987.16**	-
Total		**7,453.08**	2,766.54

(d) **Change in parent's ownership interest in Subsidiary**

During the year ended 31 March 2019, the parent's ownership interest in KBUNL has changed from 72.64% to 100%. The effect of the same is as under:

₹ Crore

Particulars	Owners interest		Minority interest		Total	
	Share capital	Other equity (other than share application money pending allotment)	Share capital	Other equity (other than share application money pending allotment)	Share capital	Other equity (other than share application money pending allotment)
As at 1 April 2018	1,042.89	(183.77)	392.78	(69.22)	**1,435.67**	**(252.99)**
Further equity investment during the year	467.78		(392.78)		**75.00**	-
Share in statement of profit and loss for the year		107.28		(8.54)	-	**98.74**
Impact of change in ownership interest (100%-72.64%= 27.36%) adjusted in retained earnings (Refer Note 20)		(77.76)		77.76	-	-
As at 31 March 2019	**1,510.67**	**(154.25)**	-	-	**1,510.67**	**(154.25)**

During the year ended 31 March 2018, the parent's ownership interest in KBUNL has changed from 65% to 72.64%. The effect of the same is as under:

₹ Crore

Particulars	Owners interest		Minority interest		Total	
	Share capital	Other equity (other than share application money pending allotment)	Share capital	Other equity (other than share application money pending allotment)	Share capital	Other equity (other than share application money pending allotment)
As at 1 April 2017	729.46	(46.74)	392.78	(25.16)	1,122.24	(71.90)
Further equity investment during the year	313.43	-	-	-	313.43	-
Share in statement of profit and loss for the year	-	(131.54)	-	(49.55)	-	(181.09)
Impact of change in ownership interest (72.64%-65%=7.64%) adjusted in retained earnings (Refer Note 20)	-	(5.49)	-	5.49	-	-
As at 31 March 2018	1,042.89	(183.77)	392.78	(69.22)	1,435.67	(252.99)

(e) 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 59.

(f) Interests in joint venture companies

List of joint venture companies as at 31 March 2019 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.

Name of joint venture company	Place of business/ country of incorporation	Ownership interest held by the group (in %) as at		Accounting method	Carrying amount (in ₹ crore) as at	
		31 March 2019	31 March 2018		**31 March 2019**	31 March 2018
Utility Powertech Ltd.	India	**50.00**	50.00	Equity method	**59.07**	49.01
NTPC-GE Power Services Private Ltd.$	India	**50.00**	50.00	Equity method	**6.43**	4.49
NTPC-SAIL Power Company Ltd.	India	**50.00**	50.00	Equity method	**1,249.12**	1,092.11
NTPC Tamil Nadu Energy Company Ltd.	India	**50.00**	50.00	Equity method	**1,376.96**	1,311.70
Ratnagiri Gas and Power Private Ltd.	India	**25.51**	25.51	Equity method	**-**	-
Konkan LNG Private Ltd.$	India	**14.82**	25.51	Equity method	**-**	-
Aravali Power Company Private Ltd.	India	**50.00**	50.00	Equity method	**2,936.53**	2,618.06
NTPC BHEL Power Projects Private Ltd.*$	India	**50.00**	50.00	Equity method	**-**	4.41
Meja Urja Nigam Private Ltd.	India	**50.00**	50.00	Equity method	**1,284.75**	1,235.83
BF-NTPC Energy Systems Ltd.**	India	**NA**	49.00	Equity method	**-**	2.43
Nabinagar Power Generating Company Ltd. (previously Nabinagar Power Generating Company Private Ltd.)	India	**NA**	50.00	Equity method	**-**	1,682.73
Transformers and Electricals Kerala Ltd.***$	India	**44.60**	44.60	Equity method	**41.67**	36.90
National High Power Test Laboratory Private Ltd.$	India	**20.00**	20.00	Equity method	**26.08**	27.79
Energy Efficiency Services Ltd.$	India	**36.36**	31.71	Equity method	**301.45**	179.69
CIL NTPC Urja Private Ltd.$	India	**50.00**	50.00	Equity method	**0.02**	0.02

Name of joint venture company	Place of business/ country of incorporation	Ownership interest held by the group (in %) as at		Accounting method	Carrying amount (in ₹ crore) as at	
		31 March 2019	31 March 2018		**31 March 2019**	31 March 2018
Anushakti Vidhyut Nigam Ltd.$	India	**49.00**	49.00	Equity method	**0.01**	0.01
Hindustan Urvarak & Rasayan Ltd.	India	**33.33**	33.33	Equity method	**443.54**	332.00
Trincomalee Power Company Ltd.$	Srilanka	**50.00**	50.00	Equity method	**1.58**	1.83
Bangladesh-India Friendship Power Company Pvt.Ltd.$	Bangladesh	**50.00**	50.00	Equity method	**280.85**	190.32

$ 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 NTPC Limited in its meeting held on 28 April 2016 accorded in principle approval for withdrawal from NTPC BHEL Power Projects Private Ltd. (NTPC-BHEL), a Joint venture of the Group. As NTPC-BHEL was formed by a directive from the GOI, approval of exit from GOI is awaited.

** 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 company of the Group. As BF-NTPC was formed by a directive from the GOI, approval of the GOI was sought for exit by the parent company. Ministry of Power, GoI conveyed its approval for winding up of BF-NTPC on 8 January 2018. Consequently, liquidator has been 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 Group had lost the joint control over the entity and accordingly, has classified the investment in BF NTPC as 'Investment in unquoted equity instruments'.

*** The Board of Directors of NTPC Limited 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 Group. GOI has accorded its approval for exit of NTPC from the joint venture. The decison of the Board of Directors of NTPC Limited and approval of GOI has been conveyed to the Government of Kerala (JV Partner) & TELK. The government of Kerala has requested NTPC to review the decision. The matter is under examination.

(i) RGPPL (joint venture company) has incurred losses during past few years due to which the Group has recognised accumulated losses equal to the cost of investments of RGPPL as at 31 March 2019. The Group has unrecognised share of losses in respect of RGPPL amounting to ₹ **1,720.96 crore** as at 31 March 2019 (31 March 2018: ₹ 739.97 crore) as per their unaudited financial statements for the year ended 31 March 2019.

(ii) Konkan LNG Private Limited (KLPL) (joint venture company) has accumulated losses due to which the Group has recognised accumulated losses equal to the cost of investments of KLPL as at 31 March 2019. The Group has unrecognised share of losses in respect of KLPL amounting to ₹ **10.86 crore** as at 31 March 2019 (31 March 2018: ₹ 20.61 crore) as per their unaudited financial statements for the year ended 31 March 2019.

(iii) 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 2019. The Group has unrecognised share of losses in respect of NTPC BHEL amounting to ₹ **16.44 crore** as at 31 March 2019 (31 March 2018: ₹ Nil) as per their unaudited financial statements for the year ended 31 March 2019.

(iv) 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.

Summarised balance sheet

₹ Crore

Particulars	Utility Powertech Ltd.		NTPC-GE Power Services Pvt. Ltd.		NTPC-SAIL Power Company Ltd.		NTPC Tamil Nadu Energy Company Ltd.		Ratnagiri Gas and Power Private Ltd.		Konkan LNG Private Ltd.	
	As at 31 March 2019	As at 31 March 2018	**As at 31 March 2019**	As at 31 March 2018	**As at 31 March 2019**	As at 31 March 2018	**As at 31 March 2019**	As at 31 March 2018	**As at 31 March 2019**	As at 31 March 2018	**As at 31 March 2019**	As at 31 March 2018
Current assets												
Cash and cash equivalents	**39.47**	41.71	**5.30**	4.49	**52.03**	43.44	**16.55**	6.59	**187.41**	431.06	**7.45**	100.10
Other assets	**410.49**	352.29	**138.02**	148.44	**470.50**	764.17	**2,521.80**	1,820.27	**563.31**	443.27	**519.09**	246.97
Total current assets	**449.96**	394.00	**143.32**	152.93	**522.53**	807.61	**2,538.35**	1,826.86	**750.72**	874.33	**526.54**	347.07
Total non-current assets	**44.39**	39.11	**4.75**	3.61	**3,475.83**	2,789.19	**7,623.86**	8,000.17	**1,580.56**	2,330.43	**3,399.28**	2,937.89
Current liabilities												
Financial liabilities (excluding trade payables and provisions)	**141.34**	124.00	**0.01**	0.01	**328.34**	391.88	**2,506.99**	2,364.62	**3,871.64**	4,032.53	**185.49**	239.32
Other liabilities	**208.95**	191.88	**134.76**	147.35	**176.00**	199.72	**590.54**	276.83	**431.51**	431.22	**107.36**	100.68
Total current liabilities	**350.29**	315.88	**134.77**	147.36	**504.34**	591.60	**3,097.53**	2,641.45	**4,303.15**	4,463.75	**292.85**	340.00
Non-current liabilities												
Financial liabilities (excluding trade payables and provisions)	**4.35**	3.77	**-**	-	**35.06**	734.26	**4,306.66**	4,562.07	**1,492.45**	1,633.06	**3,705.23**	3,699.68
Other liabilities	**21.57**	15.45	**0.45**	0.20	**960.72**	86.73	**492.76**	0.19	**9.58**	7.81	**0.11**	0.01
Total non-current liabilities	**25.92**	19.22	**0.45**	0.20	**995.78**	820.99	**4,799.42**	4,562.26	**1,502.03**	1,640.87	**3,705.34**	3,699.69
Regulatory deferral account debit balances	**-**	-	**-**	-	**-**	-	**501.15**	5.69	**-**	-	**-**	-
Regulatory deferral account credit balances	**-**	-	**-**	-	**-**	-	**-**	-	**-**	-	**-**	-
Share application money pending allotment	**-**	-	**-**	-	**-**	-	**12.50**	5.61	**-**	-	**-**	-
Net assets	**118.14**	98.01	**12.85**	8.98	**2,498.24**	2,184.21	**2,753.91**	2,623.40	**(3,473.90)**	(2,899.86)	**(72.37)**	(754.73)

Reconciliation to carrying amounts

₹ Crore

Particulars	Utility Powertech Ltd.		NTPC-GE Power Services Pvt. Ltd.		NTPC-SAIL Power Company Ltd.		NTPC Tamil Nadu Energy Company Ltd.		Ratnagiri Gas and Power Private Ltd.		Konkan LNG Private Ltd.	
	As at 31 March 2019	As at 31 March 2018	**As at 31 March 2019**	As at 31 March 2018	**As at 31 March 2019**	As at 31 March 2018	**As at 31 March 2019**	As at 31 March 2018	**As at 31 March 2019**	As at 31 March 2018	**As at 31 March 2019**	As at 31 March 2018
Opening net assets	**98.01**	81.65	**8.98**	23.49	**2,184.21**	1,973.52	**2,623.40**	2,538.79	**(2,899.86)**	(2,896.78)	**(754.73)**	-
Profit/(loss) for the year	**28.55**	21.02	**2.92**	(15.04)	**362.33**	331.72	**119.20**	33.44	**(574.04)**	64.74	**(386.58)**	(767.21)
Other comprehensive income/(expense)	**0.01**	1.36	**-**	-	**(1.89)**	(0.69)	**(0.02)**	0.01	**-**	-	**-**	-
Dividends paid	**(8.44)**	(6.02)	**(0.54)**	-	**(48.22)**	(120.35)	**-**	-	**-**	-	**-**	-
Other adjustments*	**0.01**	-	**1.49**	0.53	**1.81**	-	**11.33**	51.16	**-**	(67.82)	**1,068.94**	12.48
Closing net assets	**118.14**	98.01	**12.85**	8.98	**2,498.24**	2,184.20	**2,753.91**	2,623.40	**(3,473.90)**	(2,899.86)	**(72.37)**	(754.73)
Group's share in %	**50.00**	50.00	**50.00**	50.00	**50.00**	50.00	**50.00**	50.00	**25.51**	25.51	**14.82**	25.51
Group's share in INR	**59.07**	49.01	**6.43**	4.49	**1,249.12**	1,092.11	**1,376.96**	1,311.70	**-**	-	**-**	-
Goodwill	**-**	-	**-**	-	**-**	-	**-**	-	**-**	-	**-**	-
Carrying amount	**59.07**	49.01	**6.43**	4.49	**1,249.12**	1,092.11	**1,376.96**	1,311.70	**-**	-	**-**	-

* Includes adjustments on account of further investment by the joint venture partners.

