

TARIFF FILING FORMS (THERMAL)

FOR DETERMINATION OF TARIFF

FOR

Vindhyachal Super Thermal Power Station Stage-V

From 01.04.2019 to 30.03.2024

BEFORE THE HON'BLE 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 ***Vindhyachal Super Thermal Power Station Stage-V(1x500MW)*** for the period from **01.04.2019 to 31.03.2024.**

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BEFORE THE HON'BLE CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

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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 ***Vindhyachal Super Thermal Power Station Stage-V(1x500MW)*** 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. Madhya Pradesh Power Management Company Limited,
Shakti Bhawan, Vidyut Nagar,
Jabalpur 482 008
2. Maharashtra State Electricity Distribution Co Ltd.
Prakashgad, Bandra (East),
Mumbai 400 051
3. Gujarat UrjaVikas Nigam Ltd.(GUVNL)
VidyutBhavan, Race Course
Vadodara – 390 007
4. Chattisgarh State Power Distribution Co. Ltd.,
(Successor of Chattisgarh State Electricity Board)
P.O. Sundar Nagar,
Danganiya, Raipur – 492013
5. Government of Goa,
Through its Chief Engineer (Electricals)
Electricity Department, VidyutBhawan,
Panaji, Goa



6 Electricity Department,
Administration of Daman & Diu
Daman-396 210

7 Electricity Department,
Administration of Dadra & Nagar Haveli,
Silvasa.

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 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. Vindhyachal Super Thermal Power Station Stage – V (1X 500 MW) (hereinafter referred to as VSTPS-V) is one such station located in the State of Madhya Pradesh. The power generated from VSTPS-V 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 '**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.

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- 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."

The date of filing of Tariff Petition for the period 2019-24 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 VSTPS-V for the period from 01.04.2019 to 31.03.2024 as per the Tariff Regulations 2019.

- 6) The tariff of the VSTPS-V for the tariff period 1.4.2014 to 31.3.2019 was determined by the Hon'ble Commission vide its order dated 31.08.2016 in Petition No. 234/GT/2015 in accordance with the CERC (Terms & Conditions of Tariff) Regulations 2014. Further, the petitioner vide affidavit dated 30.10.2019 had filed a separate true up petition for the period from COD of station(30.10.2015) 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 31.08.2016 in Petition no 234/GT/2015 has allowed a capital cost of Rs 2881.1895 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. 3004.0724 Crs based on the actual expenditure after truing up exercise for the period 2014-19. Accordingly, the Petitioner has adjusted an amount of Rs. (+) 122.8829 Cr to the admitted capital cost as on 31.03.2019 and accordingly the opening capital cost

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as on 01.04.2019 has been considered as Rs 3004.0724 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 the Regulation 19 and Regulation 24, 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. Accordingly, water charges may be allowed in tariff based on the same for the 2019-24. In accordance with provision of the Regulations, the petitioner shall be furnishing the details of actual for the relevant year at the time of truing up and the same shall be subject to retrospective adjustment.

Description	Remarks
Type of Plant	Coal based Thermal Power Plant
Type of cooling water system	Closed Circuit Cooling System
Allocation of Water for VSTPS*	149 MCM
Rate of Water charges*	Rs 5.50/Cubic Meter
Total Water Charges**	811.37Lakh

*As per truing up petition filed for the instant station for ** For FY 2018-19 as per truing-up petition

Water Charges have been claimed for the period 2019-24 on the basis of FY 2018-19 with an escalation@3.5% annually.

- 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

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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 MOEF vide notification dated 07.12.2015 as amended. Completion of these schemes in compliance of revised emission norms will effect the station APC, Heat Rate , O&M expenses etc. In addition the availability of the unit/ station would be also 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 the oeder 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.

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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 true-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 the period 2009-14 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:

"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% the unit heat rate would be worked out to be 2358.84kcal/kwh and the operating margin available over the design heat rate would be 1.18% 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 as 2401.56 Kcal/kwh based on guaranteed turbine cycle heat rate of 1932 Kcal/kwh and boiler efficiency of 84.47% with a operating margin of 5 % from the guaranteed design value. The tariff computation attached at Appendix-I is based on considering Station Heat Rate as per design heat rate with applicable operating margin of 5%.


14) Additional APC and O&M expenses for Flue Gas Desulphurization (FGD)

Hon'ble Commission has allowed the capitalization of FGD for the instant station during the period 2015-2019 vide order dated 31.08.2016 in Petition no. 234/GT/2015. In this regard, it is submitted that Hon'ble Commission has allowed additional APC of 1% for the FGD system. However, regarding the additional O&M (@ 10% of O&M norms) claimed by the Petitioner, Hon'ble Commission has directed the Petitioner to submit the details of actual O&M expenditure for FGD system at the time of truing-up. Based on the above direction, the petitioner filed the truing up petition vide affidavit dated 30.10.2019 for the period 2014-19 for the instant station. In the filed true up petition, the petitioner has submitted the details of consumption of additional auxiliary power and additional Operation & Maintenance expenses on account of installation of FGD. In line with the

said final true up Petition for the period 2014-19, the Petitioner has considered the Normative specific limestone consumption is 0.0162 kg/kwh, additional APC of 1.11 % and O&M cost of Rs 1029 Lakh(claimed for 2018-19) with an annual escalation of 3.5 % for the period 2019-24 period. The Petitioner seeks liberty to claim the same based on actuals at the end of the tariff period.

- 15) 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 fee directly from the beneficiaries.
- 16) 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.
- 17) 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
- 18) 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 31.3.2014 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.

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 VSTPS-V for the tariff period 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) Allow additional O&M expenditure for FGD system
- vi) Allow additional APC of 1.11% in view of installation of FGD
- vii) Pass any other order as it may deem fit in the circumstances mentioned above.



Petitioner



BEFORE THE HON'BLE 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 **Vindhyachal Super Thermal Power Station Stage-V (1x500 MW) for the period from 01.04.2019 to 31.03.2024.**

AND

IN THE MATTER OF

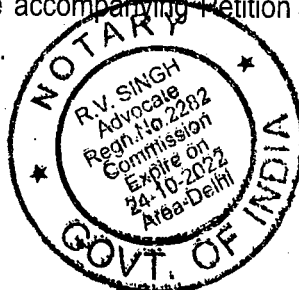
Petitioner: : NTPC Ltd.
NTPC Bhawan
Core-7, Scope Complex
7, Institutional Area, Lodhi Road
New Delhi-110 003

Respondents: 1. Madhya Pradesh Power Management
Company Limited,
Shakti Bhawan, Vidyut Nagar,
Jabalpur 482 008 and Others

AFFIDAVIT

I, Parimal Piyush, son of Late Shri Bharat Mishra aged about 44 years, resident of MP2/402, Magnolia Park, Eldeco Amantran, Sector-119, Noida-201301, do solemnly affirm and state as under:

1. That I am the Deputy General Manager (Commercial) in NTPC Ltd. and am well conversant with the facts of the case and am competent to swear the present affidavit.
2. That I have read the contents of the accompanying Petition filed by NTPC and have understood the contents of the same.



(10)

3. That the contents of the accompanying Petition being filed by NTPC are based on information available with the petitioner in the normal course of business and believed by the deponent to be true.

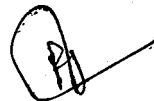


(Deponent)

Verification:

I, Parimal Piyush, 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 therefrom.

Verified at New Delhi on thisday of January 2020.



(Deponent)



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

Notary Public. DELHI

28 JAN 2020



APPENDIX-I

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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-3B**	Statement of Special Allowance	NA
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	✓
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	
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	✓

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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.	NA
	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.	NA
	List of supporting documents to be submitted:	NA
	a. Detailed Project Report	NA
	b. CPM Analysis	NA
	c. PERT Chart and Bar Chart	NA
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.	NA
9	Any other relevant information, (Please specify)	NA
10	Reconciliation with Balance sheet of any actual additional capitalization and amongst stages of a generating station	NA
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 truing-up

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Summary of Tariff

Name of the Petitioner:		NTPC Limited								
Name of the Generating Station:		Vindhyachal Super Thermal Power Station Stage-V								
Place (Region/District/State):		Northern Region/ Sonbhadra/ Uttar Pradesh								
S. No.	Particulars	Unit	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	Amount in Rs. Lakhs	
									3	4
1.1	Depreciation	Rs Lakh	15,528.28	16,639.21	16,944.89	17,098.18	17,140.74	17,158.80		
1.2	Interest on Loan	Rs Lakh	12,005.43	12,340.61	11,558.24	10,339.24	8,989.48	7,553.35		
1.3	Return on Equity	Rs Lakh	18,128.12	17,660.64	17,985.08	18,143.91	18,185.18	18,204.24		
1.4	Interest on Working Capital	Rs Lakh	4,127.88	3,192.97	3,218.29	3,230.73	3,238.86	3,243.36		
1.5	O&M Expenses	Rs Lakh	12,610.51	13,580.20	14,083.89	14,609.12	15,156.39	15,721.24		
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	62400.22	63413.64	63790.39	63421.18	62710.65	61880.99		
2.1	Landed Fuel Cost (coal/gas/RLNG/ liquid) as per FSA approved by beneficiaries (%) of Fuel Quantity	Rs/Ton (%)				2231.13				
2.2	Landed Fuel Cost Imported Coal as per FSA approved by beneficiaries (%) of Fuel Quantity					NA				
2.3	Landed Fuel Cost (coal/gas /RLNG/liquid) other than FSA (%) of Fuel Quantity	Rs/Ton (%)				NA				
2.4	Landed Fuel Cost Imported Coal other than FSA. (%) of Fuel Quantity					NA				
2.5	Secondary fuel oil cost (Ex-bus)	Rs/Unit				0.027				
	Energy Charge Rate ex-bus (Paise/kWh) 2A. 2B. 2C. 2D	Rs/Unit				1.651				

