



A Maharatna Company



# 42<sup>ND</sup> ANNUAL REPORT 2017-18



## 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 & Trust**  
परस्पर आदर एवं विश्वास



**Innovation & Learning**  
नवप्रवर्तन एवं ज्ञानार्जन



**Total Quality & 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-110055  
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 Pvt. Ltd.\*

\*Became wholly owned Subsidiary Companies of NTPC Ltd. w.e.f. 29.6.2018

### ED (LAW) & Company Secretary

K. P. Gupta (Upto 31.7.2018)

### Company Secretary

Ms. Nandini Sarkar (w.e.f. 1.8.2018)

### Auditors

1. M/s T R Chadha & Co LLP
2. M/s PSD & Associates
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





## SUPPORT 'GREEN INITIATIVE'

### GREEN INITIATIVE IN THE CORPORATE GOVERNANCE

The Ministry of Corporate Affairs has taken 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 sent 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.

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## Annual General Meeting

Date	:	20 <sup>th</sup> September, 2018
Time	:	10:30 A.M.
Venue	:	Manekshaw Center, Parade Road, New Delhi – 110 010





A View of NTPC - Dadri

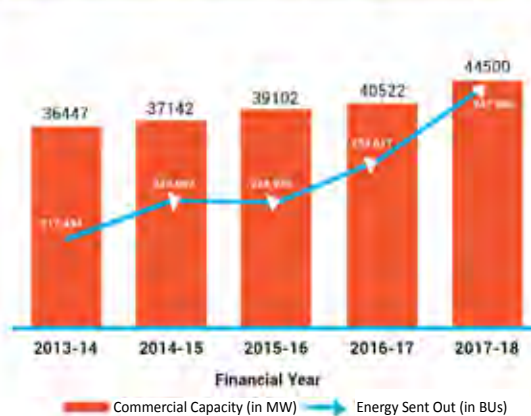
## THE YEAR AT A GLANCE

Gross Generation
Commercial Generation
Energy sent out
Sale of Energy (including Electricity duty)*
Profit before tax
Profit for the year
Dividend
Dividend tax
Retained Profit
Total Fixed Assets
Net Worth
Borrowings
Capital Employed
Net Cash From Operations
Value Added
No. of Employees
Value added per employee
Debt to Equity
Debt Service Coverage Ratio (DSCR)
Interest Service Coverage Ratio (ISCR)
Return on Capital Employed
Face Value Per share
Dividend Per Share
Book Value Per Share
Earnings Per Share

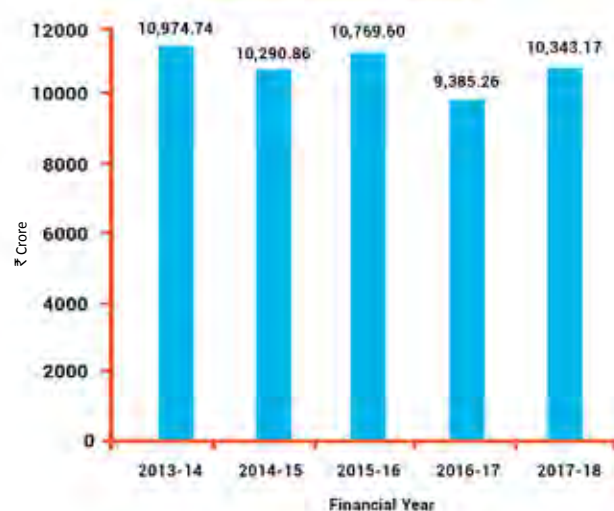
	2017-18	2016-17
Million Units	265798	250314
Million Units	265003	250086
Million Units	247905	233617
₹ Crore	81113	77071
₹ Crore	12339	12052
₹ Crore	10343	9385
₹ Crore	4040	3595
₹ Crore	816	728
₹ Crore	5486	5062
₹ Crore	198835	180093
₹ Crore	101778	96231
₹ Crore	115104	103840
₹ Crore	119711	100757
₹ Crore	19248	20014
₹ Crore	31164	29159
Number	19739	20593
₹ Crore	1.58	1.42
Ratio	1.13	1.08
Times	2.14	1.52
Times	5.93	6.40
%	11.52	13.39
₹	10.00	10.00
₹	4.90	4.36
₹	123.43	116.71
₹	12.54	11.38

\* Including Sale of Energy through trading

### Commercial Capacity & Energy Sent Out



### Profit for the Year







## Letter to Shareholders

Dear Shareowners,

Your Company had another year of strong performance. Total generation grew over 6% in FY18 (NTPC Group Generation - 294BU; NTPC Standalone - 265 BU), and it has further grown at nearly 7.5% in Q1 FY19. These numbers indicate substantial growth in energy demand of the country. With the implementation of Govt.'s SAUBHAGYA and DDUGJY Schemes, growth in power demand is expected to keep ticking. As demand will keep growing, your Company is poised to clock significant growth in next few years as well. The growth numbers in both cases were much higher than national average.

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 77.9% during the year 2017-18 as against National PLF of 60.7%. Six stations of NTPC figured in top ten stations list of the country in terms of PLF.

Your Company added 4,423 MW to its commercial capacity during FY'18. This is the second highest ever commercial capacity added in any year. With this, the commercial capacity of NTPC Group is now 51,391 MW. This includes 870 MW Solar, 50 MW Wind and 8 MW small hydro. With 20 GW capacities under construction, the target for this year is for adding 5GW of commercial capacity. Pursuing inorganic growth path – your Company acquired JV partner's equity in two power plants in Bihar. The combined capacity of these plants is 2,590 MW.

Substantial progress was made on the coal-mining front to ensure fuel security. 2.68 MMT of coal was extracted from Pakri Barwadih mine during FY18. Mining operations have started at second mine.

Your Company's profit rose by 10.2% in FY18 as compared to previous year and revenue from operations increased by 6.6%. NTPC management is committed to maximizing your wealth. The Company has already paid an interim dividend of ₹ 2.73 per share and has recommended a final dividend of ₹ 2.39 per share for FY'18, subject to your approval. The increase in dividend is 7.1% over last year.

Your Company has robust finance management system in place, which resulted in reducing the weighted average cost of borrowings to less than 7% in FY18. The Company has achieved 100% realization of current bills for the fifteenth year in a row.

Your Company has been working tirelessly for maximizing its profitability. Various steps have been taken for eliminating under recovery by ensuring fuel availability and controlling equipment forced outage. To ensure high coal availability, action has been taken for importing coal. Agreement has been signed with Railways for prioritizing dispatch to the plants and the results are very encouraging.

With robust all round performance, your Company is expected to retain the "Excellent" rating for the MoU signed with Government of India again.

Even as financial and physical numbers are important, your Company has taken significant steps towards Environmental Protection, Water Conservation, better Project Management and laid foundation for future growth.

Your Company has become the first PSU to have a Biodiversity Policy. Your Company shall be developing an Eco park at the ash pond of Badarpur power plant (after the plant is shut down) which would be bigger than New York city Central park and shall act as "Green Lungs" for National Capital Region of Delhi.

Substantial investment is being made towards environmental norms compliance. First Flue-gas desulphurisation system became operational at Vindhyachal. Work is in progress at 7.23 GW capacity. Fresh tenders are finalized for 9.94 GW and award for all coal based capacity shall be completed in about 12 months so that all units are compliant with the norms as per deadlines given by Government agencies. Action has also been taken for De-NOx and particulate emission control too. Your Company has placed an order for procurement of crop residue based pellets for co-firing at Dadri plant. This would help in avoiding crop residue burning which led to haze that enveloped northern part of India during winter months.



As a responsible Corporate, your Company has taken various steps for reducing water consumption. Specific water consumption has been reduced by 3.3%. The Company is implementing Zero Liquid Discharged and higher CoC across all plants. Besides these, Air Cooled Condenser is being implemented at two of the new projects, which has potential for saving water consumption upto 75%.

Your Company is committed for increasing the share of renewables in its portfolio. Govt. of India recently issued a policy on "Flexibility in generation and scheduling of thermal power stations to reduce emissions". This policy is likely to help renewable capacity addition and will also help in balancing of the grid. As per this policy, generating companies would be allowed to replace their scheduled thermal power by renewable power and there would be no need to sign PPA with beneficiaries. To leverage this opportunity, tenders have been floated for procuring 2 GW Solar and 1.2 GW Wind capacity.

Your Company is actively looking at other business opportunities including overseas operations. Construction activities of (2X660) MW Coal based project at Bangladesh are under progress. Further, the Company is keenly looking at Middle East and African continent. Discussions are underway for setting up electric charging infrastructure and providing complete e-mobility solutions.

Your Company is putting major thrust on employee capability improvement. Leadership program for senior management team has been conducted at Harvard and Wharton. NTPC's Power Management Institute was facilitated by the most coveted ATD award. Further, your Company is Ranked 25<sup>th</sup> in Best Companies to Work for-2018, first among PSUs.

Your Company is committed to Corporate Social Responsibility. Girl Empowerment Mission has been launched to give inputs on academics, health, hygiene, self-defence, yoga and personality development for 400 girls from villages around Vindhyachal, Singrauli and Rihand power plants.

I take this opportunity to put on record Your Company's deepest condolences on the loss of lives during the tragic incident at Unchahar Power Station. Your Company provided all support and financial assistance to the families of deceased. Further, your Company has reviewed all operational and safety systems and engaged the services of a leading global consultant on safety to improve various aspects.

On behalf of Team NTPC, I assure you that your Company will continue to put best efforts and committed to fulfill the vision "To be World's leading Power Company, energizing India's growth" and thereby ensuring sustained returns to its stakeholders.

With best wishes,  
Yours sincerely,



(Gurdeep Singh)  
Chairman & Managing Director

## Key Highlights of FY 2017-18

01



In FY18, NTPC's standalone gross generation increased by **15.48 Billion Units to 265.80 Billion Units**, registering an increase of 6.19% over the previous year.

02



NTPC Group recorded highest ever single day generation of **910.38 Million Units on 28 March 2018**, surpassing previous highest single day generation of **907.31 Million Units on 28 February 2018**.

03



The total commercial capacity added during FY18 was **3,978 MW & 4,423 MW** by NTPC and NTPC Group respectively. With this, the commercial capacity of NTPC on standalone basis & for the Group as a whole has become **44,500 MW and 51,391 MW respectively**.

04



During FY18, PLF of coal stations was **77.90% as against the National Average of 60.72%**.



We have suffered loss of generation due to grid restrictions, though it has declined in comparison to previous year.



For the coal based generation the loss for FY18 was **30.83 BUs** as against **41.25 BUs** in the previous year.



Similarly, for the gas based generation the loss for FY18 was **24.45 BUs** as against **24.85 BUs** in the previous year.

## Significant activities of this period

We have signed a MoU with Government of Bihar and Bihar power utilities on May 15, 2018 for acquisition of



### 720 MW Barauni Thermal Power Station,

acquisition of 27.36% equity of Kanti Bijlee Utpadan Nigam Ltd. which owns  
**610 MW Muzaffarpur Thermal Power Station**



50% equity of Nabinagar Power Generating Company Pvt. Ltd. which is developing  
**1,980 MW Nabinagar Super Thermal Power Project,**  
from Bihar State Power Generation Company Ltd.



## Commercial

NTPC has achieved more than 100% realization in FY18.

**This is 15<sup>th</sup> consecutive financial year of achieving 100% realization.**

Total amount realized is ₹ **85,264 crore.**

During FY18, from Pakri-Barwadih coal mine, approximately  
**26.77 lakh Metric Tonnes of coal** has been excavated.



## Coal Mining

Mining operation from  
**Dulanga coal block has been started on 28 February 2018** & coal extraction commenced on 21 March 2018.



## Financial Highlights

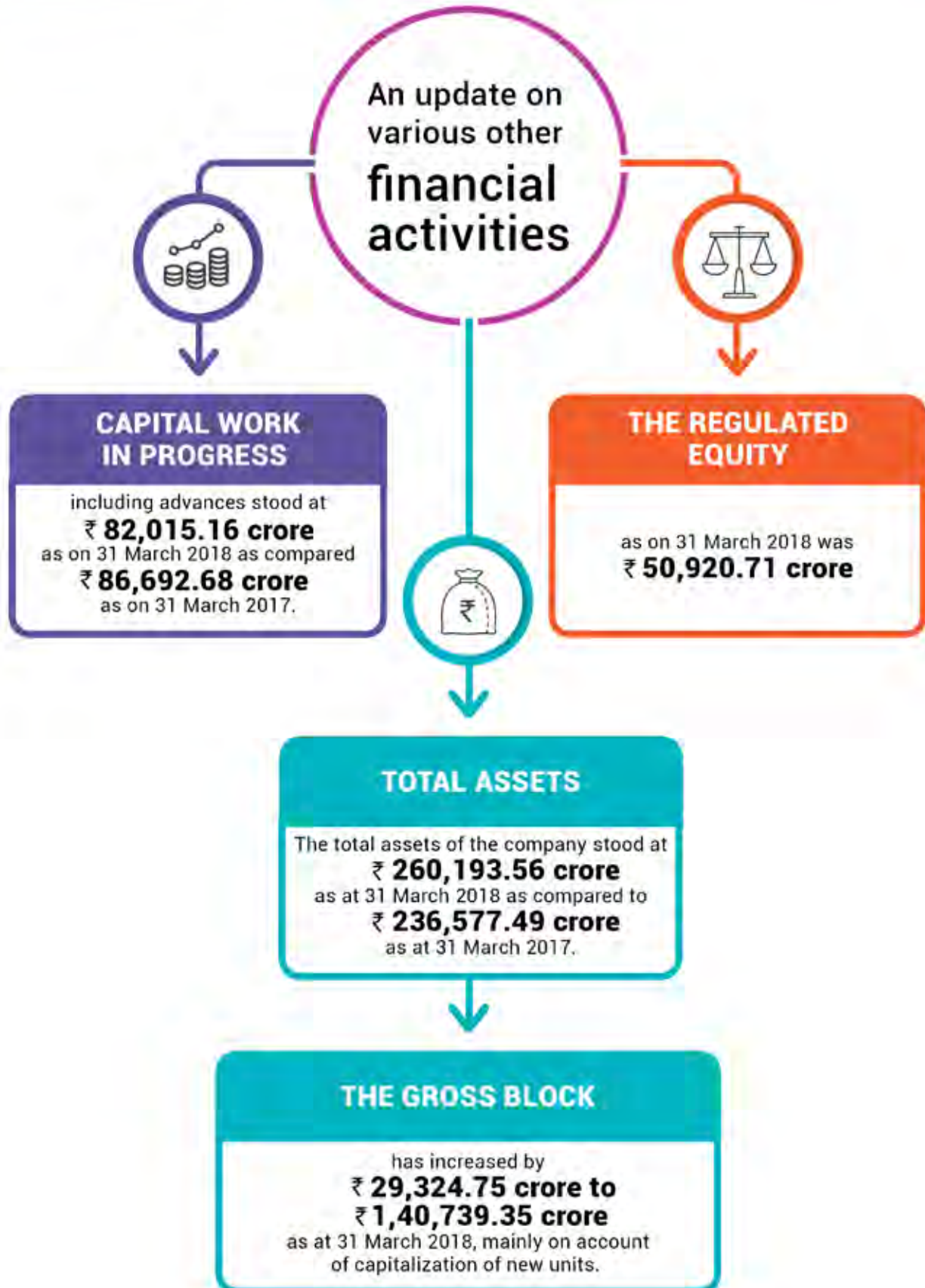
01	<b>₹ 81,529.09 crore</b> For FY 2017-18, Turnover	<b>₹ 77,475.24 crore</b> as against previous year Turnover for FY 2016-17	<b>5.23%</b> ↑ increase
02	<b>₹ 85,207.95 crore</b> Total Income in FY 2017-18	<b>₹ 79,342.30 crore.</b> Total Income in FY 2016-17	<b>7.39%</b> ↑ increase
03	<b>₹ 12,339.46 crore</b> PBT for FY 2017-18	<b>₹ 12,052.16 crore</b> PBT for FY 2016-17	<b>2.38%</b> ↑ increase
04	<b>₹ 10,343.17 crore</b> Profit for FY 2017-18	<b>₹ 9,385.26 crore</b> Profit for FY 2016-17	<b>10.21%</b> ↑ increase

For FY18, the Board has recommended final dividend @ 23.9% of paid-up capital i.e. @ ₹ 2.39 per share, subject to the approval of shareholders in the Annual General Meeting scheduled to be held in September 2018. As you are aware, interim dividend for the FY18 @ 27.30% of paid-up capital i.e. @ ₹ 2.73 per share has been already paid in February 2018. Thus total dividend for the FY18 comes to ₹ 5.12 per share.

## NTPC Group Companies



During the FY18, we have accounted dividend income of  
**₹ 189.17 crore**  
**(Previous year ₹ 166.09 crore)**  
 from our Subsidiaries and Joint Venture Companies



NTPC commits itself to contribute to the society through initiatives that have positive impact on society at large, improve the quality of life of the people and promote inclusive growth and environmental sustainability. The average net profit of the Company for the previous 3 financial years stands at ₹ 11,037.30 crore. By spending ₹ 241.54 crore during FY' 17-18, NTPC surpassed the prescribed 2% amount of ₹ 220.75 crore by ₹ 20.79 crore, thus achieving a CSR spend of 2.19% of average net profit of previous 3 financial years.

### The CSR initiatives undertaken by NTPC in 2017-18 include:

Sr. No	CSR project or activity identified	Cumulative expenditure upto to the reporting period* Amount (₹ Crore)
1	Swachh Vidyalaya Abhiyaan**	10.52
2	Sanitation**	21.88
3	Environment**	56.22
4	Healthcare	15.08
5	Education & Skill Development	65.26
6	Rural Development	32.11
7	Drinking Water	12.34
8	Sports	1.58
9	Protection of National Heritage Art & Culture	14.57
10	Other CSR Activities	11.98
<b>Total</b>		<b>241.54</b>

Note \* Including expenditure on activities carried forward from previous years, which have been completed during 2017-18.

\*\* Expenditure towards SI No. 1, 2 & 3 have contribution towards achieving the National Goal of Swachh Bharat in line with DPE Guidelines.

## 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 42<sup>nd</sup> Annual General Meeting of the Members of NTPC Limited will be held on Thursday, 20<sup>th</sup> September, 2018 at 10.30 a.m. at Manekshaw Center, Parade Road, New Delhi – 110 010 to transact the following businesses:

### ORDINARY BUSINESS:

1. To consider and adopt:
  - (a) the Audited Standalone Financial Statements of the Company for the financial year ended 31<sup>st</sup> March 2018, the reports of the Board of Directors and Auditors thereon; and
  - (b) the Audited Consolidated Financial Statements of the Company for the financial year ended 31<sup>st</sup> March 2018 and the report of the Auditors thereon.
2. To confirm payment of interim dividend and declare final dividend for the year 2017-18.
3. To appoint a Director in place of Shri Saptarshi Roy, Director (HR) (DIN: 03584600), who retires by rotation and being eligible, offers himself for re-appointment.
4. To fix the remuneration of the Statutory Auditors for the year 2018-19.

### SPECIAL BUSINESS:

5. To appoint Shri M. P. Singh (DIN: 07937931), as Independent Director 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 M. P. Singh (DIN: 07937931), who was appointed as Independent Director, by the President of India vide Ministry of Power Order No. 1/38/96-PG (Vol. III) dated 8<sup>th</sup> September, 2017 and subsequently appointed as an Additional Director by the Board of Directors with effect from 24<sup>th</sup> October, 2017 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 Independent Director of the Company on terms & conditions as may be fixed by the Government of India.





6. To appoint Shri Pradeep Kumar Deb (DIN: 03424714), as Independent Director 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 Pradeep Kumar Deb (DIN: 03424714), who was appointed as Independent Director, by the President of India vide Ministry of Power Order No. 1/38/96-PG (Vol. III) dated 8<sup>th</sup> September, 2017 and subsequently appointed as an Additional Director by the Board of Directors with effect from 24<sup>th</sup> October, 2017 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 Independent Director of the Company on terms & conditions as may be fixed by the Government of India.

7. To appoint Shri Shashi Shekhar (DIN: 01747358), as Independent Director 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 Shashi Shekhar (DIN: 01747358), who was appointed as Independent Director, by the President of India vide Ministry of Power Order No. 1/38/96-PG (Vol. III) dated 8<sup>th</sup> September, 2017 and subsequently appointed as an Additional Director by the Board of Directors with effect from 24<sup>th</sup> October, 2017 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 Independent Director of the Company on terms & conditions as may be fixed by the Government of India.

8. To appoint Shri Subhash Joshi (DIN: 07946219), as Independent Director 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 Subhash Joshi (DIN: 07946219), who was appointed as Independent Director, by the President of India vide Ministry of Power Order No. 1/38/96-PG (Vol. III) dated 8<sup>th</sup> September, 2017 and subsequently appointed as an Additional Director by the Board of Directors with effect from 24<sup>th</sup> October, 2017 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 Independent Director of the Company on terms & conditions as may be fixed by the Government of India.

9. To appoint Shri Vinod Kumar (DIN: 00955992), as Independent Director 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 Vinod Kumar (DIN:00955992), who was appointed as Independent Director, by the President of India vide Ministry of Power Order No. 1/38/96-PG (Vol. III) dated 8<sup>th</sup> September, 2017 and subsequently appointed as an Additional Director by the Board of Directors with effect from 24<sup>th</sup> October, 2017 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 Independent Director of the Company on terms & conditions as may be fixed by the Government of India.



10. To appoint Shri Susanta Kumar Roy (DIN: 07940997), as Director (Projects) of the Company and in this regard to consider and if thought fit, to pass the following resolution as an **Ordinary Resolution**:

Resolved that pursuant to the provisions of Section 149, 152 and other applicable provisions, if any, of the Companies Act, 2013, Rules made thereunder, Shri Susanta Kumar Roy (DIN: 07940997), who was appointed as Director (Projects), by the President of India vide Ministry of Power Order No. 8/7/2016-Th-I dated 18<sup>th</sup> January, 2018 and subsequently appointed as an Additional Director and designated as Director (Projects) by the Board of Directors with effect from 19<sup>th</sup> January, 2018 to hold office until the date of this Annual General Meeting, in terms of Section 161 of the Companies Act, 2013 be and is hereby appointed as Director (Projects) of the Company on terms & conditions as may be fixed by the Government of India and he shall be liable to retire by rotation.

11. To appoint Shri Prasant Kumar Mohapatra (DIN: 07800722), as Director (Technical) 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 Prasant Kumar Mohapatra (DIN: 07800722), who was appointed as Director (Technical), by the President of India vide Ministry of Power Order No. 8/4/2016-Th-I dated 30<sup>th</sup> January, 2018 and subsequently appointed as an Additional Director and designated as Director (Technical) by the Board of Directors with effect from 31<sup>st</sup> January, 2018 to hold office until the date of this Annual General Meeting, in terms of Section 161 of the Companies Act, 2013 be and is hereby appointed as Director (Technical) of the Company on terms & conditions as may be fixed by the Government of India and he shall be liable to retire by rotation.

12. To appoint Shri Prakash Tiwari (DIN: 08003157), as Director (Operations) of the Company and in this regard to consider and if thought fit, to pass the following resolution as an **Ordinary Resolution**:

Resolved that pursuant to the provisions of Section 149, 152 and other applicable provisions, if any, of the Companies Act, 2013, Rules made thereunder, Shri Prakash Tiwari (DIN: 08003157), who was appointed as Director (Operations), by the President of India vide Ministry of Power Order No. 8/5/2017-Th-I dated 30<sup>th</sup> January, 2018 and subsequently appointed as an Additional Director and designated as Director (Operations) by the Board of Directors with effect from 31<sup>st</sup> January, 2018 to hold office until the date of this Annual General Meeting, in terms of Section 161 of the Companies Act, 2013 be and is hereby appointed as Director (Operations) of the Company on terms & conditions as may be fixed by the Government of India and he shall be liable to retire by rotation.

13. To appoint Shri Vivek Kumar Dewangan (DIN: 01377212), 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 Vivek Kumar Dewangan (DIN: 01377212), who was appointed as Government Nominee Director, by the President of India vide Ministry of Power Order No. 20/8/2016-Coord (Pt-V) dated 19<sup>th</sup> April, 2017 and Order No. 20/8/2016-Coord. (Vol-V) dated 24<sup>th</sup> April, 2018 and subsequently appointed as Government Nominee Director by the Board of Directors



with effect from 28<sup>th</sup> April, 2018 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.

14. To appoint Dr. Bhim Singh (DIN: 08189580), as Independent Director 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, Dr. Bhim Singh (DIN: 08189580), who was appointed as Independent Director, by the President of India vide Ministry of Power Order No. 20/6/2017-Coord. dated 17<sup>th</sup> July 2018 and subsequently appointed as an Additional Director by the Board of Directors effective from the date 30<sup>th</sup> July 2018 and 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 Independent Director of the Company on terms & conditions as may be fixed by the Government of India.

15. To appoint Dr. K.P.Kylasanatha Pillay (DIN: 08189583), as Independent Director 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, Dr. K.P.Kylasanatha Pillay (DIN: 08189583), who was appointed as Independent Director, by the President of India vide Ministry of Power Order No. 20/6/2017-Coord. dated 17<sup>th</sup> July, 2018 and subsequently appointed as an Additional Director by the Board of Directors effective from the date 30<sup>th</sup> July 2018 and 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 Independent Director of the Company on terms & conditions as may be fixed by the Government of India.

16. To appoint Ms. Archana Agrawal (DIN: 02105906) 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, Ms. Archana Agrawal (DIN: 02105906), who was appointed as Government Nominee Director, by the President of India vide Ministry of Power Order No. 20/08/2016-Coord (Pt-V) dated 30<sup>th</sup> July 2018, and subsequently appointed as an Additional Director by the Board with effect from 7<sup>th</sup> August, 2018 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 she shall not be liable to retire by rotation.

17. To ratify the remuneration of the Cost Auditors for the financial year 2018-19 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 ₹ 31,68,750/- (Rupees thirty one lacs sixty eight thousand



seven hundred and fifty only) as approved by the Board of Directors payable to Cost Auditors appointed by the Board of Directors of the Company to conduct the audit of the cost records of the Company for the financial year 2018-19 as per detail set out in the Statement annexed to the Notice convening this Meeting.

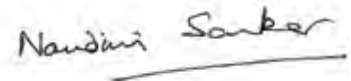
Further resolved that the Board of Directors of the Company be and is hereby authorized to do all acts, deeds, matters and things as may be considered necessary, desirable or expedient for giving effect to this resolution.

18. To raise funds up to ₹ 12,000 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 are hereby authorized to make offer(s) or invitation(s) to subscribe to the secured/ unsecured, redeemable, taxable/tax-free, cumulative/non-cumulative, non-convertible debentures ("Bonds") upto ₹ 12,000 Crore in one or more tranches/ series not exceeding 30 (thirty), through private placement, in domestic market for capex, working capital and general corporate purpose, 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 2019-20 whichever is earlier in conformity with rules, regulations, notifications and enactments as may be applicable from time to time, subject to the total borrowings of the Company approved by the shareholders under Section 180 (1) (c) of Companies Act, 2013.

Further resolved that the Board be and is hereby authorized to do or delegate from time to time, all such acts, deeds and things as may be deemed necessary to give effect to private placement of such 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)  
Company Secretary

Place: New Delhi

Date: 8<sup>th</sup> August, 2018



**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 & 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 who is higher in the order of names 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 Auditorium.
  - 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 31, 2018, had declared an interim dividend @ 27.30 % (₹ 2.73 per share) on the paid-up equity share capital of the company which was paid on February 15, 2018. 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 28, 2018, has recommended a final dividend @ 23.90% (₹ 2.39 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 September 8, 2018 to September 20, 2018 (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



October 1, 2018 to the Members whose names appear on the Company's Register of Members on September 20, 2018 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 National Securities Depository Limited and Central Depository Services (India) Limited as at the close of business hours on September 7, 2018.

9. Pursuant to the provisions of the Companies Act, 2013, the Company has transferred the unpaid or unclaimed final dividend for the financial year 2009-10 and interim dividend for the financial year 2010-11, 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, 2017 (date of last Annual General Meeting) on the website of the Company ([www.ntpc.co.in](http://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. Members are advised to visit the web-link: <http://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 2010-11 and Interim dividend for the financial year 2011-12 will be due for transfer to the Investor Education and Protection Fund of the Central Government on or before 20<sup>th</sup> November, 2018 and 28<sup>th</sup> March, 2019 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 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 Registrar / Investor Service Department of the Company or to their DP, as the case may be. For any change in bank particulars due to banker having 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. The Securities and Exchange Board of India (SEBI) has mandated the submission of Permanent Account Number (PAN) by every participant in securities market. Members holding shares in electronic form are, therefore requested to submit PAN to their DP with whom they are maintaining their Demat accounts. It has also made mandatory for the transferee(s) to furnish a copy of PAN card to the Company/RTAs for registration of transfers and for securities market transactions and off-market/ private transactions involving transfer of shares of listed companies in physical form. Accordingly, members holding shares in physical mode should attach a copy of their PAN Card for every transfer request sent to the Company / RTA.
15. SEBI, vide notification dated 8<sup>th</sup> June, 2018 has mandated that after 4<sup>th</sup> December, 2018, except in case of transposition and transmission of shares, requests for effecting transfer of securities shall not be processed unless the securities are held in the dematerialized form with a depository. Accordingly, shareholders holding shares in physical form are advised to dematerialize their shares.
16. 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.
17. 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.



18. 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.
19. Annual listing fee for the year 2018-19 has been paid to all Stock Exchanges wherein shares of the Company are listed. Also, the Annual Custodian Fee for the year 2018-19 was paid to both Depositories i.e. Central Depository Services (India) Limited and National Securities Depository Limited.
20. Pursuant to Section 139 of the Companies Act, 2013, the Auditors of a Government Company are to be appointed or re-appointed by the Comptroller and Auditor General of India (C&AG) and in pursuant to Section 142 of the Companies Act, 2013, their remuneration is to be fixed by the Company in the Annual General Meeting or in such manner as the Company in general meeting may determine. The Members of the Company, in 41<sup>st</sup> Annual General Meeting held on September 20, 2017, had authorized the Board of Directors to fix the remuneration of Statutory Auditors for the financial year 2017-18. Accordingly, the Board of Directors has fixed audit fee of ₹ 1,63,45,000/- (Rupees One Crore Sixty Three Lakh Forty-Five Thousand only) for the Statutory Auditors for the financial year 2017-18 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 2018-19 have been 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 2018-19.
21. None of the Directors of the Company is in any way related with each other.
22. 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.
23. 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. for the Company electronically.**
24. The Notice of the AGM along with the Annual Report 2017-18 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.
25. In compliance with provisions of Regulation 44 of the SEBI (Listing Obligations & 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.
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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## EXPLANATORY STATEMENT

### Item No. 5

Shri M.P. Singh (DIN: 07937931), was appointed as Independent Director of the Company, by the President of India vide Order No. 1/38/96-PG (Vol. III) dated 8<sup>th</sup> September, 2017 issued by Ministry of Power, for a period of three years and was accordingly appointed as an Additional Director with effect from 24<sup>th</sup> October, 2017, to hold office up to this Annual General Meeting. The Company has received requisite notice pursuant to the provisions of Section 160 of the Companies Act, 2013 in respect of appointment of Shri M.P. Singh.

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 provided elsewhere, which forms part of this notice. Shri M.P. Singh has wide experience in the area of Accountancy, Finance and Management. He would bring with him varied experiences to the Company in the areas of finance, management and administration. His association would be of immense benefit to the Company, accordingly, it is proposed to appoint Shri M. P. Singh as an Independent Director. Shri M. P. Singh has given a declaration to the effect that he meets the criteria of Independence as prescribed under Section 149 of the Companies Act, 2013, read with the Companies (Appointment & Qualification) Rules, 2014 & Regulation 16 of the SEBI (Listing Obligations & Disclosure Requirements) Regulations, 2015.

None of the Directors, Key Managerial Personnel of the Company or their relatives except Shri M. P. Singh, is in any way, concerned or interested, financially or otherwise, in the resolution.

The Board recommends the resolution for your approval.

### Item No. 6

Shri Pradeep Kumar Deb (DIN: 03424714) was appointed as Independent Director of the Company, by the President of India vide Order No. 1/38/96-PG (Vol. III) dated 8<sup>th</sup> September, 2017 issued by Ministry of Power, for a period of three years and was accordingly appointed as an Additional Director with effect from 24<sup>th</sup> October, 2017, to hold office up to this Annual General Meeting. The Company has received requisite notice pursuant to the provisions of Section 160 of the Companies Act, 2013 in respect of appointment of Shri Pradeep Kumar Deb.

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 provided elsewhere, which forms part of this notice. Shri Pradeep Kumar Deb has wide experience in the area of Finance & Taxation, Human Resource Development, Agriculture & Irrigation. He would bring with him varied experiences to the Company in the areas of finance, management and administration. His association would be of immense benefit to the Company, accordingly, it is proposed to appoint Shri Pradeep Kumar Deb as an Independent Director. Shri Pradeep Kumar Deb has given a declaration to the effect that he meets the criteria of Independence as prescribed under Section 149 of the Companies Act, 2013, read with the Companies (Appointment & Qualification) Rules, 2014 & Regulation 16 of the SEBI (Listing Obligations & Disclosure Requirements) Regulations, 2015.

None of the Directors or Key Managerial Personnel of the Company or their relatives except Shri Pradeep Kumar Deb, is in any way, concerned or interested, financially or otherwise, in the resolution.

The Board recommends the resolution for your approval.

### Item No. 7

Shri Shashi Shekhar (DIN: 01747358) was appointed as Independent Director of the Company, by the President of India vide Order No. 1/38/96-PG (Vol. III) dated 8<sup>th</sup> September, 2017 issued by Ministry of Power for a period of three years and was accordingly appointed as an Additional Director with effect from 24<sup>th</sup> October, 2017, to hold office up to this Annual General Meeting.





The Company has received requisite notice pursuant to the provisions of Section 160 of the Companies Act, 2013 in respect of appointment of Shri Shashi Shekhar.

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 provided elsewhere, which forms part of this notice. Shri Shashi Shekhar has wide experience in the area of Finance, Power & Energy, Environment & Forest. He would bring with him varied experiences to the Company in the areas of finance, technical and environmental matters. His association would be of immense benefit to the Company, accordingly, it is proposed to appoint Shri Shashi Shekhar as an Independent Director. Shri Shashi Shekhar has given a declaration to the effect that he meets the criteria of Independence as prescribed under Section 149 of the Companies Act, 2013, read with the Companies (Appointment & Qualification) Rules, 2014 & Regulation 16 of the SEBI (Listing Obligations & Disclosure Requirements) Regulations, 2015.

None of the Directors or Key Managerial Personnel of the Company or their relatives except Shri Shashi Shekhar, is in any way, concerned or interested, financially or otherwise, in the resolution.

The Board recommends the resolution for your approval.

#### Item No. 8

Shri Subhash Joshi (DIN: 07946219) was appointed as Independent Director of the Company, by the President of India vide Order No. 1/38/96-PG (Vol. III) dated 8<sup>th</sup> September, 2017 issued by Ministry of Power for a period of three years and was accordingly appointed as an Additional Director with effect from 24<sup>th</sup> October, 2017, to hold office up to this Annual General Meeting. The Company has received requisite notice pursuant to the provisions of Section 160 of the Companies Act, 2013 in respect of appointment of Shri Subhash Joshi.

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 provided elsewhere, which forms part of this notice. Shri Subhash Joshi has wide experience in the area of Human Resource Management, Vigilance, Training & development, Public Order Management, Border Management, Intelligence & security, General Administration, Public Grievance Redressal & Law. He would bring with him varied experiences to the Company in the areas of Management, General Administration and Human Resource management. His association would be of immense benefit to the Company, accordingly, it is proposed to appoint Shri Subhash Joshi as an Independent Director. Shri Subhash Joshi has given a declaration to the effect that he meets the criteria of Independence as prescribed under Section 149 of the Companies Act, 2013, read with the Companies (Appointment & Qualification) Rules, 2014 & Regulation 16 of the SEBI (Listing Obligations & Disclosure Requirements) Regulations, 2015.

None of the Directors or Key Managerial Personnel of the Company or their relatives except Shri Subhash Joshi, is in any way, concerned or interested, financially or otherwise, in the resolution.

The Board recommends the resolution for your approval.

#### Item No. 9

Shri Vinod Kumar (DIN: 00955992) was appointed as Independent Director of the Company, by the President of India vide Order No. 1/38/96-PG (Vol. III) dated 8<sup>th</sup> September, 2017 issued by Ministry of Power for a period of three years and was accordingly appointed as an Additional Director with effect from 24<sup>th</sup> October, 2017, to hold office up to this Annual General Meeting. The Company has received requisite notice pursuant to the provisions of Section 160 of the Companies Act, 2013 in respect of appointment of Shri Vinod Kumar.

His brief resume, inter-alia, giving nature of expertise in specific functional area, shareholding in the Company, other Directorship, Membership/ Chairmanship of Committees and other particulars are provided elsewhere, which forms part of this notice. Shri Vinod Kumar has wide experience in the area of Forest Governance, Biodiversity Management, Community developments and



livelihoods, Capacity Building. He would bring with him varied experiences to the Company in the areas of Capacity Building, management & administration. His association would be of immense benefit to the Company, accordingly, it is proposed to appoint Shri Vinod Kumar as an Independent Director. Shri Vinod Kumar has given a declaration to the effect that he meets the criteria of Independence as prescribed under Section 149 of the Companies Act, 2013, read with the Companies (Appointment & Qualification) Rules, 2014 & Regulation 16 of the SEBI (Listing Obligations & Disclosure Requirements) Regulations, 2015.

None of the Directors or Key Managerial Personnel of the Company or their relatives except Shri Vinod Kumar, is in any way, concerned or interested, financially or otherwise, in the resolution.

The Board recommends the resolution for your approval.

#### Item No. 10

Shri Susanta Kumar Roy (DIN: 07940997), was appointed as Director (Projects) of the Company by the President of India vide Order No. 8/7/2016-Th-I dated 18<sup>th</sup> January, 2018 issued by Ministry of Power for a period of five years from the date of assumption of charge of the post or till the date of superannuation or untill further order whichever is earliest and was appointed as an Additional Director w.e.f. 19<sup>th</sup> January, 2018 to hold office up to this Annual General Meeting. The Company has received requisite notice pursuant to the provisions of Section 160 of the Companies Act, 2013 in respect of appointment of Shri Susanta Kumar Roy. Shri Susanta Kumar Roy, if appointed, shall be liable to retire by rotation. The terms and conditions regulating the appointment of Shri Susanta Kumar Roy as Director (Projects) shall be determined by the Government of India.

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 Susanta Kumar Roy, is in any way, concerned or interested, financially or otherwise, in the resolution.

The Board recommends the resolution for your approval.

#### Item No. 11

Shri Prasant Kumar Mohapatra (DIN: 07800722), was appointed as Director (Technical) of the Company by the President of India vide Order No. 8/4/2016-Th-I dated 30<sup>th</sup> January, 2018 issued by Ministry of Power for a period of five years from the date of assumption of charge of the post or till the date of superannuation or until further orders, whichever is earliest and was appointed as an Additional Director w.e.f. 31<sup>st</sup> January, 2018 to hold office up to this Annual General Meeting. The Company has received requisite notice pursuant to the provisions of Section 160 of the Companies Act, 2013 in respect of appointment of Shri Prasant Kumar Mohapatra. Shri Prasant Kumar Mohapatra, if appointed, shall be liable to retire by rotation. The terms and conditions regulating the appointment of Shri Prasant Kumar Mohapatra as Director (Technical) shall be determined by the Government of India.

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 Prasant Kumar Mohapatra, is in any way, concerned or interested, financially or otherwise, in the resolution.

The Board recommends the resolution for your approval.

#### Item No. 12

Shri Prakash Tiwari (DIN: 08003157), was appointed as Director (Operations) of the Company by the President of India vide Order No. 8/5/2017-Th-I dated 30<sup>th</sup> January, 2018 issued by Ministry of Power for a period of five years from the date of assumption of



charge of the post or till the date of superannuation or until further orders, whichever is earliest and was accordingly appointed as an Additional Director w.e.f. 31<sup>st</sup> January, 2018 to hold office up to this Annual General Meeting. The Company has received requisite notice pursuant to the provisions of Section 160 of the Companies Act, 2013 in respect of appointment of Shri Prakash Tiwari. Shri Prakash Tiwari, if appointed, shall be liable to retire by rotation. The terms and conditions regulating the appointment of Shri Prakash Tiwari as Director (Operations) shall be determined by the Government of India.

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 Prakash Tiwari, is in any way, concerned or interested, financially or otherwise, in the resolution.

The Board recommends the resolution for your approval.

#### Item No. 13

Shri Vivek Kumar Dewangan (DIN: 01377212), was appointed as Government Nominee Director of the Company by the President of India vide Order No. 20/08/2016-Coord. (Pt-V) dated 19<sup>th</sup> April, 2017 and Order No. 20/08/2016-Coord. (Vol-V) dated 24<sup>th</sup> April, 2018 and was accordingly appointed as Additional Director w.e.f. 28<sup>th</sup> April, 2018, to hold office up to this Annual General Meeting. The Company has received a requisite notice pursuant to the provisions of Section 160 of the Companies Act, 2013 in respect of appointment of Shri Vivek Kumar Dewangan. Shri Vivek Kumar Dewangan, 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 Vivek Kumar Dewangan, is in any way, concerned or interested, financially or otherwise, in the resolution.

The Board recommends the resolution for your approval.

#### Item No. 14

Dr. Bhim Singh (DIN: 08189580) was appointed as Independent Director of the Company, by the President of India vide Order No. 20/6/2017-Coord dated 17<sup>th</sup> July, 2018 issued by Ministry of Power for a period of three years and was accordingly appointed by the Board of Directors in its meeting held on 28<sup>th</sup> July, 2018 as an Additional Director effective from the date 30<sup>th</sup> July, 2018 and to hold office up to this Annual General Meeting. The Company has received requisite notice pursuant to the provisions of Section 160 of the Companies Act, 2013 in respect of appointment of Dr. Bhim Singh.

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 provided elsewhere, which forms part of this notice. Dr. Bhim Singh is a professor in IIT Delhi and has wide experience in the various facets of Electrical engineering like PV grid interface systems, microgrids, power quality monitoring and mitigation, solar PV. He would bring with him varied experiences to the Company in the areas of engineering. His association would be of immense benefit to the Company, accordingly, it is proposed to appoint Dr. Bhim Singh as an Independent Director. Dr. Bhim Singh has given a declaration to the effect that he meets the criteria of Independence as prescribed under Section 149 of the Companies Act, 2013, read with the Companies (Appointment & Qualification) Rules, 2014 & Regulation 16 of the SEBI (Listing Obligations & Disclosure Requirements) Regulations, 2015.

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

The Board recommends the resolution for your approval.



#### Item No. 15

Dr. K.P.Kylasanatha Pillay (DIN: 08189583) was appointed as Independent Director of the Company, by the President of India vide Order No. 20/6/2017-Coord dated 17<sup>th</sup> July, 2018 issued by Ministry of Power for a period of three years and was accordingly appointed by the Board of Directors in its meeting held on 28<sup>th</sup> July, 2018 as an Additional Director effective from the date 30<sup>th</sup> July, 2018 and to hold office up to this Annual General Meeting. The Company has received requisite notice pursuant to the provisions of Section 160 of the Companies Act, 2013 in respect of appointment of Dr. K.P. Kylasanatha Pillay.

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 provided elsewhere, which forms part of this notice. Dr.K.P.Kylasanatha Pillay is a senior advocate in Supreme Court of India and has wide experience in the area of Civil, Criminal, Constitutional and Corporate Law matters. He would bring with him varied experiences to the Company in the areas of law. His association would be of immense benefit to the Company, accordingly, it is proposed to appoint Dr. K.P.Kylasanatha Pillay as an Independent Director. Dr. K.P.Kylasanatha Pillay has given a declaration to the effect that he meets the criteria of Independence as prescribed under Section 149 of the Companies Act, 2013, read with the Companies (Appointment & Qualification) Rules, 2014 & Regulation 16 of the SEBI (Listing Obligations & Disclosure Requirements) Regulations, 2015.

None of the Directors or Key Managerial Personnel of the Company or their relatives except Dr. K.P.Kylasanatha Pillay, is in any way, concerned or interested, financially or otherwise, in the resolution.

The Board recommends the resolution for your approval.

#### Item No. 16

Ms. Archana Agrawal (DIN: 02105906), was appointed as Government Nominee Director of the Company by the President of India vide Order No. 20/08/2016-Coord (Pt V) dated 30<sup>th</sup> July 2018 and was accordingly appointed as Additional Director w.e.f. 7<sup>th</sup> August, 2018, to hold office up to this Annual General Meeting. The Company has received requisite notice pursuant to the provisions of Section 160 of the Companies Act, 2013 in respect of appointment of Ms. Archana Agrawal. Ms. Archana Agrawal, if appointed, shall not be liable to retire by rotation.

Her 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 Ms. Archana Agrawal, is in any way, concerned or interested, financially or otherwise, in the resolution.

The Board recommends the resolution for your approval.

#### Item No. 17

Based on recommendation of Audit Committee, appointment of Cost Auditors for the Financial year 2018-19 was decided by the Board of Directors on the outcomes of Expression of Interest (EOI). Total fee of ₹ 31,68,750/- (Rupees thirty one lacs sixty eight thousand seven hundred and fifty only) is payable for cost audit for the Financial year 2018-19 as approved by the Board of Directors in its meeting held on 28<sup>th</sup> July, 2018. The fee structure for cost audit is broadly based on station capacity and number of stations. The reimbursement of applicable statutory taxes/ levies shall in addition to fees.

As per Rule 14 of Companies (Audit and Auditors) Rules, 2014 read with section 148(3) of the Companies Act, 2013, the remuneration recommended by the Audit Committee shall be considered and approved by the Board of Directors and ratified subsequently by the shareholders.

Accordingly, members are requested to ratify the remuneration payable to the Cost Auditors for the financial year 2018-19.

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

The Board recommends the resolution for your approval.



**Item No. 18**

The Company is the largest power producer in India with group installed capacity of 53,651 MW as on 30<sup>th</sup> June, 2018. 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.

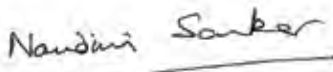
As per Section 42 of Companies Act, 2013 read with rule 14 of the Companies (Prospectus and Allotment of Securities) Rules, 2014, a Company shall not make a Private Placement of its securities unless the proposed offer of securities or invitation to subscribe to securities has been previously approved by the Shareholders of the Company by a Special Resolution for each of the offers or invitations. 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 ₹ 12,000 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 2019-20 whichever is earlier, subject to ceiling approved by the shareholders under Section 180(1)(c) of Companies Act 2013.

The Board of Directors of the Company in its Meeting held on 28<sup>th</sup> July, 2018 has approved the proposal and recommends the passing of the proposed Special Resolution.

The Directors or key managerial personnel or their relatives do not have 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)  
 Company Secretary

Place: New Delhi

Date: 8<sup>th</sup> August, 2018



## Brief Resume of the Directors seeking Appointment/Reappointment:

Name	Shri S. Roy	Shri M.P. Singh	Shri Pradeep Kumar Deb	Shri Shashi Shekhar	Shri Subhash Joshi	Shri Vinod Kumar
D.O.B & Age	23/03/1960 58 Years	8/07/1955 63 years	10/09/1953 64 years	28/12/1956 61 years	15/02/1954 64 years	4/04/1956 62 years
Date of Appointment	01/11/2016	24/10/2017	24/10/2017	24/10/2017	24/10/2017	24/10/2017
Qualifications	Graduated in Electrical Engineering.	M.Com; Chartered Accountant	M.Sc. (Physics) from St. Stephens College, Delhi University	B.Sc., Geology (Hons.)	B. Sc. (Hons.) in Mathematics and Graduate Diploma in Business from Curtin University, Perth Australia.	Masters in Botany from Banaras Hindu University
Expertise in Specific Functional Areas	He has had a career spanning over 38 years of outstanding contribution in the Company in various positions including those of Regional Executive Director (North) and ER-I Regions as well as Executive Director (Corporate Planning) besides that of Head of HR at Projects and Corporate Office. He also played a critical role as HR Head in managing transition and people integration issues during acquisition of old assets and turning them around into successful ventures.  He, a thorough professional, has been instrumental in introducing various pioneering HR initiatives in the areas of talent acquisition, employee welfare, industrial relations, wages and superannuation benefits.	He is a qualified Chartered Accountant and has twenty-nine years of experience in the areas of Accountancy, Financial Review and Analyzer.	He has an experience of over 37 years of working as an IAS officer. He has held numerous important positions in the State of Rajasthan & Government of India in areas like Finance & Taxation, Human Resource, and Agriculture & Irrigation.	He has wide experience while working in various capacities like Additional Secretary of Ministry of Environment & Forest, Managing Director of Tamil Nadu Minerals Ltd., Tamil Nadu Transport Development Finance Corp., Tamil Nadu Urban Development Fund and Tamil Nadu Urban Infrastructure Financial Services Ltd. He also served as Director General of Bureau of Energy Efficiency (BEE), Joint Secretary in Ministry of Power. He retired as Secretary of Ministry of Water Resources, River Development & Ganga Rejuvenation.	He is a retired IPS officer. He has wide expertise in the areas of Human Resource Management, Vigilance, Training & development, Public Order Management, Border Management, Intelligence & Security, General Administration, Public Grievance, Redressal & Law.	He has had a career spanning over thirty-eight years of experience and achievements in Administration, Forest Management, Policy Analysis, Planning, Corporate Management, Tribal development and Community Empowerment, Manpower Planning and Capacity Building. He retired from the Indian Forest Service as the Director of Indira Gandhi National Forest Academy (IGNFA).
Directorship held in Other Companies	1. NTPC Electric Supply Company Limited Part - Time Chairman 2. Meja Urja Nigam Private Limited Part - Time Chairman 3. NTPC -SAIL Power Company Limited - Part - Time Chairman	-	-	1. ACME Solar Holdings Ltd.	-	-
Membership/ Chairmanship of Committees across all Public Companies*	NIL	<b>Stakeholder Relationship Committee:</b> NTPC Ltd. (Chairman)  <b>Audit Committee:</b> NTPC Ltd. (Member)	<b>Audit Committee:</b> NTPC Ltd. (Member)	<b>Stakeholder Relationship Committee:</b> NTPC Ltd. (Member)	<b>Stakeholder Relationship Committee:</b> NTPC Ltd. (Member)	
No of shares held in NTPC Ltd.	1,141	NIL	NIL	691	NIL	2,500
Attendance in Board meeting till 31.3.2018	No. of Meeting during his tenure = 13  No. of Meetings attended = 12	No. of meetings during his tenure=9  No. of Meetings attended=8	No. of meetings during his tenure=9  No. of Meetings attended=7	No. of meetings during his tenure=9  No. of Meetings attended=9	No. of meetings during his tenure=9  No. of Meetings attended=8	No. of meetings during his tenure=9  No. of Meetings attended=7

## Brief Resume of the Directors seeking Appointment/Reappointment:

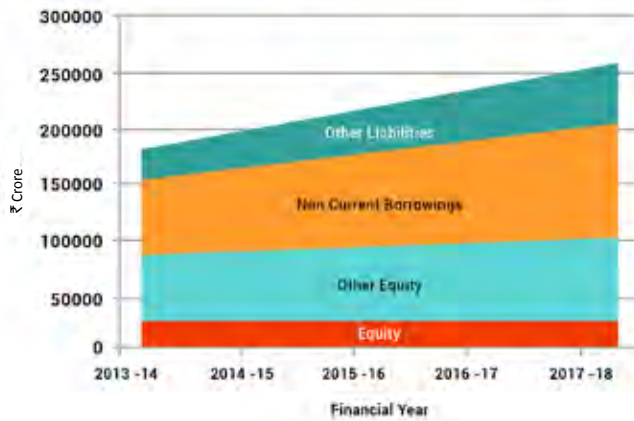
Name	Shri Susanta Kumar Roy	Shri Prasant Kumar Mohapatra	Shri Prakash Tiwari	Shri Vivek Kumar Dewangan	Dr. Bhim Singh	Dr. K.P. Kylasanatha Pillay	Ms. Archana Agrawal
D.O.B & Age	1/12/1959; 58 years	2/07/1959; 59 years	1/05/1960; 58 years	14/04/1967 51 years	1/01/1956 62 Years	11/04/1956 62 years	10/9/1966 52 Years
Date of Appointment	19/01/2018	31/01/2018	31/01/2018	28/04/2018	30/7/2018	30/7/2018	7/8/2018
Qualifications	Graduated in Mechanical Engineering	Graduated in Mechanical Engineering	Graduated in Mechanical Engineering	B. E. in Electronics	B. E. University of Roorkee (now I.I.T. Roorkee), M.Tech. IIT Delhi, Ph.D. IIT Delhi.	LL.B, Ph.D in Law	Post Graduate Degree in Political Science, Master degree in Business Administration
Expertise in Specific Functional Areas	He has more than thirty-six years of experience in the areas of operation, management & project construction. He was associated in managing the largest coal power station of the country at Vindhyachal. He worked in various capacities in NTPC including Head of entire operating capacity of NTPC including thermal, hydro and renewable; to meet almost 20% generating capacity of the country.	He has more than thirty-seven years of experience in various facets of Thermal power plant including commissioning, O&M, R&M activities. He also headed various projects of NTPC. Under his leadership, first three super critical units of NTPC were commissioned & declared commercial within a short span of ten months.	He has an illustrious career spanning over thirty-seven years of outstanding contribution in management of large size plants in the area of power plant operation & maintenance & in project construction as a Professional Manager, Strategic Planner & a Business Leader. His experience in power sector includes more than seven years at Senior Management level as a Business Unit Head of NTPC stations at Korba, Unchahar & Solapur.	He has an illustrious career of twenty-five years as an IAS Officer and has held various administrative positions in the areas of Finance, Power/energy, Elections/Law & Justice, Commerce & Industries, Minister's Office (Corporate Affairs/ Agriculture & Food processing Industries), Education/ Human Resource Development, Sericulture/Agriculture and Co-operation, Economic Affairs, Economics & Statistics, Petroleum & Natural Gas, District Administration, Divisional Administration.	He started his career as lecturer of Electrical Engineering in IIT Roorkee in 1983. He joined IIT Delhi, India, as an Assistant Professor in 1990. He has also been CEA Chair Professor. Presently, he is the Dean, Academics at IIT Delhi. His areas of expertise include solar PV grid interface systems, micro grids, 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 started his career in 1987 with Practice of law in the District & Session Court of Thiruvananthapuram. Later shifted his practice to High court of Kerala and subsequently to Supreme Court of India. As a Senior advocate, he is dealing with matters relating to civil, criminal, constitutional and corporate jurisdiction. He also conducted number of PIL before High court of Kerala and Supreme Court.	Ms. Archana Agrawal, is a 1990 batch, Indian Administrative Services Officer of Uttar Pradesh cadre. She holds a Post Graduate Degree in Political Science, Master degree in Business Administration with specialization in Financial Management and Bachelor degree in Arts in History, Public Administration and Political Science. In addition, she has been well trained in diverse areas of Public administration and Management in a number of reputed national and international institutions. During her illustrious career as an IAS officer, she has held various key administrative positions in Uttar Pradesh Government like Principal Secretary- GAD and Dairy Development, Secretary - Infrastructure & Investment, Industries, Taxation, Co-ordination etc.
Directorship held in Other Companies	1. NTPC BHEL Power Projects Private Ltd.-Part time Chairman 2. Patratu Vidyut Utpadan Nigam Ltd.- Part time Chairman 3. Bangladesh-India Friendship Power Company Pvt. Ltd.- Part time Director 4. Hindustan Urvarak & Rasayan Ltd. - Part time Director	1. NTPC Vidyut Vyapar Nigam Ltd.- Part time Director 2. Madhya Pradesh power Generating Company Ltd.- Part time Director 3. BF-NTPC Energy Systems Ltd.- Part time Director 4. Transformers And Electricals Kerala Ltd.- Part time Director 5. Aravali Power Company Private Limited- Part - time Chairman	1. Kanti Bijlee Utpadan Nigam Ltd.- Part time Chairman 2. NTPC Tamil Nadu Energy Company Ltd.- Part time Chairman	Power Grid Corporation of India Ltd.-Part time Director	NIL	NIL	NIL
Membership/ Chairmanship of Committees across all Public Companies* held	-	-	Audit Committee : NTPC Tamil Nadu Energy Co. Ltd.	Audit Committee 1. NTPC Limited 2. Power Grid Corporation of India Ltd.	-	-	-
No of shares held in NTPC Ltd.	4,715	5,812	NIL	NIL	NIL	NIL	NIL
Attendance in Board meeting till 31.3.2018	No. of meetings during his tenure=3 No. of Meetings attended=3	No. of meetings during his tenure=3 No. of Meetings attended=3	No. of meetings during his tenure=3 No. of Meetings attended=3	No. of meetings during his tenure= N.A** No. of Meetings attended =N.A**	No. of meetings during his tenure= N.A** No. of Meetings attended =N.A**	No. of meetings during his tenure= N.A** No. of Meetings attended =N.A**	No. of meetings during her tenure=N.A.** No. of Meetings attended=N.A.**

\*in line with Regulation 26 of SEBI Listing Regulations 2015, membership of only Audit Committee and Stakeholders' Relationship Committee has been considered.

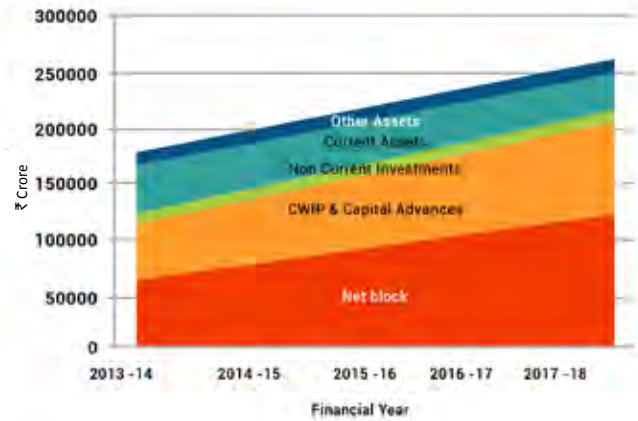
\*\* Appointment was made after 31.03.2018.



### Sources of Funds



### Application of Funds



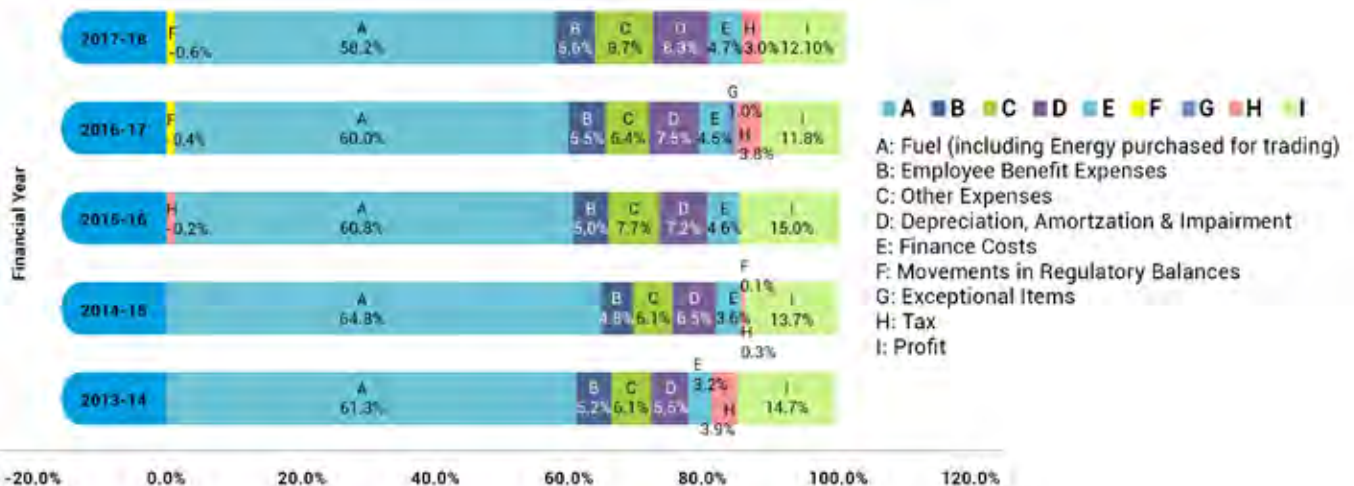
### Debt to Equity



### EBDITA (Rs. in Crore)



### Distribution of Revenue





## STATION-WISE GENERATION 2017-18

STATION	Fuel Type	*Gross Capacity (MW)	Gross Generation(MU)
<b>Northern Region</b>		<b>7653</b>	<b>49060</b>
Singrauli	Coal	2000	14782
Rihand	Coal	3000	23531
Unchahar	Coal	1550	7093
Tanda	Coal	440	3278
Auraiya	Gas	663	377
<b>DBF</b>		<b>3786</b>	<b>13955</b>
Dadri Coal	Coal	1820	9933
Badarpur	Coal	705	1557
Dadri Gas	Gas	830	1628
Faridabad	Gas	432	837
<b>Western Region</b>		<b>15853</b>	<b>96322</b>
Mouda	Coal	2320	7973
Korba	Coal	2600	20478
Vindhyachal**	Coal	4760	37496
Sipat	Coal	2980	23010
Solapur	Coal	660	1380
Lara	Coal	800	17
Anta	Gas	419	451
Kawas	Gas	656	2406
Gandhar	Gas	657	3112
<b>Southern Region</b>		<b>6560</b>	<b>34398</b>
Ramagundam	Coal	2600	18868
Simhadri	Coal	2000	11774
Kudgi	Coal	1600	3753
Rajiv Gandhi CCP	Liquid Fuel	360	4
<b>Eastern Region</b>		<b>9720</b>	<b>67436</b>
Farakka	Coal	2100	13357
Kahalgaon	Coal	2340	16317
Barh	Coal	1320	9272
Talcher Kaniha	Coal	3000	22977
Talcher Thermal	Coal	460	3781
Bongaigaon	Coal	500	1732
<b>Hydro Region</b>		<b>800</b>	<b>3314</b>
Koldam Hydro	Water	800	3314
<b>Total***</b>		<b>44372</b>	<b>264485</b>

\*As on 31.03.2018

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

\*\*\*Excludes 1267.97 MU Solar Power Generation and 870 MW Capacity, 41.86 MU Wind Generation and 50 MW Capacity, 3.08 MU Small Hydro and 8 MW Capacity.

### Share of Installed Capacity

Rest of India 290351 MW  
 NTPC (Group) 53651 MW



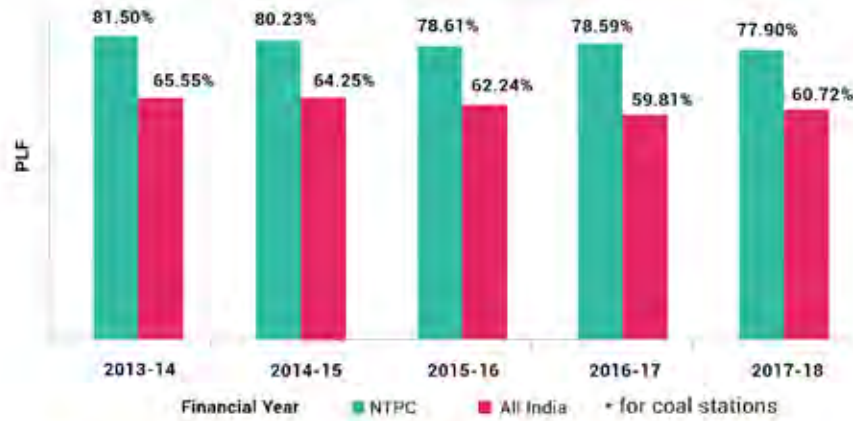
### Share of Electricity Generated

(FY 2017-18)

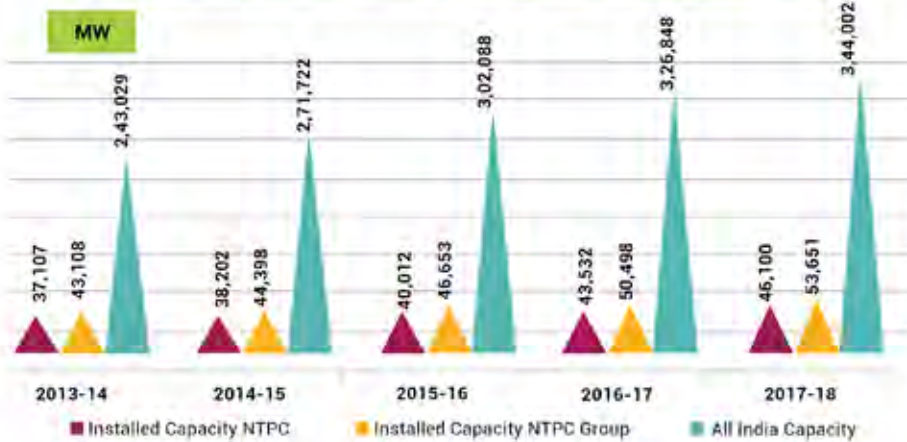
Rest of India 1013.88 BUs  
 NTPC (Group) 294.27 BUs



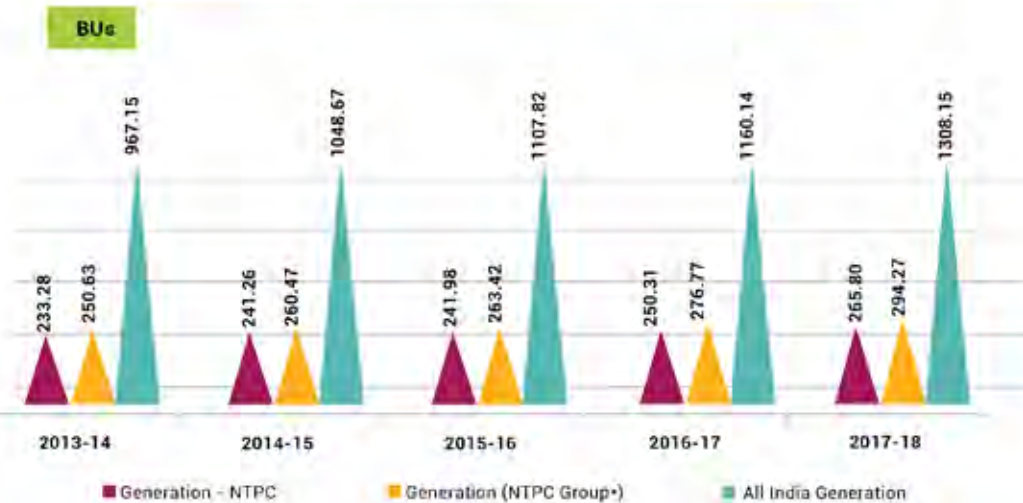
### NTPC PLF Vs All India PLF



### Growth in Installed Capacity NTPC, NTPC Group & All India



### Growth in Generation NTPC, NTPC Group and All India Generation



## SELECTED FINANCIAL INFORMATION\*

	(₹ Crore)				
	2017-18#	2016-17#	2015-16#	2014-15^	2013-14#
<b>A Revenue</b>					
Revenue from operations	83,452.70	78,273.44	70,843.81	73,236.94	72,018.93
Other income	1,755.25	1,068.86	1,165.35	2,100.42	2,688.89
<b>Total revenue</b>	<b>85,207.95</b>	<b>79,342.30</b>	<b>72,009.16</b>	<b>75,337.36</b>	<b>74,707.82</b>
<b>B Expenses</b>					
Fuel	48,315.47	47,572.19	43,798.59	48,833.57	45,829.71
Energy purchased for trading	1,313.51	-	-	-	-
Employee benefits expense	4,734.67	4,324.60	3,581.65	3,620.71	3,867.99
Other expenses	7,421.73	5,092.38	5,576.49	4,911.28	4,543.85
Prior period items (net)	-	-	-	(333.83)	12.84
<b>Profit before depreciation, finance cost and tax</b>	<b>23,422.57</b>	<b>22,353.13</b>	<b>19,052.43</b>	<b>18,305.63</b>	<b>20,453.43</b>
Depreciation, amortization and impairment expense	7,098.86	5,920.82	5,172.34	4,911.65	4,142.19
<b>Profit before finance cost and tax</b>	<b>16,323.71</b>	<b>16,432.31</b>	<b>13,880.09</b>	<b>13,393.98</b>	<b>16,311.24</b>
Finance costs	3,984.25	3,597.20	3,296.41	2,743.62	2,406.59
<b>Profit before exceptional items and tax</b>	<b>12,339.46</b>	<b>12,835.11</b>	<b>10,583.68</b>	<b>10,650.36</b>	<b>13,904.65</b>
Exceptional Items (+) income/ (-) loss	-	(782.95)	-	-	-
<b>Profit before tax</b>	<b>12,339.46</b>	<b>12,052.16</b>	<b>10,583.68</b>	<b>10,650.36</b>	<b>13,904.65</b>
Total Tax expense	2,549.29	2,930.82	(173.83)	255.79	2,929.91
<b>Profit for the year before regulatory deferral account balances</b>	<b>9,790.17</b>	<b>9,121.34</b>	<b>10,757.51</b>	<b>10,394.57</b>	<b>10,974.74</b>
Net movement in regulatory deferral account balances (net of tax)**	553.00	263.92	12.09	(103.71)	-
<b>Profit for the year</b>	<b>10,343.17</b>	<b>9,385.26</b>	<b>10,769.60</b>	<b>10,290.86</b>	<b>10,974.74</b>
Other comprehensive income/(expense) for the year (net of income tax)	(14.48)	(203.38)	(58.63)	-	-
<b>Total comprehensive income for the year</b>	<b>10,328.69</b>	<b>9,181.88</b>	<b>10,710.97</b>	<b>10,290.86</b>	<b>10,974.74</b>
Dividend	4,040.28	3,595.03	2,762.24	2,061.38	4,741.15
Dividend tax	816.40	727.79	562.32	417.40	804.74
Retained profit	5,486.49	5,062.44	7,445.04	7,812.08	5,428.85
<b>C Assets</b>					
Property, plant & equipment	120,720.61	99,062.70	91,499.36	78,153.38	71,865.86
Capital work-in-progress	77,313.87	80,302.46	66,205.59	56,463.11	44,886.74
Intangible assets	331.60	293.02	273.89	262.16	244.97
Intangible assets under development	469.36	434.63	217.61	30.38	1.93
<b>Total Fixed Assets (Net block)</b>	<b>198,835.44</b>	<b>180,092.81</b>	<b>158,196.45</b>	<b>134,909.03</b>	<b>116,999.50</b>
Investments in Subsidiaries, JVs & Others (Non-current)	10,047.48	8,248.11	8,014.32	7,239.15	8,120.90
Other non-current financial assets	2,288.53	2,440.36	1,534.30	1,449.94	-
Other non-current assets @	11,568.68	16,873.48	17,636.80	16,343.85	14,562.99
Current assets	36,710.30	28,399.90	29,756.45	37,228.29	39,870.79
Regulatory deferral account debit balances	743.13	522.83	-	-	-
<b>Total Assets</b>	<b>260,193.56</b>	<b>236,577.49</b>	<b>215,138.32</b>	<b>197,170.26</b>	<b>179,554.18</b>
<b>D Liabilities</b>					
Borrowings					
Non-current borrowings	108,697.60	97,339.28	85,096.95	78,564.51	62,405.75
Current maturities of non-current borrowings	6,406.69	6,500.37	6,730.79	7,466.17	4,764.47
<b>Total borrowings</b>	<b>115,104.29</b>	<b>103,839.65</b>	<b>91,827.74</b>	<b>86,030.68</b>	<b>67,170.22</b>
Other Non-current liabilities	5,077.53	4,225.78	4,645.94	4,311.98	4,443.43
Current liabilities	42,554.76	36,177.32	31,758.74	28,785.96	25,279.80
Less: Current maturities of non-current borrowings	6,406.69	6,500.37	6,730.79	7,466.17	4,764.47
<b>Net Current liabilities</b>	<b>36,148.07</b>	<b>29,676.95</b>	<b>25,027.95</b>	<b>21,319.79</b>	<b>20,515.33</b>
Deferred Revenue	2,085.90	2,121.14	2,047.34	1,369.97	1,609.88
Regulatory deferral account credit balances	-	482.74	295.65	307.74	-
<b>E Net-worth</b>					
Equity	8,245.46	8,245.46	8,245.46	8,245.46	8,245.46
Other Equity	93,532.31	87,985.77	83,048.24	75,584.64	77,569.86
<b>Networth</b>	<b>101,777.77</b>	<b>96,231.23</b>	<b>91,293.70</b>	<b>83,830.10</b>	<b>85,815.32</b>
<b>Total Liabilities</b>	<b>260,193.56</b>	<b>236,577.49</b>	<b>215,138.32</b>	<b>197,170.26</b>	<b>179,554.18</b>
<b>F Capital employed</b>	<b>119,711.03</b>	<b>100,757.21</b>	<b>94,930.73</b>	<b>94,740.61</b>	<b>92,891.91</b>
<b>G Value added</b>	<b>31,163.69</b>	<b>29,159.02</b>	<b>27,439.65</b>	<b>25,089.64</b>	<b>25,965.88</b>
<b>H Number of shares</b>	<b>8,245,464,400</b>	<b>8,245,464,400</b>	<b>8,245,464,400</b>	<b>8,245,464,400</b>	<b>8,245,464,400</b>
<b>I Number of employees</b>	<b>19,739</b>	<b>20,593</b>	<b>21,633</b>	<b>22,496</b>	<b>23,411</b>
<b>J Ratios</b>					
Return on capital employed (%)	11.52	13.39	14.56	13.68	14.37
Return on net worth (%)	15.14	17.68	19.56	16.78	17.72
Book value per Share (₹)	123.43	116.71	110.72	101.67	104.08
Earnings per share (₹)	12.54	11.38	13.06	12.48	13.31
Current ratio	0.86	0.79	0.94	1.29	1.58
Debt to equity	1.13	1.08	1.01	1.03	0.78
Value added per employee (₹ crore)	1.58	1.42	1.27	1.12	1.11

#Balance-Sheet & P&L figures for FY 2015-16, 2016-17 & 2017-18 are as per Ind AS and for FY 2013-14 as per previous GAAP.

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

@Figure of Long-term loans and advances has been grouped with other non-current assets for FY 2013-14.

\* Standalone

\*\* Net movements in regulatory deferral account balances have been shown net of tax for FY 2016-17 & 2017-18.



## DIRECTORS' PROFILE



**Chairman & Managing Director**

**Shri Gurdeep Singh, (DIN: 00307037), (aged 53 years),** took over as Chairman & Managing Director on 4<sup>th</sup> 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 58 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 38 years, encompasses the erection, commissioning & operation of power plants and human resource management. Shri Roy is 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 1<sup>st</sup> 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 58 years)**, an electrical engineering graduate from MNIT, Allahabad, joined NTPC in 1980 as Executive Trainee (5<sup>th</sup> 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 58 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 was associated as business unit head in managing largest station of the country at Vindhyachal. He has worked at Korba, Unchahar, Singrauli, Rihand and Vindhyachal stations.

Shri Roy's experience in power sector include 10 years of senior management level as O&M Head and Business Unit Head of NTPC's largest stations at Korba and Vindhyachal.

He has also worked as Executive Director (Operation Services) at Corporate Center and looking after thermal, hydro and renewable generation of NTPC Group.

As Director (Projects), he is responsible for overall planning and execution of capacity addition in Thermal and Hydro.



Director (Technical)

**Shri Prasant Kumar Mohapatra, (DIN: 07800722), (aged 59 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 38 years of experience from concept to commissioning of power plants. Sh. Mohapatra started his career with Corporate Engineering Department and later moved to Talcher Super Thermal Plant where he served in Mechanical Erection and Turbine Maintenance. As Head of Maintenance and later on as head of O&M, he spearheaded several critical R&M activities at Talcher Thermal Power Plant. As head of O&M at Vindhyachal (6x210MW+2x500MW=2260MW), he was responsible for commissioning of new units under stage-III (2x500MW) as well as R&M of 210MW units.

Sh. Mohapatra served as Business Unit Head at Kawas(656MW), Sipat (2980MW), Kahalgaon (2340MW) & Ramagundam (2600MW). It was under his leadership that the first three 660MW 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 where he handled large portfolio of coal based and solar based plants both under construction and operation stages. Prior to joining the NTPC Board, he worked as ED (Technical) at the Corporate Center.

As Director (Technical), Shri Mohapatra is responsible for investment approval of projects, 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 Part-Time Director on the Board of Madhya Pradesh Power Generating Company Limited and NVVN, TELK, BF-NTPC.



Director (Operations)

**Shri Prakash Tiwari, (DIN: 08003157), (aged 58 years),** Director (Operations) NTPC, is a Mechanical Engineering Graduate from NIT Raipur. He joined NTPC as 6<sup>th</sup> 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 Part-Time Chairman on the Board of NTPC Tamil Nadu Energy Company Ltd. (NTECL) and Kanti Bijlee Utpadan Nigam Ltd. (KBUNL). He is permanent Invitee on the Board of Northern Coalfields Limited

As Director (Operations), NTPC, he is responsible for overall planning for smooth & safe operation of all NTPC power generating stations of more than 53,000 MW capacity and for fuel security & environment compliance of all Power Plants.



Director (Finance)

**Shri K. Sreekant, (DIN: 06615674), (aged 54 years),** is CMA and PGDM (Finance) from Management Development Institute, Gurgaon. He is currently whole-time Director (Finance) of Power Grid Corporation India Limited (PGCIL) with additional charge of Director (Finance), NTPC Limited w.e.f. 19.03.2018.

He has over 32 years of experience in the power sector involving all facets of Finance & Accounting function and in particular, Long Term Financial Planning, Investment Appraisals, formulation of Capital Budgets, Resource Mobilization from domestic and international markets and Corporate Accounts.

Government Nominee  
Director

**Shri Vivek Kumar Dewangan, (DIN: 01377212), (aged 51 years),** an Indian Administrative Service Officer of Manipur Cadre [1993 Batch], is B.E. in Electronics from NIT, Bhopal and P.G. in Optoelectronics & Optical Communication from IIT, Delhi. During his illustrious career of 25 years as IAS officer, he has held various administrative positions in the areas of Finance, Power/Energy, Elections/Law & Justice, Commerce & Industries, Minister's Office [Corporate Affairs/Agriculture & Food Processing Industries], Education/Human Resource Development, Sericulture/Agriculture & Cooperation, Economic Affairs, Economics & Statistics, Petroleum & Natural Gas, District Administration [Surguja & Raipur District in Chattisgarh and Senapati District in Manipur], Divisional Admn.

Government Nominee  
Director

**Ms. Archana Agrawal, (DIN: 02105906), (aged about 52 years),** is a 1990 batch, Indian Administrative Services Officer of Uttar Pradesh cadre. She holds a Post Graduate Degree in Political Science, Master degree in Business Administration with specialization in Financial Management and Bachelor degree in Arts in History, Public Administration and Political Science. In addition, she has been well trained in diverse areas of Public administration and Management in a number of reputed national and international institutions.

During her illustrious career as an IAS officer, she has held various key administrative positions in Uttar Pradesh Government like:-

- Principal Secretary - GAD and Dairy Development
- Secretary – Infrastructure & Investment, Industries, Taxation, Co-ordination.
- Commissioner – Transport, Food & Civil Supplies, Food Safety and Drugs, Milk Commissioner.
- Managing Director – PICUP, Udyog Bandhu, PCDF
- Project Coordinator- Diversified Agriculture Support Project (World Bank funded)
- Special Secretary – Industrial Development and Education Departments
- Vice Chairman – Varanasi Development Authority Faizabad – Ayodhya Development Authority
- Distt. Magistrate –Sultanpur, Faizabad
- Chief Development Officer -Faizabad, Agra, Mainpuri



**Independent Director**

**Dr. Gauri Trivedi, (DIN: 06502788), (aged 58 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 including Assistant Commissioner, Joint Director (Commerce and Industry), Chief Executive Officer/Director (Rural Development and Panchayati Raj), Deputy Commissioner (Excise), Joint Registrar of Cooperative Societies. 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 is currently guest faculty at IIM, Sardar Patel Institute of Public Administration, CEPT, Ahmedabad and Consultant AILSG. She teaches government officers, Civil Servant aspirants, young students and NGOs public policy, rural planning and management, current affairs and governance.

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



**Independent Director**

**Shri Seethapathy Chander, (DIN: 02336635), (aged 63 years),** is B. Tech. (Electrical) from IIT, Delhi and Specialist Diploma in Business Management in Human Resources. He started his career as Executive Trainee, NTPC in February 1977 (first batch best trainee), and worked in transmission systems. He was responsible for commissioning of NTPC's first 400kV installations and introduction of new High Voltage Direct Current transmission technology in India. Later he became the first Technical Assistant to the then CMD of NTPC. During this tenure, NTPC's Consultancy Wing was established, transmission business of NTPC was transferred to newly incorporated Powergrid Corporation of India Limited, and Unchahar Thermal Power Plant was transferred from UPSEB to NTPC in a debt asset swap – a first for the sector.

Shri Chander served Asian Development Bank from 8<sup>th</sup> July 1992 to 6<sup>th</sup> April 2015 and has been leading teams engaged in energy policy, planning, portfolio management, investments, ICT infrastructure development, ADB's long-term strategy, private sector operations and public-private partnerships. He has travelled extensively world over for his project works and has published 63 papers.

He is currently an Independent Director on the Boards of Energy Efficiency Services Limited and Suncept Corporation Limited and an Advisor to the World Energy Council, India. He also consults on infrastructure projects and is a part time adjunct faculty at the NTPC School of Business, NOIDA, India.







Independent Director

**Shri Shashi Shekhar, IAS (DIN: 01747358), (aged 61 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 64 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 Resource Management, Vigilance and anti-corruption, Training and Development, Public Order Management, Border Management, Intelligence and Security, General Administration, Public Grievance Redressal and Law.

Presently he is reemployed by Uttarakhand state government as Commissioner Right to Service Commission.



Independent Director

**Shri Pradeep Kumar Deb, IAS (DIN: 03424714), (aged about 65 years),** has a Master Degree in Physics from St. Stephens College, Delhi University. He started his career as a Probationary officer in 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 62 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 30<sup>th</sup> 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, Capacity Building.



Independent Director

**Shri M. P. Singh, (DIN:07937931), (aged 63 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 62 years),** a Senior Advocate in Supreme Court is a post graduate in English, post graduate in History and LL.M. He did Part-time 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 62 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 70 Ph.D. dissertations, and 167 M.E./M.Tech./M.S.(R) thesis. He has been filed 33 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 NariHingorani 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 01.08.2018)

S. No.	Executive Directors S/Shri	Position Held
1	R.K.Srivastava	ED – NETRA
2	K.K. Singh	RED NR
3	Sudhir Arya	ED (Finance)& CFO
4	R.S.Rathee	RED (DBF& Hydro)
5	Pramod Kumar	ED (Commercial)
6	Harbans Singh	RED (WR-II)
7	Dilip Kumar Dubey	RED (SR)
8	Tilak Raj Datta	ED (CC&M)
9	Manoj Saxena	ED (VSR/SSTPS/Rihand)
10	Murari Prasad Sinha	RED (ER-II)
11	S .Narendra	RED (ER-I)
12	G Venu	ED (Engg.)
13	M. Chandrasekaran	ED (QA &I)
14	Rajnish Bhagat	ED (BD)
15	K S Rajeev	ED (Tanda)
16	M S D Bhattamishra	ED (R&R/CSR)
17	S.Bhatia	ED (Finance)
18	A N Verma	ED (HR)
19	C V Anand	ED (OS)
20	N K Sinha	ED (Korba)
21	Sanjeev Kishore	ED (Kudgi)
22	C K Mondal	ED (Kharagone)
23	Vinod Choudhary	ED (PP & M)
24	N N Rai	ED (BE)

S. No.	Executive Directors S/Shri	Position Held
25	R K Singh	ED (NKSTPP)
26	N Srinivas	ED (FT)
27	Ram Kuber	ED (TSTPP)
28	Atul Srivastava	ED (Consultancy)
29	Kishore Kumar Das	ED (PE Task Force)
30	Anil Kumar Gautam	ED (Finance)
31	Ravindra	ED (Ramagundam)
32	Ajit Kumar Tewary	ED (Vindhyachal)
33	Sanjay Madan	ED (Lara)
34	Prabhat Kumar Sinha	ED (Safety/ EMG/& Ash Utilisation)
35	A K Mukherjee	ED (Barh)

### Posted in Subsidiary / Joint Venture Companies

S. No.	Executive Directors S/Shri	Position Held
1	Gopal Ravindra	CEO (UPL)
2	A K Juneja	CEO-NVVN
3	A K Garg	MD-Ratnagiri
4	A N Goyal	WTD-NBPPL
5.	Debasis Sarkar	CEO-NTECL
6.	Rakesh Samuel	CEO-Meja
7.	Naresh Anand	MD-BIFPC
8.	P K Mondal	WTD-NGSL
9.	Sudarsan Chakrabarti	CEO-PVUNL
10.	P P Kulkarni	CEO (APCPL)



NTPC - Among the Best Employers in the Country

## DIRECTORS' REPORT

### Dear Members,

Your Directors are pleased to present the 42<sup>nd</sup> Annual Report on the business and operations of the Company along with audited financial statements for the year ended March 31, 2018.

Financial Year 2017-18 had been yet another year of achievements for your Company.

Major highlights of your company for the year 2017-18 are:

- Power projects of 3,478 MW (including 910 MW through JV and Subsidiary Companies) were commissioned.
- Declared 4,423 MW Power Projects (including subsidiaries) on commercial generation including 250 MW of Solar, 50 MW of Wind and 8MW of Small Hydro Projects.
- PLF of 77.90% as against all India PLF of 60.72% with Talcher Thermal station of your Company recording 93.820% PLF. 12 Stations (including JVs) were in the top 25 in the country in terms of PLF. 8 coal based stations out of 20 commercial Stations achieved more than 85% PLF.
- Excellent MOU rating by Government of India for the year 2016-17.
- Group Capital Expenditure (CAPEX) including CAPEX of JV/ subsidiaries of your company for the year 2017-18 was ₹ 31,036.56 crore.
- 100% realization of current bills from customers.
- Revenue from operations was ₹ 83,452.70 crore and total revenue was ₹ 85,207.95 crore. Net Profit after Tax (PAT) was ₹10,343.17 crore.
- Dividend of ₹ 5.12 per share comprising interim dividend of ₹ 2.73 per equity share paid in February 2018 and recommended final dividend of ₹ 2.39 per equity share for the year 2017-18, subject to approval of the shareholders.
- Cash contribution of ₹ 6,297.39 crore to Government of India's exchequer through dividend, dividend distribution tax and income tax in the financial year 2017-18.
- Market capitalization of ₹ 1,39,925.53 crore as on 31.03.2018.
- Planted approx. 1 million trees during 2017-18 to mitigate the GHG emissions arising out of plant operations, thereby bringing total to about 33 million planted trees till the end of 31.03.2018.
- About 4.13 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.
- Awarded for overall Best Financial Performance by Governance Now
- Bagged 2<sup>nd</sup> position at the BML Munjal Award 2018 for sustained excellence in Learning and Development.
- Awarded for Excellence in Maharatna category at India Pride Awards.

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



Particulars	2017-18		2016-17	
	₹ Crore	US \$ Mn*	₹ Crore	US \$ Mn*
<b>Revenue</b>				
Revenue from Operations (including energy sales, sale of energy through trading, consultancy fee, etc)	83,452.70	12,715.63	78,273.44	11,926.47
Other income	1,755.25	267.45	1,068.86	162.86
<b>Total Revenue</b>	<b>85,207.95</b>	<b>12,983.08</b>	<b>79,342.30</b>	<b>12,089.33</b>
<b>Expenses</b>				
Fuel	48,315.47	7,361.80	47,572.19	7,248.54
Energy purchased for trading	1,313.51	200.14	-	-
Employee benefits expense	4,734.67	721.42	4,324.60	658.94
Finance costs	3,984.25	607.08	3,597.20	548.10
Depreciation, amortization and impairment expense	7,098.86	1,081.65	5,920.82	902.15
Other expenses	7,421.73	1,130.84	5,092.38	775.92
<b>Total expenses</b>	<b>72,868.49</b>	<b>11,102.93</b>	<b>66,507.19</b>	<b>10,133.65</b>
<b>Profit before exceptional items, tax and regulatory deferral account balances</b>	<b>12,339.46</b>	<b>1,880.15</b>	<b>12,835.11</b>	<b>1,955.68</b>
Exceptional items – impairment loss on investment	-	-	782.95	119.30
<b>Profit before tax</b>	<b>12,339.46</b>	<b>1,880.15</b>	<b>12,052.16</b>	<b>1,836.38</b>
Tax expense	2,549.29	388.43	2,930.82	446.57
Profit for the year before regulatory deferral account balances	9,790.17	1,491.72	9,121.34	1,389.81
Net movement in regulatory deferral account balances (net of tax)	553.00	84.26	263.92	40.21
<b>Profit for the year</b>	<b>10,343.17</b>	<b>1,575.98</b>	<b>9,385.26</b>	<b>1,430.02</b>

Appropriations	2017-18		2016-17	
	₹ Crore	US \$ Mn*	₹ Crore	US \$ Mn*
Transfer to bonds/ debentures redemption reserve	1,637.75	249.54	1,667.08	254.01
Transfer to general reserve	4,000.00	609.48	4,500.00	685.66
Dividend paid	4,040.28	615.61	3,595.03	547.77
Tax on dividend paid	816.40	124.39	727.79	110.89

\*1US \$= ₹65.63 as on March 31, 2018

## 2. DIVESTMENT BY GOVERNMENT

The Government of India has, from time to time, disinvested its stake in your company. During 2017-18, the Government of India divested 7.47% of shares as under:

Sl. No.	Particulars	No. of Shares Divested during 2017-18	Percentage
1.	Offer for Sale in Aug 2017	54,71,50,444	6.64
2.	Employee Offer for Sale in Sept 2017	94,69,848	0.11
3.	Bharat 22 ETF Nov 2017	5,93,13,616	0.72
	<b>Total</b>	<b>61,59,33,908</b>	<b>7.47</b>

In June 2018, the Government of India divested 4,15,67,567 shares through Bharat 22 ETF. The shareholding of Government of India after divestment in your Company stands at 5,09,32,57,695 shares i.e. 61.77 % as on 28.07.2018.

## 3. DIVIDEND

### Interim and Final Dividend:

Your company paid interim dividend of ₹ 2.73 per equity share in February 2018 and the Board of your Company has recommended a final dividend of ₹ 2.39 per equity share for the year 2017-18. With this, the total dividend for the year is ₹ 5.12 per equity share of ₹ 10/- each. In the year 2016-17, the total dividend paid was ₹ 4.78 per equity share of ₹ 10/- each.



The dividend payout is 39.06% and the total dividend payout including dividend tax is ~47% 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://ntpc.co.in/sites/default/files/downloads/DividendDistributionPolicyofNTPCLimited.pdf>.

#### 4. OPERATIONAL PERFORMANCE

During the year, the power stations of your Company generated 265.80 BUs (294.27 BUs including JVs & Subsidiaries) of electricity (including solar, hydro, wind & small hydro power) which was 20.39% (22.58% including generation by JVs and Subsidiaries) of the total power generated in India registering an increase of 6.19% (6.32% including JVs & Subsidiaries) over the previous years' generation of 250.31 BUs by your company (276.77 BUs including JVs & Subsidiaries).

The total generation contributed by coal stations is 252.36 BUs during the year against generation of 237.96 BUs last year registering a growth of 6.05%. Generation from coal based units could have been still higher but due to less generation schedule there was opportunity loss of 30.83 BUs. The coal based stations operated at average Plant Load Factor (PLF) of 77.90% (All India PLF was 60.72%) and average Availability Factor of 88.68% on bus bar during the year.

Talcher Thermal station with a PLF of 93.82% was ranked 2<sup>nd</sup> in the country and 12 Stations (including JVs) of your company were in the top 25 in the country in terms of PLF. Eight coal based stations out of twenty commercial Stations achieved PLF more than 85%.

The gas stations having a capacity of 4,017 MW achieved a higher annual generation of 8.82 BUs at a PLF of 25.05% as against 8.59 BUs last year. Opportunity loss due to less generation schedule on Gas was still higher at 24.45 BUs.

Generation contributed by Koldam hydro station improved to 3.31 BUs against 3.23 BUs achieved last year. Generation from your company's RE stations (Solar+ Wind + Small Hydro) was 1.31 BUs.

#### 5. COMMERCIAL PERFORMANCE

##### 5.1 Billing and Realization

Your Company has realized 100% of its current bills raised for energy supplied in 2017-18, thus achieving this feat for the 15<sup>th</sup> consecutive year.

Most of the beneficiaries were making their payments within 60 days of billing 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) backed by

the Tri-Partite Agreement. Apart from the LCs, payment is secured by the Tri-Partite Agreements (TPAs) 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 the 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 process is in progress for the balance States.

##### 5.2 Flexibility in generation and scheduling of thermal power stations to reduce emissions:

The Ministry of Power, Government of India has issued detailed mechanism in April 2018 allowing flexibility in generation and scheduling of thermal power stations to reduce emissions. The scheme provides flexibility to the generating company to supply renewable power in place of thermal power to meet its scheduled generation from that thermal generating station. The generating company may either establish or procure renewable energy generating capacity anywhere in the country. The tariff of the supplied energy either from renewable or coal shall be same as the Energy Charge Rate of that thermal station. The gains, if any, shall be shared with the beneficiaries in 50:50 ratio. In view of the large scale integration of renewables in the grid, Discoms are presently required to arrange balancing power separately to meet the variability of renewable generation. The above scheme supplements requirement of additional balancing power for renewable energy by Discoms. Further, Discoms will be able to meet their RPO obligation without facing any additional financial burden. The scheme also provides opportunity to generating companies to utilize generation from RE sources and also help in reducing emissions. Moreover, the scheme facilitates further RE capacity addition in the country.

##### 5.3 National Merit Order Operation:

With a view of providing cheaper power, your Company has taken various measures to reduce fuel charges through coal swapping, flexibility in usage of coal, etc. In order to maximize utilization of cheaper power, your company has proposed the concept of National Merit Order Operation which envisages flexibility to supply the power requisitioned by beneficiaries / Discoms through Merit Order operation of its stations on national basis, that is, cheaper station of the generating company shall be dispatched up to its maximum capability before scheduling costlier stations till the total power requisitioned by all its beneficiaries / Discoms is met. The gains arising from the above arrangement are proposed to be shared with the beneficiaries. This will ensure optimal utilization of the available resources by running the cheaper generation stations and reducing the average cost of generation. A draft notification has been issued by Ministry of Power vide notification dated 17.07.2018.



#### 5.4 Rebate Scheme for realization of dues:

In order to encourage early and full realization of dues, your Company has issued 'Rebate Scheme' for the year 2018-19. In the Scheme for 2018-19, 2.15% rebate shall be allowed for amounts credited to the account of Company on 1<sup>st</sup> and 2<sup>nd</sup> of the month against provisional bill. For payment made on 3<sup>rd</sup> and 4<sup>th</sup> of the month, rebate of 2.1% and 2.05% rebate on making payment on 5<sup>th</sup> of the billing month shall be allowed. Thereafter payments made till 8<sup>th</sup> day of the billing month, a rebate of 2.0% shall be allowed.

From 9<sup>th</sup> day of the billing month till 30<sup>th</sup> day of the month next to billing month, rebate on amounts credited to the account of the Company shall gradually reduce from 1.95% to 0%. An additional rebate of 0.1% (maximum) is proposed for beneficiaries who make payment on time consistently during the year.

#### 5.5 Commercial Capacity:

The following units including those of subsidiary companies were declared commercial during the year 2017-18, adding 4,423 MW to commercial capacity of your Company:

Project/ Unit	Capacity (MW)	COD*
<b>Units- Coal Based (I)</b>		
Kudgi, Stage-I Unit#1	800	31.07.2017
Mouda, Stage-II Unit#2	660	18.09.2017
Solapur, Unit#1	660	25.09.2017
Unchahar, Unit#4	500	30.09.2017
Bongaigaon, Unit#2	250	01.11.2017
Kudgi, Stage-I Unit#2	800	31.12.2017
<b>Total (I)</b>	<b>3,670</b>	
<b>Units -Solar (II)</b>		
Mandsaur Solar	250	01.09.2017
<b>Total (II)</b>	<b>250</b>	
<b>Units - Small Hydro (III)</b>		
Singrauli Small Hydro	8	05.03.2018
<b>Total (III)</b>	<b>8</b>	
<b>Units - Wind (IV)</b>		
Rojmal	50	10.11.2017
<b>Total (IV)</b>	<b>50</b>	
<b>Subsidiaries - Coal Based (V)</b>		
Muzaffarpur Thermal Power Station, Stage-II Unit#2 (KBUNL)	195	01.07.2017
Nabinagar Thermal Power Project, Unit#1 (BRBCL)	250	10.09.2017
<b>Total (V)</b>	<b>445</b>	
<b>Total Capacity declared commercial during 2017-18 (I)+(II)+(III)+(IV)+(V)</b>	<b>4,423</b>	

\* COD- Commercial Operation Date

As on 31.03.2018, the Commercial Capacity of your Company stood at 44,500 MW (41,322 MW as on 31.03.2017) and your Company Group's Commercial Capacity stood at 51,391 MW (48,288 MW as on 31.03.2017):

Owned by your Company	MW
<b>Coal based projects</b>	<b>38,755</b>
Gas based projects	4,017
Renewable Energy Projects	928
Hydro Projects	800
<b>Sub-total</b>	<b>44,500</b>
<b>Joint Ventures &amp; Subsidiaries</b>	
Coal based projects	4,924
Gas based projects	1,967
<b>Sub-total</b>	<b>6,891</b>
<b>Total</b>	<b>51,391</b>

#### 5.6 Tariff Related Matters:

In the year 2017-18, your Company has been able to reduce the Energy Charge Rate significantly through various measures including rationalization of coal transportation across its various stations etc.

**Demand oriented overhauling plan of your Company units:** The philosophy for planning of unit overhaul has been revisited to align the same to region-wise, month-wise demand patterns. This is expected to maximize your Company units participation in meeting the demands.

**Improvement in Operational Efficiency parameters:** Operational efficiency parameters for your Company stations were continuously monitored in coordination with Operations & CENPEEP and specific measures were taken to improve the operational efficiency of stations.

Tariff orders for the period 2014-19 have been issued for most of the stations.

#### 5.7 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 others' best practices. In the financial year 2017-18, total 63 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 2017-18, 105 participants from various customer organizations attended training in 71 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 2017-18 and the score falls under Excellent category.

## 5.8 UDAY Scheme

As part of the UDAY Scheme, your Company has been entrusted the responsibility to help and guide the state generating companies to improve their operational efficiency and reduce the cost of generation. With this objective, multi-disciplinary teams from your Company visited power stations at 12 states. The suggested measures to improve efficiency in these plants by the team based on the visit have been shared with the power stations.

## 5.9 Power Trading in Power Exchange:

In line with CERC (IEGC) (5<sup>th</sup> Amendment) Regulations 2017, your Company sold more than 365 Million Units of URS power in the Power Exchange through its trading arm NNVN, based on consents received from most of the beneficiaries. As per this scheme, gains from these transactions have been shared in the ratio of 50:50 with the beneficiaries whose URS power is sold.

## 6. INSTALLED CAPACITY

During the year 2017-18, your Company added 3,478 MW to its installed capacity as per details given below:

Project/ Unit installed	Capacity (MW)
<b>Coal Based Power Projects</b>	
Solapur, Unit#1	660
Kudgi, Unit#3	800
Lara, Unit#1	800
<b>Solar Based Power Project</b>	
Mandsaur	250
<b>Wind Based Power Project</b>	
Rojmal	50
<b>Small Hydro Power Project</b>	
Singrauli	8
<b>Total</b>	<b>2,568</b>
<b>Under Subsidiaries and Joint Ventures (Coal Based Power Projects)</b>	
BRBCL, Unit#2 (subsidiary in JV with Ministry of Railways)	250
Meja, Unit#1 (JV with UPRVUNL)	660
<b>Total by Subsidiaries and JV</b>	<b>910</b>
<b>Total Addition during FY 2017-18</b>	<b>3,478</b>

The total installed capacity of your Company Group as on 31.03.2018 has become 53,651 MW (50,498 MW as on 31.03.2017) as tabulated below:

Owned by your Company	MW
Coal based projects	40,355
Gas based projects	4,017
Renewable Energy Projects	928
Hydro Projects	800
<b>Sub-total</b>	<b>46,100</b>
<b>Joint Ventures &amp; Subsidiaries</b>	
Coal based projects	5,584
Gas based projects	1,967
<b>Sub-total</b>	<b>7,551</b>
<b>Total</b>	<b>53,651</b>

## 7 CAPACITY ADDITION PROGRAMME

### 7.1 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 21,071 MW including 7,150 MW being undertaken by Joint Venture and subsidiary companies are under implementation at 20 locations in India and abroad. This includes 13,110 MW through Coal based projects of your Company and 7,150 MW through its JV and Subsidiary Companies. In addition to the above, hydro projects of 811 MW are also under construction. The details of such projects are as under:

Ongoing Projects as on 31.07.2018	Capacity (MW)
<b>I. A. Coal Based Projects</b>	
1. Barh-I, Bihar	1,980
2. Bongaigaon, Assam	250
3. Solapur, Maharashtra	660
4. Lara-I, Chattisgarh	800
5. Gadarwara-I, Madhya Pradesh	1,600
6. Darlipalli-I, Odisha	1,600
7. North Karanpura, Jharkhand	1,980
8. Tanda-II, Uttar Pradesh	1,320
9. Khargone, Madhya Pradesh	1,320
10. Telangana Phase-I, Telangana	1,600
<b>Sub Total (A)</b>	<b>13,110</b>
<b>I.B. Hydro Electric Power Projects (HEPP)</b>	
11. Tapovan Vishnugad, Uttarakhand	520
12. Lata Tapovan, Uttarakhand@	171
13. Rammam Hydro, West Bengal	120
<b>Sub Total (B)</b>	<b>811</b>
<b>Total I (A)+(B)</b>	<b>13,921</b>
<b>II Projects under JVs &amp; Subsidiaries</b>	
<b>Coal Based Projects</b>	



Ongoing Projects as on 31.07.2018	Capacity (MW)
14. Nabinagar- JV with Railways (BRBCL), Bihar	500
15. Nabinagar, JV with BSPGCL (NPGCL), Bihar	1,980
16. Meja, JV with UPRVUNL (MUNPL), Uttar Pradesh	660
17. Patratu Expansion, JV with JBVNL	2,400
18. Rourkela, JV with SAIL (NSPCL), Odisha	250
19. Durgapur, JV with SAIL (NSPCL), West Bengal	40
20. Khulna, JV with BPDB (BIFPCL), Bangladesh	1,320
<b>Total II</b>	<b>7,150</b>
<b>III. Total On-Going Projects as on 31.07.2018 (I)+(II)</b>	<b>21,071</b>

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

## 7.2 New Technology & Initiatives

Indian power sector is undergoing a paradigm shift with redefined industry outlook and calls for fresh approaches to meet the emerging challenges. There is a renewed focus on local and global safer environment along with having sustainable power generation. This calls for new concepts in power plant design. At the same time your Company has taken fresh pledge towards safety in all operations. Also being the premier power generating company in the country, the responsibility has come on us for achieving high efficiency and stringent emissions as a torch bearer for the power plants across the country. In step, your Company has laid major stress on efficient utilization of resources, reduction in emissions and increased safety. Your Company has been voluntarily working on improving the energy conversion cycle efficiency by adopting more efficient technologies and power plant schemes.

### 7.2.1 Continuous technological advancements for improving plant designs

Cleaner power has been central to your 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 (USC). 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<sub>2</sub> emission (as also others like NO<sub>x</sub> and SO<sub>x</sub>) intensity by around 8% when compared to conventional subcritical power plants for every unit of electricity generated. Parallely, water conservation is a new focus

for your Company. In this direction, introduction of dry cooling technology like Air Cooled Condenser (ACC) is a significant step. First introduction has been made in water stressed areas like North Karanpura and Patratu. Further, your Company has taken initiative to become a Zero Liquid Discharge company for all closed cycle operating stations by identifying and implementing water management initiative, adopting innovation in water use in its thermal power plant.