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.		Ratnagiri Gas and Power Private Ltd.		Konkan LNG Private Ltd.	
	31 March 2019	31 March 2018	**31 March 2019**	31 March 2018	**31 March 2019**	31 March 2018	**31 March 2019**	31 March 2018	**31 March 2019**	31 March 2018	**31 March 2019**	31 March 2018
Revenue from operations	**1,045.25**	954.85	**231.09**	66.98	**2,656.59**	2,602.17	**4,089.07**	3,540.27	**2,051.85**	2,302.68	**328.49**	317.10
Other income	**11.33**	7.72	**1.26**	1.00	**82.62**	42.28	**15.63**	35.88	**66.20**	20.30	**6.20**	0.15
Depreciation and amortisation	**1.26**	1.27	**0.28**	0.18	**149.06**	150.38	**500.18**	487.71	**481.31**	492.11	**93.58**	110.50
Interest expense	**1.61**	2.77	**0.96**	-	**22.50**	41.19	**578.94**	599.45	**151.55**	161.16	**312.71**	298.87
Income tax expense/ (income)	**17.82**	16.17	**1.33**	-	**38.80**	12.94	**156.87**	14.23	**-**	-	**113.61**	-
Profit/(loss) for the year	**28.55**	21.02	**2.92**	(15.04)	**362.33**	331.72	**119.20**	33.44	**(574.04)**	64.74	**(386.58)**	(767.21)
Other comprehensive income/(expense)	**0.01**	1.36	**-**	-	**(1.89)**	(0.69)	**(0.02)**	0.01	**-**	-	**-**	-
Total comprehensive income/(expense)	**28.56**	22.38	**2.92**	(15.04)	**360.44**	331.03	**119.18**	33.45	**(574.04)**	64.74	**(386.58)**	(767.21)
Dividends received	**-**	-	**-**	-	**-**	-	**-**	-	**-**	-	**-**	-

Summarised balance sheet

₹ Crore

Particulars	Aravali Power Company Private Ltd.		NTPC BHEL Power Projects Private Ltd.		Meja Urja Nigam Private Ltd.		BF-NTPC Energy Systems Ltd.		Nabinagar Power Generating Company Private Ltd.		Transformers and Electricals Kerala Ltd.	
	As at 31 March 2019	As at 31 March 2018	**As at 31 March 2019**	As at 31 March 2018	**As at 31 March 2019**	As at 31 March 2018	**As at 31 March 2019**	As at 31 March 2018	**As at 31 March 2019**	As at 31 March 2018	**As at 31 March 2019**	As at 31 March 2018
Current assets												
Cash and cash equivalents	**129.01**	1.15	**1.49**	1.23	**79.60**	52.12	**-**	0.21	**-**	73.96	**6.31**	5.37
Other assets	**3,633.82**	3,250.03	**315.62**	333.24	**83.79**	33.03	**-**	4.84	**-**	33.26	**160.43**	158.12
Total current assets	**3,762.83**	3,251.18	**317.11**	334.47	**163.39**	85.15	**-**	5.05	**-**	107.22	**166.74**	163.49
Total non-current assets	**6,774.22**	7,010.39	**418.33**	390.14	**10,219.81**	8,817.41	**-**	-	**-**	12,568.42	**34.38**	28.79
Current liabilities												
Financial liabilities (excluding trade payables and provisions)	**808.08**	822.24	**102.70**	75.86	**954.91**	883.04	**-**	-	**-**	886.92	**55.92**	56.25
Other liabilities	**143.38**	109.51	**348.19**	321.19	**46.31**	67.83	**-**	0.09	**-**	92.36	**42.97**	49.06
Total current liabilities	**951.46**	931.75	**450.89**	397.05	**1,001.22**	950.87	**-**	0.09	**-**	979.28	**98.89**	105.31
Non-current liabilities												
Financial liabilities (excluding trade payables and provisions)	**3,452.81**	3,913.21	**-**	-	**6,700.95**	5,476.57	**-**	-	**-**	8,146.70	**-**	-
Other liabilities	**11.28**	183.95	**317.43**	318.75	**-**	-	**-**	-	**-**	-	**8.81**	4.23
Total non-current liabilities	**3,464.09**	4,097.16	**317.43**	318.75	**6,700.95**	5,476.57	**-**	-	**-**	8,146.70	**8.81**	4.23
Regulatory deferral account debit balances	**5.76**	3.46	**-**	-	**-**	-	**-**	-	**-**	13.73	**-**	-
Regulatory deferral account credit balances	**254.21**	-	**-**	-	**1.53**	3.47	**-**	-	**-**	-	**-**	-
Share application money pending allotment	**-**	-	**-**	-	**110.00**	-	**-**	-	**-**	197.93	**-**	-
Net assets	**5,873.05**	5,236.12	**(32.88)**	8.81	**2,569.50**	2,471.65	**-**	4.96	**-**	3,365.46	**93.42**	82.74

Reconciliation to carrying amounts

₹ Crore

Particulars	Aravali Power Company Private Ltd.		NTPC BHEL Power Projects Private Ltd.		Meja Urja Nigam Private Ltd.		BF-NTPC Energy Systems Ltd.		Nabinagar Power Generating Company Private Ltd.		Transformers and Electricals Kerala Ltd.	
	As at 31 March 2019	As at 31 March 2018	**As at 31 March 2019**	As at 31 March 2018	**As at 31 March 2019**	As at 31 March 2018	**As at 31 March 2019**	As at 31 March 2018	**As at 31 March 2019**	As at 31 March 2018	**As at 31 March 2019**	As at 31 March 2018
Opening net assets	**5,236.12**	4,729.19	**8.81**	42.64	**2,471.65**	2,386.06	**4.96**	5.78	**3,365.46**	2,424.29	**82.74**	87.35
Profit/(loss) for the year	**781.22**	577.75	**(53.02)**	(76.69)	**(2.15)**	(0.19)	**-**	(1.38)	**-**	(0.10)	**4.34**	4.22
Other comprehensive income/(expense)	**0.08**	(0.07)	**(0.19)**	-	**-**	-	**-**	-	**-**	-	**(0.12)**	(1.00)
Dividends paid	**(172.76)**	(168.32)	**-**	-	**-**	-	**-**	-	**-**	-	**-**	-
Other adjustments*	**28.39**	97.57	**11.52**	42.86	**100.00**	85.78	**-**	0.56	**-**	941.27	**6.46**	(7.83)
Closing net assets	**5,873.05**	5,236.12	**(32.88)**	8.81	**2,569.50**	2,471.65	**4.96**	4.96	**3,365.46**	3,365.46	**93.42**	82.74
Group's share in %	**50.00**	50.00	**50.00**	50.00	**50.00**	50.00	**NA**	49.00	**NA**	50.00	**44.60**	44.60
Group's share in INR	**2,936.53**	2,618.06	**-**	4.41	**1,284.75**	1,235.83	**-**	2.43	**-**	1,682.73	**41.67**	36.90
Goodwill	**-**	-	**-**	-	**-**	-	**-**	-	**-**	-	**-**	-
Carrying amount	**2,936.53**	2,618.06	**-**	4.41	**1,284.75**	1,235.83	**-**	2.43	**-**	1,682.73	**41.67**	36.90

* Includes adjustments on account of further investment by the joint venture partners.

Summarised statement of profit and loss for the year ended

₹ Crore

Particulars	Aravali Power Company Private Ltd.		NTPC BHEL Power Projects Private Ltd.		Meja Urja Nigam Private Ltd.		BF-NTPC Energy Systems Ltd.		Nabinagar Power Generating Company Private Ltd.		Transformers and Electricals Kerala Ltd.	
	31 March 2019	31 March 2018	**31 March 2019**	31 March 2018	**31 March 2019**	31 March 2018	**31 March 2019**	31 March 2018	**31 March 2019**	31 March 2018	**31 March 2019**	31 March 2018
Revenue from operations	**4,152.11**	3,909.57	**73.51**	144.90	**-**	-	**-**	-	**-**	-	**210.07**	185.22
Other income	**232.89**	237.83	**0.51**	1.57	**-**	-	**-**	-	**-**	-	**2.93**	3.33
Depreciation and amortisation	**416.51**	417.38	**7.28**	8.10	**-**	-	**-**	-	**-**	-	**1.56**	1.33
Interest expense	**364.91**	419.00	**2.42**	1.52	**-**	-	**-**	-	**-**	-	**5.67**	4.23
Income tax expense/(income)	**(370.16)**	154.98	**(29.07)**	(23.86)	**2.04**	-	**-**	-	**-**	-	**3.65**	1.08
Profit/(loss) for the year	**781.22**	577.75	**(53.02)**	(76.69)	**(2.15)**	(0.19)	**-**	(1.38)	**-**	(0.10)	**4.34**	4.22
Other comprehensive income/(expense)	**0.08**	(0.07)	**(0.19)**	-	**-**	-	**-**	-	**-**	-	**(0.12)**	(1.00)
Total comprehensive income/(expense)	**781.30**	577.68	**(53.21)**	(76.69)	**(2.15)**	(0.19)	**-**	(1.38)	**-**	(0.10)	**4.22**	3.22
Dividends received	**-**	-	**-**	-	**-**	-	**-**	-	**-**	-	**-**	-