(Petitioner)

Name of the Petitioner: NTPC Limited

Name of the Generating Station: Vindhyachal Super Thermal Power Station Stage-V

Amount in Rs. Lakhs

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	3,00,407.24	3,06,863.27	3,11,563.27	3,12,457.73	3,13,116.73
2	Add: Addition during the year/period	6,456.03	4,700.00	894.46	659.00	-
3	Less: De-capitalisation during the year/period	-	-	-	-	-
4	Less: Reversal during the year / period	-	-	-	-	-
5	Add: Discharges during the year/ period	-	-	-	-	-
6	Closing Capital Cost	3,06,863.27	3,11,563.27	3,12,457.73	3,13,116.73	3,13,116.73
7	Average Capital Cost	3,03,635.26	3,09,213.27	3,12,010.50	3,12,787.23	3,13,116.73

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	300407.24	306863.27	311563.27	312195.12	312854.12
2	Add: Addition during the year / period	6456.03	4700.00	631.85	659.00	0.00
3	Less: De-capitalisation during the year / period	0.00	0.00	0.00	0.00	0.00
4	Less: Reversal during the year / period	0.00	0.00	0.00	0.00	0.00
5	Add: Discharges during the year / period	0.00	0.00	0.00	0.00	0.00
6	Closing Capital Cost	306863.27	311563.27	312195.12	312854.12	312854.12
7	Average Capital Cost	303635.26	309213.27	311879.20	312524.62	312854.12

**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	0.00	0.00	262.61	262.61
2	Add: Addition during the year / period	0.00	0.00	262.61	0.00	0.00
3	Less: De-capitalisation during the year / period	0.00	0.00	0.00	0.00	0.00
4	Less: Reversal during the year / period	0.00	0.00	0.00	0.00	0.00
5	Add: Discharges during the year / period	0.00	0.00	0.00	0.00	0.00
6	Closing Capital Cost	0.00	0.00	262.61	262.61	262.61
7	Average Capital Cost	0.00	0.00	131.30	262.61	262.61



(Petitioner)

Name of the Petitioner: NTPC Limited

Name of the Generating Station: Vindhyachal Super Thermal Power Station Stage-V

Statement showing Return on Equity at Normal Rate

S. No.	Particulars	Amount in Rs. Lakhs						
		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)	90,122.17	92,058.98	93,468.98	93,658.54	93,856.24		
2	Less: Adjustment in Opening Equity	-						
3	Adjustment during the year		0.00	0.00	0.00	0.00		
4	Net Opening Equity (Normal)	90,122.17	92,058.98	93,468.98	93,658.54	93,856.24		
5	Add: Increase in equity due to addition during the year / period	1936.81	1410.00	189.56	197.70	0.00		
7	Less: Decrease due to De-capitalisation during the year / period	0.00	0.00	0.00	0.00	0.00		
8	Less: Decrease due to reversal during the year / period	0.00	0.00	0.00	0.00	0.00		
9	Add: Increase due to discharges during the year / period	0.00	0.00	0.00	0.00	0.00		
10	Net closing Equity (Normal)	92,058.98	93,468.98	93,658.54	93,856.24	93,856.24		
11	Average Equity (Normal)	91,090.58	92,763.98	93,563.76	93,757.39	93,856.24		
12	Rate of ROE (%)	19.388	19.388	19.388	19.388	19.388		
13	Total ROE	17,660.64	17,985.08	18,140.14	18,177.68	18,196.85		

Name of the Petitioner: **NTPC Limited**

Name of the Generating Station: **Vindhyachal Super Thermal Power Station Stage-V**

Statement showing Return on Equity at Weighted Average Interest on Loan

S. No.	Particulars	Amount in Rs. Lakhs						
		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	0.00	0.00	78.78	78.78		78.78
2	Less: Adjustment in Opening Equity	0.00	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		0.00
4	Net Opening Equity (Normal)	0.00	0.00	0.00	78.78	78.78		78.78
5	Add: Increase in equity due to addition during the year / period	0.00	0.00	78.78	0.00	0.00		0.00
7	Less: Decrease due to De-capitalisation during the year / period	0.00	0.00	0.00	0.00	0.00		0.00
8	Less: Decrease due to reversal during the year / period	0.00	0.00	0.00	0.00	0.00		0.00
9	Add: Increase due to discharges during the year / period	0.00	0.00	0.00	0.00	0.00		0.00
10	Net closing Equity (Normal)	0.00	0.00	78.78	78.78	78.78		78.78
11	Average Equity (Normal)	0.00	0.00	39.39	78.78	78.78		78.78
12	Rate of ROE (%)	9.407	9.588	9.563	9.519	9.386		9.386
13	Total ROE	0.00	0.00	3.77	7.50	7.39		7.39



(Petitioner)

Plant Characteristics

Name of the Petitioner	NTPC Ltd.
Name of the Generating Station	Vindhyachal STPS Stage-V
Unit(s)/Block(s)/Parameters	Unit-1
Installed Capacity (MW)	500MW
Schedule COD as per Investment Approval	01.11.2015
Actual COD /Date of Taken Over (as applicable)	30.10.2015
Pit Head or Non Pit Head	Non Pit Head
Name of the Boiler Manufacture	BHEL
Name of Turbine Generator Manufacture	BHEL
Main Steams Pressure at Turbine inlet (kg/Cm ²) abs ¹ .	170
Main Steam Temperature at Turbine inlet (°C) ¹	537
Reheat Steam Pressure at Turbine inlet (kg/Cm ²) ¹	45
Reheat Steam Temperature at Turbine inlet (°C) ¹	565
Main Steam flow at Turbine inlet under MCR condition (tons /hr) ²	1471
Main Steam flow at Turbine inlet under VWO condition (tons /hr) ²	1544
Unit Gross electrical output under MCR /Rated condition (MW) ²	500
Unit Gross electrical output under VWO condition (MW) ²	525
Guaranteed Design Gross Turbine Cycle Heat Rate (kCal/kWh) ³	1932
Conditions on which design turbine cycle heat rate guaranteed	
% MCR	100%TMCR
% Makeup Water Consumption	0
Design Capacity of Make up Water System	85 m ³ / hr
Design Capacity of Inlet Cooling System	Circulating water quantity 54300 m ³ /Hr.
Design Cooling Water Temperature (°C)	33
Back Pressure	
Steam flow at super heater outlet under BMCR condition (tons/hr)	1590
Steam Pressure at super heater outlet under BMCR condition) (kg/Cm ²)	178
Steam Temperature at super heater outlet under BMCR condition (°C)	540
Steam Temperature at Reheater outlet at BMCR condition (°C)	568
Design / Guaranteed Boiler Efficiency (%) ⁴	84.47
Design Fuel with and without Blending of domestic/imported coal	Domestic Coal

Plant Characteristics

Name of the Petitioner	NTPC Ltd.
Name of the Generating Station	Vindhyachal STPS Stage-V
Unit(s)/Block(s)/Parameters	Unit-1
Type of Cooling Tower	IDCT
Type of cooling system ⁵	Recirculating Type CW System with Cooling
Type of Boiler Feed Pump ⁶	2 TDBFP+2MDBFP
Fuel Details ⁷	
-Primary Fuel	Coal
-Secondary Fuel	LDO (Startup/Low Load/Secondary Fuel)
-Alternate Fuels	-
Types of SOX control system Types of NOX control system Details of SPM control system	Shall be provided at the time of actual COD of U#1/truing up
Special Features/Site Specific Features ⁸	
Special Technological Features ⁹	
Environmental Regulation related features ¹⁰	FGD & ESP
Any other special features	De-Nox system being installed

1: At Turbine MCR condition.

2: with 0% (Nil) make up and design Cooling water temperature

3: at TMCR output based on gross generation, 0% (Nil) makeup and design Cooling water temperature.

4: With Performance coal based on Higher Heating Value (HHV) of fuel and at BMCR) out put

5: Closed circuit cooling, once through cooling, sea cooling, natural draft cooling, induced draft cooling etc.

6: Motor driven, Steam turbine driven etc.

7: Coal or natural gas or Naptha or lignite etc.

8: Any site specific feature such as Merry-Go-Round, Vicinity to sea, Intake /makeup water systems etc. scrubbers etc. Specify all

9: Any Special Technological feature like Advanced class FA technology in Gas Turbines, etc.

10: Environmental Regulation related features like FGD, ESP etc.,

Note 1: In case of deviation from specified conditions in Regulation, correction curve of manufacturer may also be submitted.

Note 2: Heat Balance Diagram has to be submitted along with above information in case of new stations.

