

BEFORE THE HON'BLE CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

PETITION NO.....

IN THE : Petition Under Section 62 and 79 (1) (a) of the Electricity
MATTER OF Act, 2003 read with Chapter-V of the Central Electricity
Regulatory Commission (Conduct of Business)
Regulations, 1999 and Chapter-3, Regulation-9 of Central
Electricity Regulatory Commission (Terms and Conditions
of Tariff) Regulations, 2019 for approval of tariff of
Rihand Super Thermal Power Station St-III (1000 MW)
for the period from 01.04.2019 to 31.03.2024.

INDEX

Sl. No.	Description	Page No.
1	Petition for approval of tariff of Rihand Super Thermal Power Station St-III for the period from 01.04.2019 to 31.03.2024	1 - 11
2	Affidavit	12 - 13
3	Appendix-I	14 - 113
4	Annexure-A	114 - 118
5	Annexure-B	119 - 131
6	Annexure-C	133 - 134

S. U. S.

BEFORE THE HON'BLE CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

PETITION NO.....

IN THE MATTER : Petition Under Section 62 and 79 (1) (a) of the
OF Electricity Act, 2003 read with Chapter-V of the
Central Electricity Regulatory Commission
(Conduct of Business) Regulations, 1999 and
Chapter-3, Regulation-9 of Central Electricity
Regulatory Commission (Terms and Conditions of
Tariff) Regulations, 2019 for approval of tariff of
Rihand Super Thermal Power Station St-III
(1000 MW) for the period from 01.04.2019 to
31.03.2024.

AND
IN THE MATTER
OF

Petitioner: : NTPC Ltd.
NTPC Bhawan
Core-7, Scope Complex
7, Institutional Area, Lodhi Road
New Delhi-110 003.

Respondents

1. Uttar Pradesh Power Corp. Ltd. (UPPCL)
Shakti Bhawan
14, Ashok Marg
Lucknow – 226 001
2. Rajasthan Urja Vikas Nigam Limited (RUVNL)
Vidyut Bhawan, Janpath,
Jaipur – 302 005 (Rajasthan)
(On Behalf of DISCOMs of Rajasthan)
3. Tata Power Delhi Distribution Ltd.
Grid Substation, Hudson Road
Kingsway Camp, New Delhi- 110009

S.P.M.

4. BSES Rajdhani Power Ltd. (BRPL)
BSES Bhawan, Nehru Place
New Delhi – 110019
5. BSES Yamuna Power Ltd. (BYPL)
Shakti Kiran Building
Karkardooma
Delhi- 110092
6. Haryana Power Purchase Centre
Shakti Bhawan, Sector-VI,
Panchkula, Haryana – 134109
7. Punjab State Power Corporation Ltd. (PSPCL)
The Mall, Patiala – 147 001
8. Himachal Pradesh State Electricity Board Ltd.
(HPSEB Ltd.)
Kumar Housing Complex Building-II
Vidyut Bhawan, Shimla – 171 004
9. Power Development Department (PDD-J&K)
Govt. of J&K , Civil Secretariat
Srinagar
10. Electricity Department (Chandigarh)
Union Territory of Chandigarh
Addl. Office Building, Sector-9 D
Chandigarh
11. Uttarakhand Power Corporation Ltd. (UPCL)
Urja Bhavan, Kanwali Road
Dehradun – 248 001

The Petitioner humbly states that:

- 1) The Petitioner herein NTPC Ltd. (hereinafter referred to as 'Petitioner' or 'NTPC'), is a company incorporated under provisions of the Company Act, 1956 and a Government Company as defined under Section 2(45) of the

S. Anand

Companies Act, 2013. Further, NTPC is a 'Generating Company' as defined under Section 2(28) of the Electricity Act, 2003.

- 2) In terms of Section 79(1)(a) of Electricity Act, 2003, the Hon'ble Commission has been vested with the functions to regulate the tariff of NTPC, being a Generating Company owned and controlled by the Central Government. The regulation of the tariff of NTPC is as provided under Section 79(1)(a) read with Section 61, 62 and 64 of the Electricity Act, 2003 and the Regulations notified by the Hon'ble Commission in exercise of powers under Section 178 read with Section 61 of the Electricity Act, 2003.
- 3) The Petitioner is having power stations/ projects at different regions and places in the country. Rihand Super Thermal Power Station Stage-III (2 X 500 MW) (hereinafter referred to as 'Rihand-III') is one such station located in the State of Uttar Pradesh. The power generated from Rihand-III is being supplied to the respondents herein above.
- 4) The Hon'ble Commission has notified the Central Electricity Regulatory Commission (Terms & Conditions of Tariff) Regulations, 2019 (hereinafter referred to as 'Tariff Regulations 2019') which came into force from 01.04.2019, specifying the terms & conditions and methodology of tariff determination for the period 01.04.2019 to 31.03.2024.
- 5) Regulation 9(2) of Tariff Regulations 2019 provides as follows:
"(2) In case of an existing generating station or unit thereof, or transmission system or element thereof, the application shall be made by the generating company or the transmission licensee, as the case may be, by 31.10.2019, based on admitted capital cost including additional capital

expenditure already admitted and incurred up to 31.3.2019 (either based on actual or projected additional capital expenditure) and estimated additional capital expenditure for the respective years of the tariff period 2019-24 along with the true up petition for the period 2014-19 in accordance with the CERC (Terms and Conditions of Tariff) Regulations, 2014.”

It is submitted that the date of filing of tariff petition has subsequently been extended by Hon'ble Commission vide order dated 28.10.2019 in Petition No. 331/MP/2019.

In terms of above, the Petitioner is filing the present petition for determination of tariff for Rihand-III for the period from 01.04.2019 to 31.03.2024 as per the Tariff Regulations 2019.

- 6) The tariff of the Rihand-III for the tariff period 1.4.2014 to 31.3.2019 was determined by the Hon'ble Commission vide its order dated 06.02.2017 in Petition No. 372/GT/2014 in accordance with the CERC (Terms & Conditions of Tariff) Regulations 2014. The Petitioner thereafter had filed an Appeal (being No. 110 of 2017) in Appellate Tribunal of Electricity on certain aspects of the order dated 06.02.2017. The appeal is under consideration of the Hon'ble Appellate Tribunal of Electricity. The petitioner vide affidavit dated 25.10.2019 had filed a separate true up petition for the period 01.04.2014 to 31.03.2019 for revision of tariff in line with the applicable provisions of Tariff Regulations 2014.
- 7) It is submitted that Hon'ble Commission vide order dated 06.02.2017 in Petition No. 372/GT/2014 has allowed a capital cost of Rs 5237.5081 Cr as on 31.03.2019 based on the admitted projected capital expenditure for the 2014-19 period. However, the actual closing capital cost as on

31.03.2019 has been worked out in the foresaid true-up petition as Rs. 5547.4561 Cr based on the actual expenditure after truing up exercise for the period 2014-19. Accordingly, the Petitioner has adjusted an amount of Rs 309.948 Cr from the admitted capital cost as on 31.03.2019 and accordingly the opening capital cost as on 01.04.2019 has been considered as Rs. 5547.4561 Cr in the instant petition. The Hon'ble Commission may be pleased to accordingly adopt this adjustment in the admitted capital cost as on 31.3.2019 and determine the tariff in the present petition for the period 2019-24.

- 8) The capital cost claimed in the instant petition is based on the opening capital cost as on 01.04.2019 considered as above and projected estimated capital expenditures for the period 2019-24 under Regulation 19 and Regulation 25 and 26 of the Tariff Regulations, 2019.
- 9) The Petitioner further respectfully submits that as per Regulation 35(1)(6) of the Tariff Regulations 2019, the water charges, security expenses and capital spares consumed for thermal generating stations are to be allowed separately. The details in respect of water charges such as type of cooling water system, water consumption, rate of water charges as applicable for 2018-19 have been furnished below.

Description	Remarks
Type of Plant	Coal
Type of cooling water system	Closed Cycle
Consumption of Water	37.19 Cusec
Rate of Water charges	268.68/ 295.54 Paise/ Kwh
Total Water Charges	Rs 434.30 Lakhs

It is submitted that water charges of Rihand-III are paid based on minutes of meeting dated 03.04.1999 which provides that water charges shall be revised upwards by 10% after every five years. The last revision of water charges took place w.e.f. 01.01.2019. Therefore, the water charges for 2019-24 period have been claimed based on rate of water charges applicable w.e.f. 01.01.2019. Accordingly, water charges may be allowed in tariff based on the same for the period 2019-24. In accordance with provision of the Regulations, the petitioner shall be furnishing the details of actuals for the relevant year at the time of truing up and the same shall be subject to retrospective adjustment.

- 10) Similarly, the Petitioner is claiming the security expenses based on the estimated expenses for the period 2019-24, the same shall be subject to retrospective adjustment based on actuals at the time of truing up. In respect of capital spares consumption, it is submitted that the same shall be claimed at the time of true-up in terms of the proviso to the Regulation 35 (1)(6) based on actual consumption of spares during the period 2019-24.
- 11) The present petition is filed on the basis of norms specified in the Tariff Regulations 2019. It is submitted that the petitioner is in the process of installing the Emission Control Systems (ECS) in compliance of the Revised Emission Standards as notified by MoEFCC vide notification dated 07.12.2015 as amended. Completion of these schemes in compliance of revised emission norms will affect the station APC, Heat Rate, O&M expenses etc. In addition, the availability of the unit/ station would also be effected due to shutdown of the units for installation of ECS. The petitioner would be filing the details of the same in a separate petition in terms of the Regulation 29 of Tariff Regulations 2019. The tariff of the instant petition

would undergo changes consequent to the order of the Hon'ble Commission in the said ECS petition.

- 12) It is submitted that a notification dated 25.01.2016 has been issued by Government of India, Ministry of Environment, Forest & Climate Change (MoEFCC) under the statutory provisions of Environment (Protection) Act 1986. The said notification of MoEFCC prescribed bearing the transportation cost of Fly Ash generated at power stations. In this regard, Petitioner filed a petition, being no. 172/MP/2016, before the Hon'ble Commission seeking reimbursement of the additional expenditure for Fly Ash Transportation directly from the beneficiaries as the same was in the nature of statutory expense. Hon'ble Commission vide order dated 05.11.2018 disposed of the said petition and directed as follows:

"31. Accordingly, we in exercise of the regulatory power hold that the actual additional expenditure incurred by the Petitioner towards transportation of ash in terms of the MOEFCC Notification is admissible under "Change in Law" as additional O&M expenses. However, the admissibility of the claims is subject to prudence check of the following conditions on case to case basis for each station:

- a) Award of fly ash transportation contract through a transparent competitive bidding procedure. Alternatively, the schedule rates of the respective State Governments, as applicable for transportation of fly ash.*
- b) Details of the actual additional expenditure incurred on Ash transportation after 25.1.2016, duly certified by auditors.*
- c) Details of the Revenue generated from sale of fly ash/ fly ash products and the expenditure incurred towards Ash utilisation up to 25.1.2016 and from 25.1.2016 to till date, separately.*
- d) Revenue generated from fly Ash sales maintained in a separate account as per the MoEF notification.*

32. The Petitioner is granted liberty to approach the Commission at the time of revision of tariff of the generating stations based on trueing –up exercise for the period 2014-19 in terms of Regulation 8 of the 2014 Tariff Regulations along with all details / information, duly certified by auditor."



The expenditure towards the ash transportation charges are recurring in nature. The Petitioner has been incurring ash transportation expenditure in some of its stations in the current tariff period also. In case the same is permitted to be recovered at the end of the tariff period 2019-24, there will be additional liability on the beneficiary on account of the interest payment for the period till the time the true-up petitions for the period 2019-24 is decided. To avoid the interest payment liability of the beneficiaries, it is prayed that the petitioner may be allowed to recover/pass on the ash transportation charges after adjusting the revenue earned from sale of ash at the end of each quarter of financial year subject to true-up at the end of the period.

- 13) It is submitted that Hon'ble Commission has prescribed boiler efficiency and turbine heat rate separately for deriving the unit heat rate where the Unit Heat Rate is not guaranteed by the suppliers. It is submitted that the instant station was envisaged during CY 2009 and equipments including SG and TG specifications for tendering / award was stipulated considering the boiler efficiency and the turbine heat rate prescribed by the Hon'ble Commission in the Tariff Regulations at that time. Based on the same the equipments were ordered through international competitive bidding. It was not possible for the petitioner to specify the efficiency parameters at the time of finalizing the contracts on the instant station as per the efficiency parameters specified in Tariff Regulations 2019-24 which are more stringent.

In a similar case, Hon'ble Commission in its order dated 20.02.2014 in Petition No. 160/GT/2012 has considered the design parameters for computing Gross Heat Rate of the station with appropriate operating margin and has stated as under:

⑧

S. M.

“161. As per the guaranteed turbine cycle heat rate of 1945 kCal/kWh and boiler efficiency of 88.5% along with the deviation of 6.5 % as per the 2009 Tariff Regulations, the Gross Heat Rate works out to 2340.59 kcal/kWh. Without the margin of Auxiliary consumption of 6.5%, the Gross Heat Rate works out as 2197.74 kcal/kWh. In light of this, achieving a GSHR of 2220 kcal/kWh as per submission of the respondents 1 to 6 is not possible. Also, the EPC contract was finalized in 2006 and there was no possibility for the petitioner to specify the Station Heat Rate as per the 2009 Tariff Regulations. In view of above, we consider a GSHR of 2340.59 kCal/kWh based on guaranteed turbine cycle heat rate 1945 kCal/kWh and boiler efficiency of 88.5% with a deviation of 6.5 % from the guaranteed design value.”

Further, if the Petitioner had stipulated more stringent unit heat rate, this would have increased the capital cost commensurate to the efficiency parameters sought. The benefit of the lower capital cost due to lower efficiency parameters has already been passed onto the beneficiaries in terms of lower capital cost. If now the boiler efficiency for working out the normative heat rate is considered as 86% instead of the actual design efficiency of 84.05%, the unit heat rate would be worked out to be 2358.84 kcal/kwh and the operating margin available over the design heat rate would be 2.62% only which is much less than the operating margin of 5% allowed in the Tariff Regulations 2019. Moreover, it is submitted that boiler efficiency is largely a function of coal quality. In view of above submissions it is prayed that Gross Station Heat rate may be allowed based on guaranteed turbine cycle heat rate of 1932 kcal/kwh and boiler efficiency of 84.05% with an operating margin of 5 % from the guaranteed design value. The tariff computation attached at Appendix-I is based on

9

[Handwritten signature]

considering Station Heat Rate as per design heat rate with applicable operating margin of 5%.

- 14) It is submitted that the Petitioner has already paid the requisite filing fee vide UTR No. CMS1106438370 on 22.04.2019 for the year 2019-20 and the details of the same have been duly furnished to the Hon'ble Commission vide our letter dtd. 25.04.2019. For the subsequent years, it shall be paid as per the provisions of the CERC (Payment of Fees) Regulations, 2012 as amended. Further Regulation 70(1) of Tariff Regulations 2019 provides that the application fee and publication expenses may be allowed to be recovered directly from the beneficiaries at the discretion of the Hon'ble Commission. Accordingly, it is prayed that Hon'ble Commission may be pleased to allow recover filing fee and publication expenses directly from the beneficiaries.
- 15) The petitioner has accordingly calculated the tariff for 2019-24 period based on the above and the same is enclosed as **Appendix-I** to this petition.
- 16) It is submitted the Petitioner has served the copy of the Petition on to the Respondents mentioned herein above and has posted the Petition on the company website i.e. www.ntpc.co.in.
- 17) It is submitted that the petitioner is filing this tariff petition subject to the outcome of its various appeals/ petitions pending before different courts. Besides, the petitions filed by NTPC for determination of capital base as on 31.03.2019 through true-up exercise are pending before the Hon'ble Commission and would take some time. The Petitioner, therefore, reserves its right to amend the tariff petition as per the outcome in such appeals/ petitions, if required.



18) **Prayers**

In the light of the above submissions, the Petitioner, therefore, prays that the Hon'ble Commission may be pleased to:

- i) Approve tariff of Rihand Super Thermal Power Station St-III for the tariff period from 01.04.2019 to 31.03.2024.
- ii) Allow the recovery of filing fees as & when paid to the Hon'ble Commission and publication expenses from the beneficiaries.
- iii) Allow reimbursement of Ash Transportation Charges directly from the beneficiaries quarterly on net basis.
- iv) Consider station heat rate based on design heat rate with applicable operating margin.
- v) Pass any other order as it may deem fit in the circumstances mentioned above.


Petitioner

BEFORE THE CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

PETITION NO:

IN THE MATTER OF : Petition Under Section 62 and 79 (1) (a) of the Electricity Act, 2003 read with Chapter-V of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and Chapter-3, Regulation-9 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for approval of tariff of **Rihand Super Thermal Power Station Stage-III** for the period from 01.04.2019 to 31.03.2024.

AND

IN THE MATTER OF

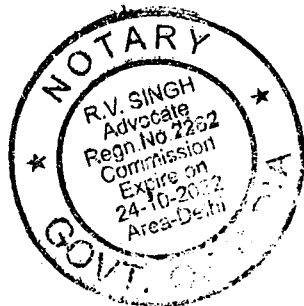
Petitioner

: NTPC Ltd.
NTPC Bhawan
Core-7, Scope Complex
7, Institutional Area, Lodhi Road
New Delhi-110 003

Respondent:

1. Uttar Pradesh Power Corp. Ltd. (UPPCL)
Shakti Bhawan,
14, Ashok Marg
Lucknow – 226 001.

.....
and Others



1 (12)

S. S.

AFFIDAVIT

I, E. Prabhakara Rao, son of Late Shri E. K. Rama Sharma aged about 52 years resident of D-311, Parsvnath Prestige, Sector-93A, Noida (UP) solemnly affirm and state as follows:

1. That I am the Additional General Manager (Commercial) in Petitioner Corporation NTPC Ltd. and am well conversant with the facts of the case and am competent to swear the present affidavit.
2. The statement made in the accompanying Petition for approval of tariff of **Rihand Super Thermal Power Station Stage-III (2 x 500 MW)** for the period from 01.04.2019 to 31.03.2024 are based on the official records maintained during the ordinary course of business and believed by the deponent to be true.


Deponent

Verification

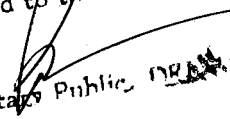
I, the deponent above named, do hereby verify that the contents of the above affidavit are true to the best of my knowledge, no part of it is false and nothing material has been concealed there from.

Verified at New Delhi on this 24th January, 2020




Deponent

Solemnly affirmed before me, read
over & explained to the deponent.

Notary Public, 

24 JAN 2020

TARIFF FILING FORMS (THERMAL)

FOR DETERMINATION OF TARIFF

FOR

Rihand Super Thermal Power Station Stage-III

(From 01.04.2019 to 31.03.2024)

PART-I

ANNEXURE-I

Checklist of Main Tariff Forms and other information for tariff filing for Thermal Stations

Form No.	Title of Tariff Filing Forms (Thermal)	Tick
FORM- 1	Summary of Tariff	✓
FORM -1 (I)	Statement showing claimed capital cost	✓
FORM -1 (II)	Statement showing Return on Equity	✓
FORM-2	Plant Characteristics	✓
FORM-3	Normative parameters considered for tariff computations	✓
FORM-3A**	Statement showing O&M Expenses	✓
FORM- 4	Details of Foreign loans	✓
FORM- 4A	Details of Foreign Equity	NA
FORM-5	Abstract of Admitted Capital Cost for the existing Projects	✓
FORM-5A**	Abstract of Claimed Capital Cost for the existing Projects	✓
FORM- 6	Financial Package upto COD	NA
FORM- 7	Details of Project Specific Loans	NA
FORM- 8	Details of Allocation of corporate loans to various projects	✓
FORM-9A**	Summary of Statement of Additional Capitalisation claimed during the period	✓
FORM-9 ##	Statement of Additional Capitalisation after COD	✓
FORM- 10	Financing of Additional Capitalisation	✓
FORM- 11	Calculation of Depreciation on original project cost	✓
FORM- 12	Statement of Depreciation	✓
FORM- 13	Calculation of Weighted Average Rate of Interest on Actual Loans	✓
FORM- 14	Draw Down Schedule for Calculation of IDC & Financing Charges	NA
FORM- 15	Details of Fuel for Computation of Energy Charges	✓
FORM- 15A**	Details of Secondary Fuel for Computation of Energy Charges	✓
FORM- 15B**	Computation of Energy Charges	✓
FORM- 16	Details of Limestone for Computation of Energy Charge Rate	NA
FORM-17	Details of Capital Spares	***
FORM- 18	Non-Tariff Income	***
FORM-19	Details of Water Charges	***
FORM-20	Details of Statutory Charges	***

Provided yearwise for the period 2019-24

PART-I

List of Supporting Forms / documents for tariff filing for Thermal Stations

Form No.	Title of Tariff Filing Forms (Thermal)	Tick
FORM-A	Abstract of Capital Cost Estimates	NA
FORM-B	Break-up of Capital Cost for Coal/Lignite based projects	NA
FORM-C	Break-up of Capital Cost for Gas/Liquid fuel based Projects	NA
FORM-D	Break-up of Construction/Supply/Service packages	NA
FORM-E	Details of variables , parameters , optional package etc. for New Project	NA
FORM-F	Details of cost over run	NA
FORM-G	Details of time over run	NA
FORM -H	Statement of Additional Capitalisation during end of the useful life	NA
FORM -I	Details of Assets De-capitalised during the period	***
FORM -J	Reconciliation of Capitalisation claimed vis-à-vis books of accounts	***
FORM -K	Statement showing details of items/assets/works claimed under Exclusions	***
FORM-L	Statement of Capital cost	✓
FORM-M	Statement of Capital Woks in Progress	✓
FORM-N	Calculation of Interest on Normative Loan	✓
FORM-O	Calculation of Interest on Working Capital	✓
FORM-P	Incidental Expenditure up to SCOD and up to Actual COD	NA
FORM-Q	Expenditure under different packages up to SCOD and up to Actual COD	NA
FORM-R	Actual cash expenditure	NA
FORM-S	Statement of Liability flow	✓
FORM-T	Summary of issues involved in the petition	✓

** Additional Forms

*** Shall be provided at the time of true up

(15)

Stm.

List of supporting documents for tariff filing for Thermal Stations

S. No.	Information / Document	Tick
1	Certificate of incorporation, Certificate for Commencement of Business, Memorandum of Association, & Articles of Association (For New Station setup by a company making tariff application for the first time to CERC)	NA
2	A. Station wise and Corporate audited Balance Sheet and Profit & Loss Accounts with all the Schedules & annexures on COD of the Station for the new station & for the relevant years. B. Station wise and Corporate audited Balance Sheet and Profit & Loss Accounts with all the Schedules & annexures for the existing station for relevant years.	***
3	Copies of relevant loan Agreements	NA
4	Copies of the approval of Competent Authority for the Capital Cost and Financial package.	NA
5	Copies of the Equity participation agreements and necessary approval for the foreign equity.	NA
6	Copies of the BPSA/PPA with the beneficiaries, if any	NA
7	Detailed note giving reasons of cost and time over run, if applicable. List of supporting documents to be submitted: a. Detailed Project Report b. CPM Analysis c. PERT Chart and Bar Chart d. Justification for cost and time Overrun	NA
8	Generating Company shall submit copy of Cost Audit Report along with cost accounting records, cost details, statements, schedules etc. for the Generating Unit wise /stage wise/Station wise/ and subsequently consolidated at Company level as submitted to the Govt. of India for first two years i.e. 2019-20 and 2020-21 at the time of mid-term true-up in 2021-22 and for balance period of tariff period 2019-24 at the time of final true-up in 2024-25. In case of initial tariff filing the latest available Cost Audit Report should be furnished.	***
9	Any other relevant information, (Please specify)	
10	Reconciliation with Balance sheet of any actual additional capitalization and amongst stages of a generating station	***
11	BBMB is maintaining the records as per the relevant applicable Acts. Formats specified herein may not be suitable to the available information with BBMB. BBMB may modify the formats suitably as per available information to them for submission of required information for tariff purpose.	NA

*** Shall be provided at the time of true up

(16)

S. K.

Summary of Tariff

**PART-I
FORM- 1**

Name of the Petitioner:	NTPC Limited
Name of the Generating Station:	Rihand Super Thermal Power Station Stage-III
Place (Region/District/State):	Northern Region/Sonebhadra/ Uttar Pradesh

Amount in Rs. Lakh

S. No.	Particulars	Unit	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7	8	9
1.1	Depreciation	Rs Lakh	30,299.58	30,317.54	30,493.06	30,807.17	31,028.78	31,295.74
1.2	Interest on Loan	Rs Lakh	18,429.89	16,264.05	14,099.63	12,083.41	10,346.42	8,550.84
1.3	Return on Equity	Rs Lakh	32,833.72	31,273.14	31,426.84	31,664.39	31,806.94	32,061.41
1.4	Interest on Working Capital	Rs Lakh	6,698.84	5,233.70	5,256.04	5,274.75	5,294.74	5,314.67
1.5	O&M Expenses	Rs Lakh	20,334.59	24217.52	25136.59	25956.97	26775.05	27646.60
1.6	Special Allowance (If applicable)	Rs Lakh	0.00	0.00	0.00	0.00	0.00	0.00
1.7	Compensation Allowance (If applicable – relevant for column 4 only)	Rs. Lakh	0.00					
	Total	Rs Lakh	108596.61	107305.95	106412.16	105786.69	105251.92	104869.25
2.1	Landed Fuel Cost of coal	Rs/Ton				2228.62		
	(%) of Fuel Quantity	(%)				100.00		
2.2	Landed Fuel Cost of Imported Coal							
	(%) of Fuel Quantity					N/A		
2.3	Landed Fuel Cost of coal other than FSA	Rs/Ton						
	(%) of Fuel Quantity	(%)				N/A		
2.4	Landed Fuel Cost Imported Coal other than FSA.	Rs/Ton						
	(%) of Fuel Quantity	(%)				N/A		
2.5	Secondary fuel oil cost	Rs/Unit				0.03		
	Energy Charge Rate ex-bus (Paise/kWh) 2A, 2B, 2C, 2D	Rs/Unit				1.430		

(J)


(Petitioner)

**PART-I
FORM- 1(I)**

Name of the Petitioner:	NTPC Limited
Name of the Generating Station:	Rihand Super Thermal Power Station Stage-III

Amount in Rs. Lakh

Statement showing claimed capital cost – (A+B)

S. No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7
1	Opening Capital Cost	5,54,745.61	5,55,298.94	5,61,172.27	5,66,799.77	5,69,286.27
2	Add: Addition during the year	553.33	5,873.33	5,627.50	2,486.50	7,288.00
3	Less: De-capitalisation during the year	-	-	-	-	-
4	Less: Reversal during the year	-	-	-	-	-
5	Add: Discharges during the year	-	-	-	-	-
6	Closing Capital Cost	5,55,298.94	5,61,172.27	5,66,799.77	5,69,286.27	5,76,574.27
7	Average Capital Cost	5,55,022.28	5,58,235.61	5,63,986.02	5,68,043.02	5,72,930.27

Statement showing claimed capital cost eligible for RoE at normal rate (A)

S. No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7
1	Opening Capital Cost	554745.61	555288.94	559251.27	560702.27	560702.27
2	Add: Addition during the year	543.33	3962.33	1451.00	0.00	7280.00
3	Less: De-capitalisation during the year	0.00	0.00	0.00	0.00	0.00
4	Less: Reversal during the year	0.00	0.00	0.00	0.00	0.00
5	Add: Discharges during the year	0.00	0.00	0.00	0.00	0.00
6	Closing Capital Cost	555288.94	559251.27	560702.27	560702.27	567982.27
7	Average Capital Cost	555017.28	557270.11	559976.77	560702.27	564342.27

Signature

Name of the Petitioner:	NTPC Limited
Name of the Generating Station:	Rihand Super Thermal Power Station Stage-III

Amount in Rs. Lakh

Statement showing claimed capital cost eligible for RoE at weighted average rate of interest
on actual loan portfolio (B)

S. No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7
1	Opening Capital Cost	0.00	10.00	1921.00	6097.50	8584.00
2	Add: Addition during the year	10.00	1911.00	4176.50	2486.50	8.00
3	Less: De-capitalisation during the year	0.00	0.00	0.00	0.00	0.00
4	Less: Reversal during the year	0.00	0.00	0.00	0.00	0.00
5	Add: Discharges during the year	0.00	0.00	0.00	0.00	0.00
6	Closing Capital Cost	10.00	1921.00	6097.50	8584.00	8592.00
7	Average Capital Cost	5.00	965.50	4009.25	7340.75	8588.00


(Petitioner)

19

Statement showing Return on Equity at Normal Rate

**PART-I
FORM- 1(IIA)**

Name of the Petitioner	NTPC Limited
Name of the Generating Station	Rihand Super Thermal Power Station Stage-III

S. No.	Particulars	Amount in Rs. Lakh				
		2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7
	Return on Equity					
1	Gross Opening Equity (Normal)	1,66,423.68	1,66,586.68	1,67,775.38	1,68,210.68	168210.677
2	Less: Adjustment in Opening Equity	-	-	-	-	
3	Adjustment during the year	-	-	-	-	-
4	Net Opening Equity (Normal)	1,66,423.68	1,66,586.68	1,67,775.38	1,68,210.68	1,68,210.68
5	Add: Increase in equity due to addition during the year	163.00	1188.70	435.30	0.00	2184.00
7	Less: Decrease due to De-capitalisation during the year	0.00	0.00	0.00	0.00	0.00
8	Less: Decrease due to reversal during the year	0.00	0.00	0.00	0.00	0.00
9	Add: Increase due to discharges during the year	0.00	0.00	0.00	0.00	0.00
10	Net closing Equity (Normal)	1,66,586.68	1,67,775.38	1,68,210.68	1,68,210.68	1,70,394.68
11	Average Equity (Normal)	1,66,505.18	1,67,181.03	1,67,993.03	1,68,210.68	1,69,302.68
12	Rate of ROE (%)	18.782	18.782	18.782	18.782	18.782
13	Total ROE	31,273.00	31,399.94	31,552.45	31,593.33	31,798.43

(2)


(Petitioner)

Statement showing Return on Equity at Weighted Average Rate of Interest

**PART-I
FORM- 1(IIB)**

Name of the Petitioner:	NTPC Limited
Name of the Generating Station:	Rihand Super Thermal Power Station Stage-III

Amount in Rs. Lakh

S. No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7
Return on Equity (beyond the original scope of work excluding additional capitalization due to Change in Law)						
1	Gross Opening Equity (Normal)	0.00	3.00	576.30	1829.25	2575.20
2	Less: Adjustment in Opening Equity	0.00	0.00	0.00	0.00	0.00
3	Adjustment during the year	0.00	0.00	0.00	0.00	0.00
4	Net Opening Equity (Normal)	0.00	3.00	576.30	1829.25	2575.20
5	Add: Increase in equity due to addition during the year	3.00	573.30	1252.95	745.95	2.40
7	Less: Decrease due to De-capitalisation during the year	0.00	0.00	0.00	0.00	0.00
8	Less: Decrease due to reversal during the year	0.00	0.00	0.00	0.00	0.00
9	Add: Increase due to discharges during the year	0.00	0.00	0.00	0.00	0.00
10	Net closing Equity (Normal)	3.00	576.30	1829.25	2575.20	2577.60
11	Average Equity (Normal)	1.50	289.65	1202.78	2202.23	2576.40
12	Rate of ROE (%)	9.291	9.288	9.306	9.700	10.207
13	Total ROE	0.14	26.90	111.94	213.61	262.98

13



 (Petitioner)

Plant Characteristics

Name of the Petitioner	NTPC Limited	
Name of the Generating Station	Rihand Super Thermal Power Station Stage-III	
Unit(s)/Block(s)/Parameters	Unit-I	Unit-II
Installed Capacity (MW)	500	500
Schedule COD as per Investment Approval	NA	NA
Actual COD	19.11.2012	27.03.2014
Pit Head or Non Pit Head	Pit Head	
Name of the Boiler Manufacture	N/A	
Name of Turbine Generator Manufacture		
Main Steams Pressure at Turbine inlet (kg/Cm ²) abs		
Main Steam Temperature at Turbine inlet (°C)		
Reheat Steam Pressure at Turbine inlet (kg/Cm ²)		
Reheat Steam Temperature at Turbine inlet (°C)		
Main Steam flow at Turbine inlet under MCR condition (tons /hr)		
Main Steam flow at Turbine inlet under VWO condition (tons /hr)		
Unit Gross electrical output under MCR /Rated condition (MW)		
Unit Gross electrical output under VWO condition (MW)		
Guaranteed Design Gross Turbine Cycle Heat Rate (kCal/kWh)		
Conditions on which design turbine cycle heat rate guaranteed (kcal/kwhr)		
% MCR		
% Makeup Water Consumption		
Design Capacity of Make up Water System(% of throttle steam flow)		
Design Capacity of Inlet Cooling System		
Design Cooling Water Temperature (°C)		
Back Pressure(Average condenser pressure in mmHg(A))		
Steam flow at super heater outlet under BMCR condition (tons/hr)		
Steam Pressure at super heater outlet under BMCR condition (kg/Cm ²)		
Steam Temperature at super heater outlet under BMCR condition (°C)		
Steam Temperature at Reheater outlet at BMCR condition (°C)		
Design / Guaranteed Boiler Efficiency (%)		
Design Fuel with and without Blending of domestic/ imported coal		
(GCV) Domestic Design coal		
Blended Coal (Domestic Design 70%+ Imported 30%)		
Type of Cooling Tower		
Type of cooling system	Closed Cycle	
Type of Boiler Feed Pump	2X60% Steam Driven + 1X50% Electrical Driven for each unit	

Sms.