Summarised balance sheet

₹ Crore

Particulars	National High Power Test Laboratory Private Ltd.		Energy Efficiency Services Ltd.		CIL NTPC Urja Private Ltd.		Anushakti Vidhyut Nigam Ltd.		Hindustan Urvarak & Rasayan Ltd.		Trincomalee Power Company Ltd.		Bangladesh-India Friendship Power Company Pvt. Ltd.	
	As at 31 March 2019	As at 31 March 2018	**As at 31 March 2019**	As at 31 March 2018	**As at 31 March 2019**	As at 31 March 2018	**As at 31 March 2019**	As at 31 March 2018	**As at 31 March 2019**	As at 31 March 2018	**As at 31 March 2019**	As at 31 March 2018	**As at 31 March 2019**	As at 31 March 2018
Current assets														
Cash and cash equivalents	**12.77**	6.05	**424.96**	511.97	**0.06**	0.06	**0.02**	0.02	**11.61**	687.93	**0.96**	1.83	**10.20**	245.79
Other assets	**4.90**	4.43	**2,991.00**	2,729.26	**-**	-		-	**0.22**	270.16	**0.26**	0.31	**84.43**	0.72
Total current assets	**17.67**	10.48	**3,415.96**	3,241.23	**0.06**	0.06	**0.02**	0.02	**11.83**	958.09	**1.22**	2.14	**94.63**	246.51
Total non-current assets	**336.35**	339.09	**3,448.41**	1,779.36	**-**	-	**-**	-	**2,475.84**	61.77	**2.28**	2.06	**4,419.45**	1,994.10
Current liabilities														
Financial liabilities (excluding trade payables and provisions)	**-**	24.00	**1,100.08**	855.36	**-**	-	**-**	-	**106.00**	19.11	**-**	-	**568.91**	26.52
Other liabilities	**60.64**	53.68	**1,894.43**	1,616.09	**0.02**	0.01	**-**	-	**347.70**	4.62	**0.34**	0.54	**10.72**	5.13
Total current liabilities	**60.64**	77.68	**2,994.51**	2,471.45	**0.02**	0.01	**-**	-	**453.70**	23.73	**0.34**	0.54	**579.63**	31.65
Non-current liabilities														
Financial liabilities (excluding trade payables and provisions)	**162.82**	132.81	**3,030.17**	1,873.75	**-**	-	**-**	-	**703.11**	-	**-**	-	**3,372.75**	1,671.37
Other liabilities	**0.18**	0.13	**10.61**	9.71	**-**	-	**-**	-	**0.12**	0.03	**-**	-	**-**	-
Total non-current liabilities	**163.00**	132.94	**3,040.78**	1,883.46	**-**	-	**-**	-	**703.23**	0.03	**-**	-	**3,372.75**	1,671.37
Regulatory deferral account debit balances	**-**	-	**-**	-	**-**	-	**-**	-	**-**	-	**-**	-	**-**	-
Regulatory deferral account credit balances	**-**	-	**-**	-	**-**	-	**-**	-	**-**	-	**-**	-	**-**	-
Share application money pending allotment	**-**	-	**-**	99.00	**-**	-	**-**	-	**-**	-	**-**	-	**-**	156.96
Net assets	**130.38**	138.95	**829.08**	566.68	**0.04**	0.05	**0.02**	0.02	**1,330.74**	996.10	**3.16**	3.66	**561.70**	380.63

Reconciliation to carrying amounts

₹ Crore

Particulars	National High Power Test Laboratory Private Ltd.		Energy Efficiency Services Ltd.		CIL NTPC Urja Private Ltd.		Anushakti Vidhyut Nigam Ltd.		Hindustan Urvarak & Rasayan Ltd.		Trincomalee Power Company Ltd.		Bangladesh-India Friendship Power Company Pvt. Ltd.	
	As at 31 March 2019	As at 31 March 2018	**As at 31 March 2019**	As at 31 March 2018	**As at 31 March 2019**	As at 31 March 2018	**As at 31 March 2019**	As at 31 March 2018	**As at 31 March 2019**	As at 31 March 2018	**As at 31 March 2019**	As at 31 March 2018	**As at 31 March 2019**	As at 31 March 2018
Opening net assets	**138.95**	149.83	**566.68**	580.83	**0.05**	0.05	**0.02**	0.03	**996.10**	10.28	**3.66**	17.97	**380.63**	264.52
Profit/(loss) for the year	**(8.72)**	(10.93)	**83.82**	54.43	**(0.01)**	-	**-**	(0.01)	**13.41**	1.15	**(0.62)**	(15.05)	**-**	-
Other comprehensive income/(expense)	**(0.05)**	0.05	**(0.22)**	(0.07)	**-**	-	**-**	-	**-**	-	**-**	-	**-**	-
Dividends paid	**-**	-	**-**	(49.05)	**-**	-	**-**	-	**-**	-	**-**	-	**-**	-
Other adjustments*	**0.20**	-	**178.80**	(19.46)	**-**	-	**-**	-	**321.23**	984.67	**0.12**	0.74	**181.07**	116.11
Closing net assets	**130.38**	138.95	**829.08**	566.68	**0.04**	0.05	**0.02**	0.02	**1,330.74**	996.10	**3.16**	3.66	**561.70**	380.63
Group's share in %	**20.00**	20.00	**36.36**	31.71	**50.00**	50.00	**49.00**	49.00	**33.33**	33.33	**50.00**	50.00	**50.00**	50.00
Group's share in INR	**26.08**	27.79	**301.45**	179.69	**0.02**	0.02	**0.01**	0.01	**443.54**	332.00	**1.58**	1.83	**280.85**	190.32
Goodwill	**-**	-	**-**	-	**-**	-	**-**	-	**-**	-	**-**	-	**-**	-
Carrying amount	**26.08**	27.79	**301.45**	179.69	**0.02**	0.02	**0.01**	0.01	**443.54**	332.00	**1.58**	1.83	**280.85**	190.32

* Includes adjustments on account of further investment by the joint venture partners.

Summarised statement of profit and loss for the year ended

₹ Crore

Particulars	National High Power Test Laboratory Private Ltd.		Energy Efficiency Services Ltd.		CIL NTPC Urja Private Ltd.		Anushakti Vidhyut Nigam Ltd.		Hindustan Urvarak & Rasayan Ltd.		Trincomalee Power Company Ltd.		Bangladesh-India Friendship Power Company Pvt. Ltd.	
	31 March 2019	31 March 2018	**31 March 2019**	31 March 2018	**31 March 2019**	31 March 2018	**31 March 2019**	31 March 2018	**31 March 2019**	31 March 2018	**31 March 2019**	31 March 2018	**31 March 2019**	31 March 2018
Revenue from operations	**26.03**	20.83	**1,829.27**	1,313.62	-	-	-	-	-	-	-	-	-	-
Other income	**0.41**	1.31	**93.82**	53.36	-	-	-	-	**32.06**	5.91	-	0.33	-	-
Depreciation and amortisation	**8.36**	8.88	**331.49**	136.57	-	-	-	-	**0.18**	0.04	-	14.88	-	-
Interest expense	**15.83**	14.74	**187.84**	121.73	-	-	-	-	-	-	-	-	-	-
Income tax expense/ (income)	-	-	**59.01**	-	-	-	-	-	**5.51**	0.44	-	-	-	-
Profit/(loss) for the year	**(8.72)**	(10.93)	**83.82**	54.43	**(0.01)**	-	-	(0.01)	**13.41**	1.15	**(0.62)**	(15.05)	-	-
Other comprehensive income/(expense)	**(0.05)**	0.05	**(0.22)**	(0.07)	-	-	-	-	-	-	-	-	-	-
Total comprehensive income/(expense)	**(8.77)**	(10.88)	**83.60**	54.36	**(0.01)**	-	-	(0.01)	**13.41**	1.15	**(0.62)**	(15.05)	-	-
Dividends received	-	-	-	-	-	-	-	-	-	-	-	-	-	-

(v) Commitments and contingent liabilities in respect of joint venture companies

The Group has commitments of ₹ **3,504.83 crores** (31 March 2018: ₹ 3,748.92 crore) towards further investment in the joint venture companies as at 31 March 2019.

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 2018: ₹ 75.00 crore).

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
Contingent liabilities		
Share of contingent liabilities incurred jointly with other investors of the joint venture companies	**1,022.64**	679.78
Possible reimbursements	**314.49**	90.04
Capital commitments	**10,968.70**	2,283.51

(vi) 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 2019	31 March 2018
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.	**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.	**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.	**30.40**	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.	**15.20**	15.20
Bangladesh-India Friendship Power Company Private Ltd.	15 years from the date of commercial operation date.	**277.83**	277.83
Meja Urja Nigam Private Ltd.	5 years from the date of incorporation (i.e. 02.04.2008) or commercial operation whichever is later.	**1,259.33**	1,209.33
Nabinagar Power Generating Company Ltd. (Nabinagar Power Generating Company Private Ltd.)	5 years from the date of incorporation (09.09.2008) or commercial operation whichever is later. Further, NTPC shall not transfer/assign or pledge shares of the JV until final settlement of loan i.e. 5 years moratorium and subsequently 15 years for repayment.	**NA**	1,857.87

₹ Crore

Name of the joint venture company	Period of restrictions for disposal of investments as per related agreements	Amount invested as at	
		31 March 2019	31 March 2018
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. (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 of 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).	**440.32**	333.25
Total		**2,104.50**	3,805.30

65. 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.

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 recognised on an undiscounted basis as 'Regulatory deferral account debit/credit balance' by credit/debit to 'Movements in Regulatory deferral account balances' during construction period and adjusted from the year in which the same becomes recoverable from or payable to the beneficiaries. Accordingly, an amount of (-) **₹ 26.25 crore** for the year ended as at 31 March 2019 has been accounted for as 'Regulatory deferral account debit balance' (31 March 2018: ₹ 587.23 crore accounted as 'Regulatory deferral account dedit balance'.)

(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 from ₹ 0.10 crore to ₹ 0.20 crore falls under the category of 'Change in law' and a regulatory asset was created in the previous year. 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 (Regulatory deferral account debit balance) towards the increase in O&M expenditure due to the pay revision. This will be taken up with CERC through petition. Accordingly, an amount of ₹ **118.26 crore** for the year ended 31 March 2019 has been accounted for as 'Regulatory deferral account debit balance' (31 March 2018: ₹ 118.32 crore).

(c) CERC Regulations provide that deferred tax liability upto 31 March 2009 shall be recovered from the beneficiaries as and when the same gets materialised. Further, for the period commencing from 1 April 2014, CERC Regulations, 2014 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 Group has recognised a deferred asset for above deferred tax liabilities (Net) in its financial statements (referred to as 'Deferred asset for deferred tax liability'). Deferred asset 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. The Group was recognising such deferred asset for deferred tax liability as part of Deferred Tax Liabilities (Net) under Note 25. During the year, in line with the opinion of the Expert Advisory Committee (EAC) of the Institute of Chartered Accountants of India (ICAI), the same has been reclassified as a regulatory deferral account debit balance. Refer Note 47 (A). Accordingly, an amount of (-) ₹ **5,528.91 crore** (31 March 2018: ₹ 3,065.65 crore) for the year ended 31 March 2019 has been accounted for as 'Regulatory deferral account debit balance'.

(d) The petition filed by the Parent Company before CERC seeking to reimburse the expenditure on transportation of ash, has been 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 has been created towards ash transportation expenses in respect of stations where there is shortfall in ash transportation expenses over and above the revenue from sale of ash. Accordingly, an amount of ₹ **179.29 crore** (31 March 2018: ₹ Nil) for the year ended 31 March 2019 has been accounted for as 'Regulatory deferral account debit balance'.

(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 recognised in the books to be recovered from or payable to beneficiaries in future periods are as follows:

a) Regulatory deferral account debit balance - Note 18

The regulatory assets recognised in the books to be recovered from the beneficiaries in future periods are as follows:

₹ Crore

Particulars	**For the year ended 31 March 2019**	For the year ended 31 March 2018
A. Opening balance	**8,739.40**	5,450.67
B. Addition during the year	**(5,257.61)**	3,771.20
C. Adjustments during the year	**(65.47)**	(488.48)
D. Amount collected/refunded during the year	**1.58**	6.01
E. Regulatory deferral account balances recognised in the statement of profit and loss (B+D)	**(5,256.03)**	3,777.21
F. Closing balance (A+C+E)	**3,417.90**	8,739.40

b) Net movements in regulatory deferral account balances [I]	**(5,256.03)**	3,777.21
c) Tax on net movements in regulatory deferral account balances [II]	**(1,055.13)**	152.04
d) Total amount recognised in the statement of profit and loss during the year [I-II]	**(4,200.90)**	3,625.17

The Group expects to recover the carrying amount of regulatory deferral account debit balance over a period of 10 years.

66. 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.