### 7.2.2 Advanced Ultra Supercritical (AUSC) technology development project

Indian program to develop AUSC technology is underway by a consortium of your Company, BHEL and IGCAR. The program envisages development of indigenous technology for steam parameters of 310 Kg/cm<sup>2</sup> 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%. It will result in reduction of CO<sub>2</sub> emissions to the tune of 20% compared to a sub-critical plant. The phase-I of the program, which constitutes R&D for technology development, started from April 2017. Second phase of the programme i.e. setting up of an 800 MWe technology demonstration plant (TDP) is being planned at your company's Sipat plant located in Chhattisgarh. The technology will support country's longer term dependence on coal while reconciling with NDC (Nationally Determined Contributions) commitments made as part of Paris Climate Agreement.

### 7.2.3 Biomass Co-firing for reducing greenhouse emission & reduce pollution

Your Company has taken a new initiative 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. This is expected to provide extra income to farmers and employment in rural sector. Such commercial scale biomass co-firing, which would be a first in India, is slated to commence from September, 2018 at your company's Dadri power plant which is site for 6 x 210 MW and 2x490 MW coal fired units. Being carbon neutral process, biomass co-firing is a technology which is globally recognized as a measure of reducing greenhouse emissions and is more economical and efficient than dedicated biomass plant.

### 7.2.4 Waste-to-energy technology initiatives

Keeping commitment for Swachh Bharat, your Company has taken initiatives to establish technologies for clean and safe disposal of municipal waste which also provides some energy as a spin-off benefit. In-line, waste to compost plant at Karsada, Varanasi has been revamped for which the operation & maintenance (O&M) is also being managed. The plant processes about 600 TPD of MSW (municipal solid waste) and generates 60-80 TPD of compost. The

sanitary land fill facility and leachate treatment facility have also been created at this plant to ensure systematic and safe disposal of municipal solid & liquid waste. Further, your Company has recently awarded 24 TPD thermal gasification based demonstration scale plant at Varanasi. Here the MSW is first converted to produce gas, which is then used to generate approximately 200 kW of electric power. Your Company is presently working on more such plants which once established in technology and collection/preparation processes will change the face of waste disposal in Indian cities.

### 7.2.5 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. In Kudgi Project, 190 MW wind-solar hybrid project has been planned which is the largest in India. This would optimize the use of land and power evacuation infrastructure leading to reduction of cost of RE generation. Your Company is setting up 25 MW Solar Project with Battery Energy Storage System (BESS) in Andaman Port- Blair Island, which is first commercial project in India with Battery Energy Storage. This would replace DG sets in Andaman. A project for Solar Thermal Integration with the existing coal based unit at your Company's Dadri Project is under construction and is expected to be commissioned in 2018-19. The expected peak electrical output will be about 3.6 MW resulting in coal savings of around 3825 tons/year and in reduction of CO<sub>2</sub> emissions of around 4060 tons/year. 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 Projects which is a step towards saving of land and water conservation by reducing water surface evaporation.

### 7.2.6 Use of treated Sewage Water from Municipal Sewage treatment plants

Your Company has taken on itself a novel & bold initiative to use sewage water from nearby municipal zones. Such treated water will replace precious fresh water from rivers/lakes/reservoirs. The expertise inherent in your Company will establish the technology and business processes to internalize the spirit of government notification of January 2016 which makes such use mandatory for power plants wherever Municipal STPs are within 50 Km distance. Your 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. For NCTPP Dadri, your 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.

### 7.2.7 Advanced digital and control technology use

Your Company has developed its Digital Strategy Roadmap where key areas like APC (Advanced Process Control), AMS (Advanced monitoring for Stockyard) for Operation optimization, APM (Asset Performance Management) for Maintenance optimization and Application of IIOT (Industrial Internet of Things) in Generation to enhance process visibility, AIM (Asset Information Management) for digital twin with lifecycle documentation, ART (Augmented Reality based training), along with establishment of Remote Performance Monitoring center have been identified. It is envisaged to implement all the above initiatives in Simhadri power plant. One of the significant implementations which is first of its kind in the country is Remote Operation of Koldam Hydro station located in Himachal Pradesh from Control room situated at Scope Complex, Delhi for 24 X 7 operation.

### 7.2.8 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 Annex-III.

### 7.3 Project Management

Your Company has established state-of-the-art IT enabled Project Monitoring Center (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.

### 7.4 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
<b>KBUNL</b> (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.	A subsidiary Company in which your Company held 72.64% shares in joint venture with BSPGCL (erstwhile BSEB), took over Muzaffarpur Thermal Power Station having 2 units of 110 MW each from BSEB. Both the units of Stage-I have been declared on commercial operation. Total generation in FY 2017-18 was 1,729 MU at 35.15% PLF. This Company has also taken up expansion of the project by 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.
<b>BRBCL</b> (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 is setting up power project of 1000 MW (4X250 MW) capacity at Nabinagar in Bihar. Unit#1 of 250 MW was declared commercial on 15.01.2017 and Unit#2 was declared commercial on 10.09.2017. Construction activities in other units are in progress.
<b>NSPCL</b> (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 (2 x 60 MW), Rourkela (2 x 60 MW) and Bhilai (2 x 30 + 1 x 14 MW). NSPCL has also implemented 2 x 250 MW Bhilai Expansion Power Plant. Total installed capacity of NSPCL is 814 MW. NSPCL generated 6,254 MU at 87.72% PLF in FY' 2017-18. NSPCL has paid final dividend of ₹ 50 Crore for FY' 2016-17 to your Company. <b>Under Implementation-</b> New Coal based Capacity at Rourkela PP-II Expansion (1 x 250 MW) & Durgapur PP-III (2 x 20 MW) is under construction. Solar Power Plants of 200 MW capacity at various plant locations of SAIL is under tendering.

Name of Company	JV Partner(s)	Details
<b>NTECL</b> (NTPC Tamil Nadu Energy Co. Ltd.)	Tamilnadu 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 2017-18 was 7,168 MUs at 54.55% PLF and 70.46 % PAF. The profit for FY 2017-18 was ₹ 33.45 crore.
<b>APCPL</b> (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 2017-18 was 7,734 MU. APCPL has paid interim dividend of ₹ 69.93 crore to NTPC for FY 2017-18.
<b>MUNPL</b> (Meja Urja Nigam Pvt. Ltd.)	Uttar Pradesh Raja 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.
<b>NPGL</b> (Nabinagar Power Generating Company Pvt. 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 NPGL. NPGL has now become wholly-owned subsidiary.	A 50:50 JVC is setting up a 3x660 MW coal based plant at Nabinagar. Construction activities are in progress.

Name of Company	JV Partner(s)	Details
<b>RGPPPL</b> (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 RGPPPL. PPAs have been signed by RGPPPL 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 RGPPPL to the new entity Konkan LNG Private Limited (KLPL). Accordingly, the paid-up share capital of RGPPPL decreased from ₹ 3820.27 crore to ₹ 3272.30 crore.
<b>ASHVINI</b> (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
<b>PVUNL</b> (Patratu Vidyut Utpadan Nigam Limited)	Jharkhand Biji 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. Existing capacity of 325 MW units was deleted from the data base of all India Installed Capacity by CEA on 23.11.2017. 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. Deed of Adherence for Banhardi Coal Mine was signed on 02.06.2017 and bridge linkage was applied to Ministry of Coal on 09.06.2017.

## 7.5 Hydro Power

Your Company now has its footprints in renewable energy by developing hydro projects as detailed below:

- 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 2017-18 had been 3,316.71 MU.
- B. **Tapovan Vishnugad HEPP (4x130 MW)** is on River Dhauliganga, District Chamoli (Uttarakhand). Project is under construction with approximately 91% of capex utilization till 31.03.2018.
- C. **Lata Tapovan HEPP (3x57 MW)** is just upstream of Tapovan-Vishnugad HEPP, in District Chamoli (Uttarakhand). The work was stopped by Hon'ble Supreme Court through order dated 07.05.2014 for 24 Hydro Projects in the State of Uttarakhand including Lata-Tapovan. The MOEF&CC constituted an expert body, which submitted its report on 19.10.2015 and submitted the same in court on 05.11.2015, where Lata Tapovan had been recommended for

implementation 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, Additional Solicitor General of India represented MOEF&CC and informed the Court that Lata - Tapovan Project must be implemented. The matter is still pending in Hon'ble Supreme Court for want of affidavit from Ministry of Water Resources (MoWR).

For National Board of Wild Life (NBWL) Clearance, for Tapovan- Vishnugad and Lata Tapovan HEPPs, the proposal regarding redefining of Eco Sensitive Zone (ESZ) was discussed in Uttarakhand State Cabinet Meeting. Formal proposal redefining the limits of ESZ of Nanda Devi National Park has been forwarded by Govt. of Uttarakhand to the standing committee of NBWL on 26.07.2016. Standing Committee of NBWL forwarded the proposal to MoWR on 23.09.2016. In spite of various reminders, comments of MoWR are still awaited. Matter has been discussed since then, in various meetings of standing committee of NBWL, but could not be considered due to non-receipt of MoWR comments. Matter was last discussed in 48<sup>th</sup> meeting held on 27.03.2018 wherein again the Member Secretary took up the matter with the State Government at the highest level.

Matter is being taken up with MoEF and Climate Change (GOI) by your Company for approval of GOI.

**D. Rammam-III HEPP (3x40MW)** is situated on river Rammam in Teesta Basin, Darjeeling (West Bengal). Construction work is in progress. PPA with Govt of West Bengal is in process.

## 7.6 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.

### 1. Under Green Energy Commitment:

Your Company has committed to develop 10 GW of Renewable Energy Projects under Green Energy Commitment to Govt. of India. As per your Company Corporate Plan 2032, the capacity will have a diversified fuel mix with 28.5% Renewable Energy Sources (RES) including hydro. Your Company has already commissioned 928 MW of RE projects as on 30th June 2018 comprising 870 MW of Solar, 50 MW of Wind & 8 MW of small hydro power projects. Rooftop Solar project of 1.5 MW capacity is under execution in Karnataka.

Further, NITs have been issued for 185 MW of Solar PV projects in the states/UT of Gujarat, Kerala, Uttar Pradesh, Telangana and A&N, including 22 MW floating Solar PV project in Kerala and 12 MWh Battery Energy Storage System in A&N.

### 2. National Solar Mission:

Your Company 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 the Company will be the facilitator/trader between Discoms and developers. Your Company will purchase power from the developers and sell it to the Discoms. Under Tranche-I of 3000 MW of Solar PV capacity, PPAs have been signed for entire capacity of 3000 MW solar PV projects. Out of this 3000 MW, 2750 MW Solar PV capacity has been commissioned till 30<sup>th</sup> June 2018 and 250 MW capacity is under implementation. The guidelines for the balance 12 GW is awaited from MNRE.

Your Company has also floated tenders for setting up Grid connected 2000 MW Solar PV projects and 2000 MW Wind Power projects anywhere in India under Developer mode.

### 7.7 Capacity addition through acquisition:

Your Company has entered into a Memorandum of Understanding (MoU) with Government of Bihar and its affiliate Companies on May 15, 2018 for transfer of Barauni TPS (720 MW) owned by Government of Bihar. The aforesaid MOU also provide for acquisition of Bihar State Power Generation Company's (BSPGCL) equity stake in Kanti Bijlee Utpadan Nigam Limited (KBUNL) & Nabinagar Power Generating Company Limited (NPGC) to your Company. Govt. of Bihar has notified a Transfer Scheme on June 27, 2018 to effect the transactions. Your Company has 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. Activities are under way for acquisition of Barauni TPS.

An MoU was signed on 11.01.2017 (currently extended till 10.11.2018) amongst your Company, Rajasthan Vidyut Utpadan Nigam Ltd. (RVUNL) and Rajasthan Rajya Urja Vikas Nigam Limited (on behalf of Discoms) for possible acquisition of Chhabra St-I & II in a phased manner. Enabling actions for transfer are under way.

Your Company has invited Request for Proposal (RfP) on November 25, 2017 from interested parties i.e. Promoters/ Lenders or Authorized Financial Intermediaries of the



Power Generation Companies/ Independent Power Producers/ Developers to offer their operating domestic coal based thermal power assets in India meeting the specified criteria in RFP. Proposals received against RFP are under evaluation.

## 8. STRATEGIC DIVERSIFICATION- INCREASING SELF-RELIANCE

8.1 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, distribution.

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

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

**8.2.1 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.

**8.2.2 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.

In the FY 2017-18, NVVN traded 17,278 million units (MUs).

NVVN has paid an interim dividend of ₹ 20 Crore for FY 2017-18.

8.3 The details of other 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	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 ₹ 2.5 crore as final dividend to your Company for FY 2016-17.
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 in abroad, utilising state-of-the-art technology. R&M including RLA work orders are under execution. NGPSL gave ₹ 0.23 crore as final dividend to NTPC for FY'16-17. The dividend was received in FY'17-18.
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. EESL gave ₹ 8.80 crore as final dividend for FY'16-17 and ₹ 4.12 crore as interim dividend for 2017-18. The dividend was received in FY'17-18.



Name of Company	JV Partner	Activities Undertaken
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. Online High Power Test Laboratory set up at Bina, M.P. was declared commercial w.e.f 01.07.17. 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. Activities for winding up of the Company are in progress.
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. The Company had a turnover of ₹ 185.22 crore in FY 2017-18. 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.

Name of Company	JV Partner	Activities Undertaken
NTPC-SCCL (NTPC-SCCL Global Ventures Private Limited)	The Singareni Collieries Company Limited	NTPC-SCCL was formed for acquisition/ development of mines, beneficiation processing, O&M of coal/lignite blocks and selling of coal/ lignite produced thereof. As the Company could not attain its objectives, it is under voluntary winding up. The final General Meeting of NTPC-SCCL was held on November 15, 2016, after which the documents and books of liquidation was filed to Official Liquidator. The Order for dissolution of NTPC-SCCL from Hon'ble High Court of Delhi is awaited.
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. Lump sum Turnkey contracts for all the three projects i.e. Gorakhpur, Sindri and Barauni have been awarded.
KLPL (Konkan LNG Private Limited)	GAIL, ICICI Bank, SBI, IDBI, Canara Bank and MSEB Holding Co. Ltd.	Demerger scheme filed by RGPPPL was approved by NCLAT on 28.02.2018 thereby separating the R-LNG business from RGPPPL 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.

#### 8.4 Diversification in Electric Vehicle (EV) Segment

With thrust of Government of India for E-Mobility & its adoption all across the globe at a rapid pace, the E-Mobility business seems one attractive option for the Company to venture into and diversify its current portfolio of power generation.

As of now, your Company is looking forward to develop the charging infrastructure and run few pilot projects to get a foothold in this area and also to accumulate data sufficient for assessing the viability of the future business.





The Company is currently looking to set up EV charging infrastructure, reach an MoU with city administrations and seek strategic collaborations with other stakeholders in energy sector.

Towards this end, your Company has entered into an MOU for setting up charging infrastructure in Jabalpur and necessary enabling actions are underway. MoUs have also been signed with Oil Marketing Companies, other PSUs etc. for collaboration in development of charging infrastructure.

The Company has also installed charging stations in its power stations and offices. The company has also leased some E-Vehicles for its offices in NCR. Your Company is planning to develop a completed EV ecosystem in and around its power stations and offices to start with.

### 8.5 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. Commercial arrangement are being finalized with IRCTC.

IRCTC has further expressed interest for establishing similar packaged drinking water facilities at other power stations of your Company.

### 8.6 Foray into cement business

Your Company is collaborating with CCI for reviving the cement plants of CCI supplementing both your company's & CCI's resource requirement and increasing ash utilization.

An MoU was signed with CCI in Jan'2018. CCI has expressed interest for establishing a cement blending unit at your Company's Station Solapur by utilizing the fly ash and the proposal is being assessed.

## 9. GLOBALISATION INITIATIVES

- 9.1 **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. 1<sup>st</sup> Meeting of Joint Working Group (JWG) was held in Nov'16 in which the proposal of Govt. of Sri Lanka (GoSL) for relocating the Project at Kerawalpitiya with change-in fuel type to meeting LNG was agreed in-principle. In 2<sup>nd</sup> JWG meeting held in Aug'17 at New Delhi, it was decided that TPCL will implement the RLNG based project at Kerawalpitiya and 50 MW solar power

project at Trincomalee. GoSL has issued letter of intent to Gol for development of 500 MW LNG project on 23.06.2017 and for 50 MW solar project on 13.09.2017.

- 9.2 **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 is in full swing.

- 9.3 **Other Opportunities Abroad:** Business opportunities in Sri Lanka, Bhutan, Myanmar, Indonesia, Oman, UAE, Egypt, Ghana, Zimbabwe, Tanzania, Kenya & 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.

## 10. 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.

It has provided Services for more than 42,000 MW capacity to external clients besides 7,551 MW of NTPC JVs.

On international front, Consultancy Wing is providing O&M management services at Siddhirganj Peaking Power Plant (2x120MW) in Bangladesh under a World Bank funded contract which has been progressing successfully for last 5 years. There has been an all round improvement in terms of plant parameters due to implementation of best practices and systems in 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" of 2X660MW Jawaharpur TPS and of 2X660MW Obra Extn. TPS to UPRVUNL. Your Company's Consultancy wing is providing owner's engineer services of FGD system for Environmental compliance to various clients like UPRVUNL, HPGCL, DVC and its own JVs. Also executing assignments of various clients such as SCCL, UPRVUNL, NMDC, DPCC, THDC, HPGCL, OCPL and your Company JVs towards FR/ DPR Preparation, Procurement & Inspections and other advisory services.



Project Monitoring Services are being provided for 2x660 MW Shree Singhaji TPP Khandwa of MPPGCL, and 1X660 MW Harduaganj TPS of UPRVUNL.

Consultancy Wing is providing Performance Improvement services to 4x250 MW units of Chhabra TPS, RVUNL and O&M Management Service of 2X600MW Shree Singhaji TPP Khandwa of MPPGCL and 2X50MW Captive Thermal Power Plant of FPL in Odisha by deployment of executives at respective sites. Major O&M Technical Audit and Performance Guarantee test and ORT assignments of HPGCL, RVUNL, LPGCL, UPRVUNL were taken up by Consultancy Wing. It is also carrying out "Independent technical due diligence assignment of stressed/stalled assets" for lenders.

#### Highlights of FY 17-18

- Consultancy Wing received orders of ₹ 386.89 crore
- Consultancy Wing bagged 166 nos. of orders
- O&M support to REC by deploying 4 executives at site for 2X50 MW CFBC Boiler of FACOR Power -the first Power Plant of 100 MW capacity to be taken over by Lender (REC) under Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interests Act, 2016 (SARFAESI)
- COD of unit 2 of SCCL was achieved within 7 days of full load. SCCL Station achieved 5<sup>th</sup> position in top 25 power stations in India till January 2018 during financial year 2017-18 with Yearly PLF of 90.44 %
- Boiler Hydro test of Unit # 2 (660MW) of Shree Singaji TPP was also successfully completed 3 months ahead of schedule.

Consultancy Wing is looking ahead for future business opportunities in areas like implementation of solar & renewable power projects, supporting other power utilities for meeting new environmental norms and taking over complete O&M for power plants of other power utilities.

## 11. 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.

## 12. 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.

## 13. FUEL SECURITY

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

### 13.1.1 Coal Supplies

Your Company has entered into long term Fuel Supply Agreement with Coal India Limited (CIL) & Singareni Collieries Company Limited (SCCL) for total Annual Contracted Quantity (ACQ) of 157.56 MMT & 11.2 MMT respectively and Bridge linkage of 4.65 MMT for Barh. The short term MOU 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.

To leverage potential of rationalization of coal linkages, your Company has 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.

As per directives of Govt., CIMFR started sampling at loading and unloading ends in Jan'16. During the period 2017-18, sampling at all loading end sidings (except two sidings i.e. CCL- Amrapali & KD- old) and sampling at unloading end of all your Company stations have been started. Further, sampling at unloading end of four your Company's JV stations out of six have also been taken up by CIMFR. Remaining (Meja and BRBCL) are expected to start in next 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 and (iii) Darlipalli with MCL and SECL. For other projects, as and when COD is declared MOU will be signed.

### 13.1.2 Domestic Coal and Imported Coal

During 2017-18, your Company received 167.67 MMT of coal as against 159.25 MMT in 2016-17 marking an increase of (+) 5.29%. Out of 167.67 MMT of coal, 155.87 MMT was from Annual Contracted Quantity of coal, 3.027 MMT through SCCL Bi-lateral MoU and 1.531 MMT received through e-auction. During 2017-18, Company Imported 0.32 MMT of coal supplied against carryover of last contract awarded on Aug'2015 as against 1.09 MMT in 2016-17 making a decrease of (-) 70.6% in import coal.

### 13.1.3 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 current financial year also. In the current FY, your Company has participated

in e-auction of total 1017 nos rake of coal (4.03 MMT), out of which 604 nos rake of coal (2.42 MMT) have been allotted.

### 13.1.4 Supply through Inland Waterways

During 2017-18, about 1.61 lakh MT imported coal has been supplied through this mode to Farakka station under a Tripartite Agreement with IWAI and service provider.

### 13.1.5 Gas supplies

During 2017-18, your Company received total 4.48 MMSCMD of Domestic gas as against 5.17 MMSCMD of Domestic gas received during 2016-17. Spot RLNG off-take during 2017-18 was 0.85 MMSCMD.

Your Company has Administered Price Mechanism (APM) gas agreements up to the year 2021 and Panna Mukta Tapti (PMT) gas agreements up to the year 2019 with GAIL. The agreement for Non-APM gas with GAIL has been renewed upto the year 2021.

For additional gas requirement over and above the supplies under long-term domestic gas 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 generation loss on account of lack of availability of Domestic gas / RLNG / Liquid fuel during the year.

### 13.1.6 Oil/Gas exploration:

In the KG basin exploration block KG-OSN-2009/4 where ONGC is the Operator and your Company has 10% stake, after completion of Minimum Work Programme (MWP), ONGC has submitted proposal to DGH for relinquishment of the block.

### 13.2 Development of Coal Mining projects

Your Company has been allocated eight coal blocks by Government of India, namely, Pakri-Barwadih, Chatti-Bariatu & Chatti-Bariatu (South), Kerandari located in the State of Jharkhand, Dulanga, Mandakini-B located in the State of Odisha and Talaipalli, Banai & Bhalumuda located in the State of Chhattisgarh. In addition, Government of India has also allocated Kudanali-Luburi coal block (Odisha) jointly to your Company and the State of J&K, with your company's share of coal reserves in this block being two-third share of coal reserves to your Company.



Banhardih coal mine is allotted to PVUNL, a JV company of NTPC Limited.

From these 10 coal blocks, with a total estimated geological reserves of about 7.3 Billion Metric Tonnes, your Company including its group companies expects to produce about 111 Million Metric Tonnes of coal per annum. Your Company on standalone basis expects to produce 94 million metric tonnes per annum of Coal.

Coal production commenced from Pakri-Barwadih coal block in Dec'16. It is a Basket Mine. During FY 2017-18 about 2.67 MMT coal have been extracted and 683 no of rakes of coal have been dispatched to power stations through Indian Railways network. 1143 no of rakes of coal have been dispatched to power stations upto 15.07.2018. Production target for this mine in FY 2018-19 is 6.27 MMT in line with the mine plan.

Mine Developer-cum-Operator (MDO) for Dulanga coal block has been appointed on 09.02.17. Mining operation started on 28.02.18. The end use plant of this mine is Darilipalli (1320 MW) STPP located about 10 kms from the block. Coal is transported to the power project by captive MGR system. Coal production target for this mine in FY 2018-19 is 1.5 MMT.

Mine Developer-cum-Operator (MDO) for Talaipalli and Chatti-Bariatu coal blocks were appointed on 13.11.17. In view of violation of 'Integrity Pact', your Company has kept the contract under suspension and show cause notice for termination has been served on 29.12.17. The matter is sub-judice. In case of Chatti-Bariatu and Talaipalli about 61% and 90% land payments has been completed respectively. For Kerandari coal block tender for MDO appointment has been annulled. Having gained experience by opening two mines and with a view to develop in house competency this block is now proposed to be developed in a limited outsourcing mode. As per Allotment Agreement with MoC, scheduled target for coal production from the three blocks i.e. Talaipalli, Chatti-Bariatu and Kerandari is November 2019.

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 of ₹ 20.47 crore in this FY 2017-18 (Cumulative expenditure of appx. ₹ 100 crore) which has helped in improving the socio-economic conditions of the local community.

For Mandakini-B coal block, Mining Plan & FR are under preparation. Target for commencement of production is February 2022.

At the time of allotment, the Banai & Bhalumuda coal blocks were unexplored. NTPC got the exploration

completed and Geological Report(s) are available. There are issues in availability of land for external OB dump and therefore with a view to optimise 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.

#### 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 Utpadan 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-Laburi 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. Approval from NITI Aayog has been obtained for formation of JV Company. Action is underway for formation of 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.

## 14. BUSINESS EXCELLENCE: GLOBAL

### BENCHMARKING

Your Company has developed and adopted '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 2017-18, 22 generating stations were assessed by a team of certified assessors. Business



Excellence Award for best performance was given to Talcher-Kaniha.

In its pursuit to embrace digital and paperless working environment, your Company has started implementation of 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. Quality Circle team of your Company - Talcher Thermal Station had participated in International QC Convention held at Manila in October 2017.

## 15. RENOVATION & MODERNISATION

In the present scenario of severe resource constraint, Renovation and Modernization (R&M) of power plants is considered to be a cost-effective option which can complement new capacity addition as R&M schemes have a shorter gestation period with all clearances, land, water, fuel and beneficiaries available. To this end, R&M is being carried out to overcome the impact of ageing of the units over the years and for the purpose of ensuring SAFE OPERATIONS, compliance with revised and stringent environmental norms, life extension of units, performance improvements, availability and reliability improvement and to overcome obsolescence as well as changes in operational logistics. It ensures safe, reliable and economic electricity production by replacement of worn-out, deteriorated or obsolete electrical, mechanical, instrumentation, controls and protection system by state-of-the-art equipment.

Investment approval accorded till date for R&M in 20 stations (Coal & Gas based) is ₹ 14,069.07 Crore. As against this, cumulative expenditure till 31.03.2018 is ₹ 6,817.20 Crore which includes R&M capital expenditure of ₹ 544.36 Crore during FY 2017-18.

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 53 Units in 12 Stations namely Tanda -(4x110MW), Badarpur - II (2x210MW), 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) awarded prior to FY 2017-18 and Unchahar - II (2x210MW), Ramagundam - I (3x200 MW) and Kahalgaon - I (4 x 210 MW) awarded during FY 2017-18. ESP R&M work has been completed, during 2017-18, in 9 units namely 1x210MW+2x500 MW of Korba, 2x500 MW of Talcher STPS, 1x110 MW of Talcher TPS, 1x210 MW of Unchahar, 1x200 MW of Farakka and 1x500 MW of Vindhyachal and total no of units in which ESP R&M has been completed till Mar'18 is 23 in 9 stations.

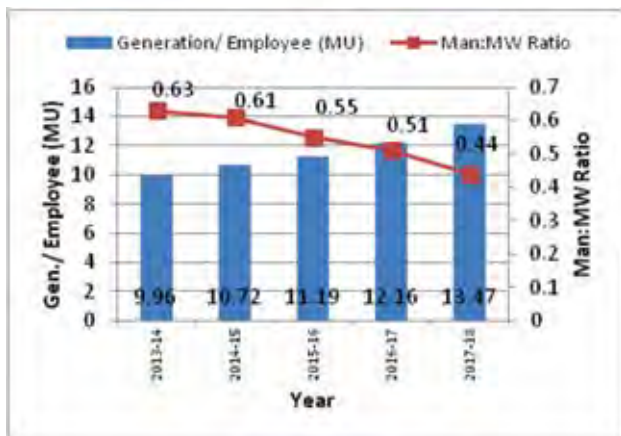
With a view to removing technological obsolescence, renovation of Control & Instrumentation (C&I) has been taken up in 9 coal based stations namely Singrauli-I (5X200MW) & Singrauli - II (2X500 MW), Korba - I (3X200MW) & Korba - II (3X500 MW), Ramagundam - I (3X200MW) & Ramagundam - II (3X500MW), Farakka-I (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. During 2017-18, C&I R&M was completed in one 500 MW unit of Farakka, one 500 MW unit of Ramagundam and two 210 MW units of Kahalgaon and 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). During 2017-18, C&I R&M was completed in one Module( 2 GT + 1 ST) in Dadri Gas and the total no. of units in which C&I R&M completed in Gas Stations till Mar'18 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 four stations namely 4x106MW in Kawas, 4x111.19 MW in Auraiya, 3x88.71MW in Anta and 3x144.30MW in Gandhar.

## 16. HUMAN RESOURCE MANAGEMENT

16.1 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 2017-18 excluding JV/subsidiary capacity is 0.44 and 0.42 including capacity of JV/ Subsidiaries. Generation per employee was 13.47 MUs during the year based on generation of your Company's stations.





The total employee strength of your Company (including JV/ subsidiaries) stood at 21,584 as on 31.3.2018 against 22,124 as on 31.3.2017.

	FY 2017-18	FY 2016-17
Number of employees	19,739	20,593
<b>Subsidiaries &amp; Joint Ventures</b>		
Employees of your Company in Subsidiaries & Joint Ventures	1,845	1,531
<b>Total employees</b>	<b>21,584</b>	<b>22,124</b>

The attrition rate of your Company executives during the year was 0.53% in comparison to last year at 0.93%.

## 16.2 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.

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.

## 16.3 Safety and Security

Occupational health and safety at workplace is one

of the prime concerns of Company Management and 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 Center. Safety issues are discussed in the highest forum of management like Risk Management Committee (RMC), Management Committee Meeting (MCM), ORTs, PRTs 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 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.

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/Body 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.

An unfortunate accident took place on 1<sup>st</sup> November 2017 in the boiler of 6<sup>th</sup> unit of Unchahar plant at U.P. This caused fatal accidents and burn injuries to the personnel working in the boiler area. Relief measures were immediately taken and all medical facilities were provided to the injured. Ex-gratia compensation was provided to the families of deceased and to the injured personnel.

The standard operating procedures were followed for maintaining utmost safety in operations and processes in your Company to avert such 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.

#### 16.4 Training and Development

Your Company has consistently endeavored for attracting, on-boarding, grooming and motivating its talent recognising that nurturing the talent leads to competitive advantage.

Power Management Institute (PMI), the apex learning and development (L&D) center of your Company, is actively engaged in making our people future ready in terms of technology, business acumen and leadership. All the programs are carefully linked to Company's strategic objectives, business plan and emerging trends.

During FY 2017-18, your Company upgraded its physical and digital infrastructure to impart learning through contemporary pedagogy in world class ambience. It renovated its classrooms with state-of-the-art facilities including smart boards, video conferencing and session-recording facilities.

Our training delivery methods include a judicious blend of classroom learning, theater workshop, village immersion module (for first hand CSR feel to young ETs), e-learning platform, video and web platforms etc.

An in-house e-Learning portal called e-Guru has been created which provides all the e-Learning resources on a unified platform. A e-library of 25,000 e-books, 1,000,000 articles, reports and journals supports employees' knowledge up-gradation.

Last year, PMI introduced new eLearning courses (1000 course licenses from General Physics (GPILearn)) in the power plant technical skills domain. Augmented Reality/Virtual Reality platform has been introduced as new L&D tool for providing real time immersive learning to participants particularly in the areas of O&M and Project related safety.

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. In PMI, 237 training programs were conducted during FY17-18, covering nearly 7,272 professionals, resulting in a total of approximately 38,046 learning man-days.

PMI is also conscious of the fact that the business complexities of the future would need global mindset and competence. Last year, it sent three batches (about 40 each) of senior executives (GMs/EDs) to Harvard and one batch (about 25) to Wharton to get learning from some of the best in the world.

In recognition to its pioneering efforts, your Company PMI has received the globally acknowledged ATD Best 2017 and 2018 Awards (Two years in succession), ISTD Innovative Practices Award 2016-17 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.

## 17. SUSTAINABLE DEVELOPMENT

Your Company has adopted the 'triple bottom-line' approach recognizing People, Planet and Profit as the primary pillars of corporate sustainability and believes that Development should not endanger the natural systems.

Your Company is preparing Sustainability Report based on the Global Reporting Initiative (GRI). Sustainability reporting has helped us in measuring and monitoring the Company's performance. It has served as an important management tool helping your Company to relook the systems, policies and procedures. Your Company has developed a policy and in accordance with it, a Sustainable Development Plan was prepared for FY 2017-18. The focus area of Sustainable Development Plan covers waste management, water management, bio-diversity, promotion of renewable energy. Major activities carried out under this plan include massive plantation of trees, installation of rooftop Solar PV



around power stations on public utilities buildings and on schools, vermicomposting/Bio-methanation plant & studies on environment impact assessment. Major 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. Business Responsibility Report is attached as Annex-X and forms part of the Annual Report.

Revenue expenditure of ₹ 56.22 Crore was incurred on these SD projects during Financial Year 2017-18.

## 17.1 Inclusive Growth –Initiatives for Social Growth

### 17.1.1 Corporate Social Responsibility:

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 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. The Company commits itself to contribute to the society, discharging its corporate social responsibilities through initiatives that have positive impact on society at large, 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 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 550 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 the lives of around 10 lakh people in one or the other way, 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 ₹ 241.54 Crore during the financial year 2017-18 towards CSR initiatives, which surpassed the prescribed two percent amount of ₹ 220.75 Crore, thus achieving a CSR spend of 2.19%.

### 17.1.2 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 the Company under CSR are covered in the Annual Report on CSR annexed as Annex-VII to this Report.

### 17.1.3 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, the Company has focused on effective resettlement and rehabilitation (R&R) of PAFs and also on community development works (CD) in and around its projects.

Your Company had revised its R&R Policy 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 (RFCTLARR Act) in order to extend facilities to PAFs.

Your Company addresses R&R issues in line with its R&R Policy with an objective that PAF will improve or at least regain their previous standard of living. As per the Policy and the RFCTLARR Act, a Socio-economic Survey (SES)/Census Survey will have to be conducted by the State Govt to collect detailed demographic details of the area which shall form the basis for the preparation of 'Rehabilitation and Resettlement (R&R) Scheme. Apart from the R&R provisions in line with



R&R LARR Act, need based community development (CD) activities will also be included in the Scheme for contributing to socio-economic development of the PAFs and nearby population residing in the vicinity of the project.

R&R Scheme is a part of capital cost of the project which 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 Scheme, a Social Impact Evaluation (SIE) is conducted by a professional agency to know the efficacy of R&R Scheme implementation for future learnings.

Cost provision for R&R/ CD Plan for Tapovan-Visnugad Hydro Power Project was enhanced for providing additional funds for 'Long Term water supply arrangement for Joshimath area.

R&R/ CD activities were implemented at the new Greenfield / Brownfield Thermal projects at Barh, Bongaigaon, Barethi, Darlipali, Gadarwara, Khargone, Muzaffarpur, Korba, Kudgi, Lara, Meja, Mouda, North-Karanpura, Solapur, Tanda-II, Unchahar-IV, Vindhyachal-IV/V, Telangana-I, Hydro projects at Koldam, Tapovan Vishnugad, Rammam-III and Coal Mining Projects at Pakri-Barwadih, Chhatti-Bariatu, Kerendari, Dulanga and Talaipali projects.

Re-appropriation of under implementation R&R / CD Plans, as required on a case to case basis for specific project, was also approved to take care of the local requirements during implementation.

Need Assessment Survey/ Social Impact Evaluation was carried out at Singrauli, Patratu & Meja projects.

Planned audit of LA/R&R activities was conducted.

Details of focus area of R&R-CD activities are as under:

**Swachh Bharat Abhiyan** – Various initiatives were taken to make project affected villages open defecation free by taking up activities related to construction/audit of individual toilets and awareness programs.

**Drinking water** – Planning and implementation for access to drinking water for 100% coverage of all project affected villages of your Company was undertaken.

**Capacity building / Skill up gradation** – MOU/ Tie up with National Skill Development Corporation (NSDC) is being implemented for imparting skill development to PAFs at various projects as part of 'National Skill Development Mission' of GOI.

**Education** – Construction activities started for Medical College at Sundargarh (Odisha) and Engineering College at Shivpuri (MP).

**Health** - For the benefits of project affected persons and neighboring population 'Mobile Health Clinic', Medical camps and dispensaries are being operated for comprehensive health coverage of PAPs at North Karanpura and mining projects at Jharkhand during the year.

## 17.2 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 practices as one of its prime responsibilities and focuses its efforts to minimize the impact of its operation 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 state of art technology. Your Company is also undertaking massive renovation & modernization to upgrade air pollution equipment 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.

Around 12-15% of the project cost is spent on various environment protection equipments and monitoring systems such as Electrostatic Precipitators (ESPs), Liquid Waste Treatment Plants (LWTP), Ash Water Recirculation System (AWRS), Coal Settling and Separation Pit (CSP), Dry ash extraction system (DAES), dust extraction & suppression system, Continuous emission monitoring system (CEMS), Effluent quality monitoring system (EQMS), Continuous ambient air quality monitoring system (CAAQMS), flue gas conditioning system and desulphurization system etc. It has adopted advanced and high efficiency technologies such as super critical boilers at new stations, DeNOx and FGD in all upcoming green field projects.

Your Company is augmenting its capacity 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 water and carbon footprints.

### 17.2.1 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) 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 carried out 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 SO<sub>x</sub>, first FGD has been commissioned and became operational at Vindhyachal Station. Erection of FGD at Bongaigaon is in advance stage. FGD package for all stations in NCR area awarded to comply the new norms for SO<sub>x</sub> emission by December, 2019. Work for erection of FGD system started at both station. In case of existing units, FGD is being planned in a phased manner at other locations as per the timeline given by central regulator for implementation of new norms.

NO<sub>x</sub> 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). To comply with new norms for NO<sub>x</sub> 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 DeNO<sub>x</sub> system suitable for Indian Coal. In gas based stations, NO<sub>x</sub> control systems (hybrid burners or wet DeNO<sub>x</sub>) have been provided for good combustion practices.

Change of secondary fuel from HFO to alternative fuel (LDO or LSHS) having low sulfur content to minimize the SO<sub>x</sub> emission during the start up of coal based units in NCR is in advanced stage. As per the order of Hon'ble Supreme Court, use of HFO was banned in state of UP, Haryana, Rajasthan and Delhi whereas your Company has decided to switch the use of HFO to alternate fuel in all the units of your Company.

### 17.2.2 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. Company released its Water Policy-2017 to set 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 Settlement Pit (CHP), 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 some of the 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 water consumption per unit of generation enable your Company to comply the new norms on water consumption in all operating stations. Your Company has taken a proactive approach of making all its power stations to operate with ZLD (Zero liquid discharge) during the current year.

### 17.2.3 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 PM<sub>10.0</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub> and access thereof has been provided to the Central and State Regulators i.e. Central Pollution Control Board and State Pollution Control Boards/PCCs. Additional ozone analyzers for ambient air are also being provided phase-wise at the existing stations. Continuous Emission Monitoring Systems (CEMS) are installed in all units to monitor emissions of SO<sub>2</sub> and NO<sub>x</sub> and opacity meter for monitoring of particulate emission. Effluent Quality monitoring system (EQMS) are installed for real time

monitors for pollutants in effluents from all stations. The real-time data is being transmitted to regulators. For all the upcoming projects, real time monitors for ambient air, effluents and emissions are included in the engineering packages during design stage itself.

#### 17.2.4 Revised Emission Norms

The new environmental norms notified by MOEF&CC vide gazette notification dated 07.12.2015 calls for introduction of new control devices for oxides of sulphur and nitrogen. All existing and new plants require DeSO<sub>x</sub> and DeNO<sub>x</sub> plants to be introduced into the plant designs. In this regard, your Company has risen to the occasion and issued bulk tenders for 66 units of around 38 GW capacity for installing FGD (flue gas desulphurization) system to meet SO<sub>2</sub> emissions limit. FGD installation Work in 7,230 MW is underway. Further, FGD in Vindhyachal stage-V is already in operation. For establishing DeNox, the suitability of SCR (selective catalytic reduction) for the coals used in Indian power plants, which characterize uniquely with high ash content and its abrasive nature, pilot tests are underway at seven stations of your Company. Further, your Company as a pioneer in environment monitoring has already installed Ambient Air Quality Monitoring Stations (AAQMS) employing NO<sub>x</sub>, SO<sub>x</sub>, CO, SPM & RSPM analysers in 20 operating stations in 2009-10 and data is made available to CPCB and SPCB. Similarly, Continuous Emission Monitoring System (CEMS) employing NO<sub>x</sub>, SO<sub>x</sub>, CO & CO<sub>2</sub> analysers at stack for flue gas have been installed recently in various operating stations. Your Company has also recently introduced analysers for Mercury monitoring for both AAQMS and CEMS.

#### 17.2.5 Tree Plantation:

Your Company has undertaken tree plantation covering vast areas of land in and around its projects and till date more than 33 million trees have been planted throughout the country including 10 million trees planted during 2016-17 under accelerated afforestation programme inline with NDC-2030 of Nation followed by 1 million tree plantation during 2017-18.

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 planning to plant 8 million saplings during 2018-26 @ 1 million per year.

#### 17.2.6 ISO 14001 & OHSAS 18001 Certification:

All stations of your Company have been certified with ISO 14001 and OHSAS 18001 by reputed National and International certifying agencies in recognition of its sound environment management systems and practices.

#### 17.3 Quality Assurance and Inspection (QA&I)

Your Company continues to place great emphasis on quality, with the view to secure long term reliability and availability of its productive assets and the investments. This is ensured by committing adequate number of qualified and trained human resources for quality related activities, maintaining field laboratories at the construction sites and pursuing time tested systems & processes, resulting in world class standards of performance of the plants.

In your Company, quality needs are identified and planned, keeping in mind the interests of all the stake holders, by interacting with major Power Equipment manufacturers of the world, thereby embracing the latest technologies available. The quality requirements associated with such technologies are rigorously pursued during manufacturing, erection & commissioning of various products/ systems/ services. The dynamic feedback system ensures that the gaps, if any, are filled through resetting the methods and standards resulting in continuous improvement.

Your Company's robust performance on all parameters, is a testimony to the soundness of the quality system deployed.

Your Company is represented on various technical committee of ISO and IEC and is actively contributing in formulation and updating of power sector technical and quality standards/ guidelines, to serve the national as well as international community at large.

#### 17.4 Clean Development Mechanism (CDM)

Your Company is pioneer in undertaking climate change issues proactively. The Company has taken several initiatives in CDM Projects in Power Sector.

Five of its renewable energy projects 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 and 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.

Prior consideration form was sent for 10 MW Solar PV Power Project at Unchahar, 10 MW Solar PV Power Project at Ramagundam, 15 MW Solar Thermal Power Project at Anta.

Coordinating / Managing Entity (CME) has been appointed for 15 MW Solar PV Power project at Singrauli and 10 MW Solar PV project at Talcher and is in process to include the same in registered UNFCCC CDM Programme of Activities (PoA).

6,173 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 5,842 nos of CERs have also been issued by UNFCCC CDM Executive Board for 5 MW Solar PV Power Project at Dadri.

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.

### 17.5 Ash Utilisation

During the year 2017-18, 603.13 lakh tonnes of ash was generated and 53.45% viz. 322.36 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, ash dyke raising & land development. We are 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 2017-18 from your Company's Stations is at Annex- VIII.

### 17.6 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<sub>2</sub> avoided is 45.3 million tonnes since 1996, by sustained efficiency improvements.

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 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 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.

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.

CenPEEP is working on internal benchmarking study of different type of the units so that potential for improvements and improvement action plan can be finalized accordingly.

Your Company has taken EPRI 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 161,759 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.

CenPEEP is also associated in Technical due diligence of Stressed Power Plants of the country.

## 18. NETRA

Your Company 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 future technology requirements of the sector. In this effort, 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 of oil/water chemistry, environment, electrical, Rotor dynamics etc for efficient performances.

Research Advisory Council (RAC) of NETRA comprising of 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 (Operation), 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. Patents have been filed in the areas of climate change, waste management etc.

NETRA has collaborations with National Institutes like IIT's, IISc-Bangalore, C-DAC, NML, CSIR labs, IOCL R&D, CPRI, CINFR, CBRI Roorkee and Geological Survey of India 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. 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 21,000 sq m floor area and is expected to be completed by 2018. Phase II will have 30 laboratories, workshop, pilot plant bay and an auditorium with seating capacity of 400 persons.



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

## 19. 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 the use of Hindi and the ways and means to bring about further improvements.

Hindi Divas was celebrated on 14<sup>th</sup> September 2017 and Hindi Fortnight was organized from 01-15 September, 2017 at the Corporate Center as well as regional headquarters and projects/stations to create awareness among the employees, associates and their family members. Vidyut Swar, our biannual Hindi magazine was published (in digitized form) to promote creative writing in Hindi. Annual conference of Hindi Officers was organized to review the progress of Rajbhasha in the Company.

Employees were motivated to use Hindi in official work by organizing Hindi workshops, Unicode Hindi Computer Training along with Hindi e-tools and popularization of Hindi incentive schemes. Hindi webpage was updated with 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.

## 20. VIGILANCE

### 20.1 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 Center 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 Cell
- Departmental Proceedings Cell
- Technical Examination Cell
- 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 Officer at Corporate Center (Regional Vigilance Executive) for speedier disposal of vigilance cases. Senior officials of Vigilance Department comprising ED (Vigilance), Regional Vigilance Executives and Head of DPC/MIS Cell meet regularly to discuss common issues having greater importance so as to ensure uniform working in all Regions. This facilitates Transparency, efficiency and effectiveness of Vigilance functionaries by making use of collective knowledge, experience and wisdom of Vigilance Executives, breaking compartmentalization and abridging their strengths & weaknesses.

During 2017-18, 91 complaints were investigated by Vigilance department, out of which 55 complaints were carried to a logical conclusion and appropriate disciplinary action has been initiated wherever necessary. The remaining 36 complaints were under various stages of investigation as on 31.03.2018.

### 20.2 Implementation of Integrity Pact

Your Company is committed to have total transparency to its business processes and as a step in this direction; it signed a Memorandum of Understanding with Transparency International India in December, 2008. The Integrity pact is being implemented for all contracts having value exceeding ₹ 10 crore. Presently, your Company is having two Independent External Monitor to oversee the implementation of Integrity Pact Programme.

### 20.3 Implementation of various policies/ circulars

Fraud Prevention Policy and Whistle Blower Policy have been implemented in your Company to build

and strengthen a culture of transparency. Your Company has also laid down a comprehensive policy for withholding and banning of business dealings with agencies, wherever the situation so demands.

#### 20.4 Vigilance Awareness Week and Workshops

During 2017-18, Vigilance Awareness Week was observed during the period October 30, 2017 to November 4, 2017 in all projects and stations/ establishments of your Company. The focus of Vigilance Awareness Week of 2017-18 was "My vision, corruption free India". In line with this Vision, Vigilance Awareness Week commenced with taking Integrity pledge by employees on October 30<sup>th</sup>, 2017 at 11.00 Hrs across different locations, administered by respective Head of Projects/Regions and Senior most ED at Corporate Center. During the week, messages of Honourable President of India, Honourable Vice President of India, Central Vigilance Commission & CMD of your Company were read out to the employees. To encourage and emphasize upon the theme of vigilance awareness week, the messages were also uploaded on the Company's Intranet. The activities mainly focused on the theme of enhancing public participation in promoting integrity and eradicating corruption. Activities were accordingly organized at Projects/Stations/Inspection & Commercial Offices/ Regional Headquarters and Corporate Center. Among the outreach activities various interactive events were held in schools & colleges eliciting active response and participation from the students. Integrity clubs have also been set up in various schools running in your Company Townships. Among other activities, advertisements on the theme of Vigilance Awareness Week were issued in leading newspapers – 02 at Delhi and 01 each at Varanasi, Dehradun, Lucknow, Patna, Bhubaneshwar, Raipur, Hyderabad and Mumbai, requesting the public to take pledge on the commission's website. Apart from these, Gram Sabhas were organized in rural & semi-rural areas with various awareness programme like educational film and Nukkad Natak on anti-corruption activities while public seminars/ workshops were held in the urban areas.

During the week, a lecture cum interactive session by CVC was organized on 31<sup>st</sup> Oct, 2017 at New Delhi for your Company Management Team. The function was attended by CMD, CVO, Directors and around 100 senior executives of your Company. An e-magazine in pictorial format has also been released by Mumbai Region of your Company, capturing various events/ activities during the week. At Varanasi, about 150 numbers of banners were fixed at different locations

of the city including airport and different Ghats. Banners were also displayed during the Ganga Aarti in the evening. Walkathon were organized by involving different local schools, Traffic Police and Heritage Hospital Varanasi, besides conducting events (debates, quiz, essay competition etc.,) in 222 schools & 96 colleges.

For your Company employees at Projects and Regional Headquarters, different competitions like Essay & Slogan competitions, debate, painting competitions were also organized across whole Company. Besides for Stakeholders and Business partners, vendor meet was organized at all your Company stations.

#### 21. REDRESSAL OF PUBLIC GRIEVANCES

Your Company is committed for resolution of public grievance in efficient and time bound manner. ED (Human Resources) 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](http://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.

#### 22. 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 2017-18, 1,550 applications were received under the RTI Act, 2005 out of which 1,475 applications were replied to, till 31.03.2018.

#### 23. 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. Most of the business processes in the Company have been IT enabled. Since 2008, your Company has implemented Enterprise Resource Planning (ERP) application to integrate all its business functions to improve information availability, transparency and decision making. 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.

Your Company's plants and Offices across India, are connected to Corporate Office and main Data-Center (DC) through 2x12 mbps MPLS links to facilitate seamless communication. The DC and DR (Disaster Recovery) site is connected with 156 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 Center of Corporate Office.

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 2017-18 are as follows:

- **Project PRADIP (Proactive Digital Initiative to become Paperless)** – Your Company has taken initiative for 100% Paperless Office. The Project PRADIP aims to create a central data repository for your Company with best record management and searchable features. All the approval processes shall be made paperless. The e-Office module shall enable employees to do day-to-day office works in digital mode. It will also provide collaboration and knowledge management platforms. The PO for the project was issued in Nov'2017 and work for the same is in full swing.
- **ERP** – A number of new modules were introduced in ERP. Coal sale, Energy Billing for Solar and Wind energy, OLA Travel Booking etc. were added in 2017-18. GST was implemented in line with GOI guideline. e-procurement platform was shifted from SRM to GePNIC.

- **e-Waste disposal** – Firm guidelines were issued for disposal of e-Waste in your Company. As of 31.03.18 all Stations, Plants and Offices of your Company were declared e-Waste free after successful disposal of e-Wastes.
- **Mail and Messaging Services** – The mail and messaging services were upgraded. All users were provided with min. 5GB of mail box size. DR set up for mailing system was commissioned.
- **Security** – No major security breach was observed during the year 2017-18. A 24x7 Security Operation Center(SOC) is in operation where round the clock monitoring of all external and internal data traffic is being analyzed with latest tools monitored 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. The IT security Audit for plants have been completed. ISO 27001 certification was obtained for DR set up.
- **Mobile Apps** – SAMVAAD mobile app was launched to provide all Corporate news to employees instantaneously. The SAMPARK mobile app gives information on all your Company employees.
- **CLIMS (Contract Labour Information Management System)**– Biometric labour attendance system was introduced in your Company plants. This is facilitating not only for labour payments but also in calculating the PF and other retrenchment benefits to labour besides improving security.

## 24. GROUP COMPANIES : SUBSIDIARIES AND JOINT VENTURES

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

Besides 18 joint venture companies detail of which is elsewhere in this Report, NTPC-SCCL Global Ventures Private Limited is being wound up voluntarily. In view of lack of suitable commercially viable opportunities for thermal coal, your Company has decided to exit from International Coal Ventures Private Limited.

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.

## 25. INFORMATION PURSUANT TO STATUTORY AND OTHER REQUIREMENTS

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

### 25.1 Statutory Auditors

The Statutory Auditors of your Company are appointed by the Comptroller & Auditor General of India. Joint Statutory Auditors for the financial year 2017-18 were (i) M/s T R Chadha & Co LLP, Chartered Accountants, New Delhi (ii) M/s PSD & Associates, 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 2018-19 has been made by the Comptroller & Auditor General of India.

### 25.2 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 2017-18. However, they have drawn attention under 'Emphasis of Matter' to Note No. 36 (a) & (b) regarding billing & recognition of sales on provisional basis and measurement of GCV of coal on 'as received' basis measured on wagon top at the unloading point in respect of most of the stations pending disposal of petition by CERC and ratification by Hon'ble Delhi High Court and related matters as mentioned in the said note. They have also drawn attention under 'Emphasis of Matter' to Note No. 47 in respect of a Company's project where the order of NGT has been stayed by the Hon'ble Supreme Court of India and the matter is sub-judice.

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

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

The Comptroller & Auditor General of India, through

letter dated 29.06.2018, has given 'NIL' Comments on the Standalone Financial Statements of your Company for the year ended 31<sup>st</sup> March 2018 after conducting supplementary audit under Section 143 (6) (a) of the Companies Act, 2013.

The Comptroller & Auditor General of India, through letter dated 29.06.2018, has also given 'NIL' Comments on the Consolidated Financial Statements of your Company for the year ended 31<sup>st</sup> March 2018 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 stand-alone and consolidated financial statements of your Company for the year ended 31<sup>st</sup> March 2018 are being placed with the report of Statutory Auditors of your Company elsewhere in this Annual Report.

### 25.4 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 2017-18 were (i) M/s R M Bansal & Co., Cost Accountants, Kanpur, (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, Noida 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, 2017 was September 30, 2017 and the consolidated Cost Audit Report for your Company was filed with the Central Government on August 25, 2017.

The Cost Audit Report for the financial year ended March 31, 2018 shall be filed within the prescribed time period under the Companies (Cost Records & Audit) Rules, 2014.

### 25.5 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 2017-18, your Company has not entered into any derivative contract in respect of foreign currency loans exposure.

## 25.6 Performance Evaluation of the Directors and the Board

Ministry of Corporate Affairs (MCA), through General Circular dated 5<sup>th</sup> June, 2015, has exempted Government Companies from the provisions of Section 178 (2) of the Companies Act, 2013 which requires performance evaluation of every director by the Nomination & 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. In this regard, Deptt. of Public Enterprises (DPE) has already laid down a mechanism for performance appraisal of all functional directors. Your Company enters into 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.

Similar exemption has been requested from SEBI under the SEBI LODR, which is under consideration.

## 25.7 Secretarial Audit

The Board has appointed M/s J.K. Gupta & Associates, Company Secretaries, to conduct Secretarial Audit for the financial year 2017-18. The Secretarial Audit Report for the financial year ended March 31, 2018 is annexed here with 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(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 25.6

## 25.8 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 forms part of the Annual Report.

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

## 25.10 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.

## 25.11 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 2017-18.

Your Company had granted loans to its subsidiary namely, Kanti Bijlee Utpadan Nigam Limited (KBUNL) and Joint Venture Company namely National High Power Test Laboratory Private Limited (NHPTL) during 2017-18 covered under Section 185 and 186 of the Companies Act, 2013. The details of loans granted to KBUNL and NHPTL is given in Note - 60 of Standalone Financial Statements for 2017-18.

## 25.12 Prevention, Prohibition and Redressal of Sexual Harassment of Women at Workplace

The 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 Committee (ICC) has been set up to redress complaints received regarding sexual harassment. All employees (permanent, contractual, temporary, trainees) are covered under this policy.

These ICCs have been constituted at all Projects/ stations of your Company. Every three years, the constitution of these committees is changed and new members are nominated.

No complaint of sexual harassment was received by the ICC during the year 2017-18.

#### 25.13 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 2017-18 was ₹ 1160.62\* crore, which was 28.69% of total annual procurement of ₹ 4045.64\* crore against target of 20% of total procurement made by your Company.

The total procurement made from MSEs owned by SC/ST entrepreneurs during the year 2017-18 was ₹ 17.09\* crore, which was 0.42% 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 organised 21 vendor development programmes for MSEs across the Company, out of which 6 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.

#### 25.14 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 5<sup>th</sup> 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.

#### 25.15 Extract of Annual Return:

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

#### 25.16 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 Annex-II.

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

#### 25.18 The Company has complied with the applicable Secretarial Standards.

#### 25.19 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.

#### 25.20 The particulars of annexures forming part of this report areas 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 Aabled 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 2017-18	X
Secretarial Audit Report in Form MR-3	XI

#### 26. BOARD OF DIRECTORS & KEY MANAGERIAL PERSONNEL

On attaining the age of superannuation, Shri A.K. Jha ceased to be Director (Technical) of the Company w.e.f. 31.07.2017, Shri S.C. Pandey ceased to be Director (Projects) of the Company w.e.f. 31.08.2017 and Shri K.K. Sharma ceased to be Director (Operations) of the Company w.e.f. 31.10.2017.

Shri Rajesh Jain, Independent Director tendered his resignation from the Directorship w.e.f. 10.10.2017.

Shri M.P. Singh, Shri P.K. Deb, Shri Shashi Shekhar, Shri Subhash Joshi and Shri Vinod Kumar were appointed as Independent Directors of the Company w.e.f. 24.10.2017.

Dr. Pradeep Kumar, JS&FA, Ministry of Power ceased to be Government Nominee Director w.e.f. 31.07.2017.



Shri Susanta Kumar Roy, Executive Director had taken over the charge as Director (Projects) of the Company w.e.f. 19.01.2018.

Shri Prasant Kumar Mohapatra, Executive Director had taken over the charge as Director (Technical) of the Company w.e.f. 31.01.2018.

Shri Prakash Tiwari, Executive Director had taken over the charge as Director (Operations) of the Company w.e.f. 31.01.2018.

Shri K. Sreekanth, 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 for a period of six months or till the appointment of a regular incumbent or until further orders of the Ministry of Power, whichever is the earliest.

Shri Sudhir Arya, Executive Director was appointed as the Chief Financial Officer of the Company w.e.f. 29.12.2017.

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

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

Dr. K. P. Kylasanatha Pillay and Dr. Bhim Singh were appointed as Independent Director w.e.f. 30.07.2018.

Shri K. P. Gupta ceased to be ED (Finance & Law) and (Company Secretary) w.e.f. 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.

Ms. Archana Agrawal, JS (Thermal), Ministry of Power had been appointed as Government Nominee Director w.e.f. 07.08.2018.

The Board wishes to place on record its deep appreciation for the valuable services rendered by Shri A.K. Jha, Shri S.C. Pandey, Shri K.K. Sharma, Shri Rajesh Jain, Dr. Pradeep Kumar, Shri Aniruddha Kumar 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 the Company, Shri S. Roy, Director, shall retire by rotation at the Annual General Meeting of your Company and, being eligible, offers himself for re-appointment.

## 27. 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 2017-18 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.

## 28. 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, 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 and Statutory 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: 8<sup>th</sup> August, 2018



## MANAGEMENT DISCUSSION AND ANALYSIS

### ECONOMIC AND SECTOR OUTLOOK

Indian economy slowed down slightly during the financial year 2017-18 as its GDP growth rate dropped to 6.7 percent compared to 7.1 percent in the previous year. Despite year-on-year dip in GDP growth rate, reversal was visible in the Q4, during which the GDP grew at 7.7 percent. It is expected that key reforms such as implementation of the transformational Goods and Services Tax, a major recapitalization package to strengthen public sector banks and the effects of earlier policy actions should allow GDP growth to rise to 7-7.5 percent in financial year 2018-19, thereby reinstating India as the world's fastest growing major economy. Reliable supply of electricity will be a key input for sustaining the growth path and for the Indian industries to remain competitive.

Electricity, water supply, gas and other utilities have registered a growth rate of 7.2 percent at constant prices in the financial year 2017-18.

Major power sector reforms during the year focussed on facilitating growth of renewable energy capacity addition and include initiatives such as promoting e-auction for wind projects and formulating/ revising bidding guidelines for competitive RE-based power procurement. Driven by competitive RE based power procurement through reverse bidding, the tariffs for both solar PV and wind have touched historic lows during the year, and for the first time in the country, the renewable energy sector has added more capacity than the conventional power in financial year 2017-18.

To achieve universal household electrification in the country by March 2019, the Government of India launched Pradhan Mantri Sahaj Bijli Har Ghar Yojana (SAUBHAGYA). This, supported by visible revival of distribution companies through UDAY, augurs well for the entire Power Sector and would help unleash the huge latent demand for electricity.

The National Electricity Plan by Central Electricity Authority and draft National Energy Policy by Niti Aayog have signalled additional requirement of thermal capacity in coming years. The draft amendments to the tariff policy set the tone for improving health of distribution companies. It also suggests a provision for allowing capacity addition by state or central government owned companies, where the tariff shall be determined based on norm as notified by the appropriate commission.

Some other key focus areas include integration of renewables by further developing ancillary market, allowing flexibility in generation by utilizing renewable capacities to meet existing commitments to supply the power from thermal plants, and promotion of energy efficiency through measures like the updated Energy Conservation Building Code.

### INDUSTRY STRUCTURE AND DEVELOPMENTS

Power sector is a key enabler for India's economic growth.

The sector consists of generation, transmission and distribution utilities and is a crucial component of India's infrastructure. The achievements regarding developments and various issues/ challenges faced by the Power Sector are discussed in the ensuing paragraphs.

#### Snap Shot 2017-18

- Gross annual generation of the country increased by 5.35% from 1,242 BUs in the previous year to 1,308 BUs in financial year 2017-18 (including renewables). Generation from Renewable sources increased by 24% from 82 BUs to 102 BUs, while Generation from conventional sources increased by 4% from 1,160 BUs to 1,206 BUs.
- Generation capacity of 9,505 MW (excluding renewables) was added during financial year 2017-18 compared to 14,209 MW added during the previous year.
- Renewable energy capacity of 11,778 MW added during the year. Renewable energy capacity has almost doubled from 34,988 MW as at 31 March, 2014 to 69,022 MW as at 31 March, 2018.
- 23,119 Ckms of transmission lines added during the year as compared to 26,300 Ckms in the previous year.
- 86,193 MVA of transformation capacity added during the year as against 81,816 MVA in the previous year.
- PLF of coal-based stations increased to 60.72% in financial year 2017-18 from 59.81% in financial year 2016-17.
- During the financial year 2017-18, while the energy deficit remained unchanged at 0.7%, the peak power deficit marginally rose to 2% from the 1.6% recorded in financial year 2016-17.

(Source: Central Electricity Authority)

#### Existing Installed Capacity

The total installed capacity in the country as on 31 March, 2018 was 3,44,002 MW (including renewables) with Private Sector contributing 45% of the installed capacity followed by State Sector with 30% share and Central Sector with 25% share.

	Total Capacity (MW)	% share
Private	1,55,511	45
State	1,03,975	30
Central	84,516	25
<b>Total</b>	<b>3,44,002</b>	<b>100</b>

Mode-wise installed capacity in the country as on 31 March, 2018 is as under:



	Total Capacity (MW)	% share
Thermal	2,22,907	65
Nuclear	6,780	2
Hydro	45,293	13
RES (Renewables)	69,022	20
<b>Total</b>	<b>3,44,002</b>	<b>100</b>

(Source: Central Electricity Authority-Installed Capacity report)

### Capacity Utilization and Generation

Capacity utilisation in the Indian power sector is measured by Plant Load Factor (PLF).

#### Sector wise PLF (Thermal)

Sector	2017-18	2016-17
State	56.90	54.35
Central	72.38	71.29
Private-IPP	55.09	55.90
<b>Private-Utilities</b>	<b>60.42</b>	<b>58.49</b>
<b>All India</b>	<b>60.72</b>	<b>59.81</b>

(Source: Central Electricity Authority)

The outlook for generation appears promising with expected increase in industrial production and Government of India's mission to provide 24x7 electricity to all.

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.

#### Existing Generation

The total conventional power available in the country during the financial year 2017-18 was 1,206.31 BUs as compared to 1,160.14 BUs during last year, registering a growth of 3.98%. (generation figures pertain to monitored capacity by CEA)

Sector-wise and fuel-wise break-up of generation (BUs) for the year 2017-18 is detailed as under:

Sector	Thermal	Hydro	Nuclear	Bhutan Import	Total
Central	356.13	55.04	38.35	-	<b>449.52</b>
State	320.74	56.99	0.00	-	<b>377.73</b>
Private	360.19	14.09	0.00	-	<b>374.28</b>
<b>Bhutan Import</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>4.78</b>	<b>4.78</b>
<b>Total</b>	<b>1,037.06</b>	<b>126.12</b>	<b>38.35</b>	<b>4.78</b>	<b>1,206.31</b>

(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 33.12% with installed capacity share of 28.22%, state sector contributes 31.62% of generation with installed capacity share of 33.29% and private sector contributes 35.26% of generation with installed capacity share of 38.49%.

Central sector utilities have better performing stations as compared to those of State sector utilities and Private sector utilities.

#### Consumption

In terms of per capita power consumption, India ranks among the lowest in the world. The per capita consumption of power in India is just 1,122 units in financial year 2016-17 (provisional) (Source: Central Electricity Authority), whereas the global average is 3,052 units (Source: IEA Key World Energy Statistics 2017).

Major end users of power can be broadly classified into industrial, agricultural, domestic and commercial consumers. These consumers represented approximately 40%, 19%, 24% and 9%, respectively, of power consumption measured by units of electricity consumed in the year 2016-17. Traction & Railways and others represented about 8% of power consumption. The electricity consumption in Industry sector has increased at a faster pace compared to other sectors during 2007-08 to 2016-17 with CAGR of 8.46%. The share of industry, however, has reduced in financial year 2016-17 as compared to financial year 2015-16.

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

As reported in the Draft National Energy Policy (June 2017), nearly 304 million Indians still lack access to electricity. The Government of India launched Pradhan Mantri Sahaj Bijli Har Ghar Yojana (SAUBHAGYA) in September 2017 to provide free electricity connections to all households in rural areas and poor families in urban areas by December 2018. It is an ambitious target as compared to earlier scheme of Power for All by 2022. As indicated in the SAUBHAGYA Dashboard, since 11.10.2017 more than 20% households have been electrified out of the ~4 crore households to be covered under this scheme. This takes the household electrification status to 87% of the total households in the country being electrified as on date.

(Source: SAUBHAGYA dashboard)

Other key initiatives taken by Govt. 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 ~7.22% CAGR since the end of 11<sup>th</sup> Plan in terms of circuit kilometers added.

The total inter-regional transmission capacity of country has increased from 27,750 MW at the end of 11<sup>th</sup> plan to 86,450 MW as on 31 March, 2018. During the financial year 2017-18, 11,400 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.

In the past few years, the average tariff charged from end-consumers has risen, but the increase has not been commensurate with the increase in the cost of supply resulting in consistent revenue gap. This, coupled with high AT&C losses, has been piling up huge losses for the state utilities.

To improve the distribution segment's performance, Government of India launched a comprehensive power sector reform scheme, Ujwal Discom Assurance Yojana (UDAY) on 05.10.2015 for operational and financial turnaround of Discoms. The scheme has helped debt laden Discoms to reduce losses by more than 70% to ~ ₹ 17,000 crore in financial year 2017-18. The ACC-ARR gap has reduced from ₹ 0.59 per kWh in 2016 to ₹ 0.22 per kWh in June 2018 and AT&C losses are below 20% now.

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 by March 2019.
- Strict adherence to timeline for AT&C loss reduction to 15% by 2019 and further reduction to 10% by 2022.
- 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 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 2017-18, around 89% of power generated in the Country was transacted through the long-term PPA route. 11% of the power was transacted through short-term trading mechanisms.

*(Source: Central Electricity Regulatory Commission)*

### Key Initiatives/Reforms & Regulatory Changes in Power Sector

1. **SAUBHAGYA:** To achieve universal household electrification in the country by March 2019, GoI has launched the "Pradhan Mantri Sahaj Bijli Har Ghar Yojana (SAUBHAGYA)" in October 2017. Scope of the scheme includes providing electricity connections to all willing un-electrified households in rural areas, providing solar PV-based standalone systems to inaccessible villages and habitations and connections to all remaining economically poor willing un-electrified households in urban areas.
2. **SHAKTI:** GoI approved SHAKTI (Scheme for Harnessing



and Allocating Koyala Transparently in India) in May 2017 to make coal allocation more transparent and bidding based. As per the Scheme, future allocation/ grant of linkages to power producers/ IPPs will be based on auction. The Scheme shall benefit the sector in terms of coal availability for all power plants in transparent and objective manner, cheaper and affordable power, reduction of sectoral stress on account of non-availability of linkages to power projects thereby enhancing confidence of financial institutions in power sector.

3. Draft National Energy Policy released by Niti Aayog in June 2017 sets the new energy agenda for India consistent with the redefined role of emerging developments in the energy world. The four key objectives of this policy are Access at affordable prices, Improved security and Independence, Greater Sustainability and Economic Growth.
4. Central Electricity Authority released the National Electricity Plan in January 2018 which provides a 15-year perspective of power requirement, generation, fuel mix of generation, and all the integrating systems with respect of generation (especially renewable generation) and transmission systems. The Plan projects the electrical energy requirement to be 1,566-1,641 BUs in financial year 2021-22, compared to about 1200 BUs in financial year 2017-18, which translates into a more than 6% CAGR. The plan projects requirement of about additional 46 GW of thermal capacity by financial year 2026-27. This is in addition to the capacity already under construction.
5. Waiver of ISTS transmission charges and losses available for wind projects which will achieve COD till March 2019 and solar projects which will achieve COD till December 2019, will give boost to solar and wind power generation in the country.
6. Revised guidelines and Model Bidding Documents for medium-term procurement of power by Distribution Licensees through tariff based competitive bidding process were notified. This will result in greater transparency and fairness in procurement processes for ultimate benefit of the consumers.
7. Guidelines for Tariff Based Competitive Bidding Process for Procurement of Power from Grid Connected Solar PV and Wind Power Projects were issued in August 2017 and December 2017 respectively.
8. MoP notified a policy "Flexibility in Generation and Scheduling of Thermal Power Stations to Reduce Emissions" on 05.04.2018. This aims at providing flexibility to Gencos to partially substitute thermal power with Solar Power. Now Gencos have an option to replace

the thermal power with cheaper solar power, which will help Discoms in reducing their electricity cost and also fulfill RPO. Discoms need not sign any separate PPA for this RE power and will enjoy balancing power from the existing thermal power as well share net savings, if any.

#### 9. Energy Efficiency related:

- a. Energy Conservation Building Code 2017 was launched in June 2017 which sets the minimum energy standard for new commercial buildings, including norms and standards for building design, lighting, heating, air-conditioning and electrical systems.
- b. Trading of ESCerts (Energy Saving Certificates) under PAT Scheme of Bureau of Energy Efficiency has led to trading of about 10 lakh ESCerts at around ₹ 87 crore.
- c. Under UJALA and Street Lighting National Programme, massive replacement with LED lights for residential and public lighting has led to substantial saving in energy.

### OPPORTUNITIES AND THREATS/CHALLENGES

#### OPPORTUNITIES

##### 1. Renewable Energy

Government of India 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 Guidelines for Tariff Based Competitive Bidding Process for Procurement of Power from Grid Connected Solar PV and Wind Power Projects, draft Solar-Wind hybrid policy are attracting investments in this sector. This, coupled with historic lows in solar and wind tariffs have completely transformed the sector dynamics. Also, the RPO trajectories set by National Tariff Policy 2016 that enhance the RE limits further promote the procurement of renewable energy by distribution companies.

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

Variable Renewable Energy integration into the grid has opened up many opportunities for potential energy solutions under the umbrella of ancillary services, such as Battery energy storage, efficient ramping up and down of units etc.





## 2. Electric Vehicles

The FAME mission (Faster Adoption and Manufacturing of Electric Vehicles), spearheaded by Ministry of Heavy Industries, has created opportunities for your Company in the form of additional demand of electricity, development of charging infrastructure & battery swapping facilities.

It is estimated that by 2030, about 70 BUs of electricity may be consumed by the charging infrastructure. Your Company is actively looking for opportunities to enter the electric vehicle charging infrastructure business space. It has signed a Memorandum of Understanding with Jabalpur City Transport Services Limited (JCTSL) for meeting the city's charging related infrastructure needs and is exploring such tie-ups for other cities as well. Electric Vehicle business would not only help your company in venturing into a new business area but would also help increase power demand across the country.

In order to promote electric mobility, the proposed amendments to the Tariff Policy 2016 includes the guideline that SERCs may lay down an appropriate framework for electricity supply from the Discom to the charging stations such that tariff is aligned with cost of supply and that there shall be single part tariff for this purpose in the initial 3 years.

As an environmentally and socially responsible company, your company is promoting electric vehicles across the country by installing EV chargers in its plants and townships and is replacing public use vehicles with electric vehicles in a phased manner.

## 3. Cross Border Power Trading

The country intends to establish a power grid that connects countries under BIMSTEC (Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation). This will open up opportunities for your Company and the Indian power sector.

NVVN, 100% owned subsidiary of NTPC, has been assigned the role of Nodal Agency for cross border trading of power with Bhutan, Bangladesh and Nepal by Gol. Currently, it is supplying 410 MW power to Bangladesh and 120 MW to Nepal under various agreements.

## 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, in Middle East & South East Asia and Africa.

## 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 to contain SPM, SO<sub>x</sub>, NO<sub>x</sub> and Mercury emissions and reduce specific water consumption and entails substantial investment. Government of India has recognised such investments as "Change in Law", for the purpose of recovering the cost of such investment under regulated tariff.

Your company is spearheading the adoption of Flue Gas Desulphurisation and developing solutions for de-NO<sub>x</sub> that can be used for high ash content coal and 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 successfully implemented pilot testing for biomass co-firing in its Dadri Power Plant and has awarded a contract to procure biomass pellets for co-firing up to 10%. This intervention is expected to discourage burning of crop residues.

## 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 and have hit historic lows in the financial year 2017-18. 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 generation cost. Although this is taken care of by the compensation charges for lower Loading Factors, the other 'integration costs' such as cost for balancing services, reduced life due to flexible operation of thermal plant are yet to be adequately quantified.

### 2. Environmental Concerns

The environmental concerns particularly relating to coal



based thermal stations has emerged as a major issue. In December 2015, MoEF & CC notified the new standards for water consumption, particulate matter, SO<sub>x</sub>, NO<sub>x</sub> and mercury for thermal power stations, segregating them into three categories: plants installed before 31.12.2003, after 2003 up to 31.12.2016 and beyond 2016. Despite many challenges like availability of space, lack of proven technology for high ash domestic coal etc., the thermal plants have to undergo necessary retrofits to comply with the norms progressively by 2022. Logistics and supply chain for sourcing the consumables and disposing of the waste generated impose additional challenges.

Further, the cost impact of these revised norms will be ~50 paisa per unit of electricity due to installation of new systems.

Your Company has taken up installation of Flue Gas Desulphurisation at various locations in a phased manner with 500 MW under operation, more than 7 GW under construction and ~30 GW under various stages of bidding. Also, your Company is leading pilot tests for assessing appropriate technology for containing NO<sub>x</sub> emissions in Indian power stations using high ash content domestic coal.

### 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. Even the allocated gas under APM is not fully utilised as the gas-based stations are lower in merit order dispatch. On account of these factors, 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. With limited domestic gas availability, Flexible operations of gas stations in the most optimal manner, especially in view of increasing penetration of renewable requiring balancing power, is also under consideration by Government of India.

### 4. Other Issues/Concerns

- Availability of land/ Right to use of land/Right of way on land.
- Availability of water.
- Environment and forest clearance at State level to expedite E & F clearance to the project.
- Logistics for movement of heavy machinery like roads and bridges.

- Human resource requirement commensurate with the requirement of the various skilled and unskilled jobs.
- Impact on conventional power capacity: Increasing share of Renewables is not only going to reduce PLF of conventional power plants, but also force to regulate generation to compensate for intraday variation in power generation by RE sources.
- Grid integration issues: The integration of Renewable power into power systems results in 'integration costs' for grid which includes cost for balancing services, more flexible operation of thermal plant, reduced utilization of transmission network.

## OUTLOOK FOR THE COMPANY

### Strategic focus of the Company

Your Company is market leader in power generation, supplying around 23% of the country's electricity supply 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 NTPC'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 opportunities for acquisition of power plants if available at attractive valuations for adding capacity after analysing the technical and financial viability of the project(s). Considering huge stranded generation capacity, there is a good scope for consolidation in the sector.

Your Company has acquired equity of Bihar State Power Generation Co. Ltd. (BSPGCL) in Kanti Bijlee Utpadan Nigam Ltd & Nabinagar Power Generating Company Limited making



them wholly-owned subsidiaries. Further, enabling actions are underway for the takeover of Barauni Thermal Power Station. These stations together account for about 3 GW capacity.

### Fuel Security

Your Company has achieved fuel security through its long-term coal supply agreements. The materialization of Annual Contracted Quantity increased to 96% in current financial year from 94% during the last fiscal.

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. It is envisaged that by 2030, one-third of NTPC's requirement would be fulfilled from captive mines.

During the financial year 2017-18, your Company has made significant progress in development of various coal mines. Dulanga coal block has become operational since February 2018. Coal production from Pakri-Barwadih coal mine project had started in financial year 2016-17 and coal is being supplied to Company's Thermal Power Plants at Barh, Kudgi and Solapur.

Your Company's reliance on imported coal is negligible, thereby contributing to reduction in cost of power. During the financial year 2017-18, less than 0.2% of your Company's coal consumption was from imported sources.

### Renewable Energy

With more than 870 MW of solar installed capacity, your Company has ventured into large-scale deployment of solar assets and is committed to add 10 GW of own renewable power capacity by 2022. Your Company is also assisting the Government of India in its National Solar Mission.

Your Company through its R&D wing NETRA has installed 100 kW floating solar PV Plant at its Rajiv Gandhi Combined Cycle Power plant in Kerala and is set to capitalize on opportunities presented in this segment.

### Optimisation of ECR

In spite of increase in coal prices, coal cess and railway freight, your company has been able to keep the average ECR stable by optimal utilisation and swapping of coal linkages. During the current year, the ECR of NTPC coal stations reduced to ₹ 1.91 per unit from ₹ 1.98 per unit in the previous year. The entire exercise was carried out for the benefit of end consumers.

### Off-take and realization

The National Electricity Plan projects additional requirement of 46 GW of coal based capacity by 2027. This is in addition to the capacity already under construction. 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 standards of lives, the demand will pick-up.

Your Company has, for the 15<sup>th</sup> consecutive year, realized 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 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 centers.

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 added 3,478 MW capacity and commercialised 4,423 MW capacity in FY 2017-18. This is the 2<sup>nd</sup> highest yearly commercial capacity addition achieved in the history of NTPC.

#### b. Operational Efficiency

The operating performance of NTPC has been considerably above the national average. During the financial year 2017-18 PLF of NTPC coal stations was 77.90% against all India PLF of 60.72%. Over the years, NTPC has consistently operated at much higher operating efficiency as compared to All India operating performance.

Company's generation grew by 6.19% during financial year 2017-18. The total generation of the company was 265.798 BUs in financial year 2017-18 as against 250.314 BUs in financial year 2016-17.



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

- ✓ Advance alert/support to stations through remote (Special Analytics & Computational Services Center) analysis of critical operation parameters, is functional, thereby improving system reliability and effecting a reduction in outages & maintenance costs.
- ✓ Reduction of forced outages through monitoring of start-up & planned shutdown, root cause analysis of outages & trips, with action plans for mitigating all system/equipment liabilities.
- ✓ Optimizing planned outage period through implementation of overhaul preparedness index (OPI), ensuring all quality checks and time bound monitoring of each activity.
- ✓ To implement best practices at enterprise level, knowledge teams for each equipment has been created.
- ✓ 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 which are being addressed in planned time bound implementation schedule.
- ✓ Implementation of Energy Efficiency Management System (EEMS) consisting of periodic assessments, field tests, performance gap analysis deviations and updating of action plans at all stations.
- ✓ To reduce cost of thermal generation, steps have been taken to maximize use of domestic coal, swapping of coal sources to reduce transport cost & proper blending.
- ✓ 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.
- ✓ Renovation & modernisation for reduction of greenhouse gas emissions, effective modernized control systems for environment friendly economic generation.

#### 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 ~21,000 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/employee, value added/per employee etc.

#### d. Sound Corporate Governance

Your Company's corporate governance practices have been recognized 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 as 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 8 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

The risks are regularly monitored through reporting of key performance indicators of identified risks. The risk assessment and the action required to be taken are reported regularly to the Board of Directors.

## Internal Control

To ensure regulatory and statutory compliances as well to provide highest level of corporate governance, your Company has robust internal systems and processes in place for smooth and efficient conduct of business and complies with relevant laws and regulations. A comprehensive delegation of power exists for smooth decision making which is being 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 implement 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. Figures of previous year have been regrouped/rearranged wherever necessary. Reference to Note (s) in the following paragraphs refers to the Notes to the standalone financial statements for the financial year 2017-18 placed elsewhere in this report.

### 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
	2018	2017	
Gross block of PPE (Note-2)	1,40,739.35	1,11,414.60	26%
Net block of PPE (Note-2)	1,20,720.61	99,062.70	22%
Capital work-in-progress (Note-3)	77,313.87	80,302.46	-4%
Intangible assets (Note-4)*	331.60	293.02	13%
Intangible assets under development (Note-5)	469.36	434.63	8%

\* Net block



During the year, total gross block of PPE increased by ₹ 29,324.75 crore over the previous year i.e. by 26%. This was mainly on account of declaration of commercial operation of 3,978 MW capacities during financial year 2017-18 and also capitalisation of some other assets. Correspondingly, net block has increased by 22% and capital work-in-progress has decreased by 4%. Intangible assets and intangible assets under development taken together have increased by 10% 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	
	2018	2017
Investment in Subsidiaries	2,754.62	1,922.23
Investment in Joint ventures	7,186.58	6,212.40
<b>Total</b>	<b>9,941.20</b>	<b>8,134.63</b>

During the year, investments in subsidiary and joint venture companies increased by 22%. The Company invested ₹ 832.39 crore in the following subsidiary companies:

(₹ Crore)

Name of subsidiary company	Amount
Kanti Bijlee Utpadan Nigam Ltd.	313.43
Bhartiya Rail Bijlee Company Ltd.	426.92
Patratu Vidyut Utpadan Nigam Ltd.	92.04
<b>Total investment</b>	<b>832.39</b>

The Company's investment in joint venture companies increased by ₹ 974.18 crore as under:

(₹ Crore)

Name of JV Company	Amount
NTPC-Tamil Nadu Energy Company Ltd.	24.38
Ratnagiri Gas & Power Private Ltd. (RGPP)*	-139.75
Konkan LNG Private Ltd. (KLPL)*	139.75
Aravali Power Company Private Ltd.	34.50
Meja Urja Nigam Private Ltd.	42.89
BF-NTPC Energy Systems Ltd.	0.28
Nabinagar Power Generating Company Private Ltd.	470.64
Hindustan Urvarak & Rasayan Ltd.	328.22
Bangladesh-India Friendship Power Co. Private Ltd.	64.71
<b>Total investment</b>	<b>965.62</b>
Less: Provision for impairment made/(written back) during the year	
Ratnagiri Gas & Power Private Ltd.	165.90
Konkan LNG Private Ltd.	(139.75)
NTPC BHEL Power Projects Private Ltd.	(16.91)
BF-NTPC Energy Systems Ltd.	(0.68)
<b>Net increase in Investment</b>	<b>974.18</b>

\* Power and LNG business of RGPP has been demerged during the year. Consequent upon demerger, NTPC's stake in RGPP has reduced by ₹ 139.75 crore to ₹ 834.55 crore. Further, equity shares amounting to ₹ 139.75 crore have been allotted to NTPC in KLPL.

## 3 Non-current financial assets (Note-7 to Note-10)

Non-current financial assets mainly comprise of investment in equity instruments, trade receivables, 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
	2018	2017	
Investments (Note-7)	106.28	113.48	-6%
Trade receivables (Note-8)	-	35.59	-100%
Loans (Note-9)	655.67	530.59	24%
Other financial assets (Note-10)	1,632.86	1,874.18	-13%
<b>Total</b>	<b>2,394.81</b>	<b>2,553.84</b>	<b>-6%</b>

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 ₹ 112.08 crore as at 31 March, 2017 to ₹ 104.88 crore as at 31 March, 2018 due to decrease in market value of shares of PTC India Ltd.

Loans have increased from ₹ 530.59 crore as at 31 March, 2017 to ₹ 655.67 crore as at 31 March, 2018. Increase in loans is mainly due to increase in outstanding loan to subsidiary company, Kanti Bijli Utpadan Nigam Ltd., by ₹ 80.00 crore. In addition, outstanding loans to employees have also increased by ₹ 78.56 crore as at 31 March, 2018.

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-10)	As at March 31		% Change
	2018	2017	
Share application money pending allotment in subsidiary and joint venture companies	407.85	704.25	-42%
Claims recoverable	704.22	638.97	10%
Finance lease receivables	502.32	525.29	-4%
Mine closure deposit	18.47	5.67	226%
<b>Total</b>	<b>1,632.86</b>	<b>1,874.18</b>	<b>-13%</b>

Share application money pending allotment in subsidiary and joint venture companies and mine closure deposit have been reclassified in Note-6 and Note-11 respectively in previous period's financial statements to enhance comparability with the current year's financial statements.

Claims recoverable includes ₹ 680.11 crore (31 March 2017: ₹ 619.34) towards the cost incurred up to 31 March, 2018 in respect of one hydro power project, the construction of which has been discontinued on the advice of the Ministry of Power (MOP), GOI. This includes ₹ 390.59 crore (31 March 2017: ₹ 332.38 crore) in respect of arbitration awards challenged by the Company before Hon'ble High Court. In the event the High Court grants relief to the Company, the amount would be adjusted against Current liabilities - Provisions - Provision for Others (Note-32). Management expects that the total cost incurred, anticipated expenditure on the safety and stabilization 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 has ascertained that the Power Purchase Agreement (PPA) entered into for Stage I of one 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 for 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' under 'Revenue from operations' (Note-36).

#### 4 Other non-current assets (Note-11)

Total other non-current assets as at 31 March, 2018 were ₹ 11,568.68 crore as against ₹ 16,873.48 crore as at 31 March, 2017. 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 decreased by ₹ 5,304.80 crore, a decrease of over 31%. The decrease is mainly due to reduction in capital advances from ₹ 6,390.22 crore to ₹ 4,701.29 crore and decrease in advance tax net of provision for tax from ₹ 6,906.20 crore to ₹ 3,216.14 crore due to refund of income tax, received during the year.

As per the opinion of the Expert Advisory Committee (EAC) of the Institute of Chartered Accountants of India (ICAI), 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 ₹ 1,119.00 crore has been accounted under this head up to 31 March, 2018 (31 March 2017: ₹ 1,032.68 crore). Deferred foreign currency fluctuation asset has increased mainly due to fall of Indian Rupee against Euro.

#### 5 Current assets (Note-12 to Note-18)

The current assets as at 31 March, 2018 and 31 March, 2017 and the changes therein are as follows:

(₹ Crore)

Particulars	As at March 31		Y o Y Change	% Change
	2018	2017		
<b>Current assets</b>				
Inventories (Note-12)	6,057.38	6,504.81	-447.43	-7%
Trade receivables (Note-13)	7,577.97	8,137.92	-559.95	-7%
Cash & cash equivalents (Note-14)	60.49	157.12	-96.63	-62%
Bank balances other than cash and cash equivalents (Note-15)	3,917.89	2,773.37	1,144.52	41%
Loans (Note-16)	280.22	236.92	43.30	18%
Other financial assets (Note-17)	7,938.12	6,053.32	1,884.80	31%
Other current assets (Note-18)	10,878.23	4,536.44	6,341.79	140%
<b>Total current assets</b>	<b>36,710.30</b>	<b>28,399.90</b>	<b>8,310.40</b>	<b>29%</b>

#### Inventories (Note-12)

Inventories as at 31 March, 2018 were ₹ 6,057.38 crore as against ₹ 6,504.81 crore as at 31 March, 2017. Inventories mainly comprise of stores & spares and coal which are maintained for operating plants. Stores and spares were ₹ 2,915.56 crore as against ₹ 2,890.96 crore as at previous year end. Value of coal inventory decreased from ₹ 2,627.38 crore as at 31 March, 2017 to ₹ 2,085.38 crore as at 31 March, 2018 due to lesser coal stock at our power plants.



### Trade receivables (Note-13)

Trade receivables as at 31 March, 2018 are ₹ 7,577.97 crore as against ₹ 8,137.92 crore as at 31 March, 2017. Trade receivables have decreased by 7% over the previous year and correspondingly on number of day's sales basis, receivables have gone down from 38 days to 34 days. The Company has collected 100% dues for the 15th year in succession.

Keeping in view the requirements of Companies Act, 2013, unbilled revenues are shown under 'Current assets - Other financial assets' (Note-17).

### Cash and cash equivalents (Note-14) & Bank balances other than cash and cash equivalents (Note-15)

Cash and cash equivalents & bank balances other than cash and cash equivalents have increased from ₹ 2,930.49 crore as at 31 March, 2017 to ₹ 3,978.38 crore as at 31 March, 2018. This increase is mainly due to rise in deposits representing unutilised balance of Medium Term Notes (MTNs) from ₹ 955.33 crore as at 31 March, 2017 to ₹ 1,743.89 crore as at 31 March, 2018. These deposits can be utilised only for the stated purposes.

### Loans (Note-16)

Loans have increased from ₹ 236.92 crore as at 31 March, 2017 to ₹ 280.22 crore as at 31 March, 2018. This increase is mainly due to increase in loan to subsidiary company, Patratu Viduyt Utpadan Nigam Ltd., from ₹ 25.00 crore as at 31 March, 2017 to ₹ 41.75 crore as at 31 March, 2018. In addition, loans to employees have also increased from ₹ 206.87 crore as at the end of previous year to ₹ 231.38 crore.

### Other financial assets (Note-17)

Other financial assets excluding unbilled revenue are as under:

(₹ Crore)

Particulars	As at March 31	
	2018	2017
Other financial assets (Note-17)	7,938.12	6,053.32
Less: Unbilled revenue	7,574.60	5,718.67
<b>Net Other current financial assets</b>	<b>363.52</b>	<b>334.65</b>

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 2017-18, the credits, which are to be passed on to beneficiaries, have already been accounted for in sales. Unbilled revenue of ₹ 7,574.60 crore (31 March 2017: ₹ 5,718.67 crore) is net of

credits to be passed to beneficiaries at the time of billing and includes ₹ 6,932.84 crore (31 March 2017: ₹ 7,496.34 crore) billed to the beneficiaries after 31st March for energy sales.

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

### Other current assets (Note-18)

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
	2018	2017	
Security deposits (unsecured)	1,021.21	950.81	7%
Advances	7,230.07	1,140.36	534%
Claims recoverable	2,547.98	2,367.47	8%
Others	78.97	77.80	2%
<b>Total</b>	<b>10,878.23</b>	<b>4,536.44</b>	<b>140%</b>

Other current assets have increased from ₹ 4,536.44 crore as at 31 March, 2017 to ₹ 10,878.23 crore as at 31 March, 2018. This increase is mainly due to advance of ₹ 5,000.00 crore (31 March 2017: ₹ Nil) paid to Indian Railways during the year, towards advance railway freight to be adjusted against freight payable on coal transportation during the financial year 2018-19 pursuant to an agreement entered into with Indian Railways, Ministry of Railways, Gol.

Claims recoverable include claims against railways of ₹ 1,227.75 crore (31 March 2017: ₹ 1,488.82 crore) which are mainly towards diverted out coal wagons.

### 6 Regulatory deferral account debit balances (Note-19) & Regulatory deferral account credit balances (Note-35)

Expense/income recognised 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 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.

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. This will be claimed upon implementation of revision of pay scales and discharge of related liabilities. Accordingly, an amount of ₹ 118.32 crore for the year ended 31 March 2018 has been accounted for as 'Regulatory deferral account debit balance' (31 March 2017: ₹ 522.83 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 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 ₹ 584.72 crore for the year ended as at 31 March, 2018 has been accounted for as 'Regulatory deferral account debit balance' (31 March 2017: ₹ 187.09 crore accounted as 'Regulatory deferral account credit balance').

The regulatory assets recognised 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 01 April, 2017	522.83
B. Addition during the year	697.03
C. Amount collected/refunded during the year	6.01
D. Amount transferred from regulatory deferral account credit balances (Note-35)	482.74
E. Regulatory deferral account balances recognised in the statement of profit and loss (B+C)	703.04
<b>F. Closing balance as on 31 March, 2018 (A+B+C-D)</b>	<b>743.13</b>

## 7 Total equity (Note-20 & Note-21)

The total equity of the Company at the end of financial year 2017-18 increased to ₹ 101,777.77 crore from ₹ 96,231.23 crore in the previous year, an increase of 6%. Major reasons for the same are tabulated below:

Particulars	Total Equity (₹ crore)	Book value per Share (₹)
Opening balance as on 01.04.2017	96,231.23	116.71
Add: Profit for the year	10,343.17	12.54
Add: Other comprehensive income and other adjustments to reserves	60.05	0.07
Less: Dividend & dividend tax	4,856.68	5.89
<b>Balance as on 31.03.2018</b>	<b>101,777.77</b>	<b>123.43</b>

The increase in net worth resulted in book value per share rising to ₹ 123.43 from ₹ 116.71 as at the end of previous year.

During the financial year 2017-18, Government of India (GoI) sold its 7.47% stake in the company by Offer for Sale through Stock Exchange Mechanism (6.63%), Employee Offer for Sale (0.12%) and Bharat 22 ETF (0.72%). Accordingly, GoI's stake in the company came down from 69.74% as at 31 March, 2017 to 62.27% as at 31 March, 2018.

## 8 Non-current and current liabilities (Note-22 to Note-33)

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

### a. Non-current financial liabilities-Borrowings (Note-22):

Total borrowings as at 31 March, 2018 were ₹ 1,15,104.29 crore in comparison to ₹ 1,03,839.65 crore as at 31 March, 2017. 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	
	2018	2017
Non-current borrowings in Non-current financial liabilities-Borrowings (Note-22)	1,08,697.60	97,339.28
Current maturities of non-current borrowings included in current liabilities - Other financial liabilities (Note-30)	6,406.69	6,500.37
<b>Total borrowings*</b>	<b>1,15,104.29</b>	<b>1,03,839.65</b>

\*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-22)		Other current financial liabilities (Note-30)		Total borrowings		% Change
	2018	2017	2018	2017	2018	2017	
<b>Secured</b>							
Domestic bonds	30,850.32	33,059.00	2209.00	650.00	33,059.32	33,709.00	-2%
Others	0.70	1.62	0.72	0.78	1.42	2.40	-41%
<b>Sub-total</b>	<b>30,851.02</b>	<b>33,060.62</b>	<b>2,209.72</b>	<b>650.78</b>	<b>33,060.74</b>	<b>33,711.40</b>	<b>-2%</b>
<b>Unsecured</b>							
Foreign currency term loans/Notes/Masala bonds	36,241.67	29,579.61	1,405.02	2,361.84	37,646.69	31,941.45	18%
Rupee term loans	41,455.53	34,573.80	2,758.41	3,470.38	44,213.94	38,044.18	16%
Others	149.38	125.25	33.54	17.37	182.92	142.62	28%
<b>Sub-total</b>	<b>77,846.58</b>	<b>64,278.66</b>	<b>4,196.97</b>	<b>5,849.59</b>	<b>82,043.55</b>	<b>70,128.25</b>	<b>17%</b>
<b>Total</b>	<b>1,08,697.60</b>	<b>97,339.28</b>	<b>6,406.69</b>	<b>6,500.37</b>	<b>1,15,104.29</b>	<b>1,03,839.65</b>	<b>11%</b>

As on 31 March, 2018, the foreign currency loan basket comprises of loans denominated in US Dollar, Japanese Yen and Euro which contributed about 68%, 14% and 18% respectively of the total foreign currency loans.

Over the last financial year, total borrowings have increased by 11%. Debt amounting to ₹ 17,230.49 crore was raised during the year 2017-18. The amount raised through term loans, bonds and foreign currency borrowings is used for capital expenditure, refinancing and recoupment of capital expenditure.

Details in respect of proceeds and repayment of borrowings for the financial year 2017-18 are as under:

(₹ Crore)

Source (Principal Amount)	Debt raised	Repayment	Net
Rupee term loans	10,125.00	3,955.23	6,169.77
Domestic bonds	-	650.00	-650.00
Foreign currency debts	7,105.49	2,361.34	4,744.15
<b>Total</b>	<b>17,230.49</b>	<b>6,966.57</b>	<b>10,263.92</b>
<b>FERV on foreign currency borrowings</b>			<b>1,059.31</b>
<b>Transaction costs</b>			<b>-97.91</b>
<b>Others (Finance lease obligations)</b>			<b>39.32</b>
<b>Total</b>			<b>11,264.64</b>

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 2017-18, agreements for term loans of ₹ 12,032.50 crore were entered into with various banks. An amount of ₹ 10,125 crore was drawn from domestic

banks & financial institutions during the year and an amount of ₹ 3,955.23 crore was repaid during the year. The undrawn balance available under various sanctioned loans from domestic banks and financial institutions was ₹ 10,357.50 crore as on 31 March, 2018.

Domestic bonds: During the financial year 2017-18, Bonds amounting to ₹ 650.00 crore were redeemed. The principal amount of bonds outstanding as on 31 March, 2018 is ₹ 33,062.33 crore.

Foreign currency debts: During the financial year 2017-18, the Company raised foreign currency borrowings of ₹ 2,000 crore through issue of Rupee denominated bonds (Masala bonds) & USD 400 million through issue of Eurobonds under the USD 6 billion MTN programme. Both these bonds are listed at Singapore Stock Exchange, London Stock Exchange & India International Exchange (India-INX).

Masala bonds are in the nature of senior unsecured fixed rate notes having a coupon of 7.25%. The bonds are due for bullet repayment in May 2022. The proceeds of the bonds have been utilised to finance the capital expenditure incurred on various ongoing power projects of the Company during the financial year 2017-18.

The Euro bonds are in the nature of senior unsecured fixed rate notes having a coupon of 4.50%. The bonds are due for bullet repayment in March 2028. An amount of ₹ 2,585.39 crore was received as proceeds against the issuance of these bonds. As against this, an amount of ₹ 841.50 crore was utilised till 31 March, 2018 to part finance the capital expenditure incurred on various ongoing power projects of the Company.

During the financial year 2017-18, the Company also signed a



syndicated facility agreement for JPY 39.41 billion. The loan has an average maturity of 10 years at floating interest rate. The proceeds of the loan have been utilised to finance the capital expenditure incurred on various ongoing power projects of the Company.

Under the existing loan facilities available from JBIC and KfW, during the year the Company has drawn ₹ 236.99 crore towards capital expenditure of various projects.

In all, the Company has drawn ₹ 7,105.49 crore (including ₹ denominated bonds of ₹ 2000 Crore) during the year from foreign currency loans and repaid foreign currency debts amounting to ₹ 2,361.34 crore. The principal amount of ₹ equivalent of foreign borrowings outstanding as on 31.03.2018 is ₹ 37,810.61 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
<b>Domestic</b>		
CRISIL	CRISIL AAA	Highest ratings
ICRA	ICRA AAA (Stable)	
CARE	CARE AAA	
<b>International</b>		
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 2017-18 of the Company increased to 1.14. The Debt Service Coverage Ratio (DSCR) and Interest Service Coverage Ratio (ISCR) for financial year 2017-18 are 2.14 and 5.93 respectively.

Formula used for computation of coverage ratios DSCR = Earnings before Interest, Depreciation, Tax and Exceptional items/(Interest net of transferred to expenditure during construction + Principal repayment) and ISCR = Earnings before Interest, Depreciation, Tax and Exceptional items/(Interest net of transferred 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	4,967.41	1,405.02	6,372.44
2 – 3 years	9,271.67	4,761.21	14,032.88
4 – 5 years	13,041.43	12,599.25	25,640.68
6 – 10 years	34,460.12	15,293.97	49,754.09
Beyond 10 years	15,535.64	3,751.16	19,286.79
<b>Total</b>	<b>77,276.27</b>	<b>37,810.61</b>	<b>1,15,086.88</b>

\*Excluding transaction costs \*\* The year indicates Financial year

#### b. Non-current financial liabilities-Trade payables (Note-23) & Other financial liabilities (Note-24)

Non-current trade payables has increased from ₹ 13.17 crore as at 31 March, 2017 to ₹ 23.31 crore as at 31 March, 2018.

Other financial liabilities primarily consist of liabilities for capital expenditure and others. Liabilities for capital expenditure has decreased from ₹ 1,999.77 crore as at 31 March, 2017 to ₹ 1,970.71 crore as at 31 March, 2018. 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-30).

#### c. Non-current liabilities- Provisions (Note-25):

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, 2018 were ₹ 480.90 crore as compared to ₹ 463.15 crore as at 31 March, 2017.

#### d. Non-current liabilities - Deferred tax liabilities (net) (Note-26):

Deferred tax liabilities (net) have increased from ₹ 1,484.84 crore as at 31 March, 2017 to ₹ 2,408.63 crore as at 31 March, 2018. Increase in deferred tax provision is mainly due to accelerated depreciation for solar and wind units capitalised during financial year 2017-18.

CERC 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 materialization from the beneficiaries. For the period commencing from 01 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.

The net increase during the year in the deferred tax liability of ₹ 923.79 crore (31 March 2017: increase of ₹ 332.63 crore) has been debited to the Statement of Profit and Loss.

#### e. Other non-current liabilities (Note-27):

Other non-current liabilities represented deposits received for Deen Dayal Upadhyay Gram Jyoti Yojana (DDUGJY). Other non-current liabilities as at 31 March, 2018 are ₹ Nil as compared to ₹ 17.49 crore as at 31 March, 2017.



**f. Current liabilities (Note-28 to Note-33):**

The current liabilities as at 31 March, 2018 were ₹ 42,554.76 crore as against ₹ 36,177.32 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
	2018	2017		
Borrowings (Note-28)	6,500.32	3,000.56	3,499.76	117%
Trade payables (Note-29)	5,592.64	4,876.08	716.56	15%
Other financial liabilities (Note-30)	21,408.98	19,179.40	2,229.58	12%
Other current liabilities (Note-31)	963.99	1,081.16	-117.17	-11%
Provisions (Note-32)	8,088.83	7,964.92	123.91	2%
Current tax liabilities (net) (Note-33)	-	75.20	-75.20	-100%
<b>Total</b>	<b>42,554.76</b>	<b>36,177.32</b>	<b>6,377.44</b>	<b>18%</b>

In order to finance the mismatches in the short-term fund requirement, short term borrowings (Note-28) in the form of commercial papers was resorted to by the Company. The commercial papers outstanding as on 31 March, 2018 were ₹ 6,500 crore as against ₹ 3,000 crore as on 31 March, 2017.

The trade payables (Note-29) mainly comprise amount payable towards supply of goods & services, deposits & retention money from contractors. Trade payables have increased by ₹ 716.56 crore i.e. from ₹ 4,876.08 crore as at 31 March, 2017 to ₹ 5,592.64 crore as at 31 March, 2018.

Other current financial liabilities (Note-30) 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	
	2018	2017
Other current financial liabilities	21,408.98	19,179.40
Less: Current maturities of long term borrowings and finance lease obligations	6,406.69	6,500.37
Interest accrued but not due on borrowings	1,254.96	1,160.92
<b>Other current liabilities (net)</b>	<b>13,747.33</b>	<b>11,518.11</b>

Other current financial liabilities have increased mainly due to increase in payables for capital expenditure which has increased from ₹ 9,578.24 crore as on 31 March, 2017 to ₹ 11,813.97 crore as on 31 March, 2018 and also due to payables to employees which has increased from ₹ 516.88 crore as on 31 March, 2017 to ₹ 735.95 crore as on 31 March, 2018.

Other current liabilities (Note-31) 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 ₹ 597.75 crore as on 31 March, 2017 to ₹ 313.97 crore as on 31 March, 2018. However, it has been offset to some extent by increase in statutory dues from ₹ 391.06 crore as on 31 March, 2017 to ₹ 509.66 crore as on 31 March, 2018.

Current liabilities-provisions (Note-32) 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, 2018, Company had outstanding current liabilities-provisions of ₹ 8,088.83 crore as against ₹ 7,964.92 crore as at 31 March, 2017.

The provision for employee benefits has increased from ₹ 2,388.05 as on 31 March, 2017 to ₹ 2,936.65 crore as on 31 March, 2018. The increase in provision for employee benefits is due to provision for pay revision of the employees of the Company which was due w.e.f. 1 January 2017. Department of Public Enterprises, GOI (DPE) had constituted the 3rd Pay Revision Committee (PRC) to review the structure of pay scales and allowances/benefits of various categories of Central Public-Sector Enterprises. Based on the recommendations of the 3rd PRC, DPE has issued broad guidelines for pay revision. Based on Company proposal to GOI on 06 September, 2017, presidential directive had been issued on 10 May, 2018. Presidential directive states adherence of relevant DPE Guidelines which requires approval of the Board of Directors (BOD) of the Company. Pending approval by the BOD as on 31 March, 2018, provision for pay revision had been recognised on an estimated basis amounting to ₹ 1,203.28 crore as at 31 March, 2018 (31 March 2017: ₹ 260.24 crore).