Plant Characteristics

Name of the Petitioner	NTPC Limited	
Name of the Generating Station	Rihand Super Thermal Power Station Stage-III	
Unit(s)/Block(s)/Parameters	Unit-I	Unit-II
Fuel Details		
-Primary Fuel	Coal	
-Secondary Fuel	HFO/ LDO	
-Alternate Fuels		
Special Features/Site Specific Features		
Special Technological Features		
Environmental Regulation related features	1.ESP is provided 2.FGD & NOx reduction system implementation is in process.	
Any other special features		
 (PETITIONER)		

Normative parameters considered for tariff computations

**PART-I
FORM- 3**

Name of the Petitioner: NTPC Limited

Name of the Generating Station: Rihand Super Thermal Power Station Stage-III

(Year Ending March)

Particulars	Unit	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7	8
Base Rate of Return on Equity \$\$	%	15.50	15.50	15.50	15.50	15.50	15.50
Base Rate of Return on Equity on Add. Capitalization**	%	-	7.668	7.665	7.680	8.005	8.424
Effective Tax Rate	%	21.549	17.472	17.472	17.472	17.472	17.472
Target Availability	%	85.00	85.00				
In High Demand Season	%	-	-	85.00	85.00	85.00	85.00
Peak Hours	%	-	-	85.00	85.00	85.00	85.00
Off-Peak Hours	%	-	-	85.00	85.00	85.00	85.00
In Low Demand Season(Off-Peak)	%	-	-	85.00	85.00	85.00	85.00
Peak Hours	%	-	-	85.00	85.00	85.00	85.00
Off-Peak Hours	%	-	-	85.00	85.00	85.00	85.00
Auxiliary Energy Consumption	%	5.75	6.25	6.25	6.25	6.25	6.25
Gross Station Heat Rate	kCal/kWh	2402.07	2413.56	2413.56	2413.56	2413.56	2413.56
Specific Fuel Oil Consumption	ml/kWh	0.50	0.50	0.50	0.50	0.50	0.50
Cost of Coal for WC	in Days	45	40	40	40	40	40
Cost of Main Secondary Fuel Oil for WC	in Months	2	2	2	2	2	2
Fuel Cost for WC	in Months						
Liquid Fuel Stock for WC	in Months						
O&M Expenses	Rs lakh/MW	20.43	22.51	23.3	24.12	24.97	25.84
Maintenance Spares for WC	% of O&M	20.00	20.00	20.00	20.00	20.00	20.00
Receivables for WC	in Days	60	45	45	45	45	45
Storage capacity of Primary fuel*	MT	8.9 Lakh					
SBI 1 Year MCLR plus 350 basis point	%	13.50	12.05	12.05	12.05	12.05	12.05
Blending ratio of domestic coal/imported coal							

* Combined Storage capacity of Rihand Stage-I, II & III

** Rate of Return on Add - cap beyond original scope and excluding Change in Law

\$\$ Additional RoE due to better ramp rate would be claimed at the time of true-up or as per guidelines to be issued

S
Petitioner

(25)

**Part-I
FORM-3A
ADDITIONAL FORM**

Calculation of O&M Expenses

Name of the Company :	NTPC Limited
Name of the Power Station :	Rihand Super Thermal Power Station Stage-III

Amount in Rs. Lakh

S.No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	7	8
1	O&M expenses under Reg.35(1)					
1a	Normative	22510.00	23300.00	24120.00	24970.00	25840.00
2	O&M expenses under Reg.35(6)					
2a	Water Charges	466.24	466.24	466.24	466.24	466.24
2b	Security expenses	1241.29	1370.36	1370.74	1338.81	1340.36
2c	Capital Spares**	0.00	0.00	0.00	0.00	0.00
3	O&M expenses-Ash Transportation**	0.00	0.00	0.00	0.00	0.00
	Total O&M Expenses	24217.52	25136.59	25956.97	26775.05	27646.60

** Shall be provided at the time of truing up

S. P. W.
Petitioner

(5)

Form-4

DETAILS OF FOREIGN LOANS

(Details only in respect of loans applicable to the project under petition)

Name of the company
Name of the Power Station
Exchange Rate as onNTPC LIMITED
Rihand III

31-03-2019 USD = Rs. 69.77 EUR = Rs. 78.84 JPY 0.6343

Financial Year (Starting from COD)	18% (Amount in Lacs)				(Amount in Lacs)			
	2019-20 (01.04.2019 to 31.03.2020)				2020-21 (01.04.2020 to 31.03.2021)			
	1	2	3	4	1	2	3	4
5.625 % Euro Bonds 2021	Date	Amount (FC)	Ex. Rate	Amount (INR)	Date	Amount (FC)	Ex. Rate	Amount (INR)
Currency 1 USD	14-01-2019							
At the date of drawl	01-04-2019	878.45	69.77	61,289.46		878.45	69.77	61,289.46
Loan repayment upto previous period		-	69.77					
Net loan at the Beginning of the period	01-04-2019	878.45	69.77	61,289.46	01-04-2020	878.45	69.77	61,289.46
Schedule repayment date of principal								
Scheduled payment date of interest	14-07-2019	24.71	69.77	1,723.77	14-07-2020	24.71	69.77	1,723.77
Withholding tax including surcharge on interest	14-07-2019	6.90	69.77	481.67	14-07-2020	6.90	69.77	481.67
Schedule repayment date of principal								
Scheduled payment date of interest	14-01-2020	24.71	69.77	1,723.77	14-01-2021	24.71	69.77	1,723.77
Withholding tax including surcharge on interest	14-01-2020	6.90	69.77	481.67	14-01-2021	6.90	69.77	481.67
At the end of Financial year	31-03-2020	878.45	69.77	61,289.46	31-03-2021	878.45	69.77	61,289.46

Financial Year (Starting from COD)	10% (Amount in Lacs)				(Amount in Lacs)			
	2019-20 (01.04.2019 to 31.03.2020)				2020-21 (01.04.2020 to 31.03.2021)			
	1	2	3	4	1	2	3	4
4.75% Eurobonds 2022	Date	Amount (FC)	Ex. Rate	Amount (INR)	Date	Amount (FC)	Ex. Rate	Amount (INR)
A. Currency 1 USD	02-10-2018							
1. At the date of drawl	01-04-2018	479.65	69.77	33,464.83		479.65	69.77	33,464.83
Loan repayment upto previous period		-	0.00					
Net loan at the Beginning of the period	01-04-2019	479.65	69.77	33,464.83	01-04-2020	479.65	69.77	33,464.83
2. Schedule repayment date of principal								
3. Scheduled payment date of interest	02-04-2019	11.39	69.77	794.79	02-04-2020	11.39	69.77	794.79
4. Withholding tax including surcharge on interest	02-04-2019	0.66	69.77	45.90	02-04-2020	0.66	69.77	45.90
5. Schedule repayment date of principal								
6. Scheduled payment date of interest	02-10-2019	11.39	69.77	794.79	02-10-2020	11.39	69.77	794.79
7. Withholding tax including surcharge on interest	02-10-2019	0.66	69.77	45.90	02-10-2020	0.66	69.77	45.90
At the end of Financial year	31-03-2020	479.65	69.77	33,464.83	31-03-2021	479.65	69.77	33,464.83

Financial Year (Starting from COD)	0 3% (Amount in Lacs)			
	2019-20 (01.04.2019 to 31.03.2020)			
	1	2	3	4
SBI, New York	Date	Amount (FC)	Ex. Rate	Amount (INR)
A. Currency 1 USD	15-11-2018			
1. At the date of drawl	01-04-2019	83.89	69.77	5,853.05
Loan repayment upto previous period		-		
Net loan at the Beginning of the period	01-04-2019	83.89	69.77	5,853.05
2. Schedule repayment date of principal				
3. Scheduled payment date of interest	15-05-2019	1.79	69.77	125.22
4. Withholding tax including surcharge on interest	15-05-2019	0.01	69.77	0.72
Scheduled payment date of interest	29-07-2019	0.74	69.77	51.88
Withholding tax including surcharge on interest	29-07-2019	0.0043	69.77	0.30
5. Schedule repayment date of principal	29-07-2019	41.95	69.77	2,926.52
6. Scheduled payment date of interest	29-01-2020	0.91	69.77	63.65
7. Withholding tax including surcharge on interest	29-01-2020	0.0053	69.77	0.37
Schedule repayment date of principal	29-01-2020	41.95	69.77	2,926.52
At the end of Financial year	31-03-2020	-	0.00	-

See...

Form-4		DETAILS OF FOREIGN LOANS (Details only in respect of loans applicable to the project under petition)				
Name of the company		NTPC LIMITED				
Name of the Power Station		Rihand III				
Exchange Rate as on	31-03-2019	USD = Rs.	69.77	EUR = Rs.	78.84 JPY	0.6343

(Amount in Lacs)

Financial Year (Starting from COD)	2021-22 (01.04.2021 to 31.03.2022)			
	1	2	3	4
5.625 % Euro Bonds 2021	Date	Amount (FC)	Ex. Rate	Amount (INR)
Currency 1 USD				
At the date of drawl		878.45	69.77	61,289.46
Loan repayment upto previous period				
Net loan at the Beginning of the period	01-04-2021	878.45	69.77	61,289.46
Schedule repayment date of principal	14-07-2021	878.45	69.77	61,289.46
Scheduled payment date of interest	14-07-2021	20.86	69.77	1,455.62
Withholding tax including surcharge on interest	14-07-2021	5.83	69.77	406.74
Schedule repayment date of principal				-
Scheduled payment date of interest	14-01-2021	-	69.77	-
Withholding tax including surcharge on interest	14-01-2021	-	69.77	-
At the end of Financial year	31-03-2022	-	69.77	-

(Amount in Lacs)

(Amount in Lacs)

Financial Year (Starting from COD)	2021-22 (01.04.2021 to 31.03.2022)				2022-23 (01.04.2022 to 31.03.2023)			
	1	2	3	4	1	2	3	4
4.75% Eurobonds 2022	Date	Amount (FC)	Ex. Rate	Amount (INR)	Date	Amount (FC)	Ex. Rate	Amount (INR)
Currency 1 USD								
At the date of drawl		479.65	69.77	33,464.83		479.65	69.77	33,464.83
Loan repayment upto previous period								
Net loan at the Beginning of the period	01-04-2021	479.65	69.77	33,464.83	01-04-2022	479.65	69.77	33,464.83
Schedule repayment date of principal				-				-
Scheduled payment date of interest	02-04-2021	11.39	69.77	794.79	02-04-2022	11.39	69.77	794.79
Withholding tax including surcharge on interest	02-04-2021	0.66	69.77	45.90	02-04-2022	0.66	69.77	45.90
Schedule repayment date of principal				-	02-10-2022	479.65	69.77	33,464.83
Scheduled payment date of interest	02-10-2021	11.39	69.77	794.79	02-10-2022	11.39	69.77	794.79
Withholding tax including surcharge on interest	02-10-2021	0.66	69.77	45.90	02-10-2022	0.66	69.77	45.90
At the end of Financial year	31-03-2022	479.65	69.77	33,464.83	02-10-2022	-	0.00	-

S...


Abstract of Admitted Capital Cost for the existing Projects

Name of the Company :	NTPC Limited	
Name of the Power Station :	Rihand Super Thermal Power Station Stage-III	
Last date of order of Commission for the project		
	Date (DD-MM-YYYY)	06-02-2017
Reference of petition no. in which the above order was passed		
	Petition no.	372/GT/2014
Following details (whether admitted and /or considered) as on the last date of the period for which tariff is approved, in the above order by the Commission:		
Capital cost as on 01.04.2019	(Rs. in lakh)	5,23,750.81
Amount of un-discharged liabilities included in above (& forming part of admitted capital cost)		
Amount of un-discharged liabilities corresponding to above admitted capital cost (but not forming part of admitted capital cost being allowed on cash basis) as on 01.04.2014		31,921.06
Gross Normative Debt as on 01.04.2019		3,66,625.57
Cumulative Repayment as on 01.04.2019		1,58,945.25
Net Normative Debt as on 01.04.2019		2,07,680.32
Normative Equity		1,57,125.24
Cumulative Depreciation		1,58,945.25
Freehold land		-

22


(Petitioner)

Abstract of Claimed Capital Cost for the existing Projects

Name of the Company :	NTPC Limited		
Name of the Power Station :	Rihand Super Thermal Power Station Stage-III		
Reference of Final True-up Tariff Petition	Affidavit dated	25.10.2019	
Capital Cost as on 31.03.2019 as per Hon'ble Commission's Order dated 06.02.2017 in Pet. No. 372/GT/2014	Rs. Lakhs	5,23,750.81	
Adjustment as per Para 7 of this petition		30,994.80	
Following details as considered by the Petitioner as on the last date of the period for which final true-up tariff is claimed:			
Capital cost as on 01.04.2019	(Rs. in lakh)	5,54,745.61	
Amount of un-discharged liabilities included in above (& forming part of admitted capital cost)			
Amount of un-discharged liabilities corresponding to above admitted capital cost (but not forming part of admitted capital cost being allowed on cash basis)		15,165.63	
Gross Normative Debt as on 01.04.2019		3,88,321.93	
Cumulative Repayment as on 01.04.2019		1,61,248.28	
Net Normative Debt as on 01.04.2019		2,27,073.65	
Normative Equity		1,66,423.68	
Cumulative Depreciation		1,62,441.20	
Freehold land		-	
 (Petitioner)			

25

Particulars	5.625% Fixed Rate Notes due 2021*	4.75% Fixed Rate Notes due 2022#	SBI, NEW YORK**			
			I	II	III	IV
Source of Loan						
Drawal	-	-				
Currency	USD	USD				
Amount of loan sanctioned	50,00,00,000	50,00,00,000				250,000,000
Amount of Gross Loan drawn upto 26.03.2014 / COD	50,00,00,000	50,00,00,000	5,00,00,000	5,00,00,000	5,00,00,000	10,00,00,000
Interest Type	Fixed	Fixed				Floating
Fixed Interest Rate, if applicable	5.625% *	4.75% #				-
Base Rate, if floating interest	-	-				6 Month LIBOR
Margin, if floating interest rate	-	-				1.85
Are there any Caps / Floor	NO	NO				NO
If above is Yes, specify Caps / Floor	-	-				-
Moratorium Period	10 Years	10 Years				6 Years
Moratorium effective from	14-Jul-2011	03-Oct-2012				06-Mar-2013
Repayment period	Bullet payment	Bullet payment				1 Year
Repayment effective from	13-Jul-2021	03-Oct-2022				29-Jul-2019
Repayment frequency	One time	One time				Semi Annual
Repayment installment	50,00,00,000	50,00,00,000				2 Half Yearly Instalments
Base Exchange Rate (26.03.2014)	60.81	60.81				60.81
Are foreign currency loan hedged	NO	NO				NO
If above is Yes, specify details	-	-				-

50

Name of the Projects	%	%	%	%	%
Barh-II	19.3670%	2.7817%			12.52330%
Bongaigaon	15.5700%	4.8526%			
Mauda	20.6600%	8.4848%			6.61617%
Rihand-III	17.5690%	9.5929%			8.38906%
VSTPP-IV	19.7400%	10.6301%			13.58716%
Simhadri-II	2.3370%	3.9948%			
Koldam	2.0570%	6.4273%			
Tapovan	1.6940%	3.1659%			
Sipat-1	1.0060%	1.0900%			
Barh-I	-	11.2669%		9.40359%	23.80681%
Kudgi-I	-	5.0420%	27.69642%		8.33242%
Lara-I	-	15.2868%	0.15026%		
Mouda-II	-	3.6033%	28.94482%	23.26666%	7.53019%
Solapur	-	5.4994%	14.89637%	10.07040%	5.57238%
Kawas R&M	-	4.4580%		24.15102%	
Gandhar R&M	-	0.2499%		33.10833%	
Auraiya R&M	-	2.4361%			
Korba R&M	-	1.1375%			
VSTPP-V			19.72072%		13.64250%
Gadarwara			100.00000%	8.59141%	

Notes:-

- The Interest rate is exclusive of withholding tax currently @ 21.84% w.e.f 01.04.2019 (Inclusive of surcharge & education cess) to be grossed up *
- The Interest rate is exclusive of withholding tax currently @ 5.46% w.e.f 01.04.2019 (Inclusive of surcharge & education cess) to be grossed up #
- The Interest rate is exclusive of withholding tax currently @ 5.46% w.e.f 01.04.2019 (Inclusive of surcharge & education cess) on Mizuho portion (10% of Loan)**
- Base exchange rate are the SBI Bill selling rate as on 26.03.2014
- Distribution of loan package to various projects is based on utilisation of loan as on 26.03.2014

Sme..

Form 8- Domestic Bonds- Details of Allocation of corporate loans to various projects at at 31.03.2019

Particulars	XXXVIII 9.17%	XLII 9%	XLIV 9.25%	XLVII 8.84%	XLIX 8.80%	L 1A	L 2A
Source of Loan1	BONDS	BONDS	BONDS	BONDS	BONDS	BONDS	BONDS
Currency2	INR	INR	INR	INR	INR	INR	INR
Amount of Loan sanctioned	7500	50000	50000	39000	20000	48803	24995
Interest Type6	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed
Fixed Interest Rate, if applicable	9.17%	9.00%	9.25%	8.84%	8.80%	8.41%	8.48%
Annual surveillance fees	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%
Loan Refinancing Spread							
Total interest rate incl.sur. Fees	9.20%	9.03%	9.28%	8.87%	8.83%	8.44%	8.51%
Base Rate, if Floating Interest7	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Margin, if Floating Interest8	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Are there any Caps/Floor9	No	No	No	No	No	No	No
If above is yes,specify caps/floor							
Moratorium Period10	6 yrs	10 yrs.	11 yrs	10 yrs	10 yrs.	10 yrs.	15 yrs.
Moratorium effective from #	22.03.11	25.01.2012	04.05.12	04.10.12	04.04.2013	16.12.2013	16.12.2013
Repayment Period11	14 yrs	5 yrs	5 yrs	Bullet Repayment	Bullet Repayment	Bullet Repayment	Bullet Repayment
Repayment effective from	22.03.2017	25.01.2023	04.05.23	04.10.22	04.04.2023	16.12.2023	16.12.2028
Repayment Frequency12	Yearly	Yearly	Yearly	Bullet Repayment	Bullet Repayment	Bullet Repayment	Bullet Repayment
Repayment Instalment13,14	500	10000	10000	39000	20000	4880265000	2499459000
Base Exchange Rate16							
Door to Door Maturity	20 yrs	15 yrs.	15yrs	10 yrs	10 yrs.	10 yrs.	15 yrs.

Name of the Projects							
Anantpur Solar	-	-	-	-	-	-	-
ANTA	-	-	-	-	-	-	-
AURAIYA	-	-	-	-	-	-	-
Auraiya R & M	-	-	-	-	-	-	-
Badarpur R&M	-	-	-	-	-	-	-
BARH I	700	8,400	3,000	11,500	3,000	9,119	4,670

S. P. ...

Form 8- Domestic Bonds- Details of Allocation of corporate loans to various projects at at 31.03.2019

Particulars	XXXVIII 9.17%	XLII 9%	XLIV 9.25%	XLVII 8.84%	XLIX 8.80%	L 1A	L 2A
BARH II	-	2,000	-	2,500	-	1,729	886
Bhadla Solar	-	-	-	-	-	-	-
BONGAIGAON	-	1,700	-	3,500	2,500	1,813	928
Chatti Bariatu CMB	-	-	-	-	-	-	-
Dadri Gas R & M	-	-	-	-	-	-	-
DADRI GAS	-	-	-	-	-	-	-
DARLIPALLI	-	-	-	-	-	-	-
Dulanga CMB	-	-	-	-	-	-	-
FARAKKA II	-	-	-	-	-	-	-
FARAKKA III	100	7,000	-	-	-	-	-
Farakka R & M	-	-	-	-	-	-	-
FARIDABAD	-	-	-	-	-	-	-
GADARWARA	-	-	-	-	-	-	-
GANDHAR	-	-	-	-	-	-	-
Gandhar R & M	-	-	-	-	-	-	-
Kahalgaon II Phase I	-	-	-	-	-	-	-
Kahalgaon II Phase II	-	-	-	-	-	-	-
Khstpp R & M	-	-	-	-	-	-	-
KAWAS	-	-	-	-	-	-	-
Kawas R & M	-	-	-	-	-	-	-
Khargone	-	-	-	-	-	-	-
KOLDAM	700	7,500	-	8,500	3,200	6,024	3,085
KORBA III	1,500	-	-	-	-	-	-
Korba R & M	-	-	-	-	-	-	-
Kudgi	-	-	26,000	-	-	3,904	2,000
LARA I	-	-	-	-	-	2,789	1,428
Lata Tapovan	-	-	-	-	-	-	-
LOHARINAGPALA	-	-	-	-	-	-	-
Mauda	-	2,400	5,000	2,000	2,000	2,844	1,457
Mauda II	-	-	-	-	-	3,765	1,928
Mandsaur Solar	-	-	-	-	-	-	-
NCTPP	-	-	-	-	-	-	-
NCTPP II	3,300	-	-	-	-	-	-
NCTPP R & M	-	-	-	-	-	-	-
NORTH KARANPURA	-	-	-	-	-	-	-
Pakri Barwadih CMB	-	-	-	-	-	-	-
Ramagundam I & II R & M	-	-	-	-	-	-	-
RAMAGUNDAM III	-	-	-	-	-	-	-
Rammam	-	-	-	-	-	-	-
RIHAND II	-	-	-	-	-	-	-
RIHAND III	600	800	2,500	3,500	5,000	1,645	843
Rihand R & M	-	-	-	-	-	-	-

(32)

SPU

Form 8- Domestic Bonds- Details of Allocation of corporate loans to various projects at at 31.03.2019

Particulars	XXXVIII 9.17%	XLII 9%	XLIV 9.25%	XLVIII 8.84%	XLIX 8.80%	L 1A	L 2A
SIMHADRI	-	-	-	-	-	-	-
Simhadari II	-	3,800	3,600	2,500	-	-	-
Simhadari R & M	-	-	-	-	-	-	-
Vidhyachal Hydro**	-	-	-	-	-	-	-
Singrauli R & M	-	-	-	-	-	-	-
Vindhyachal Solar**	-	-	-	-	-	-	-
SIPAT I	300	14,500	9,200	-	-	-	-
SIPAT II	-	-	-	-	-	-	-
SOLAPUR	-	-	-	-	-	2,231	1,143
TALCHER I	-	-	-	-	-	-	-
TALCHER II	-	-	-	-	-	-	-
Tanda II	-	-	-	-	-	-	-
Tanda R & M	-	-	-	-	-	-	-
Tapovan Vishnugad	300	1,500	700	2,500	-	1,924	986
Telangana	-	-	-	-	-	-	-
TSTPP R & M	-	-	-	-	-	-	-
TTPS R & M	-	-	-	-	-	-	-
Unchahar R & M	-	-	-	-	-	-	-
Unchahar IV	-	-	-	-	-	4,183	2,142
UNCHAHAR II	-	-	-	-	-	-	-
Unchahar III	-	-	-	-	-	-	-
VINDHYACHAL II	-	-	-	-	-	-	-
Vindhyachal III	-	-	-	-	-	-	-
Vindhyachal IV	-	400	-	2,500	4,300	1,673	857
Vindhyachal V	-	-	-	-	-	5,159	2,642
Vindhyachal R & M	-	-	-	-	-	-	-
DADRI SOLAR	-	-	-	-	-	-	-
A&N SOLAR	-	-	-	-	-	-	-
RAMAGUNDAM SOLAR	-	-	-	-	-	-	-
TALCHER SOLAR	-	-	-	-	-	-	-
UNCHAHAR SOLAR	-	-	-	-	-	-	-
FARIDABAD SOLAR	-	-	-	-	-	-	-
RAJGARH SOLAR	-	-	-	-	-	-	-
Talaipali Coal Mine	-	-	-	-	-	-	-
CC	-	-	-	-	-	-	-
TOTAL	7,500	50,000	50,000	39,000	20,000	48,803	24,995
	0.00	0.00	0.00	0.00	0.00	0.00	0.00

23

S. P. ...

Form 8- Domestic Bonds- Details of Allocation of corporate loans to various projects at at 31.03.2019

Particulars	L 3A	L 1B	L 2B	L 3B	L1A	54
Source of Loan1	BONDS	BONDS	BONDS	BONDS	BONDS	BONDS
Currency2	INR	INR	INR	INR	INR	INR
Amount of Loan sanctioned	31203	20864	9139	39997	7500	1030683
Interest Type6	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed
Fixed Interest Rate, if applicable	8.66%	8.66%	8.73%	8.91%	8.19%	8.49%
Annual surveillance fees	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%
Loan Refinancing Spread						
Total interest rate incl.sur. Fees	8.69%	8.69%	8.76%	8.94%	8.22%	8.52%
Base Rate, if Floating Interest7	N/A	N/A	N/A	N/A	N/A	N/A
Margin, if Floating Interest8	N/A	N/A	N/A	N/A	N/A	N/A
Are there any Caps/Floor9	No	No	No	No	No	No
If above is yes,specify caps/floor						N/A
Moratorium Period10	20 yrs.	10 yrs.	15 yrs.	20 yrs.	10 yrs.	8
Moratorium effective from #	16.12.2013	16.12.2013	16.12.2013	16.12.2013	04.03.2014	25-03-2015
Repayment Period11	Bullet Repayment	Bullet Repayment	Bullet Repayment	Bullet Repayment	Bullet Repayment	Installments Due on 25/03/2023, 25/03/2024 & 25/03/2025
Repayment effective from	16.12.2033	16.12.2023	16.12.2028	16.12.2033	04.03.2024	25-03-2023
Repayment Frequency12	Bullet Repayment	Bullet Repayment	Bullet Repayment	Bullet Repayment	Bullet Repayment	Installments Due on 25/03/2023, 25/03/2024 & 25/03/2025
Repayment Instalment13,14	3120276000	2086391000	913928000	3999681000	7500	Installments 1st - 206,136.61 2nd - 412,273.22 3rd - 412,273.22
Base Exchange Rate16						N/A
Door to Door Maturity	20 yrs.	10 yrs.	15 yrs.	20 yrs.	10 yrs.	10

35

Name of the Projects						
Anantpur Solar					-	5,600
ANTA					-	-
AURAIYA					-	-
Auraiya R & M					-	-
Badarpur R&M					-	2,300
BARH I	5,830	3,899	1,708	7,474	-	74,883

S...

Form 8- Domestic Bonds- Details of Allocation of corporate loans to various projects at at 31.03.2019

Particulars	L 3A	L 1B	L 2B	L 3B	L1 A	54
BARH II	1,105	739	324	1,417	-	63,500
Bhadla Solar					-	-
BONGAIGAON	1,159	775	339	1,486	-	54,000
Chatti Bariatu CMB					-	8,100
Dadri Gas R & M					-	600
DADRI GAS					-	-
DARLIPALLI					-	49,200
Dulanga CMB					-	-
FARAKKA II					-	-
FARAKKA III					-	10,900
Farakka R & M					-	2,000
FARIDABAD					-	-
GADARWARA					-	81,000
GANDHAR					-	-
Gandhar R &M					-	4,300
Kahalgaon II Phase I					-	-
Kahalgaon II Phase II					-	1,800
Khstpp R & M					-	2,000
KAWAS					-	-
Kawas R & M					-	1,400
Khargone					-	45,000
KOLDAM	3,851	2,575	1,128	4,937	6,500	25,100
KORBA III					-	9,200
Korba R & M					-	4,400
Kudgi	2,496	1,669	731	3,200	-	1,23,300
LARA I	1,783	1,192	522	2,286	-	53,300
Lata Tapovan					-	1,600
LOHARINAGPALA					-	-
Mauda	1,819	1,216	533	2,331	-	21,900
Mauda II	2,407	1,610	705	3,085	-	45,800
Mandsaur Solar					-	-
NCTPP					-	-
NCTPP II					-	11,000
NCTPP R & M					-	3,700
NORTH KARANPURA					-	12,400
Pakri Barwadih CMB					-	26,600
Ramagundam I & II R & M					-	2,400
RAMAGUNDAM III					-	-
Rammam					-	3,100
RIHAND II					-	-
RIHAND III	1,052	703	308	1,348	400	28,300
Rihand R & M					-	2,500

31

Sum

Form 8- Domestic Bonds- Details of Allocation of corporate loans to various projects at at 31.03.2019

<u>Particulars</u>	<u>L 3A</u>	<u>L 1B</u>	<u>L 2B</u>	<u>L 3B</u>	<u>L I A</u>	<u>54</u>
SIMHADRI						
Simhadari II					-	-
Simhadari R & M					-	26,800
Vidhyachal Hydro**						900
Singrauli R & M						1,900
Vindyachal Solar**					-	1,600
SIPAT I					-	4,800
SIPAT II					-	20,500
SOLAPUR	1,426	954	418	1,828	-	70,300
TALCHER I					-	-
TALCHER II					-	12,000
Tanda II					-	9,000
Tanda R & M					-	-
Tapovan Vishnugad	1,230	823	360	1,577	600	26,400
Telangana					-	-
TSTPP R & M					-	1,600
TTPS R & M					-	1,000
Unchahar R & M					-	3,400
Unchahar IV	2,675	1,788	783	3,428	-	17,400
UNCHAHAR II					-	-
Unchahar III					-	-
VINDHYACHAL II					-	-
Vindhyachal III					-	-
Vindhyachal IV	1,070	715	313	1,371	-	17,200
Vindhyachal V	3,299	2,206	966	4,228	-	33,500
Vindhyachal R & M					-	1,200
DADRI SOLAR					-	-
A&N SOLAR					-	-
RAMAGUNDAM SOLAR					-	-
TALCHER SOLAR					-	-
UNCHAHAR SOLAR					-	-
FARIDABAD SOLAR					-	-
RAJGARH SOLAR					-	-
Talaipali Coal Mine					-	-
CC					-	-
TOTAL	31,203	20,864	9,139	39,997	7,500	10,30,683
	0.00	0.00	0.00	0.00	0.00	0.00

36

Signature

Form 8- Domestic Bonds- Details of Allocation of corporate loans to various projects at at 31.03.2019

Particulars	57	59	66	67
Source of Loan1	BONDS	BONDS	BONDS	BONDS
Currency2	INR	INR	INR	INR
Amount of Loan sanctioned	50000	65500	392500	400000
Interest Type6	Fixed	Fixed	Fixed	Fixed
Fixed Interest Rate, if applicable	8.19%	8.33%	7.37%	8.30%
Annual surveillance fees	0.03%	0.03%	0.03%	0.03%
Loan Refinancing Spread				0.09%
Total interest rate incl.sur. Fees	8.22%	8.36%	7.40%	8.42%
Base Rate, if Floating Interest7	N/A	N/A	N/A	N/A
Margin, if Floating Interest8	N/A	N/A	N/A	N/A
Are there any Caps/Floor9	No	No	No	No
If above is yes,specify caps/floor	N/A	N/A	N/A	N/A
Moratorium Period10	10	5	15	10
Moratorium effective from #	15-12-2015	24-02-2016	14-12-2016	15-01-2019
Repayment Period11	Bullet Repayment	Bullet Repayment	Bullet Repayment	Bullet Repayment
Repayment effective from	15-12-2025	24-02-2021	14-12-2031	15-01-2029
Repayment Frequency12	Bullet Repayment	Bullet Repayment	Bullet Repayment	Bullet Repayment
Repayment Instalment13,14	50000	65500	392500	400000
Base Exchange Rate16	N/A	N/A	N/A	N/A
Door to Door Maturity	10	5	15	10

(3)

Name of the Projects				
Anantpur Solar	-	-	-	-
ANTA	-	-	-	-
AURAIYA	-	-	-	-
Auraiya R & M	1,400	-	-	-
Badarpur R&M	-	-	-	-
BARH I	8,900	2,400	46,300	45,957

San...