(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 recognised 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 opertion 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 Vojna (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 2019	31 March 2018*	**31 March 2019**	31 March 2018*	**31 March 2019**	31 March 2018*
Geographical markets						
India	87,592.57	79,531.21	6,052.06	5,291.73	93,644.63	84,822.94
Others	-	-	1,513.52	1,295.31	1,513.52	1,295.31
	87,592.57	79,531.21	**7,565.58**	6,587.04	**95,158.15**	86,118.25
Timing of revenue recognition						
Products and services transferred over time	87,592.57	79,531.21	7,565.58	6,587.04	95,158.15	86,118.25
	87,592.57	79,531.21	**7,565.58**	6,587.04	**95,158.15**	86,118.25

* The Group has applied Ind AS 115 using the cumulative effect method. Under this method, the comparative information is not restated.

III. Reconciliation of revenue recognised with contract price:

₹ Crore

Particulars	As at 31 March 2019
Contract price	**96,010.67**
Adjustments for:	
Rebates	**(852.52)**
Revenue recognised	**95,158.15**

IV. Contract balances

Contract assets are recognised when there is excess of revenue earned over billings on contracts. Contract assets are transferred to unbilled 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'.

The following table provides information about trade receivables, unbilled revenue and advances from customers:

₹ Crore

Particulars	As at 31 March 2019		As at 1 April 2018**	
	Current	**Non-current**	Current	Non-current
Trade receivables	**10,147.68**	-	8,812.19	-
Unbilled revenue	**8,547.85**	-	8,209.31	-
Advances from customers	**182.73**	-	458.74	-

**The Group has applied Ind AS 115 using the cumulative effect method. Under this method, the comparative information is not restated.

The Group recognised revenue of ₹ 108.40 crore arising from opening advances from customers as at 1 April 2018.

The amount of revenue recognised in FY 2018-19 from performance obligations satisfied (or partially satisfied) in previous periods, mainly due to change in transaction prices is (-) ₹ 2,773.44 crore.

There have been no significant changes in unbilled revenue and advances from customers during the year ended 31 March 2019.

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 recognised 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 ₹ **715.45 crore** (31 March 2018: ₹ 782.83 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.

VII. The Group has not incurred any incremental costs of obtaining contracts with a customer and therefore, not recognised an asset for such costs.

VIII. The Group adopted Ind AS 115 using the cumulative effect method and therefore the comparatives have not been restated and continues to be reported as per Ind AS 11 and Ind AS 18. On account of adoption of Ind AS 115, no cumulative adjustment was required as at 1 April 2018. Further, adoption of Ind AS 115 has resulted in decline in both 'Revenue from operations' and 'Energy purchased for trading' by ₹ **1,046.39 crore** for the year ended 31 March 2019.

67. 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 2019	**84.67%**	**93,728.60**	**93.35%**	**11,792.86**	**99.44%**	**(190.20)**	**93.25%**	**11,602.66**
31 March 2018	87.84%	91,804.63	96.64%	10,148.98	99.24%	(20.53)	96.64%	10,128.45
Subsidiaries (Indian)								
Bhartiya Rail Bijlee Company Ltd.								
31 March 2019	**1.54%**	**1,703.38**	**0.05%**	**6.57**	**0.00%**	**-**	**0.05%**	**6.57**
31 March 2018	1.58%	1,652.56	0.19%	20.14	0.00%	-	0.19%	20.14
Kanti Bijlee Utpadan Nigam Ltd.								
31 March 2019	**1.46%**	**1,617.49**	**0.85%**	**107.28**	**0.00%**	**-**	**0.86%**	**107.28**
31 March 2018	0.82%	859.10	-1.25%	(131.54)	0.00%	-	-1.26%	(131.54)
NTPC Vidyut Vyapar Nigam Ltd.								
31 March 2019	**0.56%**	**621.79**	**0.52%**	**65.56**	**0.00%**	**-**	**0.53%**	**65.56**
31 March 2018	0.30%	311.30	0.58%	61.26	0.00%	-	0.58%	61.26
NTPC Electric Supply Company Ltd.								
31 March 2019	**0.07%**	**77.96**	**0.00%**	**(0.09)**	**0.00%**	**-**	**0.00%**	**(0.09)**
31 March 2018	0.04%	42.47	0.00%	-	0.00%	-	0.00%	-
Patratu Vidyut Utpadan Nigam Ltd.								
31 March 2019	**0.23%**	**253.97**	**-0.01%**	**(1.02)**	**0.00%**	**-**	**-0.01%**	**(1.02)**
31 March 2018	0.12%	124.09	0.00%	0.02	0.00%	-	0.00%	0.02
Nabinagar Power Generating Company Ltd. (formerly Nabinagar Power Generating Company Private Ltd.)								
31 March 2019	**3.64%**	**4,025.74**	**-0.03%**	**(3.21)**	**0.00%**	**-**	**-0.03%**	**(3.21)**
31 March 2018	0.00%	-	0.00%	-	0.00%	-	0.00%	-
Non-controlling interests in all subsidiaries								
31 March 2019	**0.60%**	**664.83**	**-0.05%**	**(6.57)**	**0.00%**		**-0.05%**	**(6.57)**
31 March 2018	0.91%	947.77	-0.40%	(42.45)	0.00%	-	-0.41%	(42.45)
Joint ventures (Investment as per equity method)								
Indian								
Utility Powertech Ltd.								
31 March 2019	**0.05%**	**59.07**	**0.11%**	**13.55**	**-0.01%**	**0.01**	**0.11%**	**13.56**
31 March 2018	0.05%	49.01	0.10%	10.51	-3.26%	0.68	0.11%	11.19
NTPC-GE Power Services Private Ltd.								
31 March 2019	**0.01%**	**6.43**	**0.02%**	**2.17**	**0.00%**	**-**	**0.02%**	**2.17**
31 March 2018	0.00%	4.49	-0.07%	(7.52)	0.00%	-	-0.07%	(7.52)

₹ 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-SAIL Power Company Ltd.								
31 March 2019	**1.13%**	**1,249.12**	**1.41%**	**177.96**	**0.50%**	**(0.95)**	**1.42%**	**177.01**
31 March 2018	1.04%	1,092.11	1.58%	165.86	1.67%	(0.35)	1.58%	165.51
NTPC Tamil Nadu Energy Company Ltd.								
31 March 2019	**1.24%**	**1,376.96**	**0.47%**	**59.65**	**0.01%**	**(0.01)**	**0.48%**	**59.64**
31 March 2018	1.26%	1,311.70	0.16%	16.72	-0.02%	0.01	0.16%	16.73
Ratnagiri Gas and Power Private Ltd.								
31 March 2019	**0.00%**	-	**0.00%**	-	**0.00%**	-	**0.00%**	-
31 March 2018	0.00%	-	0.00%	-	0.00%	-	0.00%	-
Konkan LNG Private Ltd.								
31 March 2019	**0.00%**	-	**0.00%**	-	**0.00%**	-	**0.00%**	-
31 March 2018	0.00%	-	0.00%	-	0.00%	-	0.00%	-
Aravali Power Company Private Ltd.								
31 March 2019	**2.65%**	**2,936.53**	**3.09%**	**390.08**	**-0.02%**	**0.04**	**3.14%**	**390.12**
31 March 2018	2.51%	2,618.06	2.75%	288.88	0.17%	(0.04)	2.76%	288.85
NTPC BHEL Power Projects Private Ltd.								
31 March 2019	**0.00%**	-	**-0.03%**	**(4.39)**	**0.01%**	**(0.02)**	**-0.04%**	**(4.41)**
31 March 2018	0.00%	4.41	-0.37%	(38.35)	0.00%	-	-0.37%	(38.35)
Meja Urja Nigam Private Ltd.								
31 March 2019	**1.16%**	**1,284.75**	**-0.01%**	**(1.08)**	**0.00%**	-	**-0.01%**	**(1.08)**
31 March 2018	1.18%	1,235.83	0.00%	(0.10)	0.00%	-	0.00%	(0.10)
BF-NTPC Energy Systems Ltd.								
31 March 2019	**0.00%**	-	**0.00%**	-	**0.00%**	-	**0.00%**	-
31 March 2018	0.00%	2.43	-0.01%	(0.68)	0.00%	-	-0.01%	(0.68)
Nabinagar Power Generating Company Ltd. (previously Nabinagar Power Generating Company Private Ltd.)								
31 March 2019	**0.00%**	-	**0.00%**	-	**0.00%**	-	**0.00%**	-
31 March 2018	1.61%	1,682.73	0.00%	(0.05)	0.00%	-	0.00%	(0.05)
Transformers and Electricals Kerala Ltd.								
31 March 2019	**0.04%**	**41.67**	**0.04%**	**4.82**	**0.03%**	**(0.05)**	**0.04%**	**4.77**
31 March 2018	0.04%	36.90	0.02%	1.88	2.16%	(0.45)	0.01%	1.44
National High Power Test Laboratory Private Ltd.								
31 March 2019	**0.02%**	**26.08**	**-0.01%**	**(1.70)**	**0.01%**	**(0.01)**	**-0.01%**	**(1.71)**
31 March 2018	0.03%	27.79	-0.02%	(2.19)	-0.05%	0.01	-0.02%	(2.18)
Energy Efficiency Services Ltd.								
31 March 2019	**0.27%**	**301.45**	**0.21%**	**26.85**	**0.04%**	**(0.08)**	**0.22%**	**26.77**
31 March 2018	0.17%	179.69	0.16%	17.26	0.11%	(0.02)	0.16%	17.24
CIL NTPC Urja Private Ltd.								
31 March 2019	**0.00%**	**0.02**	**0.00%**	-	**0.00%**	-	**0.00%**	-
31 March 2018	0.00%	0.02	0.00%	-	0.00%	-	0.00%	-

₹ 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
Anushakti Vidhyut Nigam Ltd.								
31 March 2019	**0.00%**	**0.01**	**0.00%**	-	**0.00%**	-	**0.00%**	-
31 March 2018	0.00%	0.01	0.00%	-	0.00%	-	0.00%	-
Hindustan Urvarak and Rasayan Ltd.								
31 March 2019	**0.40%**	**443.54**	**0.04%**	**4.47**	**0.00%**	-	**0.04%**	**4.47**
31 March 2018	0.32%	332.00	0.00%	0.38	0.00%	-	0.00%	0.38
Foreign								
Trincomalee Power Company Ltd.								
31 March 2019	**0.00%**	**1.58**	**0.00%**	**(0.31)**	**0.00%**	-	**0.00%**	**(0.31)**
31 March 2018	0.00%	1.83	-0.07%	(7.52)	0.00%	-	-0.07%	(7.52)
Bangladesh-India Friendship Power Company Private Ltd.								
31 March 2019	**0.25%**	**280.85**	**0.00%**	-	**0.00%**	-	**0.00%**	-
31 March 2018	0.18%	190.32	0.00%	-	0.00%	-	0.00%	-
Total								
31 March 2019	**100.00%**	**1,10,701.82**	**100.00%**	**12,633.45**	**100.00%**	**(191.27)**	**100.00%**	**12,442.18**
31 March 2018	100.00%	1,04,511.24	100.00%	10,501.50	100.00%	(20.69)	100.00%	10,480.81

68. Contingent liabilities and commitments

A. Contingent liabilities

a. Claims against the group not acknowledged as debts

(i) Capital works

Some of the contractors for supply and installation of equipment and execution of works at our projects have lodged claims on the Group for ₹ **11,844.22 crore** (31 March 2018: ₹ 12,843.13 crore) 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.

(ii) Land compensation cases

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 ₹ **376.44 crore** (31 March 2018: ₹ 379.98 crore) has been estimated.