As a prudent and conservative policy, provision for tariff adjustment has been created in the books to the extent of the impact of the challenged issues of the APTEL judgement and the interest thereon pending the disposal of appeal filed by the CERC with the Hon'ble Supreme Court of India.

During the year, the Hon'ble Supreme Court of India dismissed the appeal filed by the CERC for tariff orders of the period 2004-09 and accordingly the directions of APTEL to CERC stands good. Keeping in view the same, provision amounting of ₹ 1,156.32 crore made till 31 March, 2017 towards anticipated tariff adjustments, has been written back during the year.

Overall tariff provision of ₹ 318.28 crore (31 March 2017: ₹ 98.88 crore) has been made during the year and an amount of ₹ 1,158.97 crore (31 March 2017: ₹ 162.49 crore) has been written back. Accordingly, provision for tariff adjustments have reduced from ₹ 1170.79 crore as at 31 March, 2017 to ₹ 330.10 crore as at 31 March, 2018.

Other provisions include ₹ 73.15 crore (31 March 2017: ₹ 68.24 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, ₹ 1,279.31 crore (31 March 2017: ₹ 640.25 crore) towards provision for cases under litigation and ₹ 4.62 crore (31 March 2017: ₹ 1.81 crore) towards provision for shortage in property, plant and equipment on physical verification pending investigation.

Current tax liabilities (net) (Note-33) have reduced from ₹ 75.20 crore as at 31 March, 2017 to Nil as at 31 March, 2018.

## 9 Deferred revenue (Note-34)

Deferred revenue consists of three items detailed as under:

(₹ Crore)

Deferred revenue on account of	As at March 31	
	2018	2017
Advance Against Depreciation (AAD)	74.35	247.02
Income from foreign currency fluctuation	1,435.35	1,376.67
Government grants	576.20	497.45
<b>Total</b>	<b>2,085.90</b>	<b>2,121.14</b>

AAD was an element of tariff provided under the CERC Tariff Regulations for the period 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 EAC of the 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. Accordingly, 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 ₹ 297.91 crore (31 March 2017: ₹ 32.92 crore) has been recognized as sales during the year ended 31 March, 2018. The AAD recognized during the year includes ₹ 125.24 crore for the tariff period 2004-09 in respect of one of the stations as per CERC order during the year and the same has also been recognized as energy sales during the 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 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 shareholder's funds and liabilities.

Government grants include ₹ 575.93 crore (31 March 2017: ₹ 497.14 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 36 & 37)

Sl.	Particulars	FY 2017-18	FY 2016-17	Change
	Units of electricity sold (MUs)	247,905	233,617	6%
	Revenue			₹ Crore
1	Energy sales (Including electricity duty)	79,673.58	77,071.11	3%
2	Sale of energy through trading	1,439.58	-	-
3	Consultancy & other services	182.80	163.71	12%
4	Lease rentals on assets on operating lease	233.13	240.42	-3%
5	Energy internally consumed	63.41	68.93	-8%
6	Interest from beneficiaries	487.54	397.09	23%
7	Provisions for tariff adjustments written back	1,158.97	162.49	613%
8	Interest income on assets under finance lease	166.52	154.31	8%
9	Recognised from deferred revenue-government grant	36.00	15.38	134%
10	Sale of energy saving certificates	11.17	-	-
	<b>Revenue from operations</b>	<b>83,452.70</b>	<b>78,273.44</b>	<b>7%</b>
11	Other income	1,755.25	1,068.86	64%
	<b>Total revenue</b>	<b>85,207.95</b>	<b>79,342.30</b>	<b>7%</b>



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 2017-18 is ₹ 85,207.95 crore as against ₹ 79,342.30 crore in the previous year registering an increase of 7%. The main reasons for increase in total revenue are increase in the energy sales, increase in revenue from consultancy & other services, increase in interest and surcharge received from beneficiaries and also increase in provisions for tariff adjustments written back as explained elsewhere in the section.

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-36)

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 recognised 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 01 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 01 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 05.05.2017 relating to operating procedures and the compensation mechanism in terms of Grid Code, which has come in force w.e.f. 15.05.2017. 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 2017-18 was ₹ 79,673.58 crore constituting 94% of the total revenue. The income from energy sales (including electricity duty) has increased by 3% over the previous year's income of ₹ 77,071.11 crore.



During the year, there is an increase in the commercial capacity by 3,978 MW as detailed below:

Project/Unit	Capacity (MW)	Commercial Operation Date
Kudgi U# 1	800	31.07.2017
Mandsaur Solar	250	01.09.2017
Mauda II U# 4	660	18.09.2017
Solapur U# 1	660	25.09.2017
Unchahar U# 6	500	30.09.2017
Bongaigaon U# 2	250	01.11.2017
Rojmal Wind	50	10.11.2017
Kudgi U# 2	800	31.12.2017
Small Hydro	8	05.03.2018
<b>Total</b>	<b>3,978</b>	

Further, the commercial capacity of 1,170 MW comprising Unit#1 of 660 MW of Mauda-II, 250 MW of Solar capacity at Ananthpuram and 260 MW of Solar Capacity at Bhadla Solar, which were declared under commercial operation during the financial year 2016-17, were available for the entire financial year 2017-18 as compared to part of financial year 2016-17.

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 ₹ 80,670.65 crore (31 March 2017: ₹ 74,710.65 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 25.01.2016 (subject to final decision of the Hon'ble High Court) that samples for measurement of coal on 'as received' basis should be collected from wagon top at the generating stations. The Company's review petition before the CERC in respect of the above order was dismissed vide their order dated 30.06.2016. Vide order dated 10.11.2016, the Hon'ble Delhi High Court has permitted your Company to approach the CERC with the difficulties being faced in implementation

of the order of CERC in this regard. Accordingly, the Company has filed a petition with the CERC dated 29.11.2016. In the meantime, CEA vide letter dated 17.10.2017 has informed Ministry of Power (MoP) that the margin of loss in GCV between as fired and as received would vary from plant to plant, season to season and varying coal characteristics and also opined that a margin of 85-100 Kcal/Kg for a pit head station and a margin of 105-120 Kcal/Kg for a non-pit head station may be considered as a loss of GCV of coal between as received and as fired. The petition is yet to be disposed off by CERC.

Pending disposal of the petition by the CERC and ratification by the Hon'ble Delhi High Court, 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.

Sales have been provisionally recognised at ₹ 79,683.50 crore (31 March 2017: ₹ 75,800.54 crore) on the said basis (Note 36(b)).

Sales include ₹ 6.44 crore (31 March 2017: ₹ 995.59 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 ₹ 267.99 crore in respect of one of the stations, considering the directions issued by the CERC on 28.09.2017. Also, sales for the year amounting to ₹ 96.73 crore has not been recognized considering the said directions. (Note 36(c))

Sales include ₹ 210.33 crore (31 March 2017: ₹ Nil) on account of income tax refundable to the beneficiaries as per Regulations, 2004. Sales also include ₹ 66.98 crore (31 March 2017: ₹ 46.04 crore) on account of deferred tax materialised which is recoverable from beneficiaries as per Regulations, 2014 (Note 36 (d)). Energy sales include electricity duty amounting to ₹ 879.77 crore (31 March 2017: ₹ 697.99 crore).

The average tariff for the financial year 2017-18 is ₹ 3.23/kWh as against ₹ 3.30/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 ₹ 3.23/kWh in financial year 2017-18 as against ₹ 3.26/kWh in the previous year.

There has been 100% realization of the dues within the stipulated period for the fifteenth 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 tripartite agreements for remaining states are likely to be signed shortly.

#### Sale of energy through trading

Your Company has entered into new vertical of sale of energy through trading. During the financial year, your Company has accounted sales of energy purchased from solar power plants set up under National Solar Mission of ₹ 1,439.58 crore (31 March 2017: ₹ Nil).

#### 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 2017-18, Consultancy Division posted an income of ₹ 154.67 crore as against ₹ 132.72 crore achieved in the last financial year. In the financial year 2017-18, it has earned a profit before tax of ₹ 57.08 crore. Orders valued at ₹ 386.89 crore were secured by the division during the year.

#### Lease rentals on assets on operating lease

As per the provisions of Appendix C to Ind AS 17 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 ₹ 233.13 crore has been recognised in the financial year 2017-18 as compared to ₹ 240.42 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 8% decrease in the value of energy internally consumed

during the year over the previous year mainly due to decrease 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 ₹ 487.54 crore (31 March 2017: ₹ 397.09 crore) has been recognized as Interest from beneficiaries.

#### Provisions written back

During the financial year 2017-18, the Company had written back provisions for tariff adjustments made in earlier years amounting to ₹ 1,158.97 crore in comparison to ₹ 162.49 crore in the financial year 2016-17. Substantial increase in provision for tariff adjustments written back is due to an amount of ₹ 1,156.32 crore written back during the year pursuant to an order of the Hon'ble Supreme Court of India, in favour of the Company.

#### Interest income on assets on finance lease

As per the provisions of Appendix C to Ind AS 17 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 recognized as 'Interest income on Assets under finance lease'. Accordingly, an amount of ₹ 166.52 crore has been recognized in the financial year 2017-18 as compared to ₹ 154.31 crore in the last financial year.

#### Other income (Note 37)

'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 2017-18 was ₹ 1,755.25





crore as compared to ₹ 1,068.86 crore in the financial year 2016-17. Broadly, the break-up of other income is as under:  
(₹ Crore)

Particulars	FY 2017-18	FY 2016-17
Interest on OTSS bonds /Loan to State Government	-	2.03
Income from deposits/loans, current investment in mutual funds, profit on redemption of current investments	229.39	97.30
Dividend from JVs and Subsidiary Companies/Interest from Subsidiary Company	202.39	168.16
Income earned on other heads such as surcharge from beneficiaries , hire charges, profit on disposal of assets, etc.	1,377.97	879.30
<b>Total</b>	<b>1,809.75</b>	<b>1,146.79</b>
Less: Transfer to EDC/ development of coal mines/ hedging cost recoverable/ (payable) to/from beneficiaries	54.50	77.93
<b>Net other income</b>	<b>1,755.25</b>	<b>1,068.86</b>

Interest income from OTSS bonds (including loan to State Government) for financial year 2017-18 is ₹ Nil as compared to ₹ 2.03 crore in financial year 2016-17 due to complete redemption of OTSS bonds and repayment of loan in lieu of settlement of dues to State Government during financial year 2016-17. The Company has earned income of ₹ 229.39 crore during the financial year 2017-18 on account of term deposits made in banks, investments in mutual funds and redemption of current investments as against ₹ 97.30 crore earned last year. The income from investment in bank term deposits, mutual funds etc. has registered an increase of 136% from last financial year attributed to increase in earnings on account gain on sale of investments from ₹ 24.81 crore to ₹ 137.51 crore and increase in average annual investment from ₹ 3,348 crore in financial year 2016-17 to ₹ 4,713 crore in financial year 2017-18.

We have earned ₹ 185.57 crore as dividend from our investments in subsidiaries and joint venture companies. Further, ₹ 16.82 crore has been earned as interest from loan to subsidiary companies. Also, an amount of ₹ 1,377.97 crore has been earned from various other sources mainly consisting of surcharge received from beneficiaries ₹ 507 crore, income tax refund ₹ 405.69 crore, miscellaneous income of ₹ 161.35 crore, sale of scrap ₹ 136.90 crore, interest on loans to employees ₹ 59.35 crore and interest from contractors ₹ 38.48 crore.

## 2. Expenses (Statement of Profit & Loss and Note-38, 39, 40 & 41)

### 2.1 Expenses related to operations

Particulars	FY 2017-18		FY 2016-17	
<b>Commercial generation (MUs)</b>	<b>265,003</b>		<b>250,086</b>	
<b>Expenses</b>				
	₹ Crore	₹ per kWh	₹ Crore	₹ per kWh
Fuel	48,315.47	1.82	47,572.19	1.90
Employee benefits expense	4,734.67	0.18	4,324.60	0.17
Other expense	7,421.73	0.28	5,092.38	0.21
<b>Total</b>	<b>60,471.87</b>	<b>2.28</b>	<b>56,989.17</b>	<b>2.28</b>

The expenditure incurred on fuel, employee benefits expense and other expenses for the financial year 2017-18 was ₹ 60,471.87 crore as against the expenditure of ₹ 56,989.17 crore incurred during the previous year. In terms of expenses per unit of power produced, it was ₹ 2.28 per unit in financial year 2017-18 and same as in financial year 2016-17. 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 2016-17 which were under operation for part of the previous year as against under operation for full year during the current year has resulted in an additional operational expenditure of ₹ 3,045.09 crore.

A discussion on each of these components is given below:

#### 2.1.1 Fuel

Expenditure on fuel constituted 80% of the total expenditure relating to operations. Expenditure on fuel was ₹ 48,315.47 crore in financial year 2017-18 in comparison to ₹ 47,572.19 crore in financial year 2016-17 representing an increase of 1.56%. The break-up of fuel cost in percentage terms is as under:

Particulars	FY 2017-18	FY 2016-17
<b>Fuel cost (₹ Crore)</b>	<b>48,315.47</b>	<b>47,572.19</b>
% break-up		
Coal	94.02%	95.09%
Gas	5.28%	4.29%
Oil	0.66%	0.60%
Naphtha	0.04%	0.02%



For the financial year 2017-18, the expenditure towards coal has increased, due to increase in the coal-based commercial generation from 237.735 BUs to 251.561 BUs.

The expenditure towards gas has increased due to increase in the gas consumption and generation from gas-based units. A part of increase in the expenditure towards gas is also attributable to the increase in average price of gas during the financial year 2017-18 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 is due to higher average price during the financial year 2017-18 as compared to previous year and the increase in the expenditure towards naphtha is mainly due to higher average price during the financial year 2017-18 as compared to previous year.

An increase of ₹ 2,383.94 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 decreased to ₹ 1.82 in financial year 2017-18 from ₹ 1.90 in financial year 2016-17.

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 38)

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 ₹ 4,324.60 crore in financial year 2016-17 to ₹ 4,734.67 crore in financial year 2017-18.

Of the total increase in employee benefits expense, an increase of ₹ 157.02 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. Further, there is an increase in employee benefit expenses due to pay revision provision which was due from 01 January, 2017 and has been recognized on an estimated basis.

In terms of expenses per unit of generation, it is ₹ 0.18 in financial year 2017-18 as compared ₹ 0.17 in previous financial year. These expenses account for approximately 8% of operational expenditure in financial year 2017-18.

### 2.1.3 Other expenses (Note 41)

Other expenses consist primarily the expenses for repair and maintenance of plant & machinery, buildings, water charges, security, corporate social responsibility, electricity duty, contribution to water conservation fund, travelling, power charges, insurance, training and recruitment and provisions. These expenses are approximately 12% of operational expenditure in financial year 2017-18. In absolute terms, these expenses increased to ₹ 7,421.73 crore in financial year 2017-18 from ₹ 5,092.38 crore in financial year 2016-17, registering an increase of 46%.

During the financial year 2017-18, the increase in other expenses is mainly on account of demand of water charges pertaining to earlier years in case of one power station amounting to ₹ 305.55 crore, adverse impact of ERV to the tune of ₹ 737.04 crore in comparison with previous year. Repair & maintenance expenses constitute 37% of total other expenses and have increased by ₹ 445.26 crore in comparison with previous year, resulting in an increase of 19%.

In terms of expenses per unit of generation, it is ₹ 0.28 in financial year 2017-18 as compared to ₹ 0.21 in previous financial year. An increase of ₹ 504.13 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 ₹ 842.99 crore made during the year as against ₹ 161.10 crore in previous year. Provisions mainly include provision of



₹ 318.28 crore towards tariff adjustments, ₹ 21.95 towards obsolescence in stores, ₹ 17.59 crore towards impairment in the value of investment by the Company in two joint venture companies i.e. NTPC BHEL Power Projects Private Ltd. ₹ 16.91 crore and ₹ 0.68 crore in BF-NTPC Energy Systems Ltd., ₹ 4.92 crore towards unfinished minimum work programme for oil and gas exploration and provision of ₹ 359.48 crore towards unserviceable capital works.

## 2.2 Energy purchased for trading

Company has incurred expenditure of ₹ 1,313.51 crore on purchase of energy for trading during the financial year 2017-18 from solar power plants set up under National Solar Mission.

## 2.3 Finance costs (Note 39)

The finance costs for the financial year 2017-18 are ₹ 3,984.25 crore in comparison to ₹ 3,597.20 crore in financial year 2016-17. The details of interest and other borrowing costs are tabulated below:

(₹ Crore)

Particulars	FY 2017-18	FY 2016-17
Interest on:		
Borrowings	7,476.64	7,124.72
Unwinding of discount on vendor liabilities and discount on commercial papers	349.41	550.60
Others	1.73	0.47
<b>Total interest</b>	<b>7,827.78</b>	<b>7,675.79</b>
Other borrowing costs	38.31	46.49
Exchange differences regarded as adjustment to interest costs	274.05	-
<b>Total</b>	<b>8,140.14</b>	<b>7,722.28</b>
<b>Less: Transfers to</b>		
Expenditure during construction period	3,958.95	4,005.33
Development of coal mines	196.94	119.75
<b>Net interest and other borrowing costs</b>	<b>3,984.25</b>	<b>3,597.20</b>

Total interest (including interest during construction) has increased by 2% over last financial year due to increase in both long-term and short-term borrowings. The long-term borrowings as on 31 March, 2018 was ₹ 115,104.29 crore as against ₹ 103,839.65 crore as on 31 March, 2017. Further

short-term borrowing also increased to ₹ 6,500.32 crore as on 31 March, 2018 from ₹ 3,000.56 crore as on 31 March, 2017. For the financial year 2017-18, the average cost of borrowing has decreased to 6.99% from 7.44% 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 2017-18, an amount of ₹ 3,958.95 crore relating to finance costs of projects under construction was capitalised while the corresponding amount for the previous year was ₹ 4,005.33 crore. In addition, ₹ 196.94 crore has been capitalised in respect of development of coal mines as against ₹ 119.75 crore in previous year.

## 2.4 Depreciation, amortization and impairment expense (Note 40)

The depreciation and amortization expense charged to the Statement of Profit and Loss during the financial year 2017-18 was ₹ 7,098.86 crore as compared to ₹ 5,920.82 crore in financial year 2016-17, registering an increase of 20%. This is due to increase in the gross PPE by ₹ 29,324.75 crore i.e. from ₹ 1,11,414.60 crore in the previous financial year to ₹ 1,40,739.35 crore in the current financial year. The increase in gross block is largely on account of increase in commercial capacity by 3,978 MW resulting in additional capitalization on account of commercial declaration of new units. The depreciation on new units capitalised during the year is on pro-rata basis.

Further, depreciation for units declared commercial during financial year 2016-17 aggregating to 1,170 MW has been charged for the entire financial year 2017-18 as against a pro-rata charge during the financial year 2016-17. The impact on depreciation on this account for the financial year 2017-18 is ₹ 1,057.30 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 71)

The Company is mainly engaged in generation and sale of electricity. The price to be charged by the Company for electricity sold to its customers 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. The Company is eligible to apply Ind AS 114, Regulatory Deferral Accounts. The standard permits an eligible entity to continue previous GAAP (Guidance Note on accounting for Rate Regulated Activities) accounting policy for its regulatory deferral account balances. Hence, Company has opted to continue with its previous GAAP accounting policy for such balances.

In terms of the guidance note, the 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 ₹ 584.72 crore for the year ended as at 31 March, 2018 has been accounted for as 'Regulatory deferral account debit balance' (31 March 2017: ₹ 187.09 crore accounted as 'Regulatory deferral account credit balance').

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 claimed upon implementation of revision of pay scales and discharge of related liabilities. Accordingly, an amount of ₹ 118.32 crore for the year ended 31 March, 2018 has been accounted for as 'Regulatory deferral account debit balance' (31 March 2017: ₹ 522.83 crore).

Accordingly, for the financial year 2017-18, net movement in regulatory deferral account balances (net of tax) is ₹ 553.00

crore whereas for the financial year 2016-17, ₹ 263.92 crore was recognised 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 2017-18	FY 2016-17
Total revenue	85,207.95	79,342.30
Less:		
Expenditure related to operations	60,471.87	56,989.17
Energy purchased for trading	1,313.51	-
Finance cost	3,984.25	3,597.20
Depreciation, amortization and impairment expenses	7,098.86	5,920.82
Less:		
Exceptional items - impairment loss on investment	-	782.95
<b>Profit before tax</b>	<b>12,339.46</b>	<b>12,052.16</b>

## 4. Tax expense

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 ₹ 1,625.50 crore has been made towards current tax for the financial year 2017-18 as against the provision of ₹ 2,598.19 crore made in financial year 2016-17.

### Provision for deferred tax

Regulations, 2014 provide for recovery of deferred tax liability as on 31.03.2009 from the beneficiaries. Accordingly, deferred tax liability as on 31.03.2009 is recoverable on materialisation from the beneficiaries. For the period commencing from 01 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 ₹ 3,631.64 crore as against ₹ 1,287.31 crore made in financial year 2016-17.



## Details of tax provision

(₹ 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)
Adjustments for Deferred asset for deferred tax liability	-	(2,707.85)	(2,707.85)
<b>Net provision as per Statement of Profit and Loss</b>	<b>1,625.50</b>	<b>923.79</b>	<b>2,549.29</b>

(₹ Crore)

Particulars	FY 2016-17		
	Current tax	Deferred tax	Total
Provision for financial year 2016-17	2,705.75	1,287.31	3,993.06
Adjust. for earlier years	(107.56)	-	(107.56)
Adjust. for Deferred asset for deferred tax liability	-	(954.68)	(954.68)
<b>Net provision as per Statement of Profit and Loss</b>	<b>2,598.19</b>	<b>332.63</b>	<b>2,930.82</b>

Net provision of tax for the financial year 2017-18 was ₹ 2,549.29 crore in comparison to ₹ 2,930.82 crore in the financial year 2016-17.

## 5. Profit after tax

The profit of the Company after tax is tabulated below:

(₹ Crore)

Particulars	FY 2017-18	FY 2016-17
Profit before tax	12,339.46	12,052.16
Less: Tax expense	2,549.29	2,930.82
Add:- Net movement in regulatory deferral account balances (net of tax)	553.00	263.92
<b>Profit after tax</b>	<b>10,343.17</b>	<b>9,385.26</b>

## 6. Other comprehensive income

The other comprehensive income net of tax for the financial year 2017-18 is ₹ (-) 14.48 crore in comparison to ₹ (-) 203.38 crore in the financial year 2016-17. For the financial year 2017-18, net actuarial loss on defined benefit plans is ₹ (-) 7.28 crore, while net gain on fair value of equity instruments is ₹ (-) 7.20 crore as against net actuarial loss on defined benefit plan and net loss on fair value of equity instrument amounting to ₹ (-) 238.66 crore and ₹ 35.28 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. Other segment include providing consultancy, project management and supervision, oil and gas exploration, coal mining and trading of energy.

The profit before unallocated corporate interest and other income & unallocated corporate expenses, interest and finance charges, in the generation business for the financial year 2017-18 was ₹ 17,801.36 crore as against ₹ 17,765.47 crore for financial year 2016-17. The income before unallocated corporate interest and other income & unallocated corporate expenses, interest and finance charges from other segment was ₹ 157.64 crore for financial year 2017-18 as against a loss of ₹ 64.51 crore in the previous financial year.

## C. Cash flows

Cash & cash equivalents and cash flows on various activities are given below:

(₹ Crore)

Particulars	FY 2017-18	FY 2016-17
Opening cash & cash equivalents	157.12	1,372.40
Net cash from operating activities	19,248.35	20,013.92
Net cash used in investing activities	(20,388.19)	(24,414.12)
Net cash flow from financing activities	1,043.21	3,184.98
Exchange difference arising from translation of foreign currency cash and cash equivalents	-	(0.06)
Change in cash and cash equivalents	(96.63)	(1,215.28)
<b>Closing cash &amp; cash equivalents</b>	<b>60.49</b>	<b>157.12</b>



Statement of cash flows comprises of cash flows from operating activities, investing activities and financing activities.

Net cash generated from operating activities was ₹ 19,248.35 crore during the financial year 2017-18 as compared to ₹ 20,013.92 crore in the previous year primarily due to advance of ₹ 5,000 crore given to Railways which has been partially set off due to receipt of income tax refund during the year.

Cash outflows on investing activities arise from expenditure on setting up power projects, investments in joint ventures & subsidiaries and tax outflow on income from investing activities. Cash inflows arise from interest from banks and dividend income from joint ventures and subsidiaries and mutual funds. Cash invested on purchase of fixed assets decreased from ₹ 23,513.50 crore in financial year 2016-17 to ₹ 18,015.46 crore in financial year 2017-18. Considering all the investing activities, the net cash used in investing activities was ₹ 20,388.19 crore in financial year 2017-18 as compared to ₹ 24,414.12 crore in the previous year.

During the financial year 2017-18 the Company had an inflow of ₹ 17,230.49 crore from non-current borrowings as against ₹ 23,803.92 in the previous year and inflow of ₹ 3,499.76 crore from current borrowings (Commercial papers & cash credit) as against ₹ 1,701.06 crore in the previous year. Cash used for repayment of non-current borrowings during the financial year 2017-18 was ₹ 6,966.57 crore as against ₹ 11,095.86 crore repaid in the previous year. Interest paid during the year was ₹ 7,857.17 crore as compared to ₹ 6,888.72 crore during the previous year. Cash used for paying dividend was ₹ 4,040.28 crore (31 March 2017: ₹ 3,595.03 crore) and the dividend tax thereon was ₹ 816.40 crore (31 March 2017: ₹ 727.79 crore). Thus, from financing activities during the year, the Company has an inflow of ₹ 1,043.21 crore as against an inflow of ₹ 3,184.98 crore in the previous year.

#### FINANCIAL SUMMARY OF SUBSIDIARY COMPANIES

Your Company has five subsidiary companies as at 31 March, 2018 out of which two (NESCL & NVVN) are wholly owned.

A summary of the financial performance of the subsidiary companies during the financial year 2017-18 based on their audited results is given below:

(₹ Crore)

Sl.	Company	NTPC's investment in equity (Ex. Share application Money)	Total Income	Profit/(Loss) for the year
1	NTPC Electric Supply Company Ltd. #	0.08	-	-
2	NTPC Vidyut Vyapar Nigam Ltd.	20.00	5,036.93	61.26
3	Kanti Bijlee Utpadan Nigam Ltd.	1,042.89	869.04	(181.09)
4	Bhartiya Rail Bijlee Company Ltd.	1,599.53	699.84	27.21
5	Patratu Vidyut Utpadan Nigam Ltd.	92.12	(0.53)	0.03
	<b>Total</b>	<b>2,754.62</b>	<b>6,605.28</b>	<b>(92.59)</b>

# 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 2017-18 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
<b>A. Joint venture companies incorporated in India</b>					
1	Utility Powertech Ltd. @	50.00	1.00	962.57	21.02
2	NTPC-GE Power Services Private Ltd.	50.00	3.00	67.98	(15.04)
3	NTPC-SAIL Power Company Ltd.*	50.00	490.25	2,644.45	331.72
4	NTPC-Tamil Nadu Energy Company Ltd.	50.00	1,409.99	3,576.15	33.44
5	Ratnagiri Gas & Power Private Ltd.	25.51	217.50	2,322.98	64.74
6	Konkan LNG Private Ltd.	25.51	-	317.25	(767.21)
7	Aravali Power Company Private Ltd.*	50.00	1,433.01	4,147.40	577.75

(₹ 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
8	Meja Urja Nigam Private Ltd.*	50.00	1,209.33	-	(0.19)
9	NTPC BHEL Power Projects Private Ltd.	50.00	4.41	146.47	(76.69)
10	BF-NTPC Energy Systems Ltd.	49.00	2.42	-	(1.38)
11	Nabinagar Power Generating Company Private Ltd.*	50.00	1,659.94	-	(0.10)
12	National High Power Test Laboratory Private Ltd.	20.00	30.40	22.14	(10.93)
13	Transformers & Electricals Kerala Ltd.	44.60	31.34	188.55	4.22
14	Energy Efficiency Services Ltd.	31.71	146.50	1,366.98	54.43
15	CIL NTPC Urja Private Ltd.	50.00	0.08	-	-
16	Anushakti Vidhyut Nigam Ltd.*	49.00	0.05	-	(0.01)
17	Hindustan Urvarak & Rasayan Ltd.	33.33	333.25	5.91	1.15
<b>B. Joint venture companies incorporated outside India</b>					
18	Trincomalee Power Company Ltd., Srilanka	50.00	15.20	0.33	(15.05)
19	Bangladesh-India Friendship Power Company Private Ltd., Bangladesh	50.00	198.91	-	-
<b>Total</b>			<b>7,186.58</b>	<b>15,769.16</b>	<b>201.87</b>

As may be seen, out of 19 joint venture companies considered for consolidation, 11 companies listed at Sl. No.1 to 7, 9 and 12 to 14 are operational. 7 of them registered an aggregate profit of ₹ 1,087.32 crore and balance 4 companies have suffered an aggregate loss of ₹ 869.87 crore in the financial year 2017-18.

#### Consolidated financial results of NTPC Ltd.

A brief summary of the results on a consolidated basis is given below:

(₹ Crore)

Particulars	FY 2017-18	FY 2016-17
Total income	89,641.59	83,009.31
Profit before tax	12,529.27	13,426.33
Profit for the year	10,501.50	10,713.94
Other comprehensive income (expense) (net of tax)	(20.69)	(212.85)
<b>Total comprehensive income for the year</b>	<b>10,480.81</b>	<b>10,501.09</b>

#### 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

@excluding ₹ 1 crore equity issued as fully paid bonus share  
\*Financial statements are audited.

Place: New Delhi  
Date: 8<sup>th</sup> August, 2018



# Tree Plantation by NTPC Board Members during Board Meeting at Bodhgaya, Bihar





## REPORT ON CORPORATE GOVERNANCE

Corporate governance is set of policies and business process driven by conscience, openness, fairness, professionalism & accountability with an aim of enhancing an organization's wealth generating capacity. It is a journey towards sustainable value creation for all stakeholders through robust & transparent governance mechanism in the Company.

NTPC firmly believes that sound Corporate Governance is critical for enhancing and retaining investor trust. We are committed for meeting our performance goals with ethics and good governance.

### 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 entails that our governance process is devised in such a manner as to meet aspirations of our stakeholders and expectations of the society and nation. NTPC is constantly striving to adopt emerging best practices in corporate governance. It is our endeavour to achieve higher standards and provide oversight and guidance to management in strategy implementation and risk management and fulfilment of stated goals and objectives.

### 2. THE BOARD OF DIRECTORS

The Directors of the Company are in a fiduciary position, empowered to oversee the management functions with a view to ensure its effectiveness and enhancement of shareholder value. 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 & Disclosure Requirements) Regulations, 2015, Memorandum & Articles of Association, Maharatna Guidelines issued by DPE vide Office Memorandum dated 19<sup>th</sup> 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 a 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 our 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.

SEBI (Listing Obligations & Disclosure Requirements) Regulations, 2015, as amended from time to time, (hereinafter referred as SEBI LODR) stipulate that the Board of Directors of the Company shall have an optimum combination of executive and non-executive directors with at least one woman director and not less than fifty percent of the Board of Directors comprising non-executive directors. 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.

However, against the sanctioned strength, as on 31<sup>st</sup> March 2018, the Board comprised seven whole-time Directors, including the Chairman & Managing Director apart from Director having additional charge of Director (Finance), one Government Nominee Director, seven Independent Directors including one Woman Director. Details of the Board of Directors as on 31<sup>st</sup> March, 2018 were as follows:

S. No.	Names of Directors	Designation
1.	Shri Gurdeep Singh	Chairman & Managing Director
2.	Shri Saptarshi Roy	Director (HR)
3.	Shri A.K.Gupta	Director (Commercial)
4.	Shri K. Biswal <sup>1</sup>	Director (Finance)
5.	Shri S.K.Roy	Director (Projects)
6.	Shri P.K.Mohapatra	Director (Technical)
7.	Shri Prakash Tiwari	Director (Operations)
8.	Shri Aniruddha Kumar	Govt. Nominee Director
9.	Dr. Gauri Trivedi	Independent Woman Director
10.	Shri Seethapathy Chander	Independent Director
11.	Shri M.P.Singh	Independent Director
12.	Shri P.K.Deb	Independent Director
13.	Shri Shashi Shekhar	Independent Director
14.	Shri Vinod Kumar	Independent Director
15.	Shri Subhash Joshi	Independent Director
16.	Shri K.Sreekant <sup>2</sup>	Additional Charge of Director (Finance)

1. Under suspension vide order dated 14<sup>th</sup> December, 2017 from Ministry of Power.
2. Delegated additional charge of Director (Finance) by the Ministry of Power vide office order dated 28<sup>th</sup> March, 2018 for a period of 6 months.

The number of independent directors during the financial year 2017-18 vis-a-vis the number of independent directors required under SEBI LODR and Companies Act 2013 were as under:



Period	Functional Director	Govt. Nominee Director	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 1/4/2017	7	2	3	9	4	
1/4/2017 - 31/7/2017	7	2	3	9	4	
1/8/2017 - 31/8/2017	6	1	3	7	4	Sh. A.K.Jha & Sh. Pradeep Kumar ceased w.e.f. 31/7/2017
1/9/2017 - 10/10/2017	5	1	3	6	3	Sh. S.C.Pandey ceased w.e.f. 31/8/2017
11/10/2017 - 23/10/2017	5	1	2	6	3	Sh. Rajesh Jain ceased w.e.f. 10/10/2017
24/10/2017-31/10/2017	5	1	7	6	5	5 Independent Directors were appointed on 24/10/2017
1/11/2017-18/1/2018	4	1	7	5	4	Sh.K K Sharma ceased on 31/10/2017
19/1/2018 -30/1/2018	5	1	7	6	5	Sh. S. K. Roy appointed w.e.f. 19/1/2018
31/1/2018-31/3/2018	7*	1	7	8	5	Sh. P.K. Mohapatra & Sh. Prakash Tiwari appointed w.e.f. 31/1/2018

\*Ministry of Power vide its order dated 28<sup>th</sup> March, 2018 has delegated additional charge of Director (Finance) to Shri K.Sreekant, Director (Finance) PGCIL.

As the power to appoint the Directors on the Board of the Company vests with the President of India, the Company has been, from time to time, requesting Ministry of Power to appoint requisite number of independent directors on the Board.

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 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 2017-18, thirteen (13) meetings of the Board of Directors were held on 19<sup>th</sup> April 2017, 29<sup>th</sup> May 2017, 29<sup>th</sup> July 2017, 31<sup>st</sup> August 2017, 24<sup>th</sup> October 2017, 13<sup>th</sup> November 2017, 20<sup>th</sup> December 2017, 20<sup>th</sup> December 2017, 29<sup>th</sup> December 2017, 19<sup>th</sup> January 2018, 31<sup>st</sup> January 2018, 12<sup>th</sup> March 2018 and 29<sup>th</sup> March, 2018. 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 2017-18 and their attendance at last AGM:

Meeting Date(s)	Names of Directors	19/4/2017	29/5/2017	29/7/2017	31/8/2017	24/10/2017	13/11/2017	20/12/2017#	20/12/2017	29/12/2017	19/1/2018	31/1/2018	12/3/2018	29/3/2018	Whether Attended Last AGM	No. of Board Meetings held during the tenure	Total Attendance	% of Attendance of Board Meeting
	<b>Shri Gurdeep Singh</b> Chairman & Managing Director														Y	13	13	100%
	<b>Shri A. K. Jha</b> <sup>1</sup> Director (Technical)				-	-	-	-	-	-	-	-	-	-	-	3	3	100%
	<b>Dr. Pradeep Kumar</b> <sup>1</sup> Joint Secretary & Financial Advisor, MoP & Govt. Nominee Director	X		X	-	-	-	-	-	-	-	-	-	-	-	3	1	33.33%
	<b>Shri S. C. Pandey</b> <sup>2</sup> Director (Projects)					-	-	-	-	-	-	-	-	-	-	4	4	100%
	<b>Shri K. Biswal</b> <sup>*</sup> Director (Finance)							-	-	-	-	-	-	-	Y	6	6	100%
	<b>Shri K. K. Sharma</b> <sup>3</sup> Director (Operations)						-	-	-	-	-	-	-	-	-	5	5	100%
	<b>Shri Rajesh Jain</b> <sup>4</sup> Independent Director	X				-	-	-	-	-	-	-	-	-	-	4	3	75%
	<b>Dr. Gauri Trivedi</b> Independent Woman Director				X										-	13	11	84.61%
	<b>Shri Aniruddha Kumar</b> Joint Secretary (Thermal), MoP & Govt. Nominee Director														Y	13	13	100%
	<b>Shri S. Chander</b> Independent Director							X							Y	13	11	84.61%
	<b>Shri Saptarshi Roy</b> Director (HR)										X				Y	13	12	92.30%
	<b>Shri A. K. Gupta</b> Director (Commercial)														Y	13	13	100%
	<b>Shri M. P. Singh</b> <sup>5</sup> Independent Director	-	-	-	-	-					X				-	9	8	88.88%
	<b>Shri Pradeep Kumar Deb</b> <sup>5</sup> Independent Director	-	-	-	-	-					X				-	9	7	77.77%
	<b>Shri Shashi Shekhar</b> <sup>5</sup> Independent Director	-	-	-	-	-									-	9	9	100%
	<b>Shri Subhash Joshi</b> <sup>5</sup> Independent Director	-	-	-	-	-					X				-	9	8	88.88%
	<b>Shri Vinod Kumar</b> <sup>5</sup> Independent Director	-	-	-	-	-					X				-	9	7	77.77%
	<b>Shri S. K. Roy</b> <sup>6</sup> Director (Projects)	-	-	-	-	-	-	-	-	-	-				-	3	3	100%
	<b>Shri P. K. Mohapatra</b> <sup>7</sup> Director (Technical)	-	-	-	-	-	-	-	-	-	-				-	3	3	100%
	<b>Shri Prakash Tiwari</b> <sup>7</sup> Director (Operations)	-	-	-	-	-	-	-	-	-	-				-	3	3	100%
	<b>Shri K. Sreekant</b> <sup>8</sup> Director (Finance)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	100%

1. Ceased to be Director w.e.f. 31<sup>st</sup> July 2017
2. Ceased to be Director w.e.f. 31<sup>st</sup> August 2017
3. Ceased to be Director w.e.f. 31<sup>st</sup> October 2017
4. Ceased to be Director w.e.f. 10<sup>th</sup> October 2017
5. Appointed as Director w.e.f. 24<sup>th</sup> October 2017
6. Appointed as Director w.e.f. 19<sup>th</sup> January 2018
7. Appointed as Director w.e.f. 31<sup>st</sup> January 2018
8. Shri K. Sreekant was appointed as Director on 29<sup>th</sup> March, 2018 and has been given additional charge of Director (Finance) vide letter dated 28.03.2018 from the Ministry of Power.

\* Under suspension vide order dated 14<sup>th</sup> December, 2017 from Ministry of Power

# Meeting conducting through video conferencing.



**Details of other Directorships & Membership/Chairmanship of Committees of Directors are as follows:**

Names of Directors	No. of other Directorship	No. of Committee membership*	
		As Chairman	As member
<b>Functional Directors</b>			
Shri Gurdeep Singh	2	-	-
Shri K. Biswal**	-	-	-
Shri Saptarshi Roy	6	-	-
Shri A.K.Gupta	7	-	-
Shri S.K. Roy	4	-	1
Shri P.K. Mohapatra	2	-	-
Shri Prakash Tiwari	2	-	1
Shri K. Sreekant***	1	-	2
<b>Govt. Nominee Directors</b>			
Shri Aniruddha Kumar	2	-	-
<b>Independent Directors</b>			
Dr. Gauri Trivedi	6	-	1
Shri S. Chander	4	3	-
Shri M.P. Singh	-	1	1
Shri P.K. Deb	-	-	1
Shri Shashi Shekhar	-	-	-
Shri Subhash Joshi	-	-	1
Shri Vinod Kumar	-	-	1

\*Membership of only Stakeholders' Relationship Committee and Audit Committee has been considered.

\*\* under suspension vide Ministry of Power order dated 14<sup>th</sup> December 2017.

\*\*\*Shri K. Sreekant has been given additional charge of Director (Finance) vide Ministry of Power Order dated 28<sup>th</sup> March, 2018.

**2.5 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.

**2.6 Performance Evaluation of Board Members:**

Ministry of Corporate Affairs (MCA) vide General Circular dated 5<sup>th</sup> 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 of every director by the Nomination & Remuneration Committee. Similar exemption has been requested from SEBI under the SEBI LODR, which is under consideration. The aforesaid circular of MCA further exempted listed Govt. Companies from provisions of Section 134 (3) (p) which requires mentioning the manner of formal evaluation of its own performance by the Board and that of its Committees

and Individual Director in Board's Report, if directors are evaluated by the Ministry or Department of the Central Government which is administratively in charge of the company, or, as the case may be, the State Government as per its own evaluation methodology. In this regard, Deptt. of Public Enterprise (DPE) has already laid down a mechanism for performance appraisal of all functional directors.

NTPC enters into Memorandum of Understanding (MoU) with Government of India each year, which demarcates 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 performances of the Company are evaluated by the Department of Public Enterprise vis-à-vis MoU entered into with the Government of India.

**2.7 Separate Meeting of Independent Directors:**

Ministry of Corporate Affairs vide Notification dated 5<sup>th</sup> 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 Chairperson 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 in-line with exemption available under Companies Act, 2013.

A separate meeting of Independent Directors was held on 5<sup>th</sup> February, 2018. The meeting was attended by six 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.

**2.8 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 and 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 even though there is no legal requirement under the Companies Act 2013 or SEBI LODR. The Board has established the following major Committees:-

1. Audit Committee.
2. Stakeholders' Relationship Committee
3. Remuneration Committee
4. Nomination and Remuneration Committee including PRP
5. Committee of Directors on Corporate Social Responsibility & Sustainability
6. Committee on Management Controls.
7. Projects Sub-Committee
8. Committee of Functional Directors for Contracts
9. Contracts Sub-Committee.
10. Committee of the Board for Allotment and Post-Allotment activities of NTPC's Securities
11. Committee for Vigilance Matters
12. Exchange Risk Management Committee
13. Risk Management Committee
14. Committee of Directors on Fuel Management and Development & Operation of Coal Blocks
15. Committee on Business Development

#### 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 31<sup>st</sup> March 2018, the Audit Committee comprised the following members:-

S.No.	Name of the Member	Designation
1	Shri Seethapathy Chander	Independent Director & Chairman of the Committee
2	Dr. Gauri Trivedi	Independent Director
3	Shri Pradeep Kumar Deb	Independent Director
4	Shri M.P. Singh	Independent Director
5.	Govt. Nominee Director	(Joint Secretary & Finance Advisor, MoP)*

\* As on 31.03.2018, position was vacant.

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;
7. Noting the appointment and removal of independent auditors. Recommending audit fee of independent auditors and also approval for payment of 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 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. Major accounting entries involving estimates based on the exercise of judgment by management;
  - c. Significant adjustments made in the financial statements arising out of audit findings;
  - d. Compliance with listing and other legal requirements relating to financial statements;
  - e. Disclosure of related party transactions;
  - f. Qualifications in the draft audit report.



- 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. 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 2017-18, five (5) meetings of the Audit Committee were held and details including attendance of members of the Committee are as follows:

Name of Members	18/5/2017	29/5/2017	29/7/2017	13/11/2017	31/01/2018	Total Meetings held during tenure	No. of Meetings Attended	% of attendance at the meeting
Shri S. Chander						5	5	100%
Shri Pradeep Kumar <sup>1</sup>	X		X	-	-	3	1	33.33%
Dr. Gauri Trivedi	X					5	4	80%
Shri Rajesh Jain <sup>2</sup>				-	-	3	3	100%
Shri M.P. Singh <sup>3</sup>	-	-	-			2	2	100%
Shri P.K. Deb <sup>3</sup>	-	-	-			2	2	100%

1. Ceased to be Director w.e.f. 31<sup>st</sup> July, 2017.

2. Ceased to be Director w.e.f. 10<sup>th</sup> October, 2017.

3. Appointed as member of the Committee w.e.f. 13<sup>th</sup> November, 2017.

Shri S. Chander, Chairman of the Audit Committee was present in the Annual General Meeting held on 20<sup>th</sup> September, 2017 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.

#### Composition

















As on 31<sup>st</sup> March 2018, this committee was constituted with the following Directors:

1.	Shri M.P. Singh, Independent Director & Chairman of the Committee
2.	Director (Finance)
3.	Shri Subhash Joshi, Independent Director
4.	Shri Vinod Kumar, Independent Director



## Meeting and Attendance

During the financial year 2017-18, four (4) meetings of the Stakeholders' Relationship Committee were held and details including attendance of members of the Committee are as follows:

Name of Members	29/5/2017	29/7/2017	13/11/2017	31/01/2018	Total Meetings held during the tenure	Meetings Attended	% of attendance at the meeting
Shri M.P. Singh <sup>1</sup>	-	-			2	2	100%
Dr. Gauri Trivedi <sup>2</sup>			-	-	2	2	100%
Shri S. Roy <sup>3</sup>			-		3	3	100%
Shri K. Biswal <sup>4</sup>				-	3	3	100%
Shri Rajesh Jain <sup>5</sup>			-	-	2	2	100%
Shri Subhash Joshi <sup>1</sup>	-	-			2	2	100%
Shri Vinod Kumar <sup>1</sup>	-	-			2	2	100%

1. Appointed as member of the Committee w.e.f. 13<sup>th</sup> November, 2017.
2. Ceased to be member of the Committee consequent upon reconstitution of the Committee w.e.f. 13<sup>th</sup> November, 2017.
3. Had additional charge of Director (Finance) for a period of 3 months vide order dated 19<sup>th</sup> December, 2017 from Ministry of Power.
4. Under suspension vide order dated 14<sup>th</sup> December, 2017 from Ministry of Power.
5. Ceased to be Director w.e.f. 10<sup>th</sup> October, 2017.

## Name and designation of Compliance Officer

The Board of Directors has appointed Shri K.P. Gupta, Company Secretary 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 31<sup>st</sup> March, 2018, 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	5566	5566	0
Bonus Debentures	0	1043	1042	1
Private Placement of Bonds	0	0	0	0
Public Issue of Bonds	0	181	181	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 31<sup>st</sup> March, 2018, no transfer request was pending with the Company.

## 3.3 Remuneration Committee for PRP

As per the provisions of the DPE Guidelines, a Remuneration Committee was constituted to decide the annual bonus/variable pay pool and policy for its distribution within the limits prescribed under the DPE guidelines. The Board

of Directors, in its 451<sup>st</sup> meeting held on 13<sup>th</sup> November, 2017, had decided to merge Remuneration Committee for PRP and Nomination & Remuneration Committee. Before reconstitution the Committee comprised the following members:

Shri Rajesh Jain <sup>1</sup>	Independent Director & Chairman of the committee
Dr. Gauri Trivedi	Independent Director
Shri Seethapathy Chander	Independent Director



1. Ceased to be Director w.e.f. 10<sup>th</sup> October, 2017.





### Meeting and Attendance

Before reconstitution, one (1) meeting of Remuneration Committee for PRP was held. Details of the meeting including attendance of members of the Committee are as follows:

Names of Members	31/8/2017	% Attendance at the meeting
Shri Rajesh Jain		100%
Dr. Gauri Trivedi	X	0%
Shri S. Chander		100%

### 3.4 Nomination and Remuneration Committee including PRP

As per the requirements of Section 178 of the Companies Act, 2013 and Regulation 19 of SEBI LODR, a Nomination & Remuneration Committee of the Directors was constituted.

As mentioned above, the Board of Directors in its 451<sup>st</sup> meeting held on 13<sup>th</sup> November, 2017 decided to merge existing Remuneration Committee for PRP with Nomination and Remuneration Committee and renamed the Committee as Nomination and Remuneration Committee including PRP. After merger, 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.

Being a Government Company, as per the Articles of Association, all Directors including Chairman & Managing

Director, Whole time Director are appointed by the Govt. of India. Further, 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 Director is not entitled to get any remuneration/sitting fee from the Company.















Ministry of Corporate Affairs (MCA) vide notification dated 5<sup>th</sup> 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 has been requested from SEBI under the SEBI LODR vide letter dated 30<sup>th</sup> March 2018.

As on 31<sup>st</sup> March 2018, the Nomination and Remuneration Committee including PRP comprised the following Members:

Dr. Gauri Trivedi	Independent Director & Chairman of the Committee
Shri S. Chander	Independent Director
Shri Vinod Kumar	Independent Director
Shri P.K. Deb	Independent Director

### Meeting and Attendance

During financial year 2017-18, four (4) 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 Members	29/5/2017*	31/8/2017*	13/11/2017*	05/03/2018	Total Meetings held during the tenure	Meetings Attended	% of attendance at the meeting
Shri Gurdeep Singh <sup>1</sup>				-	3	3	100%
Dr. Gauri Trivedi		X			4	3	75%
Shri S. Chander					4	4	100%
Shri Rajesh Jain <sup>2</sup>			-	-	2	2	100%
Shri Vinod Kumar <sup>3</sup>	-	-	-		1	1	100%
Shri P.K. Deb <sup>3</sup>	-	-	-		1	1	100%

1. Ceased to be member of the Committee consequent upon reconstitution w.e.f. 13<sup>th</sup> November, 2017.

2. Ceased to be Director w.e.f. 10<sup>th</sup> October, 2017.

3. Inducted as member of the Committee w.e.f. 13<sup>th</sup> November, 2017.

\* details of meeting of Nomination & Remuneration Committee.

### 3.5 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 recommend to the Board, Corporate Social Responsibility & Sustainability Policy, recommends the amount of expenditure to be incurred on the activities specified in the CSR & SD Policy and monitors the Corporate Social Responsibility Policy of the company apart from looking into the matter as the Board may delegate from time to time.



As on 31<sup>st</sup> March 2018, the Committee comprised the following members:

1.	Dr. Gauri Trivedi, Independent Director & Chairman of the Committee
2.	Director (HR)
3.	Shri P.K. Deb, Independent Director
4.	Shri Vinod Kumar, Independent Director
5.	Government Nominee Director (JS&FA, MOP)*

\* As on 31.03.2018, position was vacant.

NTPC's Policy on CSR & Sustainability can be viewed at the weblink: <http://ntpc.co.in/download/ntpc-policy-csr-sustainability>.

### Meeting and Attendance

During 2017-18, seven (7) meetings of the Committee for CSR & Sustainability were held and details including attendance of members of the Committee are as follows:

Name of Members	29/5/2017	11/9/2017	24/10/2017	13/11/2017	20/12/2017	12/03/2018	29/03/2018	No. of Meetings held during tenure	Total Meetings attended	% Attendance
Shri Gurdeep Singh <sup>1</sup>	👤	👤	👤	-	-	-	-	3	3	100%
Shri K. Biswal*	👤	👤	👤	-	-	-	-	3	3	100%
Dr. Pradeep Kumar <sup>2</sup>	👤	-	-	-	-	-	-	1	1	100%
Dr. Gauri Trivedi	👤	👤	👤	x	👤	👤	👤	7	6	85.71%
Shri Saptarshi Roy	👤	👤	👤	👤	👤	👤	👤	7	7	100%
Shri P.K. Deb <sup>3</sup>	-	-	-	👤	👤	👤	x	4	3	75%
Shri Vinod Kumar <sup>3</sup>	-	-	-	👤	x	👤	👤	4	3	75%

1. Ceased to be member of the committee consequent upon reconstitution of the committee w.e.f. 13<sup>th</sup> November, 2017.

2. Ceased to be Director w.e.f. 31<sup>st</sup> July, 2017.

3. Inducted as member of the committee consequent upon reconstitution of the committee w.e.f. 13<sup>th</sup> November, 2017.

\*Under suspension vide Ministry of Power order dated 14<sup>th</sup> December, 2017.

### 3.6 Committee on Management Controls

This committee has been constituted for establishing transparent and effective system of internal monitoring. This Committee, inter alia, reviews significant deviations in project implementation and construction, operation and maintenance budgets etc.

As on 31<sup>st</sup> March, 2018 the Committee comprised the following members:

1.	Shri Shashi Shekhar, Independent Director & Chairman of the Committee
2.	Director (Finance)
3.	Director (Operations)
4.	Shri Vinod Kumar, Independent Director
5.	Government Nominee Director (Joint Secretary & Financial Advisor, MOP)*

\* As on 31.03.2018, position was vacant.

### Meeting and Attendance

During 2017-18, two (2) meetings of the Committee on Management Controls were held and details including attendance of members of the Committee are as follows:

Name of Members	24/10/2017	31/01/2018	% Attendance at the meeting
Shri Seethapathy Chander <sup>1</sup>	👤	-	100%
Shri K. Biswal*	👤	-	100%
Shri K. K. Sharma <sup>2</sup>	👤	-	100%
Shri Shashi Shekhar	-	👤	100%
Shri Saptarshi Roy**	-	👤	100%
Shri Vinod Kumar	-	👤	100%
Shri Prakash Tiwari	-	👤	100%

1. Ceased to be member of the committee consequent upon reconstitution w.e.f. 13<sup>th</sup> November, 2017.

2. Ceased to be director w.e.f. 31<sup>st</sup> October, 2017.

\*Under suspension vide order dated 14<sup>th</sup> December, 2017 from Ministry of Power.

\*\* having additional charge of Director (Finance) for a period of 3 months vide Ministry of Power order dated 19<sup>th</sup> December, 2017.



### 3.7 Projects Sub-Committee

This Committee examines and makes recommendations to the Board on proposals for Investment in New/ Expansion Projects and approves Feasibility Reports of new projects.




















As on 31<sup>st</sup> March 2018, the Committee comprised the following members:

1.	Director (Technical), Chairman of the Committee
2.	Director (Finance)
3.	Director (Projects)
4.	Director (Operations)
5.	Shri Subhash Joshi, Independent Director
6.	Government Nominee Director (JS&FA, MOP)*

\* As on 31.03.2018, position was vacant.

#### Meeting and Attendance

During 2017-18, four (4) meetings of the Projects Sub-Committee of the Board of Directors were held and details including attendance of members of the Committee are as follows:

Name of Members	29/7/2017	31/8/2017	31/1/2018	12/03/2018	Total Meetings held during the tenure	Meetings Attended	% Attendance at the meeting
Shri Gurdeep Singh <sup>1</sup>	-			-	2	2	100%
Shri A.K. Jha <sup>2</sup>		-	-	-	1	1	100%
Dr. Pradeep Kumar <sup>2</sup>	x	-	-	-	1	0	0%
Shri S. C. Pandey <sup>3</sup>			-	-	2	2	100%
Shri Rajesh Jain <sup>4</sup>			-	-	2	2	100%
Shri K. K. Sharma <sup>5</sup>			-	-	2	2	100%
Shri S. Roy <sup>6</sup>	-	-			2	2	100%
Shri. K. Biswal <sup>7</sup>			-	-	2	2	100%
Shri S.K Roy <sup>7</sup>	-	-			2	2	100%
Shri Subhash Joshi <sup>8</sup>	-	-			2	2	100%
Shri P.K. Mohapatra <sup>9</sup>	-	-	-		1	1	100%
Shri Prakash Tiwari <sup>9</sup>	-	-	-		1	1	100%

- Had additional charge of the Director (Technical) from 1<sup>st</sup> August 2017 to 30<sup>th</sup> January, 2018.
- Ceased to be Directors w.e.f. 31<sup>st</sup> July, 2017.
- Ceased to be Director w.e.f. 31<sup>st</sup> August 2017.
- Ceased to be Director w.e.f. 10<sup>th</sup> October 2017.
- Ceased to be Director w.e.f. 31<sup>st</sup> October, 2017.
- Had additional charge of Director (Finance) for a period of 3 months from 19<sup>th</sup> December 2017.
- Appointed as Director on 19<sup>th</sup> January, 2018.
- Inducted as member of the committee consequent upon reconstitution of the committee w.e.f. 13<sup>th</sup> November 2017.
- Appointed as Director on 31<sup>st</sup> January, 2018.

\*Under suspension vide Ministry of Power Order dated 14<sup>th</sup> December, 2017.

### 3.8 Committee of Functional Directors for Contracts

This Committee has been constituted for award of works or purchase contracts or incurring of commitments exceeding ₹ 150 crore but not exceeding ₹ 250 crore.

As on 31<sup>st</sup> March 2018, the Committee comprised all the Functional Directors including the Chairman & Managing Director as under:

1.	Chairman & Managing Director
2.	Director (HR)
3.	Director (Commercial)
4.	Director (Projects)
5.	Director (Technical)
6.	Director (Operations)
7.	Director (Finance )

### Meeting and Attendance

During 2017-18, Six (6) meetings of the Committee of Functional Directors for Contracts were held and details including attendance of members of the Committee are as follows:

Name of members	No. of Meetings						No. of Meetings held during tenure	Total Meetings attended	% Attendance at the meeting
	29/5/2017	24/10/2017	13/11/2017	13/01/2018	19/03/2018	29/03/2018			
Shri Gurdeep Singh	⬆	⬆	⬆	⬆	⬆	⬆	6	6	100%
Shri A. K. Jha <sup>1</sup>	⬆	-	-	-	-	-	1	1	100%
Shri S. C. Pandey <sup>2</sup>	⬆	-	-	-	-	-	1	1	100%
Shri. K. Biswal <sup>3</sup>	⬆	⬆	⬆	-	-	-	3	3	100%
Shri K. K. Sharma <sup>3</sup>	⬆	⬆	-	-	-	-	2	2	100%
Shri S. Roy	⬆	⬆	⬆	⬆	⬆	⬆	6	6	100%
Shri A. K. Gupta	⬆	⬆	⬆	⬆	⬆	⬆	6	6	100%
Shri S.K. Roy <sup>4</sup>	-	-	-	-	⬆	⬆	2	2	100%
Shri P.K. Mohapatra <sup>5</sup>	-	-	-	-	⬆	⬆	2	2	100%
Shri Prakash Tiwari <sup>5</sup>	-	-	-	-	⬆	⬆	2	2	100%
Shri K. Sreekant <sup>**</sup>	-	-	-	-	-	⬆	1	1	100%

1. Ceased to be Director w.e.f. 31<sup>st</sup> July, 2017

2. Ceased to be Director w.e.f. 31<sup>st</sup> August, 2017

3. Ceased to be Director w.e.f. 31<sup>st</sup> October, 2017

4. Appointed as Director w.e.f. 19<sup>th</sup> January 2018

5. Appointed as Directors w.e.f. 31<sup>st</sup> January 2018.

\*Under suspension vide MoP order dated 14<sup>th</sup> December, 2017.

\*\* Shri K. Sreekant was appointed as Director w.e.f. 29<sup>th</sup> March 2018 and has been given additional charge of Director (Finance) vide letter dt. 28<sup>th</sup> March, 2018 from the Ministry of Power.

### 3.9 Contracts Sub-Committee

This Committee approves 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.

As on 31<sup>st</sup> March, 2018 the Contracts Sub-Committee was constituted as under:























1.	Chairman & Managing Director
2.	Government Nominee Director, Joint Secretary & Financial Advisor, Ministry of Power*
3.	Government Nominee Director, Joint Secretary (Thermal), Ministry of Power
4.	Dr.Gauri Trivedi, Independent Director
5.	Director (Projects)
6.	Director (Technical)
7.	Director (Finance)

\* As on 31.03.2018, position was vacant.

Director (Operations) is the additional member for all matters relating to award of contracts for import of coal.

### Meeting and Attendance

During 2017-18, four (4) meetings of the Contract Sub-Committee of the Board of Directors were held and details including attendance of members of the Committee are as follows:

Name of Members	29/7/2017	29/12/2017	31/1/2018	29/03/2018	No. of Meetings held during tenure	Total Meetings attended	% Attendance at the meeting
Shri Gurdeep Singh					4	4	100%
Shri A. K. Jha <sup>1</sup>		-	-	-	1	1	100%
Dr. Pradeep Kumar <sup>1</sup>	x	-	-	-	1	0	0%
Shri S. C. Pandey <sup>2</sup>		-	-	-	1	1	100%
Shri K. Biswal <sup>1</sup>		-	-	-	1	1	100%
Shri Aniruddha Kumar					4	4	100%
Dr. Gauri Trivedi					4	4	100%
Shri S. Roy <sup>**</sup>	-			x	3	2	66.66%
Shri S.K. Roy <sup>3</sup>	-	-			2	2	100%
Shri P.K. Mohapatra <sup>4</sup>	-	-			2	2	100%
Shri K. Sreekant	-	-	-		1	1	100%

1. Ceased to be Directors w.e.f. 31<sup>st</sup> July, 2017.

2. Ceased to be Director w.e.f. 31<sup>st</sup> August, 2017.

3. Appointed as Director w.e.f. 19<sup>th</sup> January, 2018.

4. Appointed as Director w.e.f. 31<sup>st</sup> January, 2018.

\* Under suspension vide MoP order dated 14<sup>th</sup> December, 2017.

\*\* Had additional charge of Director (Finance) vide order dated 19<sup>th</sup> December 2017 for a period of 3 months or further order whichever is earlier.

### 3.10 Committee for Allotment and Post-Allotment Activities of NTPC's Securities

The Committee has been constituted for Allotment and Post-allotment activities of Company's Securities. The scope of work of this committee is 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.

As on 31<sup>st</sup> March, 2018 the Committee comprised the following three Members:

1.	Director(Finance)/ Director (Technical)
2.	Director (HR)/ Director (Projects)
3.	Director (Commercial)/ Director (Operations)

#### Meeting(s)

During 2017-18, Eighteen (18) meetings of the Committee for Allotment and Post-allotment activities of Directors were held.

### 3.11 Committee for Vigilance Matters

This Committee has been constituted 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.






As on 31<sup>st</sup> March, 2018 the Committee comprised the following members:

1.	Shri Subhash Joshi, Independent Director & Chairman of the Committee
2.	Shri S. Roy, Director (HR)
3.	Dr. Gauri Trivedi, Independent Director

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.

#### Meeting and Attendance:

During 2017-18, two (2) meetings of the Committee of the Board of Directors for vigilance matters were held and details including attendance of members of the Committee are as follows:

Name of Members	No. of Meetings held & Attended during the tenure		No. of Meetings held during tenure	Total Meetings attended	% Attendance
	29/7/2017	28/03/2018			
Shri Subhash Joshi <sup>1</sup>	-		1	1	100%
Dr. Gauri Trivedi		X	2	1	50%
Shri S. Roy			2	2	100%
Shri Rajesh Jain <sup>2</sup>		-	1	1	100%

1. Appointed as member of the Committee consequent upon reconstitution w.e.f. 13<sup>th</sup> November, 2017.
2. Ceased to be director w.e.f. 10<sup>th</sup> October, 2017.

### 3.12 Exchange Risk Management Committee

This Committee has been constituted 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.

As on 31<sup>st</sup> March, 2018, the Committee comprised the following Members:

















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.

\*\* Position vacant as on 31<sup>st</sup> March, 2018.

#### Meeting and Attendance

During 2017-18, three (3) meetings of the Exchange Risk Management Committee of the Board of Directors were held and details including attendance of members of the Committee are as follows:

Name of Members	29/7/2017	20/12/2017	12/3/2018	No. of Meetings held during tenure	Total Meetings attended	% Attendance
Shri Gurdeep Singh <sup>1</sup>		-	-	1	1	100%
Shri A. K. Jha <sup>2</sup>	-	-		1	1	100%
Dr. Pradeep Kumar <sup>2</sup>	X	-	-	1	0	0%
Shri K. Biswal <sup>3</sup>		-	-	1	1	100%
Dr. Gauri Trivedi <sup>1</sup>		-	-	1	1	100%
Shri S. Chander <sup>1</sup>		-	-	1	1	100%
Shri A. K. Gupta				3	3	100%
Shri S. Roy <sup>4</sup>	-			2	2	100%
Shri M.P. Singh <sup>5</sup>	-			2	2	100%
Shri P.K. Deb <sup>5</sup>	-			2	2	100%
Shri Shashi Shekhar <sup>5</sup>	-			2	2	100%

1. Ceased to be member consequent upon reconstitution w.e.f. 13<sup>th</sup> November, 2017.
2. Ceased to be Director w.e.f. 31<sup>st</sup> July, 2017.
3. Under suspension vide MoP order dated 14<sup>th</sup> December, 2017.
4. Had additional charge of Director (Finance) for a period of 3 months from 19<sup>th</sup> December, 2017.
5. Appointed as member of the committee w.e.f. 13<sup>th</sup> November 2017.



### 3.13 Risk Management Committee

Pursuant to Regulation 21 of SEBI LODR, Risk Management Committee has been constituted for risk assessment under the Risk Management Framework, monitor and review risk management plan/framework as approved by the Board; inform 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 take up any other matter as directed by the Board from time to time.

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 31<sup>st</sup> March, 2018, the Committee comprised the following Members:

1.	Director (Technical)
2.	Director (Projects)
3.	Director (Operations)
4.	Regional Executive Director (Coal Mining)*
5.	General Manager-I/c (CP)/ Chief Risk Officer(CRO), Member

\* As on 31.03.2018, position was vacant.

#### Meeting and Attendance

During 2017-18, two (2) meetings of the Risk Management Committee were held and details including attendance of members of the Committee are as follows:

Name of Members	23/11/2017	14/2/2018	No. of Meetings held during tenure	Total Meetings attended	% Attendance
Shri Gurdeep Singh <sup>1</sup>	X	-	1	0	0%
Shri S. Roy <sup>2</sup>		-	1	1	100%
Shri A.K. Gupta <sup>3</sup>		-	1	1	100%
Shri P.M Prasad, RED <sup>4</sup>		-	1	1	100%
Shri S.K. Roy <sup>4</sup>	-		1	1	100%
Shri P.K. Mohapatra <sup>5</sup>	-		1	1	100%
Shri Prakash Tiwari <sup>6</sup>	-		1	1	100%
Shri Mohit Bhargava (GM- I/C)			2	2	100%

1. Had additional charge of Director (Technical) w.e.f. 1<sup>st</sup> August, 2017 to 30<sup>th</sup> January, 2018.

2. Had additional charge of Director (Projects) w.e.f. 1<sup>st</sup> September, 2017 to 18<sup>th</sup> January, 2018.

3. Had additional charge of Director (Operations) w.e.f. 1<sup>st</sup> November, 2017 to 30<sup>th</sup> January, 2018.

4. Appointed as Director (Projects) w.e.f. 19<sup>th</sup> January, 2018 .

5. Appointed as Director (Technical) w.e.f. 31<sup>st</sup> January, 2018.

6. Appointed as Director (Operations) w.e.f. 31<sup>st</sup> January, 2018.

\*ceased w.e.f. 31<sup>st</sup> January, 2018. Presently, position is vacant.

### 3.14 Committee of Directors on Fuel Management and Development & Operation of Coal Blocks








The existing Committee of Directors on Development & Operation of Coal Blocks has been revised to include review of availability of fuel at NTPC Stations and to recommend measures for improvement in this regard and the Committee has been renamed as Committee of Directors on Fuel Management and Development & Operation of Coal Blocks.

As on 31<sup>st</sup> March, 2018, the Committee comprised the following Members:

1.	Shri Seethapathy Chander, Independent Director & Chairman of the Committee
2.	Shri Subhash Joshi, Independent Director
3.	Shri P.K. Deb, Independent Director
4.	Shri Vinod Kumar
5.	Director (Finance)
6.	Director (Commercial)
7.	Director (Operations)

### Meeting and Attendance

During 2017-18, one (1) meeting of the Development and Operation of Coal Blocks Committee was held and details including attendance of members of the Committee are as follows:

Name of Members	5/3/2018	No. of Meetings held during tenure	Total Meetings attended	% Attendance
Shri S. Chander		1	1	100%
Shri Subhash Joshi		1	1	100%
Shri P.K. Deb		1	1	100%
Shri Vinod Kumar		1	1	100%
Shri S. Roy*		1	1	100%
Shri A.K. Gupta		1	1	100%
Shri Prakash Tiwari		1	1	100%

\* had additional charge of Director (Finance) for a period of three months w.e.f. 19<sup>th</sup> December 2017 consequent upon suspension of Shri K. Biswal vide Ministry of Power order dated 14<sup>th</sup> December, 2017.

### 3.15 Business Development Committee







This Committee has been constituted for according in-principle approval for new business initiatives and use of Business Development Fund of ₹ 50 Crore, which was constituted by the Board of Directors in the 448<sup>th</sup> meeting.

As on 31<sup>st</sup> March, 2018, the Committee comprised the following Members:

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)

### Meeting and Attendance

During 2017-18, two (2) meetings of the Business Development Committee were held and details including attendance of members of the Committee are as follows:

Name of Members	31/08/2017	12/3/2018	No. of Meetings held during tenure	Total Meetings attended	% Attendance
Shri P.K. Deb <sup>1</sup>	-		1	1	100%
Shri S. Chander			2	2	100%
Shri K. Biswal <sup>2</sup>		-	1	1	100%
Shri A.K. Gupta			2	2	100%
Shri Shashi Shekhar <sup>1</sup>	-		1	1	100%

1.Appointed as member of the Committee w.e.f. 13<sup>th</sup> November, 2017.

2.Under suspension vide Ministry of Power order dated 14<sup>th</sup> December, 2017.

## 4. REMUNERATION OF DIRECTORS

As already stated under the heading Nomination & Remuneration Committee above, the remuneration of the Functional Directors including that of the Chairman & Managing Director is decided by the Government of India.

The Company makes payment of ₹ 20,000/- as sitting fee for attending each meeting of the Board and Committees of the Board constituted by the Board from time to time to each Independent Director.





Details of remuneration of Functional Directors for the financial year 2017-18 are given below:-

(in ₹)

Name of the Directors	Salary	Benefits	Performance Linked Incentives <sup>6</sup>	Total <sup>7</sup>
Shri Gurdeep Singh	40,52,197	21,65,209	22,91,400	85,08,806
Shri A.K.Jha <sup>1</sup>	43,96,159	7,48,326	12,66,125	64,10,610
Shri S.C.Pandey <sup>2</sup>	34,74,937	7,50,473	12,20,102	54,45,512
Shri K.K.Sharma <sup>3</sup>	39,76,394	10,24,876	12,17,089	62,18,359
Shri Saptarshi Roy	43,10,399	5,53,701	7,31,703	55,95,803
Shri A.K.Gupta	48,24,922	6,40,179	5,54,266	60,19,367
Shri K. Biswal <sup>*</sup>	28,52,918	12,57,894	11,90,948	53,01,760
Shri S.K. Roy <sup>4</sup>	5,44,645	96,733	0	6,41,378
Shri P.K.Mohapatra <sup>5</sup>	5,33,363	74,667	0	6,08,030
Shri Prakash Tiwari <sup>5</sup>	4,89,473	2,30,271	0	7,19,744

1. Ceased to be director w.e.f. 31<sup>st</sup> July, 2017.

2. Ceased to be director w.e.f. 31<sup>st</sup> August, 2017.

3. Ceased to be director w.e.f. 31<sup>st</sup> October, 2017.

4. Appointed as Director w.e.f. 19<sup>th</sup> January, 2018

5. Appointed as Director w.e.f. 31<sup>st</sup> January, 2018.

6. Performance linked incentives is paid based on the incentive scheme of the Company. The Company has not issued any stock options during the financial year 2017-18.

7. Besides above, Functional Directors are also entitled for medical benefit as per the applicable employees' rules of the company.

\*Under suspension vide MoP order dated 14<sup>th</sup> December, 2017.

Details of payments towards sitting fee to Independent Directors during the financial year 2017-18 are given below:

(in ₹)

Name of Part-time non-official Directors	Sitting Fees (Excluding GST)		Total
	Board Meeting	Committee Meeting	
Dr. Gauri Trivedi	220,000	480,000	700,000
Shri Rajesh Jain <sup>1</sup>	60,000	220,000	280,000
Shri Seethapathy Chander	220,000	340,000	560,000
Shri M.P.Singh <sup>2</sup>	160,000	160,000	320,000
Shri P.K.Deb <sup>2</sup>	140,000	240,000	380,000
Shri Shashi Shekhar <sup>2</sup>	180,000	120,000	300,000
Shri Vinod Kumar <sup>2</sup>	140,000	160,000	300,000
Shri Subhash Joshi <sup>2</sup>	160,000	160,000	320,000

1. Ceased to be director w.e.f. 10<sup>th</sup> October, 2017

2. Appointed as Director w.e.f. 24<sup>th</sup> October, 2017.

## 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 2017-18, 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

The Company has framed a Training Policy for its Directors which aims at honing leadership qualities and providing a platform to share the knowledge, skills and experience gained by the Directors. Directors are being imparted training organised from time



to time by the Company and other agencies/ institutions which 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: <http://www.ntpc.co.in/en/familiarisation-program-independent-directors>.

## 7. GENERAL BODY MEETINGS

### Annual General Meetings

Date, time and location where the last three Annual General Meetings along with details of Special Resolutions passed are as under:

Date & Time	September 18, 2015	September 20, 2016	September 20, 2017
Time	10.30 A.M.	10:30 A.M.	10:30 A.M.
Venue	Manekshaw Center, Parade Road, New Delhi - 110010	Manekshaw Center, Parade Road, New Delhi - 110010	Manekshaw Center, Parade Road, New Delhi - 110010
Special Resolution	(i) Authorization to Board to raise funds upto ₹ 5,000/- 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 for entering into related party transaction with Utility Powertech Limited, an Associate Company of NTPC Limited, subject to cumulative ceiling or 2% of the annual turnover of the Company as per the Audited Annual Financial Statement of preceding financial year of ₹ 1000 crore whichever is more, in any financial year.	i) Authorization to Board to raise funds upto ₹ 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 ₹ 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.

The Annual General Meeting held on 20<sup>th</sup> September 2017, was attended by Partners of three Statutory Auditors firms out of seven Statutory Auditors. 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 20<sup>th</sup> September 2017. In addition to above, facility of voting through ballot papers was also provided to those shareholders, who did not have access to e-voting.

### Special Resolution passed through Postal Ballot

No special resolution was passed during last year through postal ballot. 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:

<http://www.ntpc.co.in/download/related-party-transaction-policy-ntpc>

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 ₹ 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) 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 2017-18 and during last three years preceding the financial year 2017-18 is at Annex-II.

## 9. CEO/CFO CERTIFICATION

As required under Regulation 17(8) of SEBI LODR, the certificate duly signed by Chairman & Managing Director and Director (Finance) was placed before the Board of Directors at the meeting held on 28<sup>th</sup> May 2018 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 its 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 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](http://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 2017-18, Quarterly Results have been published as per details given below:

Quarter	Date of Publication	Newspaper (s)
Q1	30.07.2017	Financial Express (English), Hindustan Times (English), Business Standard (English), The Times of India (English), Amar Ujala (Hindi), Jansatta (Hindi), Hindustan (Hindi).
	31.07.2017	Economic Times (English), Financial Chronicle (English), Mint (English), Business Line (English), Business Standard (Hindi).
Q2	14.11.2017	Economic Times (English), Hindustan Times (English), Mint (English), Business Standard (English), Business Line (English), Dainik Bhaskar (Hindi), Business Standard (Hindi), Hindustan (Hindi).
Q3	01.02.2018	Financial Chronicle (English), Economic Times (English), Business Standard (English), Times of India (English), Hindustan Times (English), Mail Today (English), Hindustan (Hindi), Business Standard (Hindi).

## 11. CODE OF CONDUCT:

The Company has in place Code of Conduct for Directors and Senior Management Personnel (Code) with a view to enhance ethical and transparent process in managing the affairs of the Company. This code is applicable to all the Board Members including Government Nominee(s) & the Independent Director(s) and the Senior Management Personnel of the Company. A copy of the Code of Conduct is available at the website of the Company at the web link: <http://www.ntpc.co.in/en/investors/code-of-conduct>.



**Declaration as required under Regulation 34 (3) of 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 March 31, 2018.

New Delhi (Gurdeep Singh)  
7<sup>th</sup> May, 2018 Chairman & Managing Director

Policy is available at the web link: <http://www.ntpc.co.in/sites/default/files/downloads/WhistleBlowerPolicy.pdf>.

**15. SECURITYHOLDERS' INFORMATION**

**i) Annual General Meeting**

Date : September 20, 2018 (Tentative)

Time : 10.30 a.m.

Venue : Manekshaw Center, Parade Road,  
New Delhi – 110010

**ii) Financial Calendar for FY 2018-19**

Particulars	Date
Accounting Period	April 1, 2018 to March 31, 2019
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 May 30, 2019
AGM (Next year)	August 2019 (Tentative)

**iii) Book Closure**

The Register of Members and Share Transfer Books of the Company will remain closed tentatively from 8<sup>th</sup> September, 2018 to 20<sup>th</sup> September, 2018 (both days inclusive).

**iv) Payment of Dividend**

The Board of Directors of the Company has recommended payment of final Dividend of ₹ 2.39 per share (23.9% ) on the paid-up share capital) for the financial year ended March 31, 2018 in addition to the Interim Dividend of ₹ 2.73 per share (27.3% on the paid-up share capital) paid on February 15, 2018.

The final dividend on equity shares, will be paid on October 1, 2018, to the Members whose names appear on the Company's Register of Members on September 20, 2018 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 September 7, 2018.

**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, 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. Copy of the Insider trading code is available on following web-link: <http://www.ntpc.co.in/download/internal-code-conduct-prevention-insider-trading-dealing-securities-ntpc-limited>.

**13. CODE OF CORPORATE FAIR DISCLOSURE PRACTICES FOR PREVENTION OF INSIDER TRADING**

As per provision of Insider Trading code, General Manager (Finance-ISD), NTPC has been appointed as the Chief Investor Relation Officer (CIRO) who is responsible for overseeing and coordinating disclosure of UPSI, dissemination of UPSI to analysts, institutional investors handling of unanticipated questions and responding to market rumours etc.

**14. 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



## 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)
2012-13	8245.46	4741.16 (₹5.75)	26.02.2013* 17.09.2013	12.03.2013 27.09.2013
2013-14	8245.46	4741.15 (₹5.75)	28.01.2014* 27.08.2014	10.02.2014 09.09.2014
2014-15	8245.46	2061.38 (₹2.50)	30.01.2015* 18.09.2015	13.02.2015 30.09.2015
2015-16	8245.46	2762.22 (₹ 3.35)	29.01.2016* 20.09.2016	15.02.2016 30.09.2016
2016-17	8245.46	3941.33 (₹4.78)	08.02.2017* 20.09.2017	22.02.2017 29.09.2017
2017-18	8245.46	2251.01 (₹ 2.73)#	31.01.2018*	15.02.2018

\* Date of Board Meeting in which interim dividend was declared  
# amount represents the interim dividend paid for the year 2017-18.

## vi) Listing on Stock Exchanges:

NTPC equity shares are listed on the following Stock Exchanges:

<b>National Stock Exchange of India Limited</b> Address: Exchange Plaza, Plot No. C/1, G Block, Bandra (E), Mumbai - 400051 Scrip Code of NTPC: NTPC EQ	<b>BSE Limited</b> Address: Phiroze Jeejeebhoy Towers, Dalal Street, Mumbai - 400001 Scrip Code of NTPC: 532555
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Stock Code : ISIN – INE733E01010

The Annual Listing Fees for the financial year 2018-19 have been paid to National Stock Exchange of India Limited and BSE Limited. Also, the Annual Custodian Fee for the financial year 2018-19 has been paid to Central Depository Services (India) Limited. The payment shall be made to National Securities Depository Limited on receipt of bill and within due date.

## vii) Market Price Data :

Month	BSE				NSE				INDEX	
	Price			Volume	Price			Volume	BSE	NSE
	High	Low	Close		High	Low	Close			
Apr-17	169.00	158.40	164.4	3034861	169.30	158.40	164.50	87747739	29918.40	9304.05
May-17	165.45	153.30	160.05	6409195	165.60	153.15	160.20	78690762	31145.80	9621.25
Jun-17	163.45	155.00	158.45	18821734	163.40	155.00	158.95	82250253	30921.61	9520.90
Jul-17	171.55	155.30	164.10	13043233	171.85	155.30	164.20	94701792	32514.94	10077.10
Aug-17	179.00	163.45	168.70	20819993	179.15	163.10	168.75	227283267	31730.49	9917.90
Sep-17	171.55	164.25	167.25	5346889	171.85	164.10	167.45	91760653	31283.72	9788.60
Oct-17	187.95	167.00	180.50	7695998	188.00	167.20	181.25	157187611	33213.13	10335.30
Nov-17	186.35	173.50	180.90	41583656	186.85	173.55	181.15	175621921	33149.35	10226.55
Dec-17	183.70	173.65	177.20	20727143	183.70	173.55	177.00	150349225	34056.83	10530.70
Jan-18	180.35	168.80	170.25	14746093	180.30	168.75	170.25	160688601	35965.02	11027.70
Feb-18	169.80	158.90	163.25	31100591	169.80	158.85	163.25	98145486	34184.04	10492.85
Mar-18	172.50	155.70	169.70	7743947	172.75	160.05	169.70	91300957	32968.68	10113.70



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 Computershare Pvt. Ltd.  
Karvy Selenium Tower B, Plot No. 31 & 32,  
Gachibowli Financial District,  
Nanakramguda, Serilingampally,  
Hyderabad-500008  
Phone No: 040-67161518  
Email: einward.ris@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

(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 2017-18, an amount of ₹165.61 lakh pertaining to unclaimed interim dividend for financial year 2009-10, ₹ 43.51 lakh pertaining to unclaimed final dividend for financial year 2009-10 and ₹ 146.41 lakh pertaining to unclaimed interim dividend 2010-11 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, are required to be transferred to Investor Education and Protection Fund (IEPF) Authority account.

In line with the provisions of Section 124(6) and rules made thereunder as well as in accordance with the circulars/notifications issued by the MCA from time to time, upto the date of signing of the report, 498090 shares of 5925 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 are available on the website at the following link: <http://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. Detailed procedure regarding claiming shares from IEPF account is available on NTPC's website at the following link: <http://www.ntpc.co.in/en/investors/procedure-claiming-dividend-shares-iepf-authority-0>.

## xiv) Offer for Sale of NTPC's Equity Shares by the Government of India

Pursuant to the Offer for Sale (OFS) during August, 2017, Govt. of India divested 6.63% stake in the Company. Subsequently, 0.12% stake was divested by the Govt. of India through Employee OFS in September 2017. In November, 2017, Govt. of India further divested 0.72% stake through BHARAT 22 ETF.

After the disinvestment of NTPC through Employee Offer for Sale, conducted by the Govt. of India from time to time, the Govt. of India's stake came down from 69.74% to 62.27%.

## xv) Debenture Trustees for various Series

For Series 13A, 13B, 16, 17, 19, 44 to 49, 50, 53, 54, 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 Center, Plot No. C-22, G-Block, Bandra – Kurla Complex, Bandra (East), Mumbai – 400051 Tel: (+91 22) 26533908 Fax: (+91 22) 26533297 E-mail: <a href="mailto:itclcomplianceofficer@ilfsindia.com">itclcomplianceofficer@ilfsindia.com</a> Website: <a href="http://www.itclindia.com">www.itclindia.com</a>	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 : <a href="mailto:itsl@idbitrustee.com">itsl@idbitrustee.com</a> Website: <a href="http://www.idbitrustee.com">http://www.idbitrustee.com</a>

## xvi) Distribution of Shareholding

Shares held by different categories of shareholders and according to the size of holdings as on 31<sup>st</sup> March 2018 are given below:

### According to Size

#### a. Distribution of shareholding according to size, % of holding as on 31<sup>st</sup> March, 2018:

Number of shares	Number of shareholders	% of shareholders	Total No. of shares	% of shares
1-5000	586887	99.55	121593863	1.47
5001-10000	1187	0.20	8229488	0.10
10001-20000	415	0.07	5898863	0.07
20001-30000	137	0.02	3358733	0.04
30001-40000	61	0.01	2154971	0.03
40001-50000	66	0.01	2989496	0.04
50001-100000	169	0.03	12231322	0.15
100001 and above	657	0.11	8089007664	98.10
<b>Total</b>	<b>589579</b>	<b>100.00</b>	<b>8245464400</b>	<b>100.00</b>



b. Shareholding pattern on the basis of ownership:

Category	As on 31.03.2017			As on 31.03.2018			Change
	No of shareholders	Total Shares	%	No of shareholders	Total Shares	%	
GOVERNMENT OF INDIA	1	5750759170	69.74	1	5134825262	62.27	-7.47
INDIAN FINANCIAL INSTITUTIONS	63	1049484307	12.73	58	1056641287	12.82	0.08
FOREIGN INSTITUTIONAL INVESTORS	59	90781719	1.1	6	2423364	0.03	-1.07
MUTUAL FUNDS	203	254773132	3.09	230	718235556	8.71	5.62
FOREIGN PORTFOLIO INVESTORS	517	769572003	9.33	573	947240413	11.49	2.16
RESIDENT INDIVIDUALS	601705	132368014	1.61	562080	125204965	1.52	-0.09
BODY CORPORATE	2567	64652338	0.78	2290	115511879	1.40	0.62
INSURANCE COMPANIES	66	63226613	0.77	41	47813323	0.58	-0.19
BANKS	33	35187061	0.43	27	58071430	0.70	0.27
TRUSTS	89	11309396	0.14	79	17530761	0.21	0.07
HUF	11118	4119545	0.05	10415	4052431	0.05	0.00
Others	14891	19231102	0.23	13779	17913729	0.22	-0.01
<b>Total</b>	<b>631312</b>	<b>8245464400</b>	<b>100.00</b>	<b>589579</b>	<b>8245464400</b>	<b>100.00</b>	<b>0.00</b>

c. Major Shareholders

Details of Shareholders holding more than 1% of the paid-up capital of the Company as on 31<sup>st</sup> March, 2018 are given below:

S. No.	Name of Shareholder	Percentage	Category
1	PRESIDENT OF INDIA	62.27%	Govt. of India
2	LIFE INSURANCE CORPORATION OF INDIA *	12.17%	Indian Financial Inst.
3	ICICI PRUDENTIAL MUTUAL FUND *	3.60%	Indian Financial Inst.
4	HDFC MUTUAL FUND *	2.63%	Indian Financial Inst.
5	THE INCOME FUND OF AMERICA *	1.34%	Foreign Portfolio Investors
6	ICICI PRUDENTIAL LIFE INSURANCE COMPANY LIMITED *	1.06%	Indian Financial Inst.

(\*including shares held in various funds/ scheme).

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 Practicing Company Secretary has been submitted to Stock Exchanges within stipulated time.

No. of shares held in dematerialized and physical mode as on 31.03.2018

Category	No. of Holders	Total Shares	Percentage
PHYSICAL	11,241	91,275	0.001
DEMAT			
With NSDL	4,18,651	8,20,21,00,927	99.474
With CDSL	1,59,687	4,32,72,198	0.525
<b>Total</b>	<b>5,89,579</b>	<b>8,24,54,64,400</b>	<b>100.00%</b>



xviii) The names and addresses of the Depositories are as under:

1. National Securities Depository Ltd.  
Trade World,  
4<sup>th</sup> Floor,  
Kamala Mills Compound  
Senapathi Bapat Marg,  
Lower Parel,  
Mumbai-400 013

2. Central Depository Services (India) Limited  
Phiroze Jeejeebhoy Towers  
28<sup>th</sup> 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 31<sup>st</sup> March, 2018 is furnished below:

Details of "NTPC LIMITED – IPO – Unclaimed Shares Demat Suspense Account" (account opened and maintained after IPO):

Opening Balance (as on 01.04.2017)		Requests Disposed off during 2017-18		Closing Balance* (as on 31.03.2018)	
Cases	Shares	Cases	Shares	Cases	Shares
176	31,197	167	29,465	9	1,732

\* Transferred to IEPF Authority

Details of "NTPC LIMITED – FPO Unclaimed Shares Demat Suspense Account" (account opened and maintained after FPO):

Opening Balance (as on 01.04.2017)		Disposed off during 2017-18		Closing Balance (as on 31.03.2018)	
Cases	Shares	Cases	Shares	Cases	Shares
24	2,996	1	168	23	2,828

Details of "NTPC LIMITED – Employee OFS (Issued in July 2016)– Unclaimed Shares Demat Suspense Account" (account opened and maintained after Employee OFS):

Opening Balance (as on 01.04.2017)		Disposed off during 2017-18		Closing Balance (as on 31.03.2018)	
Cases	Shares	Cases	Shares	Cases	Shares
6	10,350	6	10,350	-	-

The voting rights on the shares mentioned in the closing balance of above accounts shall remain frozen till the rightful owner of such shares claims the shares.

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 01.04.2017)		Requests received during 2017-18		Requests Disposed off during 2017-18		Closing Balance (as on 31.03.2018)	
Cases	Shares	Cases	Shares	Cases	Shares	Cases	Shares
-	-	51	99,912	50	96,780	1	3,132

Details of "NTPC LIMITED – Bonus Debentures – Unclaimed Debentures Demat Suspense Account" (account opened and maintained after Issue of Bonus Debentures):

Opening Balance (as on 01.04.2017)		Requests received and Disposed off during 2017-18		Closing Balance (as on 31.03.2018)	
Cases	Shares	Cases	Shares	Cases	Shares
29	5,474	-	-	29	5,474

xx) Outstanding GDRs/ ADRs/ Warrants or any Convertible instruments, conversion date and likely impact on equity  
No GDRs/ADRs/Warrants or any Convertible instruments have been issued by the Company



**xxi) Number of Shares held by the Directors :**

Directors	No. of shares (as on 31 <sup>st</sup> March, 2018)
Shri Gurdeep Singh	4857
Shri Saptarshi Roy	1156
Shri A.K.Gupta	6020
Shri K. Biswal*	4857
Shri S.K.Roy	4715
Shri P.K.Mohapatra	5812
Shri Prakash Tiwari	NIL
Shri Aniruddha Kumar	214
Dr. Gauri Trivedi	NIL
Shri Seethapathy Chander	NIL
Shri M.P.Singh	NIL
Shri P.K.Deb	NIL
Shri Shashi Shekhar	691
Shri Vinod Kumar	1000
Shri Subhash Joshi	NIL
Shri K. Sreekant	425

\* Under suspension vide order dated 14<sup>th</sup> December, 2017 from Ministry of Power.

**xxii) Locations of NTPC plants**

**Dadri, Badarpur & Faridabad (DBF) Region:**

**Thermal Power Stations**

- i) Badarpur Thermal Power Station- Badarpur, New Delhi
- ii) 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

**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
- vi) Bilhaur Super Thermal Power Project, Dist. Kanpur, Uttar 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) 15 MWp Singrauli Solar PV Power Stations, Distt. Sonebhadra, 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
- ii) 1000 MWp Pavagad Solar Power Project, Gujarat

**Wind Power Project:**

- i) Rojmal Wind (50 MW ) Project, Gujarat

**Western Region -II****Thermal Power Stations**

- i) Korba Super Thermal Power Station- Distt. Korba, Chhattisgarh
- ii) Sipat Super Thermal Power Project-Distt. Bilaspur, Chattisgarh
- iii) Gadarwara Super Thermal Power Project, Distt. Narsinghpur, Madhya Pradesh
- iv) Lara Super Thermal Power Project, Distt. Raigarh, Chattisgarh
- v) Khargone Super Thermal Power Project, Distt. Khargone, Madhya Pradesh
- vi) Barethi Super Thermal Power, Distt. Chhatarpur, Madhya Pradesh

**Solar Power Station**

- i) 50 MWp Solar PV Power Plant, Rajgarh, Madhya Pradesh
- ii) 250MWp 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 Bijli 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

**JOINT VENTURE POWER PROJECTS****Thermal Power Stations**

- i). NTPC –SAIL Power Company Ltd.
  - a) Rourkela CPP-II - Distt. Sundargarh, Odisha
  - b) Durgapur CPP-II - Distt. Burdwan, West Bengal
  - c) Bhilai CPP - Bhilai (East), Chattisgarh
- ii). Ratnagiri Gas & Power Pvt. Ltd. : Ratnagiri Power Project - Maharashtra
- iii). NTPC Tamil Nadu Energy Co. Ltd: Vallur Thermal Power Project – Chennai, Tamil Nadu
- iv). Aravali Power Co. Pvt. Ltd.: Indira Gandhi Super Thermal Power Project - Distt. Jhajjar, Haryana
- v). Meja Urja Nigam Pvt. Ltd.: Meja Super Thermal Power Project – Tehsil Meja, Allahabad
- vi). Nabinagar Power Generating Company Pvt. Limited: Nabinagar Super Thermal Power Project – Distt. Aurangabad, Nabinagar, Bihar (in JV with Bihar State Power Generation Co. Pvt. Ltd.)

**Overseas Joint Venture Projects**

- i) Trincomalee Power Co. Ltd. : Trincomalee Power Project, Trincomalee, Sri Lanka
- 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, Hazaribagh, 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**

- i) Banhardih Coal Mining Project, Latehar, Jharkhand (in JV with JVBNL)
- ii) 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:

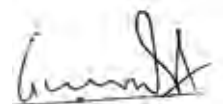
	Telephone No.	Fax No.
<b>Registered Office</b> NTPC Limited NTPC Bhawan, Core-7, 7 Institutional Area, SCOPE Complex, New Delhi -110003	011-2436 0100	011- 2436 1018
<b>Company Secretary &amp; Compliance Officer</b> Shri K.P.Gupta	011-2436 9034	011-2436 0241
E-mail id	kpgupta@ntpc.co.in	
<b>Chief Investor Relations Officer</b> Shri Aditya Dar	011-2436 7072	011-2436 1724
E-mail id	adityadar@ntpc.co.in	
E-mail ID (exclusive) for redressal of investors complaints	<b>For Shares and Tax Free Bonds, 2015:</b> isd@ntpc.co.in <b>For Tax Free Bonds, 2013:</b> tfb@ntpc.co.in <b>For Bonds including Bonus Debentures:</b> powerbonds@ntpc.co.in	

**16. CORPORATE GOVERNANCE AWARDS & RECOGNITIONS**

In recognition of our efforts towards excellence in Corporate Governance, 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: 28<sup>th</sup> May, 2018



## DISCRETIONARY REQUIREMENTS

Annex-I

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:

- The Board:** The Company is headed by an Executive Chairman.
- 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.
- Modified opinion(s) in audit report:** The Auditor's report is unmodified.
- Separate Posts of Chairman and CEO:** The Company has an Executive Chairman & Managing Director.
- 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 2017-18 and during last three years preceding the financial year 2017-18:

Year	Content of Presidential Directives	Compliance
2017-18	NIL	NIL
2016-17	NIL	NIL
2015-16	NIL	NIL
2014-15	NIL	NIL

Health Check-up for young school girls at NTPC - Korba



## 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, 2018 (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 : 24<sup>th</sup> May, 2018

(Sudhir Arya)  
Chief Financial Officer & ED (Fin)

(Gurdeep Singh)  
Chairman & Managing Director



Coal Mining has commenced at NTPC- Dulanga

## 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 31<sup>st</sup> March 2018 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 & Companies Act, 2013, with regard to the appointment of minimum number of Independent Directors in the composition of the Board of Directors as per details given below, except for the period 24/10/2017 to 30/1/2018, where company has sufficient number of Independent Directors:

Period	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 1/4/2017	3	9	4
1/4/2017-31/7/2017	3	9	4
1/8/2017-31/8/2017	3	7	4
1/9/2017-10/10/2017	3	6	3
11/10/2017-23/10/2017	2	6	3
24/10/2017-31/10/2017	7	6	5
1/11/2017-18/1/2018	7	5	4
19/1/2018 -30/1/2018	7	6	5
31/1/2018-31/3/2018	7	8	5

(b) As stated in Point No.2.6 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

For PSD & Associates  
Chartered Accountants  
Firm Reg. No. 004501C  
(Thalendra Sharma)  
Partner  
M. No. 079236

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  
(P.R. Paul)  
Partner  
M.No. 051675

Place: New Delhi  
Date: 28<sup>th</sup> May, 2018



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 2017-18 in different areas are as under:

**ENERGY AUDITS**

During 2017-18, all stations had conducted Auxiliary Power Consumption Energy Audits (25 nos.). Out of these, 09 stations got Mandatory Energy Audit conducted as per BEE notification.

**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 500MW, 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 blades in CT fans, Replacing existing motors with Energy Efficient motors, De-staging of CEP to optimize power consumption, Replacing old compressor with energy efficient screw compressor, ESP hopper heater modification to save energy, BFP Power saving by adopting sliding pressure operation during part loading, Optimization of operation of CW pumps, ARCW, clarified water pumps & Cooling Tower Fans during part load operation and during low ambient temperature conditions, Optimizing no. of mills, BFP and fans during prolonged partial loading, using TDBFP during unit startups, Modification of Ash slurry pump scoop operation.

**LIGHTING**

Replacement of existing lighting (FTL's, HPSV's) in boiler, turbine, switchgear rooms, offices with LED lighting and replacement of street lighting HPSV / Halogen / FTL fixtures with LED light fixtures in plant and township were undertaken at various stations during the year.

**HEAT ENERGY**

Boiler modification in 04 units for improving steam parameters and heat rate, CT renovation and fill replacement, Condenser chemical cleaning and opportunity based jet cleaning were undertaken at some of the Stations.

**b) Additional investments and proposals for reduction in consumption of energy:**

Provision of ₹ 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 2017-18 on account of specific efforts for energy conservation:-

S.No.	Area/Activities	Energy Unit	Savings Qty.	₹ (Crore)
1	Electrical	MU	120.5	32.68
2	Heat Energy (equivalent MT of coal)	MT	74859	23.85
3	Heat Energy (equivalent MCM of Gas)	MCM	0.091	0.18
	<b>Grand Total</b>			<b>56.71</b>

Savings achieved during 2016-17 - ₹ 42.58 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 (2017-18)	(₹ Crore)
1. Foreign Exchange Outgo	
-Capital Goods & Spare Parts	2,122.29
-Professional and Consultancy Fee	6.82
-Interest & Bond Issue Expenses	1,428.19
-Others	8.16
2. Foreign Exchange Earned	
-Professional & Consultancy Fee	2.01

**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 2017-18:****a. Recently Completed Projects:**

- 120 TPD Flue gas based Desalination plant at Simhadri
- Solar Wind Hybrid at Kudgi
- 400 TR Flue Gas based Air conditioning at Talcher Kaniha
- 10 TR Ground Source Heat Pump (GSHP) at NETRA
- Fly ash based Geo-polymer road at Dadri
- Installation of Flexible operation control for 500 MW thermal unit at Dadri
- Robot based Solar PV Panel cleaning at NTPC Dadri
- Setup of drop tube reactor of 1500°C for combustion Studies at NETRA

**b. Developmental Projects (ongoing):**

- Light Weight Aggregate (LWA) Plant at Sipat
- Bottom Ash as Fine Aggregates in cement concrete
- Development of Nano lubricant for coal mill gear box
- Super hydrophobic Nano-coating for solar PV panel cleaning
- Development of Nano fluids as a novel coolant
- CFD Services for Aux Power Savings
- Cooling Tower Design & Performance Improvement.
- Solar Sea Water Desalination at NTECL – Vallur
- Solar PV performance and degradation study
- Solar Thermal Hybrid Plant at NTPC Dadri
- Appl. of UAVs/Drones in Power Sector (Eg. Solar PV Inspection & Volumetric Analysis of coal etc.)
- High quality fuel generation from MSW (with Tokyo University)
- Setting up of 5 TPD Bio-CNG Production from biomass (agri residue/waste)
- Development of High Accuracy Solar Forecasting model capturing Atmospheric Aerosol and Cloud movement with satellite image data with ISRO



**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 and TOFD 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, solvent selection 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 analyser 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 its kinetics
  - Rotating machines through diagnosis of vibration problems.

**d. Scientific Support to Other Utilities:**

**Govt. Sectors:**

- ❖ HPGCL(Deen Bhandu), RGTPP-HPGCL, HPGCL-Panipat, NHPC LTD-Uri I&II, NHPC Tanakpur, RGPPL, MPPGCL Khandwa, WBPDCOL Kolaghat, MPPGCL Birsinghpur, RVUNL Chhabra, GSECL UKAI, DVC-Chandrapura.

**Private Sectors:**

- ❖ THDCIL-KOTESHWAR, THDC –KOTA, SCALEAWAY(India), Prayagraj Power GCL, Jhajjar Power Ltd., NPGC, Gama Infra, Gupta Enterprises, Siemens Ltd., Haldia Energy Ltd., Jaiprakash Power, R B Electricals, TPSC (India) Private Ltd., Balaji Power, Lalitpur Power Generation, Toshiba JSW, Dhariwal Infra, Coastal Gujarat Power Ltd., GE T&D INDIA.

**JV's & Subsidiary:**

- ❖ NSPCL-Rourkela, NSPCL-Durgapur, NSPCL-Bhilai, KBNUL, APCPL, NTECL-Vallur

**2.0 Benefits derived as a result of above Research & Technology Development:**

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. CFD based modifications have resulted in power saving and have been helpful in analyzing and resolving vibration problems in CW pumps. Studies on CO<sub>2</sub> capture and utilization, solar thermal, bio-fuels will result into development of technologies for reduction in the impact on climate change and technologies for affordable renewable energy sources. By developing Geo polymer road using ash has found a new method for bulk ash utilisation. Sea water Desalination plant at Simhadri for drinking water.

**3.0 Expenditure on Research & Development**

S.No.	Description	Expenditure in (₹ /Crores)		
		2015-16	2016-17	2017-18
a)	Capital	21.68	81.88	107.31
b)	Revenue	108.00	80.40	77.67
c)	Total	129.68	162.28	184.98
d)	Target	102.91	101.62	93.85
e)	Total R&D expenditure as a percentage of PAT	1.26%	1.59%	1.97%

#### 4.0 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 <sub>2</sub> emission control by FGD)	2017-18	Wet Lime stone based FGD Packages awarded for Dadri-II(2x490MW) and Jhajar (3x500MW)
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 is being implemented at Varanasi
5	Cooling Tower of FRP construction	2015-16	Being implemented in BRBCL,Nabinagar(4x250 MW) and replacement of CTs of Simhadri-Stage I (2X500MW)
6	Ultra- supercritical Power plants with steam parameters 270 kg/cm <sup>2</sup> steam pressure and 600/600 degree at turbine end	2014-16	Being implemented in Khargone (2X660 MW), Telangana –I (2X800 MW) and Patratu (3x800MW)
7	Adoption of USC steam parameters 260 Kg/ cm <sup>2</sup> steam pressure and 593/593 degree at turbine end	2013-14	Being implemented in (3x660 MW) North Karanpura.
8	Air-cooled condenser for super critical units	2013-14	Being implemented in (3x660 MW) North Karanpura and Patratu (3x800MW)

For and on behalf of the Board of Directors



(Gurdeep Singh)

Chairman & Managing Director

Place: New Delhi

Dated: 8<sup>th</sup> August, 2018

## STATISTICAL INFORMATION ON RESERVATION OF SCs/STs FOR THE YEAR 2017-18

Representation of SCs/STs as on 01.01.2018:

Group	Employees on Roll	SCs	%age	STs	%age
A	13393	1828	13.65	705	5.26
B	4123	714	17.32	396	9.60
C	3532	526	14.89	245	6.94
D	677	170	25.11	91	13.44
<b>Total*</b>	<b>21725</b>	<b>3238</b>	<b>14.90</b>	<b>1437</b>	<b>6.61</b>

\*The above data is inclusive of manpower posted at JVs and Subsidiaries and manpower of taken over projects.