Note 3: The Terms – MCR, BMCR, HHV, Performance coal, are as defined in CEA Technical Standards for Construction of Electric Plants and Electric Lines Regulations – 2010 notified by the Central Electricity Authority

Note 4: The copy of Certificate shall be submitted in terms of Regulation 4 as per Appendix-VI

Normative parameters considered for tariff computations

Name of the Petitioner:		NTPC Limited							
Name of the Generating Station:		Vindhyachal Super Thermal Power Station Stage-V							
Particulars	Unit	(Year Ending March)							
		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 \$\$	%	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00
Base Rate of Return on Equity on Add. Capitalization** \$\$	%	-	7.763	7.912	7.892	7.855	7.746		
Effective Tax Rate	%	21.5490%	17.4720	17.4720	17.4720	17.4720	17.4720	17.4720	17.4720
Target Availability	%	85.00	85.00						
In High Demand Season	%	-	-	85.00	85.00	85.00	85.00	85.00	85.00
Peak Hours	%	-	-	85.00	85.00	85.00	85.00	85.00	85.00
Off-Peak Hours	%	-	-	85.00	85.00	85.00	85.00	85.00	85.00
In Low Demand Season(Off-Peak)	%	-	-	85.00	85.00	85.00	85.00	85.00	85.00
Peak Hours	%	-	-	85.00	85.00	85.00	85.00	85.00	85.00
Off-Peak Hours	%	-	-	85.00	85.00	85.00	85.00	85.00	85.00
Auxiliary Energy Consumption	%	5.75	7.36	7.36	7.36	7.36	7.36	7.36	7.36
Gross Station Heat Rate	kCal/kWh	2351.25	2401.56	2401.56	2401.56	2401.56	2401.56	2401.56	2401.56
Specific Fuel Oil Consumption	ml/kWh	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
Cost of Coal/Lignite for WC1	in Days	60	50	50	50	50	50	50	50
Cost of Main Secondary Fuel Oil for WC1	in Months	2	2	2	2	2	2	2	2
Fuel Cost for WC2	in Months								
Liquid Fuel Stock for WC2	in Months								
O&M Expenses	Rs lakh/MW	0	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	20.00	20.00
Receivables for WC	in Days	60	45	45	45	45	45	45	45
Storage capacity of Primary fuel	MT							1220000	
SBI 1 Year MCLR plus 350 basis point3	%	13.50	12.05	12.05	12.05	12.05	12.05	12.05	12.05
Blending ratio of domestic coal/imported coal									

** 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
 Storage capacity pertains to entire VSTPS Station


 Petitioner

Part-I
FORM-3A
ADDITIONAL FORM

Calculation of O&M Expenses

Name of the Company : **NTPC Limited**
Name of the Power Station : **Vindhyachal Super Thermal Power Station Stage-V**

		Amount in Rs. Lakhs							
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	11255.00	11650.00	12060.00	12485.00	12920.00			
2	O&M expenses under Reg.35(6)								
2a	Water Charges	839.77	869.16	899.58	931.07	963.65			
2b	Security expenses	420.17	462.18	508.40	559.24	615.17			
2c	Capital Spares**	0.00	0.00	0.00	0.00	0.00			
3	O&M for FGD System#	1065.26	1102.55	1141.14	1181.08	1222.41			
4	O&M expenses-Ash Transportation**	0.00	0.00	0.00	0.00	0.00			
	Total O&M Expenses	13580.20	14083.89	14609.12	15156.39	15721.24			

** Shall be provided at the time of truing up

As per Hon'ble Commission's order dated 31.08.2016 in Petition no. 234/GT/2015, the O&M for FGD system is being claimed based on actual O&M during FY 2018-19 (i.e. Rs 1029.24 Lakh) and the same is being escalated @3.5% per year.


Petitioner

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	Vindhyachal V		
Exchange Rate at COD	28-Oct-15	USD = Rs.	65.73

Exchange Rate at COD		(Amount in Laos)			
Financial Year (Starting from COD)		1	2	3	4
1	2	Amount (FC)	Ex. Rate	Amount (INR)	
A. Currency 1 USD					
At the date of draw (COD)					
1.	SBI New York	235.03	65.73	15,448.43	
Loan repayment upto previous period					
Net loan at the Beginning of the period					
2.	1-Apr-19	235.03	65.73	15,448.43	
3.	Schedule repayment date of principal	17.31	65.73	7,724.22	
4.	Scheduled payment date of interest	5.03	65.73	330.49	
5.	Withholding tax including surcharge on interest	0.03	65.73	1.91	
6.	Schedule repayment date of principal	117.51	65.73	7,724.22	
7.	Scheduled payment date of interest	2.38	65.73	167.86	
8.	Withholding tax including surcharge on interest	0.03	65.73	1.91	
9.	At the end of Financial year	-	65.73	-	

Vindhyachal V		(Amount in Laos)				(Amount in Laos)			
Financial Year (Starting from COD)		1	2	3	4	1	2	3	4
1	2	Amount (FC)	Ex. Rate	Amount (INR)		Date	Amount (FC)	Ex. Rate	Amount (INR)
A. Currency 1 USD									
At the date of draw (COD)									
1.	Mizuho-II A	0.38	65.73	25.06		1-Apr-20	0.29	65.73	18.80
Loan repayment upto previous period									
Net loan at the Beginning of the period									
2.	1-Apr-19	0.38	65.73	25.06		1-Apr-20	0.29	65.73	18.80
3.	Schedule repayment date of principal	0.01	65.73	0.52		28-Sep-20	0.10	65.73	6.27
4.	Withholding tax including surcharge on interest	0.00	65.73	0.03		15-Jul-20	0.01	65.73	0.13
5.	Scheduled payment date of principal	0.10	65.73	6.27		15-Jul-20	0.00	65.73	0.00
6.	Schedule repayment date of interest	0.01	65.73	0.52		15-Jul-21	0.00	65.73	0.00
7.	Withholding tax including surcharge on interest	0.00	65.73	0.03		15-Jan-21	0.01	65.73	0.13
8.	Scheduled payment date of interest	0.00	65.73	0.00		15-Jan-22	0.00	65.73	0.00
9.	At the end of Financial year	0.28	65.73	18.80		31-Mar-21	0.10	65.73	6.27

Vindhyachal V		(Amount in Laos)				(Amount in Laos)			
Financial Year (Starting from COD)		1	2	3	4	1	2	3	4
1	2	Amount (FC)	Ex. Rate	Amount (INR)		Date	Amount (FC)	Ex. Rate	Amount (INR)
A. Currency 1 USD									
At the date of draw (COD)									
1.	Mizuho-II B	17.41	65.73	1,144.23		1-Apr-20	13.06	65.73	858.17
Loan repayment upto previous period									
Net loan at the Beginning of the period									
2.	1-Apr-19	17.41	65.73	1,144.23		1-Apr-20	13.06	65.73	858.17
3.	Schedule repayment date of principal	0.36	65.73	23.54		28-Sep-20	0.27	65.73	17.66
4.	Withholding tax including surcharge on interest	0.02	65.73	1.36		15-Jul-20	0.02	65.73	1.02
5.	Scheduled payment date of principal	4.35	65.73	286.06		15-Jul-21	0.01	65.73	0.34
6.	Schedule repayment date of interest	0.38	65.73	23.54		28-Mar-21	4.35	65.73	286.06
7.	Withholding tax including surcharge on interest	0.02	65.73	1.35		15-Jan-21	0.27	65.73	17.66
8.	Scheduled payment date of interest	0.02	65.73	1.35		15-Jan-22	0.02	65.73	1.02
9.	At the end of Financial year	13.06	63.93	834.67		31-Mar-21	4.35	63.93	276.22

Vindhyachal V		(Amount in Laos)				(Amount in Laos)			
Financial Year (Starting from COD)		1	2	3	4	1	2	3	4
1	2	Amount (FC)	Ex. Rate	Amount (INR)		Date	Amount (FC)	Ex. Rate	Amount (INR)
A. Currency 1 USD									
At the date of draw (COD)									
1.	4.376% Euro Bond 2024	287.55	65.73	17,586.06		1-Apr-20	287.55	65.73	17,586.06
Loan repayment upto previous period									
Net loan at the Beginning of the period									
2.	1-Apr-19	287.55	65.73	17,586.06		1-Apr-20	287.55	65.73	17,586.06
3.	Schedule repayment date of principal	5.85	0.00	-		28-May-20	5.85	65.73	384.70
4.	Withholding tax including surcharge on interest	0.34	0.00	-		28-May-20	0.34	65.73	22.22
5.	Scheduled payment date of interest	5.85	65.73	384.70		28-Nov-20	5.85	65.73	384.70
6.	Schedule repayment date of principal	0.34	65.73	22.22		28-Nov-20	0.34	65.73	22.22
7.	Withholding tax including surcharge on interest	287.55	65.73	17,586.06		31-Mar-21	287.55	65.73	17,586.06
8.	Scheduled payment date of interest	5.85	65.73	384.70		28-May-22	5.85	65.73	384.70
9.	At the end of Financial year	287.55	65.73	17,586.06		31-Mar-23	287.55	65.73	17,586.06


PART 1
FORM- 5

Abstract of Admitted Capital Cost for the existing Projects

Name of the Company :		NTPC Limited		In Rs Lakh
Name of the Power Station :		Vindhyaachal Super Thermal Power Station Stage-V		
Last date of order of Commission for the project	Date (DD-MM-YYYY)	31.08.2016		
Reference of petition no. in which the above order was passed	Petition no.	234/GT/2015		
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: (as on 31.03.2019)				
Capital cost (as on 01.04.2019)				288118.95
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 30.10.2015				20800.13
Gross Normative Debt			(Rs. in lakh)	2,01,683.27
Cumulative Repayment				45,749.45
Net Normative Debt				155933.82
Normative Equity				86,435.69
Cumulative Depreciation				45,749.45
Freehold land				714.2


(Petitioner)

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PART I FORM- 5A	
Abstract of Claimed Capital Cost for the existing Projects	
Name of the Company :	NTPC Limited
Name of the Power Station :	Vindhyachal Super Thermal Power Station Stage-V
Reference of Final True-up Tariff Petition	Affidavit dated
Capital Cost as on 31.03.2014 as per Hon'ble Commission's Order dated 31.08.2016 In Pet. No. 234/GT/2015	Rs. Lakhs
Adjustment as per Para (7) of this petition	288118.95
Following details as considered by the Petitioner as on the last date of the period for which final true-up tariff is claimed:	12288.29
Capital cost as on 01.04.2019	300407.24
Amount of un-discharged liabilities included in above (& forming part of admitted capital cost)	0
Amount of un-discharged liabilities corresponding to above admitted capital cost (but not forming part of admitted capital cost being allowed on cash basis)	5475.63
Gross Normative Debt	210285.068
Cumulative Repayment	45260.05
Net Normative Debt	165025.02
Normative Equity	90122.18
Cumulative Depreciation	46227.23
Freehold land	714.2
	(Rs. in lakh)*
	