(iii) Fuel suppliers

a) Pending resolution of the issues with the coal companies, an amount of ₹ **3,009.74 crore** (31 March 2018: ₹ 2,869.21 crore) towards grade slippage pursuant to third party sampling has been estimated by the Group as contingent liability. Further, an amount of ₹ **878.52 crore** (31 March 2018: ₹ 678.46 crore) towards surface transportation charges, custom duty on service margin on imported coal etc. has been estimated by the Group as contingent liability.

b) In the previous year, pending resolution of dispute with fuel company for supply of RLNG, an amount of ₹ 5,821.61 crore towards the take or pay claim was estimated by the Group as contingent liability. During the year, the said dispute has been resolved.

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**

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 ₹ **613.68 crore** (31 March 2018: ₹ 352.56 crore) has been estimated.

(v) **Possible reimbursement in respect of (i) to (iii) above**

The contingent liabilities referred to in (i) above, include an amount of ₹ **682.19 crore** (31 March 2018: ₹ 648.26 crore) relating to the hydro power project stated in Note 10 (b) - Other financial assets, for which the Group envisages possible reimbursement from the GOI in full. In respect of balance claims included in (i) and in respect of the claims mentioned at (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 ₹**3,639.64 crore** (31 March 2018: ₹ 9,199.87 crore).

b. **Disputed tax matters**

Disputed income tax/Sales tax/Excise and other tax matters pending before various Appellate Authorities amount to ₹ **9,328.57 crore** (31 March 2018: ₹ 9,184.18 crore). 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 estimates possible reimbursement of ₹ **5,138.64 crore** (31 March 2018: ₹ 5,004.39 crore). The amount paid under disputes / adjusted by the authorities in respect of cases amounts to ₹ **2,522.97 crore** (31 March 2018: ₹ 2,480.22 crore).

c. **Others**

Contingent liability in respect of bills discounted with banks against trade receivables amounts to ₹ **9,998.99 crore** (31 March 2018: ₹ 602.12 crore) (Refer Note-12). In case of any claim on the Company from the banks in this regard, entire amount shall be recoverable from the beneficiaries along with surcharge. Other contingent liabilities amount to ₹ **2,387.16 crore** (31 March 2018: ₹ 2,670.49 crore) which includes claim of ₹ **1,875.73 crore** (31 March 2018: ₹ 2,026.30 crore) not accepted by the Group. Refer Note 49 (b).

Electricity supplied by the sellers under SWAP arrangements of **232.9623 MUs** (31 March 2018: 437.2195 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.

d. **Joint venture companies**

Refer Note 64 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) CERC (Terms & Conditions of Tariff) Regulations 2014-19 provide for levy of Late Payment Surcharge by generating company in case of delay in payment by beneficiaries beyond 60 days from the date of presentation of bill. However, inview of significant uncertainties in the ultimate collection from some of the beneficiaries against partial bills as resolved by the management, an amount of ₹ **345.14 crore** as at 31 March 2019 (31 March 2018: ₹ 189.47 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 as at 31 March 2019 is ₹ **53,201.40 crore** (31 March 2018: ₹ 51,340.00 crore). Details of the same are as under:

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
Property, plant and equipment	**53,174.81**	51,339.13
Intangible assets	**26.59**	0.87
Total	**53,201.40**	51,340.00

b. In respect the following investments of ₹ **1.40 crore** (31 March 2018: ₹ 1.40 crore), the Group has restrictions for their disposal as at 31 March 2019 as under:

₹ Crore

Name of the Company	Period of restrictions for disposal of investments as per related agreements	Amount invested as at (Refer Note 7)	
		31 March 2019	31 March 2018
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.	**1.40**	1.40
Total		**1.40**	1.40

Further, the Group has commitments of ₹ **507.79 crore** (31 March 2018: ₹ 507.60 crore) towards further investment in the above investments as at 31 March 2019.

c. Group's commitment towards the minimum work programme in respect of oil exploration activities of joint operations has been disclosed in Note 59.

d. S.O. 254 (E) dated 25 January 2016 issued by the Ministry of Environment, Forest and Climate Change (MOEF), GOI provides that the cost of transportation of ash for road construction projects or for manufacturing of ash based products or use as soil conditioner in agricultural activity within a radius of hundred kilometres from a coal based thermal power plant shall be borne by such coal based thermal power plant and the cost of transportation beyond the radius of hundred kilometres and up to three hundred kilometres shall be shared equally between the user and the coal based thermal power plant. Further, the coal or lignite based thermal power plants shall within a radius of three hundred kilometres bear the entire cost of transportation of ash to the site of road construction projects under Pradhan Mantri Gramin Sadak Yojna and asset creation programmes of the Government involving construction of buildings, road, dams and embankments. Accordingly, the Group has commitment to bear/share the cost of transportation of fly ash from its coal based stations on lifting of the fly ash by the users for the said purpose. Based on an independent expert opinion, the Group's obligation towards the transportation cost of fly ash will arise only on lifting and transportation of the fly ash.

An appeal was filed before CERC under 'Change in Law' as stipulated in Regulation 8 of CERC 2014 Tariff Regulations, to provide relief in respect of additional expenditure being incurred by the Group towards transportation of fly ash, considering the MOEF notification dated 25 January 2016.

During the year, CERC vide order dated 5 November 2018 has allowed reimbursement of actual expenditure incurred over and above the ash fund towards transportation of fly ash in terms of MOEF Notification, as additional O&M expenses, subject to prudence check.

e. Group's commitment in respect of lease agreements has been disclosed in Note 49.

f. Refer Note 64 for commitments relating to joint venture companies.

69. **Information in respect of micro and small enterprises as at 31 March 2019 as required by Micro, Small and Medium Enterprises Development Act, 2006 (MSMED Act)**

₹ Crore

Particulars	As at 31 March 2019	As at 31 March 2018
a) Amount remaining unpaid to any supplier:		
Principal amount	603.03	461.95
Interest due thereon	29.47	1.50
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.	-	0.01
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 with out adding the interest specified under the MSMED Act.	0.01	0.01
d) Amount of interest accrued and remaining unpaid	0.24	1.50
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	-	-

70. 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

(Nandini Sarkar)
Company Secretary

(Sudhir Arya)
Chief Financial Officer

(K.Sreekant)
Director (Finance)

(Gurdeep Singh)
Chairman & Managing Director

These are the notes referred to in Consolidated Balance Sheet and Consolidated Statement of Profit and Loss

For T R Chadha & Co LLP
Chartered Accountants
Firm Reg. No. 006711N/N500028

For S.N.Dhawan & Co LLP
Chartered Accountants
Firm Reg. No. 000050N/N500045

For Sagar & Associates
Chartered Accountants
Firm Reg. No. 003510S

(Neena Goel)
Partner
M. No. 057986

(S.K.Khattar)
Partner
M No.084993

(V. Vidyasagar Babu)
Partner
M. No. 027357

For Kalani & Co.
Chartered Accountants
Firm Reg. No. 000722C

For P. A. & Associates
Chartered Accountants
Firm Reg. No. 313085E

For S. K. Kapoor & Co.
Chartered Accountants
Firm Reg. No. 000745C

For B M Chatrath & Co LLP
Chartered Accountants
Firm Reg. No. 301011E/E300025

(Varun Bansal)
Partner
M. No. 402856

(Dinesh Agrawal)
Partner
M No.055955

(Sanjiv Kapoor)
Partner
M. No. 070487

(Sanjay Sarkar)
Partner
M. No. 064305

Place : New Delhi
Dated : 25 May 2019

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)
Part "A": Subsidiaries

(Amount in ₹ crore)

1.	Sl. No.	1	2	3	4	5	6
2.	Name of the Subsidiary	NTPC Electric Supply Company Ltd.	NTPC Vidyut Vyapar Nigam Ltd.	Kanti Bijlee Utpadan Nigam Ltd.	Bhartiya Rail Bijlee Company Ltd.	Patratu Vidyut Utpadan Nigam Ltd.	Nabinagar Power Generating Company Ltd. (previously Nabinagar Power Generating Company Pvt. Ltd.)*
3.	The date since when subsidiary was acquired	21.08.2002	01.11.2002	06.09.2006	22.11.2007	15.10.2015	29.06.2018
4.	Reporting period for the subsidiary concerned, if different from the holding company's reporting period	Same as that of Holding Company (01.04.2018 -31.03.2019)	Same as that of Holding Company (01.04.2018 -31.03.2019)	Same as that of Holding Company (01.04.2018 -31.03.2019)	Same as that of Holding Company (01.04.2018 -31.03.2019)	Same as that of Holding Company (01.04.2018 -31.03.2019)	Same as that of Holding Company (01.04.2018 -31.03.2019)
5.	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
6.	Share capital	0.08	20.00	1,510.67	2,161.53	316.38	3,987.16
7.	Reserves & surplus	42.30	332.75	(154.25)	203.60	(1.43)	42.38
8.	Total assets	77.77	1,849.40	5,124.08	8,722.53	2,136.47	14,446.97
9.	Total liabilities	35.39	1,496.65	3,767.66	6,357.40	1,821.52	10,417.43
10.	Investments	-	-	-	-	-	-
11.	Turnover	-	4,481.24	1,605.26	1,169.73	-	-
12.	Profit before taxation	-	101.87	126.93	(346.08)	(1.38)	(0.54)
13.	Provision for taxation	0.09	36.31	28.19	(354.96)	-	2.67
14.	Profit after taxation	(0.09)	65.56	98.74	8.88	(1.38)	(3.21)
15.	Proposed dividend	-	-	-	-	-	-
16.	% of Shareholding	100.00%	100.00%	100.00%	74.00%	74.00%	100.00%

* A subsidiary w.e.f. 29 June 2018 (hitherto a joint venutre with 50% equity participation).

Notes:

1.	Subsidiaries which are yet to commence operations.	Nabinagar Power Generating Company Ltd. (previously Nabinagar Power Generating Company Pvt. Ltd.)
2.	Subsidiaries which have been liquidated or sold during the year.	Nil

Part "B" : Associates and Joint Ventures
Statement pursant 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.	Ratnagiri Gas and Power Pvt. Ltd.	Konkan LNG Pvt. Ltd.	Aravali Power Company Pvt. Ltd.	NTPC-BHEL Power Projects Pvt. Ltd.	Meja Urja Nigam Pvt. Ltd.	Transformers & Electricals Kerela Ltd.	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.
1.	Latest Audited Balance Sheet Date	31.03.2019	31.03.2018	31.03.2019	31.03.2019	31.03.2019	31.03.2018	31.03.2019	31.03.2018	31.03.2019	31.03.2017	31.03.2018	31.03.2018	31.03.2018	31.03.2018	31.03.2019	31.12.2018	30.06.2018
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	08.07.2005	26.03.2018	21.12.2006	28.04.2008	02.04.2008	19.06.2009	22.05.2009	10.12.2009	27.04.2010	27.01.2011	15.06.2016	26.09.2011	31.10.2012
3.	Shares of Joint Ventures held by the Company on the year end as at 31.03.2019																	
	- Number	2,000,000	3,000,000	490,250,050	1,415,606,112	834,556,036	139,752,264	1,433,008,200	50,000,000	1,259,329,800	19,163,438	30,400,000	245,500,000	76,900	49,000	440,325,000	3,286,061	34,250,000
	- Amount of Investment in Joint Venture (₹ crore)	1.00	3.00	490.25	1,415.61	834.55	139.75	1,433.01	50.00	1,259.33	31.34	30.40	245.50	0.08	0.05	440.32	15.20	277.83
	- Extent of Holding (%)	50.00%	50.00%	50.00%	50.00%	25.51%	14.82%	50.00%	50.00%	50.00%	44.60%	20.00%	36.36%	50.00%	49.00%	33.33%	50.00%	50.00%
4.	Description of how there is significant influence	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5.	Reason why the Joint Venture is not consolidated	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6.	Networth atributable to Shareholding as per latest audited Balance Sheet (₹crore)	59.07	4.82	1,249.12	1,376.96	(886.41)	(20.65)	2,936.53	10.16	1,284.75	35.47	27.83	172.95	0.02	0.01	443.54	4.29	277.83
7.	Profit/ Loss for the year (Total Comprehensive Income) (₹ crore)																	
	i. Considered for Consolidation	13.56	2.17	177.01	59.64	-	-	390.12	(4.41)	(1.08)	4.77	(1.71)	26.77	-	-	4.47	(0.31)	-
	ii. Not Considered in Consolidation	NA	NA	NA	NA	(146.44)	(57.29)	NA	(22.20)	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

A. Names of Joint Ventures which are yet to commence operations.

1 Meja Urja Nigam Private Ltd.
2 CIL NTPC Urja Private Ltd.
3 Anushakti Vidyut Nigam Ltd.
4 Hindustan Urvarak & Rasayan Limited
5 Trincomalee Power Company Ltd. (incorporated in Srilanka)
6 Bangladesh-India Friendship Power Company Private Ltd. (incorporated in Bangladesh)

B. Names of Associates or Joint Ventures which have been liquidated or sold during the year.

BF-NTPC Energy Systems Ltd. is in the process of voluntary winding up.