Recruitment of SCs/STs during the year 2017:

Group	Total Recruitment	SCs	%age	STs	%age
A	145	25	17.24	12	8.28
B	0	0	0.00	0	0.00
C	151	24	15.89	5	3.31
D	1	0	0.00	0	0.00
<b>Total</b>	<b>297</b>	<b>49</b>	<b>16.50</b>	<b>17</b>	<b>5.72</b>

Promotions of SCs/STs during the year 2017:

Group	Total Promotion	SCs	%age	STs	%age
A	2658	370	13.92	130	4.89
B	1047	189	18.05	101	9.65
C	807	101	12.52	53	6.57
D	66	24	36.36	15	22.73
<b>Total</b>	<b>4578</b>	<b>684</b>	<b>14.94</b>	<b>299</b>	<b>6.53</b>

For and on behalf of the Board of Directors



(Gurdeep Singh)  
Chairman & Managing Director

Place: New Delhi  
Dated: 8<sup>th</sup> August, 2018



Young Engineers of NTPC

## INFORMATION ON DIFFERENTLY ABLED PERSONS

With a view to focus on its role as a socially responsible and socially conscious organization, NTPC has endeavored to take responsibility for adequate representation of physically challenged persons in its workforce. With this in view, total of 7 DAP were recruited during the year 2017. As on 1.1.2018, 469(2.2%) DAP (97 VH,77 HH and 295 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 DAPs by NTPC over the years are as under:

- NTPC has entered into an agreement with Artificial Limbs Manufacturing Corporation(ALIMCO) to benefit around 5000 DAP in the Neighborhood of NTPC stations/projects over period of three years starting 2016-17.
- For individual needs of the VH employees, screen reading software and Braille shorthand machines are made available by the Projects. A website has been made DAP friendly, particularly for Low Vision Employees.
- Changes in the existing building have been/ are being made to provide barrier free access to differently abled. Ramps have also been provided for unhampered movement of wheel chairs.
- At most of the NTPC Projects, wherever houses are located in multi-storied structures, allotments to DAP has been made on the ground floor. Special parking enclosure near the ramp at the office entrance as well as PH friendly toilet and lift at (Corporate Center) CC.
- Wheel chairs have been provided to employees with orthopedics disabilities. If required, the assistance of an attendant has also been sanctioned.
- Wherever required, gates/ door of the quarter has been widened.
- Petty contracts like book binding, scribbling pad preparation from waste paper, file binding, furniture repair, screen printing, spiral binding, painting contract were also given to disabled persons.
- At CC, procurement of stationery items like files, envelopes were also done from NGOs/ Agencies like ADDI, MUSKAN, Blind Relief Association who are working for physically challenged thereby creating indirect employment.
- Paintings made by disabled persons have also been procured and placed at different locations in the Company Offices.
- Medical camps have been organized in various projects of NTPC for treatment and distribution of aids like artificial limbs, tricycles, wheelchairs, calipers etc.
- Shops have been allotted in NTPC Township to DAP so that they may earn their livelihood.
- Regular interactive meetings are being organized with DAPs.
- 20 number of Scholarships @ ₹ 4,000/- 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.
- At all Projects/ Offices, Nodal Officers (Physically Challenged) have been nominated.
- Reimbursement towards low vision aids, dark glasses etc. subject to maximum of ₹ 2000/- every year. Similarly hearing aid; behind the ear model for each ear restricted to ₹ 25,000/- or actual cost whichever is lower. It may be replaced every four years subject to certificate of condemnation by ENT Specialist. Aforesaid reimbursement is admissible to employees and dependents of employees who are visually challenged/Hearing impaired.
- 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

Dated: 8<sup>th</sup> August, 2018



**FORM NO. MGT 9**  
**EXTRACT OF ANNUAL RETURN**

As on financial year ended on March 31, 2018

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	7 <sup>th</sup> 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 Email: 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	89.59%

**III. PARTICULARS OF HOLDING, SUBSIDIARY AND ASSOCIATE COMPANIES:**

Sl. No.	Name and address of the company	CIN/GLN	% of shares held
<b>Subsidiary Company {Section 2(87)(ii)}</b>			
1	NTPC Vidyut Vyapar Nigam Limited NTPC Bhawan, SCOPE Complex Lodi Road, New Delhi	U40108DL2002GOI117584	100.00
2	NTPC Electric Supply Co. Limited NTPC Bhawan, SCOPE Complex Lodi Road, New Delhi	U40108DL2002GOI116635	100.00
3	Kanti Bijli Utpadan Nigam Limited* NTPC Bhawan, SCOPE Complex Lodi Road, New Delhi	U40102DL2006GOI153167	72.64
4	Bhartiya Rail Bijlee Co. Limited. NTPC Bhawan, SCOPE Complex Lodi Road, New Delhi	U40102DL2007GOI170661	74.00
5	Patratu Vidyut Utpadan Nigam Limited NTPC Bhawan, SCOPE Complex Lodi Road, New Delhi	U40300DL2015GOI286533	74.00
<b>Associate Company {Section 2(6)}</b>			
1	Utility Powertech Limited, H block, 3 <sup>rd</sup> Floor , Dhirubhai Ambani Knowledge City, Thane Belapur Road, Navi Mumbai, Mumbai	U45207MH1995PLC094719	50.00
2	NTPC SAIL Power Company Limited, 4 <sup>th</sup> Floor NBCC Tower, 15 <sup>th</sup> Bhikaji Kama Place, New Delhi	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 & 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 <sup>5</sup>	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 <sup>6</sup>	U40102DL2008PTC177307	50.00
10	BF-NTPC Energy Systems Limited, 14 <sup>th</sup> Floor, Antariksh Bhawan, 22 KG Marg, New Delhi-110003 <sup>6</sup>	U40106DL2008PLC179793	49.00
11	Nabinagar Power Generating Company Pvt. Limited, NTPC Bhawan, SCOPE Complex Lodi Road, New Delhi-110003 <sup>7</sup>	U40104DL2008PTC183024	50.00
12	Transformers and Electricals Kerala Limited, Angamaly South , Ernakulam District Cochin, Kerala, India <sup>8</sup>	U31102KL1963SGC002043	44.60
13	National High Power Test Laboratory Pvt. Limited, NTPC Bhawan, SCOPE Complex Lodi Road, New Delhi-110003	U73100DL2009PTC190541	20.00
14	Energy Efficiency Services Limited, 4 <sup>th</sup> Floor, Sewa Bawan , R K Puram, New Delhi	U40200DL2009PLC196789	31.71
15	CIL NTPC Urja Private Limited, NTPC Bhawan, SCOPE Complex Lodi Road, New Delhi-110003	U14105DL2010PTC202053	50.00
16	International Coal Ventures Pvt. Limited, 20 <sup>th</sup> Floor, Scope Minar, (Core-2), North Tower, Laxmi Nagar District Center, Delhi <sup>9</sup>	U10100DL2009PTC190448	0.11



17	Anushakti Vidhyut Nigam Limited, 16 <sup>th</sup> Floor, Center 1 , World Trade Center, Cuffe Parade, Mumbai	U40300MH2011GOI212727	49.00
18	Hindustan Urvarak & Rasayan Limited, Coal Bhawan, 10 Netaji Subhash Road Kolkata, Kolkata, West Bengal 700001	U24100WB2016PLC216175	33.33
19	Konkan LNG Private Ltd., 16, Bhikaiji Cama Place R. K. Puram, New Delhi-110066	U11100DL2015PTC288147	25.51
20	Trincomalee Power Company Limited, 3rd Floor, No.240, High Level Road, Kirulapone, Colombo – 00600, Sri Lanka	Not Applicable / Foreign Com- pany	50.00
21	Bangladesh - India Friendship Power Company (P) Limited, 14 <sup>th</sup> Floor, Bidyut Bhawan, 1 Abdul Gani Road, Dhaka	Not Applicable / Foreign Com- pany	50.00

\* Kanti Bijli Utpadan Nigam Limited and Nabinagar Power Generating Company Pvt. Limited became wholly owned subsidiary of NTPC w.e.f 29.06.2018

\$ NTPC SCCL Global Ventures Pvt. Limited is under the process of voluntary winding up, order for dissolution from Delhi High Court is still awaited.

% 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 is after getting approval from Ministry of Power is under the Process of Winding Up.

# 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 May 26, 2017 under (O.PET No. 37/2017) and dated July 4, 2017 under (O.PET No. 40/2017) that National Power Exchange Limited (NPEX) & Pan-Asian Renewables Private Limited respectively, is hereby wound up and shall deemed to be dissolved with effect from the date of filing the petition.



Talcher Thermal Plant at Odisha



## 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. 01/04/2017				NO. OF SHARES HELD AT THE END OF THE YEAR i.e. 31/03/2018				% 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)	5750759170	0	5750759170	69.74	5134825262	0	5134825262	62.27	7.47
(c)	Body 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
	<b>Sub-Total A(1):</b>	<b>5750759170</b>	<b>0</b>	<b>5750759170</b>	<b>69.74</b>	<b>5134825262</b>	<b>0</b>	<b>5134825262</b>	<b>62.27</b>	<b>7.47</b>
(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
	<b>Sub-Total A(2):</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>0.00</b>
	<b>Total A=A(1)+A(2)</b>	<b>5750759170</b>	<b>0</b>	<b>5750759170</b>	<b>69.74</b>	<b>5134825262</b>	<b>0</b>	<b>5134825262</b>	<b>62.27</b>	<b>7.47</b>
(B)	PUBLIC SHARE-HOLDING									
(1)	INSTITUTIONS									
(a)	Mutual Funds /UTI	254838520	0	254838520	3.09	719606124	0	719606124	8.73	5.64
(b)	Financial Institutions /Banks	1084671568	0	1084671568	13.15	1114712717	0	1114712717	13.52	0.37
(c)	Central Government / State Govt(s)	0	0	0	0.00	563152	0	563152	0.01	0.01
(d)	Venture Capital Funds	0	0	0	0.00	0	0	0	0.00	0.00
(e)	Insurance Companies	63226613	0	63226613	0.77	47813323	0	47813323	0.58	(0.19)
(f)	Foreign Institutional Investors	860353722	0	860353722	10.43	949663777	0	949663777	11.52	1.09
(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
	<b>Sub-Total B(1):</b>	<b>2263090423</b>	<b>0</b>	<b>2263090423</b>	<b>27.44</b>	<b>2832359093</b>	<b>0</b>	<b>2832359093</b>	<b>34.36</b>	<b>6.92</b>
(2)	NON-INSTITUTIONS									
(a)	Body Corporate	65256784	0	65256784	0.79	116080722	1	116080723	1.41	0.62
(b)	Individuals									
	(i) Individuals holding nominal share capital upto ₹ 1 lakh	128608139	46456	128654595	1.56	115653929	43074	115697003	1.40	(0.16)
	(ii) Individuals holding nominal share capital in excess of ₹ 1 lakh	15518410	0	15518410	0.19	13560393	0	13560393	0.17	(0.02)

CATEGORY OF SHAREHOLDER		NO. OF SHARES HELD AT THE BEGINNING OF THE YEAR i.e. 01/04/2017				NO. OF SHARES HELD AT THE END OF THE YEAR i.e. 31/03/2018				% 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)	<b>Others</b>									
	Clearing Members	6370880	0	6370880	0.08	3154203	0	3154203	0.04	(0.04)
	Directors/ Employees	11709	0	11709	0.00	7756470	0	7756470	0.09	0.09
	Foreign Body Corporate	1500	0	1500	0.00	2500	0	2500	0.00	0.00
	Foreign Nationals	1590	0	1590	0.00	0	0	0	0.00	0.00
	Non Resident Indians	4441743	48200	4489943	0.06	4449792	48200	4497992	0.05	(0.01)
	Trusts/HUF	11309396	0	11309396	0.14	17530761	0	17530761	0.21	0.07
(d)	<b>Qualified Foreign Investor</b>	0	0	0	0.00	0	0	0	0.00	0.00
	<b>Sub-Total B(2) :</b>	<b>231520151</b>	<b>94656</b>	<b>231614807</b>	<b>2.81</b>	<b>278188770</b>	<b>91275</b>	<b>278280045</b>	<b>3.37</b>	<b>0.56</b>
	<b>Total B=B(1)+B(2) :</b>	<b>2494610574</b>	<b>94656</b>	<b>2494705230</b>	<b>30.26</b>	<b>3110547863</b>	<b>91275</b>	<b>3110639138</b>	<b>37.73</b>	<b>7.47</b>
	<b>Total (A+B) :</b>	<b>8245369744</b>	<b>94656</b>	<b>8245464400</b>	<b>100.00</b>	<b>8245373125</b>	<b>91275</b>	<b>8245464400</b>	<b>100.00</b>	
(C)	<b>Shares held by custodians, for GDRs/ADRs</b>									
(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
	<b>Total C</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>0.00</b>
	<b>GRAND TOTAL (A+B+C) :</b>	<b>8245369744</b>	<b>94656</b>	<b>8245464400</b>	<b>100.00</b>	<b>8245373125</b>	<b>91275</b>	<b>8245464400</b>	<b>100.00</b>	

**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	5,75,07,59,170	69.74	0	5,13,48,25,262	62.27	0	(7.47)

**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 company	Date	Increase/ Decrease in share holding	Reason	No. of shares	% of total shares of the company
1	At the beginning of the year	5,75,07,59,170	69.74				5,75,07,59,170	69.74
2	Offer for sale			29/8/2017	-54,71,50,444	Offer for sale	5,20,36,08,726	63.11
3	Employees-Offer for sale			19/9/2017	-94,69,848	Employees-Offer for sale	5,19,41,38,878	62.99
4	Offer for sale- Thru. Bharat 22 ETF			17/11/2017	-5,93,13,616	Offer for sale- Thru. Bharat 22 ETF	5,13,48,25,262	62.27
5	At the end of the year	5,13,48,25,262	62.27				5,13,48,25,262	62.27

**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
<b>1</b>	<b>LIC OF INDIA FORTUNE PLUS SECURED FUND</b>				
	At the beginning of the year	998258968	12.11	998258968	12.11
	Bought during the year	230235705	2.79	1228494673	14.90
	Sold during the year	225037876	2.73	1003456797	12.17
	At the end of the year	1003456797	12.17	1003456797	12.17
<b>2</b>	<b>ICICI PRUDENTIAL TOP 100 FUND</b>				
	At the beginning of the year	99465291	1.21	99465291	1.21
	Bought during the year	227417641	2.76	326882932	3.97
	Sold during the year	30210871	0.37	296672061	3.60
	At the end of the year	296672061	3.60	296672061	3.60
<b>3</b>	<b>HDFC TRUSTEE CO. LTD A/C HDFC EQUITY OPPORTUNITIES</b>				
	At the beginning of the year	36188202	0.44	36188202	0.44
	Bought during the year	184564048	2.24	220752250	2.68
	Sold during the year	3983916	0.05	216768334	2.63
	At the end of the year	216768334	2.63	216768334	2.63
<b>4</b>	<b>THE INCOME FUND OF AMERICA</b>				
	At the beginning of the year	0	0.00	0	0.00
	Bought during the year	110255348	1.34	110255348	1.34
	Sold during the year	0	0.00	110255348	0.00
	At the end of the year	110255348	1.34	110255348	1.34
<b>5</b>	<b>ICICI PRUDENTIAL LIFE INSURANCE COMPANY LTD</b>				
	At the beginning of the year	49009429	0.59	49009429	0.59
	Bought during the year	42487487	0.52	91496916	1.11
	Sold during the year	3945621	0.05	87551295	1.06
	At the end of the year	87551295	1.06	87551295	1.06
<b>6</b>	<b>T. ROWE PRICE INTERNATIONAL STOCK FUND</b>				
	At the beginning of the year	60139956	0.73	60139956	0.73
	Bought during the year	14372306	0.17	74512262	0.90
	Sold during the year	210700	0.00	74301562	0.00
	At the end of the year	74301562	0.90	74301562	0.90



<b>7</b>	<b>FRANKLIN TEMPLETON MUTUAL FUND A/C FRANKLIN INDIA</b>				
	At the beginning of the year	37647117	0.46	37647117	0.46
	Bought during the year	18740071	0.23	56387188	0.69
	Sold during the year	1524957	0.02	54862231	0.67
	At the end of the year	54862231	0.67	54862231	0.67
<b>8</b>	<b>SBI - ETF SENSEX</b>				
	At the beginning of the year	18623299	0.23	18623299	0.23
	Bought during the year	37676524	0.46	56299823	0.69
	Sold during the year	2772599	0.04	53527224	0.65
	At the end of the year	53527224	0.65	53527224	0.65
<b>9</b>	<b>ADITYA BIRLA SUN LIFE TRUSTEE PRIVATE LIMITED A/C</b>				
	At the beginning of the year	20218162	0.25	20218162	0.25
	Bought during the year	22473086	0.27	42691248	0.52
	Sold during the year	7667249	0.10	35023999	0.42
	At the end of the year	35023999	0.42	35023999	0.42
<b>10</b>	<b>VANGUARD EMERGING MARKETS STOCK INDEX FUND, ASERIE</b>				
	At the beginning of the year	32873804	0.40	32873804	0.40
	Bought during the year	2394836	0.03	35268640	0.43
	Sold during the year	1288991	0.02	33979649	0.41
	At the end of the year	33979649	0.41	33979649	0.41

\*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.

**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	Increase/ Decrease in share holding	Reason	No. of shares	% of total shares of the company
1	Shri Gurdeep Singh	1725	0.00	01/04/2017			1725	0.00
				19/09/2017	3132	Purchase (OFS)	4857	0.00
				31/03/2018			4857	0.00
2	Shri Anil Kumar Jha <sup>1</sup>	3165	0.00	01/04/2017			3165	0.00
				31/07/2017			3165	0.00
3	Shri Subhash Chandra Pandey <sup>2</sup>	4725	0.00	01/04/2017			4725	0.00
				31/08/2017			4725	0.00
4	Shri Kaushal Kishore Sharma <sup>3</sup>	2094	0.00	01/04/2017			2094	0.00
				19/09/2017	3132	Purchase (OFS)	5226	0.00
				31/10/2017			5226	0.00
5	Shri K Biswal <sup>#</sup>	1725	0.00	01/04/2017			1725	0.00
				19/09/2017	3132	Purchase (OFS)	4857	0.00
				14/12/2017			4857	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	Increase/ Decrease in share holding	Reason	No. of shares	% of total shares of the company
6	Shri Anand Kumar Gupta	2888	0.00	01/04/2017			2888	0.00
				19/09/2017	3132	Purchase (OFS)	6020	0.00
				31/03/2018			6020	0.00
7	Shri Saptarshi Roy	1205	0.00	01/04/2017			1205	0.00
					(49)	Sale	1156	0.00
				31/03/2018			1156	0.00
8	Shri Aniruddha Kumar	214	0.00	01/04/2017			214	0.00
				31/03/2018			214	0.00
9	Shri S.K.Roy <sup>4</sup>	4715	0.00	01/04/2017			4715	0.00
				31/03/2018			4715	0.00
10	Shri P.K.Mohapatra <sup>5</sup>	4212	0.00	01/04/2017			4212	0.00
				19/09/2017	1600	Purchase (OFS)	5812	0.00
				31/03/2018			5812	0.00
11	Shri Shashi Shekhar	691	0.00	01/04/2017			691	0.00
				31/03/2018			691	0.00
12	Shri Vinod Kumar	1000	0.00	01/04/2017			1000	0.00
				31/03/2018			1000	0.00
13	Shri K.Sreekant	425	0.00	28/03/2018			425	0.00
				31/03/2018			425	0.00
14	Shri K P Gupta	0	0.00	01/04/2017			0	0.00
				19/09/2017	1500	Purchase (OFS)	1500	0.00
				31/03/2018			1500	0.00

# Under suspension vide order dated 14<sup>th</sup> December, 2017 from Ministry of Power.

1 Ceased to be Director w.e.f. 31<sup>st</sup> July 2017 after attaining the age of his superannuation.

2 Ceased to be Director w.e.f. 31<sup>st</sup> August 2017 after attaining the age of his superannuation.

3 Ceased to be Director w.e.f. 31<sup>st</sup> October 2017 after attaining the age of his superannuation.

4 Appointed as Director w.e.f. 19<sup>th</sup> January 2018

5 Appointed as Director w.e.f. 31<sup>st</sup> January 2018



V) INDEBTEDNESS - Indebtedness of the Company including interest outstanding/accrued but not due for payment.

Amount in ₹ Crore

Particulars	Secured Loans excluding deposits	Unsecured Loans	Deposits	Total Indebtedness
<b>Indebtedness at the beginning of the financial year (as at 01.04.2017)</b>				
i) Principal Amount	33,711.40	73,128.81	-	1,06,840.21
ii) Interest due but not paid	-	-	-	-
iii) Interest accrued but not due	804.63	356.29	-	1,160.92
<b>Total (i+ii+iii)</b>	<b>34,516.03</b>	<b>73,485.10</b>	-	<b>1,08,001.13</b>
<b>Change in Indebtedness during the financial year (2017-18)</b>				
i) Addition in principal amount	-	20,776.19	-	20,776.19
ii) Reduction in principal amount	(650.97)	(6,322.22)	-	(6,973.19)
iii) Change in principal amount due to ERV	-	1,059.31	-	1,059.31
iv) Change due to unamortised borrowing cost	0.31	(98.22)	-	(97.91)
v) Change in interest accrued but not due	(17.88)	111.92	-	94.04
<b>Net Change (i-ii+iii+iv+v)</b>	<b>(668.54)</b>	<b>15,526.98</b>	-	<b>14,858.44</b>
<b>Indebtedness at the end of the financial year (as on 31.03.2018)</b>				
i) Principal Amount	33,060.74	88,543.87	-	1,21,604.61
ii) Interest accrued but not due	786.75	468.21	-	1,254.96
<b>Total (i+ii)</b>	<b>33,847.49</b>	<b>89,012.08</b>	-	<b>1,22,859.57</b>

## VI) REMUNERATION OF DIRECTORS AND KEY MANAGERIAL PERSONNEL-

## A. Remuneration to Managing Director, Whole-time Directors and/or Manager

S No	Particulars of Remuneration	Name of MD /WTD /Manager										Total Amount (in ₹)	
		CMD/CEO	WTD/CFO	WTD	WTD	WTD	WTD	WTD	WTD	WTD	WTD		WTD
1	Gross salary	Sh. Gurdeep Singh	Sh. Kulamani Biswal <sup>#</sup>	Sh. A.K. Jha <sup>1</sup>	Sh. S.C. Pandey <sup>2</sup>	Sh. S. Roy	Sh. K.K. Sharma <sup>3</sup>	Sh A K Gupta	Sh.S.K.Roy <sup>4</sup>	Sh. Prakash Tiwari <sup>5</sup>	Sh. P.K. Mohapatra <sup>5</sup>		
	(a) Salary as per provisions contained in section 17(1) of the Income-tax Act, 1961	65,46,405	41,49,153	57,97,547	48,13,006	52,64,896	54,18,355	57,09,849	49,69,741	43,57,045	54,74,065	5,25,00,062	
	(b) Value of perquisites u/s 17(2) of the Income-tax Act, 1961	10,38,829	6,77,733	2,15,450	3,67,198	66,756	3,51,564	45,233	1,81,392	3,75,064	1,08,394	34,27,613	
	(c) Profits in lieu of salary under section 17(3) of the Income-tax Act, 1961	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	Stock Option												
3	Sweat Equity												
4	Commission - as % of Profit -Others,specify												
5	Others, please specify												
	<b>Total (A)</b>	<b>75,85,234</b>	<b>48,26,886</b>	<b>60,12,997</b>	<b>51,80,204</b>	<b>53,31,652</b>	<b>57,69,919</b>	<b>57,55,082</b>	<b>51,51,133</b>	<b>47,32,109</b>	<b>55,82,459</b>	<b>5,59,27,675</b>	

Ceiling as per the Act : Not Applicable \*

#Under suspension vide order dated 14<sup>th</sup> December, 2017 from Ministry of Power1 Ceased to be Director w.e.f. 31<sup>st</sup> July 20172 Ceased to be Director w.e.f. 31<sup>st</sup> August 20173 Ceased to be Director w.e.f. 31<sup>st</sup> October 20174 Appointed as Director w.e.f. 19<sup>th</sup> January 2018, however Salary for the entire period (i.e FY 2017-18) was considered.5 Appointed as Director w.e.f. 31<sup>st</sup> January 2018, however Salary for the entire period (i.e FY 2017-18) was considered.

\* 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)

Amount in ₹

Sl. No.	Particulars of Remuneration	Fee for attending board / committee meetings	Commission	Others, please specify Honorarium	Total Amount
1.	<b>Independent Directors</b>				
	Dr.(Mrs.) Gauri Trivedi	7,00,000	-	-	7,00,000
	Shri Rajesh Jain <sup>1</sup>	2,80,000	-	-	2,80,000
	Shri Seethapathy Chander	5,60,000		40,000	6,00,000
	Shri M.P.Singh <sup>2</sup>	3,20,000			3,20,000
	Shri P.K.Deb <sup>2</sup>	3,80,000			3,80,000
	Shri Shashi Shekhar <sup>2</sup>	3,00,000			3,00,000
	Shri Vinod Kumar <sup>2</sup>	3,00,000			3,00,000
	Shri Subhash Joshi <sup>2</sup>	3,20,000			3,20,000
	<b>Total (1)</b>	<b>31,60,000</b>	-	-	<b>32,00,000</b>
2.	<b>Other Non-Executive Directors</b>	-	-	-	-
	<b>Total (2)</b>	-	-	-	-
	<b>Total (B)=(1+2)</b>	<b>31,60,000</b>	-	<b>40,000</b>	<b>32,00,000</b>
	<b>Total Managerial Remuneration (A+B)</b>				<b>5,91,27,675</b>
	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 Ceased to be Director w.e.f 10<sup>th</sup> October, 2017

2 Appointed as Director w.e.f. 24<sup>th</sup> October, 2017



## C. REMUNERATION TO KEY MANAGERIAL PERSONNEL OTHER THAN MD/MANAGER/WTD

Amount in ₹

Sl. No.	Particulars of Remuneration	Key Managerial Personnel		
		Company Secretary	CFO	Total
		Sh. K P Gupta	Sh. Sudhir Arya	
1	Gross salary			
	(a) Salary as per provisions contained in section 17(1) of the Income-tax Act, 1961	44,69,654	41,78,140	86,47,794
	(b) Value of perquisites u/s 17(2) of the Income-tax Act, 1961	74,733	39,013	1,13,746
	(c) Profits in lieu of salary under section 17(3) of the Income-tax Act, 1961			
2	Stock Option			
3	Sweat Equity			
4	Commission - as % of profit			
5	Others, please specify			
	<b>Total</b>	<b>45,44,387</b>	<b>42,17,153</b>	<b>87,61,540</b>

## VI) 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 &amp; Managing Director

Place: New Delhi

Date: 8<sup>th</sup> August, 2018

# Empowering the Girl Child through Girl Empowerment Mission (GEM)



नेहरू समाजिक दार्शनिक के उम्मेदवार  
**बालिका सशक्तिकरण अभियान में**  
**चित्रकला प्रतियोगिता**  
एवं स्वच्छता के प्रति आगराकाली

## 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 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, 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 at large, 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 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 550 villages and more than 450 schools have been benefitted by NTPC's various CSR initiatives at different locations. NTPC's CSR initiatives have touched the lives of around 10 lakhs people in one or the other way, residing at remote locations.

Apart from the CSR activities undertaken in and around operations to improve the living conditions of the local communities, some of the other CSR initiatives undertaken PAN India are:

- Creation of full-fledged Science & IT lab in BGIS School, Vrindavan, construction of school & hostel for tribal children in Chapki, UP.
- Support for Combating cancer by creating infrastructure & equipment at National Cancer Institute Nagpur and AIIMS New Delhi.
- Revival and operation of Mechanized Solid Waste Management plant at Karsada, UP.
- Installation of Bore wells and Electric pump sets for 220 scheduled tribe farmers at Nagram village Telangana.
- Creation of Skill development and Panchkarma treatment center.
- NTPC participated in the CSR fair, first of its kind organized by DPE and exhibited the products prepared by local community under NTPC Skill development projects being operationalized by various NTPC units.
- 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 Global Compact principles and shares its experience with the representatives of the world through Communication on Progress (COP). It submits COP to United Nations Global Compact on regular basis.

**Web link for accessing uploaded COP is given below:**

[www.unglobalcompact.org/what-is-gc/participants/7032-NTPC-Ltd#cop](http://www.unglobalcompact.org/what-is-gc/participants/7032-NTPC-Ltd#cop)

**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 31.03.2018, the Board Level Corporate Social Responsibility & Sustainability Committee comprises

One functional Director	:	Shri Saptarshi Roy
Three Independent Directors	:	Dr. Gauri Trivedi
	:	Shri Pradeep Kumar Deb
	:	Shri Vinod Kumar



The committee recommends to the Board for approval, the amount of expenditure to be incurred on the activities and also 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 - ₹ 11037.30 Crore
4. Prescribed CSR Expenditure (2% of the amount as in item 3 above) - ₹ 220.75 Crore
  - Previous Year Shortfall - NIL
  - Total Prescribed CSR Expenditure - ₹ 220.75 Crore
5. Details of CSR spent during the financial year
  - (a) Total amount to be spent for the financial year - ₹ 220.75 Crore
    - Amount spent - ₹ 241.54 Crore (2.19%)
    - Amount exceeding prescribed CSR Exp - ₹ 20.79 Crore
  - (b) Amount unspent, if any - NIL
  - (c) Manner in which the amount spent during the financial year is detailed below:

Amount (₹ Crore)

5(c) Manner in which the amount spent during the financial year is detailed below :							(8)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
S. 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	Swacch Vidyalaya Abhiyaan**	i	CSR initiatives during the Financial Year 2017-18 have been taken up on PAN India basis around NTPC operations primarily in 20 states mentioned below: Andhra Pradesh, Assam, Bihar, Chhattisgarh, Delhi, Gujarat, Haryana, Himachal Pradesh, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Odisha, Rajasthan, Tamil Nadu, Telangana, Uttar Pradesh, Uttarakhand, West Bengal	1.07	10.52	10.52	Through Implementing / Contracting Agency/NTPC Foundation/ Trusts/ societies
2	Sanitation**	i		21.83	21.88	21.88	
3	Environment**	iv		59.04	56.22	56.22	
4	Healthcare	i		34.05	15.08	15.08	
5	Education & Skill Development	ii		43.18	65.26	65.26	
6	Rural Development	x		53.51	32.11	32.11	
7	Drinking Water	i		19.77	12.34	12.34	
8	Sports	vii		3.20	1.58	1.58	
9	Protection of National Heritage Art & Culture	v		13.17	14.57	14.57	
10	Other CSR Activities	ii, iii, iv		1.63	11.98	11.98	
	<b>Total</b>			<b>250.45</b>	<b>241.54</b>	<b>241.54</b>	

Note \* Including expenditure on activities carried forward from previous years, which have been completed during 2017-18.

\*\*Expenditure towards SI No 1,2 & 3 have contribution towards achieving of the National Goal of Swachh Bharat in line with DPE Guidelines

Note :

- (i) Eradicating hunger, poverty and malnutrition, promoting healthcare incl. preventive health care and sanitation including contribution to the Swachh Bharat Kosh set-up by the Central Government for the promotion of sanitation and making available safe drinking water;

- (ii) Promoting education, including special education and employment enhancing vocation skills especially among children, women, elderly, and the differently abled and livelihood enhancement projects;
  - (iii) Promoting gender equality, empowering women, setting up homes and hostels for women and orphans; setting up old age homes, day care centers and such other facilities for senior citizens and measures for reducing inequalities faced by socially and economically backward groups;
  - (iv) Ensuring environmental sustainability, ecological balance, protection of flora and fauna, animal welfare, agroforestry, conservation of natural resources and maintaining quality of soil, air and water including contribution to the Clean Ganga Fund set-up by the Central Government for rejuvenation of river Ganga;
  - (v) Protection of national heritage, art and culture including restoration of buildings and sites of historical importance and works of art; setting up public libraries; promotion and development of traditional arts and handicrafts;
  - (vii) Training to promote rural sports, nationally recognized sports, paralympic sports and Olympic sports;
  - (x) Rural development projects;
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 ₹ 241.54 Crore during the financial year, the company has surpassed the prescribed two percent amount of ₹ 220.75 Crore by ₹ 20.79 Crore, thus achieving a CSR spend of 2.19% of average net profit of previous 3 financial years .
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

Dated : 8<sup>th</sup> August, 2018



Annexure-VIII to Directors' Report

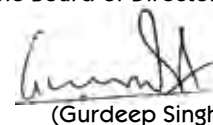
**PROJECT-WISE ASH PRODUCED AND UTILISED**

The quantity of ash produced, ash utilized and percentage of such utilization during 2017-18 from NTPC Stations is as under:

Sl. No.	Stations	Ash Produced Lakh MTs	Ash Utilization Lakh MTs	% Utilization %
1	Badarpur	3.32	6.73*	202.71
2	Dadri	21.54	23.45*	108.87
3	Singrauli	34.83	10.58	30.38
4	Rihand	43.45	13.49	31.05
5	Unchahar	16.80	17.16*	102.14
6	Tanda	7.09	10.11*	142.60
7	Vindhyachal	79.58	19.58	24.60
8	Mouda	19.86	13.93	70.14
9	Solapur	3.17	1.89	59.62
10	Korba	47.84	20.61	43.08
11	Sipat	52.11	9.71	18.63
12	Ramagundam	45.47	45.90*	100.95
13	Simhadri	30.11	30.58*	101.56
14	Kudgi	7.14	3.58	50.14
15	Farakka	30.19	16.00	53.00
16	Kahalgaon	41.85	19.19	45.85
17	Barh	24.84	9.75	39.25
18	Talcher-Thermal	12.29	12.39*	100.81
19	Talcher-Kaniha	79.20	37.61	47.49
20	Bongaigaon	2.45	0.11	4.49
	<b>Total</b>	<b>603.13</b>	<b>322.35</b>	<b>53.45</b>

\*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

Dated: 8<sup>th</sup> August, 2018

Shri R. K. Singh, Hon'ble Minister of State (Independent charge) for Power and New & Renewable Energy, Shri A. K. Bhalla, Secretary Power and Shri Gurdeep Singh, CMD, NTPC at the Conference on Agro Residue and Municipal Solid Waste



### Form No. AOC-2

(Pursuant to clause (h) of sub-section (3) of section 134 of the Act and Rule 8(2) of the Companies (Accounts) Rules, 2014)

Form for disclosure of particulars of contracts/arrangements entered into by the company with related parties referred to in sub-section (1) of section 188 of the Companies Act, 2013 including certain arm's length transactions under third proviso thereto

#### 1. Details of contracts or arrangements or transactions not at arm's length basis -

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

- Name(s) of the related party and nature of relationship - NA
- Nature of contracts/arrangements/transactions -NA
- Duration of the contracts / arrangements/transactions- NA
- Salient terms of the contracts or arrangements or transactions including the value, if any - NA
- Date(s) of approval by the Board, if any - NA
- Amount paid as advances, if any - NA

For and on behalf of the Board of Directors



(Gurdeep Singh)

Chairman & Managing Director

Place: New Delhi

Dated: 8<sup>th</sup> August, 2018



## BUSINESS RESPONSIBILITY REPORT (2017-18)

### 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** 2017-18
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 (₹ Crore)	₹ 8245.46 Crore
2.	Total Turnover(Gross) (₹ Crore)	₹ 81529.09 Crore
3.	Total profit after taxes (₹ Crore)	₹ 10343.17 Crore
4.	Total spending on CSR and Sustainable Development (SD) as % of PAT	2.335 % (₹ 241.54 ) of PAT of FY 17-18
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
		-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 five (5) Subsidiary Companies as on 31-03-2018:

- i. NTPC Electric Supply Company limited
- ii. NTPC Vidyut Vyapar Nigam Limited
- iii. Kanti Bijlee Utpadan Nigam Ltd.
- iv. Bhartiya Rail Bijlee Company Limited
- v. Patratu Vidyut Utpadan Company Limited

**Note:** Kanti Bijlee Utpadan Nigam Ltd. and Nabinagar Power Generating Co. Pvt. Limited become 100% Subsidiary Company w.e.f. 29<sup>th</sup> June 2018.

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	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	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. HR Policies	Director (HR)
Principle 5 (P5)	Businesses should respect and promote human rights.	HR Policies	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	Director (Operation) Director (HR)
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

<b>Principle 8 (P8)</b>	Businesses should support inclusive growth and equitable development.	1. R&R Policy 2. Initial Community Development (ICD) Policy	Director (HR)
<b>Principle 9 (P9)</b>	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:

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 /international 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)	(ii)	(i)	(ii)	(i)	(i)	(i)	-
7. Has the policy been formally communicated to all relevant internal and external stakeholders?	Y	Y	Y <sup>§</sup>	Y	Y <sup>§</sup>	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	-

§ Communicated to Internal Stakeholders only.

(i) **Web links for the Policies :**

- a. Code of Conduct  
<http://www.ntpc.co.in/investors/code-of-conduct>
- b. R&R Policy :  
<http://www.ntpc.co.in/en/corporate-citizenship/r-and-r-policies>
- c. CSR and Sustainability Policy  
<http://www.ntpc.co.in/download/ntpc-policy-csr-sustainability>
- d. Fraud Prevention Policy  
<http://www.ntpctender.com/about/FraudPolicy.asp>
- e. Internal Code of Conduct for prevention of insider trading  
<http://www.ntpc.co.in/download/internal-code-conduct-prevention-insider-trading-dealing-securities-ntpc-limited>
- f. Code of Corporate fair disclosure practices for prevention of insider trading <http://www.ntpc.co.in/download/code-corporate-fair-disclosure-practices-prevention-insider-trading>
- g. Related Party Transaction Policy  
<http://www.ntpc.co.in/download/related-party-transaction-policy-ntpc>
- h. Whistle Blower Policy  
<http://www.ntpc.co.in/sites/default/files/downloads/WhistleBlowerPolicy.pdf>
- i. 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>
- j. Policy on maintenance & preservation of documents  
<http://www.ntpc.co.in/sites/default/files/downloads/Document%20Preservation%20Policy.pdf>
- k. Policy for Determining Material Subsidiaries  
<http://www.ntpc.co.in/download/policy-determining-material>
- l. Training Policy for Directors of NTPC  
<http://www.ntpc.co.in/download/training-policy-directors-ntpc>
- m. Initial Community Development Policy  
<http://www.ntpc.co.in/download/initial-community-development-policy-2009>
- n. Environment Policy: Policy hosted on web. Principles of Environment Policy have been given on the website [www.ntpc.co.in](http://www.ntpc.co.in) under Environment Head.  
<https://www.ntpc.co.in/en/environment/environment-policy-and-management>
- o. Safety Policy, HR Policies & Placement and Transfer Policy: Available for internal stakeholders only and not hosted on web

**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:

- The Company 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](http://www.cercind.gov.in).
- The Company & 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.



- The company 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 company.
- The company 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 to meet the requirement of customers. Unallocated quota of power is allocated by Ministry of Power (MOP) as per demand and requirement of different States hence always keep customer first.
- Central Electricity Regulatory Commission governs power Supply regularity, Performance and all other Commercial parameters and NTPC always excels in satisfying customers by disclosing all relevant information.
- Issues, if any, regarding operational issues etc. are being discussed and resolved in common forums such as Regional Power Committees.
- The company has developed a Customer Satisfaction Index (CSI), which is evaluated through a questionnaire and based on the feedbacks received, actions are taken.

The company engages with customers and provides value to the customers 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 has published business Responsibility Report as a part of annual report 2017-18 and publicises Business Responsibility Report Annually

#### Section E: Principle –wise performance

##### Principle 1: Businesses should conduct and govern themselves with Ethics, Transparency and Accountability

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?

- Code of Conduct for Board Members & Senior Management Personnel covers all the Directors and Senior Management Personnel of the Company.
- 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.
- CDA Rules are applicable to all employees of NTPC and employees posted in JVs/ Subsidiaries.
- Insider Trading Code is applicable to designated employee of the company.
- However, in line with NTPC, RGPLL and NTECL, JVs of NTPC have also adopted Fraud Prevention Policy and CDA rules.
- Related Party Transaction Policy is framed intended to ensure the proper approval and reporting of transactions between the Company and its Related Parties.
- 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.
- 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)
- The Policy on maintenance & preservation of documents was framed in pursuance to Regulation 9 of the SEBI (LODR).
- The Policy for Determining Material Subsidiaries was framed in accordance with the requirement stated under the Listing Agreement.
- The Training Policy aims at providing Orientation & Training programs to be offered to the Board of Directors NTPC

The company 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 Center 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 the company since 2009. Presently tenders having estimated value of ₹ 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,Ex.CIC and Sh M.R farouqui 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 6790 new complaints were received. Total 6789 complaints were resolved after verification. One complaint is pending as on 31.03.2018. These complaints are received related to Equity Shares, Bonus Debentures, Private Placement of Bonds, and Public Issue of Bonds

**Principle 2: Businesses should provide goods and services that are safe and contribute to sustainability throughout their life cycle**

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 produces Electricity through Coal, Gas, Hydro and Solar PV. These Systems have incorporated State of the Art technologies such as High Concentration slurry disposal (HCSD), Real time monitoring of Pollutants and Zero discharge in new projects.
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	2015-16		2016-17		2017-18	
	Qty.	Per Unit Consumption	Qty.	Per Unit Consumption	Qty.	Per Unit Consumption
Coal	160.6 MMT	0.699 Kg/kwh	162.47 MMT	0.683 Kg/kwh	168.95MMT	0.67 Kg/kwh
Gas	5.21 MMSCMD	0.22 Scm/kwh	5.16 MMSCMD	0.22 scm/kwh	5.34 MMSCMD	0.22 scm/kwh
LDO	15862KL	0.07ml/kwh	21545 KL	0.09ml/kwh	27557 KL	0.35ml/kwh
HFO	76943KL	0.33ml/kwh	68354 KL	0.29ml/kwh	59725 KL	
Naphtha	26854MT	0.25Ltr/kwh	2882 MT	0.25Ltr/kwh	4283 MT	
HSD	388KL		96.975 KL		3118 KL	

**Water Withdrawal per year (in million KL):**

S.NO	Type of water	Quantity Consumed		
		2015-16	2016-17	2017-18
1	Total Water withdrawal	4405.0	5533.16*	5610.14*
2	Per unit withdrawal	18.44Litre/kwh	3.22* Litre/kwh	3.06* 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	2015-16	2016-17	2017-18
		116.9 MU	118.6 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:

- 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.
- 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.
- 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.
- E-Auctions:** Coal is also procured for critical stations by participating in E-Auctions conducted by Coal companies as approved by NTPC Board.
- 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 2017-18, NTPC sourced about 168.95 Million Metric Tons of domestic coal and no 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 53.45% of the total ash generation from electricity generation has been used for various productive purposes during 2017-18. 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 (Badarpur, Dadri, Unchahar, Tanda, Ramagundam, Simhadri and Talcher-Thermal) have achieved more than 100% Ash utilization in F.Y 2017-18.



**Principle 3: Businesses should promote the wellbeing of all employees****1. Number of Employees:**

Category	2015-16	2016-17	2017-18
Executives	12,001	11,636	11,567
Non- Executives	9,632	8,957	8,317

**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: 1,282****4. Number of permanent Employees with Disabilities: 469 as on 1<sup>st</sup> Jan. 2018****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 50-55% 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 17-18	No. of complaints pending as on 31-03-2018
1	Child labour / forced labour/ involuntary labour	NIL	NIL	NIL
2	Sexual harassment	NIL	NIL	NIL
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	27.25	66.27
Permanent Women Employees	8.24	65.47
Casual / Temporary / Contractual Employees	85.84	8.32
Employees with Disabilities	17.45	79.12

**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 disadvantages, 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. 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) Centers and Disability Rehabilitation Centers 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?

All HR Policies of NTPC are 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 2018. (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?

The environment policy of the company and implementation thereof covers the core business activity of producing thermal power through its power stations. However, the Joint Ventures / 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,

The Company is one of the premiers 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 & more renewable, introduction of clean coal technologies etc. in line with various Gol 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).

6,173 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 5,842 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 Mandasaur 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 main initiatives taken in FY 17-18 are listed below:

#### A – New & Renewable Energy

1. Development of Geothermal Energy: Detail Project Report for establishment of 10MWe Geothermal based power plant at Tatapani, Chhattisgarh:
2. Integration of Solar thermal energy with conventional rankine cycle for efficient use of solar thermal energy:
3. Indigenous production of solar floating platforms for economical floating solar PV fields:
4. Setting up of solar thermal cooking system
5. Ground Source Heat Pump (GSHP) for Cooling/ Heating Application

#### B – Clean coal & carbon Capture

1. CO<sub>2</sub> Capture and Utilization Technologies:
  - i. CO<sub>2</sub> fixation by micro-algae:
  - ii. Development of modified amine absorption based process to separate CO<sub>2</sub> 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:

##### INITIATIVES IN RENEWABLE ENERGY:

NTPC has submitted its green Commitment to Government of India in February 2015 for developing 10,000 MW of Renewable Energy Projects during 2014-19. In addition to this, NTPC has been designated as the Nodal Agency for implementing of a scheme for setting up of 15,000 MW of Grid connected Solar PV power plants under National Solar Mission in five years from 2014-15 to 2018-19.

NTPC has already developed 870 MW of solar PV projects. Out of this 55 MW projects are at its own stations at Dadri (5 MW), Ramagundam (10 MW), Talcher-Kaniha (10MW), Unchahar (10 MW), Faridabad (5 MW) and Singrauli (15 MW) and 250 MW solar PV projects at Ananthapuram Ultra Mega solar park, RajgarhM.P. (50 MW) and Port Blair A.N. (5 MW), Bhadla Solar(Rajasthan) 260



MW, Mandasaur-Solar PV-250 MW. The solar project at Rajgarh is the first largest solar PV project in India, which was built with domestically manufactured solar PV modules. NTPC has also ventured into wind power and installed 50 MW wind power in Gujarat till 21.06.2018.

NTPC has plans to develop solar PV projects at various projects of NTPC on spare land available at these projects. Further NTPC has planned to harness solar energy on the roof tops of potential buildings on its various upcoming thermal power projects.

1. 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.

2. 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.

The Company has taken Corporate Membership of 18 Chambers & association including SCOPE, FICCI, CII, TERI, WEC, CBIP, IERE, POWER SECTOR SKILL COUNCIL, EPRI, ICSI, POWER HR FORUM 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 and revised in 2015 as "NTPC Policy for CSR & Sustainability" in line with Companies Act 2013 and DPE Guidelines 2014. 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 04 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 - ₹ 241.54 Crore for FY 2017-18. The details of major projects for community are given in Directors Report Annexure-VII**

Further, as most of the stations are located in remote rural areas, NTPC during 2017-18 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 center, 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 more than 535 villages in FY 2017-18.

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.

The company'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: 44 Cases

Supreme Court and Other courts: 28 Cases

Total: 72 Cases as on 01.06.2018

**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

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

Dated : 8<sup>th</sup> August, 2018



## SECRETARIAL AUDIT REPORT FOR THE FINANCIAL YEAR ENDED MARCH 31, 2018

[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 our opinion thereon.

Based on our verification of the NTPC's books, papers, minute books, forms and returns filed and other records maintained by the company, the information provided by the Company, its officers, agents and authorized representatives during the conduct of secretarial audit, the explanations and clarifications given to us and the representations made by the Management, we hereby report that in our opinion, the Company has, during the audit period covering the financial year ended on March 31, 2018 generally complied with the statutory provisions listed there under 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 here in after:

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 March 31, 2018 according to the provisions of:

- (i) The Companies Act, 2013 (the Act) and the rules made there under;
- (ii) The Securities Contracts (Regulation) Act, 1956 ('SCRA') and the rules made there under;
- (iii) The Depositories Act, 1996 and the Regulations and Bye-laws framed there under;
- (iv) Foreign Exchange Management Act, 1999 and the rules and regulations made thereunder to the extent of Foreign Direct Investment, Overseas Direct Investment and External Commercial Borrowings;
- (v) The following Regulations and Guidelines prescribed under the Securities and Exchange Board of India Act, 1992 ('SEBI Act'): -
  - (a) The Securities and Exchange Board of India (Substantial Acquisition of Shares and Takeovers) Regulations, 2011;
  - (b) The Securities and Exchange Board of India (Prohibition of Insider Trading) Regulations, 2015;
  - (c) The Securities and Exchange Board of India (Issue of Capital and Disclosure Requirements) Regulations, 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) Compliances/processes/systems under following specific applicable laws (as applicable to the industry) to the Company are being verified on the basis of periodic certificate submitted to the Board of Directors of the Company:
  - (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 with respect to board and General Meetings, generally complied with.
- (ii) The Securities and Exchange Board of India (Listing Obligations & Disclosures Requirements) Regulations, 2015 with National Stock Exchange of India & BE Limited.
- (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 subject to the following observations:

Compliance of Regulation 17(10) of Securities and Exchange Board of India (Listing Obligations & Disclosures Requirements) Regulations, 2015, the Company has not carried out the performance evaluation of the Independent Directors.

**We further report that:**

The Board of Directors of the Company is duly constituted with proper balance of Executive Directors, Non-Executive Directors and Independent Directors. 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.

Adequate notice is given to all directors to schedule the Board Meetings, agenda and detailed notes on agenda were sent atleast 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.

Decisions at 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, rules, 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-First Annual General Meeting dated September 20, 2017 to raise funds up to Rupees 15,000 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.

For J. K. Gupta & Associates

JITESH GUPTA  
 FCS No. 3978  
 C P No.: 2448

Place: Delhi  
 Date: 15/06/2018

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.



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. Where ever 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

Place: Delhi  
Date: 15/06/2018

JITESH GUPTA  
FCS No. 3978  
C P No.: 2448



TG Hall of a Thermal Power Station

**BALANCE SHEET AS AT 31 MARCH 2018**

₹ Crore

Particulars	Note No.	As at 31 March 2018	As at 31 March 2017
<b>ASSETS</b>			
<b>Non-current assets</b>			
Property, plant and equipment	2	1,20,720.61	99,062.70
Capital work-in-progress	3	77,313.87	80,302.46
Intangible assets	4	331.60	293.02
Intangible assets under development	5	469.36	434.63
Investments in subsidiary and joint venture companies	6	9,941.20	8,134.63
<b>Financial assets</b>			
Investments	7	106.28	113.48
Trade receivables	8	-	35.59
Loans	9	655.67	530.59
Other financial assets	10	1,632.86	1,874.18
Other non-current assets	11	11,568.68	16,873.48
<b>Total non-current assets</b>		<b>2,22,740.13</b>	<b>2,07,654.76</b>
<b>Current assets</b>			
Inventories	12	6,057.38	6,504.81
<b>Financial assets</b>			
Trade receivables	13	7,577.97	8,137.92
Cash and cash equivalents	14	60.49	157.12
Bank balances other than cash and cash equivalents	15	3,917.89	2,773.37
Loans	16	280.22	236.92
Other financial assets	17	7,938.12	6,053.32
Other current assets	18	10,878.23	4,536.44
<b>Total current assets</b>		<b>36,710.30</b>	<b>28,399.90</b>
Regulatory deferral account debit balances	19	743.13	522.83
<b>TOTAL ASSETS</b>		<b>2,60,193.56</b>	<b>2,36,577.49</b>
<b>EQUITY AND LIABILITIES</b>			
<b>Equity</b>			
Equity share capital	20	8,245.46	8,245.46
Other equity	21	93,532.31	87,985.77
<b>Total equity</b>		<b>1,01,777.77</b>	<b>96,231.23</b>
<b>Liabilities</b>			
<b>Non-current liabilities</b>			
<b>Financial liabilities</b>			
Borrowings	22	1,08,697.60	97,339.28
Trade payables	23	23.31	13.17
Other financial liabilities	24	2,164.69	2,247.13
Provisions	25	480.90	463.15
Deferred tax liabilities (net)	26	2,408.63	1,484.84
Other non-current liabilities	27	-	17.49
<b>Total non-current liabilities</b>		<b>1,13,775.13</b>	<b>1,01,565.06</b>
<b>Current liabilities</b>			
<b>Financial liabilities</b>			
Borrowings	28	6,500.32	3,000.56
Trade payables	29	5,592.64	4,876.08
Other financial liabilities	30	21,408.98	19,179.40
Other current liabilities	31	963.99	1,081.16
Provisions	32	8,088.83	7,964.92
Current tax liabilities (net)	33	-	75.20
<b>Total current liabilities</b>		<b>42,554.76</b>	<b>36,177.32</b>



Particulars	Note No.	₹ Crore	
		As at 31 March 2018	As at 31 March 2017
Deferred revenue	34	2,085.90	2,121.14
Regulatory deferral account credit balances	35	-	482.74
<b>TOTAL EQUITY AND LIABILITIES</b>		<b>2,60,193.56</b>	<b>2,36,577.49</b>
Significant accounting policies	1		

The accompanying notes 1 to 75 form an integral part of these financial statements.

For and on behalf of the Board of Directors

(K.P. Gupta)  
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

For PSD & Associates  
Chartered Accountants  
Firm Reg. No. 004501C

For Sagar & Associates  
Chartered Accountants  
Firm Reg. No. 003510S

(Neena Goel)  
Partner  
M. No. 057986

(Thalendra Sharma)  
Partner  
M No.079236

(B. Aruna)  
Partner  
M No.216454

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

(Vikas Gupta)  
Partner  
M. No. 077076

(S.S. Poddar)  
Partner  
M. No. 051113

(V.B. Singh)  
Partner  
M.No.073124

(P.R. Paul)  
Partner  
M.No.051675

Place : New Delhi  
Dated : 28 May 2018



## STATEMENT OF PROFIT AND LOSS FOR THE YEAR ENDED 31 MARCH 2018

Particulars	Note No.	₹ Crore	
		For the year ended 31 March 2018	For the year ended 31 March 2017
<b>Income</b>			
Revenue from operations	36	83,452.70	78,273.44
Other income	37	1,755.25	1,068.86
<b>Total income</b>		<b>85,207.95</b>	<b>79,342.30</b>
<b>Expenses</b>			
Fuel cost		48,315.47	47,572.19
Energy purchased for trading		1,313.51	-
Employee benefits expense	38	4,734.67	4,324.60
Finance costs	39	3,984.25	3,597.20
Depreciation, amortization and impairment expense	40	7,098.86	5,920.82
Other expenses	41	7,421.73	5,092.38
<b>Total expenses</b>		<b>72,868.49</b>	<b>66,507.19</b>
<b>Profit before exceptional items, tax and regulatory deferral account balances</b>		<b>12,339.46</b>	<b>12,835.11</b>
Exceptional items - impairment loss on investment	63	-	782.95
<b>Profit before tax</b>		<b>12,339.46</b>	<b>12,052.16</b>
<b>Tax expense</b>	55		
Current tax			
Current year		2,576.80	2,705.75
Earlier years		(951.30)	(107.56)
Deferred tax		3,631.64	1,287.31
Less: Deferred asset for deferred tax liability		2,707.85	954.68
<b>Total tax expense</b>		<b>2,549.29</b>	<b>2,930.82</b>
<b>Profit for the year before regulatory deferral account balances</b>		<b>9,790.17</b>	<b>9,121.34</b>
Net movement in regulatory deferral account balances (net of tax)	71	553.00	263.92
<b>Profit for the year</b>		<b>10,343.17</b>	<b>9,385.26</b>
<b>Other comprehensive income/(expense)</b>			
Items that will not be reclassified to profit or loss (net of tax)			
- Net actuarial losses on defined benefit plans		(7.28)	(238.66)
- Net gains/(losses) on fair value of equity instruments		(7.20)	35.28
<b>Other comprehensive income/(expense) for the year, net of tax</b>		<b>(14.48)</b>	<b>(203.38)</b>
<b>Total comprehensive income for the year</b>		<b>10,328.69</b>	<b>9,181.88</b>



Particulars	Note No.	₹ Crore	
		For the year ended 31 March 2018	For the year ended 31 March 2017
<b>Earnings per equity share (Par value ₹ 10/- each)</b>	62		
Basic & Diluted (₹) (from operations including regulatory deferral account balances)		12.54	11.38
Basic & Diluted (₹) (from operations excluding regulatory deferral account balances)		11.87	11.06
Significant accounting policies	1		

The accompanying notes 1 to 75 form an integral part of these financial statements.

For and on behalf of the Board of Directors

(K.P. Gupta)  
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

For PSD & Associates  
Chartered Accountants  
Firm Reg. No. 004501C

For Sagar & Associates  
Chartered Accountants  
Firm Reg. No. 003510S

(Neena Goel)  
Partner  
M. No. 057986

(Thalendra Sharma)  
Partner  
M No.079236

(B. Aruna)  
Partner  
M No.216454

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

(Vikas Gupta)  
Partner  
M No. 077076

(S.S. Poddar)  
Partner  
M. No. 051113

(V.B. Singh)  
Partner  
M. No.073124

(P.R. Paul)  
Partner  
M. No.051675

Place : New Delhi  
Dated : 28 May 2018

## STATEMENT OF CASH FLOWS FOR THE YEAR ENDED 31 MARCH 2018

Particulars	₹ Crore	
	For the year ended 31 March 2018	For the year ended 31 March 2017
<b>A CASH FLOW FROM OPERATING ACTIVITIES</b>		
Profit before tax	12,339.46	12,052.16
Add: Net movements in regulatory deferral account balances (net of tax)	553.00	263.92
Add: Tax on net movements in regulatory deferral account balances	150.04	71.82
<b>Profit before tax including movements in regulatory deferral account balances</b>	<b>13,042.50</b>	<b>12,387.90</b>
<b>Adjustment for:</b>		
Depreciation, amortization and impairment expense	7,098.86	5,920.82
Provisions	842.99	161.10
Impairment loss on investments - exceptional item	-	782.95
Deferred revenue on account of advance against depreciation	(172.67)	(32.92)
Deferred revenue on account of government grants	78.75	372.12
Deferred foreign currency fluctuation asset	(86.32)	336.11
Deferred income from foreign currency fluctuation	214.72	(102.30)
Regulatory deferral account credit balances	(482.74)	187.09
Regulatory deferral account debit balances	(220.30)	(522.83)
Fly ash utilisation reserve fund	74.53	78.47
Exchange differences on translation of foreign currency cash and cash equivalents	-	0.06
Finance costs	3,969.35	3,515.61
Unwinding of discount on vendor liabilities	14.90	81.59
Interest/income on term deposits/bonds/investments	(246.21)	(104.40)
Dividend income	(189.17)	(166.09)
Provisions written back	(1,200.46)	(174.87)
Profit on de-recognition of property, plant and equipment	(2.37)	(10.36)
Loss on de-recognition of property, plant and equipment	110.67	82.94
	<b>9,804.53</b>	<b>10,405.09</b>
<b>Operating profit before working capital changes</b>	<b>22,847.03</b>	<b>22,792.99</b>
<b>Adjustment for:</b>		
Trade receivables	595.40	(370.11)
Inventories	810.85	841.22
Trade payables, provisions, other financial liabilities and other liabilities	1,451.16	246.75
Loans, other financial assets and other assets	(8,432.37)	(912.05)
	<b>(5,574.96)</b>	<b>(194.19)</b>
<b>Cash generated from operations</b>	<b>17,272.07</b>	<b>22,598.80</b>
Income taxes (paid) / refunded	1,976.28	(2,584.88)
<b>Net cash from operating activities - A</b>	<b>19,248.35</b>	<b>20,013.92</b>
<b>B CASH FLOW FROM INVESTING ACTIVITIES</b>		
Purchase of property, plant and equipment & intangible assets	(18,015.46)	(23,513.50)
Disposal of property, plant and equipment & intangible assets	8.94	72.01
Proceeds from sale of investments	-	343.63
Investment in subsidiaries and joint venture companies	(1,501.61)	(1,707.91)
Loans and advances to subsidiaries	(92.40)	(184.82)
Interest/income on term deposits/bonds/investments received	250.38	167.04
Income tax paid on interest income	(78.52)	(44.12)
Dividend received	189.17	166.09
Bank balances other than cash and cash equivalents	(1,148.69)	287.46
<b>Net cash used in investing activities - B</b>	<b>(20,388.19)</b>	<b>(24,414.12)</b>



Particulars	₹ Crore	
	For the year ended 31 March 2018	For the year ended 31 March 2017
<b>C CASH FLOW FROM FINANCING ACTIVITIES</b>		
Proceeds from non-current borrowings	17,230.49	23,803.92
Repayment of non-current borrowings	(6,966.57)	(11,095.86)
Proceeds from current borrowings	3,499.76	1,701.06
Payment of finance lease obligations	(6.62)	(12.60)
Interest paid	(7,857.17)	(6,888.72)
Dividend paid	(4,040.28)	(3,595.03)
Tax on dividend	(816.40)	(727.79)
<b>Net cash from financing activities - C</b>	<b>1,043.21</b>	<b>3,184.98</b>
<b>D Exchange differences on translation of foreign currency cash and cash equivalents</b>	<b>-</b>	<b>(0.06)</b>
<b>Net increase/(decrease) in cash and cash equivalents (A+B+C+D)</b>	<b>(96.63)</b>	<b>(1,215.28)</b>
<b>Cash and cash equivalents at the beginning of the year (see Note 1 and 2 below)</b>	<b>157.12</b>	<b>1,372.40</b>
<b>Cash and cash equivalents at the end of the year (see Note 1 and 2 below)</b>	<b>60.49</b>	<b>157.12</b>
<b>Notes:</b>		
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 14	60.49	157.12
3. Refer Note no. 68 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:		

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)	-	-
<b>Closing balance as at 31 March 2018</b>	<b>1,16,174.91</b>	<b>184.34</b>	<b>6,500.32</b>

\* Includes current maturities of non-current borrowings and interest accrued thereon, refer Note 22 and Note 30.

For and on behalf of the Board of Directors

(K. P. Gupta)  
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 PSD & Associates  
Chartered Accountants  
Firm Reg. No. 004501C  
(Thalendra Sharma)  
Partner  
M. No. 079236

For Sagar & Associates  
Chartered Accountants  
Firm Reg. No. 003510S  
(B. Aruna)  
Partner  
M. No. 216454

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  
(P.R. Paul)  
Partner  
M.No. 051675

Place: New Delhi  
Date: 28 May 2018



## STATEMENT OF CHANGES IN EQUITY FOR THE YEAR ENDED 31 MARCH 2018

(A) Equity share capital  
For the year ended 31 March 2018

	₹ Crore
Balance as at 1 April 2017	8,245.46
Changes in equity share capital during the year	-
Balance as at 31 March 2018	8,245.46

## For the year ended 31 March 2017

	₹ Crore
Balance as at 1 April 2016	8,245.46
Changes in equity share capital during the year	-
Balance as at 31 March 2017	8,245.46

## (B) Other equity

## For the year ended 31 March 2018

Particulars	Reserves & surplus						Equity instruments through OCI	Total
	Capital reserve	Securities premium account	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)
<b>Total comprehensive income</b>	-	-	-	-	-	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				74.53				74.53
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



₹ Crore

For the year ended 31 March 2017

Particulars	Reserves & surplus					Equity instruments through OCI	Total
	Capital reserve	Securities premium account	Bonds/ Debentures redemption reserve	Fly ash utilisation reserve fund	General reserve		
Balance as at 1 April 2016	50.08	2,228.46	4,608.73	478.91	72,331.63	(20.28)	83,048.24
Profit for the year						9,385.26	9,385.26
Other comprehensive income/ (expense)						35.28	(203.38)
Total comprehensive income						35.28	9,181.88
Transfer to retained earnings			(314.00)			314.00	-
Transfer to fly ash utilisation reserve fund			1,667.08	78.47	4,500.00	(6,167.08)	-
Final dividend paid for FY 2015-16 (Note 20)						(1,442.96)	(1,442.96)
Tax on final dividend						(289.68)	(289.68)
Interim dividend paid for FY 2016-17 (Note 20)						(2,152.07)	(2,152.07)
Tax on interim dividend						(438.11)	(438.11)
Balance as at 31 March 2017	50.08	2,228.46	5,961.81	556.68	76,831.63	15.00	87,985.77

For and on behalf of the Board of Directors

(K.P. Gupta)  
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 Kalani & Co.  
Chartered Accountants  
Firm Reg. No. 000729C

(Vikas Gupta)  
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(S.S. Poddar)  
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For Sagar & Associates  
Chartered Accountants  
Firm Reg. No. 003510S

(B. Aruna)  
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M No.216454

For B M Chatrath & Co LLP  
Chartered Accountants  
Firm Reg. No. 301011E/E300025

(P.R. Paul)  
Partner  
M.No.051675

Place : New Delhi  
Dated : 28 May 2018



## 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 authorized for issue by the Board of Directors on 28 May 2018.

#### 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 realized or intended to be sold or consumed in normal operating cycle;
- Held primarily for the purpose of trading;
- Expected to be realized 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 utilize 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 recognized as an asset if and only if it is probable that future economic benefits associated with the item will flow to the Company and the cost of the item can be measured reliably.

Items of property, plant and equipment are initially recognized at cost. Subsequent measurement is done at cost less accumulated depreciation/amortization and accumulated impairment losses. 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 recognized separately.

Deposits, payments/liabilities made provisionally towards compensation, rehabilitation and other expenses relating to land in possession are treated as cost of land.

In the case of assets put to use, where final settlement of bills with contractors is yet to be effected, capitalization is done on provisional basis subject to necessary adjustment in the year of final settlement.

Assets and systems common to more than one generating unit are capitalized on the basis of engineering estimates/assessments.

Items of spare parts, stand-by equipment and servicing equipment which meet the definition of property, plant and equipment are capitalized. Other spare parts are carried as inventory and recognized in the statement of profit and loss on consumption.

##### 1.2. Subsequent costs

Subsequent expenditure is recognized as an increase in the carrying amount of the asset when it is probable that future economic benefits deriving from the cost incurred will flow to the enterprise and the cost of the item can be measured reliably.

Expenditure on major inspection and overhauls of generating unit is capitalized, when it meets the asset recognition criteria.



The cost of replacing part of an item of property, plant and equipment is recognized in the carrying amount of the item if it is probable that the future economic benefits embodied within the part will flow to the Company and its cost can be measured reliably. The carrying amount of the replaced part is derecognized. The costs of the day-to-day servicing of property, plant and equipment are recognized 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 derecognized when no future economic benefits are expected from their use or upon their disposal. Gains and losses on de-recognition of an item of property, plant and equipment are determined by comparing the proceeds from disposal, if any, with the carrying amount of property, plant and equipment, and are recognized in the statement of profit and loss.

### 1.5. Depreciation/amortization

Depreciation is recognized 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 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.

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 ascertained on 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 capitalized 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 amortized 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 amortized 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 amortized on the basis of balance useful life of the project. Other leasehold land acquired for mining business is amortized 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 unamortized balance of such asset is charged off prospectively over the remaining useful life determined following the applicable accounting policies relating to depreciation/amortization.

Where it is probable that future economic benefits deriving from the 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 unamortized depreciable amount is charged off prospectively over the revised useful life determined by technical assessment.

In circumstance, where a property is abandoned, the cumulative capitalized costs relating to the property are written off in the same period.

## 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 recognized 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 recognized at cost. Subsequent measurement is done at cost less accumulated amortization 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 capitalized 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 capitalizations 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 recognized as an increase in the carrying amount of the asset when it is probable that future economic benefits deriving from the cost incurred will flow to the enterprise and the cost of the item can be measured reliably.

### 3.3. De-recognition

An intangible asset is derecognized when no future economic benefits are expected from their use or upon their disposal. 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 recognized in the statement of profit and loss.



### 3.4. Amortization

Cost of software recognized as intangible asset, is amortized on straight-line method over a period of legal right to use or 3 years, whichever is less. Other intangible assets are amortized on straight-line method over the period of legal right to use or life of the related plant, whichever is less.

### 4. Regulatory deferral account balances

Expense/income recognized in the statement of profit and loss to the extent recoverable from or payable to the beneficiaries in subsequent periods as per CERC Tariff Regulations are recognized as 'Regulatory deferral account balances'.

Regulatory deferral account balances are adjusted 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 derecognized.

### 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 capitalized 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 capitalized 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 capitalized 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 derecognized.

The development expenditure capitalized is net of value of coal extracted during development phase.

Subsequent expenditure is capitalized only where it either enhances the economic benefits of the development/producing asset or replaces part of the existing development/producing asset. Any remaining costs associated with the part replaced are expensed.

Mines under development are capitalized on occurrence of earliest of the following milestones except 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.

On being brought to revenue, the assets under capital work-in-progress are reclassified 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 recognized in the statement of profit and loss.

### 6.1. Stripping activity expense/adjustment

Expenditure incurred on removal of mine waste materials (overburden) necessary to extract the coal reserves is referred to as stripping cost. The 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 recognized as finance costs.

### 6.3. Amortization

On being brought to revenue, the mines closure, site restoration and decommissioning obligations are amortized over the balance life of the mine. Mining property is amortized 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 recognizes, 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 recognized 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 capitalized as part of cost of such asset until such time the assets are substantially ready for their intended use. Qualifying assets are assets which necessarily take substantial period of time to get ready for their intended use or sale.

When the Company borrows funds specifically for the purpose of obtaining a qualifying asset, the borrowing costs incurred are capitalized. When Company borrows funds generally and uses them for the purpose of obtaining a qualifying asset, the capitalization of the borrowing costs is computed based on the weighted average cost of 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 capitalization.

Capitalization 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 recognized as an expense in the year in which they are incurred.

## 9. Inventories

Inventories are valued at the lower of cost and net realizable 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 realizable 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 realizable 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 recognized 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 recognized 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 recognized over the period in which the related costs are incurred and deducted from the related expenses.

## 12. Fly ash utilization 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 utilized 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 recognized if, as a result of a past event, the Company has a present legal or constructive obligation that can be estimated reliably, and it is probable that an outflow of economic benefits will be required to settle the obligation. If the effect of the time value of money is material, provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the liability. When discounting is used, the increase in the provision due to the passage of time is recognized as a finance costs.

The amount recognized as a provision is the best estimate of the consideration required to settle the present obligation at reporting date, taking into account the risks and uncertainties surrounding the obligation.

When some or all of the economic benefits required to settle a provision are expected to be recovered from a third party, the receivable is recognized as an asset if it is virtually certain that reimbursement will be received and the amount of the receivable can be measured reliably. The expense relating to a provision is presented in the statement of profit and loss net of 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 recognized 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 recognized 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 are translated using the exchange rate at the date of the transaction.

### 15. Revenue

Company's revenues arise from sale and trading of energy, consultancy, project management & supervision services 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.

#### 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 from the sale of energy is measured at the fair value of the consideration received or receivable. Revenue is recognized when the significant risks and rewards of ownership have been transferred to the buyer, recovery of the consideration is probable, the associated costs can be estimated reliably, there is no continuing management involvement, and the amount of revenue can 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 recognized once the electricity has been delivered to the beneficiary and is measured through a regular review of usage meters. Beneficiaries are billed on a periodic and regular basis. As at each reporting date, revenue from sale of energy includes an accrual for sales delivered to beneficiaries but not yet billed i.e. unbilled revenue.

The incentives/disincentives are accounted for based on the norms notified/approved by the CERC as per principles enunciated in Ind AS 18. 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 sale of energy is recognized based on the rates, terms & conditions mutually agreed with the beneficiaries and trading of power through power exchanges.

Rebates allowed to beneficiaries as early payment incentives are deducted from the amount of revenue.

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 recognized 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 recognized in sales.

### 15.2. Revenue from services

Revenue from consultancy, project management and supervision services rendered is recognized in profit or loss in proportion to the stage of completion of the transaction at the reporting date. The stage of completion is 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 recognized as other income, as per the terms of the consultancy service contracts.

### 15.3. Other income

Interest income is recognized, when no significant uncertainty as to measurability or collectability exist, on a time proportion basis taking into account the amount outstanding and the applicable interest rate, using the effective interest rate method (EIR).

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 realization.

Revenue from rentals and operating leases is recognized on an accrual basis in accordance with the substance of the relevant agreement.

For debt instruments measured either at amortized 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 amortized 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 sundry debtors for sale of energy is recognized 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 realization/acceptance are not treated as accrued and are therefore, accounted for on receipt/acceptance.

Dividend income is recognized in profit or loss only when the right to receive is established, it is probable that the economic benefits associated with the dividend will flow to the Company, and the amount of the dividend can be measured reliably.

## 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 recognized as an employee benefits expense in profit or loss in the period during which services are rendered by employees. Prepaid contributions are recognized as an asset to the extent that a cash refund or a reduction in future payments is available. Contributions to a defined contribution plan that are due after more than 12 months after the end of the period in which the employees render the service are discounted to their present value.

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 recognized 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 recognized 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 unrecognized 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 recognized asset is limited to the total of any unrecognized 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 realizable



during the life of the plan, or on settlement of the plan liabilities. Any actuarial gains or losses are recognized 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 recognized 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 recognized 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 recognized 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 recognized for the amount expected to be paid under performance related pay if the Company has a present legal or constructive obligation to pay this amount as a result of past service provided by the employee and the obligation can be estimated reliably.

## 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 recognized in profit or loss except to the extent that it relates to items recognized directly in other comprehensive income or equity, in which case it is recognized in OCI or equity.

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 recognized 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 recognized in profit or loss except to the extent that it relates to items recognized directly in OCI or equity, in which case it is recognized in OCI or equity.

A deferred tax asset is recognized to the extent that it is probable that future taxable profits will be available against which the temporary difference can be utilized. Deferred tax assets are reviewed at each reporting date and are reduced to the extent that it is no longer probable that the related tax benefit will be realized.

Additional income taxes that arise from the distribution of dividends are recognized at the same time that the liability to pay the related dividend is recognized.

## 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 recognized 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 expense and the reduction of the outstanding liability.

The finance expense 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 recognized 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 recognized 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 recognized as revenue, using a rate of return specific to the plant to give a constant periodic rate of return on the net investment in each period. The service income element of the capacity payment is the difference between the total capacity payment and the amount recognized as finance income and capital repayments and recognized as revenue as it is earned.

The amounts due from lessees under finance leases are recorded in the balance sheet as financial assets, classified as 'Finance lease receivables', at the amount 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 capitalized as property, plant and equipment and depreciated over its economic life. Rental income from operating leases is recognized on a straight line basis over the term of the arrangement 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 recognized if the carrying amount of an asset or its CGU exceeds its estimated recoverable amount. Impairment losses are recognized in profit or loss. Impairment losses recognized in respect of CGUs are reduced from the carrying amounts of the assets of the CGU.

Impairment losses recognized in prior periods are assessed at each reporting date for any indications that the loss has decreased or no longer exists. An impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortization, if no impairment loss had been recognized.

### 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 for the year, 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. Dividends

Dividends and interim dividends payable to a Company's shareholders are recognized as changes in equity in the period in which they are approved by the shareholders' meeting and the Board of Directors respectively.

## 23. 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.

## 24. 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.

Basic and diluted earnings per equity share are also computed using the earnings amounts excluding the movements in regulatory deferral account balances.

## 25. 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'.

## 26. 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.

### 26.1. Financial assets

#### Initial recognition and measurement

All financial assets are recognized initially at fair value plus, in the case of financial assets not recorded at fair value through profit or loss, transaction costs that are attributable to the acquisition or issue of the financial asset.

#### Subsequent measurement

#### Debt instruments at amortized cost

A 'debt instrument' is measured at the amortized cost if both the following conditions are met:

- (a) The asset is held within a business model whose objective is to hold assets for collecting contractual cash flows, and
- (b) Contractual terms of the asset give rise on specified dates to cash flows that are solely payments of principal and interest (SPPI) on the principal amount outstanding.

After initial measurement, such financial assets are subsequently measured at amortized cost using the EIR method. Amortized cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the EIR. The EIR amortization is included in finance income in the profit or loss. The losses arising from impairment are recognized 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 recognized in the OCI. However, the Company recognizes 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 recognized 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 categorization as at amortized cost or as FVTOCI, is classified as at FVTPL.

In addition, the Company may elect to classify a debt instrument, which otherwise meets amortized cost or FVTOCI criteria, as at FVTPL. However, such election is allowed only if doing so reduces or eliminates a measurement or recognition inconsistency (referred to as 'accounting mismatch'). Debt instruments included within the FVTPL category are measured at fair value with all changes recognized in the 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 recognized 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 recognized in the profit and loss.

Equity investments in subsidiaries and joint ventures companies are measured at cost.

#### De-recognition

A financial asset (or, where applicable, a part of a financial asset or part of a Company of similar financial assets) is primarily derecognized (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.

#### 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 amortized cost e.g., loans, debt securities, deposits and bank balance.
- (b) Financial assets that are debt instruments and are measured as at FVTOCI.
- (c) Lease receivables under Ind AS 17.

- (d) Trade receivables under Ind AS 11 and Ind AS 18.
- (e) Loan commitments which are not measured as at FVTPL.
- (f) Financial guarantee contracts which are not measured as at FVTPL.

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 recognizing impairment loss allowance based on 12 month ECL.

## 26.2. 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 recognized 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 amortized cost

After initial measurement, such financial liabilities are subsequently measured at amortized cost using the EIR method. Gains and losses are recognized in profit or loss when the liabilities are derecognized as well as through the EIR amortization process. Amortized cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the EIR. The EIR amortization is included in finance costs in the 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 recognized in the statement of profit and loss.

Financial liabilities designated upon initial recognition at fair value through profit or loss are designated at the initial date of recognition, and only if the criteria in Ind AS 109 are satisfied. For liabilities designated as FVTPL, fair value gains/losses attributable to changes in own credit risk are recognized in OCI. These gains/losses are not subsequently transferred to profit and loss. However, the Company may transfer the cumulative gain or loss within equity. All other changes in fair value of such liability are recognized in the statement of profit and loss. The Company has not designated any financial liability as at fair value through profit and loss.

### De-recognition

A financial liability is derecognized when the obligation under the liability is discharged or cancelled or expires. When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as the derecognition of the original liability and the recognition of a new liability. The difference in the respective carrying amounts is recognized in the statement of profit and loss.



## Derivative financial instruments

### Initial recognition and subsequent measurement

The Company uses derivative financial instruments, such as forward currency contracts and interest rate swaps to hedge its foreign currency risks and interest rate risks of foreign currency loans. Such derivative financial instruments are initially recognized at fair value on the date on which a derivative contract is entered into and are subsequently re-measured at fair value. Derivatives are carried as financial assets when the fair value is positive and as financial liabilities when the fair value is negative. Any gains or losses arising from changes in the fair value of derivatives are taken to statement of profit and loss.

## 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 recognized in the period in which the estimates are revised and in any future periods affected.

In order to enhance understanding of the financial statements, information about significant areas of estimation, uncertainty and critical judgments in applying accounting policies that have the most significant effect on the amounts recognized in the financial statements is as under:

### 1. Formulation of accounting policies

The accounting policies are formulated in a manner that results in financial statements containing relevant and reliable information about the transactions, other events and conditions to which they apply. Those policies need not be applied when the effect of applying them is immaterial.

### 2. Useful life of property, plant and equipment and intangible assets

The estimated useful life of property, plant and equipment and intangible assets is based on a number of factors including the effects of obsolescence, demand, competition and other economic factors (such as the stability of the industry and known technological advances) and the level of maintenance expenditures required to obtain the expected future cash flows from the asset.

Useful life of the assets of the generation of electricity business is determined by the CERC Tariff Regulations in accordance with Schedule II of the Companies Act, 2013.

The Company reviews at the end of each reporting date the useful life of assets, other than the assets of generation of electricity business which are governed by CERC Regulations, and are adjusted prospectively, if appropriate.

### 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 18. 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 recognizing provisions and contingencies have been made in accordance with Ind AS 37 'Provisions, contingent liabilities and contingent assets'. The evaluation of the likelihood of the contingent events 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 ventures 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 2018

₹ Crore

Particulars	Gross block				Depreciation, amortization 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	7,013.91	181.16	(40.38)	7,235.45	-	-	-	-	7,235.45
Leasehold	4,908.75	214.40	(77.58)	5,200.73	200.14	116.93	2.92	314.15	4,886.58
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 erections	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 signaling 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	82,663.39	24,208.92	(1,144.72)	108,017.03	10,442.85	6,673.82	106.36	17,010.31	91,006.72
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
<b>Total</b>	<b>1,11,414.60</b>	<b>27,759.06</b>	<b>(1,565.69)</b>	<b>1,40,739.35</b>	<b>12,351.90</b>	<b>7,822.27</b>	<b>155.43</b>	<b>20,018.74</b>	<b>1,20,720.61</b>



As at 31 March 2017

₹ Crore

Particulars	Gross block				Depreciation, amortization and impairment				Net block
	As at 1 April 2016	Additions	Deductions/ adjustments	As at 31 March 2017	Upto 1 April 2016	For the year	Deductions/ adjustments	Upto 31 March 2017	As at 31 March 2017
Land									
(including development expenses)									
Freehold	6,793.98	188.86	(31.07)	7,013.91	-	-	-	-	7,013.91
Leasehold	4,450.70	284.51	(173.54)	4,908.75	61.14	140.89	1.89	200.14	4,708.61
Under submergence (refer footnote (f) below)	719.69	56.15	43.01	732.83	25.10	27.94	3.78	49.26	683.57
Roads, bridges, culverts and helipads	749.68	77.48	(51.74)	878.90	33.55	38.37	2.38	69.54	809.36
Building									
Freehold									
Main plant	3,901.92	195.65	(18.59)	4,116.16	155.32	168.40	-	323.72	3,792.44
Others	2,439.73	337.65	(71.52)	2,848.90	128.58	147.06	3.18	272.46	2,576.44
Leasehold	18.91	-	-	18.91	1.85	1.85	-	3.70	15.21
Temporary erection	2.54	5.45	(0.84)	8.83	2.38	5.72	-	8.10	0.73
Water supply, drainage and sewerage system	379.22	88.50	(5.58)	473.30	23.46	25.93	-	49.39	423.91
Hydraulic works, barrages, dams, tunnels and power channel	4,120.98	-	(9.93)	4,130.91	163.19	218.52	-	381.71	3,749.20
MGR track and signaling system	946.57	27.12	(53.61)	1,027.30	58.55	65.28	-	123.83	903.47
Railway siding	649.75	64.97	(42.86)	757.58	34.99	45.15	-	80.14	677.44
Earth dam reservoir	161.68	44.76	(4.92)	211.36	10.28	12.11	-	22.39	188.97
Plant and equipment									
Owned	70,742.09	11,237.96	(683.34)	82,663.39	4,952.15	5,523.07	32.37	10,442.85	72,220.54
Leased	85.77	-	-	85.77	4.62	4.75	-	9.37	76.40
Furniture and fixtures	265.57	52.06	(21.49)	339.12	21.98	25.31	0.07	47.22	291.90
Vehicles including speedboats									
Owned	7.45	3.39	0.26	10.58	0.92	1.04	0.07	1.89	8.69
Leased	2.19	1.23	0.17	3.25	0.33	0.75	0.08	1.00	2.25
Office equipment	130.68	32.98	1.31	162.35	24.52	19.69	0.32	43.89	118.46
EDP, WP machines and satcom equipment	141.88	135.21	4.05	273.04	74.19	47.33	5.24	116.28	156.76
Construction equipment	110.74	24.02	0.53	134.23	11.64	11.99	0.54	23.09	111.14
Electrical installations	356.66	69.60	(8.16)	434.42	21.82	24.35	0.72	45.45	388.97
Communication equipment	58.55	10.01	0.29	68.27	16.85	7.94	0.15	24.64	43.63
Hospital Equipment	24.26	1.74	0.10	25.90	1.52	1.61	0.01	3.12	22.78
Laboratory and workshop equipment	70.81	15.38	(0.45)	86.64	3.71	5.01	-	8.72	77.92
Assets for ash utilisation	22.56	3.66	-	26.22	-	-	-	-	26.22
Less: Adjusted from fly ash utilisation reserve fund	22.56	3.66	-	26.22	-	-	-	-	26.22
<b>Total</b>	<b>97,332.00</b>	<b>12,954.68</b>	<b>(1,127.92)</b>	<b>1,11,414.60</b>	<b>5,832.64</b>	<b>6,570.06</b>	<b>50.80</b>	<b>12,351.90</b>	<b>99,062.70</b>

- a) The conveyancing of the title to **10,126 acres** of freehold land of value ₹ **1,900.82 crore** (31 March 2017: 9,235 acres of value ₹ 1,940.44 crore), buildings and structures of value ₹ **4.97 crore** (31 March 2017: ₹ 4.97 crore) and also execution of lease agreements for **10,824 acres** of land of value ₹ **1,804.49 crore** (31 March 2017: 12,570 acres of value ₹ 1,869.67 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 2017: 284.35 acres of value ₹ 0.52 crore), and **1,939.55 acres** of leasehold land of value ₹ **3.81 crore** (31 March 2017: 2,026.96 acres of value ₹ 3.68 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 **34 acres** (31 March 2017: 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 **1,298 acres** of value ₹ **133.93 crore** (31 March 2017: 1,295 acres of value ₹ 155.37 crore) not in possession of the Company. The Company is taking appropriate steps for repossession of the same.
- e) Land includes an amount of ₹ **262.91 crore** (31 March 2017: ₹ 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 ₹ **576.64 crore** (31 March 2017: ₹ 552.52 crore) of freehold land and ₹ **178.83 crore** (31 March 2017: ₹ 180.31 crore) of leasehold land. The land has been amortized considering the rate of depreciation provided by the CERC in the tariff regulations and the fact that it will not have any economic value due to deposit of silt and other foreign materials.
- g) Possession of land measuring **98 acres** (31 March 2017: 98 acres) consisting of **79 acres** of freehold land (31 March 2017: 79 acres) and **19 acres** of lease hold land (31 March 2017: 19 acres) of value ₹ **0.21 crore** (31 March 2017: ₹ 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 30 - Current liabilities - Other financial liabilities.
- h) Refer Note 56 (b) regarding property, plant and equipment under finance lease.
- i) Based on impairment assessment, the Company has reversed an impairment loss of ₹ **3.75 crore** (31 March 2017: ₹ 0.73 crore) during the year in respect of plant and equipment of a Solar PV Station of the Company. Refer Note 63 (a).
- j) Spare parts, stand-by equipment and servicing equipment of ₹ 5 lakh and above which meet the definition of property, plant and equipment are capitalized.
- k) Refer Note 22 for information on property, plant and equipment pledged as security by the Company.
- l) Refer Note 74 (C) (a) for disclosure of contractual commitments for the acquisition of property, plant and equipment.
- m) Deduction/adjustments from gross block and depreciation, amortization and impairment for the year includes:

₹ Crore

	Gross block		Depreciation, amortization and impairment	
	For the year ended		For the year ended	
	31 March 2018	31 March 2017	31 March 2018	31 March 2017
Disposal of assets	8.39	76.36	6.07	10.34
Retirement of assets	231.61	102.99	116.69	24.42
Cost adjustments including exchange differences	(1,851.12)	(1,200.64)	-	-
Assets capitalized with retrospective effect/Write back of excess capitalization	-	(139.81)	(1.11)	(8.95)
Others	45.43	33.18	33.78	24.99
	<b>(1,565.69)</b>	<b>(1,127.92)</b>	<b>155.43</b>	<b>50.80</b>



- n) Exchange differences capitalized are disclosed in the 'Addition' column of Capital work-in-progress (CWIP) and allocated to various heads of CWIP in the year of capitalization through 'Deductions/Adjustments' column of CWIP. Exchange differences in respect of assets already capitalized 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 2018		For the year ended 31 March 2017	
	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	7.27	136.89	(4.52)	197.09
Others	0.76	100.11	(0.25)	83.35
Hydraulic works, barrages, dams, tunnels and power channel	(0.51)	84.18	(5.62)	183.06
MGR track and signaling system	(0.01)	19.21	-	2.89
Railway siding	(0.32)	44.20	(0.06)	45.16
Plant and equipment	338.44	3,213.79	(172.18)	3,121.72
Others including pending allocation	(35.15)	557.51	(232.66)	491.81
<b>Total</b>	<b>310.48</b>	<b>4,155.89</b>	<b>(415.29)</b>	<b>4,125.08</b>

- o) Gross carrying amount of the fully depreciated property, plant and equipment that are still in use:

	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
Leasehold land	37.22	35.94
Roads, bridges, culverts and helipads	18.34	11.80
Main plant building	68.30	53.39
Other building	89.74	68.72
Water supply, drainage and sewerage system	15.69	11.06
MGR track and signaling system	34.11	33.85
Plant and equipment - Owned	2,181.48	1,212.91
Furniture and fixtures	18.57	16.44
Other office equipment	46.99	19.58
EDP, WP machines and satcom equipment	88.87	54.67
Communication equipment	22.93	19.08
Others	41.17	34.95
	<b>2,663.41</b>	<b>1,572.39</b>

Others include temporary erections, railway sidings, earth dam reservoirs, construction equipment and electrical installations etc.

### 3. Non-current assets - Capital work-in-progress

As at 31 March 2018

₹ Crore

Particulars	As at 1 April 2017	Additions	Deductions/ adjustments	Capitalized	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 signaling 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	(147.29)	23,071.77	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	1,212.72	25,995.28	71,606.92
<b>Expenditure pending allocation</b>					
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	5,456.54	11.22	-	5,828.05
Other expenditure directly attributable to project construction	502.72	73.18	-	-	575.90
Less: Allocated to related works	-	5,278.49	-	-	5,278.49
	76,901.31	25,494.31	2,202.84	25,995.28	74,197.50
Less: Provision for unserviceable works	98.73	359.48	6.23	-	451.98
Construction stores (net of provisions)	3,499.88	68.47	-	-	3,568.35
<b>Total</b>	<b>80,302.46</b>	<b>25,203.30</b>	<b>2,196.61</b>	<b>25,995.28</b>	<b>77,313.87</b>



As at 31 March 2017

Particulars	₹ Crore				
	As at 1 April 2016	Additions	Deductions/ adjustments	Capitalized	As at 31 March 2017
Development of land	734.44	184.40	40.33	-	878.51
Roads, bridges, culverts and helipads	75.12	106.05	4.48	77.48	99.21
piling and foundation	675.70	31.84	51.61	-	655.93
Buildings					
Freehold					
Main plant	3,155.65	1,370.65	732.62	195.65	3,598.03
Others	1,439.01	803.31	205.32	337.65	1,699.35
Temporary erections	36.58	10.36	5.53	5.45	35.96
Water supply, drainage and sewerage system	77.58	46.37	(19.08)	81.81	61.22
Hydraulic works, barrages, dams, tunnels and power channel	1,982.10	341.31	3.64	-	2,319.77
MGR track and signaling system	231.56	77.28	244.10	27.12	37.62
Railway siding	454.92	809.66	57.38	64.97	1,142.23
Earth dam reservoir	106.79	9.53	(17.69)	44.76	89.25
Plant and equipment - owned	48,356.68	23,612.18	351.08	10,098.95	61,518.83
Furniture and fixtures	12.85	29.53	1.33	17.90	23.15
Office equipment	2.03	5.60	0.19	1.93	5.51
EDP/WP machines and satcom equipment	28.27	2.04	(0.77)	29.52	1.56
Construction equipment	-	0.03	-	-	0.03
Electrical installations	368.88	175.83	(31.47)	59.49	516.69
Communication equipment	2.35	1.23	0.01	0.62	2.95
Hospital equipment	0.07	0.47	0.01	0.03	0.50
Laboratory and workshop equipment	2.96	11.34	0.32	8.07	5.91
Development of coal mines	1,301.30	281.42	118.18	-	1,464.54
	59,044.84	27,910.43	1,747.12	11,051.40	74,156.75
<b>Expenditure pending allocation</b>					
Survey, investigation, consultancy and supervision charges	92.88	-	5.49	-	87.39
Difference in exchange on foreign currency loans	1,920.69	35.13	457.69	-	1,498.13
Pre-commissioning expenses (net)	99.39	341.81	167.61	-	273.59
Expenditure during construction period (net)*	1,037.44	5,273.17	13.78	-	6,296.83
Other expenditure directly attributable to project construction	469.92	99.79	66.99	-	502.72
Less: Allocated to related works	-	5,914.10	-	-	5,914.10
	62,665.16	27,746.23	2,458.68	11,051.40	76,901.31
Less: Provision for unserviceable works	99.39	-	0.66	-	98.73
<b>Construction stores (net of provisions)</b>	<b>3,639.82</b>	<b>(139.94)</b>	<b>-</b>	<b>-</b>	<b>3,499.88</b>
<b>Total</b>	<b>66,205.59</b>	<b>27,606.29</b>	<b>2,458.02</b>	<b>11,051.40</b>	<b>80,302.46</b>

\* Brought from expenditure during construction period (net) - Note 42

- a) Construction stores are net of provision for shortages pending investigation amounting to ₹ **26.26 crore** (31 March 2017: ₹ 14.06 crore).
- b) Pre-commissioning expenses for the year amount to ₹ **544.39 crore** (31 March 2017: ₹ 384.87) and after adjustment of pre-commissioning sales of ₹ **77.40 crore** (31 March 2017: ₹ 43.06 crore) resulted in net pre-commissioning expenditure of ₹ **466.99 crore** (31 March 2017: ₹ 341.81 crore).
- c) Additions to the development of coal mines include expenditure during construction period (net) of ₹ **668.37 crore** (31 March 2017: ₹ 335.36 crore) - [Ref. Note 43] and are after netting off the receipts from coal extracted during the development phase amounting to ₹ **464.03 crore** (31 March 2017: (-) ₹ 20.82 crore).
- d) Details of exchange differences and borrowing costs capitalized are disclosed in Note 2 (n).

#### 4. Non-current assets - Intangible assets

##### As at 31 March 2018

Particulars	Gross block				Amortization				Net block	
	As at	Additions	Deductions/	As at	Upto	For	Deductions/	Upto	As at	
	1 April 2017		adjustments	31 March 2018	1 April 2017	the year	adjustments	31 March 2018	31 March 2018	
Software	26.90	7.36	(0.03)	<b>34.29</b>	14.67	7.49	0.01	<b>22.15</b>	<b>12.14</b>	
Right of use - Land	104.61	53.13	(2.81)	<b>160.55</b>	6.89	6.96	-	<b>13.85</b>	<b>146.70</b>	
- Others	203.71	-	-	<b>203.71</b>	20.64	10.31	-	<b>30.95</b>	<b>172.76</b>	
<b>Total</b>	<b>335.22</b>	<b>60.49</b>	<b>(2.84)</b>	<b>398.55</b>	<b>42.20</b>	<b>24.76</b>	<b>0.01</b>	<b>66.95</b>	<b>331.60</b>	

##### As at 31 March 2017

Particulars	Gross block				Amortization				Net block	
	As at	Additions	Deductions/	As at	Upto	For	Deductions/	Upto	As at	
	1 April 2016		adjustments	31 March 2017	1 April 2016	the year	adjustments	31 March 2017	31 March 2017	
Software	16.39	9.97	(0.54)	26.90	6.31	7.94	(0.42)	14.67	12.23	
Right of use - Land	73.20	28.36	(3.05)	104.61	2.78	4.11	-	6.89	97.72	
- Others	203.71	-	-	203.71	10.32	10.32	-	20.64	183.07	
<b>Total</b>	<b>293.30</b>	<b>38.33</b>	<b>(3.59)</b>	<b>335.22</b>	<b>19.41</b>	<b>22.37</b>	<b>(0.42)</b>	<b>42.20</b>	<b>293.02</b>	

- a) The right of use of land and others are amortized over the period of legal right to use or life of the related plant, whichever is less.
- b) Cost of acquisition of the right for drawl of water amounting to ₹ **203.71 crore** (31 March 2017: ₹ 203.71 crore) is included under intangible assets – Right of use - Others.
- c) Deductions/adjustments from gross block and amortization for the year includes:

Particulars	Gross block				Amortization			
	For the year ended		For the year ended		For the year ended		For the year ended	
	31 March 2018	31 March 2017	31 March 2018	31 March 2017	31 March 2018	31 March 2017	31 March 2017	
	Cost adjustments	<b>(2.84)</b>	(3.16)	-	-	-	-	-
Others	-	(0.43)	<b>0.01</b>	(0.42)	<b>0.01</b>	(0.42)	(0.42)	
<b>Total</b>	<b>(2.84)</b>	<b>(3.59)</b>	<b>0.01</b>	<b>(0.42)</b>	<b>0.01</b>	<b>(0.42)</b>	<b>(0.42)</b>	

₹ Crore



d) Gross carrying amount of the fully depreciated intangible assets that are still in use:

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
Software	13.64	2.70
Right of use - land	0.14	0.14
	<b>13.78</b>	<b>2.84</b>

#### 5. Non-current assets - Intangible assets under development

As at 31 March 2018

Particulars	₹ Crore				
	As at 1 April 2017	Additions	Deductions/ Adjustments	Capitalized	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
<b>Total</b>	<b>434.63</b>	<b>37.24</b>	<b>2.51</b>	-	<b>469.36</b>

As at 31 March 2017

Particulars	₹ Crore				
	As at 1 April 2016	Additions	Deductions/ Adjustments	Capitalized	As at 31 March 2017
Right of use - others	140.19	-	(74.34)	-	214.53
Exploration and evaluation assets - coal mines	-	102.09	(118.00)	-	220.09
Exploratory wells-in-progress	85.06	20.45	97.86	-	7.65
	225.25	122.54	(94.48)	-	442.27
Less: Provision for unserviceable works	7.64	-	-	-	7.64
<b>Total</b>	<b>217.61</b>	<b>122.54</b>	<b>(94.48)</b>	-	<b>434.63</b>



## 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 2018	As at 31 March 2017
<b>Equity instruments - Unquoted (fully paid up - unless otherwise stated, at cost)</b>				
<b>Subsidiary companies</b>				
NTPC Electric Supply Company Ltd.	80,910 (80,910)	10 (10)	<b>0.08</b>	0.08
NTPC Vidyut Vyapar Nigam Ltd.	2,00,00,000 (2,00,00,000)	10 (10)	<b>20.00</b>	20.00
Kanti Bijlee Utpadan Nigam Ltd.	1,04,28,88,641 (72,94,57,976)	10 (10)	<b>1,042.89</b>	729.46
Bhartiya Rail Bijlee Company Ltd.	1,59,95,33,644 (1,17,26,13,850)	10 (10)	<b>1,599.53</b>	1,172.61
Patratu Vidyut Utpadan Nigam Ltd.	9,21,24,000 (74,000)	10 (10)	<b>92.12</b>	0.08
			<b>2,754.62</b>	1,922.23
<b>Joint venture companies</b>				
Utility Powertech Ltd. (includes 10,00,000 bonus shares)	20,00,000 (20,00,000)	10 (10)	<b>1.00</b>	1.00
NTPC-GE Power Services Private Ltd.	30,00,000 (30,00,000)	10 (10)	<b>3.00</b>	3.00
NTPC-SAIL Power Company Ltd.	49,02,50,050 (49,02,50,050)	10 (10)	<b>490.25</b>	490.25
NTPC Tamil Nadu Energy Company Ltd.	1,40,99,96,112 (1,38,56,06,112)	10 (10)	<b>1,409.99</b>	1,385.61
Ratnagiri Gas & Power Private Ltd.	83,45,56,036 (97,43,08,300)	10 (10)	<b>834.55</b>	974.30
Less: Provision for impairment			<b>617.05</b>	782.95
			<b>217.50</b>	191.35
Konkan LNG Private Ltd.	13,97,52,264 (-)	10 (-)	<b>139.75</b>	-
Less: Provision for impairment			<b>139.75</b>	-
			-	-
Aravali Power Company Private Ltd.	1,43,30,08,200 (1,39,85,08,200)	10 (10)	<b>1,433.01</b>	1,398.51
NTPC BHEL Power Projects Private Ltd.	5,00,00,000 (5,00,00,000)	10 (10)	<b>50.00</b>	50.00
Less: Provision for impairment			<b>45.59</b>	28.68
			<b>4.41</b>	21.32
Meja Urja Nigam Private Ltd.	1,20,93,29,800 (1,16,64,39,800)	10 (10)	<b>1,209.33</b>	1,166.44



Particulars	Number of shares Current year/ (previous year)	Face value per share in ₹ Current year/ (previous year)	₹ Crore	
			As at 31 March 2018	As at 31 March 2017
BF-NTPC Energy Systems Ltd.	68,48,681 (65,70,900)	10 (10)	<b>6.85</b>	6.57
Less: Provision for impairment			<b>4.43</b>	3.75
			<b>2.42</b>	2.82
Nabinagar Power Generating Company Private Ltd.	1,65,99,35,500 (1,18,93,00,000)	10 (10)	<b>1,659.94</b>	1,189.30
Transformers and Electricals Kerala Ltd.	1,91,63,438 (1,91,63,438)	10 (10)	<b>31.34</b>	31.34
National High Power Test Laboratory Private Ltd.	3,04,00,000 (3,04,00,000)	10 (10)	<b>30.40</b>	30.40
Energy Efficiency Services Ltd.	14,65,00,000 (14,65,00,000)	10 (10)	<b>146.50</b>	146.50
CIL NTPC Urja Private Ltd.	76,900 (76,900)	10 (10)	<b>0.08</b>	0.08
Anushakti Vidhyut Nigam Ltd.	49,000 (49,000)	10 (10)	<b>0.05</b>	0.05
Hindustan Urvarak & Rasayan Ltd.	33,32,50,000 (50,25,000)	10 (10)	<b>333.25</b>	5.03
Trincomalee Power Company Ltd. (* Srilankan rupees)	32,86,061 (32,86,061)	100* (100)*	<b>15.20</b>	15.20
Bangladesh-India Friendship Power Company Private Ltd. (* Bangladeshi Taka)	2,42,50,000 (1,62,50,000)	100* (100)*	<b>198.91</b>	134.20
			<b>7,186.58</b>	6,212.40
<b>Total</b>			<b>9,941.20</b>	<b>8,134.63</b>
<b>Aggregate amount of unquoted investments</b>			<b>9,941.20</b>	<b>8,134.63</b>
<b>Aggregate amount of impairment in the value of investments</b>			<b>806.82</b>	<b>815.38</b>

- a) Investments have been valued as per accounting policy no. C.26.1 (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 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 withdrawal, provision of ₹ 45.59 crore (31 March 2017: ₹ 28.68 crore) for impairment in the value of investment has been recognized based on the unaudited accounts of NTPC-BHEL as at 31 March 2018.
- c) 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 NTPC Limited. GOI has suggested to wind up BF-NTPC and NTPC Limited has given its consent for winding up. Approval of the GOI has been accorded on 8 January 2018. The winding up of the joint venture is under process. Pending winding-up, provision of ₹ 4.43 crore (31 March 2017: ₹ 3.75 crore) for impairment in the value of investment has been recognized based on the unaudited accounts of BF-NTPC as at 31 March 2018.
- d) 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 Company. GOI has accorded its approval for exit of NTPC from the joint venture. The decision of the Board of Directors of NTPC Limited and approval of GOI has been conveyed to the Government of Kerala (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 recognized.

e) The Company had an investment of ₹ 974.30 crore as at 31 March 2017 in the equity shares of Ratnagiri Gas and Power Private Ltd., a joint venture of the Company (RGPPL). During the year, the National Company Law Appellate Tribunal ('NCLAT') has approved the demerger scheme of Ratnagiri Gas and Power Private Ltd., ('Demerged Company') with effective date of 1 January 2016 as a result of which all the assets and liabilities of the LNG Terminal ('demerged undertaking') have been transferred to Konkan LNG Private Ltd. ('Resulting Company') (KLPL) at book values.

Consequent to demerger, the Resulting Company has allotted equity shares of face value of ₹ 10/- each equivalent to the share entitlement ratio of 143:1000 for each equity shares held in Demerged Company i.e. 13,97,52,264 equity shares of ₹ 10/- each to the Company. Accordingly, the Company has reduced its investment in RGPPL by ₹ 139.75 crore and has recorded 'Investment in Konkan LNG Private Ltd.' with the same amount.

As required by Ind AS 36, an assessment of impairment of the investment in RGPPL was carried out by an independent expert in the previous year and an loss on the investment in RGPPL amounting to ₹ 782.95 Crore was provided and the same was disclosed as 'Exceptional items - Impairment loss on investments' in the statement of profit and loss for the year ended 31 March 2017. Consequent to demerger Scheme, the provision for impairment loss in the equity investment of RGPPL of ₹ 782.95 crore as at 31 March 2017 has been bifurcated between RGPPL and KLPL at ₹ 643.20 crore and ₹ 139.75 crore respectively. Refer Note 63 (b).

Based on the above, the impairment loss recognized in the previous year and disclosed under exceptional items, has been written back to the extent of ₹ 26.15 crore thereby reducing the provision for impairment loss in the value of investments in RGPPL to ₹ 617.05 crore. Consequently, the carrying value of investments in RGPPL is ₹ 217.50 crore.

f) Restrictions for the disposal of investments held by the Company and commitments towards certain subsidiary & joint venture companies are disclosed in Note 74 (C) (b) and (c).

## 7. Non-current financial assets - Investments

Particulars	Number of shares Current year/ (previous year)	Face value per share in ₹ Current year/ (previous year)	₹ Crore	
			As at 31 March 2018	As at 31 March 2017
<b>Equity instruments (fully paid up - unless otherwise stated)</b>				
<b>Quoted (designated at fair value through other comprehensive income)</b>				
PTC India Ltd.	1,20,00,000 (1,20,00,000)	10 (10)	<b>104.88</b>	112.08
			<b>104.88</b>	112.08
<b>Unquoted (measured at fair value through profit or loss)</b>				
International Coal Ventures Private Ltd.	14,00,000 (14,00,000)	10 (10)	<b>1.40</b>	1.40
			<b>1.40</b>	1.40
<b>Co-operative societies</b>			<b>#</b>	<b>#</b>
<b>Total</b>			<b>106.28</b>	<b>113.48</b>
<b>Aggregate amount of quoted investments at cost</b>			<b>12.00</b>	12.00
<b>Aggregate market value of the quoted investments</b>			<b>104.88</b>	112.08
<b>Aggregate amount of unquoted investments</b>			<b>1.40</b>	1.40

# Equity shares of ₹ 30,200/- (31 March 2017: ₹ 30,200/-) held in various employee co-operative societies.



- a) Investments have been valued as per accounting policy no. C.26.1 (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 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 withdrawal, no provision for impairment in the value of investment in ICVPL is required to be made.
- d) 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. and International Coal Ventures Private Ltd., and the same has been accounted for as per the provisions of Ind AS 109 'Financial Instruments'.
- e) No strategic investments in equity instruments measured at FVTOCI were disposed during the financial year 2017-18, and there were no transfers of any cumulative gain or loss within equity relating to these investments.