(Petitioner)	

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

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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 :	5,00,00,00,00,000	
Date of Drawl	11.03.2013	
Interest Type :	Floating	
Fixed Interest Rate :	-----	
Rate of Interest as on 01.04.2019	8.25%	
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

Form 8

TRANCHE NO

BP NO 5050000261

T00001

D00009

Unsecured Loan From SBI-VII		
Source of Loan :	SBI-VII	
Currency :	INR	
Amount of Loan :	1,00,00,00,00,000	
Total Drawn amount :	1,00,00,00,000	
Date of Drawl	31.03.2013	
Interest Type :	Floating	
Fixed Interest Rate :	-----	
Rate of Interest as on 01.04.2019	8.25%	
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 :	31.03.2013	
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
	BARH-II	60,00,00,000
	SIPAT-I	15,00,00,000
	VINDHYACHAL-V	25,00,00,000
Total Allocated Amount		1,00,00,00,000.00

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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	8.25%	
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

Form 8

TRANCHE NO

BP NO 5050000261

T00001

D00017

Unsecured Loan From SBI-VII		
Source of Loan :	SBI-VII	
Currency :	INR	
Amount of Loan :	1,00,00,00,00,000	
Total Drawn amount :	2,00,00,00,00,000	
Date of Drawal:	17.02.2014	
Interest Type :	Floating	
Fixed Interest Rate :	-----	
Rate of Interest as on 01.04.2019	8.25%	
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 :	17.02.2014	
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
	KOLDAM	1,00,00,00,000
	TAPOVAN VISHNUGAD	25,00,00,000
	MOUDA-I	25,00,00,000
	VINDHYACHAL-V	50,00,00,000
Total Allocated Amount		2,00,00,00,000.00

Form 8

TRANCHE NO

BP NO 5050000442

T00001

D0004

Unsecured Loan From SBI-VIII		
Source of Loan :	SBI-VIII	
Currency :	INR	
Amount of Loan :	1,00,00,00,00,000	
Total Drawn amount :	10,00,00,00,000	
Interest Type :	Floating	
Fixed Interest Rate :	-----	
Rate of Interest as on 01.04.2019	D0004- 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 :	04.08.2015	
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-II	23,00,00,000
	BARH-I	45,00,00,000
	BONGAIGAON	61,00,00,000
	DARLIPALLI	68,00,00,000
	GADARWARA	1,25,00,00,000
	KOLDAM	29,00,00,000
	KUDGI-I	1,13,00,00,000
	LARA-I	1,65,00,00,000
	MOUDA-II	84,00,00,000
	NORTH KARANPURA	24,00,00,000
	RAMMAM	9,00,00,000
	SOLAPUR	1,11,00,00,000
	TANDA-II	7,00,00,000
	TAPOVAN VISHNUGAR	38,00,00,000
	UNCHAAR-IV	41,00,00,000
	VINDHYACHAL-V	57,00,00,000
Total Allocated Amount		10,00,00,00,000.00

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Form 8

TRANCHE NO

BP NO 5050000442

T00001

D0007

Unsecured Loan From SBI-VIII		
Source of Loan :	SBI-VIII	
Currency :	INR	
Amount of Loan :	1,00,00,00,00,000	
Total Drawn amount :	3,50,00,00,000	
Interest Type :	Floating	
Fixed Interest Rate :	-----	
Rate of Interest as on 01.04.2019	D0007- 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 :	15.10.2015	
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	12,00,00,000
	TAPOVAN VISHNUGAD	59,00,00,000
	BONGAIGAON	11,00,00,000
	SOLAPUR	43,00,00,000
	LARA	90,00,00,000
	GADARWARA	29,00,00,000
	NORTH KARANPURA	5,00,00,000
	DARLIPALLI	27,00,00,000
	KUDGI-I	19,00,00,000
	KOLDAM	10,00,00,000
	VINDHYACHAL-V	45,00,00,000
Total Allocated Amount		3,50,00,00,000.00

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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 :	5,00,00,00,000	
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

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Form 8

TRANCHE NO

BP NO 5050000442

T00001

D00010

Unsecured Loan From SBI-VIII		
Source of Loan :	SBI-VIII	
Currency :	INR	
Amount of Loan :	1,00,00,00,00,000	
Total Drawn amount :	1,00,00,00,00,000	
Interest Type :	Floating	
Fixed Interest Rate :	-----	
Rate of Interest as on 01.04.2019	D00010- 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 :	29.10.2015	
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
	SOLAPUR	55,00,00,000
	VINDHYACHAL-V	45,00,00,000
Total Allocated Amount		1,00,00,00,000.00

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Form 8

TRANCHE NO

BP NO 5050000442

T00001

D00012

Unsecured Loan From SBI-VIII		
Source of Loan :	SBI-VIII	
Currency :	INR	
Amount of Loan :	1,00,00,00,00,000	
Total Drawn amount :	4,00,00,00,000	
Interest Type :	Floating	
Fixed Interest Rate :	-----	
Rate of Interest as on 01.04.2019	D00012- 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 :	12.11.2015	
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	25,00,00,000
	BONGAIGAON	32,00,00,000
	DARLIPALLI	22,00,00,000
	GADARWARA	56,00,00,000
	KUDGI	30,00,00,000
	LARA	23,00,00,000
	MOUDA-II	44,00,00,000
	NORTH KARANPURA	17,00,00,000
	PAKRI BARWADIH	11,00,00,000
	SOLAPUR	62,00,00,000
	TANDA-II	15,00,00,000
	TAPOVAN VISHNUGAD	18,00,00,000
	UNCHAHAR-IV	12,00,00,000
	VINDHYACHAL-V	13,00,00,000
	MOUDA-I	20,00,00,000
Total Allocated Amount		4,00,00,00,000

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TRANCHE NO

BP NO 5050000442

T00001

D00014

Unsecured Loan From SBI-VIII		
Source of Loan :	SBI-VIII	
Currency :	INR	
Amount of Loan :	1,00,00,00,00,000	
Total Drawn amount :	3,00,00,00,00,000	
Date of Drawl	01.01.2016	
Interest Type :	Floating	
Fixed Interest Rate :	-----	
Rate of Interest as on 01.04.2019	D00014- 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 :	01.01.2016	
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
	BARH-I	9,00,00,000
	BONGAIGOAN	22,00,00,000
	DARLIPALLI	35,00,00,000
	KUDGI-I	67,00,00,000
	LARA-I	77,00,00,000
	PAKRI BARWADIH	16,00,00,000
	TANDA-II	25,00,00,000
	TAPOVAN VISHNUGAR	12,00,00,000
	UNCHA HAR STPP IV	10,00,00,000
	KHARGONE	17,00,00,000
	VINDHYACHAL-V	10,00,00,000
Total Allocated Amount		3,00,00,00,000.00

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Form 8

TRANCHE NO

BP NO 5050000551

T00001

D00004

Unsecured Loan From SBI-X		
Source of Loan :	SBI-X	
Currency :	INR	
Amount of Loan :	40,00,00,00,000	
Total Drawn amount :	1,00,00,00,000	
Date of Drawal:	21.12.2017	
Interest Type :	Floating	
Fixed Interest Rate :	-----	
Rate of Interest as on 01.04.2019	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 :	21.12.2017	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	9 Yearly Installments	
Repayment Type :	AVG	
First Repayment Date :	01.10.2024	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	TELANGANA	5,00,00,000
	KUDGI	75,00,00,000
	BARH - II	5,00,00,000
	VINDHYACHAL-V	15,00,00,000
Total Allocated Amount		1,00,00,00,000.00

Form 8

TRANCHE NO

BP NO 5050000311

T00001

D00002

Unsecured Loan From Syndicate Bank		
Source of Loan :	Syndicate Bank-III	
Currency :	INR	
Amount of Loan :	10,00,00,00,000	
Total Drawn amount :	50,00,00,000	
Date of Drawl	21.06.2012	
Interest Type :	Floating	
Fixed Interest Rate :		
Rate of Interest as on 01.04.2019	D00002- 8.45%	
Margin, If Floating Interest :	D00002= 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 :	21.06.2012	
Repayment Period (Inc Moratorium) :	12 Years	
Repayment Frequency :	16 Half Yearly	
Repayment Type :	Average	
First Repayment Date :	01.12.2016	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	VINDHYACHAL-V	50,00,00,000.00
Total Allocated Amount		50,00,00,000.00

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Form 8
TRANCHE NO

BP NO 5050000422

T00001

D00002

Unsecured Loan From Syndicate Bank-IV		
Source of Loan :	Syndicate Bank-IV	
Currency :	INR	
Amount of Loan :	10,00,00,00,000	
Total Drawn amount :	1,00,00,00,000	
Date of Drawal:	31.12.2014	
Interest Type :	Floating	
Fixed Interest Rate :		
Rate of Interest as on 01.04.2019	D00002 - 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 :	5 Years	
Moratorium effective from :	31.12.2014	
Repayment Period (Inc Moratorium) :	15	
Repayment Frequency :	10 Yearly Payments	
Repayment Type :	Average	
First Repayment Date :	05.12.2021	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	VINDHYACHAL-V	1,00,00,00,000
Total Allocated Amount		1,00,00,00,000.00