For and on behalf of the Board of Directors

(Nandini Sarkar) Company Secretary	(Sudhir Arya) Chief Financial Officer	(K.Sreekant) Director (Finance)	(Gurdeep Singh) Chairman & Managing Director

For T R Chadha & Co LLP Chartered Accountants Firm Reg. No. 006711N/N500028	For S.N.Dhawan & Co LLP Chartered Accountants Firm Reg. No. 000050N/N500045	For Sagar & Associates Chartered Accountants Firm Reg. No. 003510S
(Neena Goel) Partner M. No. 057986	(S.K.Khattar) Partner M No.084993	(V. Vidyasagar Babu) Partner M. No. 027357

For Kalani & Co. Chartered Accountants Firm Reg. No. 000722C	For P. A. & Associates Chartered Accountants Firm Reg. No. 313085E	For S. K. Kapoor & Co. Chartered Accountants Firm Reg. No. 000745C	For B M Chatrath & Co LLP Chartered Accountants Firm Reg. No. 301011E/E300025
(Varun Bansal) Partner M. No. 402856	(Dinesh Agrawal) Partner M No.055955	(Sanjiv Kapoor) Partner M. No. 070487	(Sanjay Sarkar) Partner M. No. 064305

Place : New Delhi
Dated : 25 May 2019

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 joint ventures, which comprise the Consolidated Balance Sheet as at 31 March, 2019, 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 significant accounting policies and other explanatory information (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 the joint ventures as referred to in sub-paragraph (a) of the 'Other Matters' paragraph 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 accounting principles generally accepted in India, of the consolidated state of affairs (financial position) of the Group and its joint ventures as at March 31, 2019, 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 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 there under, 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 we have obtained and the audit evidence obtained by the other auditors in terms of their reports as referred to in sub-paragraph (a) of the 'Other Matters' paragraph 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. 32 (a) regarding billing and recognition of sales on provisional basis pending disposal of the Holding Company's petition before CERC on the measurement of GCV of coal on 'as received' basis measured on wagon top at the unloading point, on the adjustment of loss of GCV for the period 2014-19 and other related matters as mentioned in the said note.

(b) Note No. 42 in respect of a Holding Company's project consisting of three units of 800MW each, where the order of NGT has been stayed by the Hon'ble Supreme Court of India, the matter is sub-judiced and the units have since been declared commercial.

(c) Note No. 56(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.

Our opinion is not modified in respect of these 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.

Sr. No.	Key Audit Matter	How our audit addressed the Key Audit Matter
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 rates approved by the Central Electricity Regulatory Commission (CERC) as modified by the orders of Appellate Authorities. However, in cases where tariff rates are yet to be approved, provisional rates are adopted considering the applicable CERC Tariff Regulations. 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. 32 to the Consolidated Financial Statements, read with the Significant Accounting Policy No. C.16)	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. - Verified the accounting of revenue from sale of energy based on tariff rates approved by the CERC as modified by the orders of Appellate Authorities. In case of power stations where the tariff rates are yet to be approved, provisional rates are adopted in accordance with the principles given in the CERC Tariff Regulations. Based on the above procedure performed, the recognition and measurement 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. 55 to the Consolidated Financial Statements, read with the Accounting Policy No. C.21)	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 involving valuation experts to assist 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, 2019 (applicable for the tariff period of 5 years from 1 April 2019 to 31 March 2024) 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 corresponding to the said MAT credit entitlement has also been recognised, 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 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. 18, 25, 48 & 65 to the Consolidated Financial Statements, read with the Accounting Policy No. C.5 and C.19)	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 corresponding 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 corresponding 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. 68 to the Consolidated Financial Statements, read with the Accounting Policy No. C.14)	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 any material developments 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 whether provisions are required; - considered the management assessments of those matters that are not disclosed as 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 Consolidated Financial Statements and Auditor's Report Thereon

The Holding Company's Board of Directors is responsible for the preparation of the other information. The other information comprises the information included in the Annual Report related to the Consolidated Financial Statements, but does not include the Consolidated Financial Statements and our auditor's report thereon. The other information is expected to be made available to us after the date of this auditor's report.

Our opinion on the Consolidated Financial Statements does not cover the other information and we do 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 Accounting Standards 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 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 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 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 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 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.

Materiality is the magnitude of misstatements in the Consolidated Financial Statements that, individually or in aggregate, makes it probable that the economic decisions of a reasonably knowledgeable user of the Consolidated Financial Statements may be influenced. We consider quantitative materiality and qualitative factors in (i) planning the scope of our audit work and in evaluating the results of our work; and (ii) to evaluate the effect of any identified misstatements in the Consolidated Financial Statements.

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 the following subsidiaries whose financial statements reflect the details given below of total assets as at 31 March 2019, total revenues and net cash flows for the year ended on that date, as considered in the Consolidated Financial Statements:

(₹ **Crore)**

Name of the Subsidiary	Total Assets	Total Revenues	Net Cash Inflows/ (Outflows)
1) NTPC Electric Supply Company Ltd	77.77	-	-
2) NTPC Vidyut Vyapar Nigam Ltd.	1,849.40	4,503.14	(174.18)
3) Kanti Bijlee Utpadan Nigam Ltd.	5,124.08	1,610.41	(13.58)
4) Bhartiya Rail Bijlee Company Ltd.	8,722.54	1,210.02	17.79
5) Patratu Vidyut Utpadan Nigam Ltd.	2,136.47	-	(3.63)
6) Nabinagar Power Generating Company Ltd.	14,446.97	2.59	(38.48)
Total	**32,357.23**	**7,326.16**	**(212.08)**

The Consolidated Financial Statements also include the Group's share of net profit/(loss) (including Other Comprehensive Income) using equity method, for the year ended 31 March 2019 as considered in the Consolidated Financial Statements in respect of following joint ventures whose financial statements/ financial information have not been audited by us:

(₹ **Crore)**

Name of Joint Ventures	**Group's share net profit/(loss) using equity method**
1) Utility Powertech Ltd.	13.56
2) NTPC-SAIL Power Company Ltd.	177.01
3) Aravali Power Company Pvt. Ltd.	390.12
4) Meja Urja Nigam Pvt. Ltd.	(1.08)
5) Hindustan Urvarak & Rasayan Ltd.	4.47
6) NTPC Tamil Nadu Energy Company Ltd.	59.64
7) Ratnagiri Gas and Power Pvt. Ltd.	-
Total	**643.72**

These financial statements/ financial information of subsidiaries and joint venture shave been audited by other auditors whose reports have been furnished to us by the Holding Company's Management upto 22 May 2019 and our opinion on the Consolidated Financial Statements, in so far as it relates to the amounts and disclosures included in respect of these subsidiaries and joint ventures, and our report in terms of sub-section(3)143 of the Act, in so far as it relates to the aforesaid subsidiaries and joint ventures is based solely on the reports of the other auditors 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 the Group's share of net profit/(loss) (including Other Comprehensive Income) using equity method, for the year ended 31 March 2019 as considered in the Consolidated Financial Statements in respect of following joint ventures whose financial statements/ financial information are unaudited:-

(₹ **Crore)**

Name of Joint Ventures	**Group's share of net profit/ (loss) using equity method**
1) NTPC- GE Power Services Private Ltd.	2.17
2) Konkan LNG Private Ltd.	-
3) NTPC-BHEL Power Project Pvt. Ltd	(4.41)
4) National High Power Test Laboratory Pvt. Ltd	(1.71)
5) Transformers and Electricals Kerala Ltd.	4.77
6) Energy Efficiency Services Ltd.	26.77
7) CIL NTPC Urja Pvt. Ltd.	-
8) Anushakti Vidyut Nigam Ltd.	-
9) Trincomalee Power Company Ltd *	(0.31)
10) Bangladesh India Friendship Power Company Pvt. Ltd. *	-
Total	**27.28**

*Located Outside India

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 (including Other Comprehensive Income) 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 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, 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.

c) We audited the adjustments, as fully described in Note No. 47(A) 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 2019. In our opinion, such adjustments are appropriate and have been properly applied.

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) & (c) 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 and the adjustments made to the comparative Consolidated Financial Statements.

Report on Other Legal and Regulatory Requirements

1. 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 noted in the 'Other Matters' paragraph, 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 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 5th 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 seven joint ventures incorporated in India, none of the directors of the joint ventures incorporated in India is disqualified as on 31 March 2019 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 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 Annexure1.

   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 seven joint ventures incorporated in India, the managerial remuneration paid/provided by such joint ventures 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 Rule11 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 joint ventures. Refer Note No. 68 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 no delay in transferring amounts, required to be transferred, to the Investor Education and Protection Fund by the Holding Company, its subsidiaries and joint ventures incorporated in India.

For T R Chadha & Co LLP
Chartered Accountants
FRN 006711N/N500028

(Neena Goel)
Partner
M. No. 057986

For S. N. Dhawan & Co. LLP
Chartered Accountants
FRN 000050N/N500045

(S.K. Khattar)
Partner
M No. 084993

For Sagar & Associates
Chartered Accountants
FRN 003510S

(V. Vidyasagar Babu)
Partner
M. No. 027357

For Kalani & Co.
Chartered Accountants
FRN 000722C

(Varun Bansal)
Partner
M. No. 402856

For P. A. & Associates
Chartered Accountants
FRN 313085E

(Dinesh Agrawal)
Partner
M No.055955

For S. K. Kapoor & Co.
Chartered Accountants
FRN 000745C

(Sanjiv Kapoor)
Partner
M.No.070487

For B M Chatrath & Co LLP
Chartered Accountants
FRN 301011E/E300025

(Sanjay Sarkar)
Partner
M. No. 064305

Place : New Delhi
Dated : 25 May 2019

Annexure 1

ANNEXURE TO THE INDEPENDENT AUDITORS' REPORT

Referred to in paragraph 1 (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 2019

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 2019, 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 with reference to Consolidated Financial Statements based on the internal controls over financial reporting criteria established by the Holding 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 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, both, 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 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 system 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 Company's internal financial controls system 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 system 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 2019, 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 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, insofar as it relates to six subsidiaries and seven 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 eight 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 T R Chadha & Co LLP
Chartered Accountants
FRN 006711N/N500028

(Neena Goel)
Partner
M. No. 057986

For S. N. Dhawan & Co. LLP
Chartered Accountants
FRN 000050N/N500045

(S.K. Khattar)
Partner
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For Sagar & Associates
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(Varun Bansal)
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For P. A. & Associates
Chartered Accountants
FRN 313085E

(Dinesh Agrawal)
Partner
M No.055955

For S. K. Kapoor & Co.
Chartered Accountants
FRN 000745C

(Sanjiv Kapoor)
Partner
M.No.070487

For B M Chatrath & Co LLP
Chartered Accountants
FRN 301011E/E300025

(Sanjay Sarkar)
Partner
M. No. 064305

Place : New Delhi
Dated : 25 May 2019

COMMENTS OF 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 2019

The preparation of consolidated financial statements of NTPC Limited for the year ended 31 March 2019 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) or 139 (7) read with section 129 (4) of the Act is/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 25.05.2019.