#### 8. Non-current financial assets - Trade receivables

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
Trade receivables		
Unsecured, considered good	-	35.59

#### 9. Non-current financial assets - Loans

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
<b>Loans (Considered good, unless otherwise stated)</b>		
Related parties		
Unsecured	201.71	129.92
Employees (including accrued interest)		
Secured	222.44	252.52
Unsecured	206.45	97.81
Others		
Secured	25.07	50.34
<b>Total</b>	<b>655.67</b>	<b>530.59</b>
a) Due from directors and officers of the Company		
Directors	0.11	0.06
Officers	-	0.01
b) Loans to related parties include:		
Key management personnel	0.11	0.07
Kanti Bijli Utpadan Nigam Ltd. (Subsidiary company)	201.00	121.00
Patratu Vidyut Utpadan Nigam Ltd. (Subsidiary company)	-	8.25
NTPC Education and Research Society	0.60	0.60
c) Other loans represent loan of ₹ 25.07 crore (31 March 2017: ₹ 50.34 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 Company.		
- Loan to APIIC is secured by a guarantee given by the Government of Andhra Pradesh vide GO dated 3 April 2003.		

## 10. Non-current assets - Other financial assets

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
<b>Share application money pending allotment in Subsidiary companies</b>		
Kanti Bijlee Utpadan Nigam Ltd.	-	233.43
Bhartiya Rail Bijlee Company Ltd.	-	247.93
Patratu Vidyut Utpadan Nigam Ltd.	<b>32.00</b>	34.50
	<b>32.00</b>	515.86
<b>Joint venture companies</b>		
NTPC Tamil Nadu Energy Company Ltd.	-	24.39
Nabinagar Power Generating Company Private Ltd.	<b>197.93</b>	164.00
Energy Efficiency Services Ltd.	<b>99.00</b>	-
Bangladesh-India Friendship Power Company Private Ltd.	<b>78.92</b>	-
	<b>375.85</b>	188.39
Claims recoverable	<b>704.22</b>	638.97
Finance lease receivables (Note 56 b)	<b>502.32</b>	525.29
Mine closure deposit	<b>18.47</b>	5.67
<b>Total</b>	<b>1,632.86</b>	1,874.18

- a) The shares are expected to be allotted within 60 days from the date of payment of the share application money.
- b) Claims recoverable includes ₹ 680.11 crore (31 March 2017: ₹ 619.34 crore) towards the cost incurred upto 31 March 2018 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 ₹ 390.59 crore (31 March 2017: ₹ 332.38 crore) in respect of arbitration awards challenged by the Company before Hon'ble High Court. 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 32). Management expects that the total cost incurred, anticipated expenditure on the safety and stabilization 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 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 recognized as 'Interest income on assets under finance lease' under 'Revenue from operations' (Note 36).

## 11. Other non-current assets

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
<b>Capital advances</b> (Considered good unless otherwise stated)		
Secured	<b>22.39</b>	16.23
Unsecured		
Covered by bank guarantee	<b>1,898.56</b>	3,296.66
Others	<b>2,780.34</b>	3,077.33
Considered doubtful	<b>5.76</b>	5.74
Less: Allowance for bad and doubtful advances	<b>5.76</b>	5.74
	<b>4,701.29</b>	6,390.22
<b>Advances other than capital advances</b>		
Security deposits	<b>83.22</b>	80.00
Advances to related parties	<b>20.95</b>	20.95
Advances to contractors and suppliers	<b>2,287.66</b>	2,296.71



Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
Advance tax and tax deducted at source	11,245.66	11,423.36
Less: Provision for tax	8,029.52	4,517.16
	3,216.14	6,906.20
Deferred foreign currency fluctuation asset	1,119.00	1,032.68
Deferred payroll expenditure	140.42	146.72
<b>Total</b>	<b>11,568.68</b>	<b>16,873.48</b>

a) In line with accounting policy no. 15 (Note 1), deferred foreign currency fluctuation asset has been accounted and (-) ₹ 128.39 crore (31 March 2017: (-) ₹ 233.80 crore) being the exchange fluctuations on account of foreign currency loans have been recognized in 'Energy sales' under 'Revenue from operations' (Note 36).

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.	45.39	48.42
NTPC BHEL Power Projects Private Ltd.	65.95	117.03
Aravali Power Company Private Ltd.	0.34	-

c) Capital advances include ₹ 224.29 crore (31 March 2017: ₹ 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 ₹ 2,226.22 crore (31 March 2017: ₹ 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 the 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 5% interest after commercial operation date (COD) of the railway projects. The railway projects as per the agreement are yet to achieve the COD.

e) Capital advance are secured against the hypothecation of the construction equipment/material supplied by the contractors/suppliers.

f) Loans given to employees are measured at amortized cost. The deferred payroll expenditure represents the benefits accruing to employees. The same is amortized on a straight-line basis over the remaining period of the loan.

## 12. Current assets - Inventories

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
Coal	2,085.38	2,627.38
Fuel oil	311.02	270.30
Naphtha	118.51	112.64
Stores and spares	2,915.56	2,890.96
Chemicals and consumables	120.62	97.87
Loose tools	8.47	7.41
Steel scrap	16.82	18.68
Others	610.68	582.43
	6,187.06	6,607.67
Less: Provision for shortages	22.06	5.10
Provision for obsolete/unserviceable items/ diminution in value of surplus inventory	107.62	97.76
<b>Total</b>	<b>6,057.38</b>	<b>6,504.81</b>

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
Inventories include material-in-transit		
Coal	293.39	183.92
Stores and spares	26.67	46.50
Chemicals and consumables	1.15	0.78
Loose tools	0.02	0.08
Others	0.71	0.91

- 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 22 and 51 (b) for information on inventories pledged as security by the Company.

### 13. Current financial assets - Trade receivables

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
Trade receivables		
Unsecured, considered good	7,577.97	8,137.92
Considered doubtful	0.34	0.20
	7,578.31	8,138.12
Less: Allowance for bad and doubtful receivables	0.34	0.20
<b>Total</b>	<b>7,577.97</b>	<b>8,137.92</b>

Amounts receivable from related parties are disclosed in Note 60.

### 14. Current financial assets - Cash and cash equivalents

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
Balances with banks		
Current accounts	59.85	150.60
Deposits with original maturity upto three months (including interest accrued)	-	3.35
Cheques and drafts on hand	0.57	3.10
Others (stamps on hand)	0.07	0.07
<b>Total</b>	<b>60.49</b>	<b>157.12</b>

### 15. Current financial assets - Bank balances other than cash and cash equivalents

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
Deposits with original maturity of more than three months and maturing within one year (including interest accrued)	2,617.34	1,287.97
Earmarked balances with banks #	1,300.55	1,485.40
<b>Total</b>	<b>3,917.89</b>	<b>2,773.37</b>



Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
# Earmarked balances with banks towards:		
Redemption of bonds due for repayment within one year	100.00	101.04
Fly ash utilisation reserve fund*	631.21	556.68
DDUGJY Scheme of the GOI**	543.90	802.05
Unpaid dividend account balance	16.51	17.61
Amount deposited as per court orders	5.00	5.00
Unpaid interest/refund account balance - Bonds	3.88	2.97
Unpaid interest on public deposit	0.03	0.03
Security with government authorities	0.02	0.02
<b>Total</b>	<b>1,300.55</b>	<b>1,485.40</b>

\* Refer Note 21 d) regarding fly ash utilization reserve fund.

\*\* Out of advance for DDUGJY Scheme of the GOI. Refer Note 30 (c) and 31 (a).

a) Deposits with original maturity of more than three months and maturing within one year include ₹ 1,743.89 crore (31 March 2017: ₹ 955.33 crore) which has been kept in corporate liquid term deposits with bank. These deposits represents unutilized 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 modernization of power stations and can be utilized only for the stated purposes.

## 16. Current financial assets - Loans

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
<b>Loans (including interest accrued)</b> (Considered good unless otherwise stated)		
Related parties		
Unsecured	47.95	25.05
Employees		
Secured	67.13	72.55
Unsecured	164.25	134.32
Others		
Secured	0.89	5.00
<b>Total</b>	<b>280.22</b>	<b>236.92</b>
a) Due from Directors and Officers of the Company		
Directors	0.13	0.04
Officers	0.03	0.01
b) Loans to related parties include:		
Key management personnel	0.16	0.05
Patraru Vidyut Utpadan Nigam Ltd. (Subsidiary company)	41.75	25.00
Kanti Bijlee Utpadan Nigam Ltd. (Subsidiary company)	0.04	-
National High Power Test Laboratory Private Ltd. (Joint venture company)	6.00	-

c) Other loans represent loans of ₹ 0.89 crore (31 March 2017: ₹ 5.00 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 Company.

- Loan to APIIC is secured by a guarantee given by the Government of Andhra Pradesh vide GO dated 3 April 2003.



## 17. Current assets - Other financial assets

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
<b>Advances</b>		
(Considered good unless otherwise stated)		
Related parties		
Unsecured	217.11	179.44
Employees		
Unsecured	6.01	5.78
Considered doubtful	0.07	0.04
Less: Allowance for bad and doubtful advances	0.07	0.04
	6.01	5.78
Others		
Unsecured	0.50	14.72
	223.62	199.94
<b>Claims recoverable</b>		
Unsecured, considered good	54.24	94.63
Considered doubtful	0.12	0.12
Less: Allowance for doubtful claims	0.12	0.12
	54.24	94.63
Unbilled revenue	7,574.60	5,718.67
Hedging cost recoverable from beneficiaries	2.53	1.60
Derivative MTM asset	3.73	-
Finance lease receivables	40.00	29.77
Dividend receivable	20.00	-
Others	19.40	8.71
<b>Total</b>	<b>7,938.12</b>	<b>6,053.32</b>

a) Unbilled revenue is net of credits to be passed to beneficiaries at the time of billing and includes ₹ **6,932.84 crore** (31 March 2017: ₹ 7,496.34 crore) billed to the beneficiaries after 31 March for energy sales.

b) Advance to related parties include:

Subsidiary companies	129.82	125.96
Joint venture companies	74.61	45.55

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.	0.34	0.37
Aravali Power Company Private Ltd.	4.01	9.03
NTPC BHEL Power Projects Private Ltd.	5.99	4.80
Meja Urja Nigam Private Ltd.	10.00	3.50
Nabinagar Power Generating Company Private Ltd.	0.97	2.61
Bangladesh India Friendship Power Company Private Ltd.	1.43	9.34
Ratnagiri Gas & Power Private Ltd.	3.95	-

d) Dividend receivable represents interim dividend declared by M/s 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.



18. Current assets - Other current assets

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
Security deposits (unsecured)	1,021.21	950.81
Advances (Considered good unless otherwise stated)		
Related parties		
Unsecured	1,663.71	667.80
Employees		
Unsecured	6.53	4.74
Contractors and suppliers		
Secured	2.76	1.51
Unsecured	5,381.01	355.80
Considered doubtful	1.90	1.90
Less: Allowance for bad and doubtful advances	1.90	1.90
	5,383.77	357.31
Others		
Unsecured	176.06	110.51
	7,230.07	1,140.36
Interest accrued on		
Advance to contractors	43.22	41.76
Claims recoverable		
Unsecured, considered good	2,547.98	2,367.47
Considered doubtful	39.20	11.96
Less: Allowance for doubtful claims	39.20	11.96
	2,547.98	2,367.47
Assets held for disposal	1.98	1.72
Deferred payroll expenses	27.92	21.53
Others	5.85	12.79
<b>Total</b>	<b>10,878.23</b>	<b>4,536.44</b>

a) Security deposits (unsecured) include ₹ 27.73 crore (31 March 2017: ₹ 63.31 crore) towards sales tax deposited with sales/commercial tax authorities, ₹ 272.76 crore (31 March 2017: ₹ 346.30 crore) deposited with Courts, ₹ 177.47 crore (31 March 2017: ₹ 177.06 crore) deposited with LIC for making annuity payments to the land oustees, ₹ 275.05 crore (31 March 2017: ₹ 275.05 crore) deposited with the Water Resource Department, Govt. of Chhattisgarh for drawl of water and ₹ 158.50 crore (31 March 2017: ₹ Nil) deposited against bank guarantee with one of the party as per the direction of the Hon'ble Supreme Court of India, refer Note 56 (b).

b) Advances - Contractors and suppliers - unsecured includes an amount of ₹ 5,000.00 crore (31 March 2017: ₹ Nil) paid to Indian Railways during the year, towards advance railway freight to be adjusted against freight payable on coal transportation during the year 2018-19 pursuant to an agreement entered into with Indian Railways, Ministry of Railways, GOI.

c) Advances - Others include prepaid expenses amounting to ₹ 87.39 crore (31 March 2017: ₹ 88.43 crore) and unamortized discount on commercial paper amounting to ₹ 88.40 crore (31 March 2017: ₹ 21.89 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	0.07
NTPC BHEL Power Projects Private Ltd.	1.33	0.22

e) Loans given to employees are measured at amortized cost. The deferred payroll expenditure represents the benefits accruing to employees. The same is amortized on a straight-line basis over the remaining period of the loan.

f) In the previous year figures, an amount of ₹ 588.10 crore has been regrouped from Advances - Contractors and suppliers - unsecured to Advances - Related parties - Unsecured, to enhance comparability with the current year's financial statements.

## 19. Regulatory deferral account debit balances

₹ Crore

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
Exchange differences	101.99	-
On account of employee benefits expense	641.14	522.83
	<b>743.13</b>	<b>522.83</b>

Regulatory deferral account balances have been accounted in line with Accounting policy no. C.4 (Note 1). Refer Note 71 for detailed disclosures.

## 20. Equity share capital

₹ Crore

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
<b>Equity share capital</b>		
<b>Authorized</b>		
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 2017)	10,000.00	10,000.00
<b>Issued, subscribed and fully paid up</b>		
8,24,54,64,400 shares of par value ₹ 10/- each (8,24,54,64,400 shares of par value ₹ 10/- each as at 31 March 2017)	8,245.46	8,245.46

## a) Movement in equity share capital:

During the year, the Company has neither issued nor bought back any shares.

## 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 2018	31 March 2017
<b>(i) Dividends paid and recognized during the year</b>		
Final dividend for the year ended 31 March 2017 of ₹ 2.17 (31 March 2016: ₹ 1.75) per fully paid share	1,789.27	1,442.96
Interim dividend for the year ended 31 March 2018 of ₹ 2.73 (31 March 2017: ₹ 2.61) per fully paid share	2,251.01	2,152.07

₹ Crore

(ii) Dividends not recognized at the end of the reporting period	31 March 2018	31 March 2017
In addition to the above dividends, since year end the directors have recommended the payment of a final dividend of ₹ 2.39 (31 March 2017: ₹ 2.17) per fully paid equity share. This proposed dividend is subject to the approval of shareholders in the ensuing Annual General Meeting.	1,970.67	1,789.27

## d) Details of shareholders holding more than 5% shares in the Company:

Particulars	As at 31 March 2018		As at 31 March 2017	
	No. of shares	%age holding	No. of shares	%age holding
- President of India	5,13,48,25,262	62.27	5,75,07,59,170	69.74
- Life Insurance Corporation of India (including shares held in various Funds/Schemes)	1,00,34,56,797	12.17	99,82,58,968	12.11



## 21. Other equity

₹ Crore

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
Capital reserve	50.08	50.08
Securities premium account	2,228.46	2,228.46
Bonds/debentures redemption reserve	7,274.56	5,961.81
Fly ash utilisation reserve fund	631.21	556.68
General reserve	80,831.63	76,831.63
Retained earnings	2,508.57	2,342.11
Reserve for equity instruments through OCI	7.80	15.00
<b>Total</b>	<b>93,532.31</b>	<b>87,985.77</b>

### (a) Capital reserve

₹ Crore

Particulars	₹ Crore	
	For the year ended 31 March 2018	For the year ended 31 March 2017
Opening balance and closing balance	50.08	50.08

Capital reserve represents amount received by the Company during 2001-02 as consideration under settlement for withdrawal from an erstwhile JV project. There is no movement in the capital reserve balance during the year.

### (b) Securities premium account

₹ Crore

Particulars	₹ Crore	
	For the year ended 31 March 2018	For the year ended 31 March 2017
Opening balance and closing balance	2,228.46	2,228.46

Securities premium account 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 securities premium account balance during the year.

### (c) Bonds/Debentures redemption reserve

₹ Crore

Particulars	₹ Crore	
	For the year ended 31 March 2018	For the year ended 31 March 2017
Opening balance	5,961.81	4,608.73
Add : Transfer from retained earnings	1,637.75	1,667.08
Less: Transfer to retained earnings	325.00	314.00
<b>Closing balance</b>	<b>7,274.56</b>	<b>5,961.81</b>

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

Particulars	₹ Crore	
	For the year ended 31 March 2018	For the year ended 31 March 2017
Opening balance	556.68	478.21
Add: Transferred during the year:		
Revenue from operations	131.02	108.42
Other income	26.74	27.63
Less: Utilised during the year:		
Capital expenditure	13.07	3.66
Employee benefits expense	19.02	20.80
Other administration expenses	51.14	33.12
<b>Closing balance</b>	<b>631.21</b>	<b>556.68</b>

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 utilized only for the development of infrastructure or facility, promotion & facilitation activities for use of fly ash until 100 percent fly ash utilization level is achieved.

During the year, proceeds of ₹ 131.02 crore (31 March 2017: ₹ 108.42 crore) from sale of ash/ash products, ₹ 26.74 crore (31 March 2017: ₹ 27.63 crore) towards income on investment have been transferred to fly ash utilisation reserve fund. An amount of ₹ 83.23 crore (31 March 2017: ₹ 57.58 crore) has been utilized from the fly ash utilisation reserve fund on expenses incurred for activities as specified in the aforesaid notification of MOEF.

The fund balance of ₹ 631.21 crore (31 March 2017: ₹ 556.68 crore) has been kept in 'Bank balances other than cash & cash equivalents' (Note 15).

## (e) General reserve

Particulars	₹ Crore	
	For the year ended 31 March 2018	For the year ended 31 March 2017
Opening balance	76,831.63	72,331.63
Add : Transfer from retained earnings	4,000.00	4,500.00
<b>Closing balance</b>	<b>80,831.63</b>	<b>76,831.63</b>

## (f) Retained earnings

Particulars	₹ Crore	
	For the year ended 31 March 2018	For the year ended 31 March 2017
Opening balance	2,342.11	3,371.41
Add: Profit for the year as per statement of profit and loss	10,343.17	9,385.26
Transfer from bonds/debentures redemption reserve	325.00	314.00
Less: Transfer to bonds/debentures redemption reserve	1,637.75	1,667.08
Transfer to general reserve	4,000.00	4,500.00
Final dividend paid	1,789.27	1,442.96



Particulars	₹ Crore	
	For the year ended 31 March 2018	For the year ended 31 March 2017
Tax on final dividend paid	358.15	289.68
Interim dividend paid	2,251.01	2,152.07
Tax on interim dividend paid	458.25	438.11
	<b>2515.85</b>	2580.77
Items of other comprehensive income recognized directly in retained earnings:		
- Net actuarial losses on defined benefit plans (net of tax)	(7.28)	(238.66)
Closing balance	<b>2,508.57</b>	2,342.11

(g) Reserve for equity instruments through OCI

Particulars	₹ Crore	
	For the year ended 31 March 2018	For the year ended 31 March 2017
Opening balance	15.00	(20.28)
Add: Fair value gain/(loss) on equity instruments for the year	(7.20)	35.28
Closing balance	<b>7.80</b>	15.00

The Company has elected to recognize changes in the fair value of certain investments in equity instruments in other comprehensive income. These changes are accumulated in reserve for equity instruments through OCI within equity. The Company transfers amounts from this reserve to retained earnings when the relevant equity instruments are derecognized.

22. Non-current financial liabilities - Borrowings

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
<b>Bonds/debentures</b>		
<b>Secured</b>		
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) <sup>xi</sup>	188.95	188.94
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) <sup>xi</sup>	171.71	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) <sup>iii</sup>	322.04	322.11
8.66% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 1,000/- each redeemable at par in full on 16 December 2033 (Fiftieth Issue - Public Issue - Series 3A) <sup>vii</sup>	319.87	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) <sup>vii</sup>	410.32	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) <sup>xiii</sup>	4,010.35	4,010.34

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
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) <sup>xii</sup>	720.59	720.58
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) <sup>xi</sup>	133.45	133.44
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) <sup>xi</sup>	49.89	49.88
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) <sup>iii</sup>	105.67	105.70
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) <sup>vii</sup>	256.10	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) <sup>vii</sup>	93.71	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) <sup>xii</sup>	696.79	696.77
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) <sup>xii</sup>	836.49	836.47
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) <sup>xii</sup>	1,072.78	1,072.76
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) <sup>xii</sup>	511.79	511.77
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) <sup>xi</sup>	111.97	111.96
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) <sup>xi</sup>	68.17	68.15
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) <sup>x</sup>	313.11	313.05
9.17% Secured non-cumulative non-convertible redeemable taxable bonds of ₹10,00,000/- each redeemable at par in full on 22 September 2024 (Fifty Third Issue - Private Placement) <sup>x</sup>	1,047.99	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) <sup>iii</sup>	751.15	751.54
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) <sup>iii</sup>	75.45	75.47



₹ Crore

Particulars	As at 31 March 2018	As at 31 March 2017
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) <sup>vii</sup>	499.95	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) <sup>vii</sup>	213.89	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 11 <sup>th</sup> year and in annual installments thereafter upto the end of 15 <sup>th</sup> year respectively commencing from 04 May 2023 and ending on 04 May 2027 (Forty Fourth Issue - Private Placement) <sup>vii</sup>	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) <sup>i</sup>	50.01	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) <sup>vii</sup>	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 8 <sup>th</sup> year, 9 <sup>th</sup> year and 10 <sup>th</sup> year on 25 March 2023, 25 March 2024 and 25 March 2025 respectively (Fifty Fourth Issue - Bonus Debentures) <sup>x</sup>	10,321.21	10,318.82
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) <sup>vii</sup>	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 11 <sup>th</sup> year and in annual installments thereafter upto the end of 15 <sup>th</sup> year respectively commencing from 25 January 2023 and ending on 25 January 2027 (Forty Second Issue - Private Placement) <sup>iii</sup>	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) <sup>vii</sup>	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) <sup>xii</sup>	716.30	716.26
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 5 <sup>th</sup> year, 10 <sup>th</sup> year & 15 <sup>th</sup> year on 27 May 2021, 27 May 2026 and 27 May 2031 respectively (Sixty first issue - Private Placement) <sup>xi</sup>	1,145.48	1,145.94
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) <sup>xii</sup>	659.93	660.18
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) <sup>iii</sup>	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) <sup>xii</sup>	305.90	305.92
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) <sup>iii</sup>	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) <sup>iii</sup>	531.27	531.27





Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
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) <sup>iii</sup>	368.02	368.12
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) <sup>iii</sup>	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) <sup>iii</sup>	552.87	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) <sup>ii</sup>	50.92	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) <sup>iii</sup>	1,027.12	1,027.42
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 6 <sup>th</sup> year and in annual installments thereafter upto the end of 20 <sup>th</sup> year respectively commencing from 20 July 2018 and ending on 20 July 2032 (Forty Sixth Issue - Private Placement) <sup>iii</sup>	80.09	80.07
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 6 <sup>th</sup> year and in annual installments thereafter upto the end of 20 <sup>th</sup> year respectively commencing from 16 May 2018 and ending on 16 May 2032 (Forty Fifth Issue - Private Placement) <sup>iii</sup>	80.14	80.12
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) <sup>i</sup>	103.33	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 6 <sup>th</sup> year and in annual installments thereafter upto the end of 20 <sup>th</sup> year respectively commencing from 2 March 2018 and ending on 2 March 2032 (Forty Third Issue - Private Placement) <sup>iii</sup>	74.70	80.02
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 6 <sup>th</sup> year and in annual installments thereafter upto the end of 20 <sup>th</sup> year respectively commencing from 23 December 2017 and ending on 23 December 2031 (Forty First Issue - Private Placement) <sup>iii</sup>	74.92	80.25
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 6 <sup>th</sup> year and in annual installments thereafter upto the end of 20 <sup>th</sup> year respectively commencing from 29 July 2017 and ending on 29 July 2031 (Fortieth Issue - Private Placement) <sup>iii</sup>	74.86	80.18
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 6 <sup>th</sup> year and in annual installments thereafter upto the end of 20 <sup>th</sup> year respectively commencing from 9 June 2017 and ending on 9 June 2031 (Thirty Ninth Issue - Private Placement) <sup>iii</sup>	104.68	112.13
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 6 <sup>th</sup> year and in annual installments thereafter upto the end of 20 <sup>th</sup> year respectively commencing from 22 March 2017 and ending on 22 March 2031 (Thirty Eighth Issue - Private Placement) <sup>iii</sup>	69.33	74.64



₹ Crore

Particulars	As at 31 March 2018	As at 31 March 2017
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 6 <sup>th</sup> year and in annual installments thereafter upto the end of 20 <sup>th</sup> year respectively commencing from 15 December 2016 and ending on 15 December 2030 (Thirty Sixth Issue - Private Placement) <sup>iii</sup>	69.16	74.46
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 6 <sup>th</sup> year and in annual installments thereafter upto the end of 20 <sup>th</sup> year respectively commencing from 15 September 2016 and ending on 15 September 2030 (Thirty Fifth Issue - Private Placement) <sup>iii</sup>	110.63	119.12
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 6 <sup>th</sup> year and in annual installments thereafter upto the end of 20 <sup>th</sup> year respectively commencing from 10 June 2016 and ending on 10 June 2030 (Thirty Fourth Issue - Private Placement) <sup>iii</sup>	138.22	148.82
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 6 <sup>th</sup> year and in annual installments thereafter upto the end of 20 <sup>th</sup> year respectively commencing from 25 March 2016 and ending on 25 March 2030 (Thirty Second Issue - Private Placement) <sup>iii</sup>	89.40	96.82
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) <sup>iii</sup>	73.13	146.78
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) <sup>iii</sup>	73.06	146.64
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) <sup>iv</sup>	153.15	204.24
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) <sup>iv</sup>	153.06	204.13
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) <sup>iv</sup>	152.99	204.03
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) <sup>v</sup>	203.76	305.71
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) <sup>vi</sup>	50.92	101.86
9.55% Secured non-cumulative non-convertible taxable redeemable bonds of ₹10,00,000/- each with ten equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of the 6 <sup>th</sup> year and in annual installments thereafter upto the end of 15 <sup>th</sup> year respectively from 30 April 2002 (Thirteenth Issue - Part B - Private Placement) <sup>viii</sup>	-	77.37

₹ Crore

Particulars	As at 31 March 2018	As at 31 March 2017
9.55% Secured non-cumulative non-convertible taxable redeemable bonds of ₹10,00,000/- each redeemable at par in ten equal annual installments commencing from the end of 6 <sup>th</sup> year and upto the end of 15 <sup>th</sup> year respectively from 18 April 2002 (Thirteenth Issue -Part A - Private Placement) <sup>viii</sup>	-	77.38
	<b>33,846.07</b>	<b>34,513.63</b>
<b>Foreign currency notes</b>		
<b>Unsecured</b>		
4.500 % Fixed rate notes due for repayment on 19 March 2028	<b>2,603.86</b>	-
2.750 % Fixed rate notes due for repayment on 1 February 2027	<b>4,045.23</b>	3,529.38
4.250 % Fixed rate notes due for repayment on 26 February 2026	<b>3,271.97</b>	3,274.75
4.375 % Fixed rate notes due for repayment on 26 November 2024	<b>3,331.35</b>	3,336.43
4.750 % Fixed rate notes due for repayment on 3 October 2022	<b>3,281.50</b>	3,286.50
7.250 % Fixed global INR denominated bonds due for repayment on 3 May 2022	<b>2,126.07</b>	-
7.375 % Fixed green global INR denominated bonds due for repayment on 10 August 2021	<b>2,085.26</b>	2,066.05
5.625 % Fixed rate notes due for repayment on 14 July 2021	<b>3,320.98</b>	3,326.04
<b>Term loans</b>		
<b>From Banks</b>		
<b>Unsecured</b>		
Foreign currency loans	<b>8,499.07</b>	7,782.47
Rupee term loans	<b>37,790.81</b>	29,979.46
<b>From Others</b>		
<b>Unsecured</b>		
Foreign currency loans (guaranteed by GOI)	<b>2,033.65</b>	2,102.96
Other foreign currency loans	<b>3,466.13</b>	3,516.85
Rupee term loans	<b>6,472.96</b>	8,141.03
<b>Finance lease obligations</b>		
Secured	<b>1.42</b>	2.40
Unsecured	<b>182.92</b>	142.62
	<b>1,16,359.25</b>	<b>1,05,000.57</b>
<b>Less:</b>		
<b>Current maturities of</b>		
Bonds-secured	<b>2,209.00</b>	650.00
Foreign currency loans from banks - unsecured	<b>694.16</b>	1,681.74
Rupee term loans from banks - unsecured	<b>1,859.89</b>	2,111.00
Foreign currency loans from others - unsecured (guaranteed by GOI)	<b>181.85</b>	172.58



Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
Other foreign currency loans from others - unsecured	529.01	507.52
Rupee term loans from others - unsecured	898.52	1,359.38
Finance lease obligations - secured	0.72	0.78
Finance lease obligations - unsecured	33.54	17.37
Interest accrued but not due on borrowings	1,254.96	1,160.92
<b>Total</b>	<b>1,08,697.60</b>	<b>97,339.28</b>

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 17 to 26 semi annual installments as of 31 March 2018.
  - ii) Unsecured foreign currency loans – Banks include loans of ₹ 352.80 crore (31 March 2017: ₹ 463.02 crore) which carry fixed rate of interest of 1.88% p.a. to 4.31% p.a. and loans of ₹ 8,146.27 crore (31 March 2017: ₹ 7,319.45 crore) which carry floating rate of interest linked to 6M USD LIBOR/6 M JPY LIBOR. These loans are repayable in 2 to 21 semi-annual/annual installments as of 31 March 2018, commencing after moratorium period if any, as per the terms of the respective loan agreements.
  - iii) Unsecured foreign currency loans – Others include loans of ₹ 3,342.55 crore (31 March 2017: ₹ 3,300.64 crore) which carry fixed rate of interest ranging from 1.88% p.a. to 4.31% p.a. and loans of ₹ 123.58 crore (31 March 2017: ₹ 216.21 crore) which carry floating rate of interest linked to 6M EURIBOR. These loans are repayable in 4 to 22 semi annual installments as of 31 March 2018, 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 8.76% 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 16 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.

### 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 (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 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 and (III) Equitable mortgage of the immovable properties, on first pari passu charge basis, pertaining to Singrauli Super Thermal Power Station by extension of charge already created.
- IX Secured by English mortgage of the immovable properties pertaining to Solapur Super Thermal Power Project on first charge basis.
- X Secured by Equitable mortgage of the immovable properties pertaining to Barh Super Thermal Power Project on first charge basis.
- XI Secured by English mortgage, on pari passu charge basis, of the immovable properties pertaining to Solapur Super Thermal Power Project.
- XII Secured by Equitable mortgage, on pari passu charge basis, of the immovable properties pertaining to Barh Super Thermal Power Project.
- XIII Secured by Equitable mortgage of the immovable properties pertaining to Vindhyachal Super Thermal Power Station on first charge basis.
- XIV Security cover mentioned at Sl. No. I to XIII is above 100% of the debt securities outstanding.



**23. Non-current financial liabilities - Trade payables**

₹ Crore

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
Trade payable for goods and services	<b>23.31</b>	13.17

a) Trade payables for goods and services include ₹ 5.49 crore (31 March 2017: ₹ 5.18 crore) payable to MSME vendors. Detailed disclosures as required under MSMED Act, 2006 are provided in Note 72.

b) Amounts payable to related parties are disclosed in Note 60.

**24. Non-current liabilities - Other financial liabilities**

₹ Crore

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
Payable for capital expenditure	<b>1,970.71</b>	1,999.77
Deposits from contractors and others	<b>1.72</b>	1.72
Others	<b>192.26</b>	245.64
<b>Total</b>	<b>2164.69</b>	2247.13

a) Payable for capital expenditure include ₹ 9.99 crore (31 March 2017: ₹ 9.91 crore) payable to MSME vendors. Detailed disclosures as required under MSMED Act, 2006 are provided in Note 72.

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 60.

**25. Non-current liabilities - Provisions**

₹ Crore

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
Provision for employee benefits	<b>480.90</b>	463.15

Disclosures as per Ind AS 19 'Employee benefits' are provided in Note 57.

**26. Non-current liabilities - Deferred tax liabilities (net)**

₹ Crore

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
Deferred tax liability		
Difference in book depreciation and tax depreciation	<b>13,609.45</b>	10,065.74
Less: Deferred tax assets		
Provisions	<b>1,109.69</b>	1,025.09
Statutory dues	<b>543.95</b>	492.37
Leave encashment	<b>273.35</b>	430.69
Others	<b>29.86</b>	93.08
	<b>11,652.60</b>	8,024.51
Less: Deferred asset for deferred tax liability	<b>9,243.97</b>	6,539.67
<b>Total</b>	<b>2,408.63</b>	1,484.84

- a) Deferred tax assets and deferred tax liabilities have been offset as they relate to the same governing laws.
- b) CERC 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 materialization from the beneficiaries. 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. 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.
- c) Disclosures as per Ind AS 12 'Income Taxes' are provided in Note 55.

#### Movement in deferred tax balances

As at 31 March 2018

₹ Crore

Particulars	Net balance As at 1 April 2017	Recognized in statement of profit and loss	Recognized in OCI	Others	Net balance As at 31 March 2018
Difference in book depreciation and tax depreciation	10,065.74	3,543.71	-	-	13,609.45
Provisions	1,025.09	84.60	-	-	1,109.69
Statutory dues	492.37	51.58	-	-	543.95
Leave encashment	430.69	(157.34)	-	-	273.35
Others	93.08	(63.22)	-	-	29.86
<b>Tax (assets)/liabilities</b>	<b>8,024.51</b>	<b>3,628.09</b>	<b>-</b>	<b>-</b>	<b>11,652.60</b>
Less: Deferred asset for deferred tax liability	6,539.67	2,704.30			9,243.97
<b>Net tax (assets)/liabilities</b>	<b>1,484.84</b>	<b>923.79</b>	<b>-</b>	<b>-</b>	<b>2,408.63</b>

As at 31 March 2017

₹ Crore

Particulars	Net balance As at 1 April 2016	Recognized in statement of profit and loss	Recognized in OCI	Other	Net balance As at 31 March 2017
Difference in book depreciation and tax depreciation	8,153.38	1,912.41	-	-	10,065.79
Provisions	713.01	312.08	-	-	1,025.09
Statutory dues	174.44	317.93	-	-	492.37
Leave encashment	342.45	88.24	-	-	430.69
Others	107.86	(14.78)	-	-	93.08
<b>Tax (assets)/liabilities</b>	<b>6,815.61</b>	<b>1,208.90</b>	<b>-</b>	<b>-</b>	<b>8,024.51</b>
Less: Deferred asset for deferred tax liability	5,663.40	876.27			6,539.67
<b>Net tax (assets)/liabilities</b>	<b>1,152.21</b>	<b>332.63</b>	<b>-</b>	<b>-</b>	<b>1,484.84</b>

**27. Non-current liabilities - Other non-current liabilities**

₹ Crore

Particulars	As at 31 March 2018	As at 31 March 2017
Advance from customers and others	-	17.49

Represents deposits received from the contractors, customers and other parties for Deen Dayal Upadhyay Gram Jyoti Yojna. Refer Note 31 a.

**28. Current financial liabilities - Borrowings**

₹ Crore

Particulars	As at 31 March 2018	As at 31 March 2017
Loans repayable on demand		
From banks		
Unsecured		
Cash credit	0.32	0.56
Other loans		
Unsecured		
Commercial paper	6,500.00	3,000.00
<b>Total</b>	<b>6,500.32</b>	<b>3,000.56</b>

There has been no default in repayment of any of the loans or interest thereon as at the end of the year.

**29. Current financial liabilities - Trade payables**

₹ Crore

Particulars	As at 31 March 2018	As at 31 March 2017
Trade payable for goods and services	5,592.64	4,876.08

a) Trade payables include ₹ 276.11 crore (31 March 2017: ₹ 186.65 crore) payable to MSME vendors. Detailed disclosures as required under MSMED Act, 2006 are provided in Note 72.

b) Amounts payable to related parties are disclosed in Note 60.



## 30. Current liabilities - Other financial liabilities

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
Current maturities of non-current borrowings		
Bonds - Secured	2,209.00	650.00
From Banks		
Unsecured		
Foreign currency loans	694.16	1,681.74
Rupee term loans	1,859.89	2,111.00
From Others		
Unsecured		
Foreign currency loans (guaranteed by GOI)	181.85	172.58
Other foreign currency loans	529.01	507.52
Rupee term loans	898.52	1,359.38
	<b>6,372.43</b>	<b>6,482.22</b>
Current maturities of finance lease obligations - Secured	0.72	0.78
Current maturities of finance lease obligations - Unsecured	33.54	17.37
Interest accrued but not due on borrowings	1,254.96	1,160.92
Unpaid dividends	16.51	17.61
Unpaid matured deposits and interest accrued thereon	0.19	0.19
Unpaid matured bonds and interest accrued thereon	4.20	3.29
Unpaid bond refund money-Tax free bonds	0.26	0.26
Book overdraft	1.29	-
Payable to customers	358.08	562.81
Payable for capital expenditure	11,813.97	9,578.24
Hedging gain payable to beneficiaries	6.27	-
Derivative MTM liability	-	1.60
Other payables		
Deposits from contractors and others	162.95	124.69
Payable to employees	735.95	516.88
Others	647.66	712.54
<b>Total</b>	<b>21,408.98</b>	<b>19,179.40</b>

- 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 22.
- 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 ₹ 263.10 crore (31 March 2017: ₹ 238.93 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 payable - others also include ₹ 211.49 crore (31 March 2017: ₹ 120.75 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 dependent of employees who die or suffer permanent total disability under the 'Employees Rehabilitation Scheme' (said amount is included in Other payable - 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. The Company has been advised that the amount accepted under the Scheme is not a deposit under the Companies Act, 2013.



- e) Payable for capital expenditure include ₹159.23 crore (31 March 2017: ₹ 146.13 crore) payable to MSME vendors. Detailed disclosures as required under MSMED Act, 2006 are provided in Note 72.
- f) Amounts payable to related parties are disclosed in Note 60.
- g) In the previous year figures, an amount of ₹ 240.14 crore has been regrouped from Payable to customers to Other payables - Others, to enhance comparability with the current year's financial statements.

### 31. Current liabilities - Other current liabilities

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
Advances from customers and others	454.33	690.10
Other payables		
Statutory dues	509.66	391.06
<b>Total</b>	<b>963.99</b>	<b>1,081.16</b>

Advance received for the DDUGJY (including interest thereon) of ₹ 313.97 crore (31 March 2017: ₹ 597.75 crore) is included in 'Advance from customers and others'. Refer Note 30 c). Tax deducted at source on the interest is included in 'Advance tax and tax deducted at source' - Note 11.

### 32. Current liabilities - Provisions

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
Provision for		
Employee benefits	2,936.65	2,388.05
Obligations incidental to land acquisition	3,465.00	3,695.78
Tariff adjustment	330.10	1,170.79
Others	1,357.08	710.30
<b>Total</b>	<b>8,088.83</b>	<b>7,964.92</b>

- a) Disclosures required by Ind AS 19 'Employee Benefits' are provided in Note 57.
- b) Disclosures required by Ind AS 37 'Provisions, Contingent Liabilities and Contingent Assets' are made in Note 64.
- c) The pay revision of the employees of the Company is due w.e.f. 1 January 2017. Department of Public Enterprises, GOI (DPE) had constituted the 3<sup>rd</sup> Pay Revision Committee (PRC) to review the structure of pay scales and allowances/benefits of various categories of Central Public Sector Enterprises. Based on the recommendations of the 3<sup>rd</sup> PRC, DPE has issued broad guidelines for pay revision. Based on the proposal of the Company to GOI on 6 September 2017, presidential directive has been issued on 10 May 2018. Presidential directive states adherence of relevant DPE guidelines which requires approval of the Board of Directors (BOD) of the Company. Pending approval by the BOD, provision for pay revision has been recognized on an estimated basis amounting to ₹1,203.28 crore as at 31 March 2018 (31 March 2017: ₹ 260.24 crore).
- d) The Company aggrieved over many of the issues considered by the CERC in the tariff orders for its stations for the period 2004-09 had filed appeals with the Appellate Tribunal for Electricity (APTEL). The APTEL disposed off the appeals favourably directing the CERC to revise the tariff orders as per directions and methodology given. Some of the issues decided in favour of the Company by the APTEL were challenged by the CERC in the Hon'ble Supreme Court of India. Subsequently, the CERC has issued revised tariff orders for all the stations except one for the period 2004-09, considering the judgment of APTEL subject to disposal of appeals pending before the Hon'ble Supreme Court of India.
- The Hon'ble Supreme Court of India has dismissed the appeal filed by the CERC and accordingly the directions of APTEL to CERC stands good. Keeping in view the above, the provision created amounting to ₹ 1,156.32 crore made till 31 March 2017 towards anticipated tariff adjustments, has been written back during the year.
- e) Provision for others mainly comprise ₹ 73.15 crore (31 March 2017: ₹ 68.24 crore) towards cost of unfinished minimum work programme demanded by the Ministry of Petroleum and Natural Gas (MoP&NG) including interest thereon in relation to block AA-ONN-2003/2 (Refer Note 65), ₹ 1,279.31 crore (31 March 2017: ₹ 640.25 crore) towards provision for cases under litigation and ₹ 4.62 crore (31 March 2017: ₹ 1.81 crore) towards provision for shortage in property, plant and equipment on physical verification pending investigation.

**33. Current liabilities - current tax liabilities (net)**

₹ Crore

Particulars	As at	
	31 March 2018	31 March 2017
Current tax - net of advance tax of ₹ Nil (31 March 2017: ₹ 2,637.00 crore)	-	75.20

**34. Deferred revenue**

₹ Crore

Particulars	As at	
	31 March 2018	31 March 2017
On account of		
Advance against depreciation	74.35	247.02
Income from foreign currency fluctuation	1,435.35	1,376.67
Government grants	576.20	497.45
<b>Total</b>	<b>2,085.90</b>	<b>2,121.14</b>

- 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 ₹ 297.91 crore (31 March 2017: ₹ 32.92 crore) has been recognized during the year from the AAD and included in energy sales (Note 36). The AAD recognized during the 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. The same has also been recognized as energy sales during the 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 recognizing deferred foreign currency fluctuation asset by corresponding credit to deferred income from foreign currency fluctuation in respect of the FERV on foreign currency loans adjusted in the cost of property, plant and equipment, which is recoverable from the customers in future years as provided in accounting policy no. C.15 (Note 1). This amount will be recognized as revenue corresponding to the depreciation charge in future years. The amount does not constitute a liability to be discharged in future periods and hence, it has been disclosed separately from equity and liabilities.
- d) Government grants include ₹ 575.93 crore (31 March 2017: ₹ 497.14 crore) received from Solar Energy Corporation of India under MNRE Scheme for setting up solar PV power projects.

**35. Regulatory deferral account credit balances**

₹ Crore

Particulars	As at	
	31 March 2018	31 March 2017
Exchange differences	-	482.74

Regulatory deferral account balances have been accounted in line with accounting policy no. C.4. Refer Note 71 for detailed disclosures.



36. Revenue from operations

₹ Crore

Particulars	For the year ended 31 March 2018	For the year ended 31 March 2017
Energy sales (including electricity duty)	79,673.58	77,071.11
Sale of energy through trading	1,439.58	-
Consultancy, project management and supervision fee	182.80	163.71
Lease rentals on assets on operating lease	233.13	240.42
	<b>81,529.09</b>	<b>77,475.24</b>
Sale of fly ash/ash products	131.02	108.42
Less: Transferred to fly ash utilisation reserve fund	131.02	108.42
	-	-
<b>Other operating revenues</b>		
Interest from beneficiaries	487.54	397.09
Energy internally consumed	63.41	68.93
Interest income on assets under finance lease	166.52	154.31
Recognized from deferred revenue - government grant	36.00	15.38
Sale of energy saving certificates	11.17	-
Provisions for tariff adjustments written back	1,158.97	162.49
	<b>1,923.61</b>	<b>798.20</b>
<b>Total</b>	<b>83,452.70</b>	<b>78,273.44</b>

- a) The CERC notified the Tariff Regulations, 2014 in February 2014 (Regulations, 2014). The CERC has issued tariff orders for all the stations except six 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 ₹ 80,670.65 crore (31 March 2017: ₹ 74,710.65 crore).
- b) The 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 (subject to final decision of the Hon'ble High Court) that samples for measurement of coal on 'as received' basis should be collected from wagon top at the generating stations. The Company's review petition before the CERC in respect of the above order was dismissed vide their order dated 30 June 2016. Vide order dated 10 November 2016, the Hon'ble Delhi High Court has permitted the Company to approach the CERC with the difficulties being faced in implementation of the order of CERC in this regard and the Company has filed a petition with the CERC. Pending disposal of the petition by the CERC and ratification by the Hon'ble Delhi High Court, 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. Sales have been provisionally recognized at ₹ 79,683.50 crore (31 March 2017: ₹ 75,800.54 crore) on the said basis.
- c) Sales include ₹ 6.44 crore (31 March 2017: ₹ 995.59 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 ₹ 267.99 crore in respect of one of the stations, considering the directions issued by the CERC on 28 September 2017. Further, sales for the year amounting to ₹ 96.73 crore has not been recognized considering the said directions.
- d) Sales include ₹ 210.33 crore (31 March 2017: ₹ Nil) on account of income tax refundable to the beneficiaries as per Regulations, 2004. Sales also include ₹ 66.98 crore (31 March 2017: ₹ 46.04 crore) on account of deferred tax materialized which is recoverable from beneficiaries as per Regulations, 2014.
- e) 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 Company filed an appeal against this order in APTEL which has been admitted. Pending disposal of the appeal and considering the said order of the CERC, sales of ₹ 248.75 crore recognized till 7 March 2016 has been reversed and balance amounting to ₹ 276.69 crore has been provided as 'Provision for tariff adjustment' for the period upto 31 March 2017 (Refer Note 41). Sales for the current year has been recognized as per the said order.
- f) Energy sales include electricity duty amounting to ₹ 879.77 crore (31 March 2017: ₹ 697.99 crore).



- g) Energy sales are net of rebate to beneficiaries amounting to ₹752.78 crore (31 March 2017: ₹469.05 crore).
- h) Other operating revenue includes ₹ 63.41 crore (31 March 2017: ₹ 68.93 crore) towards energy internally consumed, valued at variable cost of generation and the corresponding amount is included in power charges in Note 41.
- i) 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 ₹ 487.54 crore (31 March 2017: ₹ 397.09 crore) has been accounted as 'Interest from beneficiaries'. Further, the amount payable to the beneficiaries has been accounted as 'Interest to beneficiaries' in Note 41.
- j) Provision for tariff adjustments written back include ₹1,156.32 crore written back during the year based on disposal of a petition in favour of the Company by the Hon'ble Supreme Court of India. Refer Note 32 (d).
- k) One of the power stations of the Company, having 3 units of 95 MW each and two units of 210 MW each, was issued consent to operate (Renewal) order by Delhi Pollution Control Committee (DPCC) on 2 Jan 2014 which was valid till 31 Jan 2018 with a condition that particulate emission level shall not exceed 150 mg/Nm<sup>3</sup>. In a volte-face on 8 July 2015, DPCC issued a show cause notice to the station as to why four units out of five units of plant ought not to be closed down for failing to bring down its particulate emission level below 50 mg/Nm<sup>3</sup>. Further, vide order dtd 31 Dec 2015, DPCC directed that four units out of five units of plant shall not operate. On 11 February 2016, DPCC modified the norms for particulate emission level of the consent to operate from 150 mg/Nm<sup>3</sup> to 50 mg/Nm<sup>3</sup>. Further, vide order dated 21 March 2016, DPCC allowed operation of 2 units of 210 MW subject to meeting the SPM of 50 mg/Nm<sup>3</sup>. Further, DPCC vide order dated 6 November 2016, directed not to operate all units of station for 10 days which was subsequently extended till further orders. DPCC, vide order dated 14 March 2017 has allowed operation of two units of 210 MW each for the period from 15 March 2017 to 15 October 2017. Subsequently, DPCC vide order dated 1 March 2018 allowed the station to operate two units of 210 MW each from 1 March 2018. Company's petitions to direct beneficiaries for payment of fixed charges on account of closure due to DPCC's directions which are under change in law are pending disposal before the CERC.
- l) 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 has ascertained that the PPA entered into for two of the power stations of the Company 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.
- m) 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 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 recognized as 'Interest income on Assets under finance lease'.

### 37. Other income

₹ Crore

Particulars	For the year ended 31 March 2018	For the year ended 31 March 2017
<b>Interest from</b>		
Financial assets at amortized cost		
Loan to state government in settlement of dues from customers	-	2.03
Loan to subsidiary companies	16.82	5.07
Loan to employees	59.35	58.88
Deposits with banks	91.88	72.49
Deposits with banks out of fly ash utilisation reserve fund	26.74	23.92
Less : Transferred to fly ash utilisation reserve fund	26.74	23.92
	-	-
Deposits with banks - DDUGJY funds	27.83	36.27
Less : Transferred to DDUGJY advance from customers	27.83	36.27
	-	-
Advance to contractors	38.48	44.69
Income tax refund	2,750.44	-
Less : Refundable to beneficiaries	2,344.75	-
	405.69	-



Particulars	₹ Crore	
	For the year ended 31 March 2018	For the year ended 31 March 2017
Others	19.24	23.81
<b>Dividend from</b>		
Non-current investments in		
Subsidiary companies	50.00	20.00
Joint venture companies	135.57	143.09
Equity instruments designated at fair value through OCI	3.60	3.00
Current investments in mutual funds out of fly ash utilisation reserve fund	-	3.71
Less : Transferred to fly ash utilisation reserve fund	-	3.71
	-	-
<b>Other non-operating income</b>		
Late payment surcharge from beneficiaries	507.00	439.39
Hire charges for equipment	2.50	3.38
Sale of scrap	136.90	83.13
Gain on sale of current investments measured at fair value through profit and loss	137.51	24.81
Miscellaneous income	161.35	200.28
Profit on de-recognition of property, plant and equipment	2.37	10.36
Provisions written back		
Impairment of investments in joint venture companies	26.15	-
Unserviceable capital works	-	4.62
Obsolescence in stores	10.61	1.55
Others	4.73	6.21
	1,809.75	1,146.79
Less: Transferred to expenditure during construction period (net) - Note 42	49.36	76.33
Transferred to expenditure during development of coal mines (net) - Note 43	5.14	1.60
<b>Total</b>	<b>1,755.25</b>	<b>1,068.86</b>

- a) Interest from others includes interest on advance to APIIC for drawl 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 doubtful loans, advances, claims, provision for shortage in stores and shortage in property, plant and equipment.

**38. Employee benefits expense**

Particulars	₹ Crore	
	For the year ended 31 March 2018	For the year ended 31 March 2017
Salaries and wages	4,845.85	4,037.01
Contribution to provident and other funds	623.43	1,077.82
Staff welfare expenses	558.99	441.24
	<b>6,028.27</b>	<b>5,556.07</b>
Less: Allocated to fuel cost	265.29	262.77
Transferred to expenditure during construction period (net) - Note 42	851.39	761.83
Transferred to expenditure during development of coal mines (net) - Note 43	72.41	57.26
Transferred to fly ash utilisation reserve fund	19.02	20.80
Transferred to CSR expenses	-	54.90
Reimbursements for employees on deputation	85.49	73.91
<b>Total</b>	<b>4,734.67</b>	<b>4,324.60</b>

- a) Disclosures as per Ind AS 19 'Employee Benefits' in respect of provision made towards various employee benefits are provided in Note 57.
- b) Salaries and wages include special allowance paid by the Company to eligible employees serving in difficult and far flung areas w.e.f. 26 November 2008. As per the Office Memorandum dated 26 November 2008 of DPE relating to revision of pay scales w.e.f. 1 January 2007, special allowance can be paid to such employees upto 10% of basic pay as approved by concerned administrative ministry. In line with the office memorandum dated 22 June 2010 of DPE, Board of Directors has approved the special allowance (Difficult and Far Flung Areas) to eligible employees. The approval of Ministry of Power, GOI for the same is awaited.
- c) The pay revision of the employees of the Company is due w.e.f. 1 January 2017. The required provision towards revision of pay scales has been recognized during the year. Refer Note 32 (c).

**39. Finance costs**

Particulars	₹ Crore	
	For the year ended 31 March 2018	For the year ended 31 March 2017
<b>Finance costs on financial liabilities measured at amortized cost</b>		
Bonds	2,793.01	2,492.45
Foreign currency term loans	345.52	354.19
Rupee term loans	3,246.43	3,507.37
Foreign currency bonds/notes	1,087.98	763.41
Cash credit	3.70	7.30
Unwinding of discount on vendor liabilities	286.84	487.60
Discount on commercial papers	62.57	63.00
Others	1.73	0.47
	<b>7,827.78</b>	<b>7,675.79</b>
Exchange differences regarded as an adjustment to borrowing costs	274.05	-
<b>Other borrowing costs</b>		
Guarantee fee		
Foreign currency bonds/notes expenses	28.97	31.68
Others	0.22	0.57
	<b>9.12</b>	<b>14.24</b>
	<b>38.31</b>	<b>46.49</b>
	<b>8,140.14</b>	<b>7,722.28</b>
Less: Transferred to expenditure during construction period (net) - Note 42	3,958.95	4,005.33
Transferred to expenditure during development of coal mines (net) - Note 43	196.94	119.75
<b>Total</b>	<b>3,984.25</b>	<b>3,597.20</b>



a) Other borrowing costs - Others include bond issue and service expenses, commitment charges, exposure premium and insurance premium & other expenses on foreign currency loans.

#### 40. Depreciation, amortization and impairment expense

₹ Crore

Particulars	For the year ended 31 March 2018	For the year ended 31 March 2017
On property, plant and equipment - Note 2	7,822.27	6,570.06
On intangible assets - Note 4	24.76	22.37
	<b>7,847.03</b>	<b>6,592.43</b>
Less:		
Allocated to fuel cost	395.17	345.93
Transferred to expenditure during construction period (net) - Note 42	156.87	148.38
Transferred to expenditure during development of coal mines (net) - Note 43	40.09	14.20
Adjustment with deferred revenue from deferred foreign currency fluctuation	156.04	163.10
<b>Total</b>	<b>7,098.86</b>	<b>5,920.82</b>

#### 41. Other expenses

₹ Crore

Particulars	For the year ended 31 March 2018	For the year ended 31 March 2017
Power charges	337.54	238.60
Less: Recovered from contractors and employees	28.88	27.55
	<b>308.66</b>	<b>211.05</b>
Water charges	841.12	553.45
Cost of captive coal	316.97	33.72
Stores consumed	73.61	57.48
Rent	29.41	35.91
Less: Recoveries	5.89	11.50
	<b>23.52</b>	<b>24.41</b>
Load dispatch center charges	38.96	28.74
Repairs and maintenance		
Buildings	260.71	244.14
Plant and equipment	2,185.40	1,826.68
Others	308.86	238.89
	<b>2,754.97</b>	<b>2,309.71</b>
Insurance	116.24	117.19
Interest to beneficiaries	12.00	101.72
Rates and taxes	82.09	46.84
Water cess and environment protection cess	13.64	25.93
Training and recruitment expenses	50.55	33.64
Less: Receipts	0.52	0.98
	<b>50.03</b>	<b>32.66</b>
Communication expenses	51.71	59.03
Travelling expenses	199.08	200.76



₹ Crore

Particulars	For the year ended 31 March 2018	For the year ended 31 March 2017
Tender expenses	22.79	25.12
Less: Receipt from sale of tenders	1.65	1.83
	21.14	23.29
Payment to auditors	5.44	5.36
Advertisement and publicity	30.74	18.88
Electricity duty	881.51	699.59
Security expenses	710.85	595.31
Entertainment expenses	29.02	26.95
Expenses for guest house	35.94	27.77
Less: Recoveries	1.40	2.74
	34.54	25.03
Education expenses	52.19	42.97
Donation	8.00	-
Ash utilisation and marketing expenses	25.71	21.78
Directors sitting fee	0.34	0.21
Professional charges and consultancy fee	59.51	112.75
Legal expenses	44.83	40.45
EDP hire and other charges	22.04	18.42
Printing and stationery	10.96	15.59
Oil and gas exploration expenses	2.83	110.58
Hiring of vehicles	96.96	87.14
Reimbursement of LC charges on sales realization	0.26	1.08
Net loss/(gain) in foreign currency transactions and translations	538.00	(199.04)
Cost of hedging	1.62	5.27
Derivatives MTM loss/(gain) (net)	(5.33)	5.22
Horticulture expenses	46.56	39.79
Hire charges of helicopter/aircraft	15.63	17.02
Hire charges of construction equipments	11.60	9.42
Transport vehicle running expenses	6.74	7.01
Demurrage charges	0.74	-
Loss on de-recognition of property, plant and equipment	110.67	82.94
Miscellaneous expenses	166.26	99.96
	7,811.96	5,715.66
Less: Allocated to fuel cost	490.57	421.65
Transferred to expenditure during construction period (net) - Note 42	532.92	411.56
Transferred to expenditure during development of coal mines (net) - Note 43	363.41	144.01
Transferred to derivative MTM loss/(gain) recoverable (payable) from/to beneficiaries	(5.33)	5.22
Transferred to fly ash utilisation reserve fund	51.14	33.12
Transferred to CSR expense	39.60	42.17
	6,339.65	4,657.93



₹ Crore

Particulars	For the year ended 31 March 2018	For the year ended 31 March 2017
<b>Corporate Social Responsibility (CSR) expense (Note 75)</b>	<b>239.09</b>	273.35
<b>Provisions for</b>		
Tariff adjustments	318.28	98.88
Impairment of investments in joint venture companies	17.59	22.19
Obsolescence in stores	21.95	12.04
Shortages in stores	20.41	3.37
Unserviceable capital works	359.48	4.75
Unfinished minimum work programme for oil and gas exploration	4.92	2.89
Arbitration cases	56.05	4.80
Shortages in construction stores	12.41	7.67
Doubtful loans, advances and claims	28.67	0.24
Others	3.23	4.27
	<b>842.99</b>	161.10
<b>Total</b>	<b>7,421.73</b>	5,092.38

- 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 43).
- b) Details in respect of payment to auditors:
- |                                    |             |      |
|------------------------------------|-------------|------|
| As auditor                         |             |      |
| Audit fee                          | 1.76        | 1.68 |
| Tax audit fee                      | 0.57        | 0.59 |
| Limited review                     | 0.97        | 0.95 |
| In other capacity                  |             |      |
| Other services (certification fee) | 0.76        | 0.70 |
| Reimbursement of expenses          | 0.86        | 0.85 |
| Reimbursement of service tax/GST   | 0.52        | 0.59 |
| <b>Total</b>                       | <b>5.44</b> | 5.36 |
- Payment to the auditors includes ₹ 0.33 crore (31 March 2017: ₹ 0.67 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 ₹ 12.00 crore (31 March 2017: ₹ 101.72 crore) has been accounted and disclosed as 'Interest to beneficiaries'.
- d) Water charges include amount provided against the demand of ₹ 305.55 crore (31 March 2017: ₹ Nil) 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 tariff adjustment includes an amount of ₹ 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 station of the Company. The Company filed an appeal in the APTEL, which has been admitted. Refer Note 36 (e).
- g) Provisions for shortages in stores include provision for shortage of coal observed on physical verification, beyond the Company's norms, amounting to ₹ 10.98 crore (31 March 2017: ₹ Nil)
- h) Provisions - Others include provision for doubtful debts and shortages in property, plant and equipment.



## 42. Expenditure during construction period (net) \*

Particulars	₹ Crore	
	For the year ended 31 March 2018	For the year ended 31 March 2017
<b>A. Employee benefits expense</b>		
Salaries and wages	737.96	582.22
Contribution to provident and other funds	77.90	131.61
Staff welfare expenses	35.53	48.00
<b>Total (A)</b>	<b>851.39</b>	<b>761.83</b>
<b>B. Finance costs</b>		
Finance costs on financial liabilities measured at amortized cost		
Bonds	1,378.10	1,335.26
Foreign currency term loans	163.68	191.67
Rupee term loans	1,373.05	1,634.14
Foreign currency bonds/notes	531.03	434.08
Unwinding of discount on vendor liabilities	271.32	405.73
Exchange differences regarded as an adjustment to borrowing costs	233.64	-
Other borrowing costs		
Foreign currency bonds/notes expenses	0.15	0.57
Others	7.98	3.88
<b>Total (B)</b>	<b>3,958.95</b>	<b>4,005.33</b>
<b>C. Depreciation and amortization expense</b>	<b>156.87</b>	<b>148.38</b>
<b>D. Other expenses</b>		
Power charges	232.33	138.38
Less: Recovered from contractors and employees	6.15	3.33
	226.18	135.05
Water charges	4.43	8.55
Rent	3.14	3.78
Repairs and maintenance		
Buildings	6.09	6.44
Plant and equipment	0.82	0.75
Others	48.07	33.02
	54.98	40.21
Insurance	0.51	0.72
Rates and taxes	9.80	13.16
Communication expenses	6.29	7.57
Travelling expenses	41.78	42.77
Tender expenses	2.49	3.88
Advertisement and publicity	2.91	1.94
Security expenses	80.94	64.93
Entertainment expenses	4.98	5.42
Expenses for guest house	3.96	3.16
Professional charges and consultancy fee	8.22	6.87
Legal expenses	8.83	8.10
EDP hire and other charges	2.10	2.06
Printing and stationery	1.44	1.81
Miscellaneous expenses	69.94	61.58
<b>Total (D)</b>	<b>532.92</b>	<b>411.56</b>



₹ Crore

Particulars	For the year ended 31 March 2018	For the year ended 31 March 2017
<b>E. Less: Other income</b>		
Interest from advances to contractors	22.31	33.05
Interest others	15.60	14.83
Hire charges for equipment	1.97	2.67
Sale of scrap	2.26	2.57
Miscellaneous income	7.22	23.21
<b>Total (E)</b>	<b>49.36</b>	<b>76.33</b>
<b>F. Net actuarial losses on defined benefit plans</b>	<b>5.77</b>	<b>22.40</b>
<b>Grand total (A+B+C+D-E+F) **</b>	<b>5,456.54</b>	<b>5,273.17</b>

\* Other than for development of coal mines

\*\* Carried to capital work-in-progress - (Note 3)

#### 43. Expenditure during development of coal mines (net)

₹ Crore

Particulars	For the year ended 31 March 2018	For the year ended 31 March 2017
<b>A. Employee benefits expense</b>		
Salaries and wages	60.35	45.21
Contribution to provident and other funds	6.38	9.09
Staff welfare expenses	5.68	2.96
<b>Total (A)</b>	<b>72.41</b>	<b>57.26</b>
<b>B. Finance costs</b>		
Finance costs on financial liabilities measured at amortized cost		
Bonds	63.00	38.01
Rupee term loans	132.95	81.37
Unwinding of discount on vendor liabilities	0.62	0.28
Other borrowing costs		
Others	0.37	0.09
<b>Total (B)</b>	<b>196.94</b>	<b>119.75</b>
<b>C. Depreciation and amortization expense</b>	<b>40.09</b>	<b>14.20</b>
<b>D. Other expenses</b>		
Power charges	0.72	0.47
Less: Recovered from contractors and employees	0.11	0.06
	0.61	0.41
Rent	1.03	0.91
Repairs and maintenance		
Buildings	0.63	0.52
Plant and equipment	0.25	6.31
Others	1.29	0.67
	2.17	7.50
Cost of captive coal	316.97	33.72
Insurance	0.02	0.03
Rates and taxes	0.50	0.02

₹ Crore

Particulars	For the year ended 31 March 2018	For the year ended 31 March 2017
Communication expenses	1.37	1.09
Travelling expenses	3.56	2.69
Tender expenses	0.16	0.38
Advertisement and publicity	0.56	0.63
Security expenses	14.94	13.47
Entertainment expenses	0.66	0.33
Expenses for guest house	0.61	0.39
Professional charges and consultancy fee	5.67	72.16
Legal expenses	0.76	1.52
EDP hire and other charges	0.55	0.51
Printing and stationery	0.26	0.18
Miscellaneous expenses	13.01	8.07
<b>Total (D)</b>	<b>363.41</b>	<b>144.01</b>
<b>E. Less: Other income</b>		
Interest from advances to contractors	4.03	1.53
Interest others	0.88	-
Miscellaneous income	0.23	0.07
<b>Total (E)</b>	<b>5.14</b>	<b>1.60</b>
<b>F. Net actuarial losses on defined benefit plans</b>	<b>0.66</b>	<b>1.74</b>
<b>Grand total (A+B+C+D-E+F) *</b>	<b>668.37</b>	<b>335.36</b>

\* Carried to capital work-in-progress - (Note 3)

44. Amount in the financial statements are presented in ₹ Crore (upto two decimals) except for per share data and as otherwise stated. Certain amounts, which do not appear due to rounding off, are disclosed separately.
45. 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 realization in the ordinary course of business, will not be less than the value at which these are stated in the Balance Sheet.
46. 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.
47. The environmental clearance ("clearance") granted by the Ministry of Environment and Forest, Government of India (MoEF) for one of the Company's ongoing project was challenged before the National Green Tribunal (NGT). The NGT disposed 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. Two units of 800 MW have been declared commercial



during the year and the last unit of 800 MW capacity is on the verge of completion and expected to be declared commercial in the next financial year. Aggregate cost incurred on the project upto 31 March 2018 is ₹ 15,522.77 crore (31 March 2017: ₹ 14,461.58 crore). Management is confident that the approval for proceeding with the project shall be granted, hence no provision is considered necessary.

48. The Company is executing a hydro power project in the state of Uttarakhand, where all the clearances were accorded. A case was filed in Hon'ble Supreme Court of India after the natural disaster in Uttarakhand 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 2018 is ₹ 163.23 crore (31 March 2017: ₹ 160.75 crore). Management is confident that the approval for proceeding with the project shall be granted, hence no provision is considered necessary.
49. One of the 500 MW unit of a station which was declared commercial on 30 September 2017, met with an unfortunate accident in the boiler occurred due to pressurization of flue gas duct and boiler, damaging the first and second pass of the boiler along-with economizer, outlet duct and hoppers and the unit is under shut down. Payments made towards ex-gratia and treatment charges at various hospitals to the accident victims have been borne by the Company. The unit is covered under insurance policy of the Company against damage to the property. Based on the initial assessment of extent of damage and compensation paid to accident victims, a claim for ₹ 321.74 crore has been lodged with insurance company and accounted for. Discussions are taking place with the equipment supplier for carrying out necessary works for restoration of the unit. The unit is expected to resume operations in the later part of the financial year 2018-19.

#### 50 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:

- Policy B.1 'Statement of compliance' has been modified to include the fact that financial statements are prepared on going concern basis. Additionally, the policy pertaining to first time adoption of Ind AS has been removed as the same is not applicable in the current year.
- In addition to above, certain other changes have also been made in the policies nos. A, B.2, C, C.1, C.3, C.4, C.5, C.6, C.8, C.9, C.13, C.15, C.16, C.17, C.19, C.21 and policy D for improved disclosures.

There is no impact on the financial statements due to the above changes, however, the policy numbers have been rearranged in the current year as required.

##### B) Reclassifications and comparative figures

Certain reclassifications have been made to the comparative period's financial statements to:

- enhance comparability with the current year's financial statements
- ensure compliance with the Guidance Note on Division II - Ind AS Schedule III to the Companies Act, 2013"

As a result, certain line items have been reclassified in the balance sheet, statement of profit and loss, and statement of cash flows, the details of which are as under:

#### Items of balance sheet before and after reclassification as at 31 March 2017

₹ Crore

Sl. No.	Particulars	Before reclassification	Reclassification	After reclassification
1	Capital work-in-progress (Note 3)	80,522.55	(220.09)	80,302.46
	Intangible assets under development (Note 5)	214.54	220.09	434.63
2	Investment in subsidiary and joint venture companies (Note 6)	8,838.88	(704.25)	8,134.63
	Other financial assets - Non-current (Note 10)	1,164.26	709.92	1,874.18
	Other non-current assets (Note 11)	16,879.15	(5.67)	16,873.48

**Items of statement of profit and loss before and after reclassification for the year ended 31 March 2017** ₹ Crore

Sl. No.	Particulars	Before reclassification	Reclassification	After reclassification
1	Movement in regulatory deferral account balances	335.74	(71.82)	263.92
	Tax on net movements in regulatory deferral account balances	(71.82)	71.82	-

**Items of statement of cash flows before and after reclassification for the year ended 31 March 2017** ₹ Crore

Sl. No.	Particulars	Before reclassification	Reclassification	After reclassification
1	Cash flow from operating activities	20,301.37	(287.46)	20,013.91
	Cash flow from investing activities	(24,718.82)	304.71	(24,414.11)
	Cash flow from financing activities	3,202.23	(17.25)	3,184.98

**51 Disclosure as per Ind AS 2 'Inventories'**

(a) Amount of inventories consumed and recognized as expense during the year is as under:

Particulars	For the year ended 31 March 2018	For the year ended 31 March 2017
Fuel cost	48,315.47	47,572.19
Others (included in Note 41 - Other expenses)	1,125.63	1,080.69
<b>Total</b>	<b>49,441.10</b>	<b>48,652.88</b>

(b) Carrying amount of inventories pledged as security for borrowings as at 31 March 2018 is ₹ 4,069.58 crore (31 March 2017: ₹ 4,633.24 crore).

**52 Disclosure as per Ind AS 8 'Accounting Policies, Changes in Accounting Estimates and Errors'**
**a) Change in depreciation method of mining property:**

In accordance with its accounting policies, the Company reviews the depreciation method and useful lives of its assets, other than the assets of generation of electricity business which are governed by CERC Regulations, on an ongoing basis. As a result, during the year, the Company has changed its depreciation method of 'Mining property' related to coal mining business from 'Unit of production method' to '20 years or life of mine, whichever is less'. This change in estimation has not resulted in any impact on the current financial statements, however this change in estimate may have an impact on future amortization expense, the amount of which is impracticable to determine.

**b) Changes in provision for current tax relating to earlier years**

During the year, the Company has changed its estimates for accounting of the provision for current tax in respect of matters in disputes considering the pronouncements of various appellate authorities/courts and the opinion of an independent expert. Accordingly, the cases where the outflow of tax is considered not probable or otherwise, the provision for current tax has been updated. This has led to change in estimation of uncertain tax position and consequential reduction of current tax provision related to earlier years by ₹ 951.30 crore. This change in estimation of uncertain tax positions may also have an impact on future current tax expense, the amount of which is impracticable to determine.

**c) Recent accounting pronouncements**
**Standards issued but not yet effective:**
**Ind AS 115 'Revenue from Contracts with Customers'**

On 28 March 2018, Ministry of Corporate Affairs (MCA) has notified the Ind AS 115, 'Revenue from Contract with Customers'. The core principle of the new standard is that an entity should recognize revenue to depict the transfer of



promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. Further, the new standard requires enhanced disclosures about the nature, amount, timing and uncertainty of revenue and cash flows arising from the entity's contracts with customers.

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 recognized at the date of initial application (Cumulative catch - up approach)

The effective date for adoption of Ind AS 115 is financial periods beginning on or after 1 April 2018. The Company will adopt the standard on 1 April 2018 by using the cumulative catch-up transition method and accordingly comparatives for the year ending or ended 31 March 2018 will not be retrospectively adjusted. The Company is evaluating the requirements of the amendment and the effect on the financial statements is being evaluated.

#### Appendix B to Ind AS 21, Foreign currency transactions and advance consideration

On 28 March 2018, MCA has notified the Companies (Indian Accounting Standards) Amendment Rules, 2018 containing Appendix B to Ind AS 21, foreign currency transactions and advance consideration which clarifies the date of the transaction for the purpose of determining the exchange rate to use on initial recognition of the related asset, expense or income, when an entity has received or paid advance consideration in a foreign currency.

The amendment will come into force from 1 April 2018. The Company is evaluating the requirements of the amendment and the effect on the financial statements is being evaluated.

### 53 Disclosure as per Ind AS 10 'Events after the Reporting Period'

#### Subsequent events:

The Board of Directors of the Company, in its meeting held on 29 December 2017, accorded investment approvals for following acquisitions:

- Acquisition of Barauni Thermal Power Station (BTPS) from Bihar State Power Generation Co. Ltd. (BSPGCL)
- Acquisition of BSPGCL's equity in Nabinagar Power Generating Company Pvt. Ltd. (NPGCL), a joint venture company
- Acquisition of BSPGCL's equity in Kanti Bijlee Utpadan Nigam Ltd. (KBUNL), a subsidiary company

On 15 May 2018, the Company has signed a Memorandum of Understanding (MoU) with Government of Bihar and Bihar power utilities for the above acquisitions.

However, these acquisitions are subject to approval from the concerned regulatory authorities which are not perfunctory and considered to be substantive. Once the requisite approvals are in place, BTPS will be merged with the Company and KBUNL and NPGCL will become wholly owned subsidiaries of the Company. Investments (a) and (b) shall be accounted for as business combination as per Ind AS 103, 'Business Combinations', once the acquisition date is achieved. Further, investment (c) which is for acquisition of BSPGCL's equity in KBUNL shall be accounted for as transaction with non-controlling interests, as per Ind AS 110, 'Consolidated Financial Statements'. The Company is unable to estimate the financial effect of above transactions.

### 54. Disclosure as per Ind AS 11 - 'Construction contracts'

The net balance sheet position for ongoing construction contracts is as follows:

₹ Crore

Particulars	For the year ended	
	31 March 2018	31 March 2017
Contract revenue recognized during the year	128.35	117.42
Aggregate amount of contract costs incurred and recognized profits (less recognized losses, if any) upto the balance sheet date for all contracts in progress as at that date	1013.46	768.35



₹ Crore

Particulars	For the year ended	
	31 March 2018	31 March 2017
Amount of customers' advances outstanding for contracts in progress as at balance sheet date	346.85	637.58
Retention amounts by customer for contract work in progress as at the end of the financial year	1.40	1.21
Gross amount due from customer for contract work- presented as assets	44.40	56.28
Gross amount due to customer for contract work - presented as liabilities	34.29	23.56

The methods used to recognize contract revenue and the methods used to determine the stage of completion of contracts in progress are disclosed in accounting policy no. C.15.2 (Note 1).

## 55. Disclosure as per Ind AS 12 'Income taxes'

### (a) Income tax expense

#### i) Income tax recognized in the statement of profit and loss

₹ Crore

Particulars	For the year ended	
	31 March 2018	31 March 2017
<b>Current tax expense</b>		
Current year	2,576.80	2,705.75
Adjustment for earlier years	(951.30)	(107.56)
Pertaining to regulatory deferral account balances (A)	150.04	71.82
<b>Total current tax expense (B)</b>	<b>1,775.54</b>	<b>2,670.01</b>
<b>Deferred tax expense</b>		
Origination and reversal of temporary differences	3,631.64	1,287.31
Less: Deferred asset for deferred tax liability	2,707.85	954.68
<b>Total deferred tax expense (C)</b>	<b>923.79</b>	<b>332.63</b>
<b>Income tax expense (D=B+C-A)</b>	<b>2,549.29</b>	<b>2,930.82</b>
Pertaining to regulatory deferral account balances	150.04	71.82
<b>Total tax expense including tax on movement in regulatory deferral account balances</b>	<b>2,699.33</b>	<b>3,002.64</b>

#### ii) Income tax recognized in other comprehensive income

₹ Crore

Particulars	For the year ended					
	31 March 2018			31 March 2017		
	Before tax	Tax expense/ (benefit)	Net of tax	Before tax	Tax expense/ (benefit)	Net of tax
- Net actuarial losses on defined benefit plans	(9.26)	(1.98)	(7.28)	(303.42)	(64.76)	(238.66)
- Net gains/(losses) on fair value of equity instruments	(7.20)	-	(7.20)	35.28	-	35.28
	(16.46)	(1.98)	(14.48)	(268.14)	(64.76)	(203.38)



iii) Reconciliation of tax expense and the accounting profit multiplied by India's domestic tax rate

₹ Crore

Particulars	For the year ended	
	31 March 2018	31 March 2017
Profit before tax including movement in regulatory deferral account balances	13,042.50	12,387.90
Tax using the Company's domestic tax rate of 34.608% (31 March 2017: 34.608%)	4,513.75	4,287.20
Tax effect of:		
Non-deductible tax expenses	(16.53)	169.55
Tax-exempt income	(40.37)	(35.88)
Foreign exchange differences	0.26	0.13
Previous year tax liability	(951.30)	(107.56)
Minimum alternate tax adjustments	(806.48)	(1,310.80)
<b>Total tax expense recognized in the statement of profit and loss</b>	<b>2,699.33</b>	<b>3,002.64</b>

(b) Tax losses carried forward

₹ Crore

Particulars	As at	Expiry date	As at	Expiry date
	31 March 2018		31 March 2017	
Unused tax losses for which no deferred tax asset has been recognized	7,030.96	-	-	-

Deferred tax asset have not been recognized in respect of the tax losses incurred by the Company that is not likely to generate taxable income in the foreseeable future. In terms of the provisions of the Income Tax Act, 1961, business loss due to unabsorbed depreciation can be carried forward for an unlimited period.

(c) Dividend distribution tax on proposed dividend not recognized at the end of the reporting period

Since year ended 31 March 2018, the Directors have recommended the payment of final dividend amounting to ₹ 1,970.67 crore (31 March 2017: ₹ 1,789.27 crore). The dividend distribution tax on this proposed dividend amounting to ₹ 405.08 crore (31 March 2017: ₹ 364.25 crore) has not been recognized 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 recognized in the books:

₹ Crore

Financial years	As at	Expiry date	As at	Expiry date
	31 March 2018		31 March 2017	
For the year 2017-18	2,726.16	31 March 2033	-	-
For the year 2016-17	1,875.44	31 March 2032	1,864.23	31 March 2027
For the year 2015-16	1,708.82	31 March 2031	1,708.82	31 March 2026
For the year 2014-15	883.58	31 March 2030	883.58	31 March 2025

(e) During the year, the Company has changed its estimates for accounting of the provision for income tax in respect of matters in disputes considering the pronouncements of various appellate authorities/courts and the opinion of an independent expert. Refer Note 52 b).

## 56. 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 ₹ **20.82 crore** (31 March 2017: ₹ 29.69 crore) towards lease payments (net of recoveries) in respect of premises for residential use of employees is included under 'Salaries and wages' in Note 38. Lease payments in respect of premises for offices and guest house/transit camps amounting ₹ **23.52 crore** (net of recoveries) (31 March 2017: ₹ 24.41 crore) are included under 'Rent' in Note 41.
- b) The Company has taken a helicopter on wet lease basis for a period of eleven years and the amount of lease charges of ₹ **15.63 crore** (31 March 2017: ₹ 17.02 crore) is included under 'Hire charges of helicopter/aircraft' in Note 41. 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 2017: ₹ 6.26 crore) has been charged to the statement of profit and loss and included under 'Rates and taxes' in Note 41.
- d) During the year, 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 recognized in the statement of profit and loss for the year in respect of leases is ₹ **0.04 crore** (31 March 2017: ₹ Nil). The future minimum lease payments in respect of non-cancellable leases is as follows:

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
Less than one year	0.96	-
Between one and five years	4.92	-
More than five years	1.48	-
	<b>7.36</b>	-

#### ii. Leases as lessor

- a) 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 takeover 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	As at
	31 March 2018	31 March 2017
Less than one year	214.30	229.91
Between one and five years	467.79	667.67
More than five years	139.57	263.27
	<b>821.66</b>	<b>1,160.85</b>

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 there present value of MLPs is as under:

₹ Crore

Particulars	As at 31 March 2018		As at 31 March 2017	
	MLPs	Present value of MLPs	MLPs	Present value of MLPs
Less than one year	0.86	0.72	1.05	0.78
Between one and five years	0.76	0.70	1.83	1.62
More than five years	-	-	-	-
<b>Total minimum lease payments</b>	<b>1.62</b>	<b>1.42</b>	<b>2.88</b>	<b>2.40</b>
Less amounts representing finance charges	0.20	-	0.48	-
<b>Present value of minimum lease payments</b>	<b>1.42</b>	<b>1.42</b>	<b>2.40</b>	<b>2.40</b>

- b) The Company has entered into a lease agreement for coal movement through inland waterways transport. As per the agreement, the operator shall design, build, operate and maintain the unloading infrastructure and material handling system ("facility"), and transfer the same to the Company after expiry of 7 years at ₹ 1/- . The facility has been completed and is under operation. The total contingent rents recognized as expense during the year is ₹ Nil (31 March 2017: ₹ 0.82 crore).

₹ Crore

Particulars	As at 31 March 2018		As at 31 March 2017	
	MLPs	Present value of MLPs	MLPs	Present value of MLPs
Less than one year	36.06	22.79	18.89	12.12
Between one and five years	65.24	54.61	82.41	64.79
More than five years	-	-	5.15	3.39
<b>Total minimum lease payments</b>	<b>101.30</b>	<b>77.40</b>	<b>106.45</b>	<b>80.30</b>
Less amounts representing finance charges	23.90	-	26.15	-
<b>Present value of minimum lease payments</b>	<b>77.40</b>	<b>77.40</b>	<b>80.30</b>	<b>80.30</b>

During the year, the operator has raised several disputes and invoked arbitration and has put substantial claims on the Company. The issues are before arbitral tribunal headed by a former judge of Hon'ble Supreme Court of India. The claims made by the operator amounting to ₹ 2,026.30 crore have not been accepted by the Company and the same has been disclosed under contingent liabilities [Note 74 (A)]. An amount of ₹ 158.50 crore has been deposited till 31 March 2018 considering the directions of the Hon'ble Supreme Court of India.

- 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 capitalized at the present value of the total minimum lease payments to be paid over the lease term. Future lease rentals are recognized as 'Finance lease obligation' at their present values. The leasehold land is amortized considering the significant accounting policies of the Company.

₹ Crore

Particulars	As at 31 March 2018		As at 31 March 2017	
	MLPs	Present value of MLPs	MLPs	Present value of MLPs
Less than one year	11.17	10.20	5.66	5.19
Between one and five years	31.58	24.09	21.42	15.69
More than five years	692.85	71.25	425.06	40.06
<b>Total minimum lease payments</b>	<b>735.60</b>	<b>105.54</b>	452.14	60.94
Less amounts representing finance charges	630.06	-	391.20	-
<b>Present value of minimum lease payments</b>	<b>105.54</b>	<b>105.54</b>	60.94	60.94

## 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 2018		As at 31 March 2017	
	MLPs	Present value of MLPs	MLPs	Present value of MLPs
Less than one year	111.59	40.00	119.42	29.77
Between one and five years	446.35	227.24	477.70	182.65
More than five years	326.78	275.08	456.72	342.64
<b>Total minimum lease payments</b>	<b>884.72</b>	<b>542.32</b>	1,053.84	555.06
Less amounts representing unearned finance income	342.40	-	498.78	-
<b>Present value of minimum lease payments</b>	<b>542.32</b>	<b>542.32</b>	555.06	555.06

## 57. 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 ₹ 153.32 crore (31 March 2017: ₹237.34 crore) for the year is recognized 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 2018	31 March 2017
Net defined benefit (asset)/liability - Current	(55.36)	(53.17)

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 2018	31 March 2017	31 March 2018	31 March 2017	31 March 2018	31 March 2017
Opening balance	7,535.63	6,832.89	7,588.80	6,892.37	(53.17)	(59.48)
Current service cost recognized in statement of profit and loss	254.28	252.12	-	-	254.28	252.12
Interest cost/(income)	565.18	546.63	(565.18)	(551.39)	-	(4.76)
<b>Total</b>	<b>819.46</b>	<b>798.75</b>	<b>(565.18)</b>	<b>(551.39)</b>	<b>254.28</b>	<b>247.36</b>
Remeasurement loss (gain):						
Actuarial loss (gain) arising from:						
Financial assumptions	(0.12)	0.62	-	-	(0.12)	0.62
Experience adjustment	113.01	71.22	-	-	113.01	71.22
Return on plan assets excluding interest income	-	-	(115.08)	(60.77)	(115.08)	(60.77)
<b>Total</b>	<b>112.89</b>	<b>71.84</b>	<b>(115.08)</b>	<b>(60.77)</b>	<b>(2.19)</b>	<b>11.07</b>
Other						
Contribution by participants	584.89	485.54	584.89	485.54	-	-
Contribution by employer	-	-	254.28	252.12	(254.28)	(252.12)
Benefits paid	827.16	653.39	827.16	653.39	-	-
<b>Closing balance</b>	<b>8,225.71</b>	<b>7,535.63</b>	<b>8,281.07</b>	<b>7,588.80</b>	<b>(55.36)</b>	<b>(53.17)</b>

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 ₹ 55.36 crore (31 March 2017: ₹ 53.17 crore) determined through actuarial valuation. Accordingly, Company has not recognized 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 recognized 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 recognized in the Company's financial statements as at balance sheet date:

₹ Crore

Particulars	As at 31 March 2018	As at 31 March 2017
Net defined benefit (asset)/liability :		
Gratuity (funded)	659.73	627.71
Pension (funded)	140.67	125.13
Pension (non-funded)	278.11	271.71
	<b>1,078.51</b>	1,024.55
Non-current	21.25	19.83
Current	<b>1,057.26</b>	1,004.72

**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 2018	31 March 2017	31 March 2018	31 March 2017	31 March 2018	31 March 2017
Opening balance	2,505.90	1,823.53	1,481.35	1,465.69	1,024.55	357.84
Included in profit or loss:						
Current service cost	97.60	96.29	-	-	97.60	96.29
Past service cost		433.24	-	-	-	433.24
Interest cost (income)	187.94	145.88	(111.11)	(117.26)	76.83	28.62
<b>Total amount recognized in profit or loss</b>	<b>285.54</b>	675.41	(111.11)	(117.26)	<b>174.43</b>	558.15
Included in other comprehensive income:						
Remeasurement loss (gain):						
Actuarial loss (gain) arising from:						
Financial assumptions	38.70	85.23	-	-	38.70	85.23
Experience adjustment	(102.69)	57.14	-	-	(102.69)	57.14
Return on plan assets excluding interest income	-	-	(30.73)	(10.10)	(30.73)	(10.10)
<b>Total amount recognized in other comprehensive income</b>	<b>(63.99)</b>	142.37	(30.73)	(10.10)	<b>(94.72)</b>	132.27
Other						
Benefits paid	141.03	135.41	115.28	111.70	25.75	23.71
<b>Closing balance</b>	<b>2,586.42</b>	2,505.90	<b>1,507.91</b>	1,481.35	<b>1,078.51</b>	1,024.55

### 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 recognized 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 recognized in the Company's financial statements as at balance sheet date:

₹ Crore

Particulars	As at 31 March 2018	As at 31 March 2017
Net defined benefit (asset)/liability - Current	149.88	97.44

#### 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 2018	31 March 2017	31 March 2018	31 March 2017	31 March 2018	31 March 2017
Opening balance	1,159.40	889.78	1,061.96	890.00	97.44	(0.22)
Included in profit or loss:						
Current service cost	32.19	29.41	-	-	32.19	29.41
Past service cost	-	-	-	-	-	-
Interest cost (income)	86.95	71.18	(79.64)	(71.20)	7.31	(0.02)
<b>Total amount recognized in profit or loss</b>	<b>119.14</b>	<b>100.59</b>	<b>(79.64)</b>	<b>(71.20)</b>	<b>39.50</b>	<b>29.39</b>
Included in other comprehensive income:						
Remeasurement loss (gain):						
Actuarial loss (gain) arising from:						
Demographic assumptions	-	-	-	-	-	-
Financial assumptions	62.69	86.06	-	-	62.69	86.06
Experience adjustment	62.48	119.03	-	-	62.48	119.03
Return on plan assets excluding interest income	-	-	(11.51)	(9.18)	(11.51)	(9.18)
<b>Total amount recognized in other comprehensive income</b>	<b>125.17</b>	<b>205.09</b>	<b>(11.51)</b>	<b>(9.18)</b>	<b>113.66</b>	<b>195.91</b>
Other						
Contribution by participants	-	-	3.98	5.81	(3.98)	(5.81)
Contribution by employer	-	-	43.64	85.77	(43.64)	(85.77)
Benefits paid	53.10	36.06	-	-	53.10	36.06
<b>Closing balance</b>	<b>1,350.61</b>	<b>1,159.40</b>	<b>1,200.73</b>	<b>1,061.96</b>	<b>149.88</b>	<b>97.44</b>

### 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 recognized on the basis of actuarial valuation.

₹ Crore

Particulars	As at 31 March 2018	As at 31 March 2017
Net defined benefit (asset)/liability :	148.93	138.18
Non-current	132.20	125.11
Current	16.73	13.07



## Movement in net defined benefit (asset)/liability

₹ Crore

Particulars	Defined benefit obligation	
	As at 31 March 2018	As at 31 March 2017
Opening balance	138.18	126.49
Included in profit or loss:		
Current service cost	7.02	6.36
Past service cost	-	-
Interest cost (income)	10.37	10.11
<b>Total amount recognized in profit or loss</b>	<b>17.39</b>	<b>16.47</b>
Included in other comprehensive income:		
Remeasurement loss (gain):		
Actuarial loss (gain) arising from:		
Financial assumptions	0.93	4.25
Experience adjustment	(4.19)	(6.59)
Return on plan assets excluding interest income	-	-
<b>Total amount recognized in other comprehensive income</b>	<b>(3.26)</b>	<b>(2.34)</b>
Other		
Contributions paid by the employer	-	-
Benefits paid	3.38	2.44
<b>Closing balance</b>	<b>148.93</b>	<b>138.18</b>

## E. Plan assets

Plan assets comprise the following

₹ Crore

Particulars	As at 31 March 2018			As at 31 March 2017		
	Quoted	Unquoted	Total	Quoted	Unquoted	Total
State government securities	2,695.33	-	2,695.33	2,144.63	-	2,144.63
Central government securities	1,885.84	-	1,885.84	1,884.84	-	1,884.84
Corporate bonds and term deposits	3,458.49	94.67	3,553.16	3,281.34	94.95	3,376.29
Money market instruments/liquid mutual fund	-	14.20	14.20	-	39.33	39.33
Equity and equity linked investments	82.26	27.62	109.88	115.32	-	115.32
Investments with insurance companies	-	2,564.67	2,564.67	-	2,382.65	2,382.65
<b>Total (excluding accrued interest)</b>	<b>8,121.92</b>	<b>2,701.16</b>	<b>10,823.08</b>	<b>7,426.13</b>	<b>2,516.93</b>	<b>9,943.06</b>

As at 31 March 2018, an amount of ₹ 500.00 crore (31 March 2017: ₹ 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 ₹ 913.25 crore (31 March 2017: ₹ 819.90 crore).

## F. Defined benefit obligations

### i. Actuarial assumptions

The following were the principal actuarial assumptions at the reporting date:

Particulars	As at 31 March 2018	As at 31 March 2017
Discount rate	7.60%	7.50%
Expected return on plan assets		
Gratuity	7.60%	7.50%
Pension	7.60%	7.50%
PRMF	7.60%	7.50%
Annual increase in costs	6.50%	6.00%
Salary escalation rate	6.50%	6.00%

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.

Particulars	As at 31 March 2018		As at 31 March 2017	
	Increase	Decrease	Increase	Decrease
Discount rate (0.5% movement)	(171.13)	179.88	(167.12)	176.25
Annual increase in costs (0.5% movement)	92.17	(90.32)	86.49	(84.46)
Salary escalation rate (0.5% movement)	89.54	(83.10)	90.96	(84.38)

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 minimize 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 2018 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
<b>31 March 2018</b>					
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
<b>Total</b>	<b>1,282.64</b>	<b>1,391.41</b>	<b>2,983.88</b>	<b>6,653.74</b>	<b>12,311.67</b>
<b>31 March 2017</b>					
Gratuity and pension	248.81	304.77	713.17	1,239.15	2,505.90
Post-retirement medical facility (PRMF)	36.23	40.89	151.37	930.91	1,159.40
Provident fund	683.19	2,516.99	2,299.17	2,036.28	7,535.63
Other post-employment benefit plans	13.07	10.48	38.64	75.99	138.18
<b>Total</b>	<b>981.30</b>	<b>2,873.13</b>	<b>3,202.35</b>	<b>4,282.33</b>	<b>11,339.11</b>

Expected contributions to post-employment benefit plans for the year ending 31 March 2019 are ₹ 520.48 crore.

The weighted average duration of the defined benefit plan obligation at the end of the reporting period is **15.21 years** (31 March 2017: 15.08 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 recognized on the basis of actuarial valuation. During the year, provision amounting to ₹ **462.23 crore** was reversed on the basis of actuarial valuation at the year end and credited to statement of profit and loss (31 March 2017: debit of ₹ 260.32 crore). The reversal was on account of surge in the encashment of earned leaves by the employees during the year.

**B. Other employee benefits**

Provision for long service award and family economic rehabilitation scheme amounting to ₹ 7.36 crore (31 March 2017: ₹ 7.73 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.

**58. Disclosure as per Ind AS 21 'The Effects of Changes in Foreign Exchange Rates'**

The amount of exchange differences (net) debited to the statement of profit and loss is ₹ 145.03 crore (31 March 2017: credit of ₹ 5.66 crore).

**59. Disclosure as per Ind AS 23 'Borrowing Costs'**

Borrowing costs capitalized during the year is ₹ 4,155.89 crore (31 March 2017: ₹ 4,125.08 crore).

**60. 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.

**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 & 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.
10. Nabinagar Power Generating Company Private 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**

Shri Gurdeep Singh	Chairman & Managing Director	
Shri Saptarshi Roy	Director (Human Resources)	W.e.f. 1 November 2016
Shri A.K.Gupta	Director (Commercial)	W.e.f. 3 February 2017
Shri S.K.Roy	Director (Projects)	W.e.f. 19 January 2018
Shri P.K.Mohapatra	Director (Technical)	W.e.f. 31 January 2018
Shri Prakash Tiwari	Director (Operations)	W.e.f. 31 January 2018

Shri K.Sreekant <sup>1</sup>	Director (Finance)	W.e.f. 29 March 2018
Shri A.K.Jha	Director (Technical)	Upto 31 July 2017
Shri S.C.Pandey	Director (Projects)	Upto 31 August 2017
Shri K.K.Sharma	Director (Operations)	Upto 31 October 2017
Shri K.Biswal <sup>2</sup>	Director (Finance)	
Shri UP Pani	Director (Human Resources)	Upto 31 October 2016

**Independent Directors**

Dr. Gauri Trivedi	Non-executive Director	
Shri Seethapathy Chander	Non-executive Director	W.e.f. 22 June 2016
Shri M.P.Singh	Non-executive Director	W.e.f. 24 October 2017
Shri Pradeep Kumar Deb	Non-executive Director	W.e.f. 24 October 2017
Shri Shashi Shekhar	Non-executive Director	W.e.f. 24 October 2017
Shri Subhash Joshi	Non-executive Director	W.e.f. 24 October 2017
Shri Vinod Kumar	Non-executive Director	W.e.f. 24 October 2017
Shri Rajesh Jain	Non-executive Director	Upto 10 October 2017
Shri Prashant Mehta	Non-executive Director	Upto 29 July 2016

**Government Nominee Directors**

Dr. Pradeep Kumar	Non-executive Director	Upto 31 July 2017
Shri Aniruddha Kumar	Non-executive Director	

**Company Secretary and Chief Financial Officer**

Shri K.P.Gupta	Company Secretary	W.e.f. 22 March 2017
Shri A.K. Rastogi	Company Secretary	Upto 28 February 2017
Shri Sudhir Arya	Chief Financial Officer	W.e.f. 29 December 2017

1. Holding additional charge, in addition to Director (Finance), Power Grid Corporation of India Ltd.
2. Under suspension w.e.f. 14 December 2017 (vide order from Ministry of Power).

**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 20). 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 2018	31 March 2017	31 March 2018	31 March 2017
i) Sales/purchase of goods and services				
- Contracts for works/services for services received by the Company	-	-	999.82	1,091.97
- Contracts for works/services for services provided by the Company	58.31	150.87	51.07	52.68
- Sale/purchase of goods	1,892.49	2,073.67	22.26	10.55
ii) Sales/purchase of assets	-	-	6.22	-
iii) Deputation of employees	63.89	30.21	127.30	72.09
iv) Dividend received	50.00	20.00	135.57	143.09
v) Equity contributions made	348.54	507.66	1,153.08	1,201.63
vi) Loans granted	96.75	154.25	6.00	-
vii) Guarantees received	-	-	13.10	28.16

Note:- Refer Note 74 (b) and (c) for other commitments with subsidiary and joint venture companies

₹ Crore

Particulars	For the year ended 31 March 2018	For the year ended 31 March 2017
<b>Transactions with post employment benefit plans</b>		
- Contributions made during the year	383.25	827.76
<b>Compensation to Key management personnel</b>		
- Short term employee benefits	4.13	3.89
- Post employment benefits	0.11	0.49
- Other long term benefits	0.20	0.35
- Termination benefits	0.69	-
- Sitting fee	0.34	0.19
Total compensation to key management personnel	5.47	4.92

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 2018	For the year ended 31 March 2017
1	Bharat Coking Coal Ltd.	Purchase of coal	773.45	739.67
2	Central Coalfields Ltd.		3,298.58	2,642.61
3	Eastern Coalfields Ltd.		7,535.31	7,839.67
4	Mahanadi Coalfields Ltd.		4,535.47	3,780.12
5	Northern Coalfields Ltd.		9,509.18	8,134.83
6	South Eastern Coalfields Ltd.		4,803.59	5,638.30
7	Western Coalfields Ltd.		765.70	273.39
8	Singareni Coalfields Ltd.		5,450.87	4,404.41
9	Bharat Heavy Electricals Ltd.	Purchase of equipments and erection services	2,793.50	4,661.92
		Purchase of spares	635.22	579.37
		Receipt of maintenance services	1,199.77	1,075.29
10	GAIL (India) Ltd.	Purchase of natural gas	2,097.96	1,173.64
11	Indian Oil Corporation Ltd.	Purchase of oil products	484.36	465.95

₹ Crore

Sl. No.	Name of the Company	Nature of transaction by the Company	For the year ended 31 March 2018	For the year ended 31 March 2017
12	Bharat Petroleum Corporation Ltd.	Purchase of natural gas and oil products	89.78	96.26
13	Steel Authority of India Ltd.	Purchase of steel and iron products	224.28	409.30
14	Rural Electrification Corporation Ltd.	Consultancy services provided by the Company	4.03	510.96
15	Other entities	Purchase of equipments and erection services	181.33	105.38
		Purchase of spares	18.83	15.26
		Receipt of maintenance services	1,401.30	714.58
		Consultancy and other services provided by the Company	39.19	29.69

₹ Crore

Transactions with others listed at (a)(vi) above	For the year ended 31 March 2018	For the year ended 31 March 2017
- Contracts for works/services for services received by the Company	16.25	2.94

## c) Outstanding balances with related parties are as follows:

₹ Crore

Particulars	As at 31 March 2018	As at 31 March 2017
<b>Amount recoverable towards loans from</b>		
- Subsidiary companies	242.75	154.25
- Joint venture companies	6.00	-
- Key management personnel	0.27	0.12
- Others	0.60	0.60
<b>Amount recoverable other than loans from</b>		
- Subsidiary companies	385.55	398.54
- Joint venture companies	87.09	43.54
- Post employment benefit plans	13.78	22.40
- Others	0.07	-
<b>Amount payable to</b>		
- Joint venture companies	469.85	308.30
- Post employment benefit plans	221.72	154.94
- Others	3.62	-

d) Individually significant transactions

₹ Crore

Particulars	Nature of relationship	For the year ended 31 March 2018	For the year ended 31 March 2017
<b>Contracts for works/services for services received by the Company</b>			
Utility Powertech Ltd.	Joint venture company	838.60	659.64
NTPC BHEL Power Projects Private Ltd.	Joint venture company	130.32	387.34
NTPC-GE Power Services Private Ltd.	Joint venture company	17.86	42.21
<b>Contracts for works/services for services provided by the Company</b>			
Patratu Vidyut Utpadan Nigam Ltd.	Subsidiary company	48.05	41.37
Nabinagar Power Generating Company Private Ltd.	Joint venture company	27.15	27.99
<b>Dividend received</b>			
NTPC-SAIL Power Company Ltd.	Joint venture company	50.00	70.00
Aravali Power Company Private Ltd.	Joint venture company	69.93	66.60
NTPC Vidyut Vyapar Nigam Ltd.	Subsidiary company	50.00	20.00
Energy Efficiency Services Ltd.	Joint venture company	12.92	3.39
Utility Powertech Ltd.	Joint venture company	2.50	2.50
NTPC-GE Power Services Private Ltd.	Joint venture company	0.22	0.60
<b>Equity contributions made</b>			
Bhartiya Rail Bijlee Company Ltd.	Subsidiary company	178.99	232.29
Kanti Bijlee Utpadan Nigam Ltd.	Subsidiary company	80.00	241.87
Patratu Vidyut Utpadan Nigam Ltd.	Subsidiary company	89.55	33.50
Nabinagar Power Generating Company Private Ltd.	Joint venture company	504.57	590.00
Meja Urja Nigam Private Ltd.	Joint venture company	42.89	325.00
Energy Efficiency Services Ltd.	Joint venture company	99.00	99.00
Aravali Power Company Private Ltd.	Joint venture company	34.50	66.51
Bangladesh-India Friendship Power Company Pvt.Ltd.	Joint venture company	143.62	64.52
NTPC-Tamil Nadu Energy Company Ltd.	Joint venture company	-	44.39
National High Power Test Laboratory Private Ltd.	Joint venture company	-	6.50
Hindustan Urvarak & Rasayan Ltd.	Joint venture company	328.23	5.03
BF-NTPC Energy Systems Ltd.	Joint venture company	0.28	0.69
<b>Loans disbursed</b>			
Kanti Bijlee Utpadan Nigam Ltd.	Subsidiary company	80.00	121.00
Patratu Vidyut Utpadan Nigam Ltd.	Subsidiary company	16.75	33.25
National High Power Test Laboratory Private Ltd.	Joint venture company	6.00	-
<b>Guarantees received</b>			
Utility Powertech Ltd.	Joint venture company	12.60	12.05
NTPC-GE Power Services Private Ltd.	Joint venture company	0.50	16.11



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 equipments 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	2016-17
2	Patratu Vidyut Utpadan Nigam Ltd. (S)	50.00	10% (quarterly rest)	Repayable on 30 September 2018.	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 repayable on 30 September 2018.	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 each financial year through examining the financial position of the related party and the market in which the related party operates.
- vii) Refer Note 63 (b) and (c) in respect of impairment loss on investment in Ratnagiri Gas & Power Private Ltd., Konkan LNG Private Ltd. and certain other joint venture companies.
- viii) Refer Note 74 (C) towards restrictions on disposal of investment and commitment towards further investments in the subsidiary and joint venture companies.

61. 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 2018	As at 31 March 2017
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	72.64	65.00
Bhartiya Rail Bijlee Company Ltd.	India	74.00	74.00
Patratu Vidyut Utpadan Nigam Ltd.	India	74.00	74.00

b) Investment in joint venture companies:\*

Company name	Country of incorporation	Proportion of ownership interest	
		As at 31 March 2018	As at 31 March 2017
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 & Power Private Ltd.**	India	25.51	25.51
Konkan LNG Private Ltd.**	India	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	49.00
Nabinagar Power Generating Company Private Ltd.	India	50.00	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	31.71	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	33.28
Trincomalee Power Company Ltd.	Sri Lanka	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 'Separate Financial Statements'.

\*\* Refer Note 6 (e).