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Form 8

TRANCHE NO

BP NO 5050000381

T00001

D00004

Unsecured Loan From Vijaya Bank		
Source of Loan :	Vijaya Bank-VI	
Currency :	INR	
Amount of Loan :	2,85,00,00,000	
Total Drawn amount :	85,00,00,000	
Date of Drawl	13.11.2017	
Interest Type :	Floating	
Fixed Interest Rate :		
Rate of Interest as on 01.04.2019	D00004- 8.4%	
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 :	13.11.2017	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	10 Yearly	
Repayment Type :	Average	
First Repayment Date :	14.03.2020	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	GADARWARA	20,00,00,000
	UNCHAHR STPP IV	20,00,00,000
	DARLIPALLI	20,00,00,000
	VINDHYACHAL-V	10,00,00,000
	TALAIPALI COAL MINE	15,00,00,000.00
Total Allocated Amount		85,00,00,000.00

Form 8

TRANCHE NO

BP NO 5050000291

T00001

D00003

Unsecured Loan From Vijaya Bank-V		
Source of Loan :	Vijaya Bank - V	
Currency :	INR	
Amount of Loan :	3,50,00,00,000	
Total Drawn amount :	50,00,00,000	
Date of drawl	0	
Interest Type :	Floating	
Fixed Interest Rate :		
Rate of Interest as on 01.04.2019	8.40%	
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 :	3 Years	
Moratorium effective from :	29.03.2012	
Repayment Period (Inc Moratorium) :	10 Years	
Repayment Frequency :	14 Half Yearly Instalment	
Repayment Type :	AVG	
First Repayment Date :	29.09.2015	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	VINDHAYACHAL-V	50,00,00,000
Total Allocated Amount		50,00,00,000.00

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%	
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

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Form 8- Domestic Bonds

Particulars	L1A	L2A	L3A	L1B	L2B	L3B	54	57	59	60	61	62	64	66	67
Source of Loan1	BONDS	BONDS	BONDS	BONDS	BONDS	BONDS	BONDS	BONDS	BONDS	BONDS	BONDS	BONDS	BONDS	BONDS	BONDS
Currentcy2	INR	INR	INR	INR	INR	INR	INR	INR	INR	INR	INR	INR	INR	INR	INR
Amount of Loan sanctioned	48803	31203	20864	39997	1030683	107250	100000	80000	70000	392500	400000	392500	400000	400000	400000
Interest Type3	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed
Fixed Interest Rate, If applicable	8.41%	8.65%	8.65%	8.91%	8.73%	8.91%	8.49%	8.19%	8.53%	8.05%	8.10%	7.58%	7.37%	8.30%	8.30%
Annual surveillance fees	0.030%	0.030%	0.030%	0.030%	0.030%	0.030%	0.030%	0.030%	0.030%	0.030%	0.030%	0.030%	0.030%	0.030%	0.030%
Loan refinancing spread															
Total interest rate incl.sur. Fees	8.440%	8.690%	8.690%	8.940%	8.760%	8.940%	8.520%	8.220%	8.560%	8.080%	8.130%	7.610%	7.400%	8.420%	8.420%
Base Rate, If Floating Interest7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Margin, If Floating Interest7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Are there any Cap/Floor8	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
If above is yes, specify cap/floor															
Arbitration Period10	10 yrs.	15 yrs.	10 yrs.	15 yrs.	15 yrs.	20 yrs.	20 yrs.	10 yrs.	5	10	5	10	15	10	10
Repayment structure from #	Bullet	Bullet	Bullet	Bullet	Bullet	Bullet	Installments Due on 25/03/2023, 25/03/2024 & 25/03/2025	Installments Due on 15-12-2025	Bullet	Bullet	Installments Due on 27/05/2021, 27/05/2028 & 27/05/2031	Bullet	Bullet	Bullet	Bullet
Repayment Period11	16.12.2023	16.12.2028	16.12.2023	16.12.2028	16.12.2028	16.12.2033	16.12.2033	16.12.2033	16.12.2033	05-05-2028	27-05-2021	25-09-2016	07-11-2031	14-12-2016	14-12-2016
Resampt effective from	16.12.2023	16.12.2028	16.12.2023	16.12.2028	16.12.2028	16.12.2033	16.12.2033	16.12.2033	16.12.2033	05-05-2028	27-05-2021	25-09-2016	07-11-2031	14-12-2016	14-12-2016
Repayment Frequency12	Bullet	Bullet	Bullet	Bullet	Bullet	Bullet	Bullet	Bullet	Bullet	Bullet	Bullet	Bullet	Bullet	Bullet	Bullet
Repayment Instalment13,14	4880265000	2489459000	3120276000	2086391000	913928000	3999681000	3999681000	3999681000	3999681000	100000	65500	60000	70000	392500	392500
Base Exchange Rate16	10 yrs.	15 yrs.	20 yrs.	10 yrs.	15 yrs.	20 yrs.	20 yrs.	20 yrs.	20 yrs.	N/A	N/A	N/A	N/A	N/A	N/A
Door to Door Maturity	10 yrs.	15 yrs.	20 yrs.	10 yrs.	15 yrs.	20 yrs.	20 yrs.	20 yrs.	20 yrs.	N/A	N/A	N/A	N/A	N/A	N/A
Name of the Projects															
Anambur Solar							5,600			15,100	4,500				
ANTA															
AJRAIYA								1,400							
Auriba R & M							2,300								
Badarpur R&M							7,474	8,900	2,400	14,800	8,850	6,400	8,900	48,300	48,957
BARH I	9,119	4,670	5,530	3,869	1,708	74,883	63,500	324	2,700	1,700	500	500	2,000	2,000	1,000
BARH II	1,729	886	1,105	739	324	1,417									
Bhadra Solar															
BONGAIGAOIN	1,813	928	1,158	775	339	1,488	54,000	500	3,900	5,200	3,000	6,100	6,800	12,700	38,820
Chetti Baratu CMB							8,100			1,500				300	
Deefi Gas R. & M							600								
DADRI GAS							49,200				5,000	5,400	7,500	36,400	
DARUPALLI														25,400	
Dulanga CMB							10,800								
FARAKKA II							2,000								
FARAKKA III															
Farakka R & M							81,000	2,000	6,300	6,500	7,500	3,200	2,500	28,100	28,900
FARDAGAD															
GADARWARA							4,900	800							
GANDHAR															
Gandhar R & M															
Kautilgaon II Phase I															
Kautilgaon II Phase II															
KASIPUR R & M							1,800							600	
KAYAS							2,000	500							
Kayes R & M															
Korba R & M	6,024	3,085	3,851	2,575	1,128	4,837				500	2,000	3,000	3,200	24,700	8,998
KORBA III														900	2,195
Korba R & M															
Kudoi	3,904	2,000	2,486	1,669	731	3,200	1,33,300		7,000	3,800	10,000	13,500	5,000	39,300	10,000
LARAI	2,769	1,428	1,783	1,182	522	2,286	53,300	13,700	6,300	3,100	11,089	5,930	6,600	39,500	22,813
Lata Tenovan							1,600								
LOHARINAGPALA															
Mauda	2,844	1,457	1,819	1,216	533	2,331	21,800		1,000					3,200	715
Mauda II	3,765	1,928	2,407	1,610	705	3,085	45,800		3,500		4,000	4,500	3,300	11,600	1,000
Mandsaur Solar															
NCTPP															
NCTPP II															
NCTPP R & M							11,000	500							1,601
NORTH-KARANPURA							3,700								
PAKRI Barwadih CMB							12,400		3,000	7,500	5,000	5,700	1,800	32,300	14,800
Ramsagundam I & II R & M							26,600	800		3,300	2,000	2,000	4,300	6,000	21,521
RAMAGUNDAM III							2,400				500				
Rammam							3,100		900					800	2,500

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SP

Name of the Company
Name of the Power Station
COD

NTPC LIMITED
VSTPS-V
28-10-2015

Particulars			Mizuho-II A*	Mizuho-II B*	4.376% Fixed Rate Notes due 2024*
Source of Loan		SBI, NEW YORK**			
Drawal	I	II	III	IV	
Currency	USD	USD	USD	USD	USD
Amount of loan sanctioned	5,00,00,000	5,00,00,000	5,00,00,000	20,00,00,000	50,00,00,000
Amount of Gross Loan drawn upto 31.03.2019	5,00,00,000	5,00,00,000	5,00,00,000	10,00,00,000	50,00,00,000
Interest Type	Floating	Floating	Floating	Floating	Fixed
Fixed Interest Rate, if applicable					4.375%
Base Rate, if floating interest	6 Month LIBOR	6 Month LIBOR	6 Month USD Libor	6 Month USD Libor	-
Margin, if floating interest rate	1.85	NO	1.25%	NO	NO
Are there any Caps / Floor	NO	NO	NO	NO	NO
If above is Yes, specify Caps / Floor	6 Years	6 Years	5 Years 6 Months	5 Years 6 Months	10 Years
Moratorium Period	06-Mar-2013	06-Mar-2013	24-Oct-2014	16-Mar-2015	26-Nov-2014
Moratorium effective from			1 Year 6 Months	1 year 6 mths	Bullet payment
Repayment period	1 Year	1 Year	26-Mar-2020	26-Mar-2020	26-Nov-2024
Repayment effective from	29-Jul-2019	29-Jul-2019	Four half yearly instalments	Four half yearly instalments	One time
Repayment frequency	Semi Annual	Semi Annual	1,25,00,000.00	5,00,00,000.00	50,00,00,000
Repayment installment		2 Half Yearly instalments			
Base Exchange Rate (29.10.2015)	65.73	65.73	65.73	65.73	65.73
Are foreign currency loan hedged	NO	NO	NO	NO	NO
If above is Yes, specify details					