Form 8- Domestic Bonds- Details of Allocation of corporate loans to various projects at at 31.03.2019

<u>Particulars</u>	<u>57</u>	<u>59</u>	<u>66</u>	<u>67</u>
BARH II	-	2,700	2,000	1,000
Bhadla Solar	-	-	-	-
BONGAIGAON	500	3,900	12,700	38,820
Chatti Bariatu CMB	-	-	300	-
Dadri Gas R & M	-	-	-	-
DADRI GAS	-	-	-	-
DARLIPALLI	-	-	36,400	-
Dulanga CMB	-	-	25,400	-
FARAKKA II	-	-	-	-
FARAKKA III	-	-	-	-
Farakka R & M	-	-	-	-
FARIDABAD	-	-	-	-
GADARWARA	2,000	6,300	28,100	25,900
GANDHAR	-	-	-	-
Gandhar R & M	800	-	-	-
Kahalgaon II Phase I	-	-	600	-
Kahalgaon II Phase II	-	-	-	-
Khstpp R & M	500	-	-	-
KAWAS	-	-	-	-
Kawas R & M	-	-	-	-
Khargone	3,000	2,700	24,700	-
KOLDAM	3,700	-	900	8,598
KORBA III	500	-	900	2,135
Korba R & M	-	-	-	-
Kudgi	-	7,000	30,300	10,000
LARA I	13,700	8,300	39,500	22,813
Lata Tapovan	-	-	-	-
LOHARINAGPALA	-	-	-	-
Mauda	-	1,000	3,200	715
Mauda II	-	3,500	11,000	-
Mandsaur Solar	-	-	-	1,000
NCTPP	-	-	-	-
NCTPP II	500	-	-	1,601
NCTPP R & M	-	-	-	-
NORTH KARANPURA	-	3,000	32,300	14,900
Pakri Barwadih CMB	800	-	6,000	21,521
Ramagundam I & II R & M	-	-	-	-
RAMAGUNDAM III	-	-	-	-
Rammam	-	900	2,000	2,500
RIHAND II	-	-	-	-
RIHAND III	800	1,700	3,200	4,270
Rihand R & M	-	-	-	-

(38)

Sum..

Form 8- Domestic Bonds- Details of Allocation of corporate loans to various projects at at 31.03.2019

<u>Particulars</u>	<u>57</u>	<u>59</u>	<u>66</u>	<u>67</u>
SIMHADRI	-	-	-	-
Simhadari II	1,000	-	2,000	4,804
Simhadari R & M	-	-	-	-
Vidhyachal Hydro**	-	-	-	500
Singrauli R & M	-	-	-	-
Vindyachal Solar**	-	-	-	-
SIPAT I	1,400	-	1,700	-
SIPAT II	-	-	-	-
SOLAPUR	-	5,500	25,300	25,200
TALCHER I	-	-	-	-
TALCHER II	700	-	500	-
Tanda II	400	-	21,600	12,500
Tanda R & M	-	-	-	-
Tapovan Vishnugad	-	800	8,400	15,063
Telangana	-	-	5,800	-
TSTPP R & M	1,000	-	-	-
TTPS R & M	-	-	-	-
Unchahar R & M	-	-	-	-
Unchahar IV	4,800	5,400	14,700	2,500
UNCHAHAR II	-	-	-	-
Unchahar III	-	-	-	-
VINDHYACHAL II	-	-	-	-
Vindhyachal III	-	-	-	-
Vindhyachal IV	500	900	3,100	4,804
Vindhyachal V	2,200	9,500	3,600	5,500
Vindhyachal R & M	900	-	-	-
DADRI SOLAR	-	-	-	-
A&N SOLAR	-	-	-	-
RAMAGUNDAM SOLAR	-	-	-	-
TALCHER SOLAR	-	-	-	-
UNCHAHAR SOLAR	-	-	-	-
FARIDABAD SOLAR	-	-	-	-
RAJGARH SOLAR	-	-	-	-
Talaipali Coal Mine	-	-	-	4,900
CC	-	-	-	1,22,500
TOTAL	50,000	65,500	3,92,500	4,00,000
	0.00	0.00	0.00	0.00

(3)

S...

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000521

T00001

D00001

Unsecured Loan From HDFC Bank Ltd.-IV		
Source of Loan :	HDFC Bank Ltd.-IV	
Currency :	INR	
Amount of Loan :	20,00,00,00,000	
Total Drawn amount :	1,00,00,00,000	
Date of Drawal:	17.04.2017	
Interest Type :	Floating	
Fixed Interest Rate :		
Rate of Interest as on 01.04.2019	8.45%	
Margin, if Floating Interest :		
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	3 Years	
Moratorium effective from :	17.04.2017	
Repayment Period (Inc Moratorium) :	12 Years	
Repayment Frequency :	9 Yearly Instalment	
Repayment Type :	AVG	
First Repayment Date :	17.04.2021	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	RIHAND-III	40,00,00,000.00
	DULANGA COAL MINE	9,00,00,000.00
	VINDHYACHAL-IV	41,00,00,000.00
	MOUDA-I	50,00,00,000.00
	ANANTPUR SOLAR PV	60,00,00,000
Total Allocated Amount		1,00,00,00,000

Stw...

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000511

T00001

D00002

Unsecured Loan From Jammu & Kashmir Bank-IV		
Source of Loan :	Jammu & Kashmir Bank-IV	
Currency :	INR	
Amount of Loan :	7,00,00,00,000	
Total Drawn amount :	5,00,00,00,000	
Date of Drawl:	17.04.2017	
Interest Type :	Floating	
Fixed Interest Rate :		
Rate of Interest as on 01.04.2019	8.30%	
Margin, if Floating Interest :		
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	Nil	
Moratorium effective from :	17.04.2017	
Repayment Period (Inc Moratorium) :	12 Years	
Repayment Frequency :	9 Yearly Instalment	
Repayment Type :	AVG	
First Repayment Date :	31.03.2021	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	KUDGI	10,00,00,000.00
	MOUDA-II	95,00,00,000.00
	BARH - II	30,00,00,000.00
	VINDHYACHAL-V	22,00,00,000.00
	KOLDAM	38,00,00,000.00
	RIHAND-III	5,00,00,000.00
Total Allocated Amount		2,00,00,00,000.00

Signature

411

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000501

T00001

Unsecured Loan From Bank of Karnataka Bank		
Source of Loan :	Karnataka Bank-II	
Currency :	INR	
Amount of Loan :	5,00,00,00,000	
Total Drawn amount :	5,00,00,00,000	
Date of Drawal	28.03.2017	
Interest Type :	Floating	
Fixed Interest Rate :		
Rate of Interest as on 01.04.2019	7.96%	
Loan refinancing Spread	0.3333%	
Margin, If Floating Interest :		
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	Nil	
Moratorium effective from :	28.03.2017	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	9f Yearly Instalment	
Repayment Type :	AVG	
First Repayment Date :	28.03.2021	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	BARH-I	93,75,00,000.00
	BARH-II	1,31,25,00,000.00
	BONGAIGAON	17,85,71,427.00
	KORBA-III	36,78,57,143.00
	LARA-I	9,37,50,000.00
	PAKRI BARWADIH	53,75,00,000.00
	RIHAND-III	45,98,21,428.00
	SOLAPUR	46,87,50,000.00
	VINDHYACHAL-IV	35,71,42,855.00
	SIMHADRI-II	28,66,07,147.00
Total Allocated Amount		5,00,00,00,000.00

Stu...

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000261

T00001

D00001

Unsecured Loan From SBI-VII		
Source of Loan :	SBI-VII	
Currency :	INR	
Amount of Loan :	1,00,00,00,00,000	
Total Drawn amount :	5,00,00,00,000	
Date of drawl	08.07.2011	
Interest Type :	Floating	
Fixed Interest Rate :	-----	
Rate of Interest as on 01.04.2019	8.25%	
Margin, If Floating Interest :		
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	4 Years	
Moratorium effective from :	08.07.2011	
Repayment Period (Inc Moratorium) :	12 Years	
Repayment Frequency :	16 Half Yearly Instalments	
Repayment Type :	AVG	
First Repayment Date :	30.09.2015	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	BARH-II	2,00,00,00,000.00
	RIHAND-III	95,00,00,000.00
	VINDHYACHAL IV	45,00,00,000.00
	SIPAT-II	35,00,00,000.00
	SIMHADRI-II	35,00,00,000.00
	MAUDA	90,00,00,000.00
Total Allocated Amount		5,00,00,00,000.00

Spr.

43

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000261

T00001

D00002

Unsecured Loan From SBI-VII		
Source of Loan :	SBI-VII	
Currency :	INR	
Amount of Loan :	1,00,00,00,00,000	
Total Drawn amount :	1,00,00,00,00,000	
Date of drawl	31.01.2012	
Interest Type :	Floating	
Fixed Interest Rate :	-----	
Rate of Interest as on 01.04.2019	D00002 - 8.25%	
Margin, If Floating Interest :		
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	4 Years	
Moratorium effective from :	31.01.2012	
Repayment Period (Inc Moratorium) :	12 Years	
Repayment Frequency :	16 Half Yearly Instalments	
Repayment Type :	AVG	
First Repayment Date :	30.09.2015	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	RIHAND-III	60,00,00,000.00
	MOUDA-I	40,00,00,000.00
Total Allocated Amount		1,00,00,00,000.00

Stw...

(44)

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000261

T00001

D00003

Unsecured Loan From SBI-VII		
Source of Loan :	SBI-VII	
Currency :	INR	
Amount of Loan :	1,00,00,00,00,000	
Total Drawn amount :	5,00,00,00,000	
Date of drawl	21.04.2012	
Interest Type :	Floating	
Fixed Interest Rate :	-----	
Rate of Interest as on 01.04.2019	D00003 - 8.25%	
Margin, If Floating Interest :		
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	4 Years	
Moratorium effective from :	21.04.2012	
Repayment Period (Inc Moratorium) :	12 Years	
Repayment Frequency :	16 Half Yearly Instalments	
Repayment Type :	AVG	
First Repayment Date :	30.09.2015	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	KOLDAM	71,00,00,000.00
	TAPOVAN	52,00,00,000.00
	BONGAIGAON	46,00,00,000.00
	BARH-I	18,00,00,000.00
	BARH-II	54,00,00,000.00
	RIHAND-III	5,00,00,000.00
	KUDGI-I	1,45,00,00,000.00
	SOLAPUR	63,00,00,000.00
	MOUDA-II	37,00,00,000.00
	TANDA-R&M	9,00,00,000.00
Total Allocated Amount		5,00,00,00,000.00

Saw...

55

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000261

T00001

D00004

Unsecured Loan From SBI-VII		
Source of Loan :	SBI-VII	
Currency :	INR	
Amount of Loan :	1,00,00,00,00,000	
Total Drawn amount :	5,00,00,00,00,000	
Date of Drawl	29.06.2012	
Interest Type :	Floating	
Fixed Interest Rate :	-----	
Rate of Interest as on 01.04.2019	D00004- 8.25%	
Margin, if Floating Interest :		
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	4 Years	
Moratorium effective from :	29.06.2012	
Repayment Period (Inc Moratorium) :	12 Years	
Repayment Frequency :	16 Half Yearly Instalments	
Repayment Type :	AVG	
First Repayment Date :	30.09.2015	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	BONGAIGAON	25,00,00,000.00
	BARH-I	90,00,00,000.00
	MOUDA-I	50,00,00,000.00
	VINDHYACHAL-IV	50,00,00,000.00
	RIHAND III	40,00,00,000.00
	KUDGI-I	15,00,00,000.00
	SOLAPUR	45,00,00,000.00
	MOUDA-II	1,85,00,00,000.00
Total Allocated Amount		5,00,00,00,000.00

S...

46

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000261

T00001

D00005

Unsecured Loan From SBI-VII		
Source of Loan :	SBI-VII	
Currency :	INR	
Amount of Loan :	1,00,00,00,00,000	
Total Drawn amount :	5,00,00,00,00,000	
Date of Drawl	31.08.2012	
Interest Type :	Floating	
Fixed Interest Rate :	-----	
Rate of Interest as on 01.04.2019	D00005- 8.25%	
Margin, If Floating Interest :		
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	4 Years	
Moratorium effective from :	31.08.2012	
Repayment Period (Inc Moratorium) :	12 Years	
Repayment Frequency :	16 Half Yearly Instalments	
Repayment Type :	AVG	
First Repayment Date :	30.09.2015	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	TAPOVAN	65,00,00,000.00
	BARH-I	1,00,00,00,000.00
	MOUDA-I	85,00,00,000.00
	RIHAND-III	85,00,00,000.00
	SOLAPUR	90,00,00,000.00
	GANDHAR-R&M	35,00,00,000.00
	KAWAS-R&M	40,00,00,000.00
Total Allocated Amount		5,00,00,00,000.00

S. w...

47

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000261

T00001

D00006

Unsecured Loan From SBI-VII		
Source of Loan :	SBI-VII	
Currency :	INR	
Amount of Loan :	1,00,00,00,00,000	
Total Drawn amount :	5,00,00,00,00,000	
Date of Drawl	28.09.2012	
Interest Type :	Floating	
Fixed Interest Rate :	-----	
Rate of Interest as on 01.04.2019	D00006- 8.25%	
Margin, If Floating Interest :		
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	4 Years	
Moratorium effective from :	28.09.2012	
Repayment Period (Inc Moratorium) :	12 Years	
Repayment Frequency :	16 Half Yearly Instalments	
Repayment Type :	AVG	
First Repayment Date :	30.09.2015	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	KOLDAM	45,00,00,000
	SIMHADRI-II	50,00,00,000
	VINDHYACHAL-IV	30,00,00,000
	SIPAT-I	75,00,00,000
	BARH-I	15,00,00,000
	MOUDA-I	20,00,00,000
	RIHAND III	20,00,00,000
	KUDGI-I	40,00,00,000
	MOUDA-II	50,00,00,000
	FARAKKA-III	15,00,00,000
	GANDHAR-R&M	40,00,00,000
	BONGAIGAON	1,00,00,00,000
Total Allocated Amount		5,00,00,00,000.00

S. M.

(48)

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000261

T00001

D00007

Unsecured Loan From SBI-VII		
Source of Loan :	SBI-VII	
Currency :	INR	
Amount of Loan :	1,00,00,00,00,000	
Total Drawn amount :	5,00,00,00,000	
Date of Drawl	12.11.2012	
Interest Type :	Floating	
Fixed Interest Rate :	-----	
Rate of Interest as on 01.04.2019	D00007- 8.25%	
Margin, If Floating Interest :		
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	4 Years	
Moratorium effective from :	12.11.2012	
Repayment Period (Inc Moratorium) :	12 Years	
Repayment Frequency :	16 Half Yearly Instalments	
Repayment Type :	AVG	
First Repayment Date :	30.09.2015	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	KOLDAM	35,00,00,000
	SOLAPUR	25,00,00,000
	VINDHYACHAL-IV	20,00,00,000
	TAPOVAN	20,00,00,000
	BARH-I	80,00,00,000
	MOUDA-I	15,00,00,000
	RIHAND-III	45,00,00,000
	KUDGI-I	20,00,00,000
	DADRI SOLAR PV	5,00,00,000
	A&N SOLAR PV	5,00,00,000
	SINGARULI 8 MW	5,00,00,000
	BONGAIGAON	40,00,00,000
	BARH-II	80,00,00,000
	SINGRAULI-R&M	25,00,00,000
	TANDA - R&M	15,00,00,000
	KAWAS-R&M	35,00,00,000
	GANDHAR -R&M	20,00,00,000
	TSTPP-R&M	10,00,00,000
Total Allocated Amount		5,00,00,00,000.00

S. P. ...

(49)

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000261

T00001

D00008

Unsecured Loan From SBI-VII		
Source of Loan :	SBI-VII	
Currency :	INR	
Amount of Loan :	1,00,00,00,00,000	
Total Drawn amount :	5,00,00,00,000	
Date of Drawl	11.03.2013	
Interest Type :	Floating	
Fixed Interest Rate :	-----	
Rate of Interest as on 01.04.2019	D00008- 8.25%	
Margin, If Floating Interest :		
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	4 Years	
Moratorium effective from :	11.03.2013	
Repayment Period (Inc Moratorium) :	12 Years	
Repayment Frequency :	16 Half Yearly Instalments	
Repayment Type :	AVG	
First Repayment Date :	30.09.2015	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	KOLDAM	35,00,00,000
	SOLAPUR	30,00,00,000
	VINDHYACHAL-V	38,00,00,000
	TAPOVAN	18,00,00,000
	BARH-I	57,00,00,000
	MOUDA-II	26,00,00,000
	RIHAND III	32,00,00,000
	KUDGI-I	38,00,00,000
	DADRI SOLAR PV	19,00,00,000
	A&N SOLAR PV	20,00,00,000
	LARA-I	20,00,00,000
	BONGAIGAON	34,00,00,000
	FARAKKA-III	27,00,00,000
	SIMHADRI-II	20,00,00,000
	SINGRAULI-R&M	10,00,00,000
	TTPS-R&M	15,00,00,000
	KAWAS-R&M	15,00,00,000
	GANDHAR-R&M	8,00,00,000
	TSTPP-R&M	10,00,00,000
	RAMAGUNDAM-R&M	8,00,00,000
	BADARPUR-R&M	20,00,00,000
Total Allocated Amount		5,00,00,00,000.00

Spw.

50

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000261

T00001

D00011

Unsecured Loan From SBI-VII		
Source of Loan :	SBI-VII	
Currency :	INR	
Amount of Loan :	1,00,00,00,00,000	
Total Drawn amount :	3,00,00,00,00,000	
Date of Drawl	21.06.2013	
Interest Type :	Floating	
Fixed Interest Rate :	-----	
Rate of Interest as on 01.04.2019	D00011- 8.25%	
Margin, if Floating Interest :		
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	4 Years	
Moratorium effective from :	21.06.2013	
Repayment Period (Inc Moratorium) :	12 Years	
Repayment Frequency :	16 Half Yearly Instalments	
Repayment Type :	AVG	
First Repayment Date :	30.09.2015	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	RIHAND-III	1,00,00,00,000
	VINDHYACHAL-IV	1,00,00,00,000
	MOUDA-I	1,00,00,00,000
Total Allocated Amount		3,00,00,00,000.00

Stw...

(51)

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000261

T00001

D00016

Unsecured Loan From SBI-VII		
Source of Loan :	SBI-VII	
Currency :	INR	
Amount of Loan :	1,00,00,00,00,000	
Total Drawn amount :	5,00,00,00,000	
Date of Drawl	01.02.2014	
Interest Type :	Floating	
Fixed Interest Rate :	-----	
Rate of Interest as on 01.04.2019	D00016- 8.25%	
Margin, If Floating Interest :		
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	4 Years	
Moratorium effective from :	01.02.2014	
Repayment Period (Inc Moratorium) :	12 Years	
Repayment Frequency :	16 Half Yearly instalments	
Repayment Type :	AVG	
First Repayment Date :	30.09.2015	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	MOUDA-I	50,00,00,000
	VINDHYACHAL-IV	50,00,00,000
	RIHAND-III	65,00,00,000
	MOUDA-II	1,80,00,00,000
	BARH-II	25,00,00,000
	SINGRAULI-R&M	30,00,00,000
	RAMAGUNDAM-R&M	15,00,00,000
	KORBA-R&M	20,00,00,000
	VINDHYACHAL-V	35,00,00,000
	KAWAS-R&M	20,00,00,000
	BADARPUR-R&M	10,00,00,000
Total Allocated Amount		5,00,00,00,000.00

S.P.W.

(52)

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000442

T00001

D0008

Unsecured Loan From SBI-VIII		
Source of Loan :	SBI-VIII	
Currency :	INR	
Amount of Loan :	1,00,00,00,00,000	
Total Drawn amount :	5,00,00,00,00,000	
Interest Type :	Floating	
Fixed Interest Rate :	-----	
Rate of Interest as on 01.04.2019	D0008- 8.25%	
Margin, If Floating Interest :	0.00%	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	6 Years	
Moratorium effective from :	21.10.2015	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	9 Yearly Installments	
Repayment Type :	AVG	
First Repayment Date :	31.01.2022	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	BARH-I	54,00,00,000
	TAPOVAN VISHNUGAD	13,00,00,000
	BONGAIGAON	23,00,00,000
	BARH-II	22,00,00,000
	KUDGI-I	81,00,00,000
	MOUDA-II	25,00,00,000
	SOLAPUR	35,00,00,000
	VINDHYACHAL-V	13,00,00,000
	LARA-I	85,00,00,000
	GADARWARA	49,00,00,000
	UNCHAHAR-IV	10,00,00,000
	NORTH KARANPURA	8,00,00,000
	DARLIPALLI	34,00,00,000
	TANDA-II	26,00,00,000
	PAKRI BARWADIH	12,00,00,000
	RIHAND-III	10,00,00,000
Total Allocated Amount		5,00,00,00,000

S...

53

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000442

T00001

D00021

Unsecured Loan From SBI-VIII		
Source of Loan :	SBI-VIII	
Currency :	INR	
Amount of Loan :	1,00,00,00,00,000	
Total Drawn amount :	2,50,00,00,00,000	
Date of Drawl	21.09.2016	
Interest Type :	Floating	
Fixed Interest Rate :	-----	
Rate of Interest as on 01.04.2019	D00021- 8.25%	
Margin, if Floating Interest :	0.00%	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	6 Years	
Moratorium effective from :	21.09.2016	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	9 Yearly Installments	
Repayment Type :	AVG	
First Repayment Date :	31.01.2022	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	BONGAIGAON	40,00,00,000
	MOUDA-II	15,00,00,000
	KUDGI	84,00,00,000
	BARH-II	8,00,00,000
	KOLDAM	18,00,00,000
	RIHAND-III	57,00,00,000
	VINDHYACHAL-IV	21,00,00,000
	MOUDA-I	7,00,00,000
Total Allocated Amount		2,50,00,00,000

S. Anur.

(54)

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000442

T00001

D00024

Unsecured Loan From SBI-VIII		
Source of Loan :	SBI-VIII	
Currency :	INR	
Amount of Loan :	1,00,00,00,00,000	
Total Drawn amount :	11,50,00,00,000	
Date of Drawl	14.02.2017	
Interest Type :	Floating	
Fixed Interest Rate :	-----	
Rate of Interest as on 01.04.2019	D00024- 8.25%	
Margin, If Floating Interest :	0.00%	
Loan refinancing Spread	0.5333%	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	6 Years	
Moratorium effective from :	14.02.2017	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	9 Yearly Installments	
Repayment Type :	AVG	
First Repayment Date :	31.01.2022	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	BARH-I	3,00,00,00,000
	BONGAIGAON	34,28,57,142
	FARAKKA III	14,28,57,141
	GADARWARA	2,50,00,00,000
	KOLDAM	92,85,71,427
	KORBA-III	2,85,71,428
	KUDGI	1,00,00,00,000
	MOUDA-I	40,71,42,856
	NCTPP-II	15,71,42,855
	NORTH KARANPURA	1,00,00,00,000
	RIHAND-III	32,14,28,570
	SIMHADRI-II	53,28,57,141
	SIPAT-I	21,42,85,711
	SIPAT-II	5,71,42,856
	TAPOVAN VISHNUGAD	50,00,00,000
	VINDHYACHAL IV	32,42,85,714
	PAKRI BARWADIH	4,28,57,159
Total Allocated Amount		11,50,00,00,000

Spm

55

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000331

T00001

D00004

Unsecured Loan From Corporation Bank-III		
Source of Loan :	Corporation Bank-III	
Currency :	INR	
Amount of Loan :	5,00,00,00,000	
Total Drawn amount :	50,00,00,000	
Date of Drawal :	28.03.2013	
Interest Type :	Floating	
Rate of Interest as on 01.04.2019	8.20%	
Margin, If Floating Interest :	Nil	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	5 Years	
Moratorium effective from :	28.09.2012	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	20 Half Yearly Instalment	
Repayment Type :	AVG	
First Repayment Date :	28-Mar-18	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	RIHAND-III	50,00,00,000
Total Allocated Amount		50,00,00,000

Signature

SC

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000331

T00001

D00006

Unsecured Loan From Corporation Bank-III		
Source of Loan :	Corporation Bank-III	
Currency :	INR	
Amount of Loan :	5,00,00,00,000	
Total Drawn amount :	50,00,00,000	
Date of Drawal :	21.01.2014	
Interest Type :	Floating	
Rate of Interest as on 01.04.2019	8.20%	
Margin, If Floating Interest :	Nil	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	5 Years	
Moratorium effective from :	28.09.2012	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	20 Half Yearly Instalment	
Repayment Type :	AVG	
First Repayment Date :	28-Mar-18	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	RIHAND-III	50,00,00,000
Total Allocated Amount		50,00,00,000

Sgw...

(57)

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000009 & 231

T00001

D00003

Unsecured Loan From HDFC Bank Ltd.-II		
Source of Loan :	HDFC Bank Ltd.-II	
Currency :	INR	
Amount of Loan :	10,00,00,00,000	
Total Drawn amount :	50,00,00,000	
Date of drawl	25.01.2011	
Interest Type :	Floating	
Rate of Interest as on 01.04.2019	8.45%	
Margin, If Floating Interest :	Nil	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	3 Years	
Moratorium effective from :	26.10.2010	
Repayment Period (Inc Moratorium) :	10 Years	
Repayment Frequency :	14 Half Yearly Instalment	
Repayment Type :	AVG	
First Repayment Date :	26.04.2014	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	RIHAND-III	20,00,00,000
	KOLDAM	15,00,00,000
	KORBA-III	15,00,00,000
Total Allocated Amount		50,00,00,000

Stu

(58)

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000009 & 231

T00001

D00006

Unsecured Loan From HDFC Bank Ltd.-II		
Source of Loan :	HDFC Bank Ltd.-II	
Currency :	INR	
Amount of Loan :	10,00,00,00,000	
Total Drawn amount :	50,00,00,00,000	
Date of drawl	28.03.2013	
Interest Type :	Floating	
Rate of Interest as on 01.04.2019	8.45%	
Margin, If Floating Interest :	Nil	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	3 Years	
Moratorium effective from :	26.10.2010	
Repayment Period (Inc Moratorium) :	10 Years	
Repayment Frequency :	14 Half Yearly Instalment	
Repayment Type :	AVG	
First Repayment Date :	26.04.2014	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	RIHAND-III	30,00,00,000
	KOLDAM	20,00,00,000
Total Allocated Amount		50,00,00,000

S. H. C.

59

Statement Giving Details of Project Financed through a Combination of loan

**Statement Giving Details of Project Financed through a Combination of loan
Form 8**

TRANCHE NO

BP NO 5070000021

T00001

D00002

Unsecured Loan From HUDCO LTD.		
Source of Loan :	HUDCO LTD-I	
Currency :	INR	
Amount of Loan :	20,00,00,00,000	
Total Drawn amount :	1,50,00,00,000	
Date of drawl	03.12.2010	
Interest Type :	Floating	
Rate of Interest as on 01.04.2019	8.30%	
Margin, If Floating Interest :	Nil	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	3 Years	
Moratorium effective from :	02.12.2010	
Repayment Period (Inc Moratorium) :	14 Years	
Repayment Frequency :	22 Half Yearly Instalments	
Repayment Type :	AVG	
First Repayment Date :	31.05.2014	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	KOLDAM	10,00,00,000
	SIMHADRI-II	50,00,00,000
	VINDHYACHAL IV	45,00,00,000
	RIHAND-III	45,00,00,000
Total Allocated Amount		1,50,00,00,000

Stw.

60

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000153

T00001

D00001

Unsecured Loan From Indian Bank-II		
Source of Loan :	Indian Bank - II	
Currency :	INR	
Amount of Loan :	3,00,00,00,000	
Total Drawn amount :	10,00,00,00,000	
Date of Drawl	30.06.2009	
Interest Type :	Floating	
Rate of Interest as on 01.04.2019	8.25%	
Margin, If Floating Interest :	Nil	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	3 Years	
Moratorium effective from :	30.06.2009	
Repayment Period (Inc Moratorium) :	10 Years	
Repayment Frequency :	14 Half Yearly Instalment	
Repayment Type :	AVG	
First Repayment Date :	29.12.2012	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	RIHAND-III	10,00,00,000.00
Total Allocated Amount		10,00,00,000.00

S...

(61)

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000153

T00001

D00002

Unsecured Loan From Indian Bank-II		
Source of Loan :	Indian Bank - II	
Currency :	INR	
Amount of Loan :	3,00,00,00,000	
Total Drawn amount :	5,00,00,000	
Date of Drawl	0	
Interest Type :	Floating	
Rate of Interest as on 01.04.2019	8.25%	
Margin, If Floating Interest :	Nil	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	3 Years	
Moratorium effective from :	30.06.2009	
Repayment Period (Inc Moratorium) :	10 Years	
Repayment Frequency :	14 Half Yearly Instalment	
Repayment Type :	AVG	
First Repayment Date :	29.12.2012	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	RIHAND-III	5,00,00,000.00
Total Allocated Amount		5,00,00,000.00

Spm.

(62)

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000153

T00001

D00003

Unsecured Loan From Indian Bank-II		
Source of Loan :	Indian Bank - II	
Currency :	INR	
Amount of Loan :	3,00,00,00,000	
Total Drawn amount :	1,50,00,00,000	
Date of Drawl	0	
Interest Type :	Floating	
Rate of Interest as on 01.04.2019	8.25%	
Margin, If Floating Interest :	Nil	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	3 Years	
Moratorium effective from :	30.06.2009	
Repayment Period (Inc Moratorium) :	10 Years	
Repayment Frequency :	14 Half Yearly Instalment	
Repayment Type :	AVG	
First Repayment Date :	29.12.2012	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	MAUDA-I	30,00,00,000.00
	VINDHYACHAL IV	20,00,00,000.00
	BONGAIGAON	40,00,00,000.00
	KOLDAM	40,00,00,000.00
	RIHAND-III	20,00,00,000.00
Total Allocated Amount		1,50,00,00,000.00

S.P.

63

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5070000011

T00001

D00008

Unsecured Loan From PFC-V		
Source of Loan :	PFC-V	
Currency :	INR	
Amount of Loan :	1,00,00,00,00,000	
Total Drawn amount :	3,00,00,00,00,000	
Date of Drawl	0	
Interest Type :	Floating	
Rate of Interest as on 01.04.2019	9.39%	
Margin, If Floating Interest :	Nil	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	4 Years	
Moratorium effective from :	26.12.2008	
Repayment Period (Inc Moratorium) :	16 Years	
Repayment Frequency :	48 Quarterly Instalments	
Repayment Type :	FIFO	
First Repayment Date :	15.07.2013	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	SIMHADRI-II	1,00,00,00,000.00
	SIPAT-I	1,00,00,00,000.00
	BONGAIGAON	50,00,00,000.00
	RIHAND-III	50,00,00,000.00
Total Allocated Amount		3,00,00,00,000.00

S.P.