## 62. Disclosure as per Ind AS 33 'Earnings per share'

### (i) Basic and diluted earnings per share (in ₹)

Particulars	For the year ended 31 March 2018	For the year ended 31 March 2017
From operations including regulatory deferral account balances (a) [A/D]	12.54	11.38
From regulatory deferral account balances (b) [B/D]	0.67	0.32
From operations excluding regulatory deferral account balances (a)-(b) [C/D]	11.87	11.06
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 2018	For the year ended 31 March 2017
From operations including regulatory deferral account balances (a) [A]	10,343.17	9,385.26
From regulatory deferral account balances (b) [B]	553.00	263.92
From operations excluding regulatory deferral account balances (a)-(b) [C]	9,790.17	9,121.34

### (iii) Weighted average number of equity shares (used as denominator) (Nos.)

Particulars	For the year ended 31 March 2018	For the year ended 31 March 2017
Opening balance of issued equity shares	8,24,54,64,400	8,24,54,64,400
Effect of shares issued during the year, if any	-	-
<b>Weighted average number of equity shares for Basic and Diluted EPS [D]</b>	<b>8,24,54,64,400</b>	<b>8,24,54,64,400</b>

## 63. Disclosure as per Ind AS 36 'Impairment of Assets'

As required by Ind AS 36, an assessment of impairment of assets was carried out and based on such assessment, the Company has accounted impairment losses as under:

- a) Due to decrease in value in use in respect of plant and equipment of a Solar PV Station of the Company which is under 'Generation of energy segment', an impairment loss of ₹ 4.48 crore was recognized in 'Depreciation/amortization and impairment expense' in the statement of profit and loss for the year ended 31 March 2016. Out of this, an amount of ₹ 0.73 crore towards the impairment loss was reversed during the year ended 31 March 2017 due to increase in the value in use as compared to the carrying value of the Solar PV Station. The balance amount of ₹ 3.75 crore has been reversed during the year due to increase in the value in use as compared to its carrying value.

For the Company, the recoverable amount of the property, plant and equipment & intangible assets of the CGUs is value in use and amounts to ₹ 1,90,627.27 crore (31 March 2017: ₹ 1,42,042.78 crore). The discount rate used for the computation of value in use for the generating plant is 8.00 % (31 March 2017: 9.13%) and for solar plant is 7.13 % (31 March 2017: 7.95%).

- b) In the previous year, the Company had an investment of ₹ 974.30 crore as at 31 March 2017 in the equity shares of Ratnagiri Gas & Power Pvt. Ltd. (RGPPL or Demerged Company), a joint venture of the Company. RGPPL had incurred losses during last few years which has resulted in erosion of net worth of the 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, neither Power Block nor LNG Terminal (CGUs) of RGPPL were operating at their installed capacity from last many years. The recoverable amount of this investment was assessed at ₹ 191.35 crore and accordingly the Company had recognized an impairment loss of ₹ 782.95 crore in respect of such investment and disclosed the same as 'Exceptional items - Impairment loss on investments' in the statement of profit and loss for the previous year ended 31 March 2017.



During the year, as per demerger scheme Konkan LNG Private Ltd. (KLPL) has allotted equity shares of face value of ₹ 10/- each equivalent to the share entitlement ratio of 143:1000 for each equity shares held in Demerged Company i.e. 13,97,52,264 equity shares of ₹ 10/- each to the Company. Accordingly, the Company has reduced its investment in RGPPL by ₹ 139.75 crore and has recorded 'Investment in Konkan LNG Private Ltd.' with the same amount.

The impact of assessment of impairment of its investment in RGPPL and KLPL which was carried out by an independent expert, has been explained below:

**Reversal of impairment of investments in RGPPL:**

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 ₹ 217.50 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. Increase in recoverable amount of investment in RGPPL is due to increase in the value in use as compared to the carrying value of investment. This has led to reversal of provision for impairment by ₹ 165.90 crore in the current year.

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) : 26.10%
- 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 rates used for the future cash flows are in the range of 10.00% to 11.20% (31 March 2017: 9.40% to 11.00%).

**Impairment of investments in KLPL:**

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 KLPL has been assessed at (-) ₹ 127.07 crore and is based on the present value of future cash flows expected to be derived from the LNG terminal till 31 March 2037. The period is based on the estimated useful life of the terminal. Decrease in recoverable amount of investment in KLPL is due to decrease in the value in use as compared to the carrying value of investment. This has resulted in recognition of provision for impairment by ₹ 139.75 crore.

Following are the key assumptions used to determine the recoverable amount of investment:

- Capacity : FY 2019 till FY 2021 – 30 ships/year; FY 2022 onwards: 80 ships per year
- Utilisation : FY 2019-22- 80%  
FY 2023-26 – 55%  
FY 2027 – 65%  
FY 2028 and beyond – 70%
- Annual escalation of tariff - 5.00%

Growth rate of 10.20% has been assumed basis expected increase in number of cargos to be uploaded after FY 2022 on account of completion of breakwater facility and annual increase in tariff by 5.00% every year.

The post-tax discount rates used for the future cash flows are in the range of 12.10% to 13.00%.

Also refer Note 6 (e) in this regard.

- c) In respect of certain other companies, provision for impairment on investments has been recognized at ₹ 50.02 crore (31 March 2017: ₹ 32.43 crore). Also refer Note 6 b) and 6 c) in this regard.

#### 64. 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 2018	31 March 2017	31 March 2018	31 March 2017	31 March 2018	31 March 2017	31 March 2018	31 March 2017
Carrying amount at the beginning of the year	3,695.78	3,736.84	1,170.79	1,234.41	710.30	563.66	5,576.87	5,534.91
Additions during the year	181.52	429.68	318.28	98.88	753.40	156.03	1,253.20	684.59
Amounts used during the year	(414.51)	(440.19)	-	-	(106.35)	(6.69)	(520.86)	(446.88)
Reversal/adjustments during the year	2.21	(30.55)	(1,158.97)	(162.50)	(0.27)	(2.70)	(1,157.03)	(195.75)
Carrying amount at the end 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

##### 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

The Company aggrieved over many of the issues considered by the CERC in the tariff orders for its stations for the period 2004-09 had filed appeals with the Appellate Tribunal for Electricity (APTEL). The APTEL disposed off the appeals favourably directing the CERC to revise the tariff orders as per directions and methodology given. Some of the issues decided in favour of the Company by the APTEL were challenged by the CERC in the Hon'ble Supreme Court of India. Subsequently, the CERC had been issuing revised tariff orders for the period 2004-09, considering the judgment of APTEL subject to disposal of appeals pending before the Hon'ble Supreme Court of India. On 10 April 2018, the Hon'ble Supreme Court of India has dismissed the petition and as such the issues decided by APTEL in favour of the Company stands good. Consequently, the provision created till 31 March 2017 amounting to ₹ 1,156.32 crore has been reversed during the year through provision written back in Note 36.

##### iii) Provision - Others

Provision for others comprise ₹ 73.15 crore (31 March 2017: ₹ 68.24 crore) towards cost of unfinished minimum work programme demanded by the Ministry of Petroleum and Natural Gas (MoP&NG) including interest thereon in relation to block AA-ONN-2003/2 [Refer Note 66 (b)], ₹ 1,279.31 crore (31 March 2017: ₹640.25 crore) towards provision for cases under litigation and ₹ 4.62 crore (31 March 2017: ₹ 1.81 crore) towards provision for shortage in property, plant and equipment on physical verification pending investigation.

iv) In respect of provision for cases under litigation, outflow of economic 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 recognizing 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 74.



**65. Disclosure as per Ind AS 38 'Intangible Assets'**

Research expenditure charged to revenue during the year is ₹ **77.67 crore** (31 March 2017: ₹ 80.40 crore).

**66. 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 Commission (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 2018 (Unaudited)	As at 31 March 2017 (Unaudited)
Assets	0.01	0.02
Liabilities	2.27	1.35
Capital commitments [Unfinished Minimum Work Programme (MWP)]	-	0.29

₹ Crore

Particulars	For the year ended 31 March 2018 (Unaudited)	For the year ended 31 March 2017 (Unaudited)
Expenses	2.28	14.81

For the year ended 31 March 2018 and 31 March 2017, 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 ₹ 73.15 crore from ₹ 68.24 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 ₹ **0.08 crore** (31 March 2017: ₹ 0.07 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 2018 (Unaudited)	As at 31 March 2017 (Unaudited)
Assets	9.19	9.19
Liabilities (including unfinished MWP)	75.19	70.19

Provision of ₹ 8.26 crore as at 31 March 2018 (31 March 2017: ₹ 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 2018 (Unaudited)	For the year ended 31 March 2017 (Unaudited)
Expenses	0.08	0.07

For the year ended 31 March 2018 and 31 March 2017, 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 2018	As at 31 March 2017
Assets	6.23	6.17
Liabilities	0.85	9.70

₹ Crore

Particulars	For the year ended 31 March 2018	For the year ended 31 March 2017
Expenses	5.89	99.53
Operating cash flows from exploration activities	9.21	28.97

Expenses charged off to the statement of profit and loss for the year includes provision for diminution in the value of inventory of ₹ 5.59 crore (31 March 2017: ₹ Nil).

For the year ended 31 March 2018 and 31 March 2017, there are no income and investing cash flow from exploration activities.

- d) i) As per mining plan of Pakri Barwadhi 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.
- ii) Exploration and evaluation activities are in progress at Banai, Bhalumuda and Mandakini - B coal blocks allotted by the GOI. Geological Report (GR) of Banai has been approved by Ministry of Coal (MoC) and Mining Plan is under preparation by the consultant M/s Central Mine Planning and Design Institute (CMPDI). GR for Bhalumuda coal block has already been submitted to MoC and is under approval. Request sent to Nominated Authority, MoC for integration of both Banai & Bhalumuda blocks. For preparation of GR of Mandakini - B coal block, detailed exploration has been carried out and the work of preparation of Mining Plan & feasibility report has been awarded to M/s CMPDI.

Assets and liabilities of coal exploration and evaluation activities are as under:

₹ Crore

Particulars	As at 31 March 2018	As at 31 March 2017
Assets	222.94	220.09
Liabilities	3.50	31.72

For the year ended 31 March 2018 and 31 March 2017, there are no incomes, expenses and operating and investing cash flow from coal exploration activities.



## 67. 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 2018	31 March 2017	31 March 2018	31 March 2017	31 March 2018	31 March 2017
<b>Segment revenue</b>						
Sale of energy/consultancy, project management and supervision fee *	79,906.71	77,311.54	1,622.38	163.70	81,529.09	77,475.24
Other income	2,772.23	1,550.38	2.79	2.27	2,775.02	1,552.65
	82,678.94	78,861.92	1,625.17	165.97	84,304.11	79,027.89
Unallocated corporate interest and other income					903.84	314.41
<b>Total</b>	<b>82,678.94</b>	<b>78,861.92</b>	<b>1,625.17</b>	<b>165.97</b>	<b>85,207.95</b>	<b>79,342.30</b>
<b>Segment result (including net movements in regulatory deferral account balances)**</b>	<b>17,801.36</b>	<b>17,765.47</b>	<b>157.64</b>	<b>(64.51)</b>	<b>17,959.00</b>	<b>17,700.96</b>
Unallocated corporate interest and other income					903.84	314.41
Unallocated corporate expenses, interest and finance costs					5,820.34	5,627.47
<b>Profit before tax</b>					<b>13,042.50</b>	<b>12,387.90</b>
Income tax expense (including tax on net movements in regulatory deferral account balances)					2,699.33	3,002.64
<b>Profit after tax</b>					<b>10,343.17</b>	<b>9,385.26</b>



₹ Crore

Particulars	Generation of energy		Others		Total	
	For the year ended		For the year ended		For the year ended	
	31 March 2018	31 March 2017	31 March 2018	31 March 2017	31 March 2018	31 March 2017
Depreciation, amortization and impairment expense ***	7,037.58	5,868.38	0.29	0.26	7,037.87	5,868.64
Non-cash expenses other than depreciation	433.66	136.00	30.88	2.96	464.54	138.96
Capital expenditure	23,024.64	27,040.16	1,642.36	1,220.97	24,667.00	28,261.13

₹ Crore

Particulars	Generation of energy		Others		Total	
	As at		As at		As at	
	31 March 2018	31 March 2017	31 March 2018	31 March 2017	31 March 2018	31 March 2017
Segment assets	1,49,277.18	1,26,728.63	4,952.26	3,518.96	1,54,229.44	1,30,247.59
Unallocated corporate and other assets					1,05,964.12	1,06,329.90
<b>Total assets</b>	<b>1,49,277.18</b>	<b>1,26,728.63</b>	<b>4,952.26</b>	<b>3,518.96</b>	<b>2,60,193.56</b>	<b>2,36,577.49</b>
Segment liabilities	14,988.40	14,531.36	2,546.00	2,159.92	17,534.40	16,691.28
Unallocated corporate and other liabilities					1,40,881.39	1,23,654.98
<b>Total liabilities</b>	<b>14,988.40</b>	<b>14,531.36</b>	<b>2,546.00</b>	<b>2,159.92</b>	<b>1,58,415.79</b>	<b>1,40,346.26</b>

\* Includes ₹ 6.44 crore (31 March 2017: ₹ 995.59 crore) for sales related to earlier years.

\*\* Generation segment result would have been ₹ 17,794.92 crore (31 March 2017: ₹ 16,769.88 crore) without including the sales related to earlier years.

\*\*\* Includes (-) ₹ 3.75 crore (31 March 2017: (-) ₹ 0.73 crore) towards reversal of impairment loss recognized in the profit or loss, in generation of energy segment.

The Company has not disclosed geographical segments as operations of the Company are mainly carried out within the country.

### 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:

Particulars	For the year ended			
	31 March 2018		31 March 2017	
	Amount (₹ Crore)	%age	Amount (₹ Crore)	%age
1. Maharashtra State Electricity Distribution Company Ltd.	8,766.38	10.50	8,214.91	10.50
2. Uttar Pradesh Power Corporation Ltd.	7,497.54	8.98	8,556.66	10.93



## 68. 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 borrowings, 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, derivative financial instruments, financial assets measured at amortized 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 - Recognized financial assets and liabilities not denominated in Indian rupee (₹)	Cash flow forecasting	Forward foreign exchange contracts Foreign currency options Currency and interest rate swaps and principal only swaps
Market risk – interest rate risk	Non-current borrowings at variable rates	Sensitivity analysis	Different kinds of loan arrangements with varied terms (e.g. fixed rate loans, floating rate loans, rupee term loans, foreign currency loans, etc.)

### Risk management framework

The Company's activities make it susceptible to various risks. The Company has taken adequate measures to address such concerns by developing adequate systems and practices.

In order to institutionalize the risk management in the Company, an elaborate Enterprise Risk Management (ERM) framework has been developed. The Board of Directors has overall responsibility for the establishment and oversight of the Company's risk management framework. As a part of the implementation of ERM framework, a 'Risk Management Committee (RMC)' with functional directors as its members has been entrusted with the responsibility to identify and review the risks, formulate action plans and strategies to mitigate risks on short-term as well as long-term basis.

The RMC meets every quarter to deliberate on strategies. Risks are regularly monitored through reporting of key performance indicators. Outcomes of RMC are submitted for information of the Board of Directors.

### Credit risk

Credit risk is the risk of financial loss to the Company if a customer or counterparty to a financial instrument fails to meet its contractual obligations resulting in a financial loss to the Company. Credit risk arises principally from trade receivables, loans, cash and cash equivalents and deposits with banks and financial institutions.

### Trade receivables

The Company primarily sells electricity to bulk customers comprising mainly state utilities owned by State Governments. The Company has a robust payment security mechanism in the form of Letters of Credit (LC) backed by the Tri-Partite Agreement (TPA). The TPAs were signed among the Govt. of India, RBI and the individual State Governments subsequent to the issuance of the One Time Settlement Scheme of SEBs dues during 2001-02 by the GOI, which 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.

#### 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 ₹ 60.49 crore (31 March 2017: ₹157.12 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 ₹ 3,917.89 crore (31 March 2017: ₹ 2,773.37 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:

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
<b>Financial assets for which loss allowance is measured using 12 months Expected Credit Losses (ECL)</b>		
Non-current investments	106.28	113.48
Non-current loans	655.67	530.59
Other non-current financial assets*	1,225.01	1,169.93
Cash and cash equivalents	60.49	157.12
Bank balances other than cash and cash equivalents	3,917.89	2,773.37
Current loans	280.22	236.92
Other current financial assets	7,938.12	6,053.32
<b>Total</b>	<b>14,183.68</b>	<b>11,034.73</b>
<b>Financial assets for which loss allowance is measured using life-time Expected Credit Losses (ECL)</b>		
Trade receivables	7,577.97	8,173.51
<b>Total</b>	<b>21,761.65</b>	<b>19,208.24</b>

\* Excluding share application money pending allotment (Refer Note 10)



(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 recognized.

(b) Financial assets for which loss allowance is measured using life-time expected credit losses

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 recognized during the reporting periods in respect of trade receivables.

(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 2018	4,736.30	799.19	234.30	325.96	312.14	1,170.42	7,578.31
Gross carrying amount as at 31 March 2017	6,620.03	600.79	244.61	386.85	160.11	161.32	8,173.71

(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 2016	0.20	0.04	0.54	0.78
Impairment loss recognized	-	-	-	-
Amounts written off	-	-	0.42	0.42
Balance as at 31 March 2017	0.20	0.04	0.12	0.36
Impairment loss recognized	0.14	0.03	-	0.17
Amounts written off	-	-	-	-
Balance as at 31 March 2018	0.34	0.07	0.12	0.53

Based on historic default rates, the Company believes that no impairment allowance is necessary in respect of any other 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:

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
<b>Fixed-rate borrowings</b>		
Foreign currency loans	70.01	297.74
<b>Floating-rate borrowings</b>		
Bank overdraft	2,000.00	2,000.00
Term loans	10,357.50	8,615.00
Foreign currency loans	46.68	88.84
<b>Total</b>	<b>12,474.19</b>	<b>11,001.58</b>

#### (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 2018

₹ Crore

Contractual maturities of financial liabilities	Contractual cash flows					Total
	3 months or less	3-12 months	1-2 years	2-5 years	More than 5 years	
<b>Non-derivative financial liabilities</b>						
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
<b>Derivative financial liabilities</b>						
Full currency swaps	-	17.54	16.21	-	-	33.75

31 March 2017

₹ 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
<b>Non-derivative financial liabilities</b>						
Secured bonds	496.03	958.60	2,209.00	4,518.50	26,334.83	34,516.96
Rupee term loans from banks	218.48	1,919.57	2,009.89	7,135.72	18,695.80	29,979.46
Rupee term loans from others	460.94	947.70	1,183.38	2,695.57	2,853.44	8,141.03
Finance lease obligations	5.02	20.57	25.59	80.07	430.21	561.46
Foreign currency notes	49.93	163.92	-	5,286.50	13,384.50	18,884.85
Unsecured foreign currency loans from banks and financial institutions	656.17	1,581.40	1,154.21	5,279.17	2,586.08	11,257.03
Unsecured foreign currency loans (guaranteed by GOI)	-	173.78	171.32	517.75	1,236.32	2,099.17
Commercial paper and cash credit	3,000.56	-	-	-	-	3,000.56
Trade and other payables	14,207.07	2,187.11	1,846.07	664.44	4.06	18,908.75
<b>Derivative financial liabilities</b>						
Full currency swaps	-	16.62	15.36	14.10	-	46.08

#### 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 optimizing 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 2018 and 31 March 2017 are as below:

31 March 2018

₹ Crore

Particulars	USD	EURO	JPY	Others	Total
<b>Financial assets</b>					
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
<b>Total</b>	<b>1.24</b>	<b>-</b>	<b>-</b>	<b>8.25</b>	<b>9.49</b>
<b>Financial liabilities</b>					
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
<b>Total</b>	<b>25,274.99</b>	<b>7,101.55</b>	<b>5,001.89</b>	<b>4,236.23</b>	<b>41,614.66</b>

\* ₹ 2000.00 crore - ₹ denominated USD settled Green Masala Bonds and ₹2,000.00 crore-₹ denominated USD settled Masala bonds.

31 March 2017

₹ Crore

Particulars	USD	EURO	JPY	Others	Total
Financial assets					
Trade and other receivables	0.18	-	-	0.32	0.50
Cash and cash equivalents	1.45	-	-	0.44	1.89
Other financial assets	4.49	1.81	0.10	0.62	7.02
<b>Total</b>	<b>6.12</b>	<b>1.81</b>	<b>0.10</b>	<b>1.38</b>	<b>9.41</b>
Financial liabilities					
Foreign currency bonds	13,249.05	3,541.16	-	2,094.64 *	18,884.85
Unsecured foreign currency loans from banks and financial institutions	9,096.54	1,808.42	2,497.32	-	13,402.28
Trade payables and other financial liabilities	2,163.43	845.61	69.12	10.02	3,088.18
<b>Total</b>	<b>24,509.02</b>	<b>6,195.19</b>	<b>2,566.44</b>	<b>2,104.66</b>	<b>35,375.31</b>

\* ₹ 2000.00 crore - ₹ denominated USD settled Green Masala Bonds.

Out of the above, an amount of ₹ 33.75 crore (31 March 2017: ₹46.08 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 2018	31 March 2017
<b>Financial Assets:</b>		
Loans to related parties	249.66	154.97
Loans to others	25.96	55.34
Bank deposits	3,892.45	2,751.09
<b>Total</b>	<b>4,168.07</b>	<b>2,961.40</b>
<b>Financial Liabilities:</b>		
<b>Fixed-rate instruments</b>		
Bonds	33,846.07	34,513.63
Foreign currency loans/notes*	29,795.23	24,685.77
Rupee term loans	186.31	983.15
Commercial paper and cash credit	6,500.32	3,000.56
Finance lease obligations	184.34	145.02
	<b>70,512.27</b>	<b>63,328.13</b>
<b>Variable-rate instruments</b>		
Foreign currency loans/notes	8,269.84	7,535.66
Rupee term loans	44,077.46	37,137.34
	<b>52,347.30</b>	<b>44,673.00</b>
<b>Total</b>	<b>1,22,859.57</b>	<b>1,08,001.13</b>

\* Includes ₹ 2000.00 crore - ₹ denominated USD settled Green Masala Bonds and ₹ 2,000 crore ₹ denominated USD settled Masala bonds (31 March 2017: includes ₹ 2000.00 crore - ₹ denominated USD settled Green Masala Bonds).

#### Fair value sensitivity analysis for fixed-rate instruments

The Company's fixed rate instruments are carried at amortized 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
<b>31 March 2018</b>		
Foreign currency loans/notes	(33.92)	33.92
Rupee term loans	(189.69)	189.69
	<b>(223.61)</b>	<b>223.61</b>
<b>31 March 2017</b>		
Foreign currency loans/notes	(36.89)	36.89
Rupee term loans	(158.89)	158.89
	<b>(195.78)</b>	<b>195.78</b>

Of the above mentioned increase in the interest expense, an amount of ₹ 105.18 crore (31 March 2017: ₹ 111.69 crore) is expected to be capitalized and recovered from beneficiaries.



## 69. Fair Value Measurements

## a) Financial instruments by category

₹ Crore

Particulars	31 March 2018			31 March 2017		
	FVTPL	FVTOCI	Amortized Cost	FVTPL	FVTOCI	Amortized Cost
<b>Financial assets</b>						
Investments						
- Equity instruments	1.40	104.88	-	1.40	112.08	-
Trade Receivables	-	-	7,577.97	-	-	8,173.51
Loans	-	-	935.89	-	-	767.51
Cash and cash equivalents	-	-	60.49	-	-	157.12
Other bank balances	-	-	3,917.89	-	-	2,773.37
Finance lease receivables	-	-	542.32	-	-	555.06
Derivative financial assets	3.73	-	-	-	-	-
Other financial assets*	-	-	8,617.08	-	-	6,668.19
	5.13	104.88	21,651.64	1.40	112.08	19,094.76
<b>Financial liabilities</b>						
Borrowings	-	-	1,16,174.91	-	-	1,04,855.55
Commercial paper and cash credit	-	-	6,500.32	-	-	3,000.56
Finance lease obligations	-	-	184.34	-	-	145.02
Trade payables	-	-	5,615.95	-	-	4,889.25
Payable for capital expenditure	-	-	13,784.68	-	-	11,578.01
Derivative financial liabilities	-	-	-	1.60	-	-
Other financial liabilities	-	-	2,127.34	-	-	2,185.63
	-	-	1,44,387.54	1.60	-	1,26,654.02

\*Excluding share application money pending allotment (Refer Note 10)

## b) Fair value hierarchy

This section explains the judgements and estimates made in determining the fair values of the financial instruments that are (a) recognized and measured at fair value and (b) measured at amortized 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 2018	Level 1	Level 2	Level 3	Total
<b>Financial assets:</b>				
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



₹ Crore

Financial assets and liabilities measured at fair value- recurring fair value measurement as at 31 March 2017	Level 1	Level 2	Level 3	Total
Financial assets:				
Investments in quoted equity instruments - PTC India Ltd.	112.08	-	-	112.08
Investments in unquoted equity instruments	-	-	1.40	1.40
	112.08	-	1.40	113.48
Financial liabilities:				
Derivative financial liabilities:				
- Currency and interest rate swaps	-	-	0.12	0.12
- Principal only swaps	-	-	1.48	1.48
	-	-	1.60	1.60

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 categorized 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 maximize 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 2018 and 2017.

**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 amortized cost

₹ Crore

Particulars	Level	As at 31 March 2018		As at 31 March 2017	
		Carrying amount	Fair value	Carrying amount	Fair value
<b>Financial assets</b>					
Loans	3	935.89	828.21	767.51	670.74
Finance lease receivables	3	542.32	542.32	555.06	555.06
Claims recoverable	3	704.22	704.22	638.97	638.97
Trade receivables	3	-	-	35.59	35.59
		<b>2,182.43</b>	<b>2,074.75</b>	1,997.13	1,900.36
<b>Financial liabilities</b>					
Bonds/Debentures	1	4,010.35	3,832.25	4,727.09	4,735.64
	2	23,993.92	24,816.19	22,655.40	24,510.07
	3	5,841.80	6,119.07	7,131.14	7,797.27
Foreign currency notes	1	3,271.97	3,260.60	-	-
	2	12,537.69	13,068.76	13,223.72	14,152.08
	3	8,256.56	8,558.48	5,595.43	5,848.55
Foreign currency loans	3	13,998.85	14,177.82	13,402.28	13,646.82
Rupee term loans	3	44,263.77	44,258.67	38,120.49	38,137.70
Trade payables and payable for capital expenditure	3	1,994.02	1,681.66	2,012.94	1,812.03
Other financial liabilities	3	193.98	193.98	247.36	247.36
		<b>1,18,362.91</b>	<b>1,19,967.48</b>	1,07,115.85	1,10,887.52

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.

## 70. 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 net worth ranges between 2:1 to 3:1.
- (ii) Ratio of EBITDA to interest expense shall not at any time be less than 1.75 : 1
- (iii) Debt service coverage ratio not less than 1.25:1 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 2018	As at 31 March 2017
Borrowings	1,22,859.57	1,08,001.13
Less: Cash and cash equivalents	60.49	157.12
Net Debt	1,22,799.08	1,07,844.01
Total Equity	1,01,777.77	96,231.23
Net Debt to Equity Ratio	1.21	1.12

#### 71. 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

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 difference 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 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 ₹ 584.72 crore for the year ended as at 31 March 2018 has been accounted for as 'Regulatory deferral account debit balance' (31 March 2017: ₹ 187.09 crore accounted as 'Regulatory deferral account credit balance').

Revision of pay scales of employees of PSEs are due w.e.f. 1 January 2017 (Refer Note 32). Based on the recommendations of the constituted committee to the Government inter-alia includes 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. During the year, the Payment of Gratuity Act, 1972 has 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 claimed upon implementation of revision of pay scales and discharge of related liabilities. Accordingly, an amount of ₹ 118.32 crore for the year ended 31 March 2018 has been accounted for as 'Regulatory deferral account debit balance' (31 March 2017: ₹ 522.83 crore).

(iii) **Risks associated with future recovery/reversal of regulatory deferral account balances:**

- (i) demand risk due to changes in consumer attitudes, the availability of alternative sources of supply
- (ii) regulatory risk on account of changes in regulations and submission or approval of rate-setting application or the entity's assessment of the expected future regulatory actions
- (iii) other risks including currency or other market risks, if any

(iv) **Reconciliation of the carrying amounts:**

The regulated assets/liability recognized in the books to be recovered from or payable to beneficiaries in future periods are as follows:

a) **Regulatory deferral account credit balance - Note 35**

The regulatory liability recognized in the books in respect of the amount payable to the beneficiaries in future periods are as follows:

Particulars	₹ Crore	
	For the year ended 31 March 2018	For the year ended 31 March 2017
A. Opening balance	482.74	295.65
B. Addition during the year	-	193.38
C. Amount collected/refunded during the year	-	6.29
D. Amount transferred to regulatory deferral account debit balances	482.74	-
E. Regulatory deferral account balances recognized in the statement of profit and loss (B-C)	-	187.09
F. Closing balance	-	482.74

b) **Regulatory deferral account debit balance - Note 19**

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

Particulars	₹ Crore	
	For the year ended 31 March 2018	For the year ended 31 March 2017
A. Opening balance	522.83	-
B. Addition during the year	697.03	522.83
C. Amount collected/refunded during the year	6.01	-
D. Amount transferred from regulatory deferral account credit balances	482.74	-
E. Regulatory deferral account balances recognized in the statement of profit and loss (B+C)	703.04	522.83
F. Closing balance (A+B+C-D)	743.13	522.83



c) Net movements in regulatory deferral account balances [I]	703.04	335.74
d) Tax on net movements in regulatory deferral account balances [II]	150.04	71.82
e) Total amount recognized in the statement of profit and loss during the year [I-II]	553.00	263.92

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

**72. Information in respect of micro and small enterprises as at 31 March 2018 as required by Micro, Small and Medium Enterprises Development Act, 2006 (MSMED Act)** ₹ Crore

Particulars	31 March 2018	31 March 2017
a) Amount remaining unpaid to any supplier:		
Principal amount	450.82	347.87
Interest due thereon	1.50	0.11
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	1.50	0.01
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	-	-

**73. 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 2018	31 March 2017	31 March 2018	31 March 2017
Kanti Bijlee Utpadan Nigam Ltd.	201.00	121.00	201.00	121.86
Patratu Vidyut Utpadan Nigam Ltd.	41.75	33.25	50.00	33.25

2. To Joint venture companies

₹ Crore

Name of the Company	Outstanding balance as at		Maximum amount outstanding during the year ended	
	31 March 2018	31 March 2017	31 March 2018	31 March 2017
National High Power Test Laboratory Private Ltd.	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

**74. 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 equipments and execution of works at our projects have lodged claims on the Company for ₹ 12,533.49 crore (31 March 2017: ₹ 12,753.91 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 ₹ **379.98 crore** (31 March 2017: ₹ 349.31 crore) has been estimated.

(iii) **Fuel suppliers**

a) Pending resolution of the issues with the coal companies, an amount of ₹ **2,869.21 crore** (31 March 2017: ₹ 2,570.55 crore) towards grade slippage pursuant to third party sampling has been estimated by the Company as contingent liability. Further, an amount of ₹ **678.46 crore** (31 March 2017: ₹ 661.50 crore) towards surface transportation charges, custom duty on service margin on imported coal etc. has been estimated by the Company as contingent liability.

b) Pending resolution of the issues with a fuel company for supply of RLNG, an amount of ₹ **5,821.61 crore** (31 March 2017: ₹ 4,173.57 crore) towards the take or pay claim has been estimated by the Company as contingent liability.

The Company is pursuing with the fuel companies, related ministries and other options under the dispute resolution mechanism available for settlement of these claims.

(iv) **Others**

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 ₹ **339.17 crore** (31 March 2017: ₹ 253.15 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 ₹ **648.26 crore** (31 March 2017: ₹ 919.33 crore) relating to the hydro power project stated in Note 10 (a) - 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 ₹ **9,199.87 crore** (31 March 2017: ₹ 7,373.54 crore).

**b. Disputed tax matters**

Disputed income tax/sales tax/excise and other tax matters pending before various Appellate Authorities amount to ₹ **7,907.61 crore** (31 March 2017: ₹ 6,934.90 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 ₹ **3,868.74 crore** (31 March 2017: ₹ 3,302.47 crore). The amount paid under dispute/adjusted by the authorities in respect of the cases amounts to ₹ **2,470.24 crore** (31 March 2017: ₹ 6,499.22 crore).

**c. Others**

Other contingent liabilities amount to ₹ **2,536.13 crore** (31 March 2017: ₹ 213.92 crore) which includes claim of ₹ **2,026.30 crore** (31 March 2017: ₹ Nil) pending before arbitral tribunal. Refer Note 56 (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**

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.

**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 2018 is ₹ **38,119.11 crore** (31 March 2017: ₹ 48,607.62 crore).



Details of the same are as under:

₹ Crore

Particulars	As at 31 March 2018	As at 31 March 2017
Property, plant and equipment	38,118.24	48,401.83
Intangible assets	0.87	205.79

- b). In respect of investments of ₹ 2,766.54 crore including share application money pending allotment of ₹ 32.00 crore (31 March 2017: ₹ 2,418.01 crore including share application money pending allotment of ₹ 515.86 crore) in subsidiary companies, the Company has restrictions for their disposal as at 31 March 2018 as under:

₹ Crore

Name of the Subsidiary	Period of restrictions for disposal of investments as per related agreements	Amount invested as at	
		31 March 2018	31 March 2017
Bhartiya Rail Bijlee Company Ltd.	5 years from the date of commercial operation of the last unit of the project.	1,599.53	1,420.54
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.	1,042.89	962.89
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.	124.12	34.58
<b>Total</b>		<b>2,766.54</b>	<b>2,418.01</b>

- c). In respect of investments of ₹ 3,805.30 crore including share application money pending allotment of ₹ 276.85 crore (31 March 2017: ₹ 2,785.99 crore including share application money pending allotment of ₹ 164.00 crore) in the joint venture companies, the Company has restrictions for their disposal as at 31 March 2018 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 2018	31 March 2017
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 (b).	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	134.20
Meja Urja Nigam Private Ltd.	5 years from the date of incorporation (i.e. 02.04.2008) or commercial operation whichever is later.	1,209.33	1,166.44
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	1,353.30



₹ Crore

Name of the Joint Venture Company	Period of restrictions for disposal of investments as per related agreements	Amount invested as at	
		31 March 2018	31 March 2017
Hindustan Urvarak & Rasayan Ltd.	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.	333.25	5.03
<b>Total</b>		<b>3,805.30</b>	<b>2,785.99</b>

- d). In respect of other investments of ₹ 1.40 crore (31 March 2017: ₹ 1.40 crore), the Company has restrictions for their disposal as at 31 March 2018 as under:

₹ Crore

Name of the Company	Period of restrictions for disposal of investments as per related agreements	Amount invested as at	
		31 March 2018	31 March 2017
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
<b>Total</b>		<b>1.40</b>	<b>1.40</b>

- e). The Company has commitments of ₹ 3,993.01 crore (31 March 2017: ₹ 1,162.56 crore) towards further investment in the subsidiary companies as at 31 March 2018.
- f). The Company has commitments of ₹ 3,748.92 crore (31 March 2017: ₹ 3,073.90 crore) towards further investment in the joint venture entities as at 31 March 2018.
- g). The Company has commitments of ₹ 507.60 crore (31 March 2017: ₹ 507.60 crore) towards further investment in other investments as at 31 March 2018.
- 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 2017: ₹ 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 66.
- 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 kilometers 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 kilometers and up to three hundred kilometers 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 kilometers 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. 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. Further, the Company's liability on this account, if any shall be first met from the 'Fly Ash Utilization Reserve Fund' maintained by the Company in terms of MOEF Notification dated 3 November 2009.
- k). Company's commitment in respect of lease agreements has been disclosed in Note 56.

## 75. 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 2018	31 March 2017
A. Amount required to be spent during the year	220.75	227.85
B. Amount spent during the year on:		
a) Construction/acquisition of any asset	2.45	4.46
b) On purposes other than (a) above	239.09	273.35
<b>Total</b>	<b>241.54</b>	<b>277.81</b>



i) 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

ii) Amount spent during the year ended 31 March 2017:

₹ Crore

Particulars	In cash	Yet to be paid in cash	Total
a) Construction/acquisition of any asset	4.44	0.02	4.46
b) On purposes other than (a) above	250.31	23.04	273.35

C. Break-up of the CSR expenses under major heads is as under:

₹ Crore

Particulars	As at 31 March 2018	As at 31 March 2017
1. Swachh vidyalaya abhiyan	10.52	35.73
2. Healthcare and sanitation	36.96	55.52
3. Education and skill development	65.26	60.45
4. Rural development	32.11	51.30
5. Environment	56.22	35.33
6. Drinking water	12.34	9.36
7. Sports	1.58	1.90
8. Capacity building	-	11.39
9. Protection of national heritage, art and culture	14.57	0.82
10. Other CSR activities	11.98	16.01
<b>Total</b>	<b>241.54</b>	<b>277.81</b>

For and on behalf of the Board of Directors

(K.P. Gupta)  
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

For PSD & Associates  
Chartered Accountants  
Firm Reg. No. 004501C

For Sagar & Associates  
Chartered Accountants  
Firm Reg. No. 003510S

(Neena Goel)  
Partner  
M. No. 057986

(Thalendra Sharma)  
Partner  
M No.079236

(B. Aruna)  
Partner  
M No.216454

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

(Vikas Gupta)  
Partner  
M No. 077076

(S. S. Poddar)  
Partner  
M. No. 051113

(V.B. Singh)  
Partner  
M.No.073124

(P.R. Paul)  
Partner  
M.No.051675

Place : New Delhi  
Dated : 28 May 2018



## INDEPENDENT AUDITORS' REPORT

To

The Members of NTPC Limited

### Report on the Standalone Financial Statements

We have audited the accompanying standalone financial statements of NTPC Limited ("the Company"), which comprise the Balance Sheet as at 31 March 2018, and the Statement of Profit and Loss (including Other Comprehensive Income), the Statement of Cash Flows and the Statement of Changes in Equity for the year then ended, and a summary of the significant accounting policies and other explanatory information.

### Management's Responsibility for the Standalone Financial Statements

The Company's Board of Directors is responsible for the matters stated in Section 134(5) of the Companies Act, 2013 ("the Act") with respect to the preparation of these standalone financial statements that give a true and fair view of the state of affairs (financial position), profit or loss (financial performance including other comprehensive income), cash flows and changes in equity 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.

### Auditor's Responsibility

Our responsibility is to express an opinion on these standalone financial statements based on our audit. We have taken into account the provisions of the Act, the accounting and auditing standards and matters which are required to be included in the audit report under the provisions of the Act and the Rules made there under.

We conducted our audit of the standalone financial statements in accordance with the Standards on Auditing specified under Section 143(10) of the Act. Those Standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the standalone financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and the disclosures in the standalone financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the standalone financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal financial control relevant to the Company's preparation of the standalone financial statements that give a true and fair view in order to design audit procedures that are appropriate in the circumstances. An audit also includes evaluating the appropriateness of the accounting policies used and the reasonableness of the accounting estimates made by the Company's Directors, as well as evaluating the overall presentation of the standalone financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion on the standalone financial statements.

### Opinion

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 Act in the manner so required and give a true and fair view in conformity with the accounting principles generally accepted in India including the Ind AS, of the state of affairs (financial position) of the Company as at 31 March, 2018, and its profit (financial performance including other comprehensive income), its cash flows and the changes in equity for the year ended on that date.

### Emphasis of Matter

We draw attention to the following matters in the notes to the standalone financial statements:

- (a) Note No. 36 a) & b) regarding billing & recognition of sales on provisional basis and measurement of GCV of coal on 'as received' basis measured on wagon top at the unloading point in respect of most of the stations pending disposal of petition by CERC and ratification by Hon'ble Delhi High Court and related matters as mentioned in the said note.
- (b) Note No. 47 in respect of a Company's project where the order of NGT has been stayed by the Hon'ble Supreme Court of India and the matter is sub-judice.

Our opinion is not modified in respect of these matters.



### 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 Cash Flow and the Statement of Changes in Equity 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) 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. 74A 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 PSD & Associates  
Chartered Accountants  
FRN 004501C

(Thalendra Sharma)  
Partner  
M. No. 079236

For Sagar & Associates  
Chartered Accountants  
FRN 003510S

(B. Aruna)  
Partner  
M. No. 216454

For Kalani & Co.  
Chartered Accountants  
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(Vikas Gupta)  
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For P.A. & Associates  
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FRN 313085E

(S. S. Poddar)  
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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

(P. R. Paul)  
Partner  
M.No. 051675

Place: New Delhi  
Date: 28 May, 2018

## 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 2018

- (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 two 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 31.03.2018 (₹ Crore)	Net block as on 31.03.2018 (₹ Crore)	Remarks (If Any)
Land					The Company is taking appropriate steps for completion of legal formalities
- Freehold	948	10,126	1,900.82	1,900.79	
- Leasehold	648	10,824	1,804.49	1,625.75	
Building & Structures	2	-	4.97	3.52	

- (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 companies 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 dependent 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. 30 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, sales-tax, wealth 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 2018 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 ₹10,521.96 crore in aggregate as on 31 March 2018, out of which ₹ 3,053.64 crore has been deposited under protest/adjusted by tax authorities and the

balance of ₹ 7,468.32 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, 2003-04 to 2011-12	Income Tax Appellate Tribunal*	8,766.95	1,661.87	7,105.08
			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
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	2.31	-	2.31
			1985-86, 2000-01 to 2010-11, 2014-15	Appellate Tribunal/ Board of Revenue	29.11	6.77	22.34
			2005-06 to 2008-09	Commissioner of Sales Tax **	2.37	1.17	1.20
			1988-89 to 1997-98, 2000-01, 2002-03, 2004-05, 2006-07, 2011-12, 2014-15 to 2015-16	Additional Commissioner of Sales Tax ***	6.53	1.58	4.95
			2008-09	Deputy Commissioner of Sales Tax (Appeals)	0.05	-	0.05
			2001-02 to 2006-07	Deputy Commissioner of Sales Tax	11.69	0.01	11.68
			2000-01, 2005-06, 2009-10 to 2011-12, 2014-15	Joint Commissioner of Sales Tax****	2.37	0.42	1.95
			2015-16	Appeal yet to be filed (Time limit not lapsed)	0.67	-	0.67

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	CESTAT*****	0.30	0.05	0.25
			2011-12 to 2015-16	Commissioner (Appeals)	0.74	0.04	0.70
5	Finance Act, 1994	Service Tax	2009-10 to 2012-13	High Court	0.18	-	0.18
			2009-10 to 2015-16	CESTAT	2.01	0.31	1.70
			2009-10 to 2014-15	Commissioner (Appeals)	1.59	0.44	1.15
			2012-13 to 2014-15	Assistant Commissioner of CEST	0.33	-	0.33
			2013-14 to 2015-16	Appeal yet to be filed (Time limit not lapsed)	0.75	-	0.75
6	Customs Act, 1962	Duty of Customs	1999-2000, 2010-11	CESTAT	4.50	-	4.50
			2005-06 to 2015-16	Commissioner of Customs (Appeals)	0.29	0.02	0.27
<b>Total</b>					<b>10,521.96</b>	<b>3,053.64</b>	<b>7,468.32</b>

\* 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 u/s 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 PSD & Associates  
Chartered Accountants  
FRN 004501C

(Thalendra Sharma)  
Partner  
M. No. 079236

For Sagar & Associates  
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(B. Aruna)  
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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

(P. R. Paul)  
Partner  
M.No. 051675

Place: New Delhi  
Date: 28 May, 2018



## 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 2018

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 clear title/lease deeds for freehold and leasehold land respectively? If not, please state the area of the freehold and leasehold land for which title/lease deeds are not available.	The Company is having clear title/lease deeds for entire freehold and leasehold land except 10,126 acres of freehold land valuing ₹ 1,900.82 crore and 10,824 acres of leasehold land valuing ₹ 1,804.49 crore. According to information and explanations given to us, reasonable steps are being taken by the Company for getting the titles of these land in its favour.	Nil
2	Whether there are any cases of waiver/write off of debts/loans/interest etc., if yes, the reasons thereof and the amount involved.	According to information and explanations given to us, there are no cases of waiver/write off of debts/ loans/interest etc.	Nil
3	Whether proper records are maintained for inventories lying with third parties & assets received as gift from Govt. or other authorities?	Proper records are maintained for inventories lying with third parties and also for assets received as gift from Government or other authorities.	Nil

For T R Chadha & Co LLP  
Chartered Accountants  
FRN 006711N/N500028

(Neena Goel)  
Partner  
M. No. 057986

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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

(P. R. Paul)  
Partner  
M.No. 051675

Place: New Delhi  
Date: 28 May, 2018

## 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 2018.

**Report on the Internal Financial Controls with reference to standalone financial statements under Clause (i) of Sub-section 3 of Section 143 of the Companies Act, 2013 ("the Act")**

We have audited the internal financial controls with reference to standalone financial statements of NTPC Limited ("the Company") as of 31 March 2018 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 authorizations of management and directors of the Company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the Company's assets that could have a material effect on the standalone financial statements.



### Inherent Limitations of Internal Financial Controls with reference to 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 and such internal financial controls with respect to standalone financial statements were operating effectively as at 31 March 2018, 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 PSD & Associates  
Chartered Accountants  
FRN 004501C

(Thalendra Sharma)  
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For B M Chatrath & Co LLP  
Chartered Accountants  
FRN 301011E/E300025

(P. R. Paul)  
Partner  
M.No. 051675

Place: New Delhi  
Date: 28 May, 2018



View of Dulanga Coal Mine

## 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, NEW DELHI FOR THE YEAR ENDED 31 MARCH, 2018

The preparation of financial statements of NTPC Limited, New Delhi for the year ended 31 March 2018 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 28 May 2018.

I, on behalf of the Comptroller and Auditor General of India, have conducted a supplementary audit under Section 143(6) (a) of the Act of the financial statements of NTPC Limited for the year ended 31 March 2018. 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 audit nothing significant has come to my knowledge which would give rise to any comment upon or supplement to statutory auditors' report.

For and on behalf of the  
Comptroller & Auditor General of India

(Ritika Bhatia)  
Principal Director of Commercial Audit & Ex-officio Member,  
Audit Board-III, New Delhi

Place : New Delhi  
Dated : 29 June, 2018

### Floating Solar at NTPC Kayamkulam



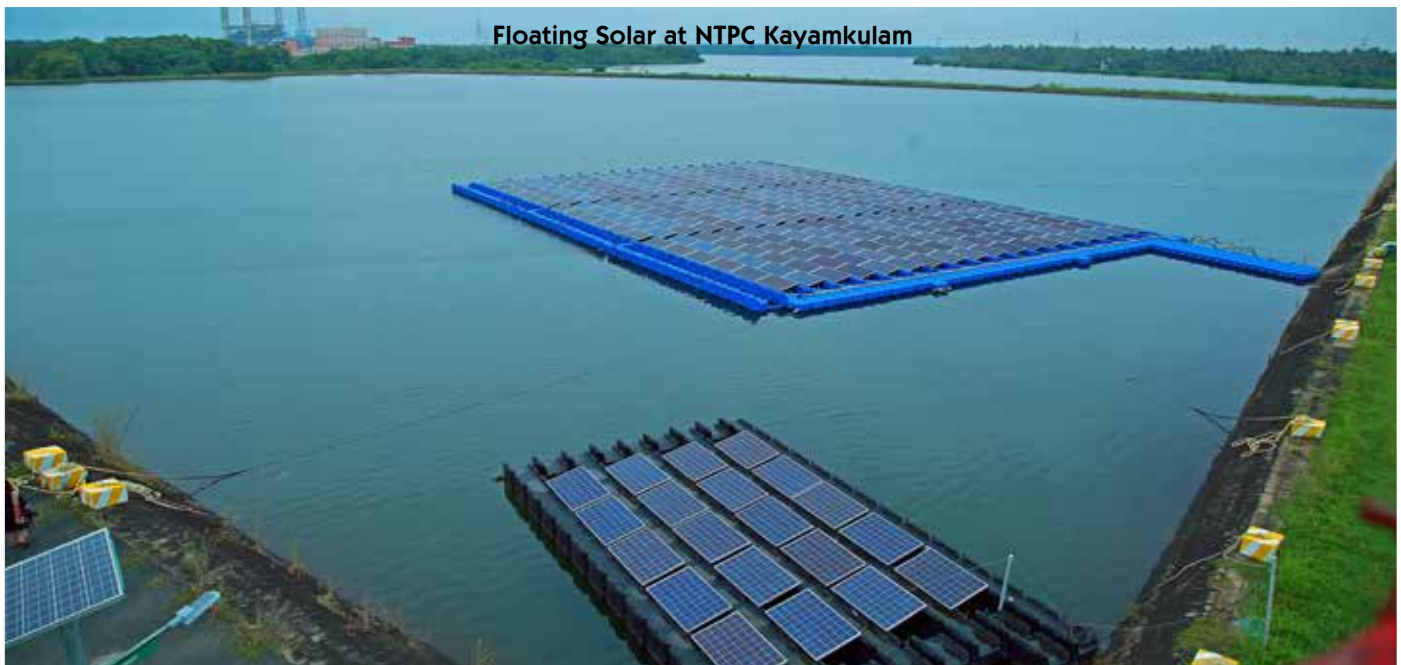
## EMPLOYEE COST SUMMARY

₹ Crore

Description	2013-14	2014-15	2015-16	2016-17	2017-18
A. Salary, Wages and benefits (Incl. Provident fund and other contributions)	4323.07	4043.06	4105.52	5114.83	5469.28
B. Other Benefits					
1. Welfare Expenses	248.30	369.95	324.16	210.75	308.47
2. Township	163.53	194.85	218.16	226.19	245.86
3. Educational and School facilities	12.98	13.33	28.61	24.66	33.98
4. Medical Facilities	160.27	168.76	178.79	185.40	192.03
5. Subsidised Transport	6.08	7.51	8.26	12.25	11.51
6. Social and Cultural activities	13.06	12.77	8.72	9.70	7.74
7. Subsidised Canteen	35.22	39.29	40.78	47.62	62.42
Total (B)	639.44	806.46	807.48	716.57	862.01
<b>Total (A+B)</b>	<b>4962.51</b>	<b>4849.52</b>	<b>4913.00</b>	<b>5831.40</b>	<b>6331.29</b>
8. Year end No. of Employees	23,411	22,496	21,633	20,593	19,739
9. Average No. of Employees	23,638	22,954	22,065	21,113	20,166
10. Average Salary, wages and benefits per employee per annum (₹)	1,828,865	1,761,375	1,860,648	2,422,597	2,712,129
11. Average Cost of Other Benefits per employee per annum (₹)	270,514	351,337	365,955	339,398	427,457
12. Average cost of employees remuneration and benefits per annum (₹)	2,099,379	2,112,712	2,226,603	2,761,995	3,139,586

Note: 1. Welfare expenses are net of amounts included in Sl. no. 2 to Sl. no. 7.

Note: 2. Information for 2017-18 and 2016-17 is based on accounts prepared as per Indian Accounting Standards (Ind AS). (Previous year information is as per the erstwhile applicable Accounting Standard (AS)).



Floating Solar at NTPC Kayamkulam

## Revenue expenditure on Social Overhead for the year ended on 31 March 2018

₹ 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	52.58	-	169.67	-	-	-	222.25	221.76
2	Material consumed	20.55	-	6.24	-	-	-	26.79	26.76
3	Rates and taxes	2.32	-	0.02	-	-	-	2.34	2.00
4	Welfare expenses	2.78	24.65	153.57	7.15	7.33	62.19	257.67	239.34
5	Others including repairs & maintenance	183.63	6.59	35.58	4.90	-	-	230.70	212.35
6	Depreciation	59.50	2.74	3.05	-	0.41	0.23	65.93	55.11
7	Sub-total (1 to 6)	321.36	33.98	368.13	12.05	7.74	62.42	805.68	757.32
8	Less : Recoveries	22.92	-	6.43	0.54	-	-	29.89	29.74
9	<b>Net expenditure (7-8)</b>	<b>298.44</b>	<b>33.98</b>	<b>361.70</b>	<b>11.51</b>	<b>7.74</b>	<b>62.42</b>	<b>775.79</b>	<b>727.58</b>
10	Previous Year	280.63	24.66	352.72	12.25	9.70	47.62	727.58	

### APCPL - Jhajjar



## CONSOLIDATED BALANCE SHEET AS AT 31 MARCH 2018

₹ Crore

Particulars	Note No.	As at 31 March 2018	As at 31 March 2017
<b>ASSETS</b>			
<b>Non-current assets</b>			
Property, plant and equipment	2	1,29,206.70	1,04,238.54
Capital work-in-progress	3	81,623.70	86,461.08
Intangible assets	4	331.76	293.12
Intangible assets under development	5	469.36	434.63
Investments accounted for using the equity method	6	8,769.33	7,500.44
<b>Financial assets</b>			
Investments	7	106.28	113.48
Trade receivables	8	-	35.59
Loans	9	454.67	401.34
Other financial assets	10	1,600.86	1,358.32
Other non-current assets	11	11,810.89	17,128.90
<b>Total non-current assets</b>		<b>2,34,373.55</b>	<b>2,17,965.44</b>
<b>Current assets</b>			
Inventories	12	6,140.29	6,586.13
<b>Financial assets</b>			
Trade receivables	13	8,812.19	8,963.89
Cash and cash equivalents	14	388.11	363.83
Bank balances other than cash and cash equivalents	15	3,999.49	2,937.63
Loans	16	238.43	211.92
Other financial assets	17	8,424.03	6,128.92
Other current assets	18	11,246.06	4,816.77
<b>Total current assets</b>		<b>39,248.60</b>	<b>30,009.09</b>
Regulatory deferral account debit balances	19	745.91	522.83
<b>TOTAL ASSETS</b>		<b>2,74,368.06</b>	<b>2,48,497.36</b>
<b>EQUITY AND LIABILITIES</b>			
<b>Equity</b>			
Equity share capital	20	8,245.46	8,245.46
Other equity	21	95,318.01	89,592.56
<b>Total equity attributable to owners of the parent</b>		<b>1,03,563.47</b>	<b>97,838.02</b>
Non-controlling interests		947.77	803.26
<b>Total equity</b>		<b>1,04,511.24</b>	<b>98,641.28</b>
<b>Liabilities</b>			
<b>Non-current liabilities</b>			
<b>Financial liabilities</b>			
Borrowings	22	1,16,775.81	1,04,075.12
Trade payables	23	23.31	13.17
Other financial liabilities	24	2,187.31	2,355.69
Provisions	25	480.90	463.15
Deferred tax liabilities (net)	26	2,408.14	1,484.86
Other non-current liabilities	27	-	17.49
<b>Total non-current liabilities</b>		<b>1,21,875.47</b>	<b>1,08,409.48</b>
<b>Current liabilities</b>			
<b>Financial liabilities</b>			
Borrowings	28	6,680.38	3,119.54
Trade payables	29	6,707.55	5,572.70
Other financial liabilities	30	22,853.28	20,392.82
Other current liabilities	31	1,156.87	1,263.24
Provisions	32	8,251.78	8,120.73
Current tax liabilities (net)	33	-	81.40
<b>Total current liabilities</b>		<b>45,649.86</b>	<b>38,550.43</b>



Particulars	Note No.	₹ Crore	
		As at 31 March 2018	As at 31 March 2017
Deferred revenue	34	2,331.49	2,406.84
Regulatory deferral account credit balances	35	-	489.33
<b>TOTAL EQUITY AND LIABILITIES</b>		<b>2,74,368.06</b>	<b>2,48,497.36</b>
Significant accounting policies	1		

The accompanying notes 1 to 73 form an integral part of these financial statements.

For and on behalf of the Board of Directors

(K.P. Gupta)  
Company Secretary

(Sudhir Arya)  
Chief Financial Officer

(K. Sreekant)  
Director (Finance)

(Gurdeep Singh)  
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

For PSD & Associates  
Chartered Accountants  
Firm Reg. No. 004501C

For Sagar & Associates  
Chartered Accountants  
Firm Reg. No. 003510S

(Neena Goel)  
Partner  
M. No. 057986

(Prakash Sharma)  
Partner  
M. No. 072332

(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

(S.S. Poddar)  
Partner  
M. No. 051113

(Sanjiv Kapoor)  
Partner  
M. No. 070487

(Sanjay Sarkar)  
Partner  
M. No. 064305

Place : New Delhi  
Dated : 28 May 2018



## CONSOLIDATED STATEMENT OF PROFIT AND LOSS FOR THE YEAR ENDED 31 MARCH 2018

₹ Crore

Particulars	Note No.	For the year ended 31 March 2018	For the year ended 31 March 2017
<b>Income</b>			
Revenue from operations	36	88,083.31	82,042.49
Other income	37	1,558.28	966.82
<b>Total income</b>		<b>89,641.59</b>	<b>83,009.31</b>
<b>Expenses</b>			
Fuel cost		48,992.80	47,947.77
Energy purchased for trading		4,323.49	3,037.88
Employee benefits expense	38	4,791.97	4,375.54
Finance costs	39	4,434.59	3,651.08
Depreciation, amortization and impairment expense	40	7,459.93	6,009.91
Other expenses	41	7,554.59	5,185.51
<b>Total expenses</b>		<b>77,557.37</b>	<b>70,207.69</b>
<b>Profit before share of net profits of investments accounted for using equity method, tax and regulatory deferral account balances</b>		<b>12,084.22</b>	<b>12,801.62</b>
Add: Share of net profits of joint ventures accounted for using equity method		445.05	624.71
<b>Profit before tax</b>		<b>12,529.27</b>	<b>13,426.33</b>
<b>Tax expense</b>	54		
Current tax			
Current year		2,616.16	2,750.85
Earlier years		(951.30)	(107.54)
Deferred tax		3,988.08	1,284.47
Less: Deferred asset for deferred tax liability		3,064.80	952.68
<b>Total tax expense</b>		<b>2,588.14</b>	<b>2,975.10</b>
<b>Profit for the year before regulatory deferral account balances</b>		<b>9,941.13</b>	<b>10,451.23</b>
Net movement in regulatory deferral account balances (net of tax)	70	560.37	262.71
<b>Profit for the year</b>		<b>10,501.50</b>	<b>10,713.94</b>
<b>Other comprehensive income/(expense)</b>			
Items that will not be reclassified to profit or loss (net of tax)			
- Net actuarial losses on defined benefit plans		(7.28)	(238.66)
- Net gains/(losses) on fair value of equity instruments		(7.20)	35.28
- Share of other comprehensive income of joint ventures accounted for using the equity method		(0.16)	(1.41)
Items that will be reclassified to profit or loss (net of tax)			
- Exchange differences on translation of foreign operations		(6.05)	(8.06)
<b>Other comprehensive income/(expense) for the year, net of income tax</b>		<b>(20.69)</b>	<b>(212.85)</b>
<b>Total comprehensive income for the year</b>		<b>10,480.81</b>	<b>10,501.09</b>
Profit is attributable to:			
Owners of the parent		10,543.95	10,719.64
Non-controlling interests		(42.45)	(5.70)
		<b>10,501.50</b>	<b>10,713.94</b>
Other comprehensive income/(expense) attributable to:			
Owners of the parent		(20.69)	(212.85)
Non-controlling interests		-	-
		<b>(20.69)</b>	<b>(212.85)</b>



Particulars	Note No.	₹ Crore	
		For the year ended 31 March 2018	For the year ended 31 March 2017
Total comprehensive income attributable to:			
Owners of the parent		10,523.26	10,506.79
Non-controlling interests		(42.45)	(5.70)
		<b>10,480.81</b>	<b>10,501.09</b>
Significant accounting policies	1		
Earnings per equity share (Par value ₹ 10/- each)	60		
Basic & Diluted (₹) (from operations excluding regulatory deferral account balances)		12.11	12.68
Basic & Diluted (₹) (from operations including regulatory deferral account balances)		12.79	13.00

The accompanying notes 1 to 73 form an integral part of these financial statements.

For and on behalf of the Board of Directors

(K.P. Gupta)  
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

(Neena Goel)  
Partner  
M. No. 057986

For PSD & Associates  
Chartered Accountants  
Firm Reg. No. 004501C

(Prakash Sharma)  
Partner  
M. No. 072332

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

(S.S. Poddar)  
Partner  
M. No. 051113

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 : 28 May 2018

**CONSOLIDATED STATEMENT OF CASH FLOWS FOR THE YEAR ENDED 31 MARCH 2018**

Particulars	₹ Crore	
	For the year ended 31 March 2018	For the year ended 31 March 2017
<b>A. CASH FLOW FROM OPERATING ACTIVITIES</b>		
Profit before tax	12,529.27	13,426.33
Add: Net movement in regulatory deferral account balances (net of tax)	560.37	962.71
Add: Tax on net movement in regulatory deferral account balances	152.04	71.51
<b>Profit before tax including movements in regulatory deferral account balances</b>	<b>13,241.68</b>	<b>13,760.55</b>
<b>Adjustment for:</b>		
Depreciation, amortization and impairment expense	7,459.93	6,009.91
Provisions	827.77	139.39
Share of net profits of joint ventures accounted for using equity method	(445.05)	(624.71)
Deferred revenue on account of advance against depreciation	(172.67)	(32.92)
Deferred revenue on account of government grants	38.64	332.00
Deferred foreign currency fluctuation asset	(86.32)	336.11
Deferred income from foreign currency fluctuation	214.72	(102.30)
Regulatory deferral account credit balances	(489.33)	188.61
Regulatory deferral account debit balances	(223.08)	(522.83)
Fly ash utilisation reserve fund	74.53	78.47
Exchange differences on translation of foreign currency cash and cash equivalents	-	0.06
Finance costs	4,415.95	3,569.08
Unwinding of discount on vendor liabilities	18.64	82.00
Interest/income on term deposits/bonds/investments	(238.52)	(106.08)
Dividend income	(3.60)	(3.00)
Provisions written back	(1,174.85)	(176.84)
Profit on de-recognition of property, plant and equipment	(2.37)	(10.36)
Loss on de-recognition of property, plant and equipment	110.67	82.94
	<b>10,325.06</b>	<b>9,239.53</b>
<b>Operating profit before working capital changes</b>	<b>23,566.74</b>	<b>23,000.08</b>
<b>Adjustment for:</b>		
Trade receivables	185.85	(639.51)
Inventories	812.72	804.18
Trade payables, provisions, other financial liabilities and other liabilities	2,079.22	657.05
Loans, other financial assets and other assets	(8,907.54)	(1,028.99)
	<b>(5,829.75)</b>	<b>(207.27)</b>
<b>Cash generated from operations</b>	<b>17,736.99</b>	<b>22,792.81</b>



Particulars	₹ Crore	
	For the year ended 31 March 2018	For the year ended 31 March 2017
Income taxes (paid) / refunded	1,925.73	(2,626.25)
<b>Net cash from operating activities - A</b>	<b>19,662.72</b>	<b>20,166.56</b>
<b>B. CASH FLOW FROM INVESTING ACTIVITIES</b>		
Purchase of property, plant and equipment & intangible assets	(18,764.88)	(24,399.86)
Disposal of property, plant and equipment & intangible assets	8.94	72.01
Proceeds from sale of investments	-	343.63
Investment in joint venture companies	(1,153.08)	(1,200.24)
Interest/income on term deposits/bonds/investments received	242.69	168.72
Income tax paid on interest income	(78.52)	(44.12)
Dividend received from joint venture companies	135.57	143.09
Dividend received from other investments	3.60	3.00
Bank balances other than cash and cash equivalents	(1,066.03)	433.70
<b>Net cash used in investing activities - B</b>	<b>(20,671.71)</b>	<b>(24,480.07)</b>
<b>C. CASH FLOW FROM FINANCING ACTIVITIES</b>		
Proceeds from non-current borrowings	17,918.23	24,509.39
Repayment of non-current borrowings	(6,966.57)	(11,095.86)
Proceeds from current borrowings	3,560.84	1,632.27
Payment of finance lease obligations	(6.62)	(12.60)
Interest paid	(8,605.76)	(7,568.35)
Dividend paid	(4,040.28)	(3,595.03)
Tax on dividend	(826.57)	(731.86)
<b>Net cash from financing activities - C</b>	<b>1,033.27</b>	<b>3,137.96</b>
D. Exchange differences on translation of foreign currency cash and cash equivalents	-	(0.06)
<b>Net increase/(decrease) in cash and cash equivalents (A+B+C+D)</b>	<b>24.28</b>	<b>(1,175.61)</b>
<b>Cash and cash equivalents at the beginning of the year (see Note 1 and 2 below)</b>	<b>363.83</b>	<b>1,539.44</b>
<b>Cash and cash equivalents at the end of the year (see Note 1 and 2 below)</b>	<b>388.11</b>	<b>363.83</b>
<b>Notes:</b>		
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 14	388.11	363.83

3 Refer Note no. 66 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:

₹ 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:			
- Non cash acquisitions	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 22 and Note 30.

For and on behalf of the Board of Directors

(K. P. Gupta)  
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/N500028For PSD & Associates  
Chartered Accountants  
Firm Reg. No. 004501CFor Sagar & Associates  
Chartered Accountants  
Firm Reg. No. 003510S(Neena Goel)  
Partner  
M. No. 057986(Prakash Sharma)  
Partner  
M. No. 072332(V. Vidyasagar Babu)  
Partner  
M. No. 027357For Kalani & Co.  
Chartered Accountants  
Firm Reg. No. 000722CFor P. A. & Associates  
Chartered Accountants  
Firm Reg. No. 313085EFor S. K. Kapoor & Co.  
Chartered Accountants  
Firm Reg. No. 000745CFor B M Chatrath & Co LLP  
Chartered Accountants  
Firm Reg. No. 301011E/E300025(Varun Bansal)  
Partner  
M. No. 402856(S.S. Poddar)  
Partner  
M. No. 051113(Sanjiv Kapoor)  
Partner  
M. No. 070487(Sanjay Sarkar)  
Partner  
M. No. 064305Place : New Delhi  
Dated : 28 May 2018

**CONSOLIDATED STATEMENT OF CHANGES IN EQUITY FOR THE YEAR ENDED 31 MARCH 2018**

**(A) Equity share capital**

	₹ Crore
For the year ended 31 March 2018	
Balance as at 1 April 2017	8,245.46
Changes in equity share capital during the year	-
Balance as at 31 March 2018	<b>8,245.46</b>

	₹ Crore
For the year ended 31 March 2017	
Balance as at 1 April 2016	8,245.46
Changes in equity share capital during the year	-
Balance as at 31 March 2017	<b>8,245.46</b>

**(B) Other equity**

Particulars	Attributable to owners of the parent										Non-controlling interests	Total	
	Reserves & surplus						Items of other comprehensive income		Other equity attributable to owners of the parent	Total			
	Capital reserve	Securities premium account	Bonds/Debt redemption reserve	Fly ash utilisation reserve fund	Corporate Social Responsibility reserve	General reserve	Retained earnings	Equity instruments through OCI					Foreign currency translation reserve
<b>For the year ended 31 March 2018</b>													
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	803.96	90,395.82	
Profit for the year						10,543.95	(7.44)	(7.20)	(6.05)	10,543.95	(42.45)	10,501.50	
Other comprehensive income/(expense)										(20.69)		(20.69)	
<b>Total comprehensive income</b>	-	-	-	-	-	10,536.51	(6.05)	(7.20)	(6.05)	10,523.26	(42.45)	10,480.81	
Equity contribution by Non Controlling Interest											181.47	181.47	
Impact of change in ownership interest in Subsidiary [Refer Note 69 (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				74.53						74.53		74.53	
Final dividend paid for FY 2016-17 (Note 20)							(1,789.27)			(1,789.27)		(1,789.27)	
Tax on final dividend for FY 2016-17 (Note 20)							(364.25)			(364.25)		(364.25)	
Interim dividend paid for FY 2017-18 (Note 20)							(2,251.01)			(2,251.01)		(2,251.01)	
Tax on interim dividend for FY 2017-18 (Note 20)							(462.32)			(462.32)		(462.32)	
<b>Balance as at 31 March 2018</b>	<b>50.08</b>	<b>2,228.46</b>	<b>7,974.56</b>	<b>631.21</b>	<b>0.24</b>	<b>81,131.83</b>	<b>4,003.92</b>	<b>7.80</b>	<b>(10.09)</b>	<b>95,318.01</b>	<b>947.77</b>	<b>96,265.78</b>	



₹ Crore

For the year ended 31 March 2017

Particulars	Attributable to owners of the parent										Non-controlling interests	Total
	Reserves & surplus					Items of other comprehensive income						
	Capital reserve	Securities premium account	Bonds/Debtentures redemption reserve	Fly ash utilisation reserve fund	Corporate Social Responsibility reserve	General reserve	Retained earnings	Equity instruments through OCI	Foreign currency translation reserve	Other equity attributable to owners of the parent		
Balance as at 1 April 2016	50.08	2,228.46	4,608.73	478.21	0.74	72,551.63	3,428.53	(20.28)	4.02	83,330.12	793.30	84,123.42
Profit for the year							10,719.64			10,719.64	(5.70)	10,713.94
Other comprehensive income/ (expense)							(240.07)	35.28	(8.06)	(212.85)		(212.85)
Total comprehensive income	-	-	-	-	-	-	10,479.57	35.28	(8.06)	10,506.79	(5.70)	10,501.09
Equity contribution by Non Controlling Interest											15.66	15.66
Transactions with owners in their capacity as owners:												
Transfer to retained earnings			(314.00)		(0.63)		314.63					
Transfer from retained earnings			1,657.08		0.11	4,579.00	(6,246.19)					
Transfer to fly ash utilisation reserve fund				78.47						78.47		78.47
Final dividend paid for FY 2015-16 (Note 20)							(1,442.96)			(1,442.96)		(1,442.96)
Tax on final dividend for FY 2015-16 (Note 20)							(289.68)			(289.68)		(289.68)
Interim dividend paid for FY 2016-17 (Note 20)							(2,152.07)			(2,152.07)		(2,152.07)
Tax on interim dividend for FY 2016-17 (Note 20)							(438.11)			(438.11)		(438.11)
Balance as at 31 March 2017	50.08	2,228.46	5,961.81	556.68	0.92	77,130.63	3,653.72	15.00	(4.04)	89,592.56	803.26	90,395.82

For and on behalf of the Board of Directors

(K.P. Gupta)  
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. 057986For Kalani & Co.  
Chartered Accountants  
Firm Reg. No. 000792C(Varun Bansal)  
Partner  
M. No. 402856For PSD & Associates  
Chartered Accountants  
Firm Reg. No. 004501C(Prakash Sharma)  
Partner  
M. No. 072332For S. K. Kapoor & Co.  
Chartered Accountants  
Firm Reg. No. 000745C(Sanjiv Kapoor)  
Partner  
M. No. 070487For Sagar & Associates  
Chartered Accountants  
Firm Reg. No. 003510S(V. Vidyasagar Babu)  
Partner  
M. No. 027357For B M Chatrath & Co LLP  
Chartered Accountants  
Firm Reg. No. 301011E/E300025(Sanjay Sarkar)  
Partner  
M. No. 064305Place : New Delhi  
Dated : 28 May 2018

## Notes forming part of Consolidated Financial Statements

### 1. Group 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. 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 authorized for issue by the Board of Directors on 28 May 2018.

##### 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 realized or intended to be sold or consumed in normal operating cycle;
- Held primarily for the purpose of trading;
- Expected to be realized 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 utilize 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 unrealized gains on transactions between group companies are eliminated. Unrealized 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.

NCI are measured at their proportionate share of the acquiree's net identifiable assets at the date of acquisition. 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 derecognizes 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 recognized in profit or loss.

#### 1.2 Joint arrangements

Under Ind AS 111 'Joint Arrangements', investments in joint arrangements are classified as either joint operations or joint ventures. The classification depends on the contractual rights and obligations of each investor, rather than the legal structure of the joint arrangement. The Group has both joint operations and joint ventures.



### Joint operation

The Group recognizes its direct right to the assets, liabilities, revenues and expenses of joint operations and its share of any jointly held or incurred assets, liabilities, revenues and expenses. These have been incorporated in the financial statements under the appropriate headings.

### Joint ventures

Interests in joint ventures are accounted for using the equity method as stated below, after initially being recognized at cost in the consolidated balance sheet.

### Equity method

Under the equity method of accounting, the investments are initially recognized at cost and adjusted thereafter to recognize 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 recognized 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 recognize further losses, unless it has incurred obligations or made payments on behalf of the other entity.

Unrealized gains on transactions between the group and its joint ventures are eliminated to the extent of the group's interest in these entities. Unrealized 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 recognized in profit or loss. In addition, any amounts previously recognized 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 recognized 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 recognized 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 recognized 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 recognized at cost. Subsequent measurement is done at cost less accumulated depreciation/amortization 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 recognized separately.

Deposits, payments/liabilities made provisionally towards compensation, rehabilitation and other expenses relating to land in possession are treated as cost of land.

In the case of assets put to use, where final settlement of bills with contractors is yet to be effected, capitalization is done on provisional basis subject to necessary adjustment in the year of final settlement.

Assets and systems common to more than one generating unit are capitalized on the basis of engineering estimates/assessments.



Items of spare parts, stand-by equipment and servicing equipment which meet the definition of property, plant and equipment are capitalized. Other spare parts are carried as inventory and recognized in the statement of profit and loss on consumption.

## 2.2. Subsequent costs

Subsequent expenditure is recognized as an increase in the carrying amount of the asset when it is probable that future economic benefits deriving from the cost incurred will flow to the enterprise and the cost of the item can be measured reliably.

Expenditure on major inspection and overhauls of generating unit is capitalized, when it meets the asset recognition criteria.

The cost of replacing part of an item of property, plant and equipment is recognized in the carrying amount of the item if it is probable that the future economic benefits embodied within the part will flow to the Group and its cost can be measured reliably. The carrying amount of the replaced part is derecognized. The costs of the day-to-day servicing of property, plant and equipment are recognized 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 derecognized when no future economic benefits are expected from their use or upon their disposal. Gains and losses on de-recognition of an item of property, plant and equipment are determined by comparing the proceeds from disposal, if any, with the carrying amount of property, plant and equipment, and are recognized in the statement of profit and loss.

## 2.5. Depreciation/amortization

Depreciation is recognized 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 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.

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 ascertained on 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 capitalized 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 amortized 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 amortized 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 amortized on the basis of balance useful life of the project. Other leasehold land acquired for mining business is amortized 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 unamortized balance of such asset is charged off prospectively over the remaining useful life determined following the applicable accounting policies relating to depreciation/amortization.

Where it is probable that future economic benefits deriving from the 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 unamortized depreciable amount is charged off prospectively over the revised useful life determined by technical assessment.

In circumstance, where a property is abandoned, the cumulative capitalized costs relating to the property are written off in the same period.

### 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 recognized 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 recognized at cost. Subsequent measurement is done at cost less accumulated amortization 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 capitalized 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 capitalizations 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 recognized as an increase in the carrying amount of the asset when it is probable that future economic benefits deriving from the cost incurred will flow to the enterprise and the cost of the item can be measured reliably.

#### 4.3. De-recognition

An intangible asset is derecognized when no future economic benefits are expected from their use or upon their disposal. 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 recognized in the statement of profit and loss.

#### 4.4. Amortization

Cost of software recognized as intangible asset, is amortized on straight-line method over a period of legal right to use or 3 years, whichever is less. Other intangible assets are amortized on straight-line method over the period of legal right to use or life of the related plant, whichever is less.

### 5. Regulatory deferral account balances

Expense/income recognized in the statement of profit and loss to the extent recoverable from or payable to the beneficiaries in subsequent periods as per CERC Tariff Regulations are recognized as 'Regulatory deferral account balances'.

Regulatory deferral account balances are adjusted 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 derecognized.

### 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 capitalized 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 capitalized 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 capitalized 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 derecognized.

The development expenditure capitalized is net of value of coal extracted during development phase.

Subsequent expenditure is capitalized only where it either enhances the economic benefits of the development/producing asset or replaces part of the existing development/producing asset. Any remaining costs associated with the part replaced are expensed.

Mines under development are capitalized on occurrence of earliest of the following milestones except 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.

On being brought to revenue, the assets under capital work-in-progress are reclassified 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 recognized 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 recognized as finance costs.

### 7.3. Amortization

On being brought to revenue, the mines closure, site restoration and decommissioning obligations are amortized over the balance life of the mine. Mining property is amortized 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 recognizes, 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 recognized 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 capitalized as part of cost of such asset until such time the assets are substantially ready for their intended use. Qualifying assets are assets which necessarily take substantial period of time to get ready for their intended use or sale.

When the Group borrows funds specifically for the purpose of obtaining a qualifying asset, the borrowing costs incurred are capitalized. When Group borrows funds generally and uses them for the purpose of obtaining a qualifying asset, the capitalization of the borrowing costs is computed based on the weighted average cost of 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 capitalization.

Capitalization 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 recognized as an expense in the year in which they are incurred.

### 10. Inventories

Inventories are valued at the lower of cost and net realizable 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 realizable 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 realizable 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 recognized 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 recognized 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 recognized over the period in which the related costs are incurred and deducted from the related expenses.



### 13. Fly ash utilization reserve fund

Proceeds from sale of ash/ash products along-with income on investment of such proceeds are transferred to 'Fly ash utilization 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 utilized 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 recognized if, as a result of a past event, the Group has a present legal or constructive obligation that can be estimated reliably, and it is probable that an outflow of economic benefits will be required to settle the obligation. If the effect of the time value of money is material, provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the liability. When discounting is used, the increase in the provision due to the passage of time is recognized as a finance costs.

The amount recognized as a provision is the best estimate of the consideration required to settle the present obligation at reporting date, taking into account the risks and uncertainties surrounding the obligation.

When some or all of the economic benefits required to settle a provision are expected to be recovered from a third party, the receivable is recognized as an asset if it is virtually certain that reimbursement will be received and the amount of the receivable can be measured reliably. The expense relating to a provision is presented in the statement of profit and loss net of 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 recognized 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 recognized 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 are translated using the exchange rate at the date of the transaction.

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 recognized in OCI.





On consolidation, exchange differences arising from the translation of any net investment in foreign entities are recognized 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 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.

### 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 from the sale of energy is measured at the fair value of the consideration received or receivable. Revenue is recognized when the significant risks and rewards of ownership have been transferred to the buyer, recovery of the consideration is probable, the associated costs can be estimated reliably, there is no continuing management involvement, and the amount of revenue can 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 recognized once the electricity has been delivered to the beneficiary and is measured through a regular review of usage meters. Beneficiaries are billed on a periodic and regular basis. As at each reporting date, revenue from sale of energy includes an accrual for sales delivered to beneficiaries but not yet billed i.e. unbilled revenue.

The incentives/ disincentives are accounted for based on the norms notified/approved by the CERC as per principles enunciated in Ind AS 18. 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 sale of energy is recognized based on the rates, terms & conditions mutually agreed with the beneficiaries and trading of power through power exchanges.

Rebates allowed to beneficiaries as early payment incentives are deducted from the amount of revenue.

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 recognized 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 recognized in sales.

### 16.2. Revenue from services

Revenue from consultancy, project management and supervision services rendered is recognized in profit or loss in proportion to the stage of completion of the transaction at the reporting date. The stage of completion



is 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 recognized as other income, as per the terms of the consultancy service contracts.

### 16.3. Other income

Interest income is recognized, when no significant uncertainty as to measurability or collectability exist, on a time proportion basis taking into account the amount outstanding and the applicable interest rate, using the effective interest rate method (EIR).

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 realization.

Revenue from rentals and operating leases is recognized on an accrual basis in accordance with the substance of the relevant agreement.

For debt instruments measured either at amortized 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 amortized 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 sundry debtors for sale of energy is recognized 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 realization/acceptance are not treated as accrued and are therefore, accounted for on receipt/acceptance.

Dividend income is recognized in profit or loss only when the right to receive is established, it is probable that the economic benefits associated with the dividend will flow to the Group, and the amount of the dividend can be measured reliably.

## 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 recognized as an employee benefits expense in profit or loss in the period during which services are rendered by employees. Prepaid contributions are recognized as an asset to the extent that a cash refund or a reduction in future payments is available. Contributions to a defined contribution plan that are due after more than 12 months after the end of the period in which the employees render the service are discounted to their present value.

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 recognized 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 recognized 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 unrecognized 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 recognized asset is limited to the total of any unrecognized 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 realizable during the life of the plan, or on settlement of the plan liabilities. Any actuarial gains or losses are recognized 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 recognized 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 recognized 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 recognized 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 recognized for the amount expected to be paid under performance related pay if the Group has a present legal or constructive obligation to pay this amount as a result of past service provided by the employee and the obligation can be estimated reliably.

### 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 recognized in profit or loss except to the extent that it relates to items recognized directly in OCI or equity, in which case it is recognized in OCI or equity.

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 recognized 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 recognized in profit or loss except to the extent that it relates to items recognized directly in OCI or equity, in which case it is recognized in OCI or equity.

A deferred tax asset is recognized to the extent that it is probable that future taxable profits will be available against which the temporary difference can be utilized. Deferred tax assets are reviewed at each reporting date and are reduced to the extent that it is no longer probable that the related tax benefit will be realized.

Deferred tax liabilities are not recognized 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 recognized 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 recognized at the same time that the liability to pay the related dividend is recognized.

## 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 recognized 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 expense and the reduction of the outstanding liability.

The finance expense 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 recognized 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 recognized 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 recognized as revenue, using a rate of return specific to the plant to give a constant periodic rate of return on the net investment in each period. The service income element of the capacity payment is the difference between the total capacity payment and the amount recognized as finance income and capital repayments and recognized as revenue as it is earned.

The amounts due from lessees under finance leases are recorded in the balance sheet as financial assets, classified as 'Finance lease receivables', at the amount 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 capitalized as property, plant and equipment and depreciated over its economic life. Rental income from operating leases is recognized on a straight line basis over the term of the arrangement 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 recognized if the carrying amount of an asset or its CGU exceeds its estimated recoverable amount. Impairment losses are recognized in profit or loss. Impairment losses recognized in respect of CGUs are reduced from the carrying amounts of the assets of the CGU.

Impairment losses recognized in prior periods are assessed at each reporting date for any indications that the loss has decreased or no longer exists. An impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount



does not exceed the carrying amount that would have been determined, net of depreciation or amortization, if no impairment loss had been recognized.

## 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 for the year, 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. Dividends

Dividends and interim dividends payable to a Group's shareholders are recognized as changes in equity in the period in which they are approved by the shareholders' meeting 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 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.

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

All financial assets are recognized initially at fair value plus, in the case of financial assets not recorded at fair value through profit or loss, transaction costs that are attributable to the acquisition or issue of the financial asset.

#### Subsequent measurement

##### Debt instruments at amortized cost

A 'debt instrument' is measured at the amortized cost if both the following conditions are met:

- (a) The asset is held within a business model whose objective is to hold assets for collecting contractual cash flows, and
- (b) Contractual terms of the asset give rise on specified dates to cash flows that are solely payments of principal and interest (SPPI) on the principal amount outstanding.

After initial measurement, such financial assets are subsequently measured at amortized cost using the EIR method. Amortized cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the EIR. The EIR amortization is included in finance income in the profit or loss. The losses arising from impairment are recognized 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 recognized in the OCI. However, the Group recognizes 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 recognized 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 categorization as at amortized cost or as FVTOCI, is classified as at FVTPL.

In addition, the Group may elect to classify a debt instrument, which otherwise meets amortized cost or FVTOCI criteria, as at FVTPL. However, such election is allowed only if doing so reduces or eliminates a measurement or recognition inconsistency (referred to as 'accounting mismatch'). Debt instruments included within the FVTPL category are measured at fair value with all changes recognized in the 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 recognized 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 recognized 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-recognized (i.e. removed from the Group's balance sheet) when:

- The rights to receive cash flows from the asset have expired, or
- The Group has transferred its rights to receive cash flows from the asset or has assumed an obligation to pay the received cash flows in full without material delay to a third party under a 'pass-through' arrangement; and either (a) the Group has transferred substantially all the risks and rewards of the asset, or (b) the Group has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.

#### 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 amortized cost e.g. loans, debt securities, deposits and bank balance.
- (b) Financial assets that are debt instruments and are measured as at FVTOCI.
- (c) Lease receivables under Ind AS 17.
- (d) Trade receivables under Ind AS 11 and Ind AS 18.
- (e) Loan commitments which are not measured as at FVTPL.
- (f) Financial guarantee contracts which are not measured as at FVTPL.

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 recognizing 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 recognized 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 amortized cost

After initial measurement, such financial liabilities are subsequently measured at amortized cost using the EIR method. Gains and losses are recognized in profit or loss when the liabilities are derecognized as well as through the EIR amortization process. Amortized cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the EIR. The EIR amortization is included in finance costs in the 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 recognized in the statement of profit and loss.

Financial liabilities designated upon initial recognition at fair value through profit or loss are designated at the initial date of recognition, and only if the criteria in Ind AS 109 are satisfied. For liabilities designated as FVTPL, fair value gains/losses attributable to changes in own credit risk are recognized in OCI. These gains/losses are not subsequently transferred to profit and loss. However, the Group may transfer the cumulative gain or loss within equity. All other changes in fair value of such liability are recognized in the statement of profit and loss. The Group has not designated any financial liability as at fair value through profit and loss.

#### De-recognition

A financial liability is derecognized when the obligation under the liability is discharged or cancelled or expires. When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as the derecognition of the original liability and the recognition of a new liability. The difference in the respective carrying amounts is recognized in the statement of profit and loss.

#### Derivative financial instruments

##### Initial recognition and subsequent measurement

The Group uses derivative financial instruments, such as forward currency contracts and interest rate swaps to hedge its foreign currency risks and interest rate risks of foreign currency loans. Such derivative financial instruments are initially recognized at fair value on the date on which a derivative contract is entered into and are subsequently re-measured at fair value. Derivatives are carried as financial assets when the fair value is positive and as financial liabilities when the fair value is negative. Any gains or losses arising from changes in the fair value of derivatives are taken to statement of profit and loss.

#### 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 recognized in the period in which the estimates are revised and in any future periods affected.

In order to enhance understanding of the financial statements, information about significant areas of estimation, uncertainty and critical judgments in applying accounting policies that have the most significant effect on the amounts recognized in the financial statements is as under:



#### 1. Formulation of accounting policies

The accounting policies are formulated in a manner that results in financial statements containing relevant and reliable information about the transactions, other events and conditions to which they apply. Those policies need not be applied when the effect of applying them is immaterial.

#### 2. Useful life of property, plant and equipment and intangible assets

The estimated useful life of property, plant and equipment and intangible assets is based on a number of factors including the effects of obsolescence, demand, competition and other economic factors (such as the stability of the industry and known technological advances) and the level of maintenance expenditures required to obtain the expected future cash flows from the asset.

Useful life of the assets of the generation of electricity business is determined by the CERC Tariff Regulations in accordance with Schedule II of the Companies Act, 2013.

The Group reviews at the end of each reporting date the useful life of assets, other than the assets of generation of electricity business which are governed by CERC Regulations, and are adjusted prospectively, if appropriate.

#### 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 18. 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 recognizing provisions and contingencies have been made in accordance with Ind AS 37, 'Provisions, Contingent Liabilities and Contingent Assets'. The evaluation of the likelihood of the contingent events 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 2018

₹ Crore

Particulars	Gross block				Depreciation, amortization 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	7,630.85	990.63	(42.07)	<b>8,663.55</b>	-	-	-	-	<b>8,663.55</b>
Leasehold	4,979.25	214.40	(77.84)	<b>5,271.49</b>	200.35	119.17	2.92	<b>316.60</b>	<b>4,954.89</b>
Under submergence (refer footnote (f) below)	732.83	0.48	(22.16)	<b>755.47</b>	49.26	30.40	-	<b>79.66</b>	<b>675.81</b>
Roads, bridges, culverts and helipads	905.64	142.15	(15.06)	<b>1,062.85</b>	69.68	44.50	1.54	<b>112.64</b>	<b>950.21</b>
Building									
Freehold									
Main plant	4,673.32	1,194.20	(8.81)	<b>5,876.33</b>	328.68	209.68	2.72	<b>535.64</b>	<b>5,340.69</b>
Others	2,893.36	669.68	(139.44)	<b>3,702.48</b>	278.84	174.90	28.20	<b>425.54</b>	<b>3,276.94</b>
Leasehold	18.91	-	-	<b>18.91</b>	3.70	1.86	-	<b>5.56</b>	<b>13.35</b>
Temporary erection	18.10	7.98	(2.12)	<b>28.20</b>	13.97	7.92	(0.01)	<b>21.90</b>	<b>6.30</b>
Water supply, drainage and sewerage system	473.64	130.33	(4.33)	<b>608.30</b>	49.43	31.52	0.01	<b>80.94</b>	<b>527.36</b>
Hydraulic works, barrages, dams, tunnels and power channel	4,130.91	46.17	(59.04)	<b>4,236.12</b>	381.71	223.02	(0.01)	<b>604.74</b>	<b>3,631.38</b>
MGR track and signaling system	1,091.56	17.92	(20.07)	<b>1,129.55</b>	125.68	69.80	-	<b>195.48</b>	<b>934.07</b>
Railway siding	757.58	695.29	(7.96)	<b>1,460.83</b>	80.14	70.68	-	<b>150.82</b>	<b>1,310.01</b>
Earth dam reservoir	211.36	106.36	(0.82)	<b>318.54</b>	22.39	17.15	-	<b>39.54</b>	<b>279.00</b>
Plant and equipment									
Owned	86,539.99	26,534.37	(1,437.00)	<b>1,14,511.36</b>	10,579.11	6,998.85	106.06	<b>17,471.90</b>	<b>97,039.46</b>
Leased	85.77	-	-	<b>85.77</b>	9.37	4.75	-	<b>14.12</b>	<b>71.65</b>
Furniture and fixtures	365.63	63.77	6.42	<b>422.98</b>	48.35	29.46	0.38	<b>77.43</b>	<b>345.55</b>
Vehicles including speedboats									
Owned	10.59	2.51	0.60	<b>12.50</b>	1.89	1.21	0.17	<b>2.93</b>	<b>9.57</b>
Leased	3.25	-	0.58	<b>2.67</b>	1.00	0.75	0.35	<b>1.40</b>	<b>1.27</b>
Office equipment	165.83	40.26	1.73	<b>204.36</b>	44.55	22.52	0.62	<b>66.45</b>	<b>137.91</b>
EDP, WP machines and satcom equipment	276.49	58.06	10.99	<b>323.56</b>	116.99	63.76	10.45	<b>170.30</b>	<b>153.26</b>
Construction equipment	145.06	49.35	1.47	<b>192.94</b>	24.99	16.02	1.39	<b>39.62</b>	<b>153.32</b>
Electrical installations	461.17	152.72	(20.78)	<b>634.67</b>	47.14	34.86	0.07	<b>81.93</b>	<b>552.74</b>
Communication equipment	68.78	12.26	0.53	<b>80.51</b>	24.82	7.99	0.58	<b>32.23</b>	<b>48.28</b>
Hospital equipment	25.91	3.98	0.06	<b>29.83</b>	3.12	1.70	0.01	<b>4.81</b>	<b>25.02</b>
Laboratory and workshop equipment	86.64	33.47	(0.30)	<b>120.41</b>	8.72	6.58	-	<b>15.30</b>	<b>105.11</b>
Assets for ash utilisation	26.22	13.07	-	<b>39.29</b>	-	-	-	-	<b>39.29</b>
Less: Adjusted from fly ash utilisation reserve fund	26.22	13.07	-	<b>39.29</b>	-	-	-	-	<b>39.29</b>
<b>Total</b>	<b>1,16,752.42</b>	<b>31,166.34</b>	<b>(1,835.42)</b>	<b>1,49,754.18</b>	<b>12,513.88</b>	<b>8,189.05</b>	<b>155.45</b>	<b>20,547.48</b>	<b>1,29,206.70</b>

As at 31 March 2017

₹ Crore

Particulars	Gross block				Depreciation, amortization and impairment				Net block
	As at 1 April 2016	Additions	Deductions/ adjustments	As at 31 March 2017	Upto 1 April 2016	For the year	Deductions/ adjustments	Upto 31 March 2017	As at 31 March 2017
Land									
(including development expenses)									
Freehold	7,397.70	188.86	(44.29)	7,630.85	-	-	-	-	7,630.85
Leasehold	4,450.70	355.01	(173.54)	4,979.25	61.14	141.10	1.89	200.35	4,778.90
Under submergence (refer footnote (f) below)	719.69	56.15	43.01	732.83	25.10	27.94	3.78	49.26	683.57
Roads, bridges, culverts and helpads	750.55	103.35	(51.74)	905.64	33.58	38.48	2.38	69.68	835.96
Building									
Freehold									
Main plant	3,907.53	747.20	(18.59)	4,673.32	155.97	172.71	-	328.68	4,344.64
Others	2,469.44	352.40	(71.52)	2,893.36	131.84	150.18	3.18	278.84	2,614.52
Leasehold	18.91	-	-	18.91	1.85	1.85	-	3.70	15.21
Temporary erection	5.68	11.40	(1.02)	18.10	4.14	9.83	-	13.97	4.13
Water supply, drainage and sewerage system	379.56	88.50	(5.58)	473.64	23.48	25.95	-	49.43	424.21
Hydraulic works, barrages, dams, tunnels and power channel	4,120.98	-	(9.93)	4,130.91	163.19	218.52	-	381.71	3,749.20
MGR track and signaling system	954.29	83.66	(53.61)	1,091.56	59.35	66.33	-	125.68	965.88
Railway siding	649.75	64.97	(42.86)	757.58	34.99	45.15	-	80.14	677.44
Earth dam reservoir	161.68	44.76	(4.92)	211.36	10.28	12.11	-	22.39	188.97
Plant and equipment									
Owned	71,288.66	14,568.45	(682.88)	86,539.99	5,005.60	5,605.88	32.37	10,579.11	75,960.88
Leased	85.77	-	-	85.77	4.62	4.75	-	9.37	76.40
Furniture and fixtures	268.95	75.20	(21.48)	365.63	22.26	26.16	0.07	48.35	317.28
Vehicles including speedboats									
Owned	7.46	3.39	0.26	10.59	0.92	1.04	0.07	1.89	8.70
Leased	2.19	1.23	0.17	3.25	0.33	0.75	0.08	1.00	2.25
Office equipment	132.83	34.32	1.32	165.83	24.78	20.10	0.33	44.55	121.28
EDP, WP machines and satcom equipment	144.30	137.67	5.48	276.49	75.07	48.02	6.10	116.99	159.50
Construction equipment	116.49	29.08	0.51	145.06	12.32	13.21	0.54	24.99	120.07
Electrical installations	363.43	89.58	(8.16)	461.17	22.25	25.61	0.72	47.14	414.03
Communication equipment	58.96	10.11	0.29	68.78	16.95	8.02	0.15	24.82	43.96
Hospital equipment	24.27	1.74	0.10	25.91	1.52	1.61	0.01	3.12	22.79
Laboratory and workshop equipment	70.81	15.38	(0.45)	86.64	3.71	5.01	-	8.72	77.92
Assets for ash utilisation	22.56	3.66	-	26.22	-	-	-	-	26.22
Less: Adjusted from fly ash utilisation reserve fund	22.56	3.66	-	26.22	-	-	-	-	26.22
<b>Total</b>	<b>98,550.58</b>	<b>17,062.41</b>	<b>(1,139.43)</b>	<b>1,16,752.42</b>	<b>5,895.24</b>	<b>6,670.31</b>	<b>51.67</b>	<b>12,513.88</b>	<b>1,04,238.54</b>



- a) The conveyancing of the title to **10,287 acres** of freehold land of value ₹ **1,969.80 crore** (31 March 2017: 9,375 acres of value ₹ 2,001.29 crore), buildings and structures of value ₹ **4.97 crore** (31 March 2017: ₹ 4.97 crore) and also execution of lease agreements for **10,824 acres** of land of value ₹ **1,804.49 crore** (31 March 2017: 12,570 acres of value ₹ 1869.67 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 2017: 284.35 acres of value ₹ 0.52 crore), and **1,939.55 acres** of leasehold land of value ₹ **3.81 crore** (31 March 2017: 2,026.96 acres of value ₹ 3.68 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 **34 acres** (31 March 2017: 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 **1,298 acres** of value ₹ **133.93 crore** (31 March 2017: 1,295 acres of value ₹ 155.37 crore) not in possession of the Group. The Group is taking appropriate steps for repossession of the same.
- e) Land includes an amount of ₹ **262.91 crore** (31 March 2017: ₹ 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 ₹ **576.64 crore** (31 March 2017: ₹ 552.52 crore) of freehold land and ₹ **178.83 crore** (31 March 2017: ₹ 180.31 crore) of leasehold land. The land has been amortized considering the rate of depreciation provided by the CERC in the tariff regulations and the fact that it will not have any economic value due to deposit of silt and other foreign materials.
- g) Possession of land measuring **98 acres** (31 March 2017: 98 acres) consisting of **79 acres** of freehold land (31 March 2017: 79 acres) and **19 acres** of lease hold land (31 March 2017: 19 acres) of value ₹ **0.21 crore** (31 March 2017: ₹ 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 -30 - Current liabilities - Other financial liabilities.
- h) Refer Note 55 (b) regarding property, plant and equipment under finance lease.
- i) Based on impairment assessment, the Group has reversed an impairment loss of ₹ **3.75 crore** (31 March 2017: ₹ 0.73 crore) during the year in respect of plant and equipment of a Solar PV Station of the Group. Refer Note 61.
- j) Spare parts, stand-by equipment and servicing equipment of ₹ 5 lakh and above which meet the definition of property, plant and equipment are capitalized.
- k) Refer Note 22 for information on property, plant and equipments pledged as security by the Group.
- l) Refer Note 72 (C) (a) for disclosure of contractual commitments for the acquisition of property, plant and equipment.

m) Deduction/adjustments from gross block and depreciation, amortization and impairment for the year includes:

	₹ Crore			
	Gross block		Depreciation, amortization and impairment	
	For the year ended		For the year ended	
	31 March 2018	31 March 2017	31 March 2018	31 March 2017
Disposal of assets	8.39	76.36	6.07	10.34
Retirement of assets	231.61	102.99	116.69	24.42
Cost adjustments including exchange differences	(1,851.12)	(1,200.64)	-	-
Assets capitalized with retrospective effect/Write back of excess capitalization	-	(152.58)	(1.11)	(8.63)
Others	(224.30)	34.44	33.80	25.54
	<b>(1,835.42)</b>	<b>(1,139.43)</b>	<b>155.45</b>	<b>51.67</b>

n) Exchange differences capitalized are disclosed in the 'Addition' column of Capital work-in-progress (CWIP) and allocated to various heads of CWIP in the year of capitalization through 'Deductions/Adjustments' column of CWIP. Exchange differences in respect of assets already capitalized 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 2018		For the year ended 31 March 2017	
	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	7.27	156.18	(4.52)	273.35
Others	0.76	103.70	(0.25)	96.01
Hydraulic works, barrages, dams, tunnels and power channel	(0.51)	84.18	(5.62)	183.06
MGR track and signaling system	(0.01)	33.53	-	18.32
Railway siding	(0.32)	44.20	(0.06)	45.16
Plant and equipment	343.25	3,458.64	(172.18)	3,672.59
Others including pending allocation	(35.15)	596.11	(232.66)	493.40
<b>Total</b>	<b>315.29</b>	<b>4,476.54</b>	<b>(415.29)</b>	<b>4,781.89</b>

### 3. Non-current assets - Capital work-in-progress

As at 31 March 2018

₹ Crore

Particulars	As at 1 April 2017	Additions	Deductions/ adjustments	Capitalized	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 signaling 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	(82.95)	25,391.88	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	1,416.94	28,578.89	75,389.69
<b>Expenditure pending allocation</b>					
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	5,881.79	13.55	-	6,266.83
Other expenditure directly attributable to project construction	520.47	74.88	5.92	-	589.43
Less: Allocated to related works	-	5,623.32	-	-	5,623.32
	82,703.23	26,563.07	2,469.41	28,578.89	78,218.00
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
<b>Total</b>	<b>86,461.08</b>	<b>26,204.69</b>	<b>2,463.18</b>	<b>28,578.89</b>	<b>81,623.70</b>



As at 31 March 2017

₹ Crore

Particulars	As at 1 April 2016	Additions	Deductions/ adjustments	Capitalized	As at 31 March 2017
Development of land	918.46	193.49	91.50	75.89	944.56
Roads, bridges, culverts and helipads	77.48	108.57	(21.40)	103.35	104.10
Piling and foundation	675.70	31.84	51.61	-	655.93
Buildings					
Freehold					
Main plant	4,189.74	1,465.29	876.22	747.20	4,031.61
Others	1,508.27	845.75	234.79	352.37	1,766.86
Temporary erections	37.62	11.51	(0.17)	11.15	38.15
Water supply, drainage and sewerage system	77.70	46.60	(19.08)	81.81	61.57
Hydraulic works, barrages, dams, tunnels and power channel	1,982.10	341.31	3.64	-	2,319.77
MGR track and signaling system	390.94	159.35	243.10	83.66	223.53
Railway siding	454.92	811.67	57.37	64.98	1,144.24
Earth dam reservoir	106.99	9.53	(17.70)	44.77	89.45
Plant and equipment-owned	54,849.75	24,704.63	(26.15)	13,416.82	66,163.71
Furniture and fixtures	12.85	30.30	(18.78)	38.46	23.47
Office equipment	2.03	5.66	0.19	1.93	5.57
EDP/WP machines and satcom equipment	29.35	2.32	(0.97)	30.72	1.92
Construction equipment	0.17	0.04	0.05	-	0.16
Electrical installations	591.03	203.19	21.20	79.13	693.89
Communication equipment	2.35	1.23	0.01	0.62	2.95
Hospital equipment	0.07	0.47	0.01	0.03	0.50
Laboratory and workshop equipment	2.96	11.34	0.32	8.07	5.91
Development of coal mines	1,301.30	355.30	118.18	-	1,538.42
	67,211.78	29,339.39	1,593.94	15,140.96	79,816.27
<b>Expenditure pending allocation</b>					
Survey, investigation, consultancy and supervision charges	242.68	38.95	88.83	-	192.80
Difference in exchange on foreign currency loans	1,920.69	35.13	457.69	-	1,498.13
Pre-commissioning expenses (net)	113.35	387.01	223.39	-	276.97
Expenditure during construction period (net)*	1,048.28	6,073.39	13.79	-	7,107.88
Other expenditure directly attributable to project construction	493.57	99.79	72.89	-	520.47
Less: Allocated to related works	-	6,709.29	-	-	6,709.29
	71,030.35	29,264.37	2,450.53	15,140.96	82,703.23
Less: Provision for unserviceable works	99.39	0.03	0.66	-	98.76
<b>Construction stores (net of provision)</b>	3,896.96	(40.35)	-	-	3,856.61
<b>Total</b>	<b>74,827.92</b>	<b>29,223.99</b>	<b>2,449.87</b>	<b>15,140.96</b>	<b>86,461.08</b>

\* Brought from expenditure during construction period (net) - Note 42

- a) Construction stores are net of provision for shortages pending investigation amounting to ₹ 26.26 crore (31 March 2017: ₹ 14.61 crore).
- b) Pre-commissioning expenses for the year amount to ₹ 587.12 crore (31 March 2017: ₹ 442.91 crore) and after adjustment of pre-commissioning sales of ₹ 86.39 crore (31 March 2017: ₹ 55.89 crore) resulted in net pre-commissioning expenditure of ₹ 500.73 crore (31 March 2017: ₹ 387.02 crore).
- c) Additions to the development of coal mines include expenditure during construction period (net) of ₹ 669.35 crore (31 March 2017: ₹ 335.59 crore) [Ref. Note 43] and net off the receipts from coal extracted during development phase amounting to ₹ 464.03 crore (31 March 2017: (-) ₹ 20.82 crore).
- d) Details of exchange differences and borrowing costs capitalized are disclosed in Note 2 (n).