Name of the Projects	%	%	%
Anampur Solar			
Auraiya R&M			
Badia Solar			
Barr-I	23.80681%		
Barr-II	12.92330%		
Bongaiqaon			
Darhali			
Farakka ESP			
Gadhwara			
Gandhar R&M			
Kahalgao-II			
Kawas R&M			
Khangao			
Koldam			
Korba STPS- ESP			
Korba R&M			
Korba-II			
Kudri-I	27.69642%		
Lara-I	0.15026%		
Mandsaur Solar			
Mouda-I			
Mouda-II			
North Karanpura			
Ranman Hydro			
Rihand-I ESP			
Rihand-II			
Rohmal Wind			
Simhadri-I			
Singrauli I & II ESP			
Sipat-I			
Sipat-II			
Solepur			

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Taicher STPP-I-ESP									5.13715%
Tanda II									1.08540%
Tapovan Vistmugad									
Telengana									
TIPS-II-ESP									
Unallocated									4.07028%
FGUTPP III									
Unchehar IV									
Unchehar-I-ESP									
VSTPP III									
Vindhyachal-IV									5.35084%
Vindhyachal-V									
VSTPP I & II-ESP									
Total	100.000000%	100.000000%	100.000000%	100.000000%	100.000000%	100.000000%	100.000000%	100.000000%	100.000000%

Notes:-
 * The interest rate is exclusive of withholding tax @ 5.46% w.e.f 01.04.2019 (inclusive of surcharge & education cess)
 **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)

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Year wise Statement of Additional Capitalisation after COD

Name of the Petitioner	NTPC Limited		
Name of the Generating Station	Vindhyachal Super Thermal Power Station Stage-V		
COD	30-10-2015		
For Financial Year	2019-24 (Summary)		

Sl. No.	Head of Work /Equipment	ACE Claimed (Actual / Projected)					Regulation	Regulation 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 RoL at Normal Rate									
1	Flue Gas Desulphurisation System	1,000.00							
2	ZLD Package	-	1,000.00	500.00					
3	Sewerage Treatment Plant	-	1,100.00						
4	Purchase of Wagons	-	1,000.00						
5	ClO2 package	-		131.85	659				
6	Electrical Equipment Package	455.00							
7	Construction of boundary wall	51.03							
8	Miscellaneous pack	400.00							
9	Main Plant & Offsite Civil Packages	500.00							
10	AC & Ventilation	200.00							
11	Coal Handling Plant	1,000.00							
12	CW System	-	200.00						
13	C&I System	100.00							
14	Fure detection & protection System	-	300.00						
15	Ash Handling Plant	500.00							
16	Electrical Equipment Package	50.00							
17	Turbine Generator Package	1,200.00							
18	Railway Siding S&T works	1,000.00	1,100.00						
19	Integrated Security System	-	-	-	-	-			
	Total(A)	6,456.03	4,700.00	631.85	659.00	-			
B. Works beyond Original scope excluding add-cap due to Change in Law eligible for RoE at Wid. Average rate of Interest									
	Integrated Security System			262.61				Pl refer Form-9 of respective Financial Year(s)	
20	Total (B)			262.61					
	Total Add. Cap. Claimed (A+B)	6,456.03	4,700.00	894.46	659.00	-			

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(Petitioner)

Year wise Statement of Additional Capitalisation after COD

Name of the Petitioner	NTPC Limited	
Name of the Generating Station	Vindhyachal Super Thermal Power Station Stage-V	
COD	30-10-2015	
For Financial Year	2019-20	

Sl. No.	Head of Work/Equipment	Accrual basis as per IGAAP	ACE Claimed (Projected)		Regulations under which claimed	Justification	Amount in Rs Lakh Admitted Cost by the Commission, if any.	
			Un-discharged Liability included in col. 3	Un-discharged Liability 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	Flue Gas Desulphurisation System	1,000.00		1,000.00	26 (1)(b)	The work has already been completed and put to use. Hon'ble Commission was pleased to allow the same vide order dated 31.08.2016 in petition no. 234/GT/2015. The amount of Liquidated Damage (LD) was withheld in view of defect rectification and the same is expected to be released during FY 2019-20. As this is the balance payment of already allowed work, Hon'ble Commission may be pleased to allow the same.		
2	Electrical Equipment Package	455.00		455.00	25(1)(d)			
3	Construction of boundary wall	51.03		51.03	25(1)(d)			
4	Miscellaneous pack	400.00		400.00	25(1)(d)			
5	Main Plant & Offsite Civil Packages	500.00		500.00	25(1)(d)			
6	AC & Ventilation	200.00		200.00	25(1)(d)			
7	Coal Handling Plant	1,000.00		1,000.00	25(1)(d)			
8	CW System	-		-	25(1)(d)			
9	C&I System	100.00		100.00	25(1)(d)			
10	Fure detection & protection System	-		-	25(1)(d)			
11	Ash Handling Plant	500.00		500.00	25(1)(d)			
12	Electrical Equipment Package	50.00		50.00	25(1)(d)			
13	Turbine Generator Package	1,200.00		1,200.00	25(1)(d)	The work of TG has already been completed within the cut-off date. However, in view of defect removal, PG test and final settlement of bills, the balance amount is to be released during the contract closing process in FY 2019-20. This amount pertains to the work under original scope and the this deferred liability may please be allowed by Hon'ble Commission for the purpose of tariff of the instant station excising regulation 25(1)(c).		

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Name of the Petitioner Vindhyaachal Super Thermal Power Station Stage-V COD 30-10-2015 For Financial Year 2019-20									
Sl. No.	Head of Work/Equipment	Accrual basis as per IGAAP	Un-discharged Liability included in col. 3	ACE Claimed (Projected)	Cash basis	IDC included in col. 3	Regulations under which claimed	Justification	Amount in Rs Lakh Admitted Cost by the Commission, if any
1	2	3	4	5= (3-4)	6	7	8	9	
14	Railway Siding S&T works	1,000.00		1,000.00			25(1)(d)	The work of railway siding got delayed due to delay in approval from Indian Railways. The fifth yard i.e. Shaktinagar Exchange Yard was meant to facilitate coal rakes movement between NCL, NTPC and Indian Railways Main line. The work got delayed due to multiple revisions of Engineering Sctae Plan (ESP) by Indian Railways. Due to delay in the approval of ESP, the civil works of Shaktinagar exchange yard had to be retendered by M/s RITES. However, to optimize on cost and time, the work was modified to complete track renewal of existing five tracks in place of laying of seven number tracks to save on land acquisition and hence overall project cost and time. Hon'ble Commission was pleased to allow the relaxation for completion of these works pertaining to Railway siding vide order dated 09.05.2019 in Petition No. 130/MP/2018. It is further submitted that availability of front by Indian Railways got delayed and RITES could not take up the job of connection of Railway line to the Main line for all the tracks within 31.03.2019. In this regard, it is submitted that Indian Railways(R), after visit of Commissioner (Railway Safety) & DRM/ECR on 19.8.2018, decided to commission new KBJ diversion line and for that, all 5 lines of NTPC exchange yard was to be disconnected and recommissioned as per new alignment. Permission for traffic block to carry out job of yard line no.-4 and complete other works pertaining to the exchange yard was accorded by IR in the month of April 2019.(The letters from RITES in this regard are attached at Annexure-A). On account of this unforeseen delay, the associated jobs of S&T and electrical system package also got delayed beyond 31.03.2019. The Railway siding work which was completed by 2018-19, has been capitalised in the books, however the balance work got further delayed on account of the reasons beyond the control of the Petitioner. It is further submitted that in June 2019, the balance track work(alongwith alignment) and in Oct 2019, the S&T work has been completed. In view of the same, Hon'ble Commission may be pleased to allow the work for the purpose of tariff, exercising the Regulation 25(1)(d).	9
Total (A)		6,456.03			6,456.03				
B. Works beyond Original scope excluding add-cap due to Change in Law eligible for RoE at Wtd. Average rate of Interest									
Total (B)									
Total Add. Cap. Claimed (A+B)		6,456.03			6,456.03				

(Petitioner)

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Year wise Statement of Additional Capitalisation after COD