(64)

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5070000011

T00001

D00010

Unsecured Loan From PFC-V		
Source of Loan :	PFC-V	
Currency :	INR	
Amount of Loan :	1,00,00,00,00,000	
Total Drawn amount :	1,00,00,00,00,000	
Date of Drawl	0	
Interest Type :	Floating	
Rate of Interest as on 01.04.2019	9.33%	
Margin, If Floating Interest :	Nil	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	4 Years	
Moratorium effective from :	26.12.2008	
Repayment Period (Inc Moratorium) :	16 Years	
Repayment Frequency :	48 Quarterly Instalments	
Repayment Type :	FIFO	
First Repayment Date :	15.07.2013	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	MAUDA	80,00,00,000.00
	RIHAND-III	20,00,00,000.00
Total Allocated Amount		1,00,00,00,000.00

S. Kumar

65

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 507000011

T00001

D00012

Unsecured Loan From PFC-V		
Source of Loan :	PFC-V	
Currency :	INR	
Amount of Loan :	1,00,00,00,00,000	
Total Drawn amount :	2,00,00,00,00,000	
Date of Drawl :	0	
Interest Type :	Floating	
Rate of Interest as on 01.04.2019	8.67%	
Margin, if Floating Interest :	Nil	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	4 Years	
Moratorium effective from :	26.12.2008	
Repayment Period (Inc Moratorium) :	16 Years	
Repayment Frequency :	48 Quarterly Instalments	
Repayment Type :	FIFO	
First Repayment Date :	15.07.2013	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	VINDHYACHAL-IV	45,00,00,000.00
	KORBA-III	15,00,00,000.00
	SIMHADRI-II	10,00,00,000.00
	BONGAIGAON	25,00,00,000.00
	KOLDAM	20,00,00,000.00
	MAUDA	25,00,00,000.00
	RIHAND-III	35,00,00,000.00
	TAPOVAN VISHNUGAD	25,00,00,000.00
Total Allocated Amount		2,00,00,00,000.00

SP

(66)

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5070000011

T00001

D00019

Unsecured Loan From PFC-V		
Source of Loan :	PFC-V	
Currency :	INR	
Amount of Loan :	1,00,00,00,00,000	
Total Drawn amount :	3,50,00,00,000	
Date of Drawl	0	
Interest Type :	Floating	
Rate of Interest as on 01.04.2019	8.35%	
Margin, If Floating Interest :	Nil	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	4 Years	
Moratorium effective from :	26.12.2008	
Repayment Period (Inc Moratorium) :	16 Years	
Repayment Frequency :	48 Quarterly Instalments	
Repayment Type :	FIFO	
First Repayment Date :	15.07.2013	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	KORBA-III	25,00,00,000.00
	KOLDAM	1,00,00,00,000.00
	NCTPP-DADRI-II	25,00,00,000.00
	SIMHADRI-II	50,00,00,000.00
	BONGAIGAON	50,00,00,000.00
	RIHAND-III	50,00,00,000.00
	SIPAT-I	50,00,00,000.00
Total Allocated Amount		3,50,00,00,000.00

Sa...

(67)

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5070000011

T00001

D00020

Unsecured Loan From PFC-V		
Source of Loan :	PFC-V	
Currency :	INR	
Amount of Loan :	1,00,00,00,00,000	
Total Drawn amount :	3,00,00,00,00,000	
Date of Drawl	0	
Interest Type :	Floating	
Rate of Interest as on 01.04.2019	8.40%	
Margin, If Floating Interest :	Nil	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	4 Years	
Moratorium effective from :	26.12.2008	
Repayment Period (Inc Moratorium) :	16 Years	
Repayment Frequency :	48 Quarterly Instalments	
Repayment Type :	FIFO	
First Repayment Date :	15.07.2013	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	FARAKKA-III	20,00,00,000.00
	NCTPP-DADRI-II	20,00,00,000.00
	BONGAIGAON	20,00,00,000.00
	BARH-II	60,00,00,000.00
	MAUDA	1,00,00,00,000.00
	VINDHYANCHAL-IV	50,00,00,000.00
	RIHAND-III	10,00,00,000.00
	SIPAT-I	20,00,00,000.00
Total Allocated Amount		3,00,00,00,000.00

S. M.

68

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5070000011

T00001

D00022

Unsecured Loan From PFC-V		
Source of Loan :	PFC-V	
Currency :	INR	
Amount of Loan :	1,00,00,00,00,000	
Total Drawn amount :	4,00,00,00,000	
Date of Drawl	0	
Interest Type :	Fixed with Reset after every 3 Years	
Rate of Interest as on 01.04.2019	7.62%	
Margin, If Floating Interest :	Nil	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	4 Years	
Moratorium effective from :	26.12.2008	
Repayment Period (Inc Moratorium) :	16 Years	
Repayment Frequency :	48 Quarterly Instalments	
Repayment Type :	FIFO	
First Repayment Date :	15.07.2013	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	KAHALGAON II	20,00,00,000.00
	KOLDAM	10,00,00,000.00
	FARAKKA III	25,00,00,000.00
	NCTPP-DADRI-II	10,00,00,000.00
	SIMHADRI-II	10,00,00,000.00
	BONGAIGAON	20,00,00,000.00
	BARH-II	55,00,00,000.00
	MAUDA	40,00,00,000.00
	VINDHYACHAL IV	20,00,00,000.00
	RIHAND-III	35,00,00,000.00
	TALCHER-II	30,00,00,000.00
	RIHAND-II	15,00,00,000.00
	VINDHYACHAL III	50,00,00,000.00
	UNCHAHAR-III	20,00,00,000.00
	PAKRI BARWADIH	40,00,00,000.00
Total Allocated Amount		4,00,00,00,000.00

S. Kumar

(69)

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5070000011

T00001

D00023

Unsecured Loan From PFC-V		
Source of Loan :	PFC-V	
Currency :	INR	
Amount of Loan :	1,00,00,00,00,000	
Total Drawn amount :	3,50,00,00,000	
Date of Drawl	0	
Interest Type :	Floating	
Rate of Interest as on 01.04.2019	7.43%	
Margin, If Floating Interest :	Nil	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	4 Years	
Moratorium effective from :	26.12.2008	
Repayment Period (Inc Moratorium) :	16 Years	
Repayment Frequency :	48 Quarterly Instalments	
Repayment Type :	FIFO	
First Repayment Date :	15.07.2013	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	BARH-II	25,00,00,000.00
	MAUDA-I	25,00,00,000.00
	SIMHADRI-II	10,00,00,000.00
	VINDHYACHAL IV	25,00,00,000.00
	RIHAND-III	50,00,00,000.00
	BARH-I	1,00,00,00,000.00
	KOLDAM	10,00,00,000.00
	KORBA-III	25,00,00,000.00
	FARAKKA III	15,00,00,000.00
	NCTPP-DADRI-II	10,00,00,000.00
	TAPOVAN VISHNUGARH	15,00,00,000.00
	BONGAIGAON	40,00,00,000.00
Total Allocated Amount		3,50,00,00,000.00

S. P. M.

70

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 507000011

T00001

D00033

Unsecured Loan From PFC-V		
Source of Loan :	PFC-V	
Currency :	INR	
Amount of Loan :	1,00,00,00,00,000	
Total Drawn amount :	5,00,00,00,000	
Date of Drawl	0	
Interest Type :	Fixed with Reset after every 3 Years	
Rate of Interest as on 01.04.2019	7.83%	
Margin, If Floating Interest :	Nil	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	4 Years	
Moratorium effective from :	26.12.2008	
Repayment Period (Inc Moratorium) :	16 Years	
Repayment Frequency :	48 Quarterly Instalments	
Repayment Type :	FIFO	
First Repayment Date :	15.07.2013	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	SIPAT-I	90,00,00,000.00
	BARH-I	65,00,00,000.00
	BARH-II	80,00,00,000.00
	MOUDA-I	47,00,00,000.00
	BONGAIGAON	25,00,00,000.00
	RIHAND-III	38,00,00,000.00
	FARAKKA-III	1,31,00,00,000.00
	KORBA-III	7,00,00,000.00
	SIPAT-II	4,00,00,000.00
	KAHALGAON-II	8,00,00,000.00
	UNCHAHAH R&M	5,00,00,000.00
Total Allocated Amount		5,00,00,00,000.00

S. P. ...

(71)

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5070000011

T00001

D00034

Unsecured Loan From PFC-V		
Source of Loan :	PFC-V	
Currency :	INR	
Amount of Loan :	1,00,00,00,00,000	
Total Drawn amount :	3,00,00,00,00,000	
Date of Drawl	0	
Interest Type :	Floating	
Rate of Interest as on 01.04.2019	8.17%	
Margin, if Floating Interest :	Nil	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	4 Years	
Moratorium effective from :	26.12.2008	
Repayment Period (Inc Moratorium) :	16 Years	
Repayment Frequency :	48 Quarterly Instalments	
Repayment Type :	FIFO	
First Repayment Date :	15.07.2013	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	KOLDAM	33,00,00,000.00
	FARAKKA-III	23,00,00,000.00
	TAPOVAN VISHNUGAD	45,00,00,000.00
	MOUDA-I	1,03,00,00,000.00
	RIHAND-III	96,00,00,000.00
Total Allocated Amount		3,00,00,00,000.00

S. ...

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5070000011

T00001

D00036

Unsecured Loan From PFC-V		
Source of Loan :	PFC-V	
Currency :	INR	
Amount of Loan :	1,00,00,00,00,000	
Total Drawn amount :	5,00,00,00,00,000	
Date of Drawl	0	
Interest Type :	Floating	
Rate of Interest as on 01.04.2019	8.30%	
Margin, If Floating Interest :	Nil	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	4 Years	
Moratorium effective from :	26.12.2008	
Repayment Period (Inc Moratorium) :	16 Years	
Repayment Frequency :	48 Quarterly Instalments	
Repayment Type :	FIFO	
First Repayment Date :	15.07.2013	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	BARH-II	2,75,00,00,000.00
	MOUDA-I	35,00,00,000.00
	VINDHYACHAL-IV	45,00,00,000.00
	SIPAT-I	1,05,00,00,000.00
	RIHAND-III	40,00,00,000.00
Total Allocated Amount		5,00,00,00,000.00

S. T. U. ...

73

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5070000011

T00001

D00038

Unsecured Loan From PFC-V		
Source of Loan :	PFC-V	
Currency :	INR	
Amount of Loan :	1,00,00,00,00,000	
Total Drawn amount :	4,50,00,00,00,000	
Date of Drawl	0	
Interest Type :	Floating	
Rate of Interest as on 01.04.2019	8.23%	
Margin, If Floating Interest :	Nil	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	4 Years	
Moratorium effective from :	26.12.2008	
Repayment Period (Inc Moratorium) :	16 Years	
Repayment Frequency :	48 Quarterly Instalments	
Repayment Type :	FIFO	
First Repayment Date :	15.07.2013	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	RIHAND-III	1,40,00,00,000.00
	PAKRI BARWADIH	35,00,00,000.00
	SIPAT-I	30,00,00,000.00
	SIMHADRI-II	1,15,00,00,000.00
	FARAKKA-III	45,00,00,000.00
	BARH-II	20,00,00,000.00
	BONGAIGAON	65,00,00,000.00
Total Allocated Amount		4,50,00,00,000.00

S...

74

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000321

T00001

D00008

Unsecured Loan From Union Bank of India-II		
Source of Loan :	Union Bank of India - II	
Currency :	INR	
Amount of Loan :	20,00,00,00,000	
Total Drawn amount :	1,00,00,00,000	
Date of Drawal :	01.03.2014	
Interest Type :	Floating	
Rate of Interest as on 01.04.2019	8.50%	
Margin, If Floating Interest :	NIL	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	4 Years	
Moratorium effective from :	01.08.2012	
Repayment Period (Inc Moratorium) :	14 Years	
Repayment Frequency :	20 Half Yearly	
Repayment Type :	AVG	
First Repayment Date :	01.02.2017	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	BARH-I	30,00,00,000
	RIHAND-III	25,00,00,000
	VINDHYACHAL-IV	20,00,00,000
	MOUDA-I	25,00,00,000
Total Allocated Amount		1,00,00,00,000.00

Stu...

(75)

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000721

T00001

D00001

Unsecured Loan From Corporation Bank-IV		
Source of Loan :	Corporation Bank-IV	
Currency :	INR	
Amount of Loan :	20,00,00,00,000	
Total Drawn amount :	20,00,00,00,000	
Date of Drawal:	11.01.2019	
Interest Type :	Floating	
Rate of Interest as on 01.04.2019	8.25%	
Base Rate, If Floating Interest	-	
Loan Refinancing spread	0.1333%	
Margin, If Floating Interest :	-	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	3 Years	
Moratorium effective from :	11.01.2019	
Repayment Period (Inc Moratorium) :	12 Years	
Repayment Frequency :	9 Yearly Instalments	
Repayment Type :	AVG	
First Repayment Date :	11-Jan-23	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	SINGRAULI 8MW HYDRO	8,75,00,000
	FARIDABAD SOLAR PV	8,75,00,000
	SINGRAULI SOLAR	8,75,00,000
	FARAKKA III	11,42,85,716
	RAJGARH SOLAR	13,12,50,000
	NCTPP-II	14,28,57,139
	GANDHAR R&M	16,60,71,436
	SIMHADRI-II	23,21,42,855
	SIPAT-I	23,43,75,000
	MOUDA-II	50,00,00,000
	VINDHYACHAL-V	1,00,00,00,000
	SIPAT-II	1,01,07,14,287
	MOUDA-I	1,05,44,64,284
	RIHAND-III	1,22,85,71,426
	VINDHYACHAL-IV	2,45,00,00,000
	KOLDAM	2,71,51,78,577
	BARH-II	6,75,75,89,280
	KUDGI	2,00,00,00,000
Total Allocated Amount		20,00,00,00,000

Sp

70

Year wise Statement of Additional Capitalisation after COD

Name of the Petitioner	NTPC Limited
Name of the Generating Station	Rihand Super Thermal Power Station Stage-III
COD	27-03-2014
For Financial Year	2019-24 (Summary)

Sl. No.	Head of Work /Equipment	ACE Claimed (Projected)					Regulations under which claimed/ Justification	Amount in Rs Lakh Admitted Cost by the Commission, if any
		2019-20	2020-21	2021-22	2022-23	2023-24		
1	2	3	4	5	6	7	8	9
A. Works under Original scope, Change in Law etc. eligible for RoE at Normal Rate								
1	Ash Dyke Construction					7,280.00	As per sl no 1 of Form 9 for 2023-24	
2	Dry Ash Extraction System St-III	400.00	1,500.00	1,451.00			As per sl no 1 of Form 9 for 2019-20	
3	Rail Line Extension for DAES		750.00				As per sl no 2 of Form 9 for 2020-21	
4	Package of ClO2 Plants	103.33	930.00				As per sl no 2 of Form 9 for 2019-20	
5	Sewage Treatment Plant	40.00	360.00				As per sl no 3 of Form 9 for 2019-20	
6	Nitrogen Sparging		422.33				As per sl no 5 of Form 9 for 2020-21	
	Total (A)	543.33	3,962.33	1,451.00		7,280.00		
B. Works beyond Original scope excluding add-cap due to Change in Law eligible for RoE at Wtd. Average rate of Interest								
7	Additional Helper Cells CT		1,500.00	4,000.00	2,421.00		As per sl no 6 of Form 9 for 2020-21	
8	Security related works and Procurement of Security gadgets / equipments	10.00	411.00	176.50	65.50	8.00	As per sl no 4 of Form 9 for 2019-20	
	Total (B)	10.00	1,911.00	4,176.50	2,486.50	8.00		
Total Add. Cap. Claimed (A+B)		553.33	5,873.33	5,627.50	2,486.50	7,288.00		

S. Kumar
(Petitioner)

Year wise Statement of Additional Capitalisation after COD

**PART-I
FORM-9**

Name of the Petitioner	NTPC Limited
Name of the Generating Station	Rihand Super Thermal Power Station Stage-III
COD	27-03-2014
For Financial Year	2019-20

Sl. No.	Head of Work /Equipment	ACE Claimed (Projected)				Regulations under which claimed	Justification	Amount in Rs Lakh	Admitted Cost by the Commission, if any
		Accrual basis as per IGAAP	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3				
1	2	3	4	5= (3-4)	6	7	8	9	
A. Works under Original scope, Change in Law etc. eligible for RoE at Normal Rate									
1	Dry Ash Extraction System St-III	400.00	0	400.00		25(1)(b)	As per the directions of MoEF&CC vide notification dated 25.01.2016, coal/ lignite based Thermal Power plants shall have to comply with 100% fly Ash utilization targets. Dry Ash Extraction System is aimed to comply with the directions of MoEF&CC dated 25.01.2016. Copy of the notification is attached at Annexure-A. The projected capitalization pertains to implementation of DAES in the instant station. Hon'ble Commission may be pleased to allow capitalization under 'Change in law or compliance of an existing law' .	0	
2	Package of ClO ₂ Plants	103.33	0	103.33		26(1)(b) and 26 (1)(d)	It is submitted that chlorine gas is being dozed directly at various stages of water treatment to maintain water quality and to inhibit organic growth in the water retaining structures/ equipment such as clarifiers, storage tanks, cooling towers, condenser tubes & piping etc. Chlorine dosing is done from chlorine stored in cylinders/ tonners. Chlorine gas is very hazardous and may prove fatal in case of leakage; handling and storage of same involves risk to the life of public at large. In the interest of public safety the chlorine dozing system is now being replaced by Chlorine Dioxide (ClO ₂) system, which is much safer and less hazardous than chlorine. In the proposed scheme, ClO ₂ shall be produced on site by use of commercial grade HCl and sodium chlorite. As ClO ₂ is generated at site, avoids handling and storage risk. Further, at Kudgi NTPC project, Department of Factories, Boiler, Industrial Safety and Health, Govt of Karnataka has directed NTPC to replace highly hazardous gas chlorination system with ClO ₂ system. SPCB, Odisha while issuing consent to establish in case of Darlipalli Station has asked NTPC to explore the possibility of installing ClO ₂ system instead of Chlorine gas system (Relevant documents is attached at Annexure-B.). In view of the directions of various statutory authorities in different states of the country and for enhancing the safety of O&M personnels, NTPC is replacing the chlorination system with ClO ₂ system. Accordingly, Hon'ble Commission may be pleased to allow the same under Reg. 26(1)(b) and 26 (1)(d)	0	

79

S. S.


Year wise Statement of Additional Capitalisation after COD

**PART-I
FORM- 9**

Name of the Petitioner	NTPC Limited
Name of the Generating Station	Rihand Super Thermal Power Station Stage-III
COD	27-03-2014
For Financial Year	2019-20

Sl. No.	Head of Work /Equipment	ACE Claimed (Projected)				Regulations under which claimed	Justification	Amount in Rs Lakh
		Accrual basis as per IGAAP	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3			Admitted Cost by the Commission, if any
1	2	3	4	5= (3-4)	6	7	8	9
3	Sewage Treatment Plant	40.00	0	40.00		26(1)(b), 26(1)(f)	As per the directions of Uttar Pradesh Pollution Control Board vide its letter dated 25.07.2016, the petitioner is implementing the Sewage Treatment Plant. Copy of the UPPCB's letter dated 25.07.2016 is attached at Annexure-C . The projected capitalisation pertains to the balance work of Sewage Treatment Plant capitalised in Rihand STPS STage-III in FY 2018-19. Hon'ble Commission may be pleased to allow the capitalisation under 'Change in law or compliance of an existing law'	0
Total (A)		543.33	-	543.33	-			
B. Works beyond Original scope excluding add-cap due to Change in Law eligible for RoE at Wtd. Average rate of Interest								
4	Security related works and Procurement of Security gadgets/ equipments	10.00	0	10.00	0	26 (1) (d)	Ministry of Power, GoI vide letters dated 27.02.2019 & 23.10.2019 has instructed the petitioner to strengthen the security arrangements at vital installations. Copy of letters is enclosed as Annexure-D . The projected capitalization pertains to expenditure projected to be incurred towards security of the plant in line with the MoP letters dated 27.02.2019 & 23.10.2019. Hon'ble Commission may be pleased to allow the same.	
Total (B)		10.00	-	10.00	-			
Total Add. Cap. Claimed (A+B)		553.33	-	553.33	-			

(2)


 (Petitioner)

Year wise Statement of Additional Capitalisation after COD								PART-1 FORM- 9
Name of the Petitioner			NTPC Limited					
Name of the Generating Station			Rihand Super Thermal Power Station Stage-III					
COD			27-03-2014					
For Financial Year			2020-21					
Sl. No.	Head of Work /Equipment	ACE Claimed (Projected)				Regulations under which claimed	Justification	Amount in Rs Lakh Admitted Cost by the Commission, if any
		Accrual basis as per IGAAP	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3			
1	2	3	4	5=(3-4)	6	7	8	9
A. Works under Original scope, Change in Law etc. eligible for RoE at Normal Rate								
1	Dry Ash Extraction System St-III	1,500.00	0	1,500.00		25(1)(b)	As per sl no 1 of Form 9 for 2019-20	0
2	Rail Line Extension for DAES	750.00	0	750.00		25(1)(b)	As per the directions of MoEF&CC vide notification dated 25.01.2016. coal/ lignite based Thermal Power plants shall have to comply with 100% fly Ash utilization targets. Copy of the notification is attached at Annexure-A . The notification also mandates separate access for dry ash silos to ease the delivery of fly ash. It is humbly submitted that in view of the remote location of the instant station, it is not possible to utilize 100% ash locally through access roads. Therefore, it has been decided to transport the ash to potential utilisation sites through railway line. The proposed Rail line extension work includes laying of Railway track within plant boundary upto dry ash silos to enable collection of ash directly from dry Ash dilos. The projected capitalisation pertains to the Rail line extension work for transportation of Ash from the instant station. Hon'ble Commission may be pleased to allow capitalization under 'Change in law or compliance of an existing law'	0
3	Package of ClO2 Plants	930.00	0	930.00		26(1)(b) and 26 (1)(d)	As per sl no 2 of Form 9 for 2019-20	0
4	Sewage Treatment Plant	360.00	0	360.00		26(1)(b), 26(1)(f)	As per sl no 3 of Form 9 for 2019-20	0

8

S. P. S.

Year wise Statement of Additional Capitalisation after COD

**PART-I
FORM-9**

Name of the Petitioner	NTPC Limited
Name of the Generating Station	Rihand Super Thermal Power Station Stage-III
COD	27-03-2014
For Financial Year	2020-21

Sl. No.	Head of Work / Equipment	ACE Claimed (Projected)				Regulations under which claimed	Justification	Admitted Cost by the Commission, if any
		Accrual basis as per IGAAP	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3			
1	2	3	4	5= (3-4)	6	7	8	9
5	Nitrogen Sparging	422.33	0	422.33		26 (1) read with 76	It is submitted that Boilers, condensers and other steam/ water handling equipments are very sensitive to corrosion and fouling. Main fouling impurity causing corrosion is the dissolved oxygen which enter the water-steam cycle through the cycle make-up water or during the start-up after outages when the system is filled with DM water. At present the DM water is stored in the vented storage tanks exposed to air wherein CO2 and O2 gets absorbed into this water. When this water containing high concentrations O2 & CO2 enters the system causes stress corrosion, fatigue corrosion, pitting etc. leading to failures. Further, it causes PH swings decremental to pressure parts and forms oxides which precipitate and gets deposited in the system. Most of the adverse effects are visible in the long run. Due to temperature and pressure variations during start-ups and load variations these deposits gets dis-lodged and need lot of time to mechanically scavenging out of the system by way of continuous blowdown which is a waste of energy or through polishing units. By nitrogen sparging/ blanketing the storage tanks and other related systems ingress of O2 and Co2 could be avoided resulting in increased life of components, reduce failures, reduce start-up time. Moreover it would reduce unplanned outages increasing the system stability and reliability. In view of various technological benefits, the Hon'ble Commission may be pleased to exercise power to relax and allow capitalization under Regulation 26 with Regulation 76 of Tariff Regulations, 2019.	0
Total (A)		3,962.33	-	3,962.33	-			

S. P. W.

100

Year wise Statement of Additional Capitalisation after COD

**PART-I
FORM-9**

Name of the Petitioner	NTPC Limited
Name of the Generating Station	Rihand Super Thermal Power Station Stage-III
COD	27-03-2014
For Financial Year	2020-21

Sl. No.	Head of Work /Equipment	ACE Claimed (Projected)				Regulations under which claimed	Justification	Amount in Rs Lakh	Admitted Cost by the Commission, if any
		Accrual basis as per IGAAP	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3				
1	2	3	4	5= (3-4)	6	7	8	9	

B. Works beyond Original scope excluding add-cap due to Change in Law eligible for RoE at Wtd. Average rate of Interest

6	Additional Helper Cells CT	1,500.00		1,500.00		26 (1) read with 76	<p>LOA for Erection & commissioning of Cooling towers (CT) was awarded to M/s NBCC. Soon after the completion of work, a shortfall was observed in the performance of cooling towers. The matter was taken up with M/s NBCC. Despite continuous follow-up, M/s NBCC could not offer any solution to the performance issue.</p> <p>Basic factors affecting CT performance are Area & Volume of the fills, Water distribution across fill area through nozzles and Air flow. In order to improve the performance, the petitioner made efforts to improve Air flow in CTs by replacing the existing fan blades with highly efficient improved profile fan blades. Even after replacement of the fan blades, design performance could not be attained.</p> <p>Despite several communications by the petitioner, M/s NBCC did not depute its representative for joint PG test. Therefore, petitioner appointed M/s McHale & Associates (USA), Cooling Technology Institute (CTI) approved agency, to conduct PG test with a communication to M/s NBCC to attend the same. PG test conducted by the agency failed to achieve the guarantee performance. M/s NBCC has disputed the PG test and has taken the matter to Administrative Mechanism for Resolution of CPSEs Disputes (AMRCD) under DoPE. The petitioner has retained Liquidated Damages (LD), amounting to Rs 21.57 Crs. for deduction subject to outcome of the matter in AMRCD.</p> <p>To improve the area/ volume of the fill to ensure proper water distribution, additional helper cells is being installed to bring the CTs at design efficiency. The current capitalization pertains to installation of additional helper cells. Hon'ble Commission may be pleased to allow the same.</p>	0
---	----------------------------	----------	--	----------	--	---------------------	---	---

15

S. W.

Year wise Statement of Additional Capitalisation after COD								PART-1 FORM- 9
Name of the Petitioner		NTPC Limited						
Name of the Generating Station		Rihand Super Thermal Power Station Stage-III						
COD		27-03-2014						
For Financial Year		2020-21						
Sl. No.	Head of Work /Equipment	ACE Claimed (Projected)				Regulations under which claimed	Justification	Admitted Cost by the Commission, if any
		Accrual basis as per IGAAP	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3			
1	2	3	4	5= (3-4)	6	7	8	9
7	Security related works and Procurement of Security gadgets/ equipments	411.00	-	411.00	-	26 (1) (d)	As per sl no 4 of Form 9 for 2019-20	0
	Total (B)	1,911.00	-	1,911.00	-			
	Total Add. Cap. Claimed (A+B)	5,873.33	-	5,873.33	-			

53

S
(Petitioner)

Year wise Statement of Additional Capitalisation after COD

**PART-I
FORM-9**

Name of the Petitioner	NTPC Limited
Name of the Generating Station	Rihand Super Thermal Power Station Stage-III
COD	27-03-2014
For Financial Year	2021-22

Sl. No.	Head of Work /Equipment	ACE Claimed (Projected)				Regulations under which claimed	Justification	Admitted Cost by the Commission. if any
		Accrual basis as per IGAAP	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3			
1	2	3	4	5= (3-4)	6	7	8	9
A. Works under Original scope, Change in Law etc. eligible for RoE at Normal Rate								
1	Dry Ash Extraction System St-III	1,451.00	-	1,451.00		25(1)(b)	As per sl no 1 of Form 9 for 2019-20	0
Total (A)		1,451.00	-	1,451.00	-			
B. Works beyond Original scope excluding add-cap due to Change in Law eligible for RoE at Wtd. Average rate of Interest								
2	Additional Helper Cells CT	4,000.00		4,000.00		26 (1) read with 76	As per sl no 6 of Form 9 for 2020-21	0
3	Security related works and Procurement of Security gadgets/ equipments	176.50	-	176.50		26 (1) (d)	As per sl no 4 of Form 9 for 2019-20	0
Total (B)		4,176.50	-	4,176.50	-			
Total Add. Cap. Claimed (A+B)		5,627.50	-	5,627.50	-			

(58)

SPL
(Petitioner)

Year wise Statement of Additional Capitalisation after COD

**PART-I
FORM- 9**

Name of the Petitioner	NTPC Limited
Name of the Generating Station	Rihand Super Thermal Power Station Stage-III
COD	27-03-2014
For Financial Year	2022-23

Sl. No.	Head of Work /Equipment	ACE Claimed (Projected)				Regulations under which claimed	Justification	Admitted Cost by the Commission, if any
		Accrual basis as per IGAAP	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3			
1	2	3	4	5= (3-4)	6	7	8	9
A. Works under Original scope, Change in Law etc. eligible for RoE at Normal Rate								
Total (A)		-	-	-	-			
B. Works beyond Original scope excluding add-cap due to Change in Law eligible for RoE at Wtd. Average rate of Interest								
1	Additional Helper Cells CT	2,421.00	-	2,421.00	-	26 (1) read with 76	As per sl no 6 of Form 9 for 2020-21	0
2	Security related works and Procurement of Security gadgets/ equipments	65.50	-	65.50	-	26 (1) (d)	As per sl no 4 of Form 9 for 2019-20	0
Total (B)		2,486.50	-	2,486.50	-			
Total Add. Cap. Claimed (A+B)		2,486.50	-	2,486.50	-			

S. S.
(Petitioner)

58

Year wise Statement of Additional Capitalisation after COD

**PART-I
FORM- 9**

Name of the Petitioner	NTPC Limited
Name of the Generating Station	Rihand Super Thermal Power Station Stage-III
COD	27-03-2014
For Financial Year	2023-24

Sl. No.	Head of Work /Equipment	ACE Claimed (Projected)				Regulations under which claimed	Justification	Admitted Cost by the Commission, if any
		Accrual basis as per IGAAP	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3			
1	2	3	4	5= (3-4)	6	7	8	9
A. Works under Original scope, Change in Law etc. eligible for RoE at Normal Rate								
1	Ash Dyke Construction	7,280.00	-	7,280.00		25(1)(c) & 25 (1)(g)	It is submitted that Ash Dyke is required to accommodate the Ash Generated from Power Plant. Construction of Ash Dyke is part of original scope of the project. Hon'ble Commission may be pleased to allow the capitalization under Regulation 25(1)(c) & 25 (1)(g).	0
Total (A)		7,280.00	-	7,280.00	-			
B. Works beyond Original scope excluding add-cap due to Change in Law eligible for RoE at Wtd. Average rate of Interest								
2	Security related works and Procurement of Security gadgets/ equipments	8.00	-	8.00		26 (1) (d)	As per sl no 4 of Form 9 for 2019-20	0
Total (B)		8.00	-	8.00	-			
Total Add. Cap. Claimed (A+B)		7,288.00	-	7,288.00	-			

00

S. S.
(Petitioner)

Financing of Additional Capitalisation

**PART-I
FORM-10**

Name of the Petitioner	NTPC Limited
Name of the Generating Station	Rihand Super Thermal Power Station Stage-III
Date of Commercial Operation	27-03-2014

Financial Year (Starting from COD)1	Amount in Rs Lakh									
	Actual					Admitted				
	2019-20	2020-21	2021-22	2022-23	2023-24	2019-20	2020-21	2021-22	2022-23	2023-24
1		3	4	5	6	7	8	9	10	11

Amount capitalised in Work/ Equipment

Financing Details

Loan-1

Loan-2

Loan-3 and so on

Total Loan2

Equity

Internal Resources

Others (Pl. specify)

Total

Add cap is proposed to be funded in Debt:Equity ratio of 70:30

(Petitioner) 

40

Calculation of Depreciation

Name of the Petitioner

NTPC Ltd.