#### 4. Non-current assets - Intangible assets

As at 31 March 2018

₹ Crore

Particulars	Gross block				Amortization				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
<b>Total</b>	<b>335.46</b>	<b>60.66</b>	<b>(2.84)</b>	<b>398.96</b>	<b>42.34</b>	<b>24.87</b>	<b>0.01</b>	<b>67.20</b>	<b>331.76</b>

As at 31 March 2017

₹ Crore

Particulars	Gross block				Amortization				Net block
	As at 1 April 2016	Additions	Deductions/ adjustments	As at 31 March 2017	Upto 1 April 2016	For the year	Deductions/ adjustments	Upto 31 March 2017	As at 31 March 2017
Software	16.57	10.03	(0.54)	27.14	6.36	8.03	(0.42)	14.81	12.33
Right of use - Land	73.20	28.36	(3.05)	104.61	2.78	4.11	-	6.89	97.72
- Others	203.71	-	-	203.71	10.32	10.32	-	20.64	183.07
<b>Total</b>	<b>293.48</b>	<b>38.39</b>	<b>(3.59)</b>	<b>335.46</b>	<b>19.46</b>	<b>22.46</b>	<b>(0.42)</b>	<b>42.34</b>	<b>293.12</b>

- a) The right of use of land and others are amortized over the period of legal right to use or life of the related plant, whichever is less.
- b) Cost of acquisition of the right for drawl of water amounting to ₹ 203.71 crore (31 March 2017: ₹ 203.71 crore) is included under intangible assets – Right of use - Others.
- c) Deductions/adjustments from gross block and amortization for the year includes:

₹ Crore

Particulars	Gross block		Amortization	
	For the year ended		For the year ended	
	31 March 2018	31 March 2017	31 March 2018	31 March 2017
Cost adjustments	(2.84)	(3.16)	-	-
Others	-	(0.43)	0.01	(0.42)
<b>Total</b>	<b>(2.84)</b>	<b>(3.59)</b>	<b>0.01</b>	<b>(0.42)</b>

## 5. Non-current assets - Intangible assets under development

As at 31 March 2018					₹ Crore
Particulars	As at 1 April 2017	Additions	Deductions/ adjustments	Capitalized	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
<b>Total</b>	<b>434.63</b>	<b>37.24</b>	<b>2.51</b>	-	<b>469.36</b>

As at 31 March 2017					₹ Crore
Particulars	As at 1 April 2016	Additions	Deductions/ adjustments	Capitalized	As at 31 March 2017
Right of use - others	140.19	-	(74.34)	-	214.53
Exploration and evaluation assets - coal mines	-	102.09	(118.00)	-	220.09
Exploratory wells-in-progress	85.06	20.45	97.86	-	7.65
	225.25	122.54	(94.48)	-	442.27
Less: Provision for unserviceable works	7.64	-	-	-	7.64
<b>Total</b>	<b>217.61</b>	<b>122.54</b>	<b>(94.48)</b>	-	<b>434.63</b>



6. Non-current assets - Investments accounted for using the equity method

Particulars	Number of shares Current year/ (previous year)	Face value per share in ₹ Current year/ (previous year)	₹ Crore	
			As at 31 March 2018	As at 31 March 2017
<b>Equity instruments - Unquoted (fully paid up - unless otherwise stated, at cost)</b>				
<b>Joint venture companies</b>				
Utility Powertech Ltd. (includes 10,00,000 bonus shares)	20,00,000 (20,00,000)	10 (10)	49.01	40.83
NTPC-GE Power Services Private Ltd.	30,00,000 (30,00,000)	10 (10)	4.49	11.75
NTPC-SAIL Power Company Ltd.	49,02,50,050 (49,02,50,050)	10 (10)	1,092.11	986.76
NTPC Tamil Nadu Energy Company Ltd.	1,40,99,96,112 (1,38,56,06,112)	10 (10)	1,311.70	1,269.39
Ratnagiri Gas & Power Private Ltd.	83,45,56,036 (97,43,08,300)	10 (10)	-	-
Konkan LNG Private Ltd.	13,97,52,264 (-)	10 (-)	-	-
Aravali Power Company Private Ltd.	1,43,30,08,200 (1,39,85,08,200)	10 (10)	2,618.06	2,364.61
NTPC BHEL Power Projects Private Ltd.	5,00,00,000 (5,00,00,000)	10 (10)	4.41	21.32
Meja Urja Nigam Private Ltd.	1,20,93,29,800 (1,16,64,39,800)	10 (10)	1,235.83	1,193.04
BF-NTPC Energy Systems Ltd.	68,48,681 (65,70,900)	10 (10)	2.43	2.83
Nabinagar Power Generating Company Private Ltd.	1,65,99,35,500 (1,18,93,00,000)	10 (10)	1,682.73	1,212.15
Transformers and Electricals Kerala Ltd.	1,91,63,438 (1,91,63,438)	10 (10)	36.90	38.96
National High Power Test Laboratory Private Ltd.	3,04,00,000 (3,04,00,000)	10 (10)	27.79	29.97
Energy Efficiency Services Ltd.	14,65,00,000 (14,65,00,000)	10 (10)	179.69	184.12
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.	33,32,50,000 (50,25,000)	10 (10)	332.00	3.42
Trincomalee Power Company Ltd. (* Srilankan rupees)	32,86,061 (32,86,061)	100* (100)*	1.83	8.99
Bangladesh-India Friendship Power Company Private Ltd. (* Bangladeshi Taka)	2,42,50,000 (1,62,50,000)	100* (100)*	190.32	132.27
<b>Total</b>			<b>8,769.33</b>	<b>7,500.44</b>
<b>Aggregate amount of unquoted investments</b>			<b>8,769.33</b>	<b>7,500.44</b>

a) Details of interest in joint venture companies, their Summarized financial information, restrictions for the disposal of investments held by the Group and commitments towards certain Joint venture companies are disclosed in Note 69.

## 7. Non-current financial assets - Investments

Particulars	Number of shares Current year/ (previous year)	Face value per share in ₹ Current year/ (previous year)	₹ Crore	
			As at 31 March 2018	As at 31 March 2017
<b>Equity instruments (fully paid up - unless otherwise stated)</b>				
<b>Quoted (designated at fair value through other comprehensive income)</b>				
PTC India Ltd.	1,20,00,000 (1,20,00,000)	10 (10)	<b>104.88</b>	112.08
			<b>104.88</b>	112.08
<b>Unquoted (measured at fair value through profit or loss)</b>				
International Coal Ventures Private Ltd.	14,00,000 (14,00,000)	10 (10)	<b>1.40</b>	1.40
			<b>1.40</b>	1.40
<b>Co-operative societies</b>			<b>#</b>	<b>#</b>
<b>Total</b>			<b>106.28</b>	113.48
<b>Aggregate amount of quoted investments - at cost</b>			<b>12.00</b>	12.00
<b>Aggregate market value of the quoted investments</b>			<b>104.88</b>	112.08
<b>Aggregate amount of unquoted investments</b>			<b>1.40</b>	1.40

# Equity shares of ₹ 30,200/- (31 March 2017: ₹ 30,200/-) held in various employee co-operative societies.

- Investments have been valued as per accounting policy no. C.27.1 (Note 1).
- 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.
- 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 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 withdrawal, no provision for impairment in the value of investment in ICVPL is required to be made.
- 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. and International Coal Ventures Private Ltd., and the same has been accounted for as per the provisions of Ind AS 109 'Financial instruments'.
- No strategic investments in equity instruments measured at FVTOCI were disposed during the financial year 2017-18, and there were no transfers of any cumulative gain or loss within equity relating to these investments.



#### 8. Non-current financial assets - Trade receivables

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
Trade receivables		
Unsecured, considered good	-	35.59

#### 9. Non-current financial assets - Loans

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
<b>Loans (Considered good, unless otherwise stated)</b>		
Related parties		
Unsecured	0.71	0.67
Employees (including accrued interest)		
Secured	222.44	252.52
Unsecured	206.45	97.81
Others		
Secured	25.07	50.34
<b>Total</b>	<b>454.67</b>	<b>401.34</b>
a) Due from directors and officers of the Company		
Directors	0.11	0.06
Officers	-	0.01
b) Loans to related parties include:		
Key management personnel	0.11	0.07
NTPC Education and Research Society	0.60	0.60

c) Other loans represent loan of ₹ 25.07 crore (31 March 2017: ₹ 50.34 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.

## 10. Non-current assets - Other financial assets

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
<b>Share application money pending allotment in</b>		
<b>Joint venture companies</b>		
NTPC Tamil Nadu Energy Company Ltd.	-	24.39
Nabinagar Power Generating Company Private Ltd.	197.93	164.00
Energy Efficiency Services Ltd.	99.00	-
Bangladesh-India Friendship Power Company Private Ltd.	78.92	-
	<b>375.85</b>	<b>188.39</b>
Claims recoverable	704.22	638.97
Finance lease receivables [Note 55 (b)(ii)]	502.32	525.29
Mine closure deposit	18.47	5.67
<b>Total</b>	<b>1,600.86</b>	<b>1,358.32</b>

- a) The shares are expected to be allotted within 60 days from the date of payment of the share application money.
- b) Claims recoverable includes ₹ 680.11 crore (31 March 2017: ₹ 619.34 crore) towards the cost incurred upto 31 March 2018 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 ₹ 390.59 crore (31 March 2017: ₹ 332.38 crore) in respect of arbitration awards challenged by the Group before Hon'ble High Court. In the event the Hon'ble High Court grants relief to the Group, the amount would be adjusted against Current liabilities - Provisions - Provision for others (Note 32). 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 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 recognized as 'Interest income on assets under finance lease' under 'Revenue from operations' (Note 36).

## 11. Other non-current assets

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
<b>Capital advances</b>		
(Considered good unless otherwise stated)		
Secured	22.39	16.23
Unsecured		
Covered by bank guarantee	1,957.02	3,370.66
Others	2,840.96	3,142.74
Considered doubtful	5.76	5.74
Less: Allowance for bad and doubtful advances	5.76	5.74
	<b>4,820.37</b>	<b>6,529.63</b>
<b>Advances other than capital advances</b>		
Security deposits	84.07	83.98
Advances to related parties	20.95	20.95
Advances to contractors and suppliers	2,288.00	2,297.37
Advance tax and tax deducted at source	11,570.99	11,650.95
Less: Provision for tax	8,232.91	4,633.38
	<b>3,338.08</b>	<b>7,017.57</b>
Deferred foreign currency fluctuation asset	1,119.00	1,032.68
Deferred payroll expenditure	140.42	146.72
<b>Total</b>	<b>11,810.89</b>	<b>17,128.90</b>

a) In line with accounting policy no. 16.1 (Note 1), deferred foreign currency fluctuation asset has been accounted and (-) ₹ 128.39 crore (31 March 2017: (-) ₹ 233.80 crore) being the exchange fluctuations on account of foreign currency loans have been recognized in 'Energy sales' under 'Revenue from operations' (Note 36).

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.	45.39	48.42
NTPC BHEL Power Projects Private Ltd.	65.95	117.03
Aravali Power Company Private Ltd.	0.34	-

c) Capital advances include ₹ 224.29 crore (31 March 2017: ₹ 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 ₹ 2,226.22 crore (31 March 2017: ₹ 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 the policy, an agreement has been signed between the Parent Company and the Ministry of Railways, GOI on 6 June 2016. As per the agreement, railway projects agreed between the Parent 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 Parent Company are fully recovered along-with 5% interest after COD of the railway projects. The railway projects as per the agreement are yet to achieve the COD.

e) Capital advance are secured against the hypothecation of the construction equipment/material supplied by the contractors/suppliers.

f) Loans given to employees are measured at amortized cost. The deferred payroll expenditure represents the benefits accruing to employees. The same is amortized on a straight line basis over the remaining period of the loan.





## 12. Current assets - Inventories

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
Coal	2,105.08	2,636.13
Fuel oil	325.00	278.30
Naphtha	118.51	112.64
Stores and spares	2,941.63	2,937.61
Chemicals and consumables	122.69	99.61
Loose tools	8.55	7.47
Steel scrap	18.00	22.40
Others	631.42	595.43
	<b>6,270.88</b>	<b>6,689.59</b>
Less: Provision for shortages	22.48	5.69
Provision for obsolete/unserviceable items/ diminution in value of surplus inventory	108.11	97.77
<b>Total</b>	<b>6,140.29</b>	<b>6,586.13</b>
Inventories include material-in-transit		
Coal	295.31	187.14
Stores and spares	26.94	46.80
Chemicals and consumables	1.15	0.78
Loose tools	0.02	0.08
Others	0.73	0.91

- 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 22 and 50 (b) for information on inventories pledged as security by the Group.

## 13. Current financial assets - Trade receivables

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
Trade receivables		
Unsecured, considered good	8,812.19	8,963.89
Considered doubtful	1.66	0.22
	<b>8,813.85</b>	<b>8,964.11</b>
Less: Allowance for bad and doubtful receivables	1.66	0.22
<b>Total</b>	<b>8,812.19</b>	<b>8,963.89</b>

Amounts receivable from related parties are disclosed in Note 59.



#### 14. Current financial assets - Cash and cash equivalents

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
Balances with banks		
Current accounts	274.95	339.14
Deposits with original maturity upto three months (including interest accrued)	112.48	21.49
Cheques and drafts on hand	0.61	3.13
Others (stamps on hand)	0.07	0.07
<b>Total</b>	<b>388.11</b>	<b>363.83</b>

#### 15. Current financial assets -Bank balances other than cash and cash equivalents

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
Deposits with original maturity of more than three months and maturing within one year (including interest accrued)	2,681.93	1,437.47
Earmarked balances with banks #	1,317.56	1,500.16
<b>Total</b>	<b>3,999.49</b>	<b>2,937.63</b>
# Earmarked balances with banks towards:		
Redemption of bonds due for repayment within one year	100.00	101.04
Fly ash utilisation reserve fund*	631.21	556.68
DDUGJY Scheme of the GOI**	543.90	802.05
Unpaid dividend account balance	16.51	17.61
Amount deposited as per court orders	21.01	19.75
Unpaid interest/refund account balance - Bonds	3.88	2.97
Unpaid interest on public deposit	0.03	0.03
Margin money	1.00	-
Security with government authorities	0.02	0.03
<b>Total</b>	<b>1,317.56</b>	<b>1,500.16</b>

\* Refer Note 21 d) regarding fly ash utilization reserve fund.

\*\* Out of advance for DDUGJY Scheme of the GOI. Refer Note 30 (c) and 31 (a).

- a) Deposits with original maturity of more than three months and maturing within one year include ₹ 1,743.89 crore (31 March 2017: ₹ 955.33 crore) which has been kept in corporate liquid term deposits with bank. These deposits represent unutilized 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 modernization of power stations and can be utilized only for the stated purposes.

## 16. Current financial assets - Loans

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
<b>Loans (including interest accrued)</b>		
(Considered good unless otherwise stated)		
Related parties		
Unsecured	6.16	0.05
Employees		
Secured	67.13	72.55
Unsecured	164.25	134.32
Others		
Secured	0.89	5.00
<b>Total</b>	<b>238.43</b>	<b>211.92</b>
a) Due from Directors and Officers of the Company		
Directors	0.13	0.04
Officers	0.03	0.01
b) Loans to related parties include:		
Key management personnel	0.16	0.05
National High Power Test Laboratory Private Ltd. (Joint venture company)	6.00	-

c) Other loans represent loan of ₹ 0.89 crore (31 March 2017: ₹ 5.00 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.

17. Current assets - Other financial assets

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
<b>Advances</b>		
(Considered good unless otherwise stated)		
Related parties		
Unsecured	87.29	53.50
Employees		
Unsecured	6.01	5.78
Considered doubtful	0.07	0.04
Less: Allowance for bad and doubtful advances	0.07	0.04
	6.01	5.78
Others		
Unsecured	0.90	14.86
	94.20	74.14
<b>Claims recoverable</b>		
Unsecured, considered good	54.24	94.63
Considered doubtful	0.12	0.12
Less: Allowance for doubtful claims	0.12	0.12
	54.24	94.63
Unbilled revenue	8,209.31	5,919.03
Hedging cost recoverable from beneficiaries	2.53	1.60
Derivative MTM asset	3.73	-
Finance lease receivables	40.00	29.77
Others	20.02	9.75
<b>Total</b>	8,424.03	6,128.92

a) Unbilled revenue is net of credits to be passed to beneficiaries at the time of billing and includes ₹ 7,723.67 crore (31 March 2017: ₹ 8,046.92 crore) billed to the beneficiaries after 31 March for energy sales.

b) Advance to related parties include:

Joint venture companies	74.61	45.55
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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.	0.34	0.37
Aravali Power Company Private Ltd.	4.01	9.03
NTPC BHEL Power Projects Private Ltd.	5.99	4.80
Meja Urja Nigam Private Ltd.	10.00	3.50
Nabinagar Power Generating Company Private Ltd.	0.97	2.61
Bangladesh India Friendship Power Company Pvt.Ltd.	1.43	9.34
Ratnagiri Gas & Power Private Ltd.	3.95	-

d) Other financial assets - Others include amount recoverable from contractors and other parties towards hire charges, rent/electricity etc.

## 18. Current assets - Other current assets

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
<b>Security deposits (unsecured)</b>	<b>1,113.45</b>	1,033.02
<b>Advances</b> (Considered good unless otherwise stated)		
Related parties		
Unsecured	<b>1,663.71</b>	667.80
Employees		
Unsecured	<b>6.71</b>	5.16
Contractors and suppliers		
Secured	<b>2.76</b>	1.51
Unsecured	<b>5,454.16</b>	390.74
Considered doubtful	<b>1.90</b>	1.90
Less: Allowance for bad and doubtful advances	<b>1.90</b>	1.90
	<b>5,456.92</b>	392.25
Others		
Unsecured	<b>182.92</b>	116.61
Considered doubtful	-	0.05
Less: Allowance for bad and doubtful advances	-	0.05
	<b>182.92</b>	116.61
	<b>7,310.26</b>	1,181.82
<b>Interest accrued on</b>		
Advance to contractors	<b>43.22</b>	41.76
<b>Claims recoverable</b>		
Unsecured, considered good	<b>2,557.90</b>	2,369.11
Considered doubtful	<b>39.20</b>	11.96
Less: Allowance for doubtful claims	<b>39.20</b>	11.96
	<b>2,557.90</b>	2,369.11
Assets held for disposal	<b>187.46</b>	156.57
Deferred payroll expenses	<b>27.92</b>	21.53
Others	<b>5.85</b>	12.96
<b>Total</b>	<b>11,246.06</b>	4,816.77

- a) Security deposits (unsecured) include (i) ₹ **27.73 crore** (31 March 2017: ₹ 63.31 crore) towards sales tax deposited with sales/commercial tax authorities, (ii) ₹ **272.76 crore** (31 March 2017: ₹ 346.30 crore) deposited with Courts, (iii) ₹ **177.47 crore** (31 March 2017: ₹ 177.06 crore) deposited with LIC for making annuity payments to the land oustees, (iv) ₹ **275.05 crore** (31 March 2017: ₹ 275.05 crore) deposited with the Water Resource Department, Govt. of Chhattisgarh for drawl of water and (v) ₹ **158.50 crore** (31 March 2017 : Nil) deposited against bank guarantee with one of the parties as per the direction of the Hon'ble Supreme Court of India (Refer Note 55 b).
- b) Advances - Contractors and suppliers - unsecured includes an amount of ₹ **5,000.00 crore** (31 March 2017: Nil) paid to Indian Railways during the year, towards advance railway freight to be adjusted against freight payable on coal transportation during the year 2018-19 pursuant to an agreement entered into with Indian Railways, Ministry of Railways, GOI.



- c) Advances-others include prepaid expenses amounting to ₹ 90.02 crore (31 March 2017: ₹ 90.40 crore) and unamortized discount on commercial paper amounting to ₹ 88.40 crore (31 March 2017: ₹ 21.89 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 | 0.07 |
| NTPC BHEL Power Projects Private Ltd. | 1.33 | 0.92 |
- e) Assets held for disposal includes an amount of ₹ 185.48 crore (31 March 2017: ₹ 154.84 crore) of M/s 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 Jharkhand (GoJ). However due to heavy cost of generation, JBVNL/ GoJ proposed to shut down the plant and scrap all the existing units and accordingly plant has been shut down on 24 Jan 2017. It has been further agreed that consideration of these assets shall be the amount realized from sale of scrap, net of cost. Accordingly these transferred assets are accounted as such with corresponding liability as payable to GoJ.
- f) Loans given to employees are measured at amortized cost. The deferred payroll expenditure represents the benefits accruing to employees. The same is amortized on a straight line basis over the remaining period of the loan.
- g) In the previous year figures, an amount of ₹ 588.10 crore has been regrouped from Advances - Contractors and suppliers - unsecured to Advances - Related parties - Unsecured, to enhance comparability with the current year's financial statements.

#### 19. Regulatory deferral account debit balances

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
Exchange differences	104.77	-
On account of employee benefits expense	641.14	522.83
	<u>745.91</u>	<u>522.83</u>

Regulatory deferral account balances have been accounted in line with Accounting policy no. C.5 (Note 1). Refer Note 70 for detailed disclosures.

#### 20. Equity share capital

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
<b>Equity share capital</b>		
<b>Authorised</b>		
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 2017)	10,000.00	10,000.00
<b>Issued, subscribed and fully paid up</b>		
8,24,54,64,400 shares of par value ₹ 10/- each (8,24,54,64,400 shares of par value ₹10/- each as at 31 March 2017)	8,245.46	8,245.46

a) **Movement in equity share capital:**

During the year, the Company has neither issued nor bought back any shares.

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 2018	31 March 2017
<b>(i) Dividends paid and recognized during the year</b>		
Final dividend for the year ended 31 March 2017 of ₹ 2.17 (31 March 2016: ₹ 1.75) per fully paid share	1,789.27	1,442.96
Interim dividend for the year ended 31 March 2018 of ₹ 2.73 (31 March 2017: ₹ 2.61) per fully paid share	2,251.01	2,152.07

₹ Crore

(ii) Dividends not recognized at the end of the reporting period	31 March 2018	31 March 2017
In addition to the above dividends, since year end the directors have recommended the payment of a final dividend of ₹ 2.39 (31 March 2017: ₹ 2.17) per fully paid equity share. This proposed dividend is subject to the approval of shareholders in the ensuing Annual General Meeting.	1,970.67	1,789.27

## d) Details of shareholders holding more than 5% shares in the Company:

Particulars	As at 31 March 2018		As at 31 March 2017	
	No. of shares	%age holding	No. of shares	%age holding
- President of India	5,13,48,25,262	62.27	5,75,07,59,170	69.74
- Life Insurance Corporation of India (including shares held in various Funds/Schemes)	1,00,34,56,797	12.17	99,82,58,968	12.11

## 21. Other equity

₹ Crore

Particulars	As at 31 March 2018	As at 31 March 2017
Capital reserve	50.08	50.08
Securities premium account	2,228.46	2,228.46
Bonds/debentures redemption reserve	7,274.56	5,961.81
Fly ash utilisation reserve fund	631.21	556.68
Corporate social responsibility (CSR) reserve	0.24	0.22
General reserve	81,131.83	77,130.63
Retained earnings	4,003.92	3,653.72
Other reserves	(2.29)	10.96
<b>Total</b>	<b>95,318.01</b>	<b>89,592.56</b>

## (a) Capital reserve

₹ Crore

Particulars	For the year ended 31 March 2018	For the year ended 31 March 2017
Opening balance and closing balance	50.08	50.08

Capital reserve represents amount received by the parent company during 2001-02 as consideration under settlement for withdrawal from an erstwhile JV project. There is no movement in the capital reserve balance during the year.



(b) Securities premium account

Particulars	₹ Crore	
	For the year ended 31 March 2018	For the year ended 31 March 2017
Opening balance and closing balance	<b>2,228.46</b>	2,228.46

Securities premium account 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 Securities premium account balance during the year.

(c) Bonds/Debentures redemption reserve

Particulars	₹ Crore	
	For the year ended 31 March 2018	For the year ended 31 March 2017
Opening balance	5,961.81	4,608.73
Add : Transfer from retained earnings	1,637.75	1,667.08
Less : Transfer to retained earnings	325.00	314.00
<b>Closing balance</b>	<b>7,274.56</b>	5,961.81

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

Particulars	₹ Crore	
	For the year ended 31 March 2018	For the year ended 31 March 2017
Opening balance	556.68	478.21
Add: Transferred during the year:		
Revenue from operations	131.02	108.42
Other income	26.74	27.63
Less: Utilised during the year		
Capital expenditure	13.07	3.66
Employee benefits expense	19.02	20.80
Other administration expenses	51.14	33.12
<b>Closing balance</b>	<b>631.21</b>	556.68

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 utilized only for the development of infrastructure or facility, promotion & facilitation activities for use of fly ash until 100 percent fly ash utilization level is achieved.

During the year, proceeds of ₹ 131.02 crore (31 March 2017: ₹ 108.42 crore) from sale of ash/ash products, ₹ 26.74 crore (31 March 2017: ₹ 27.63 crore) towards income on investment have been transferred to fly ash utilisation reserve fund. An amount of ₹ 83.23 crore (31 March 2017: ₹ 57.58 crore) has been utilized from the fly ash utilisation reserve fund on expenses incurred for activities as specified in the aforesaid notification of MOEF.

The fund balance of ₹ 631.21 crore (31 March 2017: ₹ 556.68 crore) has been kept in 'Bank balances other than cash & cash equivalents' (Note 15).



## (e) Corporate social responsibility (CSR) reserve

Particulars	₹ Crore	
	For the year ended 31 March 2018	For the year ended 31 March 2017
Opening balance	0.22	0.74
Add : Transfer from retained earnings	0.24	0.11
Less: Transfer to retained earnings	0.22	0.63
<b>Closing balance</b>	<b>0.24</b>	<b>0.22</b>

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 ₹ 240.90 crore during the year (31 March 2017: ₹ 280.05 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

Particulars	₹ Crore	
	For the year ended 31 March 2018	For the year ended 31 March 2017
Opening balance	77,130.63	72,551.63
Add : Transfer from retained earnings	4,001.20	4,579.00
<b>Closing balance</b>	<b>81,131.83</b>	<b>77,130.63</b>

## (g) Retained earnings

Particulars	₹ Crore	
	For the year ended 31 March 2018	For the year ended 31 March 2017
Opening balance	3,653.72	3,428.53
Add: Profit for the year as per Statement of profit and loss	10,543.95	10,719.64
Impact of change in ownership interest in subsidiary company [Refer Note 69 (d)]	(5.49)	-
Transfer from bonds/debentures redemption reserve	325.00	314.00
Transfer from CSR reserve	0.22	0.63
Less: Transfer to bonds/debentures redemption reserve	1,637.75	1,667.08
Transfer to CSR reserve	0.24	0.11
Transfer to general reserve	4,001.20	4,579.00
Final dividend paid	1,789.27	1,442.96
Tax on final dividend paid	364.25	289.68
Interim dividend paid	2,251.01	2,152.07
Tax on interim dividend paid	462.32	438.11
	<b>4,011.36</b>	<b>3,893.79</b>
Items of other comprehensive income recognized directly in retained earnings:		
- Net actuarial losses on defined benefit plans (net of tax)	(7.28)	(238.66)
- Share of other comprehensive income of joint ventures accounted for using the equity method (net of tax)	(0.16)	(1.41)
<b>Closing balance</b>	<b>4,003.92</b>	<b>3,653.72</b>



(h) Other reserves

(i) Reserve for equity instruments through OCI

Particulars	₹ Crore	
	For the year ended 31 March 2018	For the year ended 31 March 2017
Opening balance	15.00	(20.28)
Add: Fair value gain/(loss) on equity instruments for the year	(7.20)	35.28
<b>Closing balance (i)</b>	<b>7.80</b>	<b>15.00</b>

The Group has elected to recognize changes in the fair value of certain investments in equity instruments in other comprehensive income. These changes are accumulated in reserve for equity instruments through OCI within equity. The group transfers amounts from this reserve to retained earnings when the relevant equity instruments are derecognized.

(ii) Foreign currency translation reserve

Particulars	₹ Crore	
	For the year ended 31 March 2018	For the year ended 31 March 2017
Opening balance	(4.04)	4.02
Add: Currency translation of foreign operations for the year	(6.05)	(8.06)
<b>Closing balance (ii)</b>	<b>(10.09)</b>	<b>(4.04)</b>
<b>Total (i+ii)</b>	<b>(2.29)</b>	<b>10.96</b>

Exchange differences arising on translation of the joint ventures are recognized 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

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
<b>Bonds/debentures</b>		
<b>Secured</b>		
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) <sup>xi</sup>	188.95	188.94
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) <sup>xi</sup>	171.71	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) <sup>iii</sup>	322.04	322.11
8.66% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 1,000/- each redeemable at par in full on 16 December 2033 (Fiftieth Issue - Public Issue - Series 3A) <sup>vii</sup>	319.87	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) <sup>vii</sup>	410.32	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) <sup>xiii</sup>	4,010.35	4,010.34
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) <sup>xii</sup>	720.59	720.58
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) <sup>xi</sup>	133.45	133.44
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) <sup>xi</sup>	49.89	49.88
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) <sup>iii</sup>	105.67	105.70
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) <sup>vii</sup>	256.10	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) <sup>vii</sup>	93.71	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) <sup>xii</sup>	696.79	696.77
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) <sup>xii</sup>	836.49	836.47
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) <sup>xii</sup>	1,072.78	1,072.76



₹ Crore

Particulars	As at 31 March 2018	As at 31 March 2017
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) <sup>xii</sup>	511.79	511.77
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) <sup>xi</sup>	111.97	111.96
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) <sup>xi</sup>	68.17	68.15
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) <sup>ix</sup>	313.11	313.05
9.17% Secured non-cumulative non-convertible redeemable taxable bonds of ₹ 10,00,000/- each redeemable at par in full on 22 September 2024 (Fifty Third Issue - Private Placement) <sup>x</sup>	1,047.99	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) <sup>iii</sup>	751.15	751.54
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) <sup>iii</sup>	75.45	75.47
8.41% Tax free secured non-cumulative non-convertible redeemable bonds - 2013 of ₹ 1,000/- each redeemable at par in full on 16 December 2023 (Fiftieth Issue - Public Issue - Series 1A) <sup>vii</sup>	499.95	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) <sup>vii</sup>	213.89	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 11 <sup>th</sup> year and in annual installments thereafter upto the end of 15 <sup>th</sup> year respectively commencing from 04 May 2023 and ending on 04 May 2027 (Forty Fourth Issue - Private Placement) <sup>vii</sup>	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) <sup>i</sup>	50.01	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) <sup>vii</sup>	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 8 <sup>th</sup> year, 9 <sup>th</sup> year and 10 <sup>th</sup> year on 25 March 2023, 25 March 2024 and 25 March 2025 respectively (Fifty Fourth Issue - Bonus Debentures) <sup>x</sup>	10,321.21	10,318.82
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) <sup>vii</sup>	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 11 <sup>th</sup> year and in annual installments thereafter upto the end of 15 <sup>th</sup> year respectively commencing from 25 January 2023 and ending on 25 January 2027 (Forty Second Issue - Private Placement) <sup>iii</sup>	508.14	508.14

₹ Crore

Particulars	As at 31 March 2018	As at 31 March 2017
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) <sup>vii</sup>	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) <sup>xii</sup>	716.30	716.26
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 5 <sup>th</sup> year, 10 <sup>th</sup> year & 15 <sup>th</sup> year on 27 May 2021, 27 May 2026 and 27 May 2031 respectively (Sixty first issue - Private Placement) <sup>xi</sup>	1,145.48	1,145.94
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) <sup>xii</sup>	659.93	660.18
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) <sup>iii</sup>	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) <sup>xii</sup>	305.90	305.92
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) <sup>iii</sup>	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) <sup>iii</sup>	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) <sup>iii</sup>	368.02	368.12
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) <sup>iii</sup>	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) <sup>iii</sup>	552.87	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) <sup>ii</sup>	50.92	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) <sup>iii</sup>	1,027.12	1,027.42
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 6 <sup>th</sup> year and in annual installments thereafter upto the end of 20 <sup>th</sup> year respectively commencing from 20 July 2018 and ending on 20 July 2032 (Forty Sixth Issue - Private Placement) <sup>vii</sup>	80.09	80.07
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 6 <sup>th</sup> year and in annual installments thereafter upto the end of 20 <sup>th</sup> year respectively commencing from 16 May 2018 and ending on 16 May 2032 (Forty Fifth Issue - Private Placement) <sup>vii</sup>	80.14	80.12



₹ Crore

Particulars	As at 31 March 2018	As at 31 March 2017
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) <sup>i</sup>	103.33	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 6 <sup>th</sup> year and in annual installments thereafter upto the end of 20 <sup>th</sup> year respectively commencing from 2 March 2018 and ending on 2 March 2032 (Forty Third Issue - Private Placement) <sup>iii</sup>	74.70	80.02
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 6 <sup>th</sup> year and in annual installments thereafter upto the end of 20 <sup>th</sup> year respectively commencing from 23 December 2017 and ending on 23 December 2031 (Forty First Issue - Private Placement) <sup>iii</sup>	74.92	80.25
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 6 <sup>th</sup> year and in annual installments thereafter upto the end of 20 <sup>th</sup> year respectively commencing from 29 July 2017 and ending on 29 July 2031 (Fortieth Issue - Private Placement) <sup>ii</sup>	74.86	80.18
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 6 <sup>th</sup> year and in annual installments thereafter upto the end of 20 <sup>th</sup> year respectively commencing from 9 June 2017 and ending on 9 June 2031 (Thirty Ninth Issue - Private Placement) <sup>iii</sup>	104.68	112.13
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 6 <sup>th</sup> year and in annual installments thereafter upto the end of 20 <sup>th</sup> year respectively commencing from 22 March 2017 and ending on 22 March 2031 (Thirty Eighth Issue - Private Placement) <sup>iii</sup>	69.33	74.64
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 6 <sup>th</sup> year and in annual installments thereafter upto the end of 20 <sup>th</sup> year respectively commencing from 15 December 2016 and ending on 15 December 2030 (Thirty Sixth Issue - Private Placement) <sup>iii</sup>	69.16	74.46
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 6 <sup>th</sup> year and in annual installments thereafter upto the end of 20 <sup>th</sup> year respectively commencing from 15 September 2016 and ending on 15 September 2030 (Thirty Fifth Issue - Private Placement) <sup>iii</sup>	110.63	119.12
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 6 <sup>th</sup> year and in annual installments thereafter upto the end of 20 <sup>th</sup> year respectively commencing from 10 June 2016 and ending on 10 June 2030 (Thirty Fourth Issue - Private Placement) <sup>iii</sup>	138.22	148.82
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 6 <sup>th</sup> year and in annual installments thereafter upto the end of 20 <sup>th</sup> year respectively commencing from 25 March 2016 and ending on 25 March 2030 (Thirty Second Issue - Private Placement) <sup>iii</sup>	89.40	96.82
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) <sup>iii</sup>	73.13	146.78



₹ Crore

Particulars	As at 31 March 2018	As at 31 March 2017
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) <sup>iii</sup>	73.06	146.64
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) <sup>iv</sup>	153.15	204.24
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) <sup>v</sup>	153.06	204.13
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) <sup>iv</sup>	152.99	204.03
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) <sup>v</sup>	203.76	305.71
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) <sup>vi</sup>	50.92	101.86
9.55% Secured non-cumulative non-convertible taxable redeemable bonds of ₹ 10,00,000/- each with ten equal separately transferable redeemable principal parts (STRPP) redeemable at par at the end of the 6 <sup>th</sup> year and in annual installments thereafter upto the end of 15 <sup>th</sup> year respectively from 30 April 2002 (Thirteenth Issue - Part B - Private Placement) <sup>viii</sup>	-	77.37
9.55% Secured non-cumulative non-convertible taxable redeemable bonds of ₹ 10,00,000/- each redeemable at par in ten equal annual installments commencing from the end of 6 <sup>th</sup> year and upto the end of 15 <sup>th</sup> year respectively from 18 April 2002 (Thirteenth Issue -Part A - Private Placement) <sup>viii</sup>	-	77.38
	<b>33,846.07</b>	<b>34,513.63</b>
<b>Foreign currency notes</b>		
<b>Unsecured</b>		
4.500 % Fixed rate notes due for repayment on 19 March 2028	2,603.86	-
2.750 % Fixed rate notes due for repayment on 1 February 2027	4,045.23	3,529.38
4.250 % Fixed rate notes due for repayment on 26 February 2026	3,271.97	3,274.75
4.375 % Fixed rate notes due for repayment on 26 November 2024	3,331.35	3,336.43
4.750 % Fixed rate notes due for repayment on 3 October 2022	3,281.50	3,286.50
7.250 % Fixed global INR denominated bonds due for repayment on 3 May 2022	2,126.07	-
7.375 % Fixed green global INR denominated bonds due for repayment on 10 August 2021	2,085.26	2,066.05
5.625 % Fixed rate notes due for repayment on 14 July 2021	3,320.98	3,326.04



Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
<b>Term loans</b>		
<b>From Banks</b>		
<b>Secured</b>		
Rupee term loans <sup>XIV</sup>	1,870.85	1,773.83
<b>Unsecured</b>		
Foreign currency loans	8,499.07	7,782.47
Rupee term loans	37,790.81	29,979.46
<b>From Others</b>		
<b>Secured</b>		
Rupee term loans <sup>XIV</sup>	5,672.33	5,072.53
<b>Unsecured</b>		
Foreign currency loans (guaranteed by GOI)	2,033.65	2,102.96
Other foreign currency loans	3,466.13	3,516.85
Rupee term loans	7,267.31	8,173.24
<b>Finance lease obligations</b>		
Secured	1.42	2.40
Unsecured	182.92	142.62
	<b>1,24,696.78</b>	<b>1,11,879.14</b>
<b>Less:</b>		
Current maturities of		
Bonds- secured	2,209.00	650.00
Rupee term loans from banks- secured	163.27	73.70
Foreign currency loans from banks- unsecured	694.16	1,681.74
Rupee term loans from banks- unsecured	1,859.89	2,111.00
Rupee term loans from others- secured	22.41	4.47
Foreign currency loans from other- unsecured (guaranteed by GOI)	181.85	172.58
Other foreign currency loans from others- unsecured	529.01	507.52
Rupee term loans from others- unsecured	898.52	1,359.38
Finance lease obligations- secured	0.72	0.78
Finance lease obligations- unsecured	33.54	17.37
Interest accrued but not due on borrowings	1,328.60	1,225.48
<b>Total</b>	<b>1,16,775.81</b>	<b>1,04,075.12</b>



#### 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 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 17 to 26 semi annual installments as of 31 March 2018.
- iii) Unsecured foreign currency loans – Banks include loans of ₹ 352.80 crore (31 March 2017: ₹ 463.02 crore) which carry fixed rate of interest of 1.88% p.a. to 4.31% p.a. and loans of ₹ 8,146.27 crore (31 March 2017: ₹ 7,319.45 crore) which carry floating rate of interest linked to 6M USD LIBOR/6 M JPY LIBOR. These loans are repayable in 2 to 21 semi-annual/annual installments as of 31 March 2018, commencing after moratorium period if any, as per the terms of the respective loan agreements.
- iv) Unsecured foreign currency loans – Others include loans of ₹ 3,342.55 crore (31 March 2017: ₹ 3,300.64 crore) which carry fixed rate of interest ranging from 1.88% p.a. to 4.31% p.a. and loans of ₹ 123.58 crore (31 March 2017: ₹ 216.21 crore) which carry floating rate of interest linked to 6M EURIBOR. These loans are repayable in 4 to 22 semi annual installments as of 31 March 2018, 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 10.00% 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 seven years to sixteen years after a moratorium period of two years to six years.

Unsecured rupee term loans include ₹ 794.35 crore (31.03.2017: ₹ 32.21 crore) from Government of Jharkhand to M/s Patratu Vidyut Utpadan Nigam Ltd., a Subsidiary of the parent company, which carry interest at the rate of 10% p.a. until the date of investment approval and afterwards equivalent to weighted average cost of borrowing subject to ceiling of 10% per annum. The said loan is 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) In the previous year figures, an amount of ₹ 4,539.48 crore has been regrouped from Term loans from banks -Secured rupee loans to Term loan from others-Secured rupee loans, to enhance comparability with the current year's financial statements.
- d) 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 (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 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 and (III) Equitable mortgage of the immovable properties, on first pari passu charge basis, pertaining to Singrauli Super Thermal Power Station by extension of charge already created.
- IX Secured by English mortgage of the immovable properties pertaining to Solapur Super Thermal Power Project on first charge basis.
- X Secured by Equitable mortgage of the immovable properties pertaining to Barh Super Thermal Power Project on first charge basis.
- XI Secured by English mortgage, on pari passu charge basis, of the immovable properties pertaining to Solapur Super Thermal Power Project.
- XII Secured by Equitable mortgage, on pari passu charge basis, of the immovable properties pertaining to Barh Super Thermal Power Project.
- XIII Secured by Equitable mortgage of the immovable properties pertaining to Vindhyachal Super Thermal Power Station on first charge basis.
- XIV (i) Secured by a first priority charge on all assets of the Project, present & future, movable & immovable and land of 987.9293 acres, 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 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 with charge already created with PFC and REC.
- (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.
- XV Security cover mentioned at Sl. No. I to XIV is above 100% of the debt securities outstanding.

**23. Non-current financial liabilities - Trade payables**

₹ Crore

Particulars	As at 31 March 2018	As at 31 March 2017
For goods and services	23.31	13.17

a) Trade payables for goods and services include ₹ 5.49 crore (31 March 2017: ₹ 5.18 crore) payable to MSME vendors.

b) Amounts payable to related parties are disclosed in Note 59.

**24. Non-current liabilities- Other financial liabilities**

₹ Crore

Particulars	As at 31 March 2018	As at 31 March 2017
Payable for capital expenditure	1,993.33	2,108.33
Deposits from contractors and others	1.72	1.72
Others	192.26	245.64
<b>Total</b>	<b>2,187.31</b>	<b>2,355.69</b>

a) Payable for capital expenditure include ₹ 9.99 crore (31 March 2017: ₹ 9.91 crore) payable to MSME vendors.

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 59.

**25. Non-current liabilities - Provisions**

₹ Crore

Particulars	As at 31 March 2018	As at 31 March 2017
Provision for employee benefits	480.90	463.15

Disclosures as per Ind AS 19 'Employee benefits' are provided in Note 56.

**26. Non-current liabilities - Deferred tax liabilities (net)**

₹ Crore

Particulars	As at 31 March 2018	As at 31 March 2017
Deferred tax liability		
Difference in book depreciation and tax depreciation	13,973.76	10,065.79
Less: Deferred tax assets		
Provisions	1,110.16	1,025.12
Statutory dues	543.95	492.37
Leave encashment	273.35	430.69
Others	39.23	95.08
	12,007.07	8,022.53
Less: Deferred asset for deferred tax liability	9,598.93	6,537.67
<b>Total</b>	<b>2,408.14</b>	<b>1,484.86</b>

a) Deferred tax assets and deferred tax liabilities have been offset as they relate to the same governing laws.

b) CERC 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, 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. 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.

c) Disclosures as per Ind AS 12 'Income Taxes' are provided in Note 54.



**Movement in deferred tax balances**  
**As at 31 March 2018**

₹ Crore

Particulars	Net balance As at 1 April 2017	Recognized in statement of profit and loss	Recognized in OCI	Other	Net balance As at 31 March 2018
Difference in book depreciation and tax depreciation	10,065.79	3,907.97	-	-	13,973.76
Provisions	1,025.12	85.04	-	-	1,110.16
Statutory dues	492.37	51.58	-	-	543.95
Leave encashment	430.69	(157.34)	-	-	273.35
Others	95.08	(55.85)	-	-	39.23
<b>Tax (assets)/liabilities</b>	<b>8,022.53</b>	<b>3,984.54</b>	-	-	<b>12,007.07</b>
Less: Deferred asset for deferred tax liability	6,537.67	3,061.26	-	-	9,598.93
<b>Net tax (assets)/liabilities</b>	<b>1,484.86</b>	<b>923.28</b>	-	-	<b>2,408.14</b>

**As at 31 March 2017**

₹ Crore

Particulars	Net balance As at 1 April 2016	Recognized in statement of profit and loss	Recognized in OCI	Other	Net balance As at 31 March 2017
Difference in book depreciation and tax depreciation	8,153.38	1,912.41	-	-	10,065.79
Provisions	713.02	312.10	-	-	1,025.12
Statutory dues	174.44	317.93	-	-	492.37
Leave encashment	342.45	88.24	-	-	430.69
Others	106.99	(11.91)	-	-	95.08
<b>Tax (assets)/liabilities</b>	<b>6,816.48</b>	<b>1,206.05</b>	-	-	<b>8,022.53</b>
Less: Deferred asset for deferred tax liability	5,663.40	874.27	-	-	6,537.67
<b>Net tax (assets)/liabilities</b>	<b>1,153.08</b>	<b>331.78</b>	-	-	<b>1,484.86</b>

**27. Non-current liabilities - Other non-current liabilities**

₹ Crore

Particulars	As at 31 March 2018	As at 31 March 2017
Advance from customers and others	-	17.49

Represents deposits received from the contractors, customers and other parties for Deen Dayal Upadhyay Gram Jyoti Yojna. Refer Note 31(a).

**28. Current financial liabilities - Borrowings**

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
Loans repayable on demand		
From banks		
Secured		
Cash credit	180.06	118.98
Unsecured		
Cash credit	0.32	0.56
Other Loans		
Unsecured		
Commercial paper	6,500.00	3,000.00
<b>Total</b>	<b>6,680.38</b>	<b>3,119.54</b>

- a) Secured cash credit includes cash credit secured by hypothecation of stock in trade, book debts of Stage-I of M/s Kanti Bijlee Utpadan Nigam Ltd. with floating rate of interest linked to the bank's base rate.
- b) There has been no default in repayment of any of the loans or interest thereon as at the end of the year.

**29. Current financial liabilities - Trade payables**

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
For goods and services	6,707.55	5,572.70

- a) Trade payables for goods and services include ₹ 277.04 crore (31 March 2017: ₹ 191.72 crore) payable to MSME vendors.
- b) Amounts payable to related parties are disclosed in Note 59.

**30. Current liabilities - Other financial liabilities**

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
Current maturities of non-current borrowings		
Bonds - Secured	2,209.00	650.00
From Banks		
Secured		
Rupee term loans	163.27	73.70
Unsecured		
Foreign currency loans	694.16	1,681.74
Rupee term loans	1,859.89	2,111.00
From Others		
Secured		
Rupee term loans	22.41	4.47
Unsecured		
Foreign currency loans (guaranteed by GOI)	181.85	172.58
Other foreign currency loans	529.01	507.52
Rupee term loans	898.52	1,359.38
	<b>6,558.11</b>	<b>6,560.39</b>



Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
Current maturities of finance lease obligations -Secured	0.72	0.78
Current maturities of finance lease obligations -Unsecured	33.54	17.37
Interest accrued but not due on borrowings	1,328.60	1,225.48
Unpaid dividends	16.51	17.61
Unpaid matured deposits and interest accrued thereon	0.19	0.19
Unpaid matured bonds and interest accrued thereon	4.20	3.29
Unpaid bond refund money-Tax free bonds	0.26	0.26
Book overdraft	1.29	0.70
Payable to customers	358.08	555.81
Payable for capital expenditure	12,705.09	10,377.60
Hedging gain payable to beneficiaries	6.27	-
Derivative MTM liability	-	1.60
Other payables		
Deposits from contractors and others	164.97	128.80
Payable to employees	752.07	528.88
Retention on account of encashment of bank guarantee (solar)	233.55	233.62
Others	689.83	740.44
<b>Total</b>	<b>22,853.28</b>	<b>20,392.82</b>

- 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 22.
- 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 ₹ 263.10 crore (31 March 2017: ₹ 238.93 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 ₹ 211.49 crore (31 March 2017: ₹ 120.75 crore) payable to the Department of Water Resource, Government of Odisha and amount payable to hospitals, parties for stale cheques etc.
- d) The Parent 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 dependents of employees who die or suffer permanent total disability under the 'Employees Rehabilitation Scheme' (said amount is included in Other payable - Others). Consequent upon enactment of the Companies Act, 2013, the parent company has written to the MCA for clarification on continuation of above exemption granted earlier, which is still awaited. The parent company has been advised that the amount accepted under the Scheme is not a deposit under the Companies Act, 2013.
- e) Retention on account of encashment of bank guarantee (solar) represents amounts retained by M/s NVVN Ltd., a wholly owned subsidiary, pursuant to directions received from the Ministry of New and Renewable Energy vide letter ref. no. 29/5/2010-11/JNNSM(ST) dated 29.06.2012 and clarifications thereafter.
- f) Payable for capital expenditure include ₹159.23 crore (31 March 2017: ₹ 146.13 crore) payable to MSME vendors.
- g) Amounts payable to related parties are disclosed in Note 59.
- h) In the previous year figures, an amount of ₹ 240.14 crore has been regrouped from Payable to customers to Other payables - Others, to enhance comparability with the current year's financial statements.

### 31. Current liabilities - Other current liabilities

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
Advances from customers and others	458.74	700.24
Other payables		
Statutory dues	520.82	407.49
Others	177.31	155.51
<b>Total</b>	<b>1,156.87</b>	<b>1,263.24</b>

- a) Advance received for the DDUGJY (including interest thereon) of ₹ 313.97 crore (31 March 2017: ₹ 597.75 crore) is included in 'Advance from customers and others'. Refer Note 30 (c). Tax deducted at source on the interest is included in 'Advance tax and tax deducted at source' -Note 11.
- b) Others include an amount ₹ 176.63 crore (31 March 2017: ₹ 154.84 crore) payable to Government of Jharkhand on disposal of the assets held for sale. Also Refer Note 18 (e).

### 32. Current liabilities - Provisions

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
Provision for		
Employee benefits	2,936.65	2,388.05
Obligations incidental to land acquisition	3,601.31	3,833.24
Tariff adjustment	330.10	1,170.79
Others	1,383.72	728.65
<b>Total</b>	<b>8,251.78</b>	<b>8,120.73</b>

- a) Disclosures required by Ind AS 19 'Employee Benefits' is made in Note 56.
- b) Disclosure required by Ind AS 37 'Provisions, Contingent Liabilities and Contingent Assets' is made in Note 62.
- c) The pay revision of the employees of the Company is due w.e.f. 1 January 2017. Department of Public Enterprises, GOI (DPE) had constituted the 3<sup>rd</sup> Pay Revision Committee (PRC) to review the structure of pay scales and allowances/benefits of various categories of Central Public Sector Enterprises. Based on the recommendations of the 3<sup>rd</sup> PRC, DPE has issued broad guidelines for pay revision. Based on Company proposal to GOI on 6 September 2017, presidential directive has been issued on 10 May 2018. Presidential directive states adherence of relevant DPE guidelines which requires approval of the Board of Directors (BoD) of the Company. Pending approval by the BoD, provision for pay revision has been recognized on an estimated basis amounting to ₹ 1,203.28 crore as at 31 March 2018 (31 March 2017: ₹ 260.24 crore).
- d) The Company aggrieved over many of the issues considered by the CERC in the tariff orders for its stations for the period 2004-09 had filed appeals with the Appellate Tribunal for Electricity (APTEL). The APTEL disposed off the appeals favourably directing the CERC to revise the tariff orders as per directions and methodology given. Some of the issues decided in favour of the Company by the APTEL were challenged by the CERC in the Hon'ble Supreme Court of India. Subsequently, the CERC has issued revised tariff orders for all the stations except one for the period 2004-09, considering the judgment of APTEL subject to disposal of appeals pending before the Hon'ble Supreme Court of India.

The Hon'ble Supreme Court of India has dismissed the appeal filed by the CERC and accordingly the directions of APTEL to CERC stands good. Keeping in view the above, the provision created amounting to ₹ 1,156.32 crore made till 31 March 2017 towards anticipated tariff adjustments, has been written back during the year.

- e) Provision for others comprise ₹ 73.15 crore (31 March 2017: ₹ 68.24 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 64), ₹ 1,305.68 crore (31 March 2017: ₹ 658.57 crore) towards provision for cases under litigation and ₹ 4.89 crore (31 March 2017: ₹ 1.84 crore) towards provision for shortage in property, plant and equipment on physical verification pending investigation.



### 33. Current liabilities - Current tax liabilities (net)

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
Current tax - net of advance tax of ₹ Nil (31 March 2017: ₹ 2,637.21 crore)	-	81.40

### 34. Deferred revenue

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
On account of		
Advance against depreciation	74.35	247.02
Income from foreign currency fluctuation	1,435.35	1,376.67
Government grants	821.79	783.15
<b>Total</b>	<b>2,331.49</b>	<b>2,406.84</b>

- 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 ₹ 297.91 crore (31 March 2017: ₹ 32.92 crore) has been recognized during the year from the AAD and included in energy sales (Note 36). The AAD recognized during the 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. The same has also been recognized as energy sales during the 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 recognizing deferred foreign currency fluctuation asset by corresponding credit to deferred income from foreign currency fluctuation in respect of the FERV on foreign currency loans adjusted in the cost of property, plant and equipment, which is recoverable from the customers in future years as provided in Accounting policy no. C.16 (Note 1). This amount will be recognized as revenue corresponding to the depreciation charge in future years. The amount does not constitute a liability to be discharged in future periods and hence, it has been disclosed separately from equity and liabilities.
- d) Government grants include ₹ 575.93 crore (31 March 2017: ₹ 497.14 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 ₹ 245.58 crore (31 March 2017: ₹ 285.70 crore).

### 35. Regulatory deferral account credit balances

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
Exchange differences	-	489.33

Regulatory deferral account balances have been accounted in line with Accounting policy no. C.5. Refer Note 70 for detailed disclosures.



## 36. Revenue from operations

Particulars	₹ Crore	
	For the year ended 31 March 2018	For the year ended 31 March 2017
Energy sales (including electricity duty)	79,298.08	75,603.86
Sale of energy through trading	6,450.23	5,219.24
Consultancy, project management and supervision fee	132.19	125.38
Lease rentals on assets on operating lease	233.13	240.42
Commission - energy trading business	4.62	4.60
	<b>86,118.25</b>	<b>81,193.50</b>
Sale of fly ash/ash products	131.02	108.42
Less: Transferred to fly ash utilisation reserve fund	131.02	108.42
	-	-
<b>Other operating revenues</b>		
Interest from beneficiaries	487.55	401.84
Energy internally consumed	64.73	74.85
Interest income on assets under finance lease	166.52	154.31
Recognized from deferred revenue - government grant	76.12	55.50
Sale of energy saving certificates	11.17	-
Provisions for tariff adjustments written back	1,158.97	162.49
	<b>1,965.06</b>	<b>848.99</b>
<b>Total</b>	<b>88,083.31</b>	<b>82,042.49</b>

- a) The CERC notified the Tariff Regulations, 2014 in February 2014 (Regulations, 2014). The CERC has issued tariff orders for all the stations except six 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 ₹ 80,670.65 crore (31 March 2017: ₹ 74,710.65 crore).
- b) The 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 (subject to final decision of the Hon'ble High Court) that samples for measurement of coal on 'as received' basis should be collected from wagon top at the generating stations. The Company's review petition before the CERC in respect of the above order was dismissed vide their order dated 30 June 2016. Vide order dated 10 November 2016, the Hon'ble Delhi High Court has permitted the Company to approach the CERC with the difficulties being faced in implementation of the order of CERC in this regard and the Company has filed a petition with the CERC. Pending disposal of the petition by the CERC and ratification by the Hon'ble Delhi High Court, 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.
- Sales have been provisionally recognized at ₹ 79,348.78 crore (31 March 2017: ₹ 79,552.54 crore) on the said basis.
- c) Sales include ₹ 6.44 crore (31 March 2017: ₹ 995.59 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 ₹ 267.99 crore in respect of one of the stations, considering the directions issued by the CERC on 28 September 2017. Further, sales for the year amounting to ₹ 96.73 crore has not been recognized considering the said directions.



- d) Sales include ₹ 210.33 crore (31 March 2017: ₹ Nil) on account of Income tax refundable to beneficiaries as per Regulations, 2004. Sales also include ₹ 66.98 crore (31 March 2017: ₹ 46.04 crore) on account of deferred tax materialized which is recoverable from beneficiaries as per Regulations, 2014.
- e) 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 Company filed an appeal against this order in APTEL which has been admitted. Pending disposal of the appeal and considering the said order of the CERC, sales of ₹ 248.75 crore recognized till 7 March 2016 has been reversed and balance amounting to ₹ 276.69 crore has been provided as 'Provision for tariff adjustment' for the period upto 31 March 2017 (Refer Note 41). Sales for the current year has been recognized as per the said order.
- f) Energy sales include electricity duty amounting to ₹ 879.77 crore (31 March 2017: ₹ 697.99 crore).
- g) Energy sales are net of rebate to beneficiaries amounting to ₹ 793.56 crore (31 March 2017: ₹ 517.91 crore).
- h) Other operating revenue includes ₹ 64.73 crore (31 March 2017: ₹ 74.85 crore) towards energy internally consumed, valued at variable cost of generation and the corresponding amount is included in power charges in Note 41.
- i) 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 ₹ 487.55 crore (31 March 2017: ₹ 401.84 crore) has been accounted as 'Interest from beneficiaries'. Further, the amount payable to the beneficiaries has been accounted as 'Interest to beneficiaries' in Note 41.
- j) Provision for tariff adjustments written back include ₹ 1,156.32 crore written back during the year based on disposal of a petition in favour of the company by the Hon'ble Supreme Court of India. Refer Note 32 (d).
- k) One of the power stations of the Company, having 3 units of 95 MW each and two units of 210 MW each, was issued consent to operate (Renewal) order by Delhi Pollution Control Committee (DPCC) on 2 Jan 2014 which was valid till 31 Jan 2018 with a condition that particulate emission level shall not exceed 150 mg/Nm<sup>3</sup>. In a volte-face on 8 July 2015, DPCC issued a show cause notice to the station as to why four units out of five units of plant ought not to be closed down for failing to bring down its particulate emission level below 50 mg/Nm<sup>3</sup>. Further, vide order dtd 31 Dec 2015, DPCC directed that four units out of five units of plant shall not operate. On 11 February 2016, DPCC modified the norms for particulate emission level of the consent to operate from 150 mg/Nm<sup>3</sup> to 50 mg/Nm<sup>3</sup>. Further, vide order dtd 21 March 2016, DPCC allowed operation of 2 units of 210 MW subject to meeting the SPM of 50 mg/Nm<sup>3</sup>. Further, DPCC vide order dtd 6 November 2016, directed not to operate all units of station for 10 days which was subsequently extended till further orders. DPCC, vide order dtd 14 March 2017 has allowed operation of two units of 210 MW each for the period from 15 March 2017 to 15 October 2017. Subsequently, DPCC vide order dated 1<sup>st</sup> March 2018 allowed the station to operate two units of 210 MW each from 1 March 2018. Company's petitions to direct beneficiaries for payment of fixed charges on account of closure due to DPCC's directions which are under change in law are pending disposal before the CERC.
- l) Keeping in view the provisions of Appendix C to Ind AS 17 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 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.
- m) Keeping in view the provisions of Appendix C to Ind AS 17 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 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 recognized as 'Interest income on Assets under finance lease'.

## 37. Other income

₹ Crore

Particulars	For the year ended 31 March 2018	For the year ended 31 March 2017
<b>Interest from</b>		
Financial assets at amortized cost		
Loan to state government in settlement of dues from customers	-	2.03
Loan to employees	59.35	58.92
Deposits with banks	101.01	79.24
Deposits with banks out of fly ash utilisation reserve fund	26.74	23.92
Less : Transferred to fly ash utilisation reserve fund	26.74	23.92
	-	-
Deposits with banks - DDUGJY funds	27.83	36.27
Less : Transferred to DDUGJY advance from customers	27.83	36.27
	-	-
Advance to contractors	41.40	49.22
Income Tax refund	2,750.47	0.25
Less : Refundable to beneficiaries	2,344.75	-
	405.72	0.25
Others	19.24	23.81
<b>Dividend from</b>		
Non-current investment in equity instruments designated at fair value through OCI	3.60	3.00
Current investments in mutual funds out of fly ash utilisation reserve fund	-	3.71
Less : Transferred to fly ash utilisation reserve fund	-	3.71
	-	-
<b>Other non-operating income</b>		
Late payment surcharge from beneficiaries	513.47	491.61
Hire charges for equipment	2.50	3.38
Sale of scrap	138.25	84.43
Gain on sale of current investments measured at fair value through profit and loss	137.51	24.81
Miscellaneous income	175.70	204.33
Profit on de-recognition of property, plant and equipment	2.37	10.36
Provisions written back		
Unserviceable capital works	-	4.62
Obsolescence in stores	10.61	1.55
Others	5.27	8.18
	1,616.00	1,049.74
Less: Transferred to expenditure during construction period (net) - Note 42	52.58	81.32
Transferred to expenditure during development of coal mines (net) - Note 43	5.14	1.60
<b>Total</b>	<b>1,558.28</b>	<b>966.82</b>

- 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 doubtful loans, advances, claims and provision for shortage in stores and shortage in property, plant and equipment.



### 38. Employee benefits expense

₹ Crore

Particulars	For the year ended 31 March 2018	For the year ended 31 March 2017
Salaries and wages	4,915.69	4,112.41
Contribution to provident and other funds	623.43	1,077.89
Staff welfare expenses	567.95	447.18
	<b>6,107.07</b>	<b>5,637.48</b>
Less: Allocated to fuel cost	267.95	264.65
Transferred to expenditure during construction period (net) - Note 42	894.03	810.13
Transferred to expenditure during development of coal mines (net) - Note 43	72.41	57.26
Transferred to fly ash utilisation reserve fund	19.02	20.80
Transferred to CSR expenses	-	54.90
Reimbursements for employees on deputation	61.69	54.20
<b>Total</b>	<b>4,791.97</b>	<b>4,375.54</b>

- a) Disclosures as per Ind AS 19 'Employee Benefits' in respect of provision made towards various employee benefits are provided in Note 56.
- b) Salaries and wages include special allowance paid by the Group to eligible employees serving in difficult and far flung areas w.e.f. 26 November 2008. As per the Office Memorandum dated 26 November 2008 of DPE relating to revision of pay scales w.e.f. 1 January 2007, special allowance can be paid to such employees upto 10% of basic pay as approved by concerned administrative ministry. In line with the office memorandum dated 22 June 2010 of DPE, Board of Directors has approved the special allowance (Difficult and Far Flung Areas) to eligible employees. The approval of Ministry of Power (MoP) for the same is awaited.
- c) The pay revision of the employees of the Company is due w.e.f. 1 January 2017. The required provision towards revision of pay scales has been recognized during the year. Refer Note 32 (c).

### 39. Finance costs

₹ Crore

Particulars	For the year ended 31 March 2018	For the year ended 31 March 2017
<b>Finance costs on financial liabilities measured at amortized cost</b>		
Bonds	2,793.01	2,492.45
Foreign currency term loans	345.52	354.19
Rupee term loans	3,983.22	4,178.88
Foreign currency bonds/notes	1,087.98	763.41
Cash credit	19.95	21.35
Unwinding of discount on vendor liabilities	300.16	507.17
Discount on commercial papers	62.57	63.00
Others	3.22	5.92
	<b>8,595.63</b>	<b>8,386.37</b>
Exchange differences regarded as an adjustment to borrowing costs	274.05	-

₹ Crore

Particulars	For the year ended 31 March 2018	For the year ended 31 March 2017
<b>Other borrowing costs</b>		
Guarantee fee	28.97	31.68
Foreign currency bonds/notes expenses	0.22	0.57
Others	12.26	14.35
	41.45	46.60
<b>Sub-Total</b>	<b>8,911.13</b>	<b>8,432.97</b>
Less: Transferred to expenditure during construction period (net) - Note 42	4,279.60	4,662.14
Transferred to expenditure during development of coal mines (net) - Note 43	196.94	119.75
<b>Total</b>	<b>4,434.59</b>	<b>3,651.08</b>

- a) Other borrowing costs - Others include bond issue and service expenses, commitment charges, exposure premium, insurance premium and other expenses on foreign currency loans.

#### 40. Depreciation, amortization and impairment expense

₹ Crore

Particulars	For the year ended 31 March 2018	For the year ended 31 March 2017
On property, plant and equipment- Note 2	8,189.05	6,670.31
On intangible assets- Note 4	24.87	22.46
	8,213.92	6,692.77
Less: Allocated to fuel cost	399.49	349.97
Transferred to expenditure during construction period (net) - Note 42	158.37	155.59
Transferred to expenditure during development of coal mines (net) - Note 43	40.09	14.20
Adjustment with deferred revenue from deferred foreign currency fluctuation	156.04	163.10
<b>Total</b>	<b>7,459.93</b>	<b>6,009.91</b>

#### 41. Other expenses

₹ Crore

Particulars	For the year ended 31 March 2018	For the year ended 31 March 2017
Power charges	358.50	284.90
Less: Recovered from contractors and employees	28.92	27.65
	329.58	257.25
Water charges	846.22	574.24
Cost of captive coal	316.97	33.72
Stores consumed	76.11	60.32
Rent	34.95	41.07
Less: Recoveries	5.89	11.50
	29.06	29.57



₹ Crore

Particulars	For the year ended 31 March 2018	For the year ended 31 March 2017
Load dispatch center charges	39.14	28.74
Repairs and maintenance		
Buildings	267.94	247.48
Plant and equipment	2,222.00	1,867.80
Others	328.84	248.64
	<b>2,818.78</b>	<b>2,363.92</b>
Insurance	128.77	122.31
Interest to beneficiaries	12.00	101.72
Rates and taxes	83.32	47.56
Water cess and environment protection cess	13.64	25.94
Training and recruitment expenses	50.83	33.70
Less: Receipts	0.52	0.98
	<b>50.31</b>	<b>32.72</b>
Communication expenses	54.15	60.71
Travelling expenses	206.04	206.46
Tender expenses	24.51	27.12
Less: Receipt from sale of tenders	1.93	1.87
	<b>22.58</b>	<b>25.25</b>
Payment to auditors	5.56	5.46
Advertisement and publicity	30.97	19.07
Electricity duty	881.51	699.59
Security expenses	753.73	635.49
Entertainment expenses	29.83	27.70
Expenses for guest house	37.65	29.33
Less: Recoveries	1.41	2.76
	<b>36.24</b>	<b>26.57</b>
Education expenses	52.19	42.97
Donation	8.00	-
Ash utilisation and marketing expenses	25.71	21.78
Directors sitting fee	0.34	0.21
Professional charges and consultancy fee	70.19	117.52
Legal expenses	46.26	44.15
EDP hire and other charges	22.23	18.62
Printing and stationery	11.19	15.97
Oil and gas exploration expenses	2.83	110.58
Hiring of vehicles	101.50	91.30
Reimbursement of LC charges on sales realization	0.26	1.36
Net loss/(gain) in foreign currency transactions and translations	547.37	(200.56)
Cost of hedging	1.62	5.27

₹ Crore

Particulars	For the year ended 31 March 2018	For the year ended 31 March 2017
Derivatives MTM loss/(gain) (net)	(5.33)	5.22
Horticulture expenses	46.56	39.79
Hire charges of helicopter/aircraft	15.63	17.02
Hire charges of construction equipments	11.60	9.42
Transport vehicle running expenses	6.74	7.01
Demurrage charges	0.74	-
Loss on de-recognition of property, plant and equipment	110.67	82.94
Miscellaneous expenses	185.76	109.71
	<b>8,026.57</b>	<b>5,924.59</b>
Less: Allocated to fuel cost	494.25	424.86
Transferred to expenditure during construction period (net) - Note 42	596.60	504.45
Transferred to expenditure during development of coal mines (net) - Note 43	364.39	144.24
Transferred to derivative MTM loss/(gain) recoverable (payable) from/to beneficiaries	(5.33)	5.22
Transferred to Corporate Social Responsibility (CSR) expense	39.60	42.17
Transferred to fly ash utilisation reserve fund	51.14	33.12
	<b>6,485.92</b>	<b>4,770.53</b>
<b>Corporate Social Responsibility (CSR) expense</b>	<b>240.90</b>	<b>275.59</b>
<b>Provisions for</b>		
Tariff adjustments	318.28	98.88
Obsolescence in stores	22.43	12.04
Shortages in stores	20.79	3.64
Unserviceable capital works	359.48	4.78
Unfinished minimum work programme for oil and gas exploration	4.92	2.89
Arbitration cases	56.05	4.80
Shortages in construction stores	12.41	7.80
Doubtful loans, advances and claims	28.67	0.29
Others	4.74	4.27
	<b>827.77</b>	<b>139.39</b>
<b>Total</b>	<b>7,554.59</b>	<b>5,185.51</b>

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 43).

b) Details in respect of payment to auditors:

As Auditor

Audit fee	1.86	1.75
Tax audit fee	0.57	0.60
Limited review	0.97	0.95



In other capacity		
Other services (certification fee)	0.76	0.71
Reimbursement of expenses	0.88	0.86
Reimbursement of service tax/GST	0.52	0.59
<b>Total</b>	<b>5.56</b>	<b>5.46</b>

Payment to the auditors includes ₹ 0.33 crore (31 March 2017: ₹ 0.67 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 ₹ 12.00 crore (31 March 2017: ₹ 101.72 crore) has been accounted and disclosed as 'Interest to beneficiaries'.
- d) Water charges include amount provided against the demand of ₹ 305.55 crore (31 March 2017: ₹ Nil) 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 tariff adjustment includes an amount of ₹ 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 station of the Company. The Company filed an appeal in the APTEL, which has been admitted. Refer Note 36 (e).
- g) Provisions for shortages in stores include provision for shortage on coal observed on physical verification, beyond company's norms, amounting to ₹ 10.98 crore (31 March 2017: ₹ Nil).
- h) Provisions - Others include provision for doubtful debts and shortage in property, plant and equipment.

#### 42. Expenditure during construction period (net)\*

Particulars	₹ Crore	
	For the year ended 31 March 2018	For the year ended 31 March 2017
<b>A. Employee benefits expense</b>		
Salaries and wages	772.13	619.56
Contribution to provident and other funds	83.98	139.98
Staff welfare expenses	37.92	50.59
<b>Total (A)</b>	<b>894.03</b>	<b>810.13</b>
<b>B. Finance costs</b>		
Finance charges on financial liabilities measured at amortized cost		
Bonds	1,378.10	1,335.26
Foreign currency term loans	163.68	191.67
Rupee term loans	1,684.12	2,271.41
Foreign currency bonds/notes	531.03	434.08
Unwinding of discount on vendor liabilities	280.90	425.17
Exchange differences regarded as an adjustment to borrowing costs	233.64	-
Other borrowing costs		
Foreign currency bonds/notes expenses	0.15	0.57
Others	7.98	3.98
<b>Total (B)</b>	<b>4,279.60</b>	<b>4,662.14</b>



Particulars	₹ Crore	
	For the year ended 31 March 2018	For the year ended 31 March 2017
<b>C. Depreciation and amortization expense</b>	<b>158.37</b>	155.59
<b>D. Other expenses</b>		
Power charges	251.07	181.87
Less: Recovered from contractors and employees	6.15	3.33
	<b>244.92</b>	178.54
Water charges	5.74	12.03
Rent	3.37	3.86
Repairs and maintenance		
Buildings	7.03	7.54
Plant and equipment	0.86	3.01
Others	59.66	36.79
	<b>67.55</b>	47.34
Insurance	0.76	1.07
Rates and taxes	10.14	13.38
Communication expenses	6.63	8.18
Travelling expenses	43.24	44.92
Tender expenses	2.71	4.29
Advertisement and publicity	2.97	1.97
Security expenses	102.83	84.96
Entertainment expenses	5.13	5.68
Expenses for guest house	4.43	3.81
Professional charges and consultancy fee	8.75	8.08
Legal expenses	9.19	11.48
EDP hire and other charges	2.19	2.15
Printing and stationery	1.55	1.95
Miscellaneous expenses	74.50	70.76
<b>Total (D)</b>	<b>596.60</b>	504.45
<b>E. Less: Other income</b>		
Interest from advances to contractors	25.12	37.57
Interest others	15.99	15.21
Hire charges for equipment	1.97	2.67
Sale of scrap	2.26	2.57
Miscellaneous income	7.24	23.30
<b>Total (E)</b>	<b>52.58</b>	81.32
<b>F. Net actuarial losses on defined benefit plans</b>	<b>5.77</b>	22.40
<b>Grand total (A+B+C+D-E+F)**</b>	<b>5,881.79</b>	6,073.39

\* Other than for expenditure during development of coal mines

\*\* Carried to Capital work-in-progress - (Note 3)



43. Expenditure during development of coal mines (net)

Particulars	₹ Crore	
	For the year ended 31 March 2018	For the year ended 31 March 2017
<b>A. Employee benefits expense</b>		
Salaries and wages	60.35	45.21
Contribution to provident and other funds	6.38	9.09
Staff welfare expenses	5.68	2.96
<b>Total (A)</b>	<b>72.41</b>	<b>57.26</b>
<b>B. Finance costs</b>		
Finance charges on financial liabilities measured at amortized cost		
Bonds	63.00	38.01
Rupee term loans	132.95	81.37
Unwinding of discount on vendor liabilities	0.62	0.28
Other borrowing costs - others	0.37	0.09
<b>Total (B)</b>	<b>196.94</b>	<b>119.75</b>
<b>C. Depreciation and amortization expense</b>	<b>40.09</b>	<b>14.20</b>
<b>D. Other expenses</b>		
Power charges	0.72	0.47
Less: Recovered from contractors and employees	0.11	0.06
	0.61	0.41
Rent	1.03	0.91
Repairs and maintenance		
Buildings	0.63	0.52
Plant and equipment	0.25	6.31
Others	1.29	0.67
	2.17	7.50
Cost of captive coal	316.97	33.72
Insurance	0.02	0.03
Rates and taxes	0.50	0.02
Communication expenses	1.37	1.09
Travelling expenses	3.56	2.69
Tender expenses	0.16	0.38
Advertisement and publicity	0.56	0.63
Security expenses	14.94	13.47
Entertainment expenses	0.66	0.33
Expenses for guest house	0.61	0.39
Professional charges and consultancy fee	5.67	72.16
Legal expenses	0.76	1.52
EDP hire and other charges	0.55	0.51
Printing and stationery	0.26	0.18
Miscellaneous expenses	13.99	8.30
<b>Total (D)</b>	<b>364.39</b>	<b>144.24</b>

₹ Crore

Particulars	For the year ended 31 March 2018	For the year ended 31 March 2017
<b>E. Less: Other income</b>		
Interest from advances to contractors	4.03	1.53
Interest others	0.88	-
Miscellaneous income	0.23	0.07
<b>Total (E)</b>	<b>5.14</b>	<b>1.60</b>
<b>F. Net actuarial losses on defined benefit plans</b>	<b>0.66</b>	<b>1.74</b>
<b>Grand total (A+B+C+D-E+F) *</b>	<b>669.35</b>	<b>335.59</b>

\*Carried to Capital work-in-progress - (Note 3)

44. 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 realization in the ordinary course of business, will not be less than the value at which these are stated in the Balance Sheet.
45. 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.
46. The environmental clearance ("clearance") granted by the Ministry of Environment and Forest, Government of India (MoEF) for one of the Group's ongoing project was challenged before the National Green Tribunal (NGT). The NGT disposed 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 judgment 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 Group 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 Group 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. Two units of 800 MW have been declared commercial during the year and the last unit of 800MW capacity is in the verge of completion and expected to be declared commercial in the next financial year. Aggregate cost incurred on the project upto 31 March 2018 is ₹ 15,522.77 crore (31 March 2017: ₹ 14,461.58 crore). Management is confident that the approval for proceeding with the project shall be granted, hence no provision is considered necessary.
47. The Group is executing a hydro power project in the state of Uttarakhand, where all the clearances were accorded. A case was filed in Hon'ble Supreme Court of India after the natural disaster in Uttarakhand 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 Group. In the proceedings, Hon'ble Supreme Court is examining to allow few projects which have all clearances which includes the project of the Group where the work has been stopped. Aggregate cost incurred on the project up to 31 March 2018 is ₹ 163.23 crore (31 March 2017: ₹ 160.75 crore). Management is confident that the approval for proceeding with the project shall be granted, hence no provision is considered necessary.
48. One of the 500 MW unit of a station which was declared commercial on 30 September 2017, met with an unfortunate accident in the boiler occurred due to pressurization of flue gas duct and boiler, damaging the first and second pass of the boiler along-with economizer, outlet duct and hoppers and the unit is under shut down. Payments made towards ex-gratia and treatment charges at various hospitals to the accident victims have been borne by the Group. The unit is covered under insurance policy of the Group against damage to the property. Based on the initial assessment of extent of damage and compensation paid to accident victims, a claim for ₹ 321.74 crore has been lodged with insurance company and accounted for. Discussions are taking place with the equipment supplier for carrying out necessary works for restoration of the unit. The unit is expected to resume operations in the later part of the financial year 2018-19.



#### 49. 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:

- Policy B.1 'Statement of compliance' has been modified to include the fact that financial statements are prepared on going concern basis. Additionally, the policy pertaining to first time adoption of Ind AS has been removed as the same is not applicable in the current year.
- Except for above changes, certain other changes have also been made in the policies nos. B.2, C, C.2, C.4, C.5, C.6, C.7, C.9, C.10, C.14, C.16, C.17, C.18, C.20, C.22 and policy D for improved disclosures.

There is no impact on the financial statements due to the above changes, however, the policy numbers have been rearranged in the current year as required.

##### B) Reclassifications and comparative figures

Certain reclassifications have been made to the comparative period's financial statements to:

- enhance comparability with the current year's financial statements
- ensure compliance with the Guidance Note on Division II - Ind AS Schedule III to the Companies Act, 2013

As a result, certain line items have been reclassified in the balance sheet, statement of profit and loss, and statement of cash flows, the details of which are as under:

##### Items of balance sheet before and after reclassification as at 31 March 2017

₹ Crore

Sl. No.	Particulars	Before reclassification	Reclassification	After reclassification
1	Capital work-in-progress (Note 3)	86,681.17	(220.09)	86,461.08
	Intangible assets under development (Note 5)	214.54	220.09	434.63
2	Investments accounted for using the equity method (Note 6)	7,688.83	(188.39)	7,500.44
	Other financial assets - Non-current (Note 10)	1,164.26	194.06	1,358.32
	Other non-current assets (Note 11)	17,133.91	(5.01)	17,128.90
	Other current assets (Note 18)	4,817.43	(0.66)	4,816.77
3	Non current financial liabilities - Borrowings (Note 22)	1,04,071.29	3.83	1,04,075.12
	Current liabilities - Other financial liabilities (Note 30)	20,395.20	(2.38)	20,392.82
	Current liabilities - Other current liabilities (Note 31)	1,264.69	(1.45)	1,263.24

##### Items of statement of profit and loss before and after reclassification for the year ended 31 March 2017

₹ Crore

Sl. No.	Particulars	Before reclassification	Reclassification	After reclassification
1	Movement in regulatory deferral account balances	334.22	(71.51)	262.71
	Tax on net movement in regulatory deferral account balances	71.51	71.51	-
2	Revenue from operations	82,080.82	(38.33)	82,042.49
	Employee benefits expense	4,413.87	38.33	4,375.54

##### Items of statement of cash flows before and after reclassification for the year ended 31 March 2017

₹ Crore

Sl. No.	Particulars	Before reclassification	Reclassification	After reclassification
1	Cash flow from operating activities	20,600.26	(433.70)	20,166.56
	Cash flow from investing activities	(24,931.02)	450.95	(24,480.07)
	Cash flow from financing activities	3,155.21	(17.25)	3,137.96

## 50. Disclosure as per Ind AS 2 'Inventories'

(a) Amount of inventories consumed and recognized as expense during the year is as under:

₹ Crore

Particulars	For the year ended 31 March 2018	For the year ended 31 March 2017
Fuel	48,992.80	47,947.77
Others (included in Note 41 - Other expenses)	1,131.66	1,117.27
<b>Total</b>	<b>50,124.46</b>	<b>49,065.04</b>

(b) Carrying amount of inventories pledged as security for borrowings as at 31 March 2018 is ₹ 4,152.49 crore (31 March 2017: ₹ 4,682.01 crore).

## 51. Disclosure as per Ind AS 8 'Accounting Policies, Changes in Accounting Estimates and Errors'

### a) Change in depreciation method of mining property

In accordance with its accounting policies, the Group reviews the depreciation method and useful lives of its assets, other than the assets of generation of electricity business which are governed by CERC Regulations, on an ongoing basis. As a result, during the year, the Group has changed its depreciation method of 'Mining property' related to coal mining business from 'Unit of production method' to '20 years or life of mine', whichever is less. This change in estimation has not resulted in any impact on the current financial statements, however this change in estimate may have an impact on future amortization expense, the amount of which is impracticable to determine.

### b) Changes in provision for current tax relating to earlier years

During the year, the Group has changed its estimates for accounting of the provision for current tax in respect of matters in disputes considering the pronouncements of various appellate authorities/courts and the opinion of an independent expert. Accordingly, the cases where the outflow of tax is considered not probable or otherwise, the provision for current tax has been updated. This has led to change in estimation of uncertain tax position and consequential reduction of current tax provision related to earlier years by ₹ 951.30 crore. This change in estimation of uncertain tax positions may also have an impact on future current tax expense, the amount of which is impracticable to determine.

### c) Recent accounting pronouncements

**Standards issued but not yet effective:**

#### Ind AS 115 'Revenue from Contracts with Customers'

On 28 March 2018, Ministry of Corporate Affairs (MCA) has notified the Ind AS 115, Revenue from Contract with Customers. The core principle of the new standard is that an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. Further, the new standard requires enhanced disclosures about the nature, amount, timing and uncertainty of revenue and cash flows arising from the entity's contracts with customers.

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 recognized at the date of initial application (Cumulative catch - up approach)

The effective date for adoption of Ind AS 115 is financial periods beginning on or after 1 April 2018. The Company will adopt the standard on 1 April 2018 by using the cumulative catch-up transition method and accordingly comparatives for the year ending or ended 31 March 2018 will not be retrospectively adjusted. The Company is evaluating the requirements of the amendment and the effect on the financial statements is being evaluated.

#### Appendix B to Ind AS 21, Foreign currency transactions and advance consideration

On 28 March 2018, Ministry of Corporate Affairs (MCA) has notified the Companies (Indian Accounting Standards) Amendment Rules, 2018 containing Appendix B to Ind AS 21, Foreign currency transactions and advance consideration which clarifies the date of the transaction for the purpose of determining the exchange rate to use on initial recognition of the related asset, expense or income, when an entity has received or paid advance consideration in a foreign currency.

The amendment will come into force from 1 April 2018. The Company is evaluating the requirements of the amendment and the effect on the financial statements is being evaluated.



## 52. Disclosure as per Ind AS 10 'Events after the Reporting Period'

### Subsequent events:

The Board of Directors of the Parent company, in its meeting held on 29 December 2017, accorded investment approvals for following acquisitions:

- Acquisition of Barauni Thermal Power Station (BTPS) from Bihar State Power Generation Co. Ltd. (BSPGCL)
- Acquisition of BSPGCL's equity in Nabinagar Power Generating Company Pvt. Ltd. (NPGCL), a joint venture company
- Acquisition of BSPGCL's equity in Kanti Bijlee Utpadan Nigam Ltd. (KBUNL), a subsidiary company

On 15 May 2018, the Parent company has signed a Memorandum of Understanding (MoU) with Government of Bihar and Bihar power utilities for the above acquisitions.

However, these acquisitions are subject to approval from the concerned regulatory authorities which are not perfunctory and considered to be substantive. Once the requisite approvals are in place, BTPS will be merged with the Company and KBUNL and NPGCL will become wholly owned subsidiaries of the Parent company. Investments (a) and (b) shall be accounted for as business combination as per Ind AS 103, 'Business Combinations', once the acquisition date is achieved. Further, investment (c) which is for acquisition of BSPGCL's equity in KBUNL shall be accounted for as transaction with non-controlling interests, as per Ind AS 110, 'Consolidated Financial Statements'. The Group is unable to estimate the financial effect of above transactions.

## 53. Disclosure as per Ind AS 11 'Construction contracts'

The net balance sheet position for ongoing construction contracts is as follows:

₹ Crore

Particulars	For the year ended	
	31 March 2018	31 March 2017
Contract revenue recognized during the year	128.35	117.42
Aggregate amount of contract costs incurred and recognized profits (less recognized losses, if any) upto the balance sheet date for all contracts in progress as at that date	1013.46	768.35

₹ Crore

Particulars	As at	As at
	31 March 2018	31 March 2018
Amount of customers' advances outstanding for contracts in progress as at balance sheet date	346.85	637.58
Retention amounts by customer for contract work in progress as at the end of the financial year	1.40	1.21
Gross amount due from customer for contract work - presented as assets	44.40	56.28
Gross amount due to customer for contract work - presented as liabilities	34.29	23.56

The methods used to recognize contract revenue and the methods used to determine the stage of completion of contracts in progress are disclosed in accounting policy no. C.16.2 (Note 1).

## 54. Disclosure as per Ind AS 12 'Income taxes'

### (a) Income tax expense

#### i) Income tax recognized in statement of profit and loss

₹ Crore

Particulars	For the year ended	
	31 March 2018	31 March 2017
<b>Current tax expense</b>		
Current year	2,616.16	2,750.85
Adjustment for earlier years	(951.30)	(107.54)
Pertaining to regulatory deferral account balances (A)	152.04	71.51
<b>Total current tax expense (B)</b>	<b>1,816.90</b>	<b>2,714.82</b>

₹ Crore

Particulars	For the year ended	
	31 March 2018	31 March 2017
<b>Deferred tax expense</b>		
Origination and reversal of temporary differences	3,988.08	1,284.47
Less: Deferred asset for deferred tax liability	3,064.80	952.68
<b>Total deferred tax expense (C)</b>	<b>923.28</b>	331.79
<b>Income tax expense (D=B+C-A)</b>	<b>2,588.14</b>	2,975.10
Pertaining to regulatory deferral account balances	152.04	71.51
<b>Total tax expense including tax on movement in regulatory deferral account balances</b>	<b>2,740.18</b>	3,046.61

## ii) Income tax recognized in other comprehensive income

₹ Crore

Particulars	For the year ended					
	31 March 2018			31 March 2017		
	Before tax	Tax expense/ (benefit)	Net of tax	Before tax	Tax expense/ (benefit)	Net of tax
- Net actuarial gains/(losses) on defined benefit plans	(9.26)	(1.98)	(7.28)	(303.42)	(64.76)	(238.66)
- Net gains/(losses) on fair value of equity instruments	(7.20)	-	(7.20)	35.28	-	35.28
- Share of other comprehensive income of associates and joint ventures accounted for using the equity method	(0.16)	-	(0.16)	(1.41)	-	(1.41)
- Exchange differences on translation of foreign operations	(6.05)	-	(6.05)	(8.06)	-	(8.06)
	<b>(22.67)</b>	<b>(1.98)</b>	<b>(20.69)</b>	<b>(277.61)</b>	<b>(64.76)</b>	<b>(212.85)</b>

## iii) Reconciliation of tax expense and the accounting profit multiplied by India's domestic tax rate

₹ Crore

Particulars	For the year ended	
	31 March 2018	31 March 2017
<b>Profit before tax including movement in regulatory deferral account balances</b>	<b>13,241.68</b>	13,760.55
<b>Tax using the Group's domestic tax rate of 34.608 % (31 March 2017 - 34.608%)</b>	<b>4,582.68</b>	4,762.26
Tax effect of:		
Non-deductible tax expenses	(44.61)	(284.01)
Tax-exempt income	(40.37)	(35.88)
Foreign exchange differences	0.26	0.13
Previous year tax liability	(951.30)	(107.54)
Minimum alternate tax adjustments	(806.48)	(1,288.35)
<b>Total tax expense recognized in the statement of profit and loss</b>	<b>2,740.18</b>	3,046.61



(b) Tax losses carried forward

₹ Crore

Particulars	As at 31 March 2018	Expiry date	As at 31 March 2017	Expiry date
Unused tax losses for which no deferred tax asset has been recognized	7,030.96	-	-	-

Deferred tax asset have not been recognized in respect of the tax losses incurred by the Group that is not likely to generate taxable income in the foreseeable future. In terms of the provisions of the Income Tax Act, 1961, business loss due to unabsorbed depreciation can be carried forward for an unlimited period.

(c) Dividend distribution tax on proposed dividend not recognized at the end of the reporting period

Since year ended 31 March 2018, the Directors have recommended the payment of final dividend amounting to ₹ 1,970.67 crore (31 March 2017: ₹ 1,789.27 crore). The dividend distribution tax on this proposed dividend amounting to ₹ 405.08 crore (31 March 2017: ₹ 364.25 crore) has not been recognized 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 recognized in the books:

₹ Crore

Financial years	As at 31 March 2018	Expiry date	As at 31 March 2017	Expiry date
For the year 2017-18	2,726.16	31 March 2033	-	-
For the year 2016-17	1,875.44	31 March 2032	1,864.23	31 March 2027
For the year 2015-16	1,708.82	31 March 2031	1,708.82	31 March 2026
For the year 2014-15	883.58	31 March 2030	883.58	31 March 2025

(e) During the year, the Company has changed its estimates for accounting of the provision for income tax in respect of matters in disputes considering the pronouncements of various appellate authorities/courts and the opinion of an independent expert. Refer Note 51 (b).

55. Disclosure as per Ind AS 17 'Leases'

a) Operating leases

i. Leases as lessee:

- 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 ₹ 21.70 crore (31 March 2017: ₹ 30.79 crore) towards lease payments (net of recoveries) in respect of premises for residential use of employees is included under 'Salaries and wages' in Note 38. Lease payments in respect of premises for offices and guest house/transit camps amounting ₹ 28.74 crore (net of recoveries) (31 March 2017: ₹ 29.57 crore) are included under 'Rent' in Note 41.
- The Group has taken a helicopter on wet lease basis for a period of eleven years and the amount of lease charges of ₹ 15.63 crore (31 March 2017: ₹ 17.02 crore) is included under 'Hire charges of helicopter/aircraft' in Note 41. The lease is renewable on mutually agreed terms but not non-cancellable.
- 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 2017: ₹ 6.26 crore) has been charged to the Statement of Profit and Loss and included under 'Rates and taxes' in Note 41.
- During the year, 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 recognized in the statement of profit and loss for the year in respect of leases is ₹ 0.04 crore (31 March 2017: ₹ Nil). The future minimum lease payments in respect of non-cancellable leases is as follows:

₹ Crore

Particulars	As at 31 March 2018	As at 31 March 2017
Less than one year	0.96	-
Between one and five years	4.92	-
More than five years	1.48	-
	7.36	-



## ii. Leases as lessor

- a) 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 takeover 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:

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
Less than one year	214.30	229.91
Between one and five years	467.79	667.67
More than five years	139.57	263.27
	<b>821.66</b>	<b>1,160.85</b>

## 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:

Particulars	₹ Crore			
	As at 31 March 2018		As at 31 March 2017	
	MLPs	Present value of MLPs	MLPs	Present value of MLPs
Less than one year	0.86	0.72	1.05	0.78
Between one and five years	0.76	0.70	1.83	1.62
More than five years	-	-	-	-
<b>Total minimum lease payments (MLP)</b>	<b>1.62</b>	<b>1.42</b>	<b>2.88</b>	<b>2.40</b>
Less amounts representing finance charges	0.20	-	0.48	-
<b>Present value of minimum lease payments</b>	<b>1.42</b>	<b>1.42</b>	<b>2.40</b>	<b>2.40</b>

- b) The Group has entered into a lease agreement for coal movement through inland waterways transport. As per the agreement, the operator shall design, build, operate and maintain the unloading infrastructure and material handling system ("facility"), and transfer the same to the Group after expiry of 7 years at ₹ 1/-. The facility has been completed and is under operation. The total contingent rents recognized as expense during the year is ₹ Nil (31 March 2017: ₹ 0.82 crore).

₹ Crore

Particulars	As at 31 March 2018		As at 31 March 2017	
	MLPs	Present value of MLPs	MLPs	Present value of MLPs
Less than one year	36.06	22.79	18.89	12.12
Between one and five years	65.24	54.61	82.41	64.79
More than five years	-	-	5.15	3.39
<b>Total minimum lease payments</b>	<b>101.30</b>	<b>77.40</b>	<b>106.45</b>	<b>80.30</b>
Less amounts representing finance charges	23.90	-	26.15	-
<b>Present value of minimum lease payments</b>	<b>77.40</b>	<b>77.40</b>	<b>80.30</b>	<b>80.30</b>

During the year, the operator has raised several disputes and invoked arbitration and has put substantial claims on the Group. The issues are before arbitral tribunal headed by a former judge of Hon'ble Supreme Court of India. The claims made by the operator amounting to ₹ 2,026.30 crore have not been accepted by the Group and the same has been disclosed under contingent liabilities [Note 72 (A)]. An amount of ₹158.50 crore has been deposited till 31 March 2018 considering the directions of the Hon'ble Supreme Court of India.

- 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 capitalized at the present value of the total minimum lease payments to be paid over the lease term. Future lease rentals are recognized as 'Finance lease obligation' at their present values. The leasehold land is amortized considering the significant accounting policies of the Group.

₹ Crore

Particulars	As at 31 March 2018		As at 31 March 2017	
	MLPs	Present value of MLPs	MLPs	Present value of MLPs
Less than one year	11.17	10.20	5.66	5.19
Between one and five years	31.58	24.09	21.42	15.69
More than five years	692.85	71.25	425.06	40.06
<b>Total minimum lease payments</b>	<b>735.60</b>	<b>105.54</b>	<b>452.14</b>	<b>60.94</b>
Less amounts representing finance charges	630.06	-	391.20	-
<b>Present value of minimum lease payments</b>	<b>105.54</b>	<b>105.54</b>	<b>60.94</b>	<b>60.94</b>

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 2018		As at 31 March 2017	
	MLPs	Present value of MLPs	MLPs	Present value of MLPs
Less than one year	111.59	40.00	119.42	29.77
Between one and five years	446.35	227.24	477.70	182.65
More than five years	326.78	275.08	456.72	342.64
<b>Total minimum lease payments</b>	<b>884.72</b>	<b>542.32</b>	<b>1,053.84</b>	<b>555.06</b>
Less amounts representing unearned finance income	342.40	-	498.78	-
<b>Present value of minimum lease payments</b>	<b>542.32</b>	<b>542.32</b>	<b>555.06</b>	<b>555.06</b>

**56. 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 ₹ 153.32 crore (31 March 2017: ₹ 237.34 crore) for the year is recognized 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:

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
Net defined benefit (asset)/liability - Current	(55.36)	(53.17)

**Movement in net defined benefit (asset)/liability**

Particulars	₹ Crore					
	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 2018	31 March 2017	31 March 2018	31 March 2017	31 March 2018	31 March 2017
Opening balance	7,535.63	6,832.89	7,588.80	6,892.37	(53.17)	(59.48)
Current service cost recognized in statement of profit and loss	254.28	252.12	-	-	254.28	252.12
Interest cost/(income)	565.18	546.63	(565.18)	(551.39)	-	(4.76)
<b>Total</b>	<b>819.46</b>	<b>798.75</b>	<b>(565.18)</b>	<b>(551.39)</b>	<b>254.28</b>	<b>247.36</b>
Remeasurement loss (gain):						
Actuarial loss (gain) arising from:						
Financial assumptions	(0.12)	0.62	-	-	(0.12)	0.62
Experience adjustment	113.01	71.22	-	-	113.01	71.22
Return on plan assets excluding interest income	-	-	(115.08)	(60.77)	(115.08)	(60.77)
<b>Total</b>	<b>112.89</b>	<b>71.84</b>	<b>(115.08)</b>	<b>(60.77)</b>	<b>(2.19)</b>	<b>11.07</b>
Other						
Contribution by participants	584.89	485.54	584.89	485.54	-	-
Contribution by employer	-	-	254.28	252.12	(254.28)	(252.12)
Benefits paid	827.16	653.39	827.16	653.39	-	-
<b>Closing balance</b>	<b>8,225.71</b>	<b>7,535.63</b>	<b>8,281.07</b>	<b>7,588.80</b>	<b>(55.36)</b>	<b>(53.17)</b>

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 ₹ 55.36 crore (31 March 2017: ₹ 53.17 crore) determined through actuarial valuation. Accordingly, Group has not recognized 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

- 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.
- 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 recognized 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 recognized in the Group's financial statements as at balance sheet date:

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
Net defined benefit (asset)/liability :		
Gratuity (funded)	659.73	627.71
Pension (funded)	140.67	125.13
Pension (non-funded)	278.11	271.71
	1,078.51	1,024.55
Non-current	21.25	19.83
Current	1,057.26	1,004.72

#### Movement in net defined benefit (asset)/liability

Particulars	₹ Crore					
	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 2018	31 March 2017	31 March 2018	31 March 2017	31 March 2018	31 March 2017
Opening balance	2,505.90	1,823.53	1,481.35	1,465.69	1,024.55	357.84
Included in profit or loss:						
Current service cost	97.60	96.29	-	-	97.60	96.29
Past service cost	-	433.24	-	-	-	433.24
Interest cost (income)	187.94	145.88	(111.11)	(117.26)	76.83	28.62
Total amount recognized in profit or loss	285.54	675.41	(111.11)	(117.26)	174.43	558.15

₹ 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 2018	31 March 2017	31 March 2018	31 March 2017	31 March 2018	31 March 2017
Included in other comprehensive income:						
Remeasurement loss (gain):						
Actuarial loss (gain) arising from:						
Financial assumptions	38.70	85.23	-	-	38.70	85.23
Experience adjustment	(102.69)	57.14	-	-	(102.69)	57.14
Return on plan assets excluding interest income	-	-	(30.73)	(10.10)	(30.73)	(10.10)
<b>Total amount recognized in other comprehensive income</b>	<b>(63.99)</b>	<b>142.37</b>	<b>(30.73)</b>	<b>(10.10)</b>	<b>(94.72)</b>	<b>132.27</b>
<b>Other</b>						
Benefits paid	141.03	135.41	115.28	111.70	25.75	23.71
<b>Closing balance</b>	<b>2,586.42</b>	<b>2,505.90</b>	<b>1,507.91</b>	<b>1,481.35</b>	<b>1,078.51</b>	<b>1,024.55</b>

**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 recognized 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 recognized in the Group's financial statements as at balance sheet date:

₹ Crore

Particulars	As at 31 March 2018	As at 31 March 2017
Net defined benefit (asset)/liability - Current	149.88	97.44

**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 2018	31 March 2017	31 March 2018	31 March 2017	31 March 2018	31 March 2017
Opening balance	1,159.40	889.78	1,061.96	890.00	97.44	(0.22)
Included in profit or loss:						
Current service cost	32.19	29.41	-	-	32.19	29.41
Past service cost	-	-	-	-	-	-
Interest cost (income)	86.95	71.18	(79.64)	(71.20)	7.31	(0.02)
<b>Total amount recognized in profit or loss</b>	<b>119.14</b>	<b>100.59</b>	<b>(79.64)</b>	<b>(71.20)</b>	<b>39.50</b>	<b>29.39</b>

₹ 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 2018	31 March 2017	31 March 2018	31 March 2017	31 March 2018	31 March 2017
Included in other comprehensive income:						
Remeasurement loss (gain):						
Actuarial loss (gain) arising from:						
Demographic assumptions	-	-	-	-	-	-
Financial assumptions	62.69	86.06	-	-	62.69	86.06
Experience adjustment	62.48	119.03	-	-	62.48	119.03
Return on plan assets excluding interest income	-	-	(11.51)	(9.18)	(11.51)	(9.18)
<b>Total amount recognized in other comprehensive income</b>	<b>125.17</b>	<b>205.09</b>	<b>(11.51)</b>	<b>(9.18)</b>	<b>113.66</b>	<b>195.91</b>
Other						
Contribution by participants	-	-	3.98	5.81	(3.98)	(5.81)
Contribution by employer	-	-	43.64	85.77	(43.64)	(85.77)
Benefits paid	53.10	36.06	-	-	53.10	36.06
<b>Closing balance</b>	<b>1,350.61</b>	<b>1,159.40</b>	<b>1,200.73</b>	<b>1,061.96</b>	<b>149.88</b>	<b>97.44</b>

**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 recognized on the basis of actuarial valuation.

₹ Crore

Particulars	As at 31 March 2018	As at 31 March 2017
Net defined benefit (asset)/liability :	148.93	138.18
Non-current	132.20	125.11
Current	16.73	13.07

**Movement in net defined benefit (asset)/liability**

₹ Crore

Particulars	Defined benefit obligation	
	As at 31 March 2018	As at 31 March 2017
Opening balance	138.18	126.49
Included in profit or loss:		
Current service cost	7.02	6.36
Past service cost	-	-
Interest cost (income)	10.37	10.11
<b>Total amount recognized in profit or loss</b>	<b>17.39</b>	<b>16.47</b>

₹ Crore

Particulars	Defined benefit obligation	
	As at 31 March 2018	As at 31 March 2017
Included in other comprehensive income:		
Remeasurement loss (gain):		
Actuarial loss (gain) arising from:		
Financial assumptions	0.93	4.25
Experience adjustment	(4.19)	(6.59)
Return on plan assets excluding interest income	-	-
<b>Total amount recognized in other comprehensive income</b>	<b>(3.26)</b>	<b>(2.34)</b>
Other		
Contributions paid by the employer	-	-
Benefits paid	3.38	2.44
<b>Closing balance</b>	<b>148.93</b>	<b>138.18</b>

**E. Plan assets**

Plan assets comprise the following :

₹ Crore

Particulars	As at 31 March 2018			As at 31 March 2017		
	Quoted	Unquoted	Total	Quoted	Unquoted	Total
State government securities	2,695.33	-	2,695.33	2,144.63	-	2,144.63
Central government securities	1,885.84	-	1,885.84	1,884.84	-	1,884.84
Corporate bonds/term deposits	3,458.49	94.67	3,553.16	3,281.34	94.95	3,376.29
Money market instruments/liquid mutual fund	-	14.20	14.20	-	39.33	39.33
Equity and equity linked investments	82.26	27.62	109.88	115.32	-	115.32
Investments with insurance companies	-	2,564.67	2,564.67	-	2,382.65	2,382.65
<b>Total (excluding accrued interest)</b>	<b>8,121.92</b>	<b>2,701.16</b>	<b>10,823.08</b>	<b>7,426.13</b>	<b>2,516.93</b>	<b>9,943.06</b>

As at 31 March 2018, an amount of ₹ 500.00 crore (31 March 2017: ₹ 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 ₹ 913.25 crore (31 March 2017: ₹ 819.90 crore).

**F. Defined benefit obligations****i. Actuarial assumptions**

The following were the principal actuarial assumptions at the reporting date:

Particulars	As at 31 March 2018	As at 31 March 2017
Discount rate	7.60%	7.50%
Expected return on plan assets		
Gratuity	7.60%	7.50%
Pension	7.60%	7.50%
PRMF		
Annual increase in costs	6.50%	6.00%
Salary escalation rate	6.50%	6.00%



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 2018		As at 31 March 2017	
	Increase	Decrease	Increase	Decrease
Discount rate (0.5% movement)	(171.13)	179.88	(167.12)	176.25
Annual increase in costs (0.5% movement)	92.17	(90.32)	86.49	(84.46)
Salary escalation rate (0.5% movement)	89.54	(83.10)	90.96	(84.38)

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 minimize 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 increase 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 2018 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**

Particulars	₹ Crore				
	Less than 1 year	Between 1-2 years	Between 2-5 years	Over 5 years	Total
<b>31 March 2018</b>					
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
<b>Total</b>	<b>1,282.64</b>	<b>1,391.41</b>	<b>2,983.88</b>	<b>6,653.74</b>	<b>12,311.67</b>
<b>31 March 2017</b>					
Gratuity and pension	248.81	304.77	713.17	1,239.15	2,505.90
Post-retirement medical facility (PRMF)	36.23	40.89	151.37	930.91	1,159.40
Provident fund	683.19	2,516.99	2,299.17	2,036.28	7,535.63
Other post-employment benefit plans	13.07	10.48	38.64	75.99	138.18
<b>Total</b>	<b>981.30</b>	<b>2,873.13</b>	<b>3,202.35</b>	<b>4,282.33</b>	<b>11,339.11</b>

Expected contributions to post-employment benefit plans for the year ending 31 March 2019 are ₹ 520.48 crore.

The weighted average duration of the defined benefit plan obligation at the end of the reporting period is **15.21 years** (31 March 2017: 15.08 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 recognized on the basis of actuarial valuation. During the year, provision amounting to ₹ **462.23 crore** was reversed on the basis of actuarial valuation at the year end and credited to statement of profit and loss (31 March 2017: debit of ₹ 260.32 crore). The reversal was on account of surge in the encashment of earned leaves by the employees during the year.

**B. Other employee benefits**

Provision for long service award and family economic rehabilitation scheme amounting to ₹ **7.36 crore** (31 March 2017: ₹ 7.73 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.

**57. Disclosure as per Ind AS 21 'The Effects of Changes in Foreign Exchange Rates'**

The amount of exchange differences (net) debited to the statement of profit and loss is ₹ **145.03 crore** (31 March 2017: (-) ₹ 5.66 crore).

**58. Disclosure as per Ind AS 23 'Borrowing Costs'**

Borrowing costs capitalized during the year is ₹ **4,476.54 crore** (31 March 2017: ₹ 4,781.89 crore).