Name of the Petitioner		NTPC Limited		Vindhyachal Super Thermal Power Station Stage-V		30-10-2015		2020-21	
Name of the Generating Station		Vindhyachal Super Thermal Power Station Stage-V		30-10-2015		2020-21			
For Financial Year		2020-21		2020-21		2020-21			
Sl. No.	Head of Work / Equipment	Accrual basis as per IG:AAP	ACE Claimed (Actual / Projected)	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3	Regulations under which claimed	Justification	Amount in Rs Lakh Admitted Cost by the Commission, if any
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	ZLD Package	1,000.00			1,000.00		26(1)(b)	Zero Liquid Discharge system is being installed in the instant station as per the directions of State Pollution Control Board for "Consent to Operate". Hon'ble Commission may be pleased to allow the work under "Change in Law". The Consent to Operate is attached at Annexure-B. (Pl refer Para-4 of the Annexure)	
2	Sewerage Treatment Plant	1,100.00			1,100.00		25(1)(d)	The work pertains to original scope. The front was not available on account of encroachment by villagers outside plant boundary on the land of the Petitioner. For making the same available, help from administration was sought. This delayed the execution of work beyond cut-off date and the same is near completion & the same is expected to be completed and capitalised in FY 2019-20. Hon'ble Commission may be pleased to allow the same under Regulation 25(1)(d).	
3	Purchase of Wagons	1,000.00			1,000.00		25(1)(d) read with regulation-76	Additional wagons for transportation of coal were planned to be procured for the 09.12.17 with revised supply scheduled by Feb'2018. The wheel for the wagons is proprietary item of the railway. M/s Jupiter had placed the Purchase Order (PO) for proprietary wheel sets on Railway Wheel Factory (RWF), Bangalore on 01.02.2017 with supply period of 90 days. Subsequently, the POs were amended 2 to 3 times due to fluctuation in prices of steel and changes in taxation rates subsequent to GST implementation. The POs by M/s Jupiter was finally amended and accepted by Railways Wheel Factory, Bangalore on 07.03.2018 and payment was remitted on 17.03.2018. Further, as per specification of Research Designs and Standards Organization (RDSO), the procurement of "Z" section was to be made necessarily from Steel Authority of India (SAIL). The delay in supply of wheel sections and AXLE sets from RWF Bangalore and Z sections from SAIL has caused a delay in manufacturing and supply of wagons. Hon'ble Commission has also accepted these as uncontrollable factors being beyond the control of the Petitioner, vide order dated 02.05.2019. In Petition no. 130/MPP/2018. In continuation to our aforementioned submission, it is further submitted that despite repeated follow-up from the side of the Petitioner, the supply of wagon spilled over 31.03.2019, as allowed by the Hon'ble Commission. The supply of wagon could not be materialised on account of denial of the agency M/S Jupiter to accept our proposal and consistent insistence to increase the price, which was not acceptable to NTPC. In view of the same, the purchase order for wagons was cancelled and the same is expected to be issued shortly to other agency. The supply is expected by FY 2020-21. The communication is attached at Annexure-C. As the delay is not attributable to the Petitioner Hon'ble Commission may be pleased to allow the same for the purpose of tariff.	
4	CW Syatem	200.00			200.00		25(1)(d)	These works/packages pertain to the original scope of work and the same have been already completed within the cut-off date of the station. However, on account of non-closure of the contract in view of various reasons like final settlement of bill, defect rectification, price adjustment as per the contract, these balance amounts are still to be released by the Petitioner. Most of these deferred liabilities are proposed to be released during FY 2019-20 & 2020-21, during the contract closure. Hon'ble Commission may be pleased to allow the same under Regulation 25(1)(d).	

Name of the Petitioner		NTPC Limited		Vindhyaachal Super Thermal Power Station Stage-V		Amount in Rs Lakh		
Name of the Generating Station		Vindhyaachal Super Thermal Power Station Stage-V		30-10-2015		Admitted Cost by the Commission, if any		
COD		30-10-2015		2020-21				
For Financial Year		2020-21						
Sl. No.	Head of Work / Equipment	3	4	5=(3+4)	6	7	8	9
		Accrual basis as per IGAAP	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3	Regulations under which claimed	Justification	
1								
5	Fire detection & protection System	300.00		300.00		25(1)(d)	These works/packages pertain to the original scope of work and the same have been already completed within the cut-off date of the station. However, on account of non-closure of the contract in view of various reasons like final settlement of bill, defect rectification, price adjustment as per the contract, these balance amounts are still to be released by the Petitioner. Most of these deferred liabilities are proposed to be released during FY 2019-20 & 2020-21, during the contract closure. Hon'ble Commission may be pleased to allow the same under Regulation 25(1)(d).	
6	Railway Siding S&T works	1,100.00		1,100.00		25(1)(d)	The work has been completed by Oct 2019. However, the retention payment to RITES after contract closing is expected to be released during FY 2020-21. The claim being made is the expected balance payment to be released after final settlement with the agency. Hon'ble Commission may be pleased to allow the same.	
	Total (A)	4,700.00	-	4,700.00	-			
	B. Works beyond Original scope extending add-on due to Change in Law eligible for RoE at Wtd. Average rate of Interest							
	Total (B)	-	-	-	-			
	Total Add. Cap. Claimed (A+B)	4,700.00	-	4,700.00	-			

(Petitioner)

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Year wise Statement of Additional Capitalisation after COD

Name of the Petitioner		NTPC Limited		Vindhyachal Super Thermal Power Station Stage-V		30-10-2015		2021-22		Amount in Rs Lakh	
Name of the Generating Station		Vindhyachal Super Thermal Power Station Stage-V		30-10-2015		2021-22				Admitted Cost by the Commission, if any	
For Financial Year		2021-22									
Sl. No.	Head of Work /Equipment	Actual basis as per IGAAP	ACE Claimed (Actual / Projected)	Un-discharged Liability included in col. 3	Cash basis included in col. 3	IDC included in col. 3	Regulations under which claimed		Justification		
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	ZLD Package	500.00	500.00		500.00		26(1)(b)		Ref Form-9 for FY 2020-21		
	CIO2 package	131.85			131.85		26(1)(b) read with 26(1)(d)		In the instant station, at present 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 dosing system is now being replaced by Chlorine Dioxide (ClO2) system, which is much safer and less hazardous than chlorine. In the proposed scheme ClO2 shall be produced on site by use of commercial grade HCl and sodium chlorite. As ClO2 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 asked NTPC to consider replacement of highly hazardous gas chlorination system with ClO2 system. SPCB, Odisha while issuing consent to establish in case of Daripalli Station has asked NTPC to explore the possibility of installing ClO2 system instead of Chlorine gas system (Relevant documents are attached at Annexure-D). In view of the directions of various statutory authorities in different states of the country and for enhancing the safety of public NTPC is replacing the chlorination system with ClO2 system. Accordingly, Hon'ble Commission may be pleased to allow the same under Reg. 26(1)(b) read with Regulation 26(1)(d).		
2											
3		631.85			631.85						
B. Works beyond Original scope excluding add-cap due to Change in Law eligible for RoE at Wtd. Average rate of interest											
	Integrated Security System	262.61			262.61		26(1)(d)		The Petitioner is in receipt of letter dated 23.10.2019 from MoP, Govt for enhancement & automation of security at power station, in view of consistent threat to various vital installations and infrastructure including power stations as per reports from external agencies. In view of similar information received earlier, the Petitioner, in collaboration with Central Industrial Security Force(CISF), has prepared a comprehensive multilayer e-security system, to be installed in various power stations across the country. This integrated security system (ISS) is proposed to be installed in the instant station during the tariff period 2019-24. This ISS shall not only enhance the reliability of the security system, but it will also help rationalise the security manpower at the station. Hon'ble Commission may be pleased to allow this work under Reg. 26(1)(b). The communication in this regard with DG, CISF is attached at Annexure-III (The letter dated 23.10.2019 from MoP, Govt is based on the report of intelligence agency reports the same is not being shared with the instant petition.). Communication to DG, CISF is attached at Annexure-E.		
10		262.61			262.61						
Total (A)		631.85			631.85						
Total (B)		262.61			262.61						
Total Add. Cap. Claimed (A+B)		894.46			894.46						



(Petitioner)

Year wise Statement of Additional Capitalisation after COD

Name of the Petitioner NTPC Limited									
Name of the Generating Station Vindhyachal Super Thermal Power Station Stage-V									
COD 30-10-2015									
For Financial Year 2022-23									
Sl No.	Head of Work /Equipment	Accrual basis as per IGAAP	ACE Claimed (Actual / Projected)		Regulations under which claimed	Justification	Amount in Rs Lakhs	Admitted Cost by the Commission, if any	
			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. for P.O.P. Normal Rate									
1	ClO2 package	659.00	-	659.00	26(1)(b) read with 26(1)(d)	As per justification given in FY 2021-22			
	Total (A)	659.00	-	659.00					
B. Works beyond Original scope submitted after P.O.P. Normal Rate									
10		-	-	-					
	Total (B)	-	-	-					
	Total Add. Cap. Claimed (A+B)	659.00	-	659.00					


(Petitioner)

Year wise Statement of Additional Capitalisation after COD

Name of the Petitioner		INTFC Limited		Vindhyachal Super Thermal Power Station Stage-V		30-10-2015		2023-24	
Name of the Generating Station		ACE Claimed (Actual / Protected)		Regulations under which claimed		Justification		Amount in Rs Lakh	
Sl. No.	Head of Work / Equipment	Accrual basis as per IGAAP	Un-discharged Liability included in col. 3	Cash basis 5= (3-4)	IDC included in col. 3	7	8	9	Admitted Cost by the Commission, if any
1	2	3	4	5= (3-4)	6	7	8	9	
Work under Original scope, Change in Law etc. eligible for RoE at Normal Rate									
1									
Total (A)									
10									
Total (B)									
Total Add. Cap. Claimed (A+B)									

(Petitioner)

**PART-I
FORM- 10**

Name of the Petitioner NTPC Limited
Name of the Generating Station Vindhyachal Super Thermal Power Station Stage-V
Date of Commercial Operation 30-10-2015

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 finance in Debt:Equity ratio of 70:30

Note:

1. Year 1 refers to Financial Year of COD and Year 2, Year 3 etc. are the subsequent financial years respectively.
2. Loan details for meeting the additional capitalisation requirement should be given as per FORM-7 or 8 whichever is relevant.