Name of the Generating Station

Rihand Super Thermal Power Station Stage-III

Amount in Rs Lakh

Sl.No.	Name of the Assets ¹	Depreciation Rates as per CERC's Depreciation Rate Schedule	Gross Block as on 31.03.2019	Depreciation
1	Land-Free Hold	0.00%	149	0.00
2	Plant & Machinery	5.28%	475311	25096.43
3	Cooling Towers & CW System.	5.28%	22880	1208.09
4	Air conditioning	5.28%	819	43.23
5	Chimney	5.28%	5874	310.13
6	Main Plant Building	3.34%	8996	300.47
7	Ash Dyke/Disposal Area	5.28%	410	21.67
8	S-Yard	5.28%	5685	300.18
9	Raw Water Reservoir	5.28%	1540	81.32
10	MGR & Wagons	5.28%	7969	420.78
11	Locomotive	9.50%	9478	900.45
12	Residential Building	3.34%	18145	606.05
13	Water Treatment Plant	5.28%	6052	319.54
14	Spares	5.28%	13187	696.29
15	Furniture & Fixtures, OFFICE EQUIPMENT	6.33%	1220	77.25
16	Other MBOAs / T&Ps.	6.33%	621	39.29
17	EDP, WP & SATCOM.	15.00%	799	119.90
18	Construction equipment	5.28%	48	2.54
19	Temp. Constructions	100.00%	1313	1313.18
20	Central Repair/Workshop	5.28%	1330	70.21
21	Road/Bridge	3.34%	6883	229.88
22	Software	15.00%	11	1.69
23	Water Supply drainage	5.28%	133	7.05
24	5 Km Scheme	5.28%	0	0.01
	Total		588855.76	32165.61
	Weighted Average Rate of Depreciation (%)			5.4624%


 (Petitioner)

Statement of Depreciation

**PART-I
FORM- 12**

Name of the Company : **NTPC Limited**

Name of the Power Station : **Rihand Super Thermal Power Station Stage-III**

(Amount in Rs Lakh)

S. No.	Particulars	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7	8
1	Opening Capital Cost	553116.73	5,54,745.61	5,55,298.94	5,61,172.27	5,66,799.77	5,69,286.27
2	Closing Capital Cost	554745.61	5,55,298.94	5,61,172.27	5,66,799.77	5,69,286.27	5,76,574.27
3	Average Capital Cost	553931.17	5,55,022.28	5,58,235.61	5,63,986.02	5,68,043.02	5,72,930.27
1a	Cost of IT Equipments & Software included in (1) above		Shall be filed at the time of truing up				
2a	Cost of IT Equipments & Software included in (2) above						
3a	Average Cost of IT Equipments & Software						
4	Freehold land	0.00	-	-	-	-	-
5	Rate of depreciation	5.470	5.4624	5.4624	5.4624	5.4624	5.4624
6	Depreciable value	4,98,538.05	4,99,520.05	5,02,412.04	5,07,587.42	5,11,238.72	5,15,637.24
7	Balance useful life at the beginning of the period	20.31	19.31	18.31	17.31	16.31	15.31
8	Remaining depreciable value	3,66,396.43	3,37,078.84	3,09,653.30	2,84,335.62	2,57,179.74	2,30,549.49
9	Depreciation (for the period)	30,299.58	30,317.54	30,493.06	30,807.17	31,028.78	31,295.74
10	Depreciation (annualised)	30,299.58	30,317.54	30,493.06	30,807.17	31,028.78	31,295.74
11	Cumulative depreciation at the end of the period		1,92,758.74	2,23,251.80	2,54,058.97	2,85,087.76	3,16,383.50
12	Less: Cumulative depreciation adjustment on account of un-discharged liabilities deducted as on 01.04.2009	0.00	-	-	-	-	-
13	Add: Cumulative depreciation adjustment on account of liability Discharge	0.00	-	-	-	-	-
14	Less: Cumulative depreciation adjustment on account of de-capitalisation	175.97	-	-	-	-	-
15	Net Cumulative depreciation at the end of the period after adjustments	1,62,441.20	1,92,758.74	2,23,251.80	2,54,058.97	2,85,087.76	3,16,383.50

S
(Petitioner)

69

Calculation of Weighted Average Rate of Interest on Actual Loans

Name of the Company :

NTPC Limited

Name of the Power Station:

Rihand Super Thermal Power Station Stage-III

(Amount in Rs. Lakh)

S.No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
1	4.75% Fixed Rate Notes due 2022					
	Gross Drawl opening	29,167	29,167	29,167	29,167	29,167
	Cummulative repayment of drawl till prev yr	-	-	-	-	29,167
	Net Loan opening	29,167	29,167	29,167	29,167	-
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	29,167	29,167	29,167	29,167	-
	Repayment of loan during the year	-	-	-	29,167	-
	Net loan closing	29,167	29,167	29,167	-	-
	Average net loan	29,167	29,167	29,167	14,583	-
	Rate of interest on loan	5.0243%	5.0243%	5.0243%	5.0243%	5.0243%
	Interest on loan	1,465	1,465	1,465	733	-
2	5.625% Fixed Rate Notes due 2021					
	Gross Drawl opening	53,419	53,419	53,419	53,419	53,419
	Cummulative repayment of drawl till prev yr	-	-	-	53,419	53,419
	Net Loan opening	53,419	53,419	53,419	-	-
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	53,419	53,419	53,419	-	-
	Repayment of loan during the year	-	-	53,419	-	-
	Net loan closing	53,419	53,419	-	-	-
	Average net loan	53,419	53,419	26,709	-	-
	Rate of interest on loan	7.1968%	7.1968%	7.1968%	7.1968%	7.1968%
	Interest on loan	3,844	3,844	1,922	-	-
3	SBI New York					
	Gross Drawl opening	5,101	5,101	5,101	5,101	5,101
	Cummulative repayment of drawl till prev yr	-	5,101	5,101	5,101	5,101
	Net Loan opening	5,101	-	-	-	-
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	5,101	-	-	-	-
	Repayment of loan during the year	5,101	-	-	-	-
	Net loan closing	-	-	-	-	-
	Average net loan	2,551	-	-	-	-
	Rate of interest on loan	4.2871%	4.2871%	4.2871%	4.2871%	4.2871%
	Interest on loan	109	-	-	-	-
4	Corporation Bank-III- D4					
	Gross Drawl opening	5,000	5,000	5,000	5,000	5,000
	Cummulative repayment of drawl till prev yr	750	1,250	1,750	2,250	2,750
	Net Loan opening	4,250	3,750	3,250	2,750	2,250
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	4,250	3,750	3,250	2,750	2,250
	Repayment of loan during the year	500	500	500	500	500
	Net loan closing	3,750	3,250	2,750	2,250	1,750
	Average net loan	4,000	3,500	3,000	2,500	2,000
	Rate of interest on loan	8.2000%	8.2000%	8.2000%	8.2000%	8.2000%
	Interest on loan	328	287	246	205	164
5	Corporation Bank-III-D6					
	Gross Drawl opening	5,000	5,000	5,000	5,000	5,000
	Cummulative repayment of drawl till prev yr	750	1,250	1,750	2,250	2,750
	Net Loan opening	4,250	3,750	3,250	2,750	2,250
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	4,250	3,750	3,250	2,750	2,250
	Repayment of loan during the year	500	500	500	500	500
	Net loan closing	3,750	3,250	2,750	2,250	1,750
	Average net loan	4,000	3,500	3,000	2,500	2,000
	Rate of interest on loan	8.2000%	8.2000%	8.2000%	8.2000%	8.2000%
	Interest on loan	328	287	246	205	164

90

Calculation of Weighted Average Rate of Interest on Actual Loans

Name of the Company :

NTPC Limited

Name of the Power Station:

Rihand Super Thermal Power Station Stage-III

(Amount in Rs. Lakh)

S.No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
6	HDFC Bank Limited- II- D3					
	Gross Drawl opening	2,000	2,000	2,000	2,000	2,000
	Cummulative repayment of drawl till prev yr	1,429	1,714	2,000	2,000	2,000
	Net Loan opening	571	286	-	-	-
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	571	286	-	-	-
	Repayment of loan during the year	286	286	-	-	-
	Net loan closing	286	-	-	-	-
	Average net loan	429	143	-	-	-
	Rate of interest on loan	8.4500%	8.4500%	8.4500%	8.4500%	8.4500%
	Interest on loan	36	12	-	-	-
7	HDFC Bank Limited- II- D6					
	Gross Drawl opening	3,000	3,000	3,000	3,000	3,000
	Cummulative repayment of drawl till prev yr	2,143	2,571	3,000	3,000	3,000
	Net Loan opening	857	429	-	-	-
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	857	429	-	-	-
	Repayment of loan during the year	429	429	-	-	-
	Net loan closing	429	-	-	-	-
	Average net loan	643	214	-	-	-
	Rate of interest on loan	8.4500%	8.4500%	8.4500%	8.4500%	8.4500%
	Interest on loan	54	18	-	-	-
8	HUDCO LTD-I					
	Gross Drawl opening	4,500	4,500	4,500	4,500	4,500
	Cummulative repayment of drawl till prev yr	2,045	2,455	2,864	3,273	3,682
	Net Loan opening	2,455	2,045	1,636	1,227	818
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	2,455	2,045	1,636	1,227	818
	Repayment of loan during the year	409	409	409	409	409
	Net loan closing	2,045	1,636	1,227	818	409
	Average net loan	2,250	1,841	1,432	1,023	614
	Rate of interest on loan	8.3000%	8.3000%	8.3000%	8.3000%	8.3000%
	Interest on loan	187	153	119	85	51
9	Indian Bank-II- D1					
	Gross Drawl opening	1,000	1,000	1,000	1,000	1,000
	Cummulative repayment of drawl till prev yr	929	1,000	1,000	1,000	1,000
	Net Loan opening	71	0	0	0	0
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	71	0	0	0	0
	Repayment of loan during the year	71	-	-	-	-
	Net loan closing	0	0	0	0	0
	Average net loan	36	0	0	0	0
	Rate of interest on loan	8.2500%	8.2500%	8.2500%	8.2500%	8.2500%
	Interest on loan	3	0	0	0	0

S. T. M.

31

Calculation of Weighted Average Rate of Interest on Actual Loans

Name of the Company :

NTPC Limited

Name of the Power Station:

Rihand Super Thermal Power Station Stage-III

(Amount in Rs. Lakh)

S.No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
10	Indian Bank-II- D2					
	Gross Drawl opening	500	500	500	500	500
	Cummulative repayment of drawl till prev yr	464	500	500	500	500
	Net Loan opening	36	-	-	-	-
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	36	-	-	-	-
	Repayment of loan during the year	36	-	-	-	-
	Net loan closing	-	-	-	-	-
	Average net loan	18	-	-	-	-
	Rate of interest on loan	8.2500%	8.2500%	8.2500%	8.2500%	8.2500%
	Interest on loan	1	-	-	-	-
11	Indian Bank-II- D3					
	Gross Drawl opening	2,000	2,000	2,000	2,000	2,000
	Cummulative repayment of drawl till prev yr	1,857	2,000	2,000	2,000	2,000
	Net Loan opening	143	-	-	-	-
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	143	-	-	-	-
	Repayment of loan during the year	143	-	-	-	-
	Net loan closing	-	-	-	-	-
	Average net loan	71	-	-	-	-
	Rate of interest on loan	8.2500%	8.2500%	8.2500%	8.2500%	8.2500%
	Interest on loan	6	-	-	-	-
12	Power Finance Corporation Ltd-V- D8					
	Gross Drawl opening	5,000	5,000	5,000	5,000	5,000
	Cummulative repayment of drawl till prev yr	2,396	2,813	3,229	3,646	4,063
	Net Loan opening	2,604	2,188	1,771	1,354	938
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	2,604	2,188	1,771	1,354	938
	Repayment of loan during the year	417	417	417	417	417
	Net loan closing	2,188	1,771	1,354	938	521
	Average net loan	2,396	1,979	1,563	1,146	729
	Rate of interest on loan	9.3900%	9.3900%	9.3900%	9.3900%	9.3900%
	Interest on loan	225	186	147	108	68
13	Power Finance Corporation Ltd-V- D10					
	Gross Drawl opening	2,000	2,000	2,000	2,000	2,000
	Cummulative repayment of drawl till prev yr	958	1,125	1,292	1,458	1,625
	Net Loan opening	1,042	875	708	542	375
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	1,042	875	708	542	375
	Repayment of loan during the year	167	167	167	167	167
	Net loan closing	875	708	542	375	208
	Average net loan	958	792	625	458	292
	Rate of interest on loan	9.3300%	9.3300%	9.3300%	9.3300%	9.3300%
	Interest on loan	89	74	58	43	27
14	Power Finance Corporation Ltd-V- D12					
	Gross Drawl opening	3,500	3,500	3,500	3,500	3,500
	Cummulative repayment of drawl till prev yr	1,677	1,969	2,260	2,552	2,844
	Net Loan opening	1,823	1,531	1,240	948	656
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	1,823	1,531	1,240	948	656
	Repayment of loan during the year	292	292	292	292	292
	Net loan closing	1,531	1,240	948	656	365
	Average net loan	1,677	1,385	1,094	802	510
	Rate of interest on loan	8.6700%	8.6700%	8.6700%	8.6700%	8.6700%
	Interest on loan	145	120	95	70	44

92

S. H. S.

Calculation of Weighted Average Rate of Interest on Actual LoansName of the Company :
Name of the Power Station:NTPC Limited
Rihand Super Thermal Power Station Stage-III

(Amount in Rs. Lakh)

S.No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
15	Power Finance Corporation Ltd-V- D19					
	Gross Drawl opening	5,000	5,000	5,000	5,000	5,000
	Cummulative repayment of drawl till prev yr	2,396	2,813	3,229	3,646	4,063
	Net Loan opening	2,604	2,188	1,771	1,354	938
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	2,604	2,188	1,771	1,354	938
	Repayment of loan during the year	417	417	417	417	417
	Net loan closing	2,188	1,771	1,354	938	521
	Average net loan	2,396	1,979	1,563	1,146	729
	Rate of interest on loan	8.3500%	8.3500%	8.3500%	8.3500%	8.3500%
	Interest on loan	200	165	130	96	61
16	Power Finance Corporation Ltd-V- D20					
	Gross Drawl opening	1,000	1,000	1,000	1,000	1,000
	Cummulative repayment of drawl till prev yr	479	563	646	729	813
	Net Loan opening	521	438	354	271	188
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	521	438	354	271	188
	Repayment of loan during the year	83	83	83	83	83
	Net loan closing	438	354	271	188	104
	Average net loan	479	396	313	229	146
	Rate of interest on loan	8.4000%	8.4000%	8.4000%	8.4000%	8.4000%
	Interest on loan	40	33	26	19	12
17	Power Finance Corporation Ltd-V- D22					
	Gross Drawl opening	3,500	3,500	3,500	3,500	3,500
	Cummulative repayment of drawl till prev yr	1,677	1,969	2,260	2,552	2,844
	Net Loan opening	1,823	1,531	1,240	948	656
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	1,823	1,531	1,240	948	656
	Repayment of loan during the year	292	292	292	292	292
	Net loan closing	1,531	1,240	948	656	365
	Average net loan	1,677	1,385	1,094	802	510
	Rate of interest on loan	7.6200%	7.6200%	7.6200%	7.6200%	7.6200%
	Interest on loan	128	106	83	61	39
18	Power Finance Corporation Ltd-V- D23					
	Gross Drawl opening	5,000	5,000	5,000	5,000	5,000
	Cummulative repayment of drawl till prev yr	2,396	2,813	3,229	3,646	4,063
	Net Loan opening	2,604	2,188	1,771	1,354	938
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	2,604	2,188	1,771	1,354	938
	Repayment of loan during the year	417	417	417	417	417
	Net loan closing	2,188	1,771	1,354	938	521
	Average net loan	2,396	1,979	1,563	1,146	729
	Rate of interest on loan	7.4300%	7.4300%	7.4300%	7.4300%	7.4300%
	Interest on loan	178	147	116	85	54

S. S.

33

Calculation of Weighted Average Rate of Interest on Actual Loans

Name of the Company :

NTPC Limited

Name of the Power Station:

Rihand Super Thermal Power Station Stage-III

(Amount in Rs. Lakh)

S.No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
19	Power Finance Corporation Ltd-V- D33					
	Gross Drawl opening	3,800	3,800	3,800	3,800	3,800
	Cummulative repayment of drawl till prev yr	1,821	2,138	2,454	2,771	3,088
	Net Loan opening	1,979	1,663	1,346	1,029	713
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	1,979	1,663	1,346	1,029	713
	Repayment of loan during the year	317	317	317	317	317
	Net loan closing	1,663	1,346	1,029	713	396
	Average net loan	1,821	1,504	1,188	871	554
	Rate of interest on loan	7.8300%	7.8300%	7.8300%	7.8300%	7.8300%
	Interest on loan	143	118	93	68	43
20	Power Finance Corporation Ltd-V- D34					
	Gross Drawl opening	9,600	9,600	9,600	9,600	9,600
	Cummulative repayment of drawl till prev yr	4,600	5,400	6,200	7,000	7,800
	Net Loan opening	5,000	4,200	3,400	2,600	1,800
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	5,000	4,200	3,400	2,600	1,800
	Repayment of loan during the year	800	800	800	800	800
	Net loan closing	4,200	3,400	2,600	1,800	1,000
	Average net loan	4,600	3,800	3,000	2,200	1,400
	Rate of interest on loan	8.1700%	8.1700%	8.1700%	8.1700%	8.1700%
	Interest on loan	376	310	245	180	114
21	Power Finance Corporation Ltd-V- D36					
	Gross Drawl opening	4,000	4,000	4,000	4,000	4,000
	Cummulative repayment of drawl till prev yr	1,917	2,250	2,583	2,917	3,250
	Net Loan opening	2,083	1,750	1,417	1,083	750
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	2,083	1,750	1,417	1,083	750
	Repayment of loan during the year	333	333	333	333	333
	Net loan closing	1,750	1,417	1,083	750	417
	Average net loan	1,917	1,583	1,250	917	583
	Rate of interest on loan	8.3000%	8.3000%	8.3000%	8.3000%	8.3000%
	Interest on loan	159	131	104	76	48
22	Power Finance Corporation Ltd-V- D38					
	Gross Drawl opening	14,000	14,000	14,000	14,000	14,000
	Cummulative repayment of drawl till prev yr	6,708	7,875	9,042	10,208	11,375
	Net Loan opening	7,292	6,125	4,958	3,792	2,625
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	7,292	6,125	4,958	3,792	2,625
	Repayment of loan during the year	1,167	1,167	1,167	1,167	1,167
	Net loan closing	6,125	4,958	3,792	2,625	1,458
	Average net loan	6,708	5,542	4,375	3,208	2,042
	Rate of interest on loan	8.2300%	8.2300%	8.2300%	8.2300%	8.2300%
	Interest on loan	552	456	360	264	168
23	State Bank of India- VII- D1					
	Gross Drawl opening	9,500	9,500	9,500	9,500	9,500
	Cummulative repayment of drawl till prev yr	4,750	5,938	7,125	8,313	9,500
	Net Loan opening	4,750	3,563	2,375	1,188	-
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	4,750	3,563	2,375	1,188	-
	Repayment of loan during the year	1,188	1,188	1,188	1,188	-
	Net loan closing	3,563	2,375	1,188	-	-
	Average net loan	4,156	2,969	1,781	594	-
	Rate of interest on loan	8.2500%	8.2500%	8.2500%	8.2500%	8.2500%
	Interest on loan	343	245	147	49	-

94

S...

Calculation of Weighted Average Rate of Interest on Actual LoansName of the Company :
Name of the Power Station:NTPC Limited
Rihand Super Thermal Power Station Stage-III

(Amount in Rs. Lakh)

S.No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
24	State Bank of India- VII- D2					
	Gross Drawl opening	6,000	6,000	6,000	6,000	6,000
	Cummulative repayment of drawl till prev yr	3,000	3,750	4,500	5,250	6,000
	Net Loan opening	3,000	2,250	1,500	750	-
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	3,000	2,250	1,500	750	-
	Repayment of loan during the year	750	750	750	750	-
	Net loan closing	2,250	1,500	750	-	-
	Average net loan	2,625	1,875	1,125	375	-
	Rate of interest on loan	8.2500%	8.2500%	8.2500%	8.2500%	8.2500%
	Interest on loan	217	155	93	31	-
25	State Bank of India- VII- D3					
	Gross Drawl opening	500	500	500	500	500
	Cummulative repayment of drawl till prev yr	250	313	375	438	500
	Net Loan opening	250	188	125	63	-
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	250	188	125	63	-
	Repayment of loan during the year	63	63	63	63	-
	Net loan closing	188	125	63	-	-
	Average net loan	219	156	94	31	-
	Rate of interest on loan	8.2500%	8.2500%	8.2500%	8.2500%	8.2500%
	Interest on loan	18	13	8	3	-
26	State Bank of India- VII- D4					
	Gross Drawl opening	4,000	4,000	4,000	4,000	4,000
	Cummulative repayment of drawl till prev yr	2,000	2,500	3,000	3,500	4,000
	Net Loan opening	2,000	1,500	1,000	500	-
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	2,000	1,500	1,000	500	-
	Repayment of loan during the year	500	500	500	500	-
	Net loan closing	1,500	1,000	500	-	-
	Average net loan	1,750	1,250	750	250	-
	Rate of interest on loan	8.2500%	8.2500%	8.2500%	8.2500%	8.2500%
	Interest on loan	144	103	62	21	-
27	State Bank of India- VII- D5					
	Gross Drawl opening	8,500	8,500	8,500	8,500	8,500
	Cummulative repayment of drawl till prev yr	4,250	5,313	6,375	7,438	8,500
	Net Loan opening	4,250	3,188	2,125	1,063	-
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	4,250	3,188	2,125	1,063	-
	Repayment of loan during the year	1,063	1,063	1,063	1,063	-
	Net loan closing	3,188	2,125	1,063	-	-
	Average net loan	3,719	2,656	1,594	531	-
	Rate of interest on loan	8.2500%	8.2500%	8.2500%	8.2500%	8.2500%
	Interest on loan	307	219	131	44	-

95

Calculation of Weighted Average Rate of Interest on Actual Loans

Name of the Company : NTPC Limited
 Name of the Power Station: Rihand Super Thermal Power Station Stage-III

(Amount in Rs. Lakh)

S.No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
28	State Bank of India- VII- D6					
	Gross Drawl opening	2,000	2,000	2,000	2,000	2,000
	Cummulative repayment of drawl till prev yr	1,000	1,250	1,500	1,750	2,000
	Net Loan opening	1,000	750	500	250	-
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	1,000	750	500	250	-
	Repayment of loan during the year	250	250	250	250	-
	Net loan closing	750	500	250	-	-
	Average net loan	875	625	375	125	-
	Rate of interest on loan	8.2500%	8.2500%	8.2500%	8.2500%	8.2500%
	Interest on loan	72	52	31	10	-
29	State Bank of India- VII- D7					
	Gross Drawl opening	4,500	4,500	4,500	4,500	4,500
	Cummulative repayment of drawl till prev yr	2,250	2,813	3,375	3,938	4,500
	Net Loan opening	2,250	1,688	1,125	563	-
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	2,250	1,688	1,125	563	-
	Repayment of loan during the year	563	563	563	563	-
	Net loan closing	1,688	1,125	563	-	-
	Average net loan	1,969	1,406	844	281	-
	Rate of interest on loan	8.2500%	8.2500%	8.2500%	8.2500%	8.2500%
	Interest on loan	162	116	70	23	-
30	State Bank of India- VII- D8					
	Gross Drawl opening	3,200	3,200	3,200	3,200	3,200
	Cummulative repayment of drawl till prev yr	1,600	2,000	2,400	2,800	3,200
	Net Loan opening	1,600	1,200	800	400	-
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	1,600	1,200	800	400	-
	Repayment of loan during the year	400	400	400	400	-
	Net loan closing	1,200	800	400	-	-
	Average net loan	1,400	1,000	600	200	-
	Rate of interest on loan	8.2500%	8.2500%	8.2500%	8.2500%	8.2500%
	Interest on loan	116	83	50	17	-
31	State Bank of India- VII- D11					
	Gross Drawl opening	10,000	10,000	10,000	10,000	10,000
	Cummulative repayment of drawl till prev yr	5,000	6,250	7,500	8,750	10,000
	Net Loan opening	5,000	3,750	2,500	1,250	-
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	5,000	3,750	2,500	1,250	-
	Repayment of loan during the year	1,250	1,250	1,250	1,250	-
	Net loan closing	3,750	2,500	1,250	-	-
	Average net loan	4,375	3,125	1,875	625	-
	Rate of interest on loan	8.2500%	8.2500%	8.2500%	8.2500%	8.2500%
	Interest on loan	361	258	155	52	-
32	State Bank of India- VII- D16					
	Gross Drawl opening	6,500	6,500	6,500	6,500	6,500
	Cummulative repayment of drawl till prev yr	3,250	4,063	4,875	5,688	6,500
	Net Loan opening	3,250	2,438	1,625	813	-
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	3,250	2,438	1,625	813	-
	Repayment of loan during the year	813	813	813	813	-
	Net loan closing	2,438	1,625	813	-	-
	Average net loan	2,844	2,031	1,219	406	-
	Rate of interest on loan	8.2500%	8.2500%	8.2500%	8.2500%	8.2500%
	Interest on loan	235	168	101	34	-

36

Calculation of Weighted Average Rate of Interest on Actual Loans

Name of the Company : NTPC Limited
 Name of the Power Station: Rihand Super Thermal Power Station Stage-III

(Amount in Rs. Lakh)

S.No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
33	Union Bank of India-II- D8					
	Gross Drawl opening	2,500	2,500	2,500	2,500	2,500
	Cumulative repayment of drawl till prev yr	625	875	1,125	1,375	1,625
	Net Loan opening	1,875	1,625	1,375	1,125	875
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	1,875	1,625	1,375	1,125	875
	Repayment of loan during the year	250	250	250	250	250
	Net loan closing	1,625	1,375	1,125	875	625
	Average net loan	1,750	1,500	1,250	1,000	750
	Rate of interest on loan	8.5000%	8.5000%	8.5000%	8.5000%	8.5000%
	Interest on loan	149	128	106	85	64
34	Bonds XLII Series					
	Gross Drawl opening	800	800	800	800	800
	Cumulative repayment of drawl till prev yr	-	-	-	-	160
	Net Loan opening	800	800	800	800	640
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	800	800	800	800	640
	Repayment of loan during the year	-	-	-	160	160
	Net loan closing	800	800	800	640	480
	Average net loan	800	800	800	720	560
	Rate of interest on loan	9.0300%	9.0300%	9.0300%	9.0300%	9.0300%
	Interest on loan	72	72	72	65	51
35	Bonds XLIV Series					
	Gross Drawl opening	2,500	2,500	2,500	2,500	2,500
	Cumulative repayment of drawl till prev yr	-	-	-	-	-
	Net Loan opening	2,500	2,500	2,500	2,500	2,500
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	2,500	2,500	2,500	2,500	2,500
	Repayment of loan during the year	-	-	-	-	500
	Net loan closing	2,500	2,500	2,500	2,500	2,000
	Average net loan	2,500	2,500	2,500	2,500	2,250
	Rate of interest on loan	9.2800%	9.2800%	9.2800%	9.2800%	9.2800%
	Interest on loan	232	232	232	232	209
36	Bonds XLVII Series					
	Gross Drawl opening	3,500	3,500	3,500	3,500	3,500
	Cumulative repayment of drawl till prev yr	-	-	-	-	3,500
	Net Loan opening	3,500	3,500	3,500	3,500	-
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	3,500	3,500	3,500	3,500	-
	Repayment of loan during the year	-	-	-	3,500	-
	Net loan closing	3,500	3,500	3,500	-	-
	Average net loan	3,500	3,500	3,500	1,750	-
	Rate of interest on loan	8.8700%	8.8700%	8.8700%	8.8700%	8.8700%
	Interest on loan	310	310	310	155	0

37

Calculation of Weighted Average Rate of Interest on Actual LoansName of the Company :
Name of the Power Station:NTPC Limited
Rihand Super Thermal Power Station Stage-III

(Amount in Rs. Lakh)

S.No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
37	Bonds XXXVIII Series					
	Gross Drawl opening	600	600	600	600	600
	Cumulative repayment of drawl till prev yr	120	160	200	240	280
	Net Loan opening	480	440	400	360	320
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	480	440	400	360	320
	Repayment of loan during the year	40	40	40	40	40
	Net loan closing	440	400	360	320	280
	Average net loan	460	420	380	340	300
	Rate of interest on loan	9.2000%	9.2000%	9.2000%	9.2000%	9.2000%
	Interest on loan	42	39	35	31	28
38	Bonds XLIX Series					
	Gross Drawl opening	5,000	5,000	5,000	5,000	5,000
	Cumulative repayment of drawl till prev yr	-	-	-	-	-
	Net Loan opening	5,000	5,000	5,000	5,000	5,000
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	5,000	5,000	5,000	5,000	5,000
	Repayment of loan during the year	-	-	-	-	5,000
	Net loan closing	5,000	5,000	5,000	5,000	-
	Average net loan	5,000	5,000	5,000	5,000	2,500
	Rate of interest on loan	8.8300%	8.8300%	8.8300%	8.8300%	8.8300%
	Interest on loan	442	442	442	442	221
39	Bonds L1A Series					
	Gross Drawl opening	1,645	1,645	1,645	1,645	1,645
	Cumulative repayment of drawl till prev yr	-	-	-	-	-
	Net Loan opening	1,645	1,645	1,645	1,645	1,645
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	1,645	1,645	1,645	1,645	1,645
	Repayment of loan during the year	-	-	-	-	1,645
	Net loan closing	1,645	1,645	1,645	1,645	-
	Average net loan	1,645	1,645	1,645	1,645	823
	Rate of interest on loan	8.4400%	8.4400%	8.4400%	8.4400%	8.4400%
	Interest on loan	139	139	139	139	69
40	Bonds L2A Series					
	Gross Drawl opening	843	843	843	843	843
	Cumulative repayment of drawl till prev yr	-	-	-	-	-
	Net Loan opening	843	843	843	843	843
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	843	843	843	843	843
	Repayment of loan during the year	-	-	-	-	-
	Net loan closing	843	843	843	843	843
	Average net loan	843	843	843	843	843
	Rate of interest on loan	8.5100%	8.5100%	8.5100%	8.5100%	8.5100%
	Interest on loan	72	72	72	72	72
41	Bonds L3A Series					
	Gross Drawl opening	1,052	1,052	1,052	1,052	1,052
	Cumulative repayment of drawl till prev yr	-	-	-	-	-
	Net Loan opening	1,052	1,052	1,052	1,052	1,052
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	1,052	1,052	1,052	1,052	1,052
	Repayment of loan during the year	-	-	-	-	-
	Net loan closing	1,052	1,052	1,052	1,052	1,052
	Average net loan	1,052	1,052	1,052	1,052	1,052
	Rate of interest on loan	8.6900%	8.6900%	8.6900%	8.6900%	8.6900%
	Interest on loan	91	91	91	91	91

98

Calculation of Weighted Average Rate of Interest on Actual Loans

Name of the Company :

NTPC Limited

Name of the Power Station:

Rihand Super Thermal Power Station Stage-III

(Amount in Rs. Lakh)

S.No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
42	Bonds L1B Series					
	Gross Drawl opening	703	703	703	703	703
	Cummulative repayment of drawl till prev yr	-	-	-	-	-
	Net Loan opening	703	703	703	703	703
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	703	703	703	703	703
	Repayment of loan during the year	-	-	-	-	703
	Net loan closing	703	703	703	703	-
	Average net loan	703	703	703	703	352
	Rate of interest on loan	8.6900%	8.6900%	8.6900%	8.6900%	8.6900%
	Interest on loan	61	61	61	61	31
43	Bonds L2B Series					
	Gross Drawl opening	308	308	308	308	308
	Cummulative repayment of drawl till prev yr	-	-	-	-	-
	Net Loan opening	308	308	308	308	308
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	308	308	308	308	308
	Repayment of loan during the year	-	-	-	-	-
	Net loan closing	308	308	308	308	308
	Average net loan	308	308	308	308	308
	Rate of interest on loan	8.7600%	8.7600%	8.7600%	8.7600%	8.7600%
	Interest on loan	27	27	27	27	27
44	Bonds L3B Series					
	Gross Drawl opening	1,348	1,348	1,348	1,348	1,348
	Cummulative repayment of drawl till prev yr	-	-	-	-	-
	Net Loan opening	1,348	1,348	1,348	1,348	1,348
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	1,348	1,348	1,348	1,348	1,348
	Repayment of loan during the year	-	-	-	-	-
	Net loan closing	1,348	1,348	1,348	1,348	1,348
	Average net loan	1,348	1,348	1,348	1,348	1,348
	Rate of interest on loan	8.9400%	8.9400%	8.9400%	8.9400%	8.9400%
	Interest on loan	121	121	121	121	121
45	Bonds LIA Series					
	Gross Drawl opening	400	400	400	400	400
	Cummulative repayment of drawl till prev yr	-	-	-	-	-
	Net Loan opening	400	400	400	400	400
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	400	400	400	400	400
	Repayment of loan during the year	-	-	-	-	400
	Net loan closing	400	400	400	400	-
	Average net loan	400	400	400	400	200
	Rate of interest on loan	8.2200%	8.2200%	8.2200%	8.2200%	8.2200%
	Interest on loan	33	33	33	33	16
46	Bonds 54 Series					
	Gross Drawl opening	28,300	28,300	28,300	28,300	28,300
	Cummulative repayment of drawl till prev yr	-	-	-	-	5,660
	Net Loan opening	28,300	28,300	28,300	28,300	22,640
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	28,300	28,300	28,300	28,300	22,640
	Repayment of loan during the year	-	-	-	5,660	11,320
	Net loan closing	28,300	28,300	28,300	22,640	11,320
	Average net loan	28,300	28,300	28,300	25,470	16,980
	Rate of interest on loan	8.5200%	8.5200%	8.5200%	8.5200%	8.5200%
	Interest on loan	2411	2411	2411	2170	1447