**59. 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 & 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.
10. Nabinagar Power Generating Company Private 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**

Shri Gurdeep Singh	Chairman & Managing Director	
Shri Saptarshi Roy	Director (Human Resources)	W.e.f. 1 November 2016
Shri A.K.Gupta	Director (Commercial)	W.e.f. 3 February 2017
Shri S.K.Roy	Director (Projects)	W.e.f. 19 January 2018
Shri P.K.Mohapatra	Director (Technical)	W.e.f. 31 January 2018
Shri Prakash Tiwari	Director (Operations)	W.e.f. 31 January 2018
Shri K.Sreekant <sup>1</sup>	Director (Finance)	W.e.f. 29 March 2018
Shri A.K.Jha	Director (Technical)	Upto 31 July 2017
Shri S.C.Pandey	Director (Projects)	Upto 31 August 2017
Shri K.K.Sharma	Director (Operations)	Upto 31 October 2017
Shri K.Biswal <sup>2</sup>	Director (Finance)	
Shri UP Pani	Director (Human Resources)	Upto 31 October 2016

**Independent Directors**

Dr. Gauri Trivedi	Non-executive Director	
Shri Seethapathy Chander	Non-executive Director	W.e.f. 22 June 2016
Shri M.P.Singh	Non-executive Director	W.e.f. 24 October 2017
Shri Pradeep Kumar Deb	Non-executive Director	W.e.f. 24 October 2017
Shri Shashi Shekhar	Non-executive Director	W.e.f. 24 October 2017
Shri Subhash Joshi	Non-executive Director	W.e.f. 24 October 2017
Shri Vinod Kumar	Non-executive Director	W.e.f. 24 October 2017
Shri Rajesh Jain	Non-executive Director	Upto 10 October 2017
Shri Prashant Mehta	Non-executive Director	Upto 29 July 2016

**Government Nominee Directors**

Dr. Pradeep Kumar	Non-executive Director	Upto 31 July 2017
Shri Aniruddha Kumar	Non-executive Director	

**Company Secretary and Chief Financial Officer**

Shri K.P.Gupta	Company Secretary	W.e.f. 22 March 2017
Shri A.K. Rastogi	Company Secretary	Upto 28 February 2017
Shri Sudhir Arya	Chief Financial Officer	W.e.f. 29 December 2017

1. Holding additional charge, in addition to Director (Finance), Power Grid Corporation of India Ltd.
2. Under suspension w.e.f. 14 December 2017 (vide order from Ministry of Power).

**Subsidiary Companies:****1. NTPC Vidyut Vyapar Nigam Ltd.**

Shri A.K Gupta	Chairman	W.e.f. 8 August 2017
Shri Pramod Kumar	Director	W.e.f. 18 November 2017
Shri C.V Anand	Director	W.e.f. 15 March 2018
Ms. A. Satyabhama	Director	
Shri A. K. Garg	Chief Executive Officer	
Mr. Kumar Sanjay	Chief Financial Officer	
Shri Nitin Mehra	Company Secretary	

**2. NTPC Electric Supply Company Ltd.**

Shri Saptarshi Roy	Chairman & Director	W.e.f. 16 November 2016
Shri Sudhir Arya	Director	W.e.f. 7 November 2017
Shri Praveen Saxena	Director	W.e.f. 7 November 2017
Shri Gurdeep Singh	Chairman & Director	Upto 9 November 2017
Shri K.Biswal	Director	Upto 9 November 2017
Shri Animesh Jain	Chief Executive Officer	

**3. Kanti Bijlee Utpadan Nigam Ltd.**

Shri Prakash Tiwari <sup>1</sup>	Chairman	
Shri K.K. Sharma	Chairman	Upto 31 October 2017
Shri A.K. Gupta <sup>2</sup>	Chairman	
Shri P. Amrit	Non-Executive Director	
Shri R. Lakshmanan	Non-Executive Director	
Shri K.S. Garbyal	Non-Executive Director	Upto 31 January 2018
Shri Ajay Dua	Non-Executive Director	W.e.f. 12 March 2018
Shri M.P. Sinha	Non-Executive Director	W.e.f. 9 March 2018
Mrs. Sangeeta Bhatia	Non-Executive Director	
Shri R.K. Sinha	Chief Executive Officer	Upto 6 September 2017
Shri P.K. Sinha	Chief Executive Officer	W.e.f. 11 September 2017
Shri K.K. Mishra	Chief Financial Officer	From 21 February 2017 upto 18 May 2017
Shri V. K. Mittal	Chief Financial Officer	W.e.f. 18 May 2017
Mrs.Ruchi Aggarwal	Company Secretary	

1. Director W.e.f. 25 November 2017, Chairman from 9 March 2018.

2. Director W.e.f. 10 September 2015, Chairman from 24 November 2017 upto 28 February 2018.

**4. Bhartiya Rail Bijlee Company Limited**

Shri A.K. Gupta	Non-executive Director	W.e.f. 18 November 2017
Ms. Sangeeta Bhatia	Non-executive Director	
Shri S.C. Pandey	Non-executive Director	Upto 31 August 2017
Shri Sudhir Garg	Non-executive Director	Upto 9 February 2018
Shri K.S. Garbyal	Non-executive Director	Upto 31 January 2018
Shri K.K. Sharma	Non-executive Director	From 22 September 2017 upto 31 October 2017
Shri M.P. Sinha	Non-executive Director	W.e.f. 23 February 2018
Shri Shalabh Goel	Non-executive Director	W.e.f. 22 February 2018
Shri C Sivakumar	Chief Executive Officer	W.e.f. 18 July 2016
Shri Dipankar Nandy	Chief Finance Officer	Upto 2 November 2017



Shri Manoj Srivastava	Chief Finance Officer	W.e.f. 3 November 2017
Shri Vishal Garg	Company Secretary	W.e.f. 30 October 2017

**5. Patratu Vidyut Utpadan Nigam Ltd.**

Shri Saptarshi Roy	Director & Chairman	W.e.f. 30 August 2017
Shri A.K.Jha	Chairman	Upto 31 July 2017
Shri K.Biswal	Chairman	Upto 20 December 2017
Shri K.K.Sharma	Director	Upto 31 October 2017
Shri S.K.Roy	Director	W.e.f. 29 December 2017
Shri P.K.Mohapatra	Director	W.e.f. 29 December 2017
Dr. N. M. Kulkarni, IAS	Director	W.e.f. 9 May 2017
Shri B. B. Tripathy	Chief Executive Officer	Upto 9 April 2017
Shri S. K. Patnaik	Chief Executive Officer	W.e.f. 10 April 2017 Upto 23 December 2017
Shri A. K. Sinha	Chief Executive Officer	W.e.f. 13 February 2018
Shri A. K. Acharya	Chief Financial Officer	W.e.f. 15 July 2017
Shri Sipan K Garg	Company Secretary	W.e.f. 30 October 2017

**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 20). 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 2018	31 March 2017
i) Sales/purchase of goods and services during the year		
- Contracts for works/services for services received by the Company	1,030.72	1,143.50
- Contracts for works/services for services provided by the Company	51.07	52.68
- Purchase of goods	69.32	42.62
ii) Sales/purchase of assets	6.22	-
iii) Deputation of employees	127.30	72.09
iv) Dividend received	135.57	143.09
v) Equity contributions made	1,153.08	1,201.63
vi) Loans granted	6.00	-
vii) Guarantees received	13.10	28.16

Note:- Refer Note no. 69 for other commitments with Joint Venture Companies.

₹ Crore

Particulars	For the year ended 31 March 2018	For the year ended 31 March 2017
<b>Transactions with post employment benefit plans</b>		
- Contributions made during the year	383.25	827.76
<b>Compensation to Key management personnel</b>		
- Short term employee benefits	11.30	8.07
- Post employment benefits	0.44	0.97
- Other long term benefits	0.86	0.64
- Termination benefits	0.88	0.27
- Sitting fee	0.34	0.19
<b>Total compensation to key management personnel</b>	<b>13.82</b>	<b>10.14</b>

## 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 2018	For the year ended 31 March 2017
1	Bharat Coking Coal Ltd.	Purchase of coal	773.45	755.04
2	Central Coalfields Ltd		3,609.32	2,787.86
3	Eastern Coalfields Ltd		7,655.23	7,975.60
4	Mahanadi Coalfields Ltd		4,535.47	3,780.12
5	Northern Coalfields Ltd.		9,509.18	8,134.83
6	South Eastern Coalfields Ltd		4,803.59	5,638.30
7	Western Coalfields Ltd.		765.70	273.39
8	Singareni Collieries Company Ltd.		5,450.87	4,404.41
9	Bharat Heavy Electricals Ltd.	Purchase of equipments & erection services	2,967.79	4,840.12
		Purchase of spares	635.22	588.82
		Receipt of maintenance services	1,199.77	1,075.29
10	GAIL (I) Ltd.	Purchase of natural gas	2,097.96	1,173.64
11	Indian Oil Corporation Ltd.	Purchase of oil products	484.52	472.14
12	Bharat Petroleum Corporation Ltd.	Purchase of natural gas and oil products	120.27	120.39
13	Steel Authority of India Ltd.	Purchase of steel and iron products	224.61	410.05
14	Rural Electrification Corporation Ltd.	Consultancy services provided by the company	4.03	510.96
15	Other entities	Purchase of equipments & erection services	286.00	248.36
		Purchase of spares	18.85	15.26
		Receipt of maintenance services	1,405.52	753.65
		Consultancy and Other Services provided	56.93	29.69

₹ Crore

Transactions with others listed at (a)(v) above	For the year ended 31 March 2018	For the year ended 31 March 2017
- Contracts for works/services for services received by the Company	16.25	2.94



c) Outstanding balances with related parties are as follows:

₹ Crore

Particulars	As at 31 March 2018	As at 31 March 2017
<b>Amount recoverable towards loans from</b>		
- Joint venture companies	6.00	-
- Key management personnel	0.27	0.12
- Others	0.60	0.60
<b>Amount recoverable other than loans from</b>		
- Joint venture companies	98.84	54.58
- Post employment benefit plans	13.78	22.40
- Others	0.07	-
<b>Amount payable to</b>		
- Joint venture companies	469.85	308.30
- Post employment benefit plans	221.72	154.94
- Others	3.62	-

d) Individually significant transactions

₹ Crore

Particulars	Nature of relationship	Amount	
		For the year ended 31 March 2018	For the year ended 31 March 2017
<b>Contracts for works/services for services received by the Company</b>			
Utility Powertech Ltd.	Joint venture company	869.50	711.17
NTPC BHEL Power Projects Private Ltd.	Joint venture company	130.32	387.34
NTPC-GE Power Services Private Ltd.	Joint venture company	17.86	42.21
<b>Contracts for works/services for services provided by the Company</b>			
Nabinagar Power Generating Company Private Ltd.	Joint venture company	27.15	27.99
<b>Dividend received</b>			
NTPC-SAIL Power Company Ltd.	Joint venture company	50.00	70.00
Aravali Power Company Private Ltd.	Joint venture company	69.93	66.60
Energy Efficiency Services Ltd.	Joint venture company	12.92	3.39
Utility Powertech Ltd.	Joint venture company	2.50	2.50
NTPC-GE Power Services Private Ltd.	Joint venture company	0.22	0.60
<b>Equity contributions made</b>			
Nabinagar Power Generating Company Private Ltd.	Joint venture company	504.57	590.00
Meja Urja Nigam Private Ltd.	Joint venture company	42.89	325.00
Energy Efficiency Services Ltd.	Joint venture company	99.00	99.00
Aravali Power Company Private Ltd.	Joint venture company	34.50	66.51
Bangladesh-India Friendship Power Company Pvt.Ltd.	Joint venture company	143.62	64.52
NTPC-Tamil Nadu Energy Company Ltd.	Joint venture company	-	44.39
National High Power Test Laboratory Private Ltd.	Joint venture company	-	6.50
Hindustan Urvarak & Rasayan Ltd.	Joint venture company	328.23	5.03
BF-NTPC Energy Systems Ltd.	Joint venture company	0.28	0.69
<b>Loans granted</b>			
National High Power Test Laboratory Private Ltd.	Joint venture company	6.00	-
<b>Guarantees received</b>			
Utility Powertech Ltd.	Joint venture company	12.60	12.05
NTPC-GE Power Services Private Ltd.	Joint venture company	0.50	16.11

**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 equipments 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 repayable on 30 September 2018.	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 Company has not recorded any impairment of receivables relating to amounts owed by related parties. This assessment is undertaken 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 69.

**60. Disclosure as per Ind AS 33 'Earnings per Share'**

**Basic and diluted earnings per share (in ₹)**

Particulars	For the year ended 31 March 2018	For the year ended 31 March 2017
From operations including regulatory deferral account balances (a) [A/D]	12.79	13.00
From regulatory deferral account balances (b) [B/D]	0.68	0.32
From operations excluding regulatory deferral account balances (a)-(b) [C/D]	12.11	12.68
Nominal value per share	10.00	10.00

**(a) Profit attributable to equity shareholders (used as numerator) (₹ crore)**

Particulars	For the year ended 31 March 2018	For the year ended 31 March 2017
From operations including regulatory deferral account balances (a) [A]	10,543.95	10,719.64
From regulatory deferral account balances (b) [B]	560.37	262.71
From operations excluding regulatory deferral account balances (a)-(b) [C]	9,983.58	10,456.93

**(b) Weighted average number of equity shares (used as denominator) (in Nos.)**

Particulars	For the year ended 31 March 2018	For the year ended 31 March 2017
Opening balance of issued equity shares	8,24,54,64,400	8,24,54,64,400
Effect of shares issued during the year, if any	-	-
<b>Weighted average number of equity shares for Basic and Diluted EPS [D]</b>	<b>8,24,54,64,400</b>	<b>8,24,54,64,400</b>



#### 61. 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 Group has accounted impairment losses as under:

Due to decrease in value in use in respect of plant and equipment of a Solar PV Station of the Group which is under 'Generation of energy segment', an impairment loss of ₹ 4.48 crore was recognized in 'Depreciation, amortization and impairment expense' in the statement of profit and loss for the year ended 31 March 2016. Out of this, an amount of ₹ 0.73 crore towards the impairment loss was reversed during the year ended 31 March 2017 due to increase in the value in use as compared to the carrying value of the Solar PV Station. The balance amount of ₹ 3.75 crore has been reversed during the year due to increase in the value in use as compared to its carrying value.

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 ₹ **1,90,627.27 crore** (31 March 2017: ₹ 1,42,042.78 crore). The discount rate used for the computation of value in use for the generating plant is **8.00%** (31 March 2017: 9.13%) and for solar plant is **7.13%** (31 March 2017: 7.95%).

#### 62. 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 2018	31 March 2017	31 March 2018	31 March 2017	31 March 2018	31 March 2017	31 March 2018	31 March 2017
Carrying amount at the beginning of the year	3,833.24	3,868.52	1,170.79	1,234.41	728.65	580.84	5,732.68	5,683.77
Additions during the year	181.52	436.69	318.28	98.88	761.71	157.20	1,261.51	692.77
Amounts used during the year	(415.66)	(441.43)	-	-	(106.37)	(6.69)	(522.03)	(448.12)
Reversal / adjustments during the year	2.21	(30.54)	(1,158.97)	(162.50)	(0.27)	(2.70)	(1,157.03)	(195.74)
Carrying amount at the end 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

##### 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

The Parent company aggrieved over many of the issues considered by the CERC in the tariff orders for its stations for the period 2004-09 had filed appeals with the Appellate Tribunal for Electricity (APTEL). The APTEL disposed off the appeals favourably directing the CERC to revise the tariff orders as per directions and methodology given. Some of the issues decided in favour of the parent company by the APTEL were challenged by the CERC in the Hon'ble Supreme Court of India. Subsequently, the CERC had been issuing revised tariff orders for the period 2004-09, considering the judgment of APTEL subject to disposal of appeals pending before the Hon'ble Supreme Court of India. On 10 April 2018, the Hon'ble Supreme Court of India has dismissed the petition and as such the issues decided by APTEL in favour of the parent company stands good. Consequently, the provision created till 31 March 2017 amounting to ₹ 1,156.32 crore has been reversed during the year through provision written back in Note 36.



## iii) Others

Provision for others comprise ₹ 73.15 crore (31 March 2017: ₹ 68.24 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 64 (b)], ₹ 1,305.68 crore (31 March 2017: ₹ 658.57 crore) towards provision for cases under litigation and ₹ 4.89 crore (31 March 2017: ₹ 1.84 crore) towards provision for shortage in property, plant and equipment on physical verification pending investigation.

iv) In respect of provision for cases under litigation, outflow of economic 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 recognizing 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 72.

## 63. Disclosure as per Ind AS 38 'Intangible Assets'

Research expenditure charged to revenue during the year is ₹ 77.67 crore (31 March 2017: ₹ 80.40 crore).

## 64. 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 Commission (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 for the year is as under:

Particulars	₹ Crore	
	As at 31 March 2018 (Unaudited)	As at 31 March 2017 (Unaudited)
Assets	0.01	0.02
Liabilities	2.27	1.35
Capital commitments [Unfinished Minimum Work Programme (MWP)]	-	0.29

Particulars	₹ Crore	
	As at 31 March 2018 (Unaudited)	As at 31 March 2017 (Unaudited)
Expenses	2.28	14.81

For the year ended 31 March 2018 and 31 March 2017, 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. 11.01.2012 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 ₹ 73.15 crore from ₹ 68.24 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 ₹ 0.08 crore (31 March 2017: ₹ 0.07 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 for the year is as under:

Particulars	₹ Crore	
	As at 31 March 2018 (Unaudited)	As at 31 March 2017 (Unaudited)
Assets	9.19	9.19
Liabilities (including unfinished MWP)	75.19	70.19

Provision of ₹ 8.26 crore as at 31 March 2018 (31 March 2017: ₹ 8.26 crore) has been made towards the assets under exploration and estimated obsolescence in the inventory.

Particulars	₹ Crore	
	As at 31 March 2018 (Unaudited)	As at 31 March 2017 (Unaudited)
Expenses	0.08	0.07

For the year ended 31 March 2018 and 31 March 2017, 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 GOI.

Based on the audited statement of the account for the above block, Group share in assets and liabilities and expenses for the year is given below:

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
Assets	6.23	6.17
Liabilities	0.85	9.70

Particulars	₹ Crore	
	For the year ended 31 March 2018	For the year ended 31 March 2017
Expenses	5.89	99.53
Operating cash flows from exploration activities	9.21	28.97

Expenses charged off to the statement of profit and loss for the year includes provision for dimunition in the value of inventory of ₹ 5.59 Crore (31 March 2017: ₹ Nil).

For the year ended 31 March 2018 and 31 March 2017, 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.
- ii) Exploration and evaluation activities are in progress at Banai, Bhalumuda and Mandakini - B coal blocks allotted by the GOI. Geological Report (GR) of Banai has been approved by Ministry of Coal (MoC) and Mining Plan is under preparation by the consultant M/s Central Mine Planning and Design Institute (CMPDI). GR for Bhalumuda coal block has already been submitted to MoC and is under approval. Request sent to Nominated Authority, MoC for integration of both Banai & Bhalumuda blocks. For preparation of GR of Mandakini - B coal block, detailed exploration has been carried out and the work of preparation of Mining Plan & feasibility report has been awarded to M/s CMPDI.

Assets and liabilities of coal exploration and evaluation activities are given below:

₹ Crore

Particulars	As at 31 March 2018	As at 31 March 2017
Assets	222.94	220.09
Liabilities	3.50	31.72

For the year ended 31 March 2018 and 31 March 2017, there are no incomes, expenses and operating and investing cash flow from coal exploration activities.

#### 65. 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.

**Other operations:** 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	
	31 March 2018	31 March 2017	31 March 2018	31 March 2017	31 March 2018	31 March 2017	31 March 2018	31 March 2017
Segment revenue								
Revenue from external customers*	79,572.66	75,895.08	6,587.04	5,349.21	-	-	86,159.70	81,244.29
Inter-segment revenue	1,892.49	2,073.67	50.61	38.33	(1,943.10)	(2,112.00)	-	-
	81,465.15	77,968.75	6,637.65	5,387.54	(1,943.10)	(2,112.00)	86,159.70	81,244.29
Other income	2,782.14	1,579.17	24.45	39.60	-	-	2,806.59	1,618.77
	84,247.29	79,547.92	6,662.10	5,427.14	(1,943.10)	(2,112.00)	88,966.29	82,863.06
Unallocated corporate interest and other income							675.30	146.25
<b>Total</b>	<b>84,247.29</b>	<b>79,547.92</b>	<b>6,662.10</b>	<b>5,427.14</b>	<b>(1,943.10)</b>	<b>(2,112.00)</b>	<b>89,641.59</b>	<b>83,009.31</b>
Segment result (including net movements in regulatory deferral account balances)**	18,121.63	17,805.74	252.79	60.06	-	-	18,374.42	17,865.80
Unallocated corporate interest and other income							675.30	146.25
Unallocated corporate expenses, interest and finance charges							6,953.09	4,876.21
Profit before share of net profits of investments accounted for using equity method and tax							12,796.63	13,135.84
Add: Share of net profits of joint ventures accounted for using equity method							445.05	624.71
<b>Profit before tax</b>							<b>13,241.68</b>	<b>13,760.55</b>
Income tax expense (including tax on net movements in regulatory deferral account balances)							2,740.18	3,046.61
<b>Profit after tax</b>							<b>10,501.50</b>	<b>10,713.94</b>

Particulars	Generation of energy		Others		Total	
	For the year ended		For the year ended		For the year ended	
	31 March 2018	31 March 2017	31 March 2018	31 March 2017	31 March 2018	31 March 2017
Depreciation, amortization and impairment***	7,398.60	5,957.37	0.34	0.36	7,398.94	5,957.73
Non-cash expenses other than depreciation	434.78	136.40	32.13	3.04	466.91	139.44
Capital expenditure	24,832.46	28,564.40	1,642.59	1,220.93	26,475.05	29,785.33

Particulars	Generation of energy		Others		Inter-segment eliminations		Total	
	As at		As at		As at		As at	
	31 March 2018	31 March 2017	31 March 2018	31 March 2017	31 March 2018	31 March 2017	31 March 2018	31 March 2017
Segment assets	1,59,113.41	1,32,682.79	6,715.07	5,001.20	(259.13)	(429.27)	1,65,569.35	1,37,254.72
Unallocated corporate and other assets							1,08,798.71	1,11,242.64
Total assets	1,59,113.41	1,32,682.79	6,715.07	5,001.20	(259.13)	(429.27)	2,74,368.06	2,48,497.36
Segment liabilities	17,223.49	16,460.69	3,955.50	3,327.83	(259.13)	(429.27)	20,919.86	19,359.25
Unallocated corporate and other liabilities							1,49,884.73	1,31,300.09
Total liabilities	17,223.49	16,460.69	3,955.50	3,327.83	(259.13)	(429.27)	1,70,804.59	1,50,659.34

\* Generation segment includes ₹ 6.44 crore (31 March 2017: ₹ 995.59 crore) for sales related to earlier years.

\*\* Generation segment result would have been ₹ 18,115.19 crore (31 March 2017: ₹ 16,810.15 crore) without including the sales related to earlier years.

\*\*\* Includes (-) ₹ 3.75 crore (31 March 2017: (-) ₹ 0.73 crore) towards reversal of impairment loss recognized in the profit or loss, in generation of energy segment.

The Group has not disclosed geographical segments as operations of the Group are mainly carried out within the country.

#### 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 2018		31 March 2017	
	Amount (₹ Crore)	%age	Amount (₹ Crore)	%age
1. Maharashtra State Electricity Distribution Company Ltd.	8,993.01	10.21	8,294.27	10.11
2. Uttar Pradesh Power Corporation Ltd.	7,856.64	8.92	8,943.43	10.90

## 66. 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 borrowings, 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, derivative financial instruments, financial assets measured at amortized 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 - Recognized 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, floating, rupee, foreign currency, etc.)

### Risk Management framework

The Group's activities make it susceptible to various risks. The Group has taken adequate measures to address such concerns by developing adequate systems and practices.

In order to institutionalize the risk management in the Group, an elaborate Enterprise Risk Management (ERM) framework has been developed. The Board of Directors has overall responsibility for the establishment and oversight of the parent company's risk management framework. As a part of the implementation of ERM framework, a 'Risk Management Committee (RMC)' with functional directors as its members has been entrusted with the responsibility to identify and review the risks, formulate action plans and strategies to mitigate risks on short-term as well as long-term basis.

The RMC meets every quarter to deliberate on strategies. Risks are regularly monitored through reporting of key performance indicators. Outcomes of RMC are submitted for information of the Board of Directors.

### 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, loans, cash and cash equivalents and deposits with banks and financial institutions.

### Trade receivables

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 TPAs were signed among the Govt. of India, RBI and the individual State Governments subsequent to the issuance of the One Time Settlement Scheme of SEBs dues during 2001-02 by the GOI, which 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 Company 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.

#### 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 Company 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 Company. 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 ₹ 388.11 crore (31 March 2017: ₹ 363.83 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 ₹ 3,999.49 crore (31 March 2017: ₹ 2,937.63 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:

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
<b>Financial assets for which loss allowance is measured using 12 months Expected Credit Losses (ECL)</b>		
Non-current investments	106.28	113.48
Non-current loans	454.67	401.34
Other non-current financial assets*	1,225.01	1,169.93
Cash and cash equivalents	388.11	363.83
Bank balances other than cash and cash equivalents	3,999.49	2,937.63
Current loans	238.43	211.92
Other current financial assets	8,424.03	6,128.92
<b>Total</b>	<b>14,836.02</b>	<b>11,327.05</b>
<b>Financial assets for which loss allowance is measured using Life time Expected Credit Losses (ECL)</b>		
Trade receivables	8,812.19	8,999.48
<b>Total</b>	<b>23,648.21</b>	<b>20,326.53</b>

\* Excluding share application money pending allotment (Refer Note 10)

#### (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 recognized.

##### (b) Financial assets for which loss allowance is measured using life time expected credit losses

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 recognized during the reporting periods in respect of trade receivables.



(iii) Ageing analysis of trade receivables

The ageing analysis of the trade receivables is as below:

Ageing							₹ Crore
	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 2018	4,635.91	1,254.18	469.49	454.93	406.48	1,592.87	8,813.86
Gross carrying amount as at 31 March 2017	6,591.27	738.82	477.87	432.79	311.97	446.98	8,999.70

(iv) Reconciliation of impairment loss provisions

The movement in the allowance for impairment in respect of financial assets during the year was as follows:

Particulars				₹ Crore
	Trade receivables	Advances	Claims recoverable	Total
Balance as at 1 April 2016	0.22	0.04	0.54	0.80
Impairment loss recognized	-	-	-	-
Amounts written off	-	-	0.42	0.42
Balance as at 31 March 2017	0.22	0.04	0.12	0.38
Impairment loss recognized	1.44	0.03	-	1.47
Amounts written off	-	-	-	-
Balance as at 31 March 2018	1.66	0.07	0.12	1.85

Based on historic default rates, the Group believes that no impairment allowance is necessary in respect of any other assets as the amounts are insignificant.

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 fuel cost, 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 2018	31 March 2017
<b>Fixed-rate borrowings</b>		
Term loans	-	813.70
Foreign currency loans	70.01	297.74
<b>Floating-rate borrowings</b>		
Bank overdraft	2,600.00	2,000.00
Term loans	25,785.56	10,746.24
Foreign currency loans	46.68	88.84
<b>Total</b>	<b>28,502.25</b>	<b>13,946.52</b>

## (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 2018

₹ Crore

Contractual maturities of financial liabilities	Contractual cash flows					Total
	3 months or less	3-12 months	1-2 years	2-5 years	More than 5 years	
<b>Non-derivative financial liabilities</b>						
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
<b>Derivative financial liabilities</b>						
Full currency swaps	-	17.54	16.21	-	-	33.75

31 March 2017

₹ 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
<b>Non-derivative financial liabilities</b>						
Secured bonds	496.03	958.60	2,209.00	4,518.50	26,334.83	34,516.96
Rupee term loans from banks	337.46	1,919.57	2,009.89	7,135.72	18,695.80	30,098.44
Rupee term loans from others	541.50	1,025.87	1,325.86	4,174.11	8,073.25	15,140.59
Finance lease obligations	5.02	20.57	25.59	80.07	430.21	561.46
Foreign currency notes	49.93	163.92	-	5,286.50	13,384.50	18,884.85
Unsecured foreign currency loans from banks and financial institutions	656.17	1,581.40	1,154.21	5,279.17	2,586.08	11,257.03
Unsecured foreign currency loans (guaranteed by GOI)	-	173.78	171.32	517.75	1,236.32	2,099.17
Commercial paper and cash credit	3,000.56	-	-	-	-	3,000.56
Trade and other payables	16,333.13	2,340.22	1,961.03	664.44	4.06	21,302.88
<b>Derivative financial liabilities</b>						
Full currency swaps	-	16.62	15.36	14.10	-	46.08

#### 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 optimizing 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 2018 and 31 March 2017 are as below:

31 March 2018

₹ Crore

Particulars	USD	EURO	JPY	Others	Total
<b>Financial assets</b>					
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
<b>Total</b>	<b>1.24</b>	<b>-</b>	<b>-</b>	<b>8.25</b>	<b>9.49</b>
<b>Financial liabilities</b>					
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
<b>Total</b>	<b>25,276.52</b>	<b>7,215.79</b>	<b>5,002.27</b>	<b>4,236.23</b>	<b>41,730.81</b>

\* ₹ 2000.00 crore - ₹ denominated USD settled Green Masala Bonds and ₹ 2,000.00 crore - ₹ denominated USD settled Masala bonds.

31 March 2017

₹ Crore

Particulars	USD	EURO	JPY	Others	Total
<b>Financial assets</b>					
Trade and other receivables	0.18	-	-	0.32	0.50
Cash and cash equivalents	1.45	-	-	0.44	1.89
Other financial assets	4.49	1.81	0.10	0.62	7.02
<b>Total</b>	<b>6.12</b>	<b>1.81</b>	<b>0.10</b>	<b>1.38</b>	<b>9.41</b>
<b>Financial liabilities</b>					
Foreign currency bonds	13,249.05	3,541.16	-	2,094.64*	18,884.85
Unsecured foreign currency loans from banks and financial institutions	9,096.54	1,808.42	2,497.32	-	13,402.28
Trade payables and other financial liabilities	2,164.49	934.83	69.49	10.02	3,178.83
<b>Total</b>	<b>24,510.08</b>	<b>6,284.41</b>	<b>2,566.81</b>	<b>2,104.66</b>	<b>35,465.96</b>

\* ₹ 2000.00 crore - ₹ denominated USD settled Green Masala Bonds.

Out of the above, an amount of ₹ 33.75 crore (31 March 2017: ₹ 46.08 crore) is hedged by derivative instruments. In respect of the balance exposure, gain/(loss) on account of exchange rate variations on all long-term 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 Indian rupee 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 2018	31 March 2017
<b>Financial Assets:</b>		
Loan to related parties	6.87	0.72
Loans to others	25.96	55.34
Bank deposits	4,069.52	2,918.73
<b>Total</b>	<b>4,102.35</b>	<b>2,974.79</b>
<b>Financial Liabilities:</b>		
<b>Fixed-rate instruments</b>		
Bonds	33,846.07	34,513.63
Foreign currency loans/notes*	29,795.23	24,685.77
Rupee term loans	186.31	1,027.78
Commercial paper and cash credit	6,500.32	3,000.56
Finance lease obligations	184.34	145.02
	<b>70,512.27</b>	<b>63,372.76</b>



₹ Crore

Particulars	31 March 2018	31 March 2017
<b>Variable-rate instruments</b>		
Foreign currency loans/notes	8,269.84	7,488.76
Rupee term loans	52,414.99	39,388.74
Cash credit	180.06	118.98
	<b>60,864.89</b>	<b>46,996.48</b>
<b>Total</b>	<b>1,31,377.16</b>	<b>1,10,369.24</b>

\* Includes ₹ 2000.00 crore - ₹ denominated USD settled Green Masala Bonds and ₹ 2,000 crore ₹ denominated USD settled Masala bonds (31 March 2017: includes ₹ 2000.00 crore - ₹ denominated USD settled Green Masala Bonds).

#### Fair value sensitivity analysis for fixed-rate instruments

The Group's fixed rate instruments are carried at amortized 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
<b>31 March 2018</b>		
Foreign currency loans/notes	(33.92)	33.92
Rupee term loans	(225.83)	225.83
	<b>(259.75)</b>	<b>259.75</b>
<b>31 March 2017</b>		
Foreign currency loans/notes	(36.89)	36.89
Rupee term loans	(191.12)	191.12
	<b>(228.01)</b>	<b>228.01</b>

Of the above mentioned increase in the interest expense, an amount of ₹ 105.18 crore (31 March 2017: ₹ 132.46 crore) is expected to be capitalized and recovered from beneficiaries .

## 67. Fair Value Measurements

## (a) Financial instruments by category

₹ Crore

Particulars	31 March 2018			31 March 2017		
	FVTPL	FVTOCI	Amortized Cost	FVTPL	FVTOCI	Amortized Cost
<b>Financial assets</b>						
Investments						
- Equity instruments	1.40	104.88	-	1.40	112.08	-
Trade Receivables	-	-	8,812.19	-	-	8,999.48
Loans	-	-	693.10	-	-	613.26
Cash and cash equivalents	-	-	388.11	-	-	363.83
Other bank balances	-	-	3,999.49	-	-	2,937.63
Finance lease receivables	-	-	542.32	-	-	555.06
Derivative financial assets	3.73	-	-	-	-	-
Other financial assets*	-	-	9,102.99	-	-	6,743.79
	5.13	104.88	23,538.20	1.40	112.08	20,213.05
<b>Financial liabilities</b>						
Borrowings	-	-	1,24,512.44	-	-	1,11,734.12
Commercial paper and cash credit	-	-	6,680.38	-	-	3,119.54
Finance lease obligations	-	-	184.34	-	-	145.02
Trade payables	-	-	6,730.86	-	-	5,585.87
Payable for capital expenditure	-	-	14,698.42	-	-	12,485.93
Derivative financial liabilities	-	-	-	1.60	-	-
Other financial liabilities	-	-	2,421.20	-	-	2,456.96
	-	-	1,55,227.64	1.60	-	1,35,527.44

\* Excluding share application money pending allotment (Refer Note 10)

## (b) Fair value hierarchy

This section explains the judgements and estimates made in determining the fair values of the financial instruments that are (a) recognized and measured at fair value and (b) measured at amortized 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- requiring fair value measurement as at 31 March 2018	Level 1	Level 2	Level 3	Total
<b>Financial assets:</b>				
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



₹ Crore

Financial assets and liabilities measured at fair value- requiring fair value measurement as at 31 March 2017	Level 1	Level 2	Level 3	Total
<b>Financial assets:</b>				
Investments in quoted equity instruments - PTC India Ltd.	112.08	-	-	112.08
Investments in unquoted equity instruments	-	-	1.40	1.40
	112.08	-	1.40	113.48
<b>Financial liabilities:</b>				
<b>Derivative financial liabilities:</b>				
- Currency and interest rate swaps	-	-	0.12	0.12
- Principal only swaps	-	-	1.48	1.48
	-	-	1.60	1.60

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 categorized 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 maximize 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 2018 and 31 March 2017.

**(c) Valuation technique used to determine fair value:**

Specific valuation techniques used to fair value of financial instruments include:

- For financial instruments other than at ii), iii) and iv) - the use of quoted market prices
- For investments in mutual funds - Closing NAV is used.
- 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.
- 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 amortized cost

₹ Crore

Particulars	Level	As at 31 March 2018		As at 31 March 2017	
		Carrying amount	Fair value	Carrying amount	Fair value
<b>Financial assets</b>					
Loans	3	693.10	585.42	613.26	516.49
Finance lease receivables	3	542.32	542.32	555.06	555.06
Claims recoverable	3	704.22	704.22	638.97	638.97
Trade receivables	3	-	-	35.59	35.59
		<b>1,939.64</b>	<b>1,831.96</b>	1,842.88	1,746.11
<b>Financial liabilities</b>					
Bonds/Debentures	1	4,010.35	3,832.25	4,727.09	4,735.64
	2	23,993.92	24,816.19	22,655.40	24,510.07
	3	5,841.80	6,119.07	7,131.14	7,797.27
Foreign currency notes	1	3,271.97	3,260.60	-	-
	2	12,537.69	13,068.76	13,223.72	14,152.08
	3	8,256.56	8,558.48	5,595.43	5,848.55
Foreign currency loans	3	13,998.85	14,177.82	13,402.28	13,646.82
Rupee term loans	2	8,263.90	8,551.51	6,735.83	7,310.41
	3	44,263.77	44,258.67	38,263.23	38,280.44
Trade payables & payable for capital expenditure	2	22.57	13.17	108.57	106.62
	3	1,994.02	1,681.66	2,121.50	1,920.59
Other financial liabilities	3	193.98	193.98	2,521.67	2,521.67
		<b>1,26,649.38</b>	<b>1,28,532.16</b>	1,16,485.86	1,20,830.16

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 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.

## 68. 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 long term and short term 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:

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
Borrowings	1,31,377.16	1,14,998.68
Less: Cash and cash equivalent	388.11	363.83
Net Debt	1,30,989.05	1,14,634.85
Total Equity	1,04,511.24	98,641.28
Net Debt to Equity ratio	1.25	1.16

#### 69. Disclosure as per Ind AS 112 'Disclosure of Interest in Other Entities'

##### (a) Subsidiary companies

The group's subsidiaries at 31 March 2018 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 %) as at		Ownership interest held by non-controlling interests (in %) as at		Principal activities
		31 March 2018	31 March 2017	31 March 2018	31 March 2017	
NTPC Vidyut Vyapar Nigam Ltd. (NVVN)	India	100.00	100.00	-	-	Trading of energy
NTPC Electric Supply Company Ltd. (NESCL)	India	100.00	100.00	-	-	Consultancy & Distribution of energy
Kanti Bijlee Utpadan Nigam Ltd. (KBUNL)	India	72.64	65.00	27.36	35.00	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

- (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 the company together with all assets and liabilities relating to such operations to NTPC Limited, the holding company, with effect from 1 April, 2015. After obtaining the aforesaid approval, an agreement was entered into with the holding company to implement such transfer. In pursuance of the above, it does not have any operations w.e.f. 1 April 2015.
- (2) The Government of Jharkhand (GoJ), vide its notification No. 888 dated 1 April 2016, notified 'The Jharkhand State Electricity Reforms (Transfer of Patratu Thermal Power Station) Scheme 2015' for the transfer of the specified assets to the PVUNL, the subsidiary company. During the year 2016-17, a meeting held in December 2016 between GoJ and



management, where it was agreed that the existing running units shall be stopped and dismantled and the value realized from sale of these units shall be transferred to GoJ in lieu of Specified Assets Transfer Consideration. On the basis of decision, PVUNL had shut down the plant with effects from 24 January 2017. In view of the above decision the PVUNL had accounted the current assets of the station in the accounts based on valuation report of MECON in the year ended 31 March 2017 as per then JV Agreement. Further, Fixed assets of the existing units were considered as assets retired from active use and classified as held for sale and carried at lower of its carrying amount and fair value less cost of sale during the year 2016-17 based on the internal technical assessment.

During the year, Supplementary Joint Venture agreement (SJVA) has been executed on 1 March 2018, whereby it has been decided that existing Plant & Machinery, Plant Civil & Structural Building, including Current Assets and value of the scrap lying in plant premises shall be trued up on the basis of actual realization from dismantling and sale of the existing units, current assets and scrap. The proceeds realized from dismantling of the existing units, current assets & Scrap less administrative expenses towards the sale, land lease and any other incidental expenses as specified in SJVA shall be the specified assets transfer consideration payable to GoJ. Consequent to this the value of the coal, oil, stores and spares which were consumed in the previous year, has been accounted as payable to GOJ. Balance items of the current assets which includes Store & Spares, HFO and Scrap etc. are carried in the accounts based on the value determined by MECON as per the notified Scheme. Adjustments have been made by derecognition of the current assets (net of consumption) by transferring the same to 'Assets held for Disposal'. Further deemed loan and interest payable recognized till the previous year, have been reworked and accounted for based on SJVA.

(b) Non-controlling interests (NCI)

Set out below is Summarized financial information for each subsidiary that has non-controlling interests. The amounts disclosed for each subsidiary are before inter-company eliminations.

Summarized balance sheet

₹ Crore

Particulars	Kanti Bijlee Utpadan Nigam Ltd.		Bhartiya Rail Bijlee Company Ltd.		Patratu Vidyut Utpadan Nigam Ltd.	
	As at 31 March 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017
Current assets	416.80	222.25	584.85	201.85	334.49	343.12
Current liabilities	928.36	670.41	838.82	726.49	368.89	388.50
Net current assets	(511.56)	(448.16)	(253.97)	(524.64)	(34.40)	(45.38)
Non-current assets	4,375.31	4,438.11	7,476.33	6,920.92	1,076.49	132.56
Non-current liabilities	2,435.49	2,420.48	4,991.94	4,512.70	874.40	40.53
Net non-current assets	1,939.82	2,017.63	2,484.39	2,408.22	202.09	92.03
Regulatory deferral account debit balances	-	-	2.78	-	-	-
Regulatory deferral account credit balances	-	-	-	6.59	-	-
Deferred Revenue	245.58	285.70	-	-	-	-
Net assets	1,182.68	1,283.77	2,233.20	1,876.99	167.69	46.65
Accumulated NCI	323.56	367.58	580.63	423.56	43.58	12.12

**Summarized statement of profit and loss**

₹ Crore

Particulars	Kanti Bijlee Utpadan Nigam Ltd.		Bhartiya Rail Bijlee Company Ltd.		Patratu Vidyut Utpadan Nigam Ltd.	
	As at 31 March 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017
Total income	869.04	416.30	699.84	87.27	(0.53)	182.41
Profit/(loss) for the year	(181.09)	(21.95)	27.21	7.66	0.03	(0.07)
Other comprehensive income/(expense)	-	-	-	-	-	-
<b>Total comprehensive income/(expense)</b>	<b>(181.09)</b>	<b>(21.95)</b>	<b>27.21</b>	<b>7.66</b>	<b>0.03</b>	<b>(0.07)</b>
Profit/(loss) allocated to NCI	(49.55)	(7.68)	7.07	1.99	0.01	(0.02)
Dividends paid to NCI	-	-	-	-	-	-

**Summarized cash flows**

₹ Crore

Particulars	Kanti Bijlee Utpadan Nigam Ltd.		Bhartiya Rail Bijlee Company Ltd.		Patratu Vidyut Utpadan Nigam Ltd.	
	As at 31 March 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017
Cash flows from operating activities	71.97	72.80	202.06	37.91	15.94	48.69
Cash flows used in investing activities	(155.22)	(441.44)	(692.28)	(955.55)	(944.99)	(127.10)
Cash flows from financing activities	92.49	364.56	603.76	800.97	929.99	79.45
<b>Net increase/(decrease) in cash and cash equivalents</b>	<b>9.24</b>	<b>(4.08)</b>	<b>113.54</b>	<b>(116.67)</b>	<b>0.94</b>	<b>1.04</b>

(c) Details of significant restrictions

In respect of investments in subsidiary companies, the Company 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 2018	As at 31 March 2017
Bhartiya Rail Bijlee Company Ltd.	5 years from the date of commercial operation.	1,599.53	1,420.54
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.	1,042.89	962.89
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.	124.12	34.58
<b>Total</b>		<b>2,766.54</b>	<b>2,418.01</b>

**(d) Change in parent's ownership interest in Subsidiary**

During the year, 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	(25.17)	1,122.24	(71.91)
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 21)	-	(5.49)	-	5.49	-	-
<b>As at 31 March 2018</b>	<b>1,042.89</b>	<b>(183.77)</b>	<b>392.78</b>	<b>(69.23)</b>	<b>1,435.67</b>	<b>(253.00)</b>

There were no changes in parent's ownership interest in the subsidiary companies during the year ended 31 March 2017.

**(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 64.

**(f) Interests in joint venture companies**

List of joint venture companies as at 31 March 2018 in which the group has interest, is as below. These entities have share capital consisting solely of equity shares, which are held directly by the group. The country of incorporation or registration is also their principal place of business, and the proportion of ownership interest is the same as the proportion of voting rights held.

₹ Crore

Name of joint venture company	Place of business/ country of incorporation	Ownership interest held by the group (in %) as at		Accounting method	Carrying amount as at	
		31 March 2018	31 March 2017		31 March 2018	31 March 2017
Utility Powertech Ltd.	India	50.00	50.00	Equity method	49.01	40.83
NTPC-GE Power Services Private Ltd.\$	India	50.00	50.00	Equity method	4.49	11.75
NTPC-SAIL Power Company Ltd.	India	50.00	50.00	Equity method	1,092.11	986.76
NTPC Tamil Nadu Energy Company Ltd.	India	50.00	50.00	Equity method	1,311.70	1,269.39
Ratnagiri Gas & Power Private Ltd.\$	India	25.51	25.51	Equity method	-	-

₹ Crore

Name of joint venture company	Place of business/ country of incorporation	Ownership interest held by the group (in %) as at		Accounting method	Carrying amount as at	
		31 March 2018	31 March 2017		31 March 2018	31 March 2017
Konkan LNG Private Ltd. <sup>§</sup>	India	25.51	-	Equity method	-	-
Aravali Power Company Private Ltd.	India	50.00	50.00	Equity method	2,618.06	2,364.61
NTPC BHEL Power Projects Private Ltd. <sup>§</sup>	India	50.00	50.00	Equity method	4.41	21.32
Meja Urja Nigam Private Ltd.	India	50.00	50.00	Equity method	1,235.83	1,193.04
BF-NTPC Energy Systems Ltd.**	India	49.00	49.00	Equity method	2.43	2.83
Nabinagar Power Generating Company Private Ltd.	India	50.00	50.00	Equity method	1,682.73	1,212.15
Transformers and Electricals Kerala Ltd.***§	India	44.60	44.60	Equity method	36.90	38.96
National High Power Test Laboratory Private Ltd. <sup>§</sup>	India	20.00	20.00	Equity method	27.79	29.97
Energy Efficiency Services Ltd. <sup>§</sup>	India	31.71	31.71	Equity method	179.69	184.12
CIL NTPC Urja Private Ltd. <sup>§</sup>	India	50.00	50.00	Equity method	0.02	0.02
Anushakti Vidhyut Nigam Ltd. <sup>§</sup>	India	49.00	49.00	Equity method	0.01	0.01
Hindustan Urvarak & Rasayan Ltd.	India	33.33	33.28	Equity method	332.00	3.42
Trincomalee Power Company Ltd. <sup>§</sup>	Sri Lanka	50.00	50.00	Equity method	1.83	8.99
Bangladesh-India Friendship Power Company Pvt. Ltd. <sup>§</sup>	Bangladesh	50.00	50.00	Equity method	190.32	132.27

§ 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 Company. 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 of the Company. As BF-NTPC was formed by a directive from the GOI, approval of the GOI was sought for exit by NTPC Limited. GOI has suggested to wind up BF-NTPC and NTPC Limited has given its consent for winding up. Approval of the GOI has been accorded on 8 January 2018. The winding up of the joint venture is under process.



\*\*\* 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 Company. GOI has accorded its approval for exit of NTPC from the joint venture. The decision of the Board of Directors of NTPC Limited and approval of GOI has been conveyed to the Government of Kerala (JV Partner) & TELK. The government of Kerala has requested NTPC to review the decision. The matter is under examination.

- (i) During the year, National Company Law Appellate Tribunal has approved the demerger scheme of LNG Terminal (“demerged undertaking”) of Ratnagiri Gas & Power Pvt. Ltd. (RGPPL or demerged company), which was approved by its Board of Directors with effective date of 1 January 2016 as a result of which all the assets and liabilities of the demerged undertaking have been transferred to M/s Konkan LNG Private Limited (KLPL or resulting company) at book value. Consequent to demerger, KLPL has allotted equity shares of face value of ₹ 10/- each equivalent to the share entitlement ratio of 143:1000 for each equity shares held in Demerged Company i.e. 13,97,52,264 equity shares of ₹ 10/- each to the company. Accordingly, the parent company has reduced its investment in RGPPL by ₹ 139.75 crore and has recorded ‘Investment in Konkan LNG Private Ltd.’ with the same amount.
- (ii) RGPPL (joint venture company) has incurred losses during past few years due to which the Group has recognized accumulated losses equal to the cost of investments of RGPPL as at 31 March 2018. The Group has unrecognized share of losses in respect of RGPPL amounting to ₹ **739.97 crore** as at 31 March 2018 (31 March 2017: ₹ 738.97 crore) as per their unaudited financial statements for the year ended 31 March 2018.
- (iii) Konkan LNG Private Limited (KLPL) (joint venture company) has accumulated losses due to which the Group has recognized accumulated losses equal to the cost of investments of KLPL as at 31 March 2018. The Group has unrecognized share of losses in respect of KLPL amounting to ₹ 192.57 crore as at 31 March 2018 (31 March 2017: ₹ Nil) as per their unaudited financial statements for the year ended 31 March 2018.

**(iv) Summarized financial information of joint venture companies of the group**

The tables below provide summarized 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.



Particulars	Utility Powertech Ltd.		NTPC-GE Power Services Pvt. Ltd.		NTPC-SAIL Power Company Ltd.		NTPC-Tamil Nadu Energy Company Ltd.		Ratnagiri Gas & Power Private Ltd.		Konkan LNG Private Ltd.	
	As at 31 March 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017
Current assets												
Cash and cash equivalents	41.71	39.73	4.49	2.52	43.44	5.14	6.59	71.48	431.06	350.67	100.10	
Other assets	352.29	273.49	148.44	180.58	764.17	920.52	1,820.27	2,290.63	443.27	687.35	946.97	
Total current assets	394.00	313.22	152.93	183.10	807.61	925.66	1,826.86	2,362.11	874.33	1,038.02	347.07	
Total non-current assets	39.11	37.20	3.61	2.64	2,789.19	2,202.61	8,000.17	8,204.42	2,330.43	6,497.18	2,937.89	
Current liabilities												
Financial liabilities (excluding trade payables and provisions)	194.00	106.37	0.01	0.01	391.88	316.97	2,364.62	2,516.57	4,032.53	4,343.81	239.32	
Other liabilities	191.88	143.86	147.35	161.88	199.72	103.92	276.83	495.07	431.22	559.89	100.68	
Total current liabilities	315.88	250.23	147.36	161.89	591.60	420.89	2,641.45	3,011.64	4,463.75	4,903.70	340.00	
Non-current liabilities												
Financial liabilities (excluding trade payables and provisions)	3.77	5.41	-	0.16	734.26	570.12	4,562.07	4,994.52	1,633.06	5,519.19	3,699.68	
Other liabilities	15.45	13.13	0.20	0.20	86.73	164.44	0.19	0.19	7.81	9.09	0.01	
Total non-current liabilities	19.22	18.54	0.20	0.36	820.99	734.56	4,562.26	4,994.71	1,640.87	5,528.28	3,699.69	
Regulatory deferral account debit balances	-	-	-	-	-	-	5.69	3.00	-	-	-	
Regulatory deferral account credit balances	-	-	-	-	-	-	-	-	-	-	-	
Share application money pending allotment	-	-	-	-	-	-	5.61	24.39	-	-	-	
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)	

Reconciliation to carrying amounts

Particulars	Utility Powertech Ltd.		NTPC-GE Power Services Pvt. Ltd.		NTPC-SAIL Power Company Ltd.		NTPC-Tamil Nadu Energy Company Ltd.		Ratnagiri Gas & Power Private Ltd.		Konkan LNG Private Ltd.	
	As at 31 March 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017
Opening net assets	81.65	68.82	23.49	24.40	1,973.52	1,755.23	2,538.79	2,259.70	(2,896.78)	184.35	-	-
Profit/(loss) for the year	21.02	19.45	(15.04)	0.53	331.72	388.87	33.44	197.94	64.74	(3,081.13)	(767.91)	-
Other comprehensive income/(expense)	1.36	(0.60)	-	-	(0.69)	(2.08)	0.01	-	-	-	-	-
Dividends paid	(6.02)	(6.02)	-	(1.44)	(120.35)	(168.50)	-	-	-	-	-	-
Other adjustments*	-	-	0.53	-	-	-	51.16	81.15	(67.82)	-	12.48	-
Closing net assets	98.01	81.65	8.98	23.49	2,184.20	1,973.52	2,623.40	2,538.79	(2,899.86)	(2,896.78)	(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	25.51	-
Group's share in INR	49.01	40.83	4.49	11.75	1,092.11	986.76	1,311.70	1,269.39	-	-	-	-
Goodwill	-	-	-	-	-	-	-	-	-	-	-	-
Carrying amount	49.01	40.83	4.49	11.75	1,092.11	986.76	1,311.70	1,269.39	-	-	-	-

\* Includes adjustments on account of further investment by the joint venture partners

Summarized statement of profit and loss

Particulars	Utility Powertech Ltd.		NTPC-GE Power Services Pvt. Ltd.		NTPC-SAIL Power Company Ltd.		NTPC-Tamil Nadu Energy Company Ltd.		Ratnagiri Gas & Power Private Ltd.		Konkan LNG Private Ltd.	
	As at 31 March 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017
Revenue from operations	954.85	735.17	66.98	236.47	2,602.17	2,526.31	3,540.27	3,799.62	2,302.68	2,368.00	317.10	-
Other income	7.72	7.71	1.00	5.21	42.28	104.09	35.88	7.08	20.30	17.69	0.15	-
Depreciation and amortization	1.27	1.11	0.18	0.12	150.38	147.20	487.71	455.92	492.11	587.33	110.50	-
Interest expense	2.77	0.99	-	3.14	41.19	76.52	599.45	642.59	161.16	749.30	298.87	-
Income tax expense/(income)	16.17	7.68	-	0.07	12.94	46.73	14.23	56.33	-	-	-	-
Profit/(loss) for the year	21.02	19.45	(15.04)	0.53	331.72	388.87	33.44	197.94	64.74	(3,081.13)	(767.91)	-
Other comprehensive income/(expense)	1.36	(0.60)	-	-	(0.69)	(2.08)	0.01	-	-	-	-	-
Total comprehensive income/(expense)	22.38	18.85	(15.04)	0.53	331.03	386.79	33.45	197.94	64.74	(3,081.13)	(767.91)	-
Dividends received	-	-	-	-	-	-	-	-	-	-	-	-



Summarized balance sheet

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 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017
Current assets												
Cash and cash equivalents	1.15	0.01	1.23	7.62	52.12	95.91	0.21	0.03	73.96	464.43	5.37	8.56
Other assets	3,250.03	3,363.09	333.94	500.98	33.03	3.24	4.84	5.05	33.26	52.01	158.12	140.55
Total current assets	3,251.18	3,363.10	334.17	508.60	85.15	99.15	5.05	0.03	107.22	516.44	163.49	149.11
Total non-current assets	7,010.39	7,452.25	390.14	186.78	8,817.41	7,389.12	-	5.97	12,568.42	10,180.17	28.79	17.02
Current liabilities												
Financial liabilities (excluding trade payables and provisions)	892.24	1,517.77	75.86	121.05	883.04	304.85	-	-	886.92	480.82	56.25	21.37
Other liabilities	109.51	172.15	321.19	498.88	67.83	51.03	0.09	0.21	92.36	73.45	49.06	72.44
Total current liabilities	931.75	1,689.92	397.05	619.93	950.87	355.88	0.09	0.21	979.28	554.27	105.31	93.81
Non-current liabilities												
Financial liabilities (excluding trade payables and provisions)	3,913.21	4,210.10	-	-	5,476.57	4,676.24	-	-	8,146.70	7,389.12	-	-
Other liabilities	183.95	187.30	318.75	32.81	-	-	-	0.01	-	-	4.23	(15.03)
Total non-current liabilities	4,097.16	4,397.40	318.75	32.81	5,476.57	4,676.24	-	0.01	8,146.70	7,389.12	4.23	(15.03)
Regulatory deferral account debit balances	3.46	1.16	-	-	-	-	-	-	13.73	-	-	-
Regulatory deferral account credit balances	-	-	-	-	3.47	10.09	-	-	-	0.26	-	-
Share application money pending allotment	-	-	-	-	-	-	-	-	197.93	328.67	-	-
Net assets	5,236.12	4,799.19	8.81	42.64	2,471.65	2,386.06	4.96	5.78	3,365.46	2,424.29	82.74	87.35

Reconciliation to carrying amounts

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 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017
Opening net assets	4,729.19	3,941.54	42.64	119.56	2,386.06	1,736.15	5.78	4.61	2,424.29	1,472.58	87.35	86.99
Profit/(loss) for the year	577.75	787.20	(76.69)	(76.92)	(0.19)	(0.09)	(1.38)	(0.24)	(0.10)	(0.29)	4.22	1.06
Other comprehensive income/(expense)	(0.07)	(0.15)	-	-	-	-	-	-	-	-	(1.00)	-
Dividends paid	(168.32)	(160.32)	-	-	-	-	-	-	-	-	-	-
Other adjustments*	97.57	160.92	42.86	-	85.78	650.00	0.56	1.41	941.27	952.00	(7.83)	-
Closing 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
Group's share in %	50.00	50.00	50.00	50.00	50.00	50.00	49.00	49.00	50.00	50.00	44.60	44.60
Group's share in INR	2,618.06	2,364.61	4.41	21.32	1,235.83	1,193.04	2.43	2.83	1,682.73	1,212.15	36.90	38.96
Goodwill	-	-	-	-	-	-	-	-	-	-	-	-
Carrying amount	2,618.06	2,364.61	4.41	21.32	1,235.83	1,193.04	2.43	2.83	1,682.73	1,212.15	36.90	38.96

\*Includes adjustments on account of further investment by the joint venture partners

Summarized statement of profit and loss

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 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017
Revenue from operations	3,909.57	3,872.17	144.90	635.39	-	-	-	-	-	-	185.92	185.19
Other income	937.83	196.69	1.57	7.76	-	-	-	-	-	-	3.33	1.77
Depreciation and amortization	417.38	414.42	8.10	8.07	-	-	-	-	-	-	1.33	1.33
Interest expense	419.00	538.21	1.52	0.68	-	-	-	-	-	-	4.23	1.62
Income tax expense/(income)	154.98	214.92	(23.86)	-	-	-	-	-	-	-	1.08	(0.56)
Profit/(loss) for the year	577.75	787.20	(76.69)	(76.92)	(0.19)	(0.09)	(1.38)	(0.24)	(0.10)	(0.29)	4.22	1.06
Other comprehensive income/(expense)	(0.07)	(0.15)	-	-	-	-	-	-	-	-	(1.00)	-
Total comprehensive income/(expense)	577.68	787.05	(76.69)	(76.92)	(0.19)	(0.09)	(1.38)	(0.24)	(0.10)	(0.29)	3.22	1.06
Dividends received	-	-	-	-	-	-	-	-	-	-	-	-



Summarized balance sheet

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 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017
Current assets														
Cash and cash equivalents	6.05	42.30	511.97	369.64	0.06	0.06	0.02	0.03	687.93	8.77	1.83	4.20	245.79	142.17
Other assets	4.43	1.55	2,799.26	1,239.29	-	-	-	-	270.16	-	0.31	0.31	0.79	0.28
Total current assets	10.48	43.85	3,241.23	1,608.93	0.06	0.06	0.02	0.03	958.09	8.77	2.14	4.51	246.51	142.45
Total non-current assets	339.09	326.98	1,779.36	1,062.44	-	-	-	-	61.77	4.30	2.06	16.73	1,994.10	383.39
Current liabilities														
Financial liabilities (excluding trade payables and provisions)	24.00	-	855.36	350.00	-	-	-	-	19.11	0.59	-	-	26.52	149.32
Other liabilities	53.68	47.56	1,616.09	909.30	0.01	0.01	-	-	4.62	9.20	0.54	3.27	5.13	0.63
Total current liabilities	77.68	47.56	2,471.45	1,259.30	0.01	0.01	-	-	23.73	9.79	0.54	3.27	31.65	149.95
Non-current liabilities														
Financial liabilities (excluding trade payables and provisions)	132.81	173.31	1,873.75	826.24	-	-	-	-	-	-	-	-	1,671.37	111.37
Other liabilities	0.13	0.13	9.71	5.00	-	-	-	-	0.03	-	-	-	-	-
Total non-current liabilities	132.94	173.44	1,883.46	831.24	-	-	-	-	0.03	-	-	-	1,671.37	111.37
Regulatory deferral account debit balances	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Regulatory deferral account credit balances	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Share application money pending allotment	-	-	99.00	-	-	-	-	-	-	-	-	-	156.96	-
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

Reconciliation to carrying amounts

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 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017
Opening net assets	149.83	108.31	580.83	406.03	0.05	0.06	0.03	0.03	10.28	-	17.97	21.61	264.52	148.13
Profit/(loss) for the year	(10.93)	-	54.43	61.24	-	(0.01)	(0.01)	-	1.15	(4.82)	(15.05)	0.24	-	-
Other comprehensive income/(expense)	0.05	-	(0.07)	-	-	-	-	-	-	-	-	-	-	-
Dividends paid	-	-	(49.05)	(12.91)	-	-	-	-	-	-	-	-	-	-
Other adjustments*	-	41.52	(19.46)	126.47	-	-	-	-	984.67	15.10	0.74	(3.88)	116.11	116.39
Closing 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
Group's share in %	90.00	20.00	31.71	31.71	50.00	50.00	49.00	49.00	33.33	33.28	50.00	50.00	50.00	50.00
Group's share in INR	27.79	29.97	179.69	184.12	0.02	0.02	0.01	0.01	332.00	3.42	1.83	8.99	190.32	132.27
Goodwill	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carrying amount	27.79	29.97	179.69	184.12	0.02	0.02	0.01	0.01	332.00	3.42	1.83	8.99	190.32	132.27

\* Includes adjustments on account of further investment by the joint venture partners





Summarized statement of profit and loss

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 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017	As at 31 March 2018	As at 31 March 2017
Revenue from operations	20.83	-	1,313.62	1,272.52	-	-	-	-	-	-	-	-	-	-
Other income	1.31	-	53.36	20.77	-	-	-	-	5.91	-	0.33	0.76	-	-
Depreciation and amortization	8.88	-	136.57	108.97	-	-	-	-	0.04	-	14.88	-	-	-
Interest expense	14.74	-	121.73	55.89	-	-	-	-	0.44	-	-	-	-	-
Income tax expense/(income)	-	-	-	(0.05)	-	-	-	-	-	-	-	0.21	-	-
Profit/(loss) for the year	(10.93)	-	54.43	61.24	(0.01)	(0.01)	(0.01)	(0.01)	1.15	(4.82)	(15.05)	0.24	-	-
Other comprehensive income/(expense)	0.05	-	(0.07)	-	-	-	-	-	-	-	-	-	-	-
Total comprehensive income/(expense)	(10.88)	-	54.36	61.24	(0.01)	(0.01)	(0.01)	(0.01)	1.15	(4.82)	(15.05)	0.24	-	-
Dividends received	-	-	-	-	-	-	-	-	-	-	-	-	-	-



(v) Commitments and contingent liabilities in respect of joint venture companies

The Company has commitments of ₹ 3,748.92 crore (31 March 2017: ₹ 3073.90 crore) towards further investment in the joint venture companies as at 31 March 2018.

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 2017: ₹ 75.00 crore).

₹ Crore

Particulars	As at 31 March 2018	As at 31 March 2017
<b>Contingent liabilities</b>		
Share of contingent liabilities incurred jointly with other investors of the joint venture companies	679.78	509.57
Possible reimbursements	90.04	19.41
<b>Capital Commitments</b>	<b>2,283.51</b>	<b>2,824.48</b>

(vi) Details of significant restrictions

In respect of investments in joint venture companies, the Company 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 2018	31 March 2017
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	134.20
Meja Urja Nigam Private Ltd.	5 years from the date of incorporation (i.e. 02.04.2008) or commercial operation whichever is later.	1,209.33	1,166.44
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	1,353.30
Hindustan Urvarak & Rasayan Ltd.	5 years from the date of incorporation 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.	333.25	5.03
<b>Total</b>		<b>3,805.30</b>	<b>2,785.99</b>

## 70. 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 Company to recover its costs of providing the goods or services plus a fair return.

### (ii) Recognition and measurement

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 difference 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 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 ₹ 594.09 crore for the year ended as at 31 March 2018 has been accounted for as 'Regulatory deferral account debit balance' (31 March 2017: ₹ 188.61 crore accounted as 'Regulatory deferral account credit balance').

Revision of pay scales of employees of PSEs are due w.e.f. 1 January 2017 (Refer Note 32). Based on the recommendations of the constituted committee to the Government inter-alia includes 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. During the year, the Payment of Gratuity Act, 1972 has 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 claimed upon implementation of revision of pay scales and discharge of related liabilities. Accordingly, an amount of ₹ 118.32 crore for the year ended 31 March 2018 has been accounted for as 'Regulatory deferral account debit balance' (31 March 2017: ₹ 522.83 crore).

### (iii) Risks associated with future recovery/reversal of regulatory deferral account balances:

- demand risk due to changes in consumer attitudes, the availability of alternative sources of supply
- 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.
- other risks including currency or other market risks, if any.

### (iv) Reconciliation of the carrying amounts:

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



a) Regulatory deferral account credit balance - Note 35

The regulatory liabilities recognized in the books in respect of the amount payable to the beneficiaries in future periods are as follows:

Particulars	₹ Crore	
	For the year ended 31 March 2018	For the year ended 31 March 2017
A. Opening balance	489.33	300.72
B. Addition during the year	-	194.90
C. Amount collected/refunded during the year	-	6.29
D. Amount transferred to regulatory deferral account debit balances	489.33	-
E. Regulatory deferral account balances recognized in the statement of profit and loss (B-C)	-	188.61
F. Closing balance	-	489.33

b) Regulatory deferral account debit balance - Note 19

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

Particulars	₹ Crore	
	For the year ended 31 March 2018	For the year ended 31 March 2017
A. Opening balance	522.83	-
B. Addition during the year	706.40	522.83
C. Amount collected/refunded during the year	6.01	-
D. Amount transferred from regulatory deferral account credit balances	489.33	-
E. Regulatory deferral account balances recognized in the statement of profit and loss (B+C)	712.41	522.83
F. Closing balance (A+B+C-D)	745.91	522.83

c) Net movements in regulatory deferral account balances [I]	712.41	334.22
d) Tax on net movements in regulatory deferral account balances [II]	152.04	71.51
e) Total amount recognized in the statement of profit and loss during the year [I-II]	560.37	262.71

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

## 71. Disclosure as per Schedule III to the Companies Act, 2013

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
<b>Parent</b>								
<b>NTPC Limited</b>								
31 March 2018	87.84%	91804.63	96.64%	10,148.98	99.24%	(20.53)	96.64%	10,128.45
31 March 2017	89.31%	88096.66	93.55%	10,022.42	99.34%	(211.44)	93.43%	9,810.98
<b>Subsidiaries (Indian)</b>								
<b>Bhartiya Rail Bijlee Company Ltd.</b>								
31 March 2018	1.58%	1,652.56	0.19%	20.14	0.00%	-	0.19%	20.14
31 March 2017	1.22%	1,205.50	0.05%	5.67	0.00%	-	0.05%	5.67
<b>Kanti Bijlee Utpadan Nigam Ltd.</b>								
31 March 2018	0.82%	859.10	-1.25%	(131.54)	0.00%	-	-1.26%	(131.54)
31 March 2017	0.69%	682.73	-0.13%	(14.25)	0.00%	-	-0.14%	(14.25)
<b>NTPC Vidyut Vyapar Nigam Ltd.</b>								
31 March 2018	0.30%	311.30	0.58%	61.26	0.00%	-	0.58%	61.26
31 March 2017	0.31%	310.21	0.71%	76.44	0.00%	-	0.73%	76.44
<b>NTPC Electric Supply Company Ltd.</b>								
31 March 2018	0.04%	42.47	0.00%	-	0.00%	-	0.00%	-
31 March 2017	0.04%	42.47	0.00%	(0.18)	0.00%	-	0.00%	(0.18)
<b>Patratu Vidyut Utpadan Nigam Ltd.</b>								
31 March 2018	0.12%	124.09	0.00%	0.02	0.00%	-	0.00%	0.02
31 March 2017	0.00%	0.02	0.00%	(0.05)	0.00%	-	0.00%	(0.05)
<b>Non-controlling interests in all subsidiaries</b>								
31 March 2018	0.91%	947.77	-0.40%	(42.45)	0.00%	-	-0.41%	(42.45)
31 March 2017	0.81%	803.26	-0.05%	(5.70)	0.00%	-	-0.05%	(5.70)
<b>Joint ventures (Investment as per equity method)</b>								
<b>Indian</b>								
<b>Utility Powertech Ltd.</b>								
31 March 2018	0.05%	49.01	0.10%	10.51	-3.26%	0.68	0.11%	11.19
31 March 2017	0.04%	40.83	0.09%	9.73	0.14%	(0.30)	0.09%	9.43
<b>NTPC-GE Power Services Private Ltd.</b>								
31 March 2018	0.00%	4.49	-0.07%	(7.52)	0.00%	-	-0.07%	(7.52)
31 March 2017	0.01%	11.75	0.00%	0.27	0.00%	-	0.00%	0.27
<b>NTPC-SAIL Power Company Ltd.</b>								
31 March 2018	1.04%	1,092.11	1.58%	165.86	1.67%	(0.35)	1.58%	165.51
31 March 2017	1.00%	986.76	1.81%	194.44	0.49%	(1.04)	1.84%	193.40
<b>NTPC-Tamil Nadu Energy Company Ltd.</b>								
31 March 2018	1.26%	1,311.70	0.16%	16.72	-0.02%	0.01	0.16%	16.73
31 March 2017	1.29%	1,269.39	0.92%	98.97	0.00%	-	0.94%	98.97
<b>Ratnagiri Gas and Power Private Ltd.</b>								
31 March 2018	0.00%	-	0.00%	-	0.00%	-	0.00%	-
31 March 2017	0.00%	-	-0.44%	(47.03)	0.00%	-	-0.45%	(47.03)
<b>Konkan LNG Private Ltd.</b>								
31 March 2018	0.00%	-	0.00%	-	0.00%	-	0.00%	-
31 March 2017	0.00%	-	0.00%	-	0.00%	-	0.00%	-



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
<b>Aravali Power Company Private Ltd.</b>								
31 March 2018	2.51%	2,618.06	2.75%	288.88	0.17%	(0.04)	2.76%	288.85
31 March 2017	2.40%	2,364.61	3.67%	393.60	0.03%	(0.07)	3.75%	393.53
<b>NTPC BHEL Power Projects Private Ltd.</b>								
31 March 2018	0.00%	4.41	-0.37%	(38.35)	0.00%	-	-0.37%	(38.35)
31 March 2017	0.02%	21.32	-0.36%	(38.46)	0.00%	-	-0.37%	(38.46)
<b>Meja Urja Nigam Private Ltd.</b>								
31 March 2018	1.18%	1,235.83	0.00%	(0.10)	0.00%	-	0.00%	(0.10)
31 March 2017	1.21%	1,193.04	0.00%	(0.04)	0.00%	-	0.00%	(0.04)
<b>BF-NTPC Energy Systems Ltd.</b>								
31 March 2018	0.00%	2.43	-0.01%	(0.68)	0.00%	-	-0.01%	(0.68)
31 March 2017	0.00%	2.83	0.00%	(0.12)	0.00%	-	0.00%	(0.12)
<b>Nabinagar Power Generating Company Private Ltd.</b>								
31 March 2018	1.61%	1,682.73	0.00%	(0.05)	0.00%	-	0.00%	(0.05)
31 March 2017	1.23%	1,212.15	0.00%	(0.15)	0.00%	-	0.00%	(0.15)
<b>Transformers and Electricals Kerala Ltd.</b>								
31 March 2018	0.04%	36.90	0.02%	1.88	2.16%	(0.45)	0.01%	1.44
31 March 2017	0.04%	38.96	0.00%	0.47	0.00%	-	0.00%	0.47
<b>National High Power Test Laboratory Private Ltd.</b>								
31 March 2018	0.03%	27.79	-0.02%	(2.19)	-0.05%	0.01	-0.02%	(2.18)
31 March 2017	0.03%	29.97	0.00%	-	0.00%	-	0.00%	-
<b>Energy Efficiency Services Ltd.</b>								
31 March 2018	0.17%	179.69	0.16%	17.26	0.11%	(0.02)	0.16%	17.24
31 March 2017	0.19%	184.12	0.18%	19.41	0.00%	-	0.18%	19.41
<b>CIL NTPC Urja Private Ltd.</b>								
31 March 2018	0.00%	0.02	0.00%	-	0.00%	-	0.00%	-
31 March 2017	0.00%	0.02	0.00%	-	0.00%	-	0.00%	-
<b>Anushakti Vidhyut Nigam Ltd.</b>								
31 March 2018	0.00%	0.01	0.00%	-	0.00%	-	0.00%	-
31 March 2017	0.00%	0.01	0.00%	-	0.00%	-	0.00%	-
<b>Hindustan Urvarak &amp; Rasayan Ltd.</b>								
31 March 2018	0.32%	332.00	0.00%	0.38	0.00%	-	0.00%	0.38
31 March 2017	0.00%	3.42	-0.01%	(1.60)	0.00%	-	-0.02%	(1.60)
<b>Foreign</b>								
<b>Trincomalee Power Company Ltd.</b>								
31 March 2018	0.00%	1.83	-0.07%	(7.52)	0.00%	-	-0.07%	(7.52)
31 March 2017	0.01%	8.99	0.00%	0.12	0.00%	-	0.00%	0.12
<b>Bangladesh-India Friendship Power Company Private Ltd.</b>								
31 March 2018	0.18%	190.32	0.00%	-	0.00%	-	0.00%	-
31 March 2017	0.13%	132.27	0.00%	-	0.00%	-	0.00%	-
<b>Total</b>								
31 March 2018	1.00	1,04,511.24	1.00	10,501.50	1.00	(20.69)	1.00	10,480.81
31 March 2017	1.00	98,641.29	1.00	10,713.94	1.00	(212.85)	1.00	10,501.09

## 72. 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 equipments and execution of works at our projects have lodged claims on the Group for ₹ **12,843.13 crore** (31 March 2017: ₹ 13,022.40 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 ₹ **379.98 crore** (31 March 2017: ₹ 349.31 crore) has been estimated.

##### (iii) Fuel suppliers

a) Pending resolution of the issues with the coal companies, an amount of ₹ **2,869.21 crore** (31 March 2017: ₹ 2,570.55 crore) towards grade slippage pursuant to third party sampling has been estimated by the Group as contingent liability. Further, an amount of ₹ **678.46 crore** (31 March 2017: ₹ 661.50 crore) towards surface transportation charges, custom duty on service margin on imported coal etc. has been estimated by the Group as contingent liability.

b) Pending resolution of the issues with a fuel company for supply of RLNG, an amount of ₹ **5,821.61 crore** (31 March 2017: ₹ 4,173.57 crore) towards the take or pay claim has been estimated by the group as contingent liability.

The Group is pursuing with the fuel companies, related ministries and other options under the dispute resolution mechanism available for settlement of these claims.

##### (iv) Others

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 ₹ **352.56 crore** (31 March 2017: ₹ 253.85 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 ₹ **648.26 crore** (31 March 2017: ₹ 919.33 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 ₹ **9,199.87 crore** (31 March 2017: ₹ 7,373.54 crore).

#### b. Disputed tax matters

Disputed income tax/Sales tax/Excise and other tax matters pending before various Appellate Authorities amount to ₹ **9,184.18 crore** (31 March 2017: ₹ 8,118.14 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 ₹ **5,004.39 crore** (31 March 2017: ₹ 4362.11 crore). The amount paid under disputes / adjusted by the authorities in respect of cases amounts to ₹ **2,480.22 crore** (31 March 2017: ₹ 6499.22 crore).



**c. Others**

Other contingent liabilities amount to ₹ **2,670.49 crore** (31 March 2017: ₹ 598.51 crore) which includes claim of ₹ **2,026.30 crore** (31 March 2017: ₹ Nil) pending before arbitral tribunal. Refer Note 55 (b).

Electricity supplied by the sellers under SWAP arrangements of 437.2195 MUs (31 March 2017: 3.84 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.

**B. Contingent assets**

While determining the tariff for some of the power stations, CERC has disallowed certain capital expenditure incurred by the group. The group aggrieved over such issues has filed appeals with the Appellate Tribunal for Electricity (APTEL)/ Supreme Court against the tariff orders issued by CERC. Based on past experience, group 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.

**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 2018 is ₹ **51,340.00 crore** (31 March 2017: ₹ 51,524.90 crore). Details of the same are as under:

Particulars	₹ Crore	
	As at 31 March 2018	As at 31 March 2017
Property, plant and equipment	51,339.13	51,319.11
Intangible assets	0.87	205.79

- b. In respect the following investments of ₹ **1.40 crore** (31 March 2017: ₹ 1.40 crore), the Group has restrictions for their disposal as at 31 March 2018 as under:

Name of the Company	Period of restrictions for disposal of investments as per related agreements	₹ Crore	
		Amount invested (Refer Note 7)	
		As at 31 March 2018	As at 31 March 2017
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.	1.40	1.40
<b>Total</b>		<b>1.40</b>	<b>1.40</b>

Further, the Group has commitments of ₹ **507.60 crore** (31 March 2017: ₹ 507.60 crore) towards further investment in the above investments as at 31 March 2018.

- c. Group's commitment towards the minimum work programme in respect of oil exploration activities of joint operations has been disclosed in Note 64.
- 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 kilometers 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 kilometers and up to three hundred kilometers 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 kilometers 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. 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. Further, the Company's liability on this account, if any shall be first met from the 'Fly Ash Utilization Reserve Fund' maintained by the Company in terms of MOEF Notification dated 3 November 2009.

e. Group's commitment in respect of lease agreements has been disclosed in Note 55.

73. 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

(K.P. Gupta)  
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 PSD & Associates  
Chartered Accountants  
Firm Reg. No. 004501C

For Sagar & Associates  
Chartered Accountants  
Firm Reg. No. 003510S

(Neena Goel)  
Partner  
M. No. 057986

(Prakash Sharma)  
Partner  
M. No. 072332

(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

(S. S. Poddar)  
Partner  
M. No. 051113

(Sanjiv Kapoor)  
Partner  
M. No. 070487

(Sanjay Sarkar)  
Partner  
M. No. 064305

Place : New Delhi  
Dated : 28 May 2018

## 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
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.
3.	The date since when subsidiary was acquired	21.08.2002	01.11.2002	06.09.2006	22.11.2007	15.10.2015
4.	Reporting period for the subsidiary concerned, if different from the holding company's reporting period	Same as that of Holding Company (01.04.2017 -31.03.2018)	Same as that of Holding Company (01.04.2017 -31.03.2018)	Same as that of Holding Company (01.04.2017 -31.03.2018)	Same as that of Holding Company (01.04.2017 -31.03.2018)	Same as that of Holding Company (01.04.2017 -31.03.2018)
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
6.	Share capital	0.08	20.00	1,435.67	2,161.53	124.49
7.	Reserves & surplus	42.39	291.30	(252.99)	71.66	(0.05)
8.	Total assets	77.76	1,685.77	4,792.12	8,063.96	1,410.98
9.	Total liabilities	35.29	1,374.47	3,609.44	5,830.77	1,286.54
10.	Investments	-	-	-	-	-
11.	Turnover	-	5,015.27	861.56	697.41	(0.53)
12.	Profit before taxation	-	94.81	(181.09)	34.59	(0.04)
13.	Provision for taxation	-	33.55	-	7.38	(0.07)
14.	Profit after taxation	-	61.26	(181.09)	27.21	0.03
15.	Proposed dividend	-	-	-	-	-
16.	% of Shareholding	100.00%	100.00%	72.64%	74.00%	74.00%

#### Notes:

1.	Subsidiaries which are yet to commence operations.	Nil
2.	Subsidiaries which have been liquidated or sold during the year.	Nil

Part "B": Associates and Joint Ventures  
Statement pursuant to Section 129 (3) of the Companies Act, 2013

Sl. No.	Name of Joint Ventures	Utility Powertech Ltd.	NTPC - GE Power Services Pvt. Ltd.	NTPC-SAIL Power Company Ltd.	NTPC Tamil Nadu Energy Company Ltd.	Ratnagiri Gas and Power Pvt. Ltd.	Korlean LNG Pvt. Ltd.	Aarevalli Power Company Pvt. Ltd.	NTPC-BHEL Power Projects Pvt. Ltd.	Meja Uija Nigam Pvt. Ltd.	BF-NTPC Energy Systems Ltd.	Nabinagar Power Generating Co. Pvt. Ltd.	Transformers & Electricals Kerala Ltd.	National High Power Test Laboratory Pvt. Ltd.	Energy Efficiency Services Ltd.	CL NTPC Uja Pvt. Ltd.	Anushakti Vidhyut Nigam Ltd.	Hindustan Uranak & Rasayan Limited	Tircomalee Power Company Ltd.	Bangladesh India Friendship Power Company Pvt. Ltd.
1.	Latest Audited Balance Sheet Date	31.03.2018	31.03.2018	31.03.2018	31.03.2018	31.03.2017	NA	31.03.2018	31.03.2017	31.03.2018	31.03.2018	31.03.2018	31.03.2016	31.03.2017	31.03.2017	31.03.2017	31.03.2017	31.03.2018	31.12.2017	30.06.2017
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	19.06.2008	09.09.2008	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 31.03.2018	20,00,000	30,00,000	49,02,50,050	1,40,99,96,112	83,45,56,036	13,97,52,264	1,43,30,08,200	5,00,00,000	1,20,93,29,800	68,48,681	1,65,99,35,500	1,91,63,438	3,04,00,000	14,65,00,000	76,900	49,000	33,32,50,000	32,86,061	2,42,50,000
-	Number	1.00	3.00	490.25	1,40,99.99	834.55	139.75	1,433.01	50.00	1,209.33	6.85	1,659.94	31.34	30.40	146.50	0.08	0.05	333.25	15.20	198.91
-	Amount of Investment in Joint Venture (₹ crore)	50.00%	50.00%	50.00%	50.00%	25.51%	95.51%	50.00%	50.00%	50.00%	49.00%	50.00%	44.60%	20.00%	31.71%	50.00%	49.00%	33.33%	50.00%	50.00%
-	Extent of Holding (%)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
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	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	NA	NA
6.	Networth attributable to Shareholding as per latest audited Balance Sheet (₹ crore)	49.01	12.28	1,092.11	1,269.40	(752.93)	-	2,618.06	42.76	1,235.83	2.43	1,682.77	38.49	29.97	176.10	0.03	0.01	332.03	10.68	134.20
7.	Profit/ Loss for the year (Total Comprehensive Income)																			
i	Considered for Consolidation (₹ crore)	11.19	(7.52)	165.51	16.73	-	-	288.85	(38.35)	(0.10)	(0.68)	(0.05)	1.44	(2.18)	17.24	-	-	0.38	(7.52)	-
ii	Not Considered in Consolidation	NA	NA	NA	NA	(739.97)	(192.56)	NA	NA	NA	NA	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 BF - NTPC Energy Systems Ltd.
- 3 Nabinagar Power Generating Company Private Ltd.
- 4 CIL NTPC Urja Private Ltd.
- 5 Anushakti Vidhyut Nigam Ltd.
- 6 Hindustan Urvarak & Rasayan Limited
- 7 Trincomalee Power Company Ltd. (incorporated in Sri Lanka)
- 8 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.**

National Power Exchange Ltd. and Pan-Asian Renewables Pvt. Ltd have been wound up during the year. NTPC SCCL Global Ventures Pvt. Ltd. is in the process of voluntary winding up.

For and on behalf of the Board of Directors

(K.P. Gupta)  
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 PSD & Associates  
Chartered Accountants  
Firm Reg. No. 004501C

For Sagar & Associates  
Chartered Accountants  
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(Neena Goel)  
Partner  
M. No. 057986

(Prakash Sharma)  
Partner  
M. No. 072332

(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  
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(S. S. Poddar)  
Partner  
M. No. 051113

(Sanjiv Kapoor)  
Partner  
M. No. 070487

(Sanjay Sarkar)  
Partner  
M. No. 064305

Place : New Delhi  
Dated : 28 May 2018

## INDEPENDENT AUDITORS' REPORT

### TO THE MEMBERS OF NTPC LIMITED

#### Report on the Consolidated Financial Statements

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, comprising of the Consolidated Balance Sheet as at 31 March, 2018, the Consolidated Statement of Profit and Loss (including other comprehensive income), the Consolidated Statement of Cash Flows, the Consolidated Statement of Changes in Equity, for the year then ended, and a summary of the significant accounting policies and other explanatory information (hereinafter referred to as "the consolidated financial statements").

#### Management's Responsibility for the Consolidated Financial Statements

The Holding Company's Board of Directors is responsible for the preparation of these consolidated financial statements in terms of the requirements of the Companies Act, 2013 (hereinafter referred to as "the Act") that give a true and fair view of the consolidated financial position, consolidated financial performance (including other comprehensive income), consolidated cash flows and consolidated changes in equity of the Group including its Joint ventures in accordance with the accounting principles generally accepted in India, including Indian 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 the 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.

#### Auditors' Responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audit. While conducting the audit, we have taken into account the provisions of the Act, the accounting and auditing standards and matters which are required to be included in the audit report under the provisions of the Act and the Rules made there under.

We conducted our audit in accordance with the Standards on Auditing specified under Section 143(10) of the Act. Those Standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and the disclosures in the consolidated financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal financial control relevant to the Holding Company's preparation of the consolidated financial statements that give a true and fair view in order to design audit procedures that are appropriate in the circumstances. An audit also includes evaluating the appropriateness of the accounting policies used and the reasonableness of the accounting estimates made by the Holding Company's Board of Directors, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence obtained by us and the audit evidence obtained by the other auditors in terms of their reports 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.

#### Opinion

In our opinion and to the best of our information and according to the explanations given to us and based on the consideration of reports of other auditors on separate financial statements and on the other financial information of the subsidiaries and joint ventures, the aforesaid consolidated financial statements give the information as required by 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 31 March, 2018, and their consolidated net profit (financial performance including other comprehensive income), their consolidated cash flows and consolidated changes in equity for the year ended on that date.



### Emphasis of Matter

We draw attention to the following matters in the Notes to the consolidated financial statements:

- (a) Note No. 36 a) & b) regarding billing & recognition of sales on provisional basis and measurement of GCV of coal on 'as received' basis measured on wagon top at the unloading point in respect of most of the stations pending disposal of petition by CERC and ratification by Hon'ble Delhi High Court and related matters as mentioned in the said note.
- (b) Note No. 46 in respect of a Company's project where the order of NGT has been stayed by the Hon'ble Supreme Court of India and the matter is sub-judice.

Our opinion is not modified in respect of these matters.

### 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 and net assets as at 31 March 2018, total revenues and net cash flows for the year ended on that date, to the extent to which they are reflected in the consolidated financial statements:

(₹ Crore)

Name of the Subsidiary	Total Assets	Net Assets	Total Revenues	Net Cash Inflows/ (Outflows)
1) NTPC Electric Supply Company Ltd	77.76	42.47	-	-
2) NTPC Vidyut Vyapar Nigam Ltd.	1685.77	311.30	5,036.93	(2.81)
3) Kanti Bijlee Utpadan Nigam Ltd.	4792.12	1182.68	869.04	9.24
4) Bhartiya Rail Bijlee Company Ltd.	8063.96	2233.20	699.84	113.54
5) Patratu Vidyut Utpadan Nigam Ltd.	1410.98	167.69	(0.53)	0.94
<b>Total</b>	<b>16030.59</b>	<b>3937.34</b>	<b>6605.28</b>	<b>120.91</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 2018 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.	10.00
2) NTPC-SAIL Power Company Ltd.	155.70
3) Aravali Power Company Pvt. Ltd.	288.92
4) Meja Urja Nigam Pvt. Ltd.	(0.10)
5) Nabinagar Power Generating Company Pvt. Ltd.	(0.06)
6) Hindustan Urvarak & Rasayan Limited	0.36
7) BF-NTPC Energy Systems Ltd.	(0.68)
8) NTPC Tamil Nadu Energy Company Ltd	17.92
<b>Total</b>	<b>472.06</b>

These financial statements/ financial information of subsidiaries and joint ventures have been audited by other auditors whose reports have been furnished to us by the Holding Company's Management upto 24 May 2018 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) of Section 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 2018 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.	(7.04)
2) Ratnagiri Gas & Power Pvt. Ltd	-
3) Konkan LNG Private Ltd.	-
4) NTPC-BHEL Power Project Pvt. Ltd	(16.91)
5) National High Power Test Laboratory Pvt. Ltd	(2.19)
6) Transformers and Electricals Kerala Ltd.	(1.61)
7) Energy Efficiency Services Ltd.	8.51
8) CIL NTPC Urja Pvt. Ltd.	-
9) Anushakti Vidhyut Nigam Ltd.	-
10) Trincomalee Power Company Ltd *	(7.77)
11) Bangladesh India Friendship Power Company Pvt. Ltd. *	-
<b>Total</b>	<b>(27.01)</b>

\*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.

Our opinion on the consolidated financial statements, and our report on Other Legal and Regulatory Requirements below, is not modified in respect of the matters as stated in para (a) & (b) above, with respect to our reliance on the work done and the reports of the other auditors and the financial statements / financial information certified by the Holding Company's Management.

#### 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 matter 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 Cash Flows and the Consolidated Statement of Changes in Equity 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, 2018 from being appointed as a director in terms of Section 164 (2) of the Act.
- 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 Annexure 1.
- g) With respect to the other matters to be included in the Auditor's Report in accordance with Rule 11 of the Companies (Audit and Auditor's) Rules, 2014, 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 noted in the 'Other Matters' paragraph:
- The consolidated financial statements disclose the impact of pending litigations on the consolidated financial position of the Group (Refer Note No. 72 to the consolidated financial statements).
  - 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.
  - There has been no delay in transferring amounts, required to be transferred, to the Investor Education and Protection Fund by the Group.

For T R Chadha & Co LLP  
Chartered Accountants  
FRN 006711N/N500028

(Neena Goel)  
Partner  
M. No. 057986

For PSD & Associates  
Chartered Accountants  
FRN 004501C

(Prakash Sharma)  
Partner  
M. No. 072332

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

(S. S. Poddar)  
Partner  
M. No. 051113

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 : 28 May 2018



## 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 2018

### 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 2018, 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 Company considering the 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") issued by ICAI and the Standards on Auditing, issued by ICAI and deemed to be prescribed under section 143(10) of the Companies Act, 2013, 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 to the best of our information and according to 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 and such internal financial controls with reference to consolidated financial statements were operating effectively as at 31 March 2018, 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.

#### 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 insofar as it relates to five 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 insofar as it relates to ten 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.

For T R Chadha & Co LLP  
Chartered Accountants  
FRN 006711N/N500028

(Neena Goel)  
Partner  
M. No. 057986

For Kalani & Co.  
Chartered Accountants  
FRN 000722C

(Varun Bansal)  
Partner  
M. No. 402856

For PSD & Associates  
Chartered Accountants  
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Chartered Accountants  
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(Sanjiv Kapoor)  
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M. No. 070487

For Sagar & Associates  
Chartered Accountants  
FRN 003510S

(V. Vidyasagar Babu)  
Partner  
M. No. 027357

For B M Chatrath & Co LLP  
Chartered Accountants  
FRN 301011E/E300025

(Sanjay Sarkar)  
Partner  
M. No. 064305

Place : New Delhi  
Dated : 28 May 2018

## 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 2018

The preparation of consolidated financial statements of NTPC Limited for the year ended 31 March 2018 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 auditor appointed by the Comptroller and Auditor General of India under Section 139 (5) read with Section 129 (4) of the Act is 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 28 May 2018.

I, on behalf of the Comptroller and Auditor General of India, have conducted a supplementary audit under Section 143(6) (a) read with Section 129 (4) of the Act of the consolidated financial statements of NTPC Limited for the year ended 31 March 2018. We conducted a supplementary audit of the financial statements of NTPC Limited 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) (b) 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 country under the respective laws, for appointment of their Statutory Auditor nor for conduct of supplementary audit. Accordingly, C&AG 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 audit nothing significant has come to my knowledge which would give rise to any comment upon or supplement to statutory auditors' report.

For and on the behalf of the  
Comptroller & Auditor General of India

(Ritika Bhatia)  
Principal Director of Commercial Audit &  
Ex-officio Member, Audit Board - III,  
New Delhi

Place : New Delhi  
Date : 29 June 2018

ANNEXURE

### List of Subsidiaries, Associate Companies and Jointly Controlled Entities whose financial statements are not audited by the Comptroller and Auditor General of India

#### A. Subsidiaries incorporated in India:

1. NTPC Electric Supply Company Limited
2. Bhartiya Rail Bijlee Company Limited
3. NTPC Vidyut Vyapar Nigam Limited
4. Kanti Bijlee Utpadan Nigam Limited
5. Patratu Vidyut Utpadan Nigam Limited

#### B. Joint Ventures incorporated in India:

1. Transformers & Electricals Kerala Limited
2. National High Power Test Laboratory Private Limited
3. Ratnagiri Gas & Power Private Limited
4. Energy Efficiency Services Limited
5. CIL NTPC Urja Private Limited
6. Anushakti Vidyut Nigam Limited
7. Hindustan Urvarak & Rasayan Limited
8. NTPC – SAIL Power Company Limited
9. Nabinagar Power Generating Company Private Limited
10. NTPC Tamil Nadu Energy Company Limited
11. Konkan LNG Private Limited
12. Aravali Power Company Limited
13. NTPC – BHEL Power Projects Private Limited
14. Meja Urja Nigam Limited





### NTPC Limited

CIN: L40101DL1975GOI007966

Regd. Office : NTPC Bhawan, SCOPE Complex, 7, Institutional Area, Lodi Road, New Delhi-110003  
 Tel : 011-24360959 Fax: 011-24360241. Web : www.ntpc.co.in Email: csntpc@ntpc.co.in

### ATTENDANCE SLIP

42<sup>nd</sup> ANNUAL GENERAL MEETING TO BE HELD ON THURSDAY, 20<sup>TH</sup> SEPTEMBER, 2018 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 42<sup>nd</sup> Annual General Meeting of the Company held on Thursday, 20<sup>th</sup> September, 2018 at Manekshaw Center, 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 M/s Alankit Assignments Limited, Registrar & Transfer Agent (RTA)/ Depository Participant (DP). Such duly completed and signed Attendance Slip(s) should be handed over at the RTA counter(s) at the venue against which RTA will provide admission card. Entry to the hall will be strictly on the basis of admission card as provided by RTA. 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 Auditorium. Shareholder(s)/proxy holder(s) will be required to take care of their belonging(s).
4. No gifts will be distributed at the Annual General Meeting.





### 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:			
<b>Or failing him</b>				
2.	Name:		Signature:	
	Address:			
	E-mail Id:			
<b>Or failing him</b>				
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 **Thursday, 20<sup>th</sup> September, 2018** at Manekshaw Center, Parade Road, New Delhi – 110 010 and at any adjournment thereof in respect of such resolutions as are indicated below:

Sr. No.	Resolution	For	Against
<b>Ordinary Business</b>			
1.	Adoption of audited Standalone financial statements and consolidated financial statement of the Company for the year ended March 31, 2018, 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 2017-18		
3.	Re-appointment of Shri Saptarshi Roy, Director (HR) (DIN: 03584600), who retires by rotation		
4.	Fixation of remuneration of Statutory Auditors for the year 2018-19		
<b>Special Business</b>			
5.	Appointment of Shri M.P. Singh (DIN: 07937931), as Independent Director		
6.	Appointment of Shri Pradeep Kumar Deb (DIN: 03424714), as Independent Director		
7.	Appointment of Shri Shashi Shekhar (DIN: 01747358), as Independent Director		
8.	Appointment of Shri Subhash Joshi (DIN: 07946219), as Independent Director		
9.	Appointment of Shri Vinod Kumar (DIN: 00955992), as Independent Director		
10.	Appointment of Shri Susanta Kumar Roy (DIN: 07940997), as Director (Projects)		
11.	Appointment of Shri Prasant Kumar Mohapatra (DIN: 07800722), as Director (Technical)		
12.	Appointment of Shri Prakash Tiwari (DIN: 08003157), as Director (Operations)		
13.	Appointment of Shri Vivek Kumar Dewangan (DIN: 01377212), as Government Nominee Director		
14.	Appointment of Dr. Bhim Singh (DIN: 08189580), as Independent Director		
15.	Appointment of Dr. K.P.Kylasanatha Pillay (DIN: 08189583), as Independent Director		
16.	Appointment of Ms. Archana Agrawal (DIN: 02105906), as Government Nominee Director		
17.	To ratify the remuneration of Cost Auditors for the Financial Year 2018-19		
18.	Raising of funds up to ₹ 12,000 Crore through issue of Bonds/Debentures on Private Placement basis		

Signed this..... day of..... 2018

Signature of shareholder \_\_\_\_\_ Signature of Proxy holder(s) \_\_\_\_\_

Affix Revenue  
Stamp of  
Re.1/-

#### NOTES:

- 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 instruction 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. Friday, 14<sup>th</sup> September, 2018, may cast their vote by remote e-Voting. The remote e-Voting period commences on Monday, 17<sup>th</sup> September, 2018 at 9:00 a.m. (IST) and ends on Wednesday, 19<sup>th</sup> September, 2018 at 5:00 p.m. (IST). The remote e-Voting module shall be disabled by NSDL 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 Personal Computer or on a mobile.
2. Once the home page of e-Voting system is launched, click on the icon "Login" which is available under '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 IN300***12*****.
b) For Members who hold shares in demat account with CDSL.	16 Digit Beneficiary ID For example if your Beneficiary ID is 12***** then your user ID is 12*****.
c) For Members holding shares in Physical Form.	EVEN Number followed by Folio Number registered with the company For example if folio number is 001*** and EVEN is 101456 then user ID is 101456001***





5. 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 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](http://www.evoting.nsdl.com).
  - b) **Physical User Reset Password?**" (If you are holding shares in physical mode) option available on [www.evoting.nsdl.com](http://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](mailto:evoting@nsdl.co.in) mentioning your demat account number/folio number, your PAN,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.

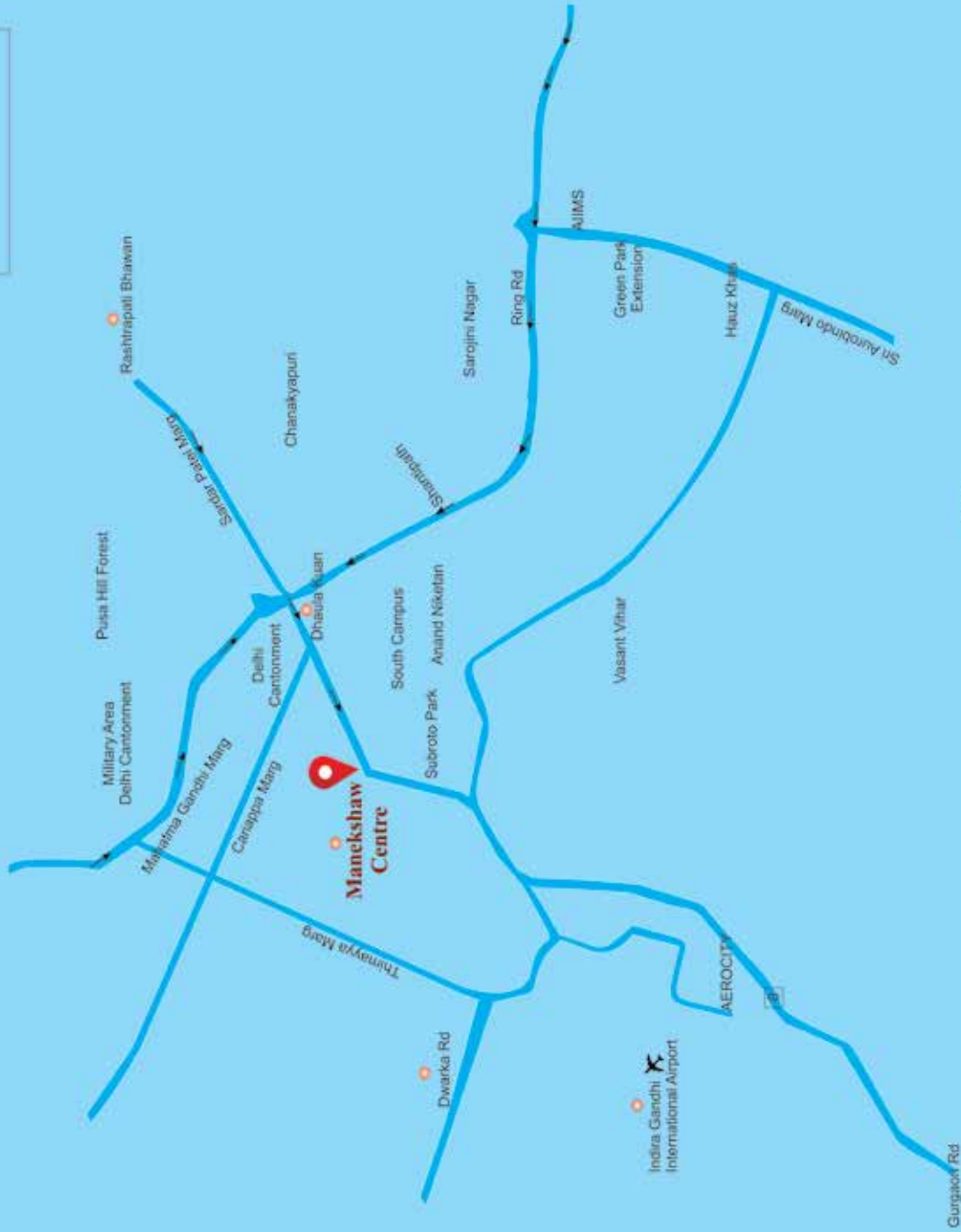
#### General Guidelines for shareholders

- 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 Jitesh Gupta, Practicing Company Secretary by e-mail to [cs@jkgupta.com](mailto:cs@jkgupta.com) with a copy marked to [evoting@nsdl.co.in](mailto: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](http://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](http://www.evoting.nsdl.com) or call on toll free no.: 1800-222-990 or send a request at [evoting@nsdl.co.in](mailto:evoting@nsdl.co.in).

\*\*\*



**Location Map**



Details :  
From Dhaula Kuan : 3 KM; Dwarka Rd to : 15 KM; From Vasant Vihar : 3 KM.

# Achievements & Accolades



A Maharatna Company



NTPC has been given SCOPE Award for RTI Act 2005 Compliance at SCOPE Meritorious Awards. The Award was received by Shri Gurdeep Singh, CMD, NTPC from Shri Pranab Mukherjee, President of India at a function held in New Delhi on 11<sup>th</sup> April, 2017. Shri Anant Geete, Union Minister of Heavy Industries and Public enterprises and Shri Babul Supriyo, Minister of State for Heavy Industries and Public Enterprises were present.



In a study carried out by Great Place to Work and The Economic Times, NTPC has been recognized for being among the best in the Industry - Public Sector Company to work for the year 2017 on 1<sup>st</sup> July 2017, "India's Best Companies to Work for 2017". The award was received by Shri Saptarshi Roy, Director(HR) in a function held in Mumbai.



NTPC, awarded for 'Excellence in Maharatna' Category at India Pride Awards by Dainik Bhaskar on 28<sup>th</sup> March 2018 in New Delhi. The Award was received by Shri A.N. Verma, Executive Director (HR) from Shri Dharmendra Pradhan, Hon'ble Union Minister of Petroleum and Natural Gas, Skill Development & Entrepreneurship and Shri Shivraj Singh Chouhan, Hon'ble Chief Minister of Madhya Pradesh.



NTPC Bagged four awards at the Annual SCOPE Corporate Communication Excellence Awards 2017, 1<sup>st</sup> Prize in Innovative Stakeholder Interface, 2<sup>nd</sup> Prize in Brand Building through Inclusive Growth Initiatives and Crisis Handling and commendation certificate for the Best Corporate Communication (Internal). Shri Saptarshi Roy, Director (HR) received the awards from Col. Rajyavardhan Rathore, Union Minister of State for Information and Broadcasting, Govt. of India.



NTPC Kawas has bagged first prize of the National Energy Conservation Award-2017 in Gas Power Station Category. Hon'ble The President of India, Shri Ram Nath Kovind presented the award during the National Energy Conservation Day function held in New Delhi on 14<sup>th</sup> December, 2017. The award was received by Shri C. V. Subramanian, General Manager (Kawas Gas Power Project) for excellence in Energy Conservation and Management.



NTPC- Mouda has bagged Second prize at National Energy Conservation Award-2017 in thermal Power Station Category. Hon'ble The President of India, Shri Ram Nath Kovind presented the award during the National Energy Conservation Day function. Shri Raj Kumar, GGM (Mouda) received the award. Shri R. K. Singh, Hon'ble Minister of State (Independent Charge) for Power and New & Renewable Energy and Secretary to Govt. of India, Ministry of Power and senior officials of the Ministry and Bureau of Energy Efficiency were present on the occasion.



## CMD and Directors of NTPC Limited



A Maharatna Company

**NTPC Limited**

(A Govt. of India Enterprise)

(CIN : L40101DL1975GOI007966)

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