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 2019 under section 143 (6) (a) read with section 129 (4) of the Act. We conducted a supplementary audit of the financial statements of NTPC Limited, Kanti Bijlee Utpadan Nigam Ltd., NTPC-SAIL Power Company Ltd., NTPC Tamil Nadu Energy Company Ltd., CIL NTPC Urja Private Ltd., Hindustan Urvarak & Rasayan Ltd. and Patratu Vidyut Utpadan Nigam Ltd., but did not conduct supplementary audit of the financial statements of subsidiaries, associate companies and jointly controlled entities listed in Annexure 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, NTPC- GE Power Services Private Limited and BF-NTPC Energy Systems Limited being private entities and Bangladesh India Friendship Power Company Private Limited and Trincomalee Power Company Limited being incorporated in Foreign countries under the respective laws, for appointment of their Statutory Auditor 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.

On the basis of my supplementary audit nothing significant has come to my knowledge which would give rise to any comment upon or supplement to statutory auditors' report under section 143 (6) (b) of the Act.

For and on behalf of the
Comptroller & Auditor General of India

(Raj Kumar)
Principal Director of Commercial Audit &
Ex-officio Member, Audit Board – III,
New Delhi

Place : New Delhi
Date : 1 July 2019

ANNEXURE

List of Subsidiaries, Associate Companies and Jointly Controlled Entities of NTPC Limited whose financial statements were not audited by the Comptroller and Auditor General of India

A. Subsidiaries incorporated in India:

1. NTPC Vidyut Vyapar Nigam Ltd.
2. NTPC Electric Supply Company Ltd.
3. Bhartiya Rail Bijlee Company Ltd.
4. Nabinagar Power Generating Company Ltd.

B. Joint Ventures incorporated in India:

1. Ratnagiri Gas & Power Private Ltd.
2. Aravali Power Company Private Ltd.
3. NTPC BHEL Power Projects Private Ltd.
4. Meja Urja Nigam Private Ltd.
5. Transformers and Electricals Kerala Ltd.
6. National High Power Test Laboratory Private Ltd.
7. Energy Efficiency Services Ltd.
8. Anushakti Vidhyut Nigam Ltd.
9. Konkan LNG Private Ltd.

NOTES

NTPC Limited

CIN: L40101DL1975GOI007966
Regd. Office : NTPC Bhawan, SCOPE Complex, 7, Institutional Area, Lodi Road, New Delhi-110 003
Tel:011-24360959 **Fax:** 011-24360241 **Web:**www.ntpc.co.in **Email:** csntpc@ntpc.co.in

ATTENDANCE SLIP

43rd ANNUAL GENERAL MEETING TO BE HELD ON WEDNESDAY, 21st AUGUST, 2019 AT 10.30 A.M.

NAME OF THE ATTENDING MEMBER (IN BLOCK LETTERS)	
*Folio No.	
DP ID No.	
Client ID No.	
No. of shares held	
NAME OF PROXY (IN BLOCK LETTERS, TO BE FILLED IN IF THE PROXY ATTENDS INSTEAD OF THE MEMBER)	

I, hereby record my presence at **43rd Annual General Meeting** of the Company held on **Wednesday, 21st August, 2019 at 10:30 A.M.** at Manekshaw Centre, Parade Road, New Delhi – 110 010.

Signature of Member/ Proxy

*Applicable in case of shares held in Physical Form.

NOTES:

1. The attendance slip should be signed as per the specimen signature registered with Alankit Assignments Limited, Registrar & Transfer Agent (RTA)/ Depository Participant (DP). Such duly completed and signed Attendance Slip(s) should be handed over at the counter(s) at the venue against which admission card will be provided. Entry to the hall will be strictly on the basis of admission card as provided by Company. Members in person and Proxy holders may please carry photo-ID card for identification/ verification purposes.
2. Shareholder(s) present in person or through registered proxy shall only be entertained.
3. **Due to strict security reasons mobile phones, brief cases, eatables and other belongings are not allowed inside the Hall. Shareholder(s)/proxy holder will be required to take care of their belonging(s).**
4. **No gifts or coupons will be distributed at the Annual General Meeting.**

NOTES

NTPC Limited

CIN: L40101DL1975GOI007966

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Tel : 011-24360959 **Fax:** 011-24360241 **Web:** www.ntpc.co.in **Email:** csntpc@ntpc.co.in

FORM OF PROXY

Name of the member(s):	
Registered address:	
Folio No/ DP ID- Client Id:	
Email Id	
No. of Shares held	

I/We, being the member (s) of .... shares of the above named company, hereby appoint:

1.	Name:		Signature:	
	Address:			
	E-mail Id:			
Or failing him				
2.	Name:		Signature:	
	Address:			
	E-mail Id:			
Or failing him				
3.	Name:		Signature:	
	Address:			
	E-mail Id:			

as my/our proxy to attend and vote (on a poll) for me/us and on my/our behalf at the Annual General Meeting of the Company, to be held on **Wednesday, 21st August, 2019 at 10:30 A.M.** at Manekshaw Centre, Parade Road, New Delhi – 110 010 and at any adjournment thereof in respect of such resolutions as are indicated below:

Sl. No.	Resolutions	For	Against
Ordinary Business			
1.	Adoption of audited standalone financial statements and consolidated financial statement of the Company for the year ended March 31, 2019, the reports of the Board of Directors and Auditors thereon		
2.	Confirmation of payment of interim dividend and to declare final dividend for the year 2018-19		
3.	Re-appointment of Shri A.K. Gupta (DIN: 07269906), who retires by rotation		
4.	Fixation of remuneration of Statutory Auditors		
Special Business			
5.	Appointment of Shri Anurag Agarwal (DIN: 01360908), as Government Nominee Director		
6.	Re-appointment of Dr. Gauri Trivedi (DIN: 06502788), as Independent Director		
7.	Increase in borrowing limit of the Company from Rs. 1,50,000 Crore to Rs. 2,00,000 Crore		
8.	Creation of Mortgage and/or charge over the movable and immovable properties of the Company		
9.	To ratify the remuneration of the Cost Auditors for the financial year 2019-20		
10.	Raising of funds up to Rs. 15,000 Crore through issue of Bonds/Debentures on Private Placement basis		

Signed this...... day of......... 2019

Affix Revenue Stamp of Rs.1/-

Signature of shareholder ______________________________ Signature of Proxy holder ______________________________

NOTES:

1. This form of Proxy in order to be effective should be duly completed and deposited at the Registered Office of the Company, not less than 48 hours before the commencement of the meeting.
2. The Proxy Form should be signed across the stamp as per specimen signature registered with the RTA/Depository Participant (DP).
3. Please put 'X' in the appropriate column against the resolutions indicated in the Box. If you leave the 'For' or 'Against' column blank against any or all the resolutions, your Proxy will be entitled to vote in the manner as he/she thinks appropriate.
4. Appointing a Proxy does not prevent a member from attending the meeting in person if he so wishes.
5. In the case of joint holders, the signature of any one holder will be sufficient, but names of all the joint holders should be stated.

(i) Initial password is provided as below:

EVEN (Remote e-voting Event Number)	USER ID	PASSWORD / PIN

(ii) Please follow all instructions given overleaf to cast your vote.

PROCEDURE AND INSTRUCTIONS FOR REMOTE e-VOTING:

1. In compliance with the provisions of Section 108 of the Companies Act, 2013, read with Rule 20 of the Companies (Management and Administration) Rules, 2014, as amended and the provisions of Regulation 44 of the Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015, the Members are provided with the facility to cast their vote electronically, through the e-Voting services provided by National Securities Depository Limited (NSDL) on all resolutions set forth in this Notice, from a place other than the venue of the Meeting (Remote e-Voting). Instructions for e-Voting are given herein below. Resolution(s) passed by Members through e-Voting is/are deemed to have been passed as if it/they have been passed at the AGM.
2. Members are provided with the facility for voting through electronic voting system at the AGM and Members attending the AGM, who have not already cast their vote by remote e-Voting, are eligible to exercise their right to vote at the AGM.
3. Members who have cast their vote by remote e-Voting prior to the AGM are also eligible to attend the AGM but shall not be entitled to cast their vote again.
4. Members of the Company, holding shares either in physical form or in electronic form, as on the cut-off date i.e. **Wednesday, 14th August 2019,** may cast their vote by remote e-Voting. The remote e-Voting period commences on **Sunday, 18th August 2019 at 9:00 A.M. (IST)** and ends on **Tuesday, 20th August 2019, at 5:00 P.M. (IST).** The remote e-Voting module shall be disabled for voting thereafter. Once the vote on a resolution is cast by the Member, the Member shall not be allowed to change it subsequently.
5. The instructions for Members for e-Voting are as under:

   The way to vote electronically on NSDL e-Voting system consists of "Two Steps" which are mentioned below:

   Step 1 : Log-in to NSDL e-Voting system at https://www.evoting.nsdl.com/

   Step 2 : Cast your vote electronically on NSDL e-Voting system.

   Details on Step-1 is mentioned below:

   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 Computer/Laptop or on a mobile.
   2. Once the home page of e-Voting system is launched, click on the icon "Login" which is available under 'Shareholders' section.
   3. A new screen will open. You will have to enter your User ID, your Password and a Verification Code as shown on the screen.

      Alternatively, if you are registered for NSDL eservices 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 IN 300***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. Your password details 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, your 'initial password' is communicated to you on your postal address.
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 No., your name and your registered address.
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.

Details on Step 2 is given below:

How to cast your vote electronically on NSDL e-Voting system?

1. After successful login at Step 1, you will be able to see the Home page of e-Voting. Click on e-Voting. Then, click on Active Voting Cycles.
2. After click on Active Voting Cycles, you will be able to see all the companies "EVEN" in which you are holding shares and whose voting cycle is in active status.
3. Select "EVEN" of company for which you wish to cast your vote.
4. Now you are ready for e-Voting as the Voting page opens.
5. 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.
6. Upon confirmation, the message "Vote cast successfully" will be displayed.
7. You can also take the printout of the votes cast by you by clicking on the print option on the confirmation page.
8. Once you confirm your vote on the resolution, you will not be allowed to modify your vote.

General Guidelines for shareholders:

a) 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 Shri Amit Kaushal, Practicing Company Secretary by e-mail to kaushal.acs@gmail.com with a copy marked to evoting@nsdl.co.in.
b) 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.
c) 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 toll free no.: 1800-222-990 or send a request at evoting@nsdl.co.in.