99

Calculation of Weighted Average Rate of Interest on Actual LoansName of the Company :
Name of the Power Station:NTPC Limited
Rihand Super Thermal Power Station Stage-III

(Amount in Rs. Lakh)

S.No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
47	Bonds 57 Series					
	Gross Drawl opening	800	800	800	800	800
	Cummulative repayment of drawl till prev yr	-	-	-	-	-
	Net Loan opening	800	800	800	800	800
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	800	800	800	800	800
	Repayment of loan during the year	-	-	-	-	-
	Net loan closing	800	800	800	800	800
	Average net loan	800	800	800	800	800
	Rate of interest on loan	8.2200%	8.2200%	8.2200%	8.2200%	8.2200%
	Interest on loan	66	66	66	66	66
48	Bonds 59 Series					
	Gross Drawl opening	1,700	1,700	1,700	1,700	1,700
	Cummulative repayment of drawl till prev yr	-	-	1,700	1,700	1,700
	Net Loan opening	1,700	1,700	-	-	-
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	1,700	1,700	-	-	-
	Repayment of loan during the year	-	1,700	-	-	-
	Net loan closing	1,700	-	-	-	-
	Average net loan	1,700	850	-	-	-
	Rate of interest on loan	8.3600%	8.3600%	8.3600%	8.3600%	8.3600%
	Interest on loan	142	71	0	0	0
49	Bonds 66 Series					
	Gross Drawl opening	3,200	3,200	3,200	3,200	3,200
	Cummulative repayment of drawl till prev yr	-	-	-	-	-
	Net Loan opening	3,200	3,200	3,200	3,200	3,200
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	3,200	3,200	3,200	3,200	3,200
	Repayment of loan during the year	-	-	-	-	-
	Net loan closing	3,200	3,200	3,200	3,200	3,200
	Average net loan	3,200	3,200	3,200	3,200	3,200
	Rate of interest on loan	7.4000%	7.4000%	7.4000%	7.4000%	7.4000%
	Interest on loan	237	237	237	237	237
50	Bonds 67 Series(ICICI VI Loan refinanced)					
	Gross Drawl opening	4,270	4,270	4,270	4,270	4,270
	Cummulative repayment of drawl till prev yr	-	-	-	-	-
	Net Loan opening	4,270	4,270	4,270	4,270	4,270
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	4,270	4,270	4,270	4,270	4,270
	Repayment of loan during the year	-	-	-	-	-
	Net loan closing	4,270	4,270	4,270	4,270	4,270
	Average net loan	4,270	4,270	4,270	4,270	4,270
	Rate of interest on loan	8.4200%	8.4200%	8.4200%	8.4200%	8.4200%
	Interest on loan	360	360	360	360	360
51	Corporation Bank-IV D1(ICICI V Loan refinanced)					
	Gross Drawl opening	12,286	12,286	12,286	12,286	12,286
	Cummulative repayment of drawl till prev yr	-	-	-	-	1,365
	Net Loan opening	12,286	12,286	12,286	12,286	10,921
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	12,286	12,286	12,286	12,286	10,921
	Repayment of loan during the year	-	-	-	1,365	1,365
	Net loan closing	12,286	12,286	12,286	10,921	9,556
	Average net loan	12,286	12,286	12,286	11,603	10,238
	Rate of interest on loan	8.3833%	8.3833%	8.3833%	8.3833%	8.3833%
	Interest on loan	1030	1030	1030	973	858

100

Calculation of Weighted Average Rate of Interest on Actual Loans

Name of the Company :

NTPC Limited

Name of the Power Station:

Rihand Super Thermal Power Station Stage-III

(Amount in Rs. Lakh)

S.No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
52	HDFC Bank Ltd.-IV D1					
	Gross Drawl opening	4,000	4,000	4,000	4,000	4,000
	Cummulative repayment of drawl till prev yr	-	-	-	444	889
	Net Loan opening	4,000	4,000	4,000	3,556	3,111
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	4,000	4,000	4,000	3,556	3,111
	Repayment of loan during the year	-	-	444	444	444
	Net loan closing	4,000	4,000	3,556	3,111	2,667
	Average net loan	4,000	4,000	3,778	3,333	2,889
	Rate of interest on loan	8.4500%	8.4500%	8.4500%	8.4500%	8.4500%
	Interest on loan	338	338	319	282	244
53	Jammu & Kashmir Bank-IV D2					
	Gross Drawl opening	500	500	500	500	500
	Cummulative repayment of drawl till prev yr	-	-	56	111	167
	Net Loan opening	500	500	444	389	333
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	500	500	444	389	333
	Repayment of loan during the year	-	56	56	56	56
	Net loan closing	500	444	389	333	278
	Average net loan	500	472	417	361	306
	Rate of interest on loan	8.3000%	8.3000%	8.3000%	8.3000%	8.3000%
	Interest on loan	42	39	35	30	25
54	Karnataka Bank-II(Bank of Maharashtra III & Bank of Maharashtra V Loan refinanced)					
	Gross Drawl opening	4,598	4,598	4,598	4,598	4,598
	Cummulative repayment of drawl till prev yr	-	-	511	1,022	1,533
	Net Loan opening	4,598	4,598	4,087	3,576	3,065
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	4,598	4,598	4,087	3,576	3,065
	Repayment of loan during the year	-	511	511	511	511
	Net loan closing	4,598	4,087	3,576	3,065	2,555
	Average net loan	4,598	4,343	3,832	3,321	2,810
	Rate of interest on loan	8.2933%	8.2933%	8.2933%	8.2933%	8.2933%
	Interest on loan	381	360	318	275	233
55	SBI-VIII D8					
	Gross Drawl opening	1,000	1,000	1,000	1,000	1,000
	Cummulative repayment of drawl till prev yr	-	-	-	111	222
	Net Loan opening	1,000	1,000	1,000	889	778
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	1,000	1,000	1,000	889	778
	Repayment of loan during the year	-	-	111	111	111
	Net loan closing	1,000	1,000	889	778	667
	Average net loan	1,000	1,000	944	833	722
	Rate of interest on loan	8.2500%	8.2500%	8.2500%	8.2500%	8.2500%
	Interest on loan	83	83	78	69	60
56	SBI-VIII D21					
	Gross Drawl opening	5,700	5,700	5,700	5,700	5,700
	Cummulative repayment of drawl till prev yr	-	-	-	633	1,267
	Net Loan opening	5,700	5,700	5,700	5,067	4,433
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	5,700	5,700	5,700	5,067	4,433
	Repayment of loan during the year	-	-	633	633	633
	Net loan closing	5,700	5,700	5,067	4,433	3,800
	Average net loan	5,700	5,700	5,383	4,750	4,117
	Rate of interest on loan	8.2500%	8.2500%	8.2500%	8.2500%	8.2500%
	Interest on loan	470	470	444	392	340

(101)

Calculation of Weighted Average Rate of Interest on Actual Loans

Name of the Company :

NTPC Limited

Name of the Power Station:

Rihand Super Thermal Power Station Stage-III

(Amount in Rs. Lakh)

S.No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
57	SBI-VIII D24(Punjab & Sind Bank-I Loan refinanced)					
	Gross Drawl opening	3,214	3,214	3,214	3,214	3,214
	Cumulative repayment of drawl till prev yr	-	-	-	357	714
	Net Loan opening	3,214	3,214	3,214	2,857	2,500
	Increase decrease due to FERV	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-
	Total	3,214	3,214	3,214	2,857	2,500
	Repayment of loan during the year	-	-	357	357	357
	Net loan closing	3,214	3,214	2,857	2,500	2,143
	Average net loan	3,214	3,214	3,036	2,679	2,321
	Rate of interest on loan	8.7833%	8.7833%	8.7833%	8.7833%	8.7833%
	Interest on loan	282	282	267	235	204
	TOTAL LOAN					
	Gross Drawl opening	312555	312555	312555	312555	312555
	Cumulative repayment of drawl till prev yr	65487	84789	101006	169774	224975
	Net Loan opening	247068	227766	211549	142781	87580
	Increase decrease due to FERV	0	0	0	0	0
	Increase decrease due to ACE	0	0	0	0	0
	Total	247068	227766	211549	142781	87580
	Repayment of loan during the year	19302	16217	68768	55201	29605
	Net loan closing	227766	211549	142781	87580	57975
	Average net loan	237417	219658	177165	115181	72778
	Rate of interest on loan	7.6678%	7.6648%	7.6804%	8.0050%	8.4238%
	Interest on loan	18205	16836	13607	9220	6131


 (Petitioner)

Details of Source wise Fuel for Computation of Energy Charges

**PART-I
FORM- 15**

Name of the Company :		NTPC Limited						
Name of the Power Station :		Rihand Super Thermal Power Station Stage-III						
S. No.	Month	Unit	Oct-18		Nov-18		Dec-18	
			Domestic	Imported	Domestic	Imported	Domestic	Imported
1	Quantity of Coal supplied by Coal Company*	(MT)	19,02,356.04	-	18,89,385.98	-	20,23,708.79	
2	Adjustment (+/-) in quantity supplied made by Coal Company	(MT)	-		-		-	
3	Coal supplied by Coal Company (1+2)	(MT)	19,02,356.04		18,89,385.98		20,23,708.79	
4	Normative Transit & Handling Losses	(MT)	3,209.81		2,666.78		3,390.63	
5	Net coal / Lignite Supplied (3-4)	(MT)	18,99,146.23		18,86,719.20		20,20,318.16	
6	Amount charged by the Coal Company*	(Rs.)	3,93,77,95,494	-	4,35,83,12,222	-	4,37,79,21,225	
7	Adjustment (+/-) in amount charged made by Coal Company	(Rs.)						
8	Total amount Charged (6+7)	(Rs.)	3,93,77,95,494		4,35,83,12,222		4,37,79,21,225	
9	Transportation charges by rail transport	(Rs.)	3,65,20,499		2,22,83,997		3,83,10,986	
10	Adjustment (+/-) in amount charged made by Railways	(Rs.)						
11	Demurrage Charges	(Rs.)						
12	Cost of diesel in transporting coal through MGR system	(Rs.)	2,09,94,373		1,84,34,410		1,85,27,883	
13	Total Transportation Charges (9+10+11+12)	(Rs.)	5,75,14,872		4,07,18,407		5,68,38,869	
13A	Others (stone picking charges, loco driver's salary, sampling charges etc)	(Rs.)	2,41,46,258		2,81,11,557		5,84,28,824	
14	Total amount Charged for coal supplied including Transportation (8+13+13A)	(Rs.)	4,01,94,56,624		4,42,71,42,186		4,49,31,88,918	
15	Landed cost of coal (14)/(5)	Rs./MT	1252241.29		1660124.04		1325191.00	
16	Blending Ratio (Domestic/Imported)		1.00	0.00	1.00	0.00	1.00	0.00
17	Weighted average cost of coal for preceding three months	Rs./MT			2228.62			
18	GCV of Domestic Coal supplied as per bill of Coal Company	(kCal/Kg)	4660		5009		4667	
19	GCV of Imported Coal supplied as per bill Coal Company	(kCal/Kg)						
20	Weighted average GCV of coal as Billed	(kCal/Kg)	4660		5009		4667	
21	GCV of Domestic Coal supplied as received at Station	(kCal/Kg)	4000		4402		4137	
22	GCV of Imported Coal of opening stock as received at Station	(kCal/Kg)						
23	Weighted average GCV of coal as Received	(kCal/Kg)	4000		4402		4137	

* Includes opening stock.

103

S. M.
(Petitioner)

Details of Secondary Fuel for Computation of Energy Charges

**PART-I
FORM- 15A**

Name of the Company : NTPC Limited
Name of the Power Station : Rihand Super Thermal Power Station Stage-III

Sl.No.	Month	Unit	Oct-18		Nov-18		Dec-18	
			LDO	HFO	LDO	HFO	LDO	HFO
1	Quantity of Oil supplied by Oil Company*	KL	794.95	4,383.40	4,170.43	4,263.20	3,639.84	4,114
2	Adjustment (+/-) in quantity supplied made by Oil Company	KL						
3	Oil supplied by oil company (3+4)	KL	794.95	4,383.40	4,170.43	4,263.20	3,639.84	4,114.20
4	Normative Transit & Handling Losses	KL	-		-		-	
5	Net Oil Supplied (3-4)	KL	794.95	4,383.40	4,170.43	4,263.20	3,639.84	4,114.20
6	Amount charged by the Oil Company*	(Rs)	4,42,62,495	13,41,81,533	24,70,21,936	13,05,02,056	21,55,94,390	12,59,40,974
7	Adjustment(+/-) in amount charged made by Oil Company	(Rs)						
8	Total amount charged (6+7)	(Rs)	4,42,62,495	13,41,81,533	24,70,21,936	13,05,02,056	21,55,94,390	12,59,40,974
9	Transportation charges by rail / ship / road transport	(Rs)						
10	Adjustment (+/-) in amount charged made by Railways/Transport Company	(Rs)						
11	Demurrage Charges, if any	(Rs)						
12	Cost of diesel in transporting Oil through MGR system, if applicable	(Rs)						
13	Total Transportation Charges (9+/-10-11+12)	(Rs)						
14	Others -Entry Tax on Oil	(Rs.)						
15	Total amount Charged for fuel supplied including Transportation (8+13+14)	(Rs)	4,42,62,495	13,41,81,533	24,70,21,936	13,05,02,056	21,55,94,390	12,59,40,974
16	Weighted average GCV of Oil as fired	(kCal/L)	9,349.00	9,790.00	9,419.00	9,790.00	9,597.00	9,790
17	Weighted average rate of Secondary Fuel	Rs/KL	55,679.60	30,611.29	59,231.77	30,611.29	59,231.77	30,611.29

Note: In terms of the order of Hon'ble Supreme Court regarding ban on use of HFO, main secondary fuel at Rihand is LDO w.e.f. 01.01.2019 and the same has been considered for calculation of Working Capital.

* Includes opening balance


PETITIONER

104

Computation of Energy Charges

Form-15B

ADDITIONAL FORM

Name of the Company	NTPC Limited
Name of the Power Station	Rihand Super Thermal Power Station Stage-III

Computation of Energy Charges

1	Rate of Energy Charge from Sec. Fuel Oil/ Alternate Fuel (p/kwh) $(REC)_s$	$= (Q_s)_n \times P_s$	2.945
2	Heat Contribution from SFO / Alternate Fuel (H_s)	$= (Q_s)_n \times (GCV)_s$	4.744
3	Heat Contribution from coal $(H_p)_s$	$= GHR - H_s$	2408.82
4	Specific Primary Fuel Consumption $(Qp)_n$	$= H_p / (GCV)_p$	0.588
5	Rate of Energy charge from Primary Fuel (p/kwh) $(REC)_p$		131.150
6	Rate of Energy charge ex-bus (p/kWh) (REC)	$= ((REC)_s + (REC)_p) / (1-(AUX))$	143.034

		2019-20	2020-21	2021-22	2022-23	2023-24
No of Days in the year	Days	366	365	365	365	366
Sp. Oil consumption	ml/kwh	0.50	0.50	0.50	0.50	0.50
Auxiliary consumption	%	6.25	6.25	6.25	6.25	6.25
Heat Rate	Kcal/Kwh	2413.56	2413.56	2413.56	2413.56	2413.56

Computation of Variable Charges

Variable Charge (Coal)	p/kwh	139.893	139.893	139.893	139.893	139.893
Variable Charge (Oil)	p/kwh	3.142	3.142	3.142	3.142	3.142
Total	p/kwh	143.034	143.034	143.034	143.034	143.034

Price of fuel from Form-15/15A

Coal Cost	(Rs./MT)	2228.62	2228.62	2228.62	2228.62	2228.62
Oil Cost	(Rs./KL)	58903.62	58903.62	58903.62	58903.62	58903.62

Computation of Fuel Expenses for Calculation of IWC:

ESO in a year	(MUs)	6999.75	6980.63	6980.63	6980.63	6999.750
ESO for 40 days	(MUs)	765.000	765.000	765.00	765.00	765.000
Cost of coal for 45 Days	(Rs. Lakh)	10701.81	10701.81	10701.81	10701.81	10701.81
Cost of oil for 2 months	(Rs. Lakh)	366.50	365.50	365.50	365.50	366.50
Energy Expenses for 45 days	(Rs. Lakh)	12309.90	12309.90	12309.90	12309.90	12309.90

Coal		3rd month	2nd month	1st month	Wtd. Avg.
Wtd. Avg. Price of Coal	Rs./MT	2116.45	2346.48	2224.00	2228.62
Wtd. Avg. GCV of Coal as received	kCal/Kg	4000	4402	4137	4178.30
Wtd. Avg. GCV of Coal as received after adjustment of 85 kcal/kg					4093.30
Sec. Oil					
Wtd. Avg. Price of Secondary Fuel	Rs/KL	55679.60	59231.77	59231.77	58903.62
Wtd. Avg. GCV of Secondary Fuel	kCal/L	9349.00	9419.00	9597.00	9487.82

PETITIONER

105

Statement of Capital cost

Name of the Petitioner

NTPC Ltd

Name of the Generating Station

Rihand Super Thermal Power Station Stage-III

(Amount in Rs. Lakh)

S. No.	Particulars	2019-20		
		Accrual Basis	Un-discharged Liabilities	Cash Basis
A	a) Opening Gross Block Amount as per books	5,88,855.76	15,165.63	5,73,690.14
	b) Amount of IDC in A(a) above			55,393.99
	c) Amount of FC in A(a) above			1,004.00
	d) Amount of FERV in A(a) above			42,626.33
	e) Amount of Hedging Cost in A(a) above			
	f) Amount of IEDC in A(a) above			17417.16
B	a) Addition in Gross Block Amount during the period (Direct purchases)			
	b) Amount of IDC in B(a) above			
	c) Amount of FC in B(a) above			
	d) Amount of FERV in B(a) above			
	e) Amount of Hedging Cost in B(a) above			
	f) Amount of IEDC in B(a) above			
C	a) Addition in Gross Block Amount during the period (Transferred from CWIP)			
	b) Amount of IDC in C(a) above			
	c) Amount of FC in C(a) above			
	d) Amount of FERV in C(a) above			
	e) Amount of Hedging Cost in C(a) above			
	f) Amount of IEDC in C(a) above			
D	a) Deletion in Gross Block Amount during the period			
	b) Amount of IDC in D(a) above			
	c) Amount of FC in D(a) above			
	d) Amount of FERV in D(a) above			
	e) Amount of Hedging Cost in D(a) above			
	f) Amount of IEDC in D(a) above			
E	a) Closing Gross Block Amount as per books			
	b) Amount of IDC in E(a) above			
	c) Amount of FC in E(a) above			
	d) Amount of FERV in E(a) above			
	e) Amount of Hedging Cost in E(a) above			
	f) Amount of IEDC in E(a) above			

Shall be filed at the time of triung-up.


 (Petitioner)

Statement of Capital Woks in Progress

Name of the Petitioner

NTPC Ltd

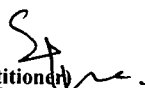
Name of the Generating Station

Rihand Super Thermal Power Station Stage-III

(Amount in Rs. Lakh)

S. No.	Particulars	2019-20		
		Accrual Basis	Un-discharged Liabilities	Cash Basis
A	a) Opening CWIP as per books	3,138.96	171.23	2,967.73
	b) Amount of IDC in A(a) above			532.06
	c) Amount of FC in A(a) above			
	d) Amount of FERV in A(a) above			
	e) Amount of Hedging Cost in A(a) above			
	f) Amount of IEDC in A(a) above			
B	a) Addition in CWIP during the period			
	b) Amount of IDC in B(a) above			
	c) Amount of FC in B(a) above			
	d) Amount of FERV in B(a) above			
	e) Amount of Hedging Cost in B(a) above			
	f) Amount of IEDC in B(a) above			
C	a) Transferred to Gross Block Amount during the period			
	b) Amount of IDC in C(a) above			
	c) Amount of FC in C(a) above			
	d) Amount of FERV in C(a) above			
	e) Amount of Hedging Cost in C(a) above			
	f) Amount of IEDC in C(a) above			
D	a) Deletion in CWIP during the period			
	b) Amount of IDC in D(a) above			
	c) Amount of FC in D(a) above			
	d) Amount of FERV in D(a) above			
	e) Amount of Hedging Cost in D(a) above			
	f) Amount of IEDC in D(a) above			
E	a) Closing CWIP as per books			
	b) Amount of IDC in E(a) above			
	c) Amount of FC in E(a) above			
	d) Amount of FERV in E(a) above			
	e) Amount of Hedging Cost in E(a) above			
	f) Amount of IEDC in E(a) above			

Shall be filed at the time of truing-up.


 (Petitioner)

Calculation of Interest on Normative Loan

**PART-I
FORM- N**

Name of the Company : **NTPC Limited**

Name of the Power Station : **Rihand Super Thermal Power Station Stage-III**

(Amount in Rs Lakh)

S. No.	Particulars	Existing	2019-20	2020-21	2021-22	2022-23	2023-24
		2018-19					
1	2	3	4	5	6	7	8
1	Gross Normative loan – Opening	3,87,181.71	3,88,321.93	3,88,709.26	3,92,820.59	3,96,759.84	3,98,500.39
2	Cumulative repayment of Normative loan up to previous year	1,31,310.73	1,61,248.28	1,91,565.82	2,22,058.88	2,52,866.05	2,83,894.83
2A	Net Opening Loan	2,55,870.98	2,27,073.65	1,97,143.45	1,70,761.71	1,43,893.79	1,14,605.56
2B	Adjustment due to liability discharge	0.00					
2C	Adjustment due to decapitalization	362.03					
3	Adjusted Net Normative loan – Opening	2,56,233.01	2,27,073.65	1,97,143.45	1,70,761.71	1,43,893.79	1,14,605.56
4	Add: Increase due to addition during the year / period	1109.86	387.33	4,111.33	3,939.25	1,740.55	5,101.60
5	Less: Decrease due to de-capitalisation during the year / period	362.03	0.00	0.00	0.00	0.00	0.00
6	Less: Decrease due to reversal during the year / period						
7	Add: Increase due to discharges during the year / period	392.39	0.00	0.00	0.00	0.00	0.00
8	Less: Repayment of Loan	30299.58	30,317.54	30,493.06	30,807.17	31,028.78	31,295.74
9	Net Normative loan - Closing	2,27,073.65	1,97,143.45	1,70,761.71	1,43,893.79	1,14,605.56	88,411.42
10	Average Normative loan	2,41,472.31	2,12,108.55	1,83,952.58	1,57,327.75	1,29,249.68	1,01,508.49
11	Weighted average rate of interest	7.6323	7.6678	7.6648	7.6804	8.0050	8.4238
12	Interest on Loan	18429.89	16264.05	14099.63	12083.41	10346.42	8550.84
13	Cumulative repayment of Normative loan at the end of the period	1,61,248.28	1,91,565.82	2,22,058.88	2,52,866.05	2,83,894.83	3,15,190.58


(Petitioner)

108

Calculation of Interest on Working CapitalPART I
FORM- O**Name of the Company :** NTPC Limited
Name of the Power Station : Rihand Super Thermal Power Station Stage-III

(Amount in Rs Lakh)

S. No.	Particulars	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7	8
1	Cost of Coal/Lignite	10,671.94	10701.81	10701.81	10701.81	10701.81	10701.81
2	Cost of Main Secondary Fuel Oil	331.01	366.50	365.50	365.50	365.50	366.50
3	Fuel Cost						
4	Liquid Fuel Stock						
5	O & M Expenses	1,694.55	2018.13	2094.72	2163.08	2231.25	2303.88
6	Maintenance Spares	4,066.92	4843.50	5027.32	5191.39	5355.01	5529.32
7	Receivables	32,857.14	25503.26	25429.21	25352.10	25286.17	25203.66
8	Total Working Capital	49621.56	43433.19	43618.55	43773.88	43939.74	44105.17
9	Rate of Interest	13.5000	12.0500	12.0500	12.0500	12.0500	12.0500
10	Interest on Working Capital	6698.91	5233.70	5256.04	5274.75	5294.74	5314.67


Petitioner

60

Statement of Liability Flow

**Part-I
Form-S**

Name of the Company :	NTPC Limited
Name of the Power Station :	Rihand Super Thermal Power Station Stage-III

Sr. No.	Name of the Party	Name of the work	Year of creation of liability capitalised in Gross Block	Remarks	Amount in Rs Undischarged liabilities relating to GB 31.03.2019
(1)	(2)	(3)	(4)	(11)	(10)=(5+6+6A-9)
1	NTPC ELECTRIC SUPPLY	5 Km electrification	2013-14	Allowed	
2	BHEL NEW DELHI	SG pacakage	2013-14	Allowed	37,98,67,118
3	BHEL NEW DELHI	TG Pacakage	2013-14	Allowed	18,64,01,628
4	KIRLOSKAR BROTHERS	CW System	2013-14	Allowed	2,17,03,225
5	MCNALLY BHARAT ENGG	PT plant	2013-14	Allowed	2,74,71,271
6	TECPRO SYSTEMS LTD	Ash handling	2013-14	Allowed	13,17,10,240
7	FLsmidth Private Lim	CHP	2013-14	Allowed	16,99,00,908
8	ABB LTD MV switchgear	MV Switchgear Pacakage	2013-14	Allowed	44,75,204
9	BLUE STAR LTD	Air Ventilation	2013-14	Allowed	29,16,259
10	LLOYD INSULATIONS IN	Fire detection	2013-14	Allowed	1,83,57,764
11	CROMPTON GREAVES LTD	Power transformer	2013-14	Allowed	16,60,219
12	GE INDIA INDUSTRIAL	LT Switchgear	2013-14	Allowed	31,23,069
13	PETRON ENGINEERING C	Elect Eqp	2013-14	Allowed	83,00,115
14	Invensys India Pvt L	C&I	2013-14	Allowed	20,87,472
15	SIMPLEX INFRASTRUCTU	Main plant civil/cimney	2013-14	Allowed	27,85,790
16	NATIONAL BUILDINGS C	Cooling tower	2013-14	Allowed	14,81,00,022
17	RAHUL CONSTRUCTIONS	MISCELLANEOUS CIVIL WORKS FOR STAGE-III INSIDE PLANT BOUNDARY	2013-14	Allowed	2,17,747
18	Abhay Enterprises	Strengthening of MGR road from village Sirsoti to Ganvari	2013-14	Allowed	6,15,180
19	BAGHEL INFRASTRUCTUR	Diversion of East Nallah & rerouting of Plant drainage and remodeling of	2013-14	Allowed	25,73,477
20	VIJAY CONSTRUCTION	CONSN. OF ROADS, DRAINS IN T/SHIP	2013-14	Allowed	5,64,486
21	A K VERMA	CONSTRUCTION OF ITI BUILDING AT RIHAND	2014-15	Claimed	6,93,484
22	ABRO TECHNOLOGIES PVT LTD	Procurement of Portable Balancing Machine for CRF, Rihand.	2014-15	Claimed	77,526
23	ABRO TECHNOLOGIES PVT LTD	Procurement of Extra Items for Portable Balancing Machine for CRF.	2014-15	Claimed	21,819
24	DAPHNE SYSTEM PVT LTD	RFID based Automatic Vehicle Identification and access control system.	2014-15	Claimed	3,38,660
25	GE INDIA INDUSTRIAL PVT LTD	Procurement of Dew Point Meter(Chilled Mirror Type)	2014-15	Claimed	81,593
26	VIJAY CONSTRUCTION	STRENGTHENING OF LINK ROAD FROM BIJPUR GATE TO MGR PATROLLING ROAD	2014-15	Claimed	4,25,640
27	A K VERMA	CONSTRUCTION OF ITI BUILDING AT RIHAND	2015-16	Claimed	10,000
28	KIRLOSKAR BROTHERS	CW System	2015-16	Claimed	40,801
29	FLsmidth Private Lim	CHP	2015-16	Claimed	7,54,767
30	UTILITY POWERTECH LT	Management of CHP Commissioning Activities Stage-III	2015-16	Claimed	1,67,254
31	ABB LTD MV switchgear	MV Switchgear Pacakage	2015-16	Claimed	1,30,480
32	BLUE STAR LTD	Air Ventilation	2015-16	Claimed	3,00,942
33	LLOYD INSULATIONS IN	Fire detection	2015-16	Claimed	24,50,443
34	PETRON ENGINEERING C	Elect Eqp	2015-16	Claimed	6,88,062
35	Invensys India Pvt L	C&I	2015-16	Claimed	1,877
36	RAM BICHAR	AUGMENTATION OF ASH BRICK SHED 3 & 4 AND ITS SURROUNDING AREA	2015-16	Claimed	1,64,781
37	Abhay Enterprises	Strengthening of MGR road from village Sirsoti to Ganvari	2015-16	Claimed	53,469
38	JAIN TRADING CO	PROCUREMENT OF TUBE BENDING MACHINE.	2015-16	Claimed	35,996
39	CSPL COMPUTERS PVT	Procurement of Printers <-&<-> Peripherals	2015-16	Claimed	1,35,535
40	SIEMENS LTD	Supply of GRP Relay Panels for Unit # 5	2015-16	Claimed	3,65,000
41	REPROGRAPHICS INDIA	Procurement of A0 size Color Scanner	2015-16	Claimed	49,900
42	Alstom T&D India Ltd	400KV Circuit Breakers, CT <-&<-> CVT for Switchyard ST-III	2015-16	Claimed	8,47,600
43	MAITHILY SHARAN CONS	Development of Area for Installation of Two New Ash Brick Machine	2015-16	Claimed	1,52,869
44	MAITHILY SHARAN CONS	CONSTRUCTION OF MULTIPURPOSE HALL AT SANGAM (EWA) CLUB & MODIFICATION OF AUDITORS ROOM IN ADM BUILDING*	2015-16	Claimed	1,30,438
45	PAWAN CONSTRUCTION	Constn. of Vehicle Stands & Cross Over b	2015-16	Claimed	1,83,661
46	PAWAN CONSTRUCTION	Cons. Shades B Type & Mess Extn.	2015-16	Claimed	5,29,989
47	VINDHYA CONSTRUCTION	11KV Construction Power Switchgear Cable Shifting along with accessories	2015-16	Claimed	1,36,438
48	DIRECTOR C&DS- UP JA	Submergence Land Liab 31-60 Year	2015-16	Claimed	1,48,90,290
49	ENKAY ENTERPRISES	Procurement of Computerised Universal Testing Machine, Capacity 500KN	2015-16	Claimed	2,51,500
50	ADA TECHNOLOGIES	Procurement of Fixed VHF base STN Transceiver Radio Set.	2015-16	Claimed	36,459
51	SVS TECHNOLOGY SERVI	Procurement of L2 LAN Switch.	2015-16	Claimed	2,43,000
52	GALA PRECISION ENGIN	Procurement of Vibro Finishing Equipment	2015-16	Claimed	2,47,500
53	JAGDEEP FOUNDRY (REG	Supply <-&<-> installation of BED PLATES	2015-16	Claimed	1,92,816
54	BHEL NEW DELHI	SG pacakage	2016-17	Claimed	63,04,429
55	BHEL NEW DELHI	TG Pacakage	2016-17	Claimed	1,37,66,522
56	TECPRO SYSTEMS LTD	Ash handling	2016-17	Claimed	44,70,076
57	FLsmidth Private Lim	CHP	2016-17	Claimed	15,15,754
58	BLUE STAR LTD	Air Ventilation	2016-17	Claimed	12,30,179
59	LLOYD INSULATIONS IN	Fire detection	2016-17	Claimed	64,21,472
60	CROMPTON GREAVES LTD	Power transformer	2016-17	Claimed	1,39,22,500
61	PETRON ENGINEERING C	Elect Eqp	2016-17	Claimed	5,10,506
62	SIMPLEX INFRASTRUCTU	Main plant civil/cimney	2016-17	Claimed	2,82,18,746
63	NATIONAL BUILDINGS C	Cooling tower	2016-17	Claimed	14,75,099
64	RAM BICHAR	AUGMENTATION OF ASH BRICK SHED 3 & 4 AND ITS SURROUNDING AREA	2016-17	Claimed	1,40,356
65	Abhay Enterprises	Strengthening of MGR road from village Sirsoti to Ganvari	2016-17	Claimed	1,40,80,122
66	VIJAY CONSTRUCTION	CIVIL WORKS FOR SEPARATION OF DRAINS FOR ZERO DISCHARGE AT NTPC RIHAND	2016-17	Claimed	4,77,999
67	VIJAY CONSTRUCTION	STRENGTHENING OF LINK ROAD FROM BIJPUR GATE TO MGR PATROLLING ROAD	2016-17	Claimed	4,25,013
68	CSPL COMPUTERS PVT	Procurement of Multimedia Projector.	2016-17	Claimed	1,78,394
69	A K VERMA	CONSTRUCTION OF ITI BUILDING AT RIHAND	2016-17	Claimed	19,11,000
70	A K VERMA	CONSTRUCTION OF NON RESIDENTIAL BUILDINGS PACKAGE II	2016-17	Claimed	41,68,306
71	A K VERMA	CONSTRUCTION OF NON RESIDENTIAL BUILDINGS PACKAGE I	2016-17	Claimed	28,85,831
72	CHAUHAN BROTHER'S CONSTRUCTION	GROUTING OF ANCHOR BOLTS FOR INSTALLATION OF BED PLATES IN FABRICATION SHOP- 1 & 2, HEAVY MACHINE SHOP FLOOR IN PLANT AREA.	2016-17	Claimed	31,225
73	RS & RC ELECTRICALS	Laying of 132KV cable for IBT-3.	2016-17	Claimed	12,61,211
74	D K SINGH	CONSTRUCTION OF PEDESTALS FOR LAYING OF AWR'S ST-III PIPE LINE	2016-17	Claimed	3,01,986
75	PAWAN CONSTRUCTION	Cons. Shades B Type & Mess Extn.	2016-17	Claimed	72,248
76	HITECH AUDIO SYSTEMS PVT LTD	PA CONFERENCE SYSTEM	2016-17	Claimed	74,723
77	JANAK HEALTH CARE PVT LTD	LABOUR TABLE/ BIRTHING BED.	2016-17	Claimed	10,700
78	rites ltd	FEE FOR RAILWAY SIDING AND S&T SYSTEM AUGMENTATION AND ASSOCIATED ELECTRICAL SYSTEM PACKAGE FOR RIHAND STPP, St-III	2016-17	Claimed	97,45,429
79	rites ltd	RAILWAY SIDING AND S&T SYSTEM AUGMENTATION AND ASSOCIATED ELECTRICAL SYSTEM PACKAGE FOR RIHAND STPP, STAGE-III (2 x 500 MW)	2016-17	Claimed	

4,53,73,864

Spm.