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A Maharatna Company

NTPC Limited

CIN: L40101DL1975GOI007966

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Tel : 011-24360959 **Fax:** 011-24360241 **Web:** www.ntpc.co.in **Email:** csntpc@ntpc.co.in

ADDENDUM TO THE NOTICE OF THE 43rd ANNUAL GENERAL MEETING

With approval of the Board of Directors of the Company, notice dated 8th July 2019 for convening the 43rd Annual General Meeting (AGM) scheduled to be held on Wednesday, 21st August 2019 at 10:30 A.M. was released for publication and dispatch to the shareholder(s). In the aforesaid notice Agenda Item No(s).1 to 10 are proposed to be transacted at the AGM and Company is offering remote e-Voting facility to its Shareholders in respect of all resolutions.

In order to enable the Shareholders to exercise their voting rights through remote e-Voting facility or at the AGM on informed basis, it is necessary that any material events occurred subsequent to 8th July 2019 shall be brought to the notice of all the Shareholders of the Company.

Subsequent to printing of the aforesaid Notice, there has been material event as explained in this Addendum, due to which the Agenda Item No. 5 as contained in the said Notice of AGM needs to be withdrawn.

This Addendum to the Notice of AGM shall form an integral part of the Notice dated 8th July 2019. The Addendum to Notice of AGM is available at the Company's website at www.ntpc.co.in and at the website of National Securities Depository Limited (NSDL) at www.evoting.nsdl.com along with notice dated 8th July 2019.

WITHDRAWAL OF EXISTING AGENDA ITEM NO. 5 OF THE NOTICE OF AGM PERTAINING TO APPOINTMENT OF SHRI ANURAG AGARWAL (DIN: 01360908) AS GOVERNMENT NOMINEE DIRECTOR

In the aforesaid notice, the proposal for appointment of Shri Anurag Agarwal (DIN: 01360908) as Government Nominee Director was proposed at Item No. 5 as an ORDINARY RESOLUTION.

Subsequent to printing of the aforesaid Notice, Ministry of Power vide its letter No. 2/4/2019-Adm.II dated 12th July 2019 had informed that Shri Anurag Agarwal, Additional Secretary & Financial Adviser, Ministry of Power has been relieved of his duties in Ministry of Power on his premature repatriation. As per the provisions of Article 41(iv) of the Articles of Association of the Company, a Director representing the Government Department shall retire on his ceasing to be an official of that Department.

Accordingly, Shri Anurag Agarwal has ceased to be the Director of NTPC w.e.f. 12th July 2019.

In view of above, Item no. 5 regarding appointment of Shri Anurag Agarwal shall be withdrawn and all remaining items shall be re-numbered accordingly. Revised proxy form is printed overleaf.

Accordingly, all the concerned Shareholders, Stock Exchanges, Registrar and Share Transfer Agents, NSDL, other Authorities, Regulators and all other concerned persons are requested to take notice of the same.

By order of the Board of Directors

Nandini Sarkar

(Nandini Sarkar)
Company Secretary

Place: New Delhi
Date: 18th July, 2019

A Maharatna Company

NTPC Limited

CIN: L40101DL1975GOI007966

Regd. Office : NTPC Bhawan, SCOPE Complex, 7, Institutional Area, Lodi Road, New Delhi-110 003

Tel : 011-24360959 **Fax:** 011-24360241 **Web:** www.ntpc.co.in **Email:** csntpc@ntpc.co.in

FORM OF PROXY

Name of the member(s):	
Registered address:	
Folio No/ DP ID- Client Id:	
Email Id	
No. of Shares held	

I/We, being the member(s) of .... shares of the above named company, hereby appoint:

1.	Name:		Signature:	
	Address:			
	E-mail Id:			
Or failing him				
2.	Name:		Signature:	
	Address:			
	E-mail Id:			
Or failing him				
3.	Name:		Signature:	
	Address:			
	E-mail Id:			

as my/our proxy to attend and vote (on a poll) for me/us and on my/our behalf at the Annual General Meeting of the Company, to be held on **Wednesday, 21st August, 2019 at 10:30 A.M.** at Manekshaw Centre, Parade Road, New Delhi – 110 010 and at any adjournment thereof in respect of such resolutions as are indicated below:

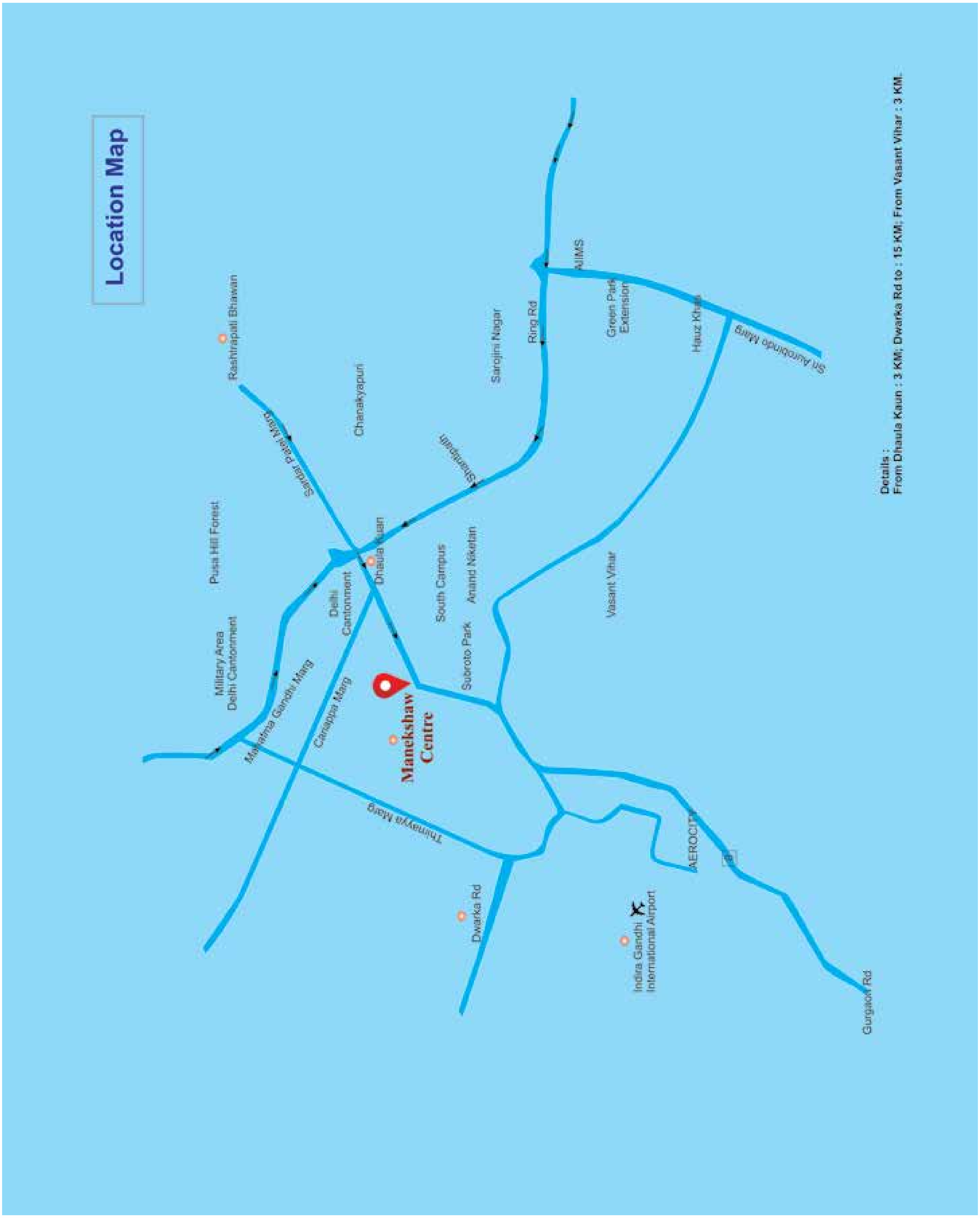
Sl. No.	Resolutions	For	Against
Ordinary Business			
1.	Adoption of audited standalone financial statements and consolidated financial statement of the Company for the year ended March 31, 2019, the reports of the Board of Directors and Auditors thereon		
2.	Confirmation of payment of interim dividend and to declare final dividend for the year 2018-19		
3.	Re-appointment of Shri A.K. Gupta (DIN: 07269906), who retires by rotation		
4.	Fixation of remuneration of Statutory Auditors		
Special Business			
5.	Re-appointment of Dr. Gauri Trivedi (DIN: 06502788), as Independent Director		
6.	Increase in borrowing limit of the Company from Rs. 1,50,000 Crore to Rs. 2,00,000 Crore		
7.	Creation of Mortgage and/or charge over the movable and immovable properties of the Company		
8.	To ratify the remuneration of the Cost Auditors for the financial year 2019-20		
9.	Raising of funds up to Rs. 15,000 Crore through issue of Bonds/Debentures on Private Placement basis		

Signed this...... day of......... 2019

Affix Revenue Stamp of Rs.1/-

Signature of shareholder ______________________________ Signature of Proxy holder ______________________________

Note: The voting result shall be disclosed on the website of the company and to the stock exchanges within 48 hours of the conclusion of the meeting.


Location Map
Rashtrapati Bhawan
Chanakyapuri
Sarojini Nagar
Ring Rd
AIIMS
Green Park Extension
Hauz Khas
Sri Aurobindo Marg
Sardar Patel Marg
Pusa Hill Forest
Shantipath
Dhaula Kuan
Delhi Cantonment
South Campus
Anand Niketan
Vasant Vihar
Military Area Delhi Cantonment
Mahatma Gandhi Marg
Cariappa Marg
Subroto Park
Manekshaw Centre
Thimayya Marg
AEROCITY
Dwarka Rd
Indira Gandhi International Airport
Gurgaon Rd
Details :
From Dhaula Kaun : 3 KM; Dwarka Rd to : 15 KM; From Vasant Vihar : 3 KM.

Achievements & Accolades

A Maharatna Company

NTPC Awarded Certificate of Appreciation for the timely completion of Rural Electrification work assigned to NTPC in the State of Odisha under Saubhagya Scheme. Shri R. K. Singh, Union Minister of State (I/C) for Power, New & Renewable Energy presented the award to Shri Gurdeep Singh, CMD, NTPC on 26th February, 2019.

NTPC Awarded as the Best Performing Utility of the Country in Thermal Power Sector by Central Board of Irrigation and Power (CBIP) on 4th January, 2019. Shri R. K. Singh, Minister of State (I/C) for Power, New & Renewable Energy, GOI presented the award to Shri Gurdeep Singh, CMD, NTPC.

The Dun & Bradstreet Infra Award-2018 conferred on NTPC for Excellence in Power Generation. The Award was presented by Shri Amitabh Kant, IAS, Chief Executive Officer, Niti Aayog, GOI on 31st October, 2018.

NTPC Awarded for Technology Adaptation & Best Performer (Financial) at 6th PSU Awards by Governance Now (a fortnightly news magazine for governance, policies, politics and people), on 17th January, 2019.

NTPC ranked 25th in Best Companies to Work for 2018. Moving up from 38th place (2017) to 25th (2018). In a study by Great Place to Work and The Economic Times on 28th June, 2018.

CMD and Directors of NTPC Limited

एनटीपीसी
NTPC
A Maharatna Company

NTPC Limited
(A Govt. of India Enterprise)
(CIN : L40101DL1975GOI007966)
Regd. Office: NTPC Bhawan, SCOPE Complex, 7, Institutional Area,
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Printrade : 022 40832525