Statement of Liability Flow

Name of the Company :	NTPC Limited
Name of the Power Station :	Rihand Super Thermal Power Station Stage-III

Sr. No.	Name of the Party	Name of the work	Year of creation of liability capitalised In Gross Block	Remarks	Amount in Rs Undischarged liabilities relating to GB 31.03.2019
(1)	(2)	(3)	(4)	(11)	(10)=(5+6+8A-9)
80	rites ltd	RAILWAY SIDING AND S&T SYSTEM AUGMENTATION AND ASSOCIATED ELECTRICAL SYSTEM PACKAGE FOR RIHAND STPP, STAGE-III (2 x 500 MW)	2016-17	Claimed	6,34,573
81	USHA INTERNATIONAL LTD	FAN: CEILING, 1200MM SWEEP	2016-17	Claimed	99,000
82	STEAMLINE INDUSTRIES LTD	1125MTPH:HYDRAULIC MOTOR	2016-17	Claimed	1,12,000
83	IDEAL ASSOCIATES	Constn of Storage sheds in Central Store	2016-17	Claimed	2,46,504
84	IDEAL ASSOCIATES	Const. work for RCC water tank hill top	2016-17	Claimed	2,06,924
85	IDEAL ASSOCIATES	Construction works of sewerage	2016-17	Claimed	9,72,815
86	ARIHANT INDUSTRIAL CORPORATION LTD	Procurement of Multiplay Equipment	2016-17	Claimed	1,45,030
87	UNIQUE INDUSTRIAL HA	Supply, Installation & Commissioning of EOT Cranes (05 Nos) -CRF	2016-17	Claimed	4,49,439
88	INDORE COMMUNICATION AND	SMS SOFTWARE SINGLE SERVER LICENSE	2016-17	Claimed	1,28,000
89	PARMAR ENTERPRISES	Construction of RCC Road	2016-17	Claimed	2,31,337
90	PARMAR ENTERPRISES	CONSTRUCTION OF WBM ROAD NEAR KARAUTI, SASAN(TUSAKHAND) AND DEORA VILLAGE TO CONNECT UNAUTHORIZED LEVEL CROSSING WITH AUTHORIZED LEVEL CROSSING.	2016-17	Claimed	7,17,241
91	PARMAR ENTERPRISES	CONSTRUCTION OF BALLASTLESS TRACK & MISC. CIVIL WORKS IN PLANT AREA	2016-17	Claimed	4,22,809
92	RhSTPP EMPLOYEES CONSUMERS	GEYSER 25LTR	2016-17	Claimed	10,144
93	RhSTPP EMPLOYEES CONSUMERS	Hrad Disk Drive 2 TB	2016-17	Claimed	7,508
94	Bharat Heavy Electri	400/132KV Switchyard Extension Package for Rihand STPP, Stage-III	2016-17	Claimed	2,25,33,207
95	STAR LINK COMMUNICATION PVT LTD	BIOMETRIC-M/C:FINGER PRINT,ACCESS SYSTEM	2016-17	Claimed	88,000
96	Braithwaite & Co Ltd	Mfg and supply of BOBRNHSM1 Wagons	2016-17	Claimed	2,16,18,412
97	BRIDGE & ROOF COMPAN	AWRS RIHAND STAGE-III	2016-17	Claimed	46,81,652
98	WAVE VISIONS	O.T.LIGHT	2016-17	Claimed	60,000
99	LANCO INFRA TECH LTD	CIVIL WORKS FOR CRF NTPC RIHAND	2016-17	Claimed	1,16,44,264
100	ASNTECH AND ENGINEERING SERVICES	GPS System for tracking Locomotives(20 Dev + Soft)	2016-17	Claimed	2,43,000
101	OMEGA ELEVATORS	Lift in ADM Building	2016-17	Claimed	1,53,188
102	GALA CONSTRUCTIONS	ARRESTING WATER LEAKAGE FROM CONVEYOR 31A/B	2016-17	Claimed	7,39,125
103	REACON ENGINEERS IND	CONSTRUCTION OF D1 TYPE QUARTERS AT NTPC-RIHAND	2016-17	Claimed	74,02,282
104	REACON ENGINEERS IND	CONSTRUCTION OF D-2, C, B AND A-TYPE QUARTERS AT NTPC-RIHAND.	2016-17	Claimed	1,12,36,160
105	S V ENTERPRISES	Constn of WTower,Pan Gurnali&S PostIn T/S	2016-17	Claimed	75,093
106	SVS TECHNOLOGY SERVICES PVT LTD	Procurement of IP-DSLAM system and ADSL Modems.	2016-17	Claimed	83,296
107	R & S INDIA ELECTRONICS PVT LTD	DIGITAL SOUND SYSTEM PROCESSOR	2016-17	Claimed	2,31,000
108	HITACHI SYSTEMS MICRO CLINIC	SERVER - INTEL XEON DUAL CPU WITH OS	2016-17	Claimed	41,300
109	SIDDIHI VINAYAK CONSTRUCTION COMPANY	Construction of Sheds for Brick Plant	2016-17	Claimed	8,09,765
110	SHIV GANGA ELECTRICALS & TOOLS	Tools & Equipments for ITI Filter Trade.	2016-17	Claimed	66,829
111	DURGA CONSTRUCTION	CONSTRUCTION OF NON RESIDENTIAL BUILDINGS	2016-17	Claimed	1,62,87,559
112	GAMZEN PLAST PVT LTD	SKID STEER LOADER	2016-17	Claimed	2,29,000
113	VOLKS ENERGIE PVT LTD	AIR CONDITIONERS 1.5 TON SPLIT TYPE (LLOYD)	2016-17	Claimed	6,43,000
114	Sempell GmbH	Procurement of Turbine MAL Drain valve for Rihand Syage-III.	2016-17	Claimed	19,293
115	BHEL NEW DELHI	SG package	2017-18	Claimed	56,66,295
116	BHEL NEW DELHI	TG Package	2017-18	Claimed	37,36,189
117	LLOYD INSULATIONS IN	Fire detection	2017-18	Claimed	4,98,785
118	CSPL COMPUTERS PVT	Procurement of Multimedia Projector.	2017-18	Claimed	920
119	SIMPLEX INFRASTRUCTU	Main plant civil/cimney	2017-18	Claimed	12,48,991
120	A K VERMA	CONSTRUCTION OF NON RESIDENTIAL BUILDINGS PACKAGE II	2017-18	Claimed	12,59,860
121	A K VERMA	CONSTRUCTION OF NON RESIDENTIAL BUILDINGS PACKAGE I	2017-18	Claimed	9,35,350
122	RAM BICHAR	AUGMENTATION OF ASH BRICK SHED 3 & 4 AND ITS SURROUNDING AREA	2017-18	Claimed	2,69,124
123	Bharat Heavy Electri	400/132KV Switchyard Extension Package for Rihand STPP, Stage-III	2017-18	Claimed	8,92,462
124	PETRON ENGINEERING C	Elect Eqp	2017-18	Claimed	4,29,430
125	Braithwaite & Co Ltd	Mfg and supply of BOBRNHSM1 Wagons	2017-18	Claimed	6,92,516
126	LANCO INFRA TECH LTD	CIVIL WORKS FOR CRF NTPC RIHAND	2017-18	Claimed	88,87,617
127	SIDDIHI VINAYAK CONSTRUCTION COMPANY	Construction of Sheds for Brick Plant	2017-18	Claimed	3,55,624
128	KRISHNA ENGINEERING WORKS	Plugging/Bolting/Riveting of holes in Structural Members of Trestles and TPs	2017-18	Claimed	73,935
129	REGENT ELECTRO-MECH PVT LTD	Supply & Erection of 132KV Cable Accessories for IBT-3 Rihand Stage-III.	2017-18	Claimed	18,70,125
130	BLUE STAR LTD	Air Ventilation	2018-19	Claimed	3,39,435
131	rites ltd	FEE FOR RAILWAY SIDING AND S&T SYSTEM AUGMENTATION AND ASSOCIATED ELECTRICAL SYSTEM PACKAGE FOR RIHAND STPP, STAGE-III (2 x 500 MW)	2018-19	Claimed	5,00,00,000
132	rites ltd	FEE FOR RAILWAY SIDING AND S&T SYSTEM AUGMENTATION AND ASSOCIATED ELECTRICAL SYSTEM PACKAGE FOR RIHAND STPP, STAGE-III (2 x 500 MW)	2018-19	Claimed	2,00,00,000
133	IDEAL ASSOCIATES	Construction works of sewerage	2018-19	Claimed	2,92,067
134	A K VERMA	CONSTRUCTION OF NON RESIDENTIAL BUILDINGS PACKAGE II	2018-19	Claimed	18,18,023
135	PETRON ENGINEERING C	Elect Eqp	2018-19	Claimed	60,618
136	KRISHNA ENGINEERING WORKS	Plugging/Bolting/Riveting of holes in Structural Members of Trestles and TPs	2018-19	Claimed	66,542
137	REGENT ELECTRO-MECH PVT LTD	Supply & Erection of 132KV Cable Accessories for IBT-3 Rihand Stage-III.	2018-19	Claimed	6,85,600
138	Braithwaite & Co Ltd	Mfg and supply of BOBRNHSM1 Wagons	2018-19	Claimed	19,79,477
139	CHAUHAN BROTHER'S CONSTRUCTION	Installation of Submersible pump at STP	2018-19	Claimed	17,839
140	ENVIRO CARE ENGINEERING & SOLUTIONS	Design, Erection, Installation & Commissioning of Submersible Sewage Disposal System, Stage-III.	2018-19	Claimed	1,42,300

111

Statement of Liability Flow

Part-I
Form-S

Name of the Company :	NTPC Limited
Name of the Power Station :	Rihand Super Thermal Power Station Stage-III

Sr. No.	Name of the Party	Name of the work	Year of creation of liability capitalised in Gross Block	Remarks	Amount in Rs
					Undischarged liabilities relating to GB 31.03.2019
(1)	(2)	(3)	(4)	(11)	(10)=(5+6+6A-9)
141	HYDROTECH PARYAVARAN (INDIA) PVT. LTD	Construction of Sewage Treatment Plant at Rihand.	2018-19	Claimed	1,03,01,741
142	Alsiom T&D India Ltd	400KV Circuit Breakers, CT <(-&-<-> CVT for Switchyard ST-III	2018-19	Claimed	1,61,935
143	VIJAY CONSTRUCTION	CONSTRUCTION OF NEW RCC ROAD FROM ASH SILO TO SIRSOTI GATE	2018-19	Claimed	12,06,835
144	VIJAY CONSTRUCTION	Construction of Bituminous Road (Out side plant boundary wall) from Watch Tower # 3 to BHEL yard and BHEL yard to CCCPL Are	2018-19	Claimed	18,77,700
145	PARMAR ENTERPRISES	CONSTRUCTION OF WBM ROAD NEAR KARAUTI, SASAN(TUSAKHAND) AND DEORA VILLAGE TO CONNECT UNAUTHORIZED LEVEL CROSSING WITH AUTHORIZED LEVEL CROSSING.	2018-19	Claimed	
146	BHEL NEW DELHI	SG Pacakage	2018-19	Claimed	2,42,965
147	BHEL NEW DELHI	TG Pacakage	2018-19	Claimed	2,668
148	PAWAN CONSTRUCTION	CONSTRUCTION OF CHEMICAL STORE SHED AND MISCELLANEOUS CIVIL WORKS IN PLANT AREA	2018-19	Claimed	5,35,629
TOTAL					1,53,218
					1,51,65,63,311

S. Kumar

112



भारत का राजपत्र

The Gazette of India

असाधारण

EXTRAORDINARY

भाग II—खण्ड 3—उप-खण्ड (ii)

PART II—Section 3—Sub-section (ii)

प्राधिकार से प्रकाशित

PUBLISHED BY AUTHORITY

सं. 225]

नई दिल्ली, बुधवार, जनवरी 27, 2016/माघ 7, 1937

No. 225]

NEW DELHI, WEDNESDAY, JANUARY 27, 2016/MAGHA 7, 1937

पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय

अधिसूचना

नई दिल्ली, 25 जनवरी, 2016

का.आ. 254(ब).—भारत सरकार, पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय की अधिसूचना सं. का.आ. 763(अ), तारीख 14 सितंबर, 1999 (जिसे इसमें इसके पश्चात् उक्त अधिसूचना कहा गया है) में कतिपय संशोधनों का प्रारूप, जिन्हें केन्द्रीय सरकार पर्यावरण (संरक्षण) नियम, 1986 के नियम 5 के उप-नियम (3) के खंड (घ) के साथ पठित पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 3 की उप-धारा (1) और उप-धारा (2) के खंड (v) के अंतर्गत करने का प्रस्ताव करती है, भारत के राजपत्र, असाधारण, भाग II, खंड 3, उप-खंड (ii) में अधिसूचना सं. का.आ. 1396(अ), तारीख 25 मई, 2015 द्वारा प्रकाशित किया गया था, जिसके द्वारा ऐसे सभी व्यक्तियों से, जिनके उनसे प्रभावित होने की संभावना थी, उस तारीख से, जिसको उक्त प्रारूप संशोधनों को अंतर्विष्ट करने वाली राजपत्र की प्रतियां जनता को उपलब्ध करा दी जाती हैं, साठ दिनों के अवसान से पूर्व आक्षेप और सुझाव आमंत्रित किए गए थे;

और उक्त राजपत्र की प्रतियां 25 मई, 2015 को जनता को उपलब्ध करा दी गई थी;

और उक्त प्रारूप अधिसूचना के संबंध में, ऐसे सभी व्यक्तियों से, जिनके उनसे प्रभावित होने की संभावना थी, प्राप्त सभी आक्षेपों और सुझावों पर केन्द्रीय सरकार द्वारा सम्यक् रूप से विचार कर लिया गया है;

अतः, अब, केन्द्रीय सरकार पर्यावरण (संरक्षण) नियम, 1986 के नियम 5 के उप-नियम (3) के खंड (घ) के साथ पठित पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 3 की उप-धारा (1) और उप-धारा (2) के खंड (v) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए उक्त अधिसूचना में निम्नलिखित संशोधन करती है, अर्थात् :-

1. उक्त अधिसूचना के पैरा 1 में-

- (क) उप पैरा 1(क) में "सौ किलोमीटर" शब्दों के स्थान पर "तीन सौ किलोमीटर" शब्द रखे जाएंगे;
- (ख) उप पैरा 3 में "100 कि.मी." अंकों और शब्दों के स्थान पर "तीन सौ किलोमीटर" शब्द रखे जाएंगे;
- (ग) उप पैरा 5 में "सौ किलोमीटर" शब्दों के स्थान पर "तीन सौ किलोमीटर" शब्द रखे जाएंगे;
- (घ) उप पैरा 7 में "सौ किलोमीटर" शब्दों के स्थान पर "तीन सौ किलोमीटर" शब्द रखे जाएंगे;



2. उक्त अधिसूचना के पैरा 2 में:-

(क) उप पैरा (1) के पश्चात् निम्नलिखित परंतुक अंतःस्थापित किया जाएगा, अर्थात्:-

“परंतु यह और कि शुष्क ईएसपी फ्लाई ऐश के 20 प्रतिशत का निःशुल्क प्रदाय करने का निर्बन्धन उन तापीय विद्युत संयंत्रों पर लागू नहीं होगा, जो विहित रीति में सौ प्रतिशत फ्लाई ऐश का उपयोग करने में समर्थ हैं।”

(ख) उप पैरा (7) के पश्चात् निम्नलिखित उप पैरा अंतःस्थापित किए जाएंगे, अर्थात् :-

- (8) प्रत्येक कोयला या लिग्नाइट आधारित तापीय विद्युत संयंत्र (जिसके अंतर्गत कैपटिव और/या सह उत्पादन केन्द्र भी हैं), अधिसूचना की तारीख से तीन मास के भीतर उनके पास उपलब्ध प्रत्येक किस्म की ऐश के स्टॉक के ब्यौरे अपनी वेबसाइट पर अपलोड करेगा और उसके पश्चात् मास में कम से कम एक बार स्टॉक की स्थिति को अद्यतन करेगा।
- (9) प्रत्येक कोयला या लिग्नाइट आधारित तापीय विद्युत संयंत्र समर्पित शुष्क ऐश साइलस प्रतिष्ठापित करेगा, जिनके पास पृथक् पहुंच मार्ग होंगे, जिससे कि फ्लाई ऐश के परिदान को सुगम बनाया जा सके।
- (10) कोयला या लिग्नाइट आधारित तापीय विद्युत संयंत्र से 100 किलोमीटर की परिधि के भीतर सड़क संनिर्माण परियोजनाओं या ऐश आधारित उत्पादों के संनिर्माण के लिए या कृषि संबंधित क्रियाकलापों में मृदा अनुकूलक के रूप में उपयोग के लिए ऐश के परिवहन की लागत ऐसे कोयला या लिग्नाइट आधारित तापीय विद्युत संयंत्र द्वारा वहन की जाएगी और 100 किलोमीटर की परिधि से परे और 300 किलोमीटर की परिधि के भीतर ऐसे परिवहन की लागत को उपयोक्ता और कोयला या लिग्नाइट आधारित तापीय विद्युत संयंत्र के बीच समान रूप से अंश भाजित की जाएगी।
- (11) कोयला या लिग्नाइट आधारित तापीय विद्युत संयंत्र अपने परिसरों के भीतर या अपने परिसरों के आस-पास ऐश आधारित उत्पाद संनिर्माण सुविधाओं का संवर्धन करेंगे, उन्हें अपनाएंगे और उनकी स्थापना करेंगे (वित्तीय और अन्य सहबद्ध अवसंरचना)।
- (12) नगरों के आस-पास बने कोयला या लिग्नाइट आधारित तापीय विद्युत संयंत्र ऐश आधारित उत्पाद विनिर्माण इकाइयों का संवर्धन करेंगे और उनकी स्थापना का समर्थन और उसमें सहायता करेंगे ताकि ईटों और अन्य भवन संनिर्माण सामग्रियों की अपेक्षाओं की पूर्ति की जा सके और साथ ही परिवहन में कमी की जा सके।
- (13) यह सुनिश्चित करने के लिए कि किसी सड़क संनिर्माण का संविदाकार सड़क निर्माण में ऐश का उपयोग करता है, सड़क संनिर्माण के लिए संबद्ध प्राधिकारी संविदाकार को किए जाने वाले संदाय को तापीय विद्युत संयंत्र से ऐश के प्रदाय के प्रमाणीकरण के साथ जोड़ेगा।
- (14) कोयला या लिग्नाइट आधारित तापीय विद्युत संयंत्र, 300 किलोमीटर की परिधि के भीतर प्रधानमंत्री ग्रामीण सड़क योजना के अधीन सड़क संनिर्माण परियोजनाओं और भवनों, सड़कों, बांधों और तटबंधों के संनिर्माण को अंतर्वलित करने वाले सरकार के अस्तित्व सृजन कार्यक्रमों के स्थल तक ऐश के परिवहन की संपूर्ण लागत का वहन करेगा।”।

3. उक्त अधिसूचना के पैरा (2) के उप-पैरा (2क) को उप-पैरा (15) के रूप में पढ़ा जाए और उक्त उप-पैरा के अंत में निम्नलिखित उप-पैरा जोड़ा जाएगा, अर्थात् :-

“और तटीय जिलों में अवस्थित कोयला या लिग्नाइट आधारित तापीय विद्युत संयंत्र तटरेखा सुरक्षा उपायों का समर्थन करेंगे, उनके संनिर्माण में सहायता करेंगे या उसमें प्रत्यक्ष रूप से सम्मिलित होंगे।”

4. उक्त अधिसूचना के पैरा 3 में उप-पैरा (7) के पश्चात् निम्नलिखित अंतःस्थापित किया जाएगा, अर्थात् :-

- (8) विभिन्न संनिर्माण परियोजनाओं का अनुमोदन करने वाले सभी राज्य प्राधिकारियों का यह उत्तरदायित्व होगा कि वे यह सुनिश्चित करें कि फ्लाई ऐश का उपयोग करने या फ्लाई ऐश आधारित उत्पादों के लिए तापीय विद्युत संयंत्रों और संनिर्माण अभिकरण या संविदाकारों के बीच परस्पर समझ ज्ञापन या कोई अन्य ठहराव किया जाता है।
- (9) राज्य प्राधिकारी, दस लाख या अधिक की जनसंख्या वाले नगरों की भवन निर्माण संबंधी उप विधियों का संशोधन करेंगे ताकि भार वहन करने वाली संरचनाओं हेतु तकनीकी अपेक्षाओं के अनुसार आवश्यक विनिर्देशों को ध्यान में रखते हुए ऐश आधारित ईटों के आज्ञापक उपयोग को सुनिश्चित किया जा सके।

[Handwritten signature]

- (10) संबद्ध प्राधिकारी सभी सरकारी स्कीमों या कार्यक्रमों में, उदाहरणार्थ महात्मा गांधी राष्ट्रीय ग्रामीण रोजगार गारंटी अधिनियम, 2005 (मनरेगा), स्वच्छ भारत अभियान, शहरी और ग्रामीण आवासन स्कीम, जहां संनिमित्त क्षेत्र एक हजार वर्ग फुट से अधिक है और अवसंरचना संबंधी संनिर्माण में, जिसके अंतर्गत अभिहित औद्योगिक संपदाओं या पार्कों या विशेष आर्थिक जोनों में भवन निर्माण भी है, ऐश आधारित ईटों या उत्पादों के आजापक उपयोग को सुनिश्चित करेंगे।
- (11) कृषि मंत्रालय कृषि क्रियाकलापों में ऐश के मृदा अनुकूलक के रूप में उपयोग का संबर्धन करने पर विचार कर सकेगा।”
5. सभी संबद्ध प्राधिकारियों द्वारा उपरोक्त उपबंधों का अनुपालन करने की समयावधि 31 दिसंबर, 2017 है। कोयला या लिग्नाइट आधारित तापीय विद्युत संयंत्र, उनके द्वारा उत्पादित फ्लाई ऐश के 100 प्रतिशत उपयोग के अतिरिक्त उपरोक्त उपबंधों का अनुपालन 31 दिसंबर, 2017 से पूर्व करेंगे।

[फा. सं. 9-8/2005-एचएसएमडी]

बिश्वनाथ सिन्हा, संयुक्त सचिव

टिप्पण:- मूल अधिसूचना भारत के राजपत्र, असाधारण, भाग II, खंड 3, उप-खंड (ii) में अधिसूचना सं. का.आ. 763(अ), तारीख 14 सितंबर, 1999 द्वारा प्रकाशित की गई थी और इसमें पश्चातवर्ती संशोधन अधिसूचना सं. का.आ. 979(अ), तारीख 27 अगस्त, 2003 और का.आ. 2804(अ), तारीख 3 नवंबर, 2009 द्वारा किए गए थे।

MINISTRY OF ENVIRONMENT, FORESTS AND CLIMATE CHANGE
NOTIFICATION

New Delhi, the 25th January, 2016

S.O. 254(E).—Whereas a draft of certain amendments to the Government of India in the Ministry of Environment, Forests and Climate Change number S.O. 763(E), dated the 14th September, 1999 (hereinafter referred to as the said notification) which the Central Government proposes to make under sub-section (1) and clause (v) of sub-section (2) of section 3 of the Environment (Protection) Act, 1986 (29 of 1986) read with clause (d) of sub-rule (3) of rule 5 of the Environment (Protection) Rules, 1986, was published in the Gazette of India, Extraordinary, Part II, section 3, Sub-section (ii), vide S.O. 1396(E), dated the 25th May, 2015 inviting objections and suggestions from all persons likely to be affected thereby before the expiry of sixty days from the date on which copies of the Gazette containing the said draft amendments were made available to the public.

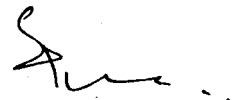
And, whereas copies of the said Gazette were made available to the public on 25th May, 2015;

And, whereas all the objections and suggestions received from all persons likely to be affected thereby in respect of the said draft notification have been duly considered by the Central Government;

Now, therefore, in exercise of the powers conferred by sub-section (1) and clause (v) of sub-section (2) of section 3 of the Environment (Protection) Act, 1986 (29 of 1986) read with clause (d) of sub-rule (3) of rule 5 of the Environment (Protection) Rules, 1986, the Central Government hereby makes the following amendments to the said notification, namely: —

1. In the said notification, in paragraph 1,-
 - (a) in sub-paragraph 1(A), for the words “hundred kilometers”, the words “three hundred kilometers” shall be substituted;
 - (b) in sub-paragraph (3), for the figures and letters “100 km”, the words “three hundred kilometers” shall be substituted;
 - (c) in sub-paragraph (5), for the words “hundred Kilometers”, the words “three hundred Kilometers” shall be substituted;
 - (d) in sub-paragraph (7), for the words “hundred Kilometers”, the words “three hundred Kilometers” shall be substituted.

(116)



2. In the said notification, in paragraph 2:-

(a) after sub-paragraph (1), the following proviso shall be inserted, namely:-

“provided further that the restriction to provide 20 % of dry ESP fly ash free of cost shall not apply to those thermal power plants which are able to utilise 100 % fly ash in the prescribed manner.”

(b) after sub-paragraph (7), the following sub-paragraphs shall be inserted, namely:-

- “(8) Every coal or lignite based thermal power plants (including captive and or co-generating stations) shall, within three months from the date of notification, upload on their website the details of stock of each type of ash available with them and thereafter shall update the stock position at least once a Month.
- (9) Every coal or lignite based thermal power plants shall install dedicated dry ash silos having separate access roads so as to ease the delivery of fly ash.
- (10) The cost of transportation of ash for road construction projects or for manufacturing of ash based products or use as soil conditioner in agriculture activity within a radius of hundred kilometers from a coal or lignite based thermal power plant shall be borne by such coal or lignite 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 or lignite based thermal power plant.
- (11) The coal or lignite based thermal power plants shall promote, adopt and set up (financial and other associated infrastructure) the ash based product manufacturing facilities within their premises or in the vicinity of their premises so as to reduce the transportation of ash.
- (12) The coal or lignite based thermal power plants in the vicinity of the cities shall promote, support and assist in setting up of ash based product manufacturing units so as to meet the requirements of bricks and other building construction materials and also to reduce the transportation.
- (13) To ensure that the contractor of road construction utilizes the ash in the road, the Authority concerned for road construction shall link the payment of contractor with the certification of ash supply from the thermal power plants.
- (14) 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”.

3. In the said notification, in paragraph 2, sub-paragraph (2A) be read as sub-paragraph (15) and at the end of the said sub-paragraph, the following sub-paragraph shall be added, namely:-

“and the coal or lignite based thermal power plants located in coastal districts shall support, assist or directly engage into construction of shore line protection measures.”

4. In the said notification, in paragraph 3, after sub-paragraph (7), the following shall be inserted, namely:-

- “(8) It shall be the responsibility of all State Authorities approving various construction projects to ensure that Memorandum of Understanding or any other arrangement for using fly ash or fly ash based products is made between the thermal power plants and the construction agency or contractors.
- (9) The State Authorities shall amend Building Bye Laws of the cities having population One million or more so as to ensure the mandatory use of ash based bricks keeping in view the specifications necessary as per technical requirements for load bearing structures.
- (10) The concerned Authority shall ensure mandatory use of ash based bricks or products in all Government Scheme or programmes e.g. Mahatma Gandhi National Rural Employment Guarantee Act, 2005 (MNREGA), SWACHH BHARAT ABIYAN, Urban and Rural Housing Scherne, where built up area is more than 1000 square feet and in infrastructure construction including buildings in designated industrial Estates or Parks or Special Economic Zone.

(117)

(11) The Ministry of Agriculture may consider the promotion of ash utilisation in agriculture as soil conditioner.”

5. The time period to comply with the above provisions by all concerned authorities is 31st December, 2017. The coal or lignite based thermal power plants shall comply with the above provision in addition to 100 % utilization of fly ash generated by them before 31st December, 2017.

[F. No. 9-8/2005-HSMD]

BISHWANATH SINHA, Jt. Secy.

Note:- The principal notification was published in the Gazette of India, Extraordinary, Part II, section 3, Sub-section (ii) *vide* notification S.O. 763(E), dated the 14th September, 1999 and was subsequently amended *vide* notification S.O. 979(E), dated the 27th August, 2003 and S.O. 2804(E), dated the 3rd November, 2009.

Signature

GOVERNMENT OF KARNATAKA
DEPARTMENT OF FACTORIES, BOILERS, INDUSTRIAL SAFETY & HEALTH

CSMC/TFC/CR-13/2013-14

Phone No : 080-26531200
Fax No : 080-26531202

Directorate of Factories, Boilers, Industrial Safety & Health, "Karmika Bhavana" 2nd floor, Near Bengaluru Dairy, I.T.I. compound, Bannerghatta road, Bengaluru-29. Dated 23.09.2013.

To
General Manager
M/s NIPC Limited,
Kudgi Super Thermal Power Project,
Plot No. 9, Mallikarjun Nagr,
Managuli Road, Bijapur-586 100

Sir,

Subject: Site Clearance for setting up of super thermal power project-reg

Reference: 1. Your letter dated 03.05.2013
2. Proceedings of Task force committee meeting held on 12.09.2013
3. Your reply mail dated 19.09.2013.

* * *

We are pleased to inform you that the Task Force Committee in its meeting held on 12.09.2013 has reviewed the presentation, documents, details of the safety systems adopted, etc and has concurred in principle to issue the Site Clearance for the initial location for the establishment of super thermal power project for generating electrical power of 3 X 800 MW at Near Kudugji village, Basavana bagewadi Taluk, Bijapur District.

The site clearance is issued subject to the following conditions:

1. The replacing of highly hazardous chlorine with available less hazardous alternative chemicals like chlorine dioxide, sodium hypo chlorite shall be considered.
2. The mobile hydrogen cylinder bank with manifold system shall be adopted in place of loose Hydrogen Cylinders.
3. The safety check shall be prepared in storing, handling and usage of Hydrazine and its holding capacity shall be limited to a minimum required quantity
4. The exclusive safety, health and environment (SHE) department shall be formed under the direct control & supervision of the occupier. This department shall be supported by the senior level qualified and competent executives with adequate field staff.
5. The effective online monitoring system shall be adopted to ensure the safe and healthy work environment with special trust to fugitive emission, it radiation, noise level etc.
6. No building of structure shall be constructed with obtaining a prior approval of plans by Director, Department of Factories, Boilers, Industrial Safety and Health.
7. The pre and periodical medical examination shall be carried out to all the category of employees including contract and casual. The medical surveillance shall be carried out by creating a base line health data and shall have the provision for up-dating the same and continuous basis.


8. The mitigation measures as submitted in the presentation and as suggested by committee shall be incorporated in the on-site emergency plan. The same shall be submitted for scrutiny and approval.
9. The provisions of rule 50 to 251 of Building and Other Construction Workers (Regulation of Employment and condition of service) (Karnataka) Rules 2006 shall be complied to ensure occupational safety and health of the construction workers involved project. The compliance shall be furnished regularly to jurisdiction officers of our department and to the Director of Factories, Boilers, Industrial Safety and Health.

Suggestions:

1. The industry shall adopt the rain - harvesting system to harvest atleast 60% of the rain water.
2. The industry shall adopt solar energy system at least catering to street lighting and in other suitable areas like water heating in the canteen, etc.

All the above conditions and suggestions shall be complied and a report shall be submitted. The department reserves all the rights to modify or withdraw clearance issued at any point of time.

Your's Faithfully,


Chairman
Task Force Committee
and Director of Factories, Boilers,
Industrial Safety and Health, Bangalore.

Stu

Govt Of Karnataka
Department Of Factories, Boilers, Industrial Security And Health

Office of the Director
Karmika Bhawana, II floor, Bannerghatta Road,
Bengaluru-29, Date: 13.04.2016

Proceedings of the Department of Factories, Boilers, Industrial Security and Health

Read with: Sec 6(1) of Factories Act 1948 and Rule 3 of Karnataka Factories Rules, 1969

Sub: Approval of factory drawings in respect of M/s. Kudgi Super Thermal Power Project (NTPC Limited) as per Factories Act 1948 -Reg.

- Ref: 1) Application Form 1 dated 27.01.2016
2) Site Inspection dated 05.02.2016
3) Final Scrutiny dated 07.04.2016

The maps of M/s NTPC Limited, Kudgi Super Thermal Power Project, Vijayapura have been scrutinized as per the Factories Act 1948 and the Rules framed and conceived there under and the blue prints of the factory's buildings and machinery layouts have been approved subject to the conformity of all provisions conceived as per Factories Act 1948 concerned and clause 3(4) of Karnataka Factories Rules, 1969 and also conformity of following conditions:

1. To modify the use of hazardous chlorine chemical to minimum hazardous chlorine chemical and to strictly comply with all the conditions laid down in the letter as per the condition of this office letter no. CSMC/TFC/CR-13/2013-14 Date 23.09.2013.
2. To get those buildings and machinery layout maps approved which are not approved earlier or the maps involving modifications. Such maps should be submitted for approval.
3. Before starting use of all the buildings and structures of the factory, authentication certification should be separately obtained as per Form 1A from authorized Civil Engineers and submitted to the Field Officer. Then only these should be used.

Ninety nine maps as approved are sent enclosed herewith. Kindly acknowledge.

Director of Factories &
Boilers,
Bengaluru

To,
The Occupier,
M/s. Kudgi Super Thermal Power Project
NTPC Limited
Kudgi, Taluka: Basavana Bagewadi, Dist.: Vijayapura

for kind information please.

45/11

29/4/16

29/4/2016

(12)

ನೀಡಿರುವ ಮಾಹಿತಿ
29/4/16



BY REGD POST

STATE POLLUTION CONTROL BOARD, ODISHA

(Department of Forest & Environment, Govt. of Odisha)
Paribesh Bhawan, A/118, Nilakanthanagar, Unit-VIII
Bhubaneswar - 751012

No. 2755 /

Ind-II-NOC-5592

Date 28-02-14/

OFFICE MEMORANDUM

In consideration of the application for obtaining Consent to Establish for Derlipali Super Thermal Power Project of M/s. NTPC Ltd., the State Pollution Control Board has been pleased to convey its Consent to Establish under section 25 of Water (Prevention & Control of Pollution) Act, 1974 and section 21 of Air (Prevention & Control of Pollution) Act, 1981 to set up of Thermal Power Plant of capacity 1600 MW (2x800 MW, stage-I), At/Po-Derlipali (Plot No. & Khata No. as mentioned in application form) in the district of Sundargarh with the following conditions.

GENERAL CONDITIONS.

1. This Consent to establish is valid for the raw materials, product, manufacturing process and capacity mentioned in the application form. This order is valid for five years, which means the proponent shall commence construction of the project within a period of five years from the date of issue of this order. If the proponent fails to do substantial physical progress of the project within five years then a renewal of this consent to establish shall be sought by the proponent.
2. Adequate effluent treatment facilities are to be provided such that the quality of sewage and trade effluent satisfies the standards as prescribed under Environment Protection Rule, 1986 or as prescribed by the Central Pollution Control Board and/or State Pollution Control Board or otherwise stipulated in the special conditions.
3. All emission from the industry as well as the ambient air quality and noise shall conform to the standards as laid down under Environment (Protection) Act, 1986 or as prescribed by Central Pollution Control Board/State Pollution Control Board or otherwise stipulated in the special conditions.
4. Appropriate method of disposal of solid waste is to be adopted to avoid environmental pollution.
5. The industry shall comply to the provisions of Environment Protection Act, 1986 and the rules made there under with their amendments from time to time such as the Hazardous Waste Management, Handling and Transboundary Movement Rules 2008 and amendment thereof, Hazardous Chemical Rules, /Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 etc. and amendments there under. The industry shall also comply to the provisions of Public Liability Insurance Act, 1991, if applicable.
6. The industry shall apply for grant of Consent to operate under section 25/26 of Water(Prevention & Control of Pollution)Act, 1974 & Air (Prevention & Control of Pollution)Act, 1981 at least 3 (three) months before the commercial production and obtain Consent to Operate from this Board. ✓
7. This consent to establish is subject to statutory and other clearances from Govt. of Odisha and/or Govt. of India, as and when applicable. ✓

[1]

(22)

S. P. S.

SPECIAL CONDITIONS :-

1. The proponent shall obtain environmental clearance for the proposal as per EIA notification, 2006 and the construction activity for the proposal shall commence after obtaining environmental clearance. ✓
2. The proponent shall carry out the construction activity as per the approved lay out map. Any deviation in approved layout map during construction activity shall be treated as violation of consent condition and appropriate action (including revocation of consent to establish) shall be taken as per law. If the proponent desires to change the approved plant layout map, they can submit a modified plant layout map surrendering the previous one before going for physical construction. ✓
3. The unit shall not use 390 acres land ear-marked for green belt development for other purpose. ✓
4. The industry shall set up its own fly ash brick manufacturing unit along with establishment of unit-I so that fly ash generated from the unit-I can be utilized for fly ash brick making and which will be used for civil construction of unit-II. } ← 3 ✓
5. The industry has proposed to use 30% imported high GCV coal. They shall keep adequate space for installation of flue gas de-sulphurization unit in case substantial increase in GLC concentration of SO₂ is observed.
6. The industry shall construct ash pond over 400 acres of area as earmarked in the revised land use break-up. Under no circumstance land earmarked for ash pond shall be used for any other purpose. Consent to operate for power plant shall only be considered when ash pond will be ready for ash disposal.
2. The unit shall suitably divert all the public roads passing through the proposed project. ✓
3. The unit shall develop thick green belt with high boundary wall along the boundary of the project as human habitations are close to the proposed site. ✓
4. The unit shall include rain water harvesting proposal during execution of the project. ✓
5. The unit shall submit year wise along with percentage wise fly ash utilisation plan to the Board in the end of the year. ✓
6. The unit shall be based on zero discharge concepts and in no case any effluents shall be discharge to any water body. ✓
7. The unit shall obtain necessary clearances such as forest clearance, wild life clearance, clearance from water resources department etc. from the appropriate authorities as applicable. ✓
8. The unit shall adopt adequate safety measures in construction of ash dyke and detail constructional feature shall be submitted to the Board within one month from the date of issue of consent to establish. ✓
9. The height of each stack of power plant boiler shall not be less than 275 meters from the ground. The power plant shall have two stacks for flue gas emission. ✓
10. The unit shall install ESP in the stack attached to power plant boiler such that particulate matter emission shall not exceed 50 mg/Nm³. They should make provision for one spare field during the design of ESP. If more than one field of ESP fails, the plant should trip automatically through an interlocking system. ✓

[2]

(123)

S. P. M.

11. The unit shall provide port hole and platform at suitable location with safe approach to conduct emission monitoring at the stack. ✓
12. The unit shall provide dust extraction system at crusher house, boiler bunker to control dust emission. CHP shall be installed in a shed and coal carrying conveyor belts shall be covered. ✓
13. Separate energy meter shall be installed for all the pollution control equipments and the records shall be maintained for verification of the Board from time to time. ✓
14. Necessary preventive measures shall be taken during construction phase so that the ambient air quality including noise shall conform to National Ambient Air Quality standards and standards for noise in industrial area as per Annexure-I. The unit shall install adequate dust extraction as well as dust suppression system at all potential dust generating points to control fugitive dust emission and the ambient air quality inside the factory premises shall conform to the standard with reference to National Ambient Air Quality Standard prescribed by MoEF, Govt. of India dtd 16.11.2009 enclosed as Annexure - II.
15. The construction material which has potential to be air borne, shall be transported in covered trucks.
16. The roads inside the plant premises shall be black topped. Permanent high pressure water sprinkling system shall be installed for regular spraying of water on roads to minimize fugitive dust emission.
17. The unit shall take adequate measures for controlling of fugitive dust emission during transportation of fly ash for utilisation. Good housekeeping practices shall be followed to improve the work environment. All roads and shop floors shall be cleaned regularly. ✓
18. At least 6 continuous ambient air quality monitoring stations around the industry shall be set up to monitor PM-10, PM-2.5, SO2, NOx, CO and other important parameters as given in as per Annexure - II above within at least to the distance in down-wind direction and where maximum ground level concentration is anticipated. The exact location of the monitoring stations shall be finalized in consultation with the State Pollution Control Board. The proponent shall install continuous online ambient air quality monitoring and stack monitoring system with display facility at the gate. A detail proposal to this effect shall be submitted. ✓
19. Pneumatic conveyor system shall be provided as dust collection system for ESP dust. Silos shall be provided for collection of bottom ash and fly ash. Conveyor belt shall be closed and bag filter shall be provided at transfer points of conveyor system to control fugitive emission. ✓
20. Air pollution Control devices shall be maintained properly. Fabric bags and cages in bag house shall be checked regularly and replaced whenever required. Adequate availability of spares shall be ensured for immediate replacement.
21. All the wastewater generated shall be discharged to a common monitoring basin before it is reused in the plant for various process.
22. The Blow down shall meet the following standards before it is discharged to the common basin.

Boiler Blow Down :

Suspended solids	-	100.0mg/l (max)	?
Oil & Grease	-	20.0 mg/l (max)	
Copper (Total)	-	1.0 mg/l (max)	
Iron (total)	-	1.0mg/l (max)	

[3]

(124)

Signature

Cooling Tower Blow Down

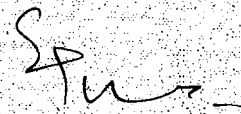
Free available Chlorine	0.5 mg/l (Max)
Zinc	1.0 mg/l (Max)
Chromium (total)	2.0 mg/l (Max)
Phosphate	0.2 mg/l (Max)

23. The wastewater generated from leakages, blow downs and DM plant shall be treated individually to meet the prescribed standard of effluent discharge to inland surface water and stored in a common basin (i.e. guard pond) for utilization for plantation, dust suppression ash handling and green belt purpose inside the factory premises. Lining shall be provided in guard pond to prevent any seepage into ground to avoid ground water contamination. The proponent shall submit detail drawing with specification of ETP within 6 months.
24. The proponent shall provide garland drains around coal storage area followed by series of settling tanks to retain the solids, if any, in order to reduce the load on common monitoring basin.
25. The unit shall furnish details of the control measures at coal loading and unloading points.
26. The acidic water generated during boiler cleaning shall be properly neutralized so that the pH of cleaning water remains within the range of 6.0 – 9.0. After neutralization this water can be discharged to the common monitoring basin.
27. Oil catch pits shall be provided in oil handling area of power plant for collection of spillage.
28. The unit shall provide treatment system such as Reverse osmosis plant to treat the waste water generated from cooling tower blow down and reuse the same in the process.
29. The storm water drains shall be maintained separately without being mixed up with the industrial effluent or sewage effluent. The domestic effluent from the industry as well as the colony shall be treated in proper sewage treatment plant to meet the prescribed BIS standard (SS – 30mg/l, BOD – 20mg/l) before being discharged or utilized for green belt development.
30. The industry shall adopt High Concentration Slurry Disposal (HCSD) method for ash disposal. A detail design of the ash disposal area, the dykes, run off and seepage collection system etc shall be made and submitted within 3 months from the date of issue of this consent to establish. ✓
31. A comprehensive ash utilization plan shall be prepared within the frame work of Fly Ash Notification, 2009 and its amendment thereof. The plan should explore all possible means of utilization with realistic timelines and utilization options. The ash utilization plan submitted by the proponent is not adequate. A detailed ash utilization plan is to be submitted keeping in view of less ash at the time of consent to operate application. ✓
32. The proponent shall take precautionary measures to prevent surface run off from ash disposal area during torrential rain. A detailed proposal to this effect is to be submitted within 3 months. ?
33. Rain water harvesting structure shall be developed inside the plant premises as per concept and practices made by CPCB and maximum efforts shall be made to reuse harvested rain water, with a definite plan and programme to reduce the drawal of fresh water from water bodies.
34. The unit shall explore the possibility of disposal of fly ash in abandoned mine pit for complete utilization of fly ash. ?
35. The unit shall submit details of hazardous chemicals and storage facility and risk assessment to the Board.
36. The industry shall comply with all the conditions stipulated under Charter on Corporate Responsibility for Environmental Protection (CREP) guidelines in a time bound manner as envisaged there in.

37. A toe drain shall be provided around the ash mound. The seepage water collected in the toe drain shall be monitored every month with respect to pH, SS, O&G and fluoride and shall meet the following standards
- pH-8.5 to 8.5
 - SS-100mg/l
 - O&G-20mg/l and
 - Flouride-2.0mg/l
- and the monitoring report shall be submitted to the Board quarterly.
38. Regular monitoring of runoff water from the disposal area and excess ash water shall be carried out with respect to pH, SS, O&G and fluoride content and monitoring report shall be submitted to the Board every quarter.
39. Ash pond shall be lined with HDPE or any other suitable impermeable lining such that no leachate takes place at any point of time. Adequate safety measures shall also be implemented to protect the ash dyke from getting breached.
40. The Project Proponent shall carry out detail hydrogeological study of the ash pond site incorporating soil analysis, ground water quality (fluoride & heavy metals), surface water quality (fluoride & heavy metals) and drainage network of the area and the change in hydrological status shall be monitored annually.
41. Regular monitoring of ground water level shall be carried out by establishing a network of existing wells and constructing new piezometers. Monitoring around the ash pond area shall be carried out particularly for heavy metals (F, Cd, Hg, Cr, As, Pb) and records shall be maintained and submitted to the Board. The data so obtained should be compared with the baseline data so as to ensure that the ground water quality is not adversely affected due to the project.
42. The entire upstream face of the dyke shall be provided with stone pitching or brick lining or precast tile lining to prevent erosion of the slope by wave action during heavy wind.
43. The entire area of the ash dyke shall be provided with fencing and unauthorized entry within this ash pond area shall be strictly prohibited. Security guards shall be posted for vigilance of the ash dyke area round the clock. This is very important as there are chances of sabotage. The entire dyke perimeter shall have accessible roads. The entire dyke area shall be provided with street lights or flood lights for inspection during night time. A site office shall be constructed with a full time engineer responsible for inspection and monitoring of the ash dyke.
44. The Industry shall construct a Sewage Treatment Plant (STP) for treatment of wastewater to be generated from domestic source and the treated sewage shall be discharged to the common monitoring basin.
45. The unit shall explore the possibility to use chlorine di-oxide for treatment of water instead of chlorine gas.
46. Plantation activity shall be planned in such a way so that trees will have better growth by the time the unit starts operation.
47. The proponent shall deploy vehicles which conform to the latest BIS emission specification. The proponent shall also to give a detail proposal to control noise pollution during construction phase. The proponent shall prepare pollution prevention and environment management plan for construction phase and operation phase separately and should submit to the Board three months prior to commencement of construction and operation respectively.
48. The rising temperature during summer in the area is a major concern. The unit shall conduct a detailed study on contribution of thermal heat to atmosphere due to the proposed project and its impact on ambient temperature during different season. The study should also investigate the heat Island effect due to the project.

[5]

(28)



49. The industry shall provide screen at the water intake system of Hirakud reservoir for protection of aquatic life.
50. The industry shall set up a full-fledged environment monitoring laboratory and an environment management cell with qualified personnel for monitoring of pollutants and effective remedial measures in case of necessity. Head of the environmental management cell shall report to the unit head.
51. The civil construction shall be carried out with the fly ash bricks. If the fly ash bricks are not available locally the civil construction may be carried out with other bricks with prior intimation to the concerned Regional Office of SPC Board. A statement indicating use of fly ash bricks during construction period shall be submitted to the Board every year for record.
52. The land on which the unit is proposed to be established the power plant shall be converted to industrial use Kisam by the competent authority. The copy of said land conversion document shall be submitted to the Board along with consent to operate application.
53. A green belt of adequate width and density preferably with local species along the periphery of the power plant shall be raised so as to provide protection against particulates and noise. It must be ensured that at least 33% of the total land area shall be under permanent green cover. In such a manner that, atleast plantation shall be taken up at least in 20% of the total green belt area and progressively achieve 100% in a span of five years.
54. No production activity shall commence prior to installation of the pollution control devices. In case, it is found that the plant is operating without installation of appropriate pollution control equipment(s) and without permission for trial operation from the Board, a direction of closure shall be issued u/s 31-A of Air (PCP) Act, 1981 and for u/s 33-A of Water (PCP) Act, 1974 without any further notice in this regard.
55. The Board may impose further conditions or modify the conditions stipulated in this order during installation and / or at the time of obtaining consent to operate and may revoke this clearance in case the stipulated conditions are not implemented and / or any information suppressed in the application form.

Encl: Approved layout Map & Annexures

[Signature]
MEMBER SECRETARY

To
✓ Shri S. K. Reddy, General Manager,
Derlipali Super Thermal Power Project (DSTPP) of
M/s. NTPC Ltd.,
3rd & 4th Floor, Amba Tower, Hospital Road,
Sundargarh- 770001.

Memo No. _____ /Dt. _____ /

Copy forwarded to:

1. District Magistrate & Collector, Sundargarh.
2. District Industries Centre, Sundargarh.
3. Director, Factories & Boiler, Bhubaneswar
4. Regional Officer, SPC Board, Rourkela.
5. Sr. Env. Engineer (Consent), SPC Board, Bhubaneswar.
6. DFO, Sundargarh.
7. Hazardous Waste Management Cell, SPC Board, Bhubaneswar.
8. Copy to Guard file.

SR. ENV. ENGINEER (N)

[6]

(127)

[Signature]

SCHEDULE
 (by rule 3(i) and 4(i))

Ambient Air Quality Standards in respect of Noise

Area Code	Category of Area/Zone	Limits in dB(A) Leq *	
		Day Time	Night Time
(A)	Industrial area	75	70
(B)	Commercial area	65	55
(C)	Residential area	55	45
(D)	Silence Zone	50	40

Note

1. Day time shall mean from 6:00 a.m. to 10:00 p.m.
2. Night time shall mean from 10:00 p.m. to 6:00 a.m.
3. Silence zone is defined as an area comprising not less than 100 metres around hospitals, educational institutions and courts. The silence zones are zones which are declared as such by the competent authority.
4. Mixed categories of areas may be declared as one of the four above mentioned categories by the competent authority.

*dB(A) Leq denotes the time weighted average of the level of sound in decibels on scale A which is referable to human hearing.

A "decibel" is a unit in which noise is measured.

"A", in dB(A) Leq, denotes the frequency weighting in the measurement of noise and corresponds to frequency response characteristics of the human ear.

Leq : It is an energy mean of the noise level, over a specified period.

[F. No. Q-14012/06-CPA]
 VIJAY SHARMA, Jt. Secy.

SCHEDULE
(see rule 3(f) and 4(f))

Ambient Air Quality Standards in respect of Noise

Area Code	Category of Area/Zone	Limits in dB(A) Leq.*	
		Day Time	Night Time
(A)	Industrial area	75	70
(B)	Commercial area	65	55
(C)	Residential area	55	45
(D)	Silence Zone	50	40

Signature

प्रमाण : 44 वर्षी 31 अक्टूबर 2009 को जारी किया गया है। इसमें संशोधन के लिए प्रस्तावित है।
 [सा. सं. न्यू-15017-33/2007-01 से संशुद्ध]
 राजनगर-59, संयुक्त सचिव

टिप्पण : मूल नियम, भारत के राजपत्र में प्रकाशन सं. 30, अ. 644 (अ) तारीख 19 नवंबर 1986 द्वारा प्रकाशित किये गये थे और संशोधन सं. 30, अ. 433 (अ), तारीख 18 अप्रैल 1987, सा. सं. नि. 176 (अ), तारीख 2 अप्रैल 1996 और हाल में ही सा. सं. नि. 97 (अ), तारीख 16 फरवरी 2009; सा. सं. नि. 149 (अ), तारीख 4 मार्च, 2009; सा. सं. नि. 512 (अ), तारीख 9 जुलाई, 2009; सा. सं. नि. 545 (अ), तारीख 22 जुलाई, 2009; सा. सं. नि. 595 (अ), तारीख 21 अगस्त, 2009; और सा. सं. नि. 674 (अ) तारीख 04 नवम्बर 2009 द्वारा प्रकाशित किये गए।

MINISTRY OF ENVIRONMENT AND FORESTS
 NOTIFICATION

New Delhi, the 10th November, 2009

G.S.R. 826(E) : In exercise of the powers conferred by section 6 and section 25 of the Environment (Protection) Act, 1986 (245 of 1986), the Central Government hereby makes the following rules further to amend the Environment (Protection) Rules, 1986, namely—

1. (1) These rules may be called the Environment (Protection) Seventh Amendment Rules, 2009.
- (2) They shall come into force on the date of their publication in the Official Gazette.
2. In the Environment (Protection) Rules, 1986 (hereinafter referred to as the said rules), in rule 3, in sub-rule (3B), for the words, figures and letters "in columns (3) to (5) of Schedule VII" the words, brackets, figure, and letters "in columns (4) and (5) of Schedule VII" shall be substituted.
3. For Schedule VII to the said rules and entries relating thereto, the following Schedule and entries shall be substituted, namely:—

"[SCHEDULE VII]
 [See rule 3(3B)]

NATIONAL AMBIENT AIR QUALITY STANDARDS

S. No.	Pollutant	Time Weighted Average	Concentration in Ambient Air		Methods of Measurement
			Industrial, Residential, Rural and Other Area	Ecologically Sensitive Area (Notified by Central Government)	
(1)	(2)	(3)	(4)	(5)	(6)
1	Sulphur Dioxide (SO ₂), µg/m ³	Annual* 24 hours**	50 80	20 30	Improved West and Gaeke Ultraviolet fluorescence
2	Nitrogen Dioxide (NO ₂), µg/m ³	Annual* 24 hours**	40 80	20 30	Muller-Jacob & Hochheiser (N-Arsenite) Chemiluminescence
3	Particulate Matter (size less than 10µm) or PM ₁₀ , µg/m ³	Annual* 24 hours**	100 120	40 100	Gravimetric TOEM Beta attenuation
4	Particulate Matter (size less than 2.5µm) or PM _{2.5} , µg/m ³	Annual* 24 hours**	40 60	10 30	Gravimetric TOEM Beta attenuation

[Handwritten signature]

(1)	(2)	(3)	(4)	(5)	(6)
5	Ozone (O ₃) µg/m ³	8 hours** 1 hour**	100 180	100 180	UV photometric Chemiluminescence Chemical Method
6	Lead (Pb) µg/m ³	Annual* 24 hours**	0.50 1.0	0.50 1.0	AAS/ICP method after sampling on EPM 2000 or equivalent filter paper
7	Carbon Monoxide (CO) mg/m ³	8 hours** 1 hour**	02 04	02 04	Non Dispersive Infra Red (NDIR) spectroscopy
8	Ammونيا (NH ₃) µg/m ³	Annual* 24 hours**	100 400	100 400	Chemiluminescence Nadophthal blue method
9	Benzene (C ₆ H ₆) µg/m ³	Annual*	05	05	Gas chromatography based continuous analyzer Adsorption and Desorption followed by GC analysis
10	Benzo(a)Pyrene (BaP) - particulate phase only, ng/m ³	Annual*	01	01	Solvent extraction followed by HPLC/GC analysis
11	Arsenic (As) ng/m ³	Annual*	06	06	AAS/ICP method after sampling on EPM 2000 or equivalent filter paper
12	Nickel (Ni), ng/m ³	Annual*	20	20	AAS/ICP method after sampling on EPM 2000 or equivalent filter paper

* Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.

** 24 hourly or 08 hourly or 01 hourly monitored values, as applicable, shall be complied with 98% of the time in a year. 2% of the time, they may exceed the limits but not on two consecutive days of monitoring.

Note.— Whenever and wherever monitoring results on two consecutive days of monitoring exceed the limits specified above for the respective category, it shall be considered a adequate reason to institute regular or continuous monitoring and further investigation.

[F.No. O-15017/412007-CPW]

RAJNESH DUDE-Jl Secy

Note.— The principal rules were published in the Gazette of India, Extraordinary vide number S.O. 344(E), dated the 19th November, 1986; and subsequently amended vide numbers S.O. 433(E), dated the 18th April, 1987; G.S.R. 176 (E), dated the 2nd April 1996; and were recently amended vide numbers G.S.R. 97(E), dated the 13th February, 2009; G.S.R. 149(E), dated the 4th March, 2009; G.S.R. 152(E), dated the 9th July, 2009; G.S.R. 543(E), dated the 22nd July, 2009; G.S.R. 752(E), dated the 21st August, 2009; and G.S.R. 794(E), dated the 4th November, 2009.



सन्दर्भ सं०

Ref No. : पत्रांक... संख्या - 25 0716 / स्म० टी० पी० सी रिहन्द (केम्प)

दिनांक

Date : 25.7.16

सेवा में,

परियोजना प्रमुख
एनटीपीसी लि०, रिहन्द सुपर थर्मलपावर प्रोजेक्ट,
रिहन्द नगर, सोनभद्र (उ०प्र०)

विषय : आवासीय एवं परियोजना परिसर में नई तकनीकी युक्त जल मल शोधन संयंत्र (एस टी पी) तथा स्टेज I एवं II में नई तकनीकी डस्ट सप्रेसन प्रणाली (ड्राई फॉग डस्ट सप्रेसन प्रणाली) लगाने के संबंध में।

महोदय,

कृपया उपरोक्त विषयक अपनी परियोजना के दिनांक-24 एवं 25.07.2016 के निरीक्षण का सन्दर्भ ग्रहण करने का कष्ट करें। परियोजना के निरीक्षण के समय श्री वी०के० अत्री, ए०जी०एम० (पर्यावरण प्रबन्धन) श्री आर०डी०गुप्ता, सीनियर मैनेजर (पर्यावरण प्रबन्धन) उपस्थित थे। परियोजना के निरीक्षण एवं वार्ता के दौरान निम्न बिन्दु परिलक्षित हुये हैं।

1. कोल हैन्डलिंग प्लांट स्टेज - III में अति प्रभावी ड्राई फॉग डस्ट सप्रेसन प्रणाली लगी होने से वहाँ पर डस्ट सप्रेसन संयंत्र प्रभावी ढंग से कार्यरत पाये गये, परन्तु कोल हैन्डलिंग प्लांट स्टेज - I एवं II में ड्राई फॉग डस्ट सप्रेसन सिस्टम नवीन तकनीक पर आधारित न होने के कारण स्टेज - III की तरह प्रभावी ढंग से कार्य नहीं कर रहे हैं एवं जल की अधिक मात्रा का भी उपयोग हो रहा है। अतएवं स्टेज - I तथा स्टेज-II में भी स्टेज - III की तरह नवीन तकनीकी अपनाकर व्यवस्था में परिवर्तन करना अति आवश्यक है।

2. आवासीय एवं परियोजना परिसर में घरेलू उत्प्रवाह (सीवेज) के शुद्धीकरण हेतु ओक्सीडेशन पॉण्ड की स्थापना की गयी है, जो कि बहुत पुरानी एवं वर्तमान में अप्रचलित प्रणाली है। अतः आधुनिक तकनीकी का जल मल शोधन संयंत्र (सीवेज ट्रीटमेन्ट प्लांट) स्थापित किये जाने की आवश्यकता है। आवासीय एवं परियोजना परिसर में शोधित जल का प्रयोग बागवानी में करने का प्रावधान रखते हुए एस०टी०पी० की स्थापना सम्बन्धी कार्य योजना बनाकर इसके क्रियान्वयन हेतु ठोस कार्यवाही करें।

उपरोक्त दोनों बिन्दुओं के संबंध में अनुपालन आख्या बोर्ड मुख्यालय एवं इस कार्यालय को प्रेषित करने का कष्ट करें।

भवदीय,

(जी०सी०वर्मा)

क्षेत्रीय अधिकारी (प्र०)

Annexure-D

RAJ PAL

आर्थिक सलाहकार
Economic Adviser
Tel. No.: 011-23715595
E-mail : raj.pal@nic.in



SECRET/IMMEDIATE
भारत सरकार
GOVERNMENT OF INDIA
विद्युत मंत्रालय
MINISTRY OF POWER
श्रम शक्ति भवन, राफी मार्ग
SHRAM SHAKTI BHAWAN, RAFI MARG

नई दिल्ली - 110001
NEW DELHI - 110001

D.O.No. 28/14/2018-Coord

the February 27th 2019

Dear Shri Singh

Enclosed please find communication number VI-23014/208/2015-VS dated 26th February, 2019 from Ministry of Home Affairs, VIP Security Unit regarding maintaining high level of alertness and strengthening security arrangements at vital installations, given the current context.

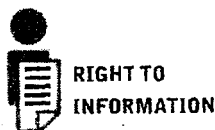
I request you to kindly take appropriate action for complying with the instructions strictly.

With regards,

Yours sincerely,

Raj Pal
(Raj Pal)

Shri Gurdeep Singh
Chairman & Managing Director
NTPC Limited
NTPC Bhawan,
SCOPE Complex, Institutional Area,
Lodhi Road, New Delhi- 110003



133

1306
3/10/19

SECRET

F.No.1/6/2011/IT (E-22-Part-1) (246867)
Government of India
Ministry of Power

Shram Shakti Bhavan, Rafi Marg,
New Delhi, Dated: 23rd October, 2019

To

1. Chairperson-CEA
2. CMD-NTPC/NHPC/POWERGRID/PFC/REC/NEEPCO/THDC/POSOCO/SJVNL
3. Chairman-DVC/BBMB
4. DG-BEE/NPTI/CPRI
5. Secretary-CERC/ATE
6. MD-EESL
7. CISO-MoP [Kind.Attn. Shri MAKP Singh, CE(IT), CEA]
8. CERT-Thermal/Hydro/Transmission/Distribution
9. Sr.Tech.Dir. (NIC)-MoP

All directors

Sir,

I am directed to inform that reliable inputs indicate that Pak based anti-India agencies have prepared a blue print to hack/exploit computer/cyber systems in India and are exploring capabilities towards implementing the same immediately.

2. This new strategy aims to concentrate efforts towards disrupting important Indian economic hubs and vital installations, through cyber attacks and disrupting the computer systems as an alternative to trans-border terrorism. Such attacks, especially on our power, transport, financial and energy related systems, can potentially damage economic activities in the country and cause large scale disruption in affected areas/sectors.

3. Keeping in view of the prevailing security scenario in the country, it is requested to urgently review and strengthen the cyber/computer and physical security of vital installations and critical infrastructure.

4. The matter may be accorded top priority.

Yours Faithfully,

[Redacted signature area]

[Signature]
(Praveen Kumar)
Under Secretary to the Govt. of India
Tel.No.23715507 ext. 281
e-mail:mop@nic.in

134

[Handwritten signature]