(Petitioner)

(A)

PART-I
FORM-11

Calculation of Depreciation

Name of the Company :		NTPC Limited		
Name of the Power Station :		Vindhyachal Super Thermal Power Station Stage-V (Amount in Rs Lakh)		
Sl.No.	Name of the Assets	Gross Block as on 01.04.2019 as on COD	Depreciation Rates as per CERC's Depreciation Rate Schedule	Depreciation Amount for the FY 2019-20
1	2		4	5= Col.3 X Col.4
1	Land-Free Hold	0.00	0.00%	0.00
2	Land- Lease Hold	0.00	3.34%	0.00
3	Land- Right Of Use	0.00	3.34%	0.00
4	Plant & Machinery	252742.36	5.28%	13344.80
5	Cooling Towers & CW System.	8395.92	5.28%	443.30
6	Air conditioning.	964.67	5.28%	50.93
7	Chimney	6230.43	5.28%	328.97
8	Main Plant Building & other Ser Building	5570.71	3.34%	186.06
9	Ash Dyke/Disposal Area	172.75	5.28%	9.12
10	S-Yard	2065.25	5.28%	109.05
11	Raw Water Reservoir	0.00	5.28%	0.00
12	Locomotive & Wagons	6700.89	5.28%	353.81
13	Railway Siding and associated works	994.30	9.50%	94.46
14	Residential Bldg & other Build	1881.86	3.34%	62.85
15	Road/Bridge	4409.11	3.34%	147.26
16	Water Treatment Plant	4844.19	5.28%	255.77
17	Spares	8277.55	5.28%	437.05
18	Furniture & Fixtures, OFFICE EQUIP.	2568.11	6.33%	162.56
19	Other MBOAs / T&Ps.	869.42	6.33%	55.03
20	EDP, WP & SATCOM.	817.78	15.00%	122.67
21	Construction equip.	77.91	5.28%	4.11
22	Temp. Constructions.	24.94	100.00%	24.94
23	Central Repair/Workshop	55.42	5.28%	2.93
24	Software	1.56	15.00%	0.23
	TOTAL	307665.12		16195.92
	Weighted Average Rate of Depreciation (%)			5.48

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Statement of Depreciation

Name of the Company :		NTPC Limited							
Name of the Power Station :		Vindhyaachal Super Thermal Power Station Stage-V							
		(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	292138.16	3,00,407.24	3,06,863.27	3,11,563.27	3,12,457.73	3,13,116.73		
2	Closing Capital Cost	300407.24	3,06,863.27	3,11,563.27	3,12,457.73	3,13,116.73	3,13,116.73		
3	Average Capital Cost	296272.70	3,03,635.26	3,09,213.27	3,12,010.50	3,12,787.23	3,13,116.73		
1a	Cost of IT Equipments & Software included in (1) above*		-	-	-	-	-		
2a	Cost of IT Equipments & Software included in (2) above		-	-	-	-	-		
3a	Average Cost of IT Equipments & Software		-	-	-	-	-		
4	Freehold land	714.20	714.20	714.20	714.20	714.20	714.20		
5	Rate of depreciation	5.241	5.48	5.48	5.48	5.48	5.48		
6	Depreciable value	2,66,002.65	2,72,628.95	2,77,649.16	2,80,166.67	2,80,865.72	2,81,162.27		
7.	Balance useful life at the beginning of the period	21.58	20.58	19.58	18.58	17.58	16.58		
8	Remaining depreciable value	2,35,204.99	2,26,368.15	2,14,749.15	2,00,321.77	1,83,922.65	1,67,078.46		
9	Depreciation (for the period)	0.00	16,639.21	16,944.89	17,098.18	17,140.74	17,158.80		
10	Depreciation (annualised)	15,528.24	16,639.21	16,944.89	17,098.18	17,140.74	17,158.80		
11	Cumulative depreciation at the end of the period		62,900.01	79,844.90	96,943.07	1,14,083.81	1,31,242.61		
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	65.11	-	-	-	-	-		
15	Net Cumulative depreciation at the end of the period after adjustments	46,260.80	62,900.01	79,844.90	96,943.07	1,14,083.81	1,31,242.61		

* Cost of IT and software considered from the Gross block as on 01.04.2019.



(Petitioner)

Calculation of Interest on Actual Loans						
Name of the Company		NTPC LTD.			Form-13	
Name of the Power Station		VSTPS V				
(Amount in lacs)						
Sl. no.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
2						
1	SBI, New York					
	Gross loan - Opening	15448.43	15448.43	15448.43	15448.43	15448.43
	Cumulative repayments of Loans upto previous period	0.00	15448.43	15448.43	15448.43	15448.43
	Net loan - Opening	15448.43	0.00	0.00	0.00	0.00
	Increase/ Decrease due to FERV	0	0	0	0	0
	Increase/ Decrease due to ACE/Drawl during the period					
	Total	15448.43	0.00	0.00	0.00	0.00
	Repayments of Loans during the period	15448.43	0.00	0.00	0.00	0.00
	Net loan - Closing	0.00	0.00	0.00	0.00	0.00
	Average Net Loan	7724.22	0.00	0.00	0.00	0.00
	Rate of Interest on Loan	4.2871%	4.2859%	4.2859%	4.2859%	4.2859%
	Interest on Loan Annualised	331.15	0.00	0.00	0.00	0.00
2	Mizuho II A					
	Gross loan - Opening	25.06	25.06	25.06	25.06	25.06
	Cumulative repayments of Loans upto previous period	0.00	6.27	18.80	25.06	25.06
	Net loan - Opening	25.06	18.80	6.27	0.00	0.00
	Increase/ Decrease due to FERV	0	0	0	0	0
	Increase/ Decrease due to ACE/Drawl during the period	0.00	0.00	0.00	0.00	0.00
	Total	25.06	18.80	6.27	0.00	0.00
	Repayments of Loans during the period	6.27	12.53	6.27	0.00	0.00
	Net loan - Closing	18.80	6.27	0.00	0.00	0.00
	Average Net Loan	21.93	12.53	3.13	0.00	0.00
	Rate of Interest on Loan	4.4248%	4.4127%	4.4127%	4.4127%	4.4127%
	Interest on Loan Annualised	0.97	0.55	0.14	0.00	0.00
3	Mizuho II B					
	Gross loan - Opening	1144.23	1144.23	1144.23	1144.23	1144.23
	Cumulative repayments of Loans upto previous period	0.00	286.06	858.17	1144.23	1144.23
	Net loan - Opening	1144.23	858.17	286.06	0.00	0.00
	Increase/ Decrease due to FERV	0	0	0	0	0
	Increase/ Decrease due to ACE/Drawl during the period	0.00	0.00	0.00	0.00	0.00
	Total	1144.23	858.17	286.06	0.00	0.00
	Repayments of Loans during the period	286.06	572.11	286.06	0.00	0.00
	Net loan - Closing	858.17	286.06	0.00	0.00	0.00
	Average Net Loan	1001.20	572.11	143.03	0.00	0.00
	Rate of Interest on Loan	4.4248%	4.4127%	4.4127%	4.4127%	4.4127%
	Interest on Loan Annualised	44.30	25.25	6.31	0.00	0.00
4	Eurobond V					
	Gross loan - Opening	17585.54	17585.54	17585.54	17585.54	17585.54
	Cumulative repayments of Loans upto previous period	0.00	0.00	0.00	0.00	0.00
	Net loan - Opening	17585.54	17585.54	17585.54	17585.54	17585.54
	Increase/ Decrease due to FERV	0	0	0	0	0
	Increase/ Decrease due to ACE/Drawl during the period	0.00	0.00	0.00	0.00	0.00
	Total	17585.54	17585.54	17585.54	17585.54	17585.54
	Repayments of Loans during the period	0.00	0.00	0.00	0.00	0.00
	Net loan - Closing	17585.54	17585.54	17585.54	17585.54	17585.54
	Average Net Loan	17585.54	17585.54	17585.54	17585.54	17585.54
	Rate of Interest on Loan	4.6277%	4.6277%	4.6277%	4.6277%	4.6277%
	Interest on Loan Annualised	813.80	813.80	813.80	813.80	813.80
5	BANK OF INDIA-II repayment form 28.06.2019					
	Gross loan - Opening	7500.00	7500.00	7500.00	7500.00	7500.00
	Cumulative repayments of Loans upto previous period	0.00	750.00	1500.00	2250.00	3000.00
	Net loan - Opening	7500.00	6750.00	6000.00	5250.00	4500.00
	Increase/ Decrease due to FERV	0	0	0	0	0
	Increase/ Decrease due to ACE/Drawl during the period	0.00	0.00	0.00	0.00	0.00
	Total	7500.00	6750.00	6000.00	5250.00	4500.00
	Repayments of Loans during the period	750.00	750.00	750.00	750.00	750.00
	Net loan - Closing	6750.00	6000.00	5250.00	4500.00	3750.00
	Average Net Loan	7125.00	6375.00	5625.00	4875.00	4125.00
	Rate of Interest on Loan	8.3000%	8.3000%	8.3000%	8.3000%	8.3000%
	Interest on Loan Annualised	591.38	529.13	466.88	404.63	342.38
6	SBI VII Total repayment from 30.09.2015 -16HY					
	Gross loan - Opening	14800.00	14800.00	14800.00	14800.00	14800.00

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Calculation of Interest on Actual Loans						
Name of the Company		NTPC LTD.			Form-13	
Name of the Power Station		VSTPS V				
(Amount in lacs)						
Sl. no.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
2						
	Cumulative repayments of Loans upto previous period	7400.00	9250.00	11100.00	12950.00	14800.00
	Net loan - Opening	7400.00	5550.00	3700.00	1850.00	0.00
	Increase/ Decrease due to FERV	0.00	0.00	0.00	0.00	0.00
	Increase/ Decrease due to ACE/Drawl during the period	0.00	0.00	0.00	0.00	0.00
	Total	7400.00	5550.00	3700.00	1850.00	0.00
	Repayments of Loans during the period	1850.00	1850.00	1850.00	1850.00	0.00
	Net loan - Closing	5550.00	3700.00	1850.00	0.00	0.00
	Average Net Loan	6475.00	4625.00	2775.00	925.00	0.00
	Rate of Interest on Loan	8.2500%	8.2500%	8.2500%	8.2500%	0.0000%
	Interest on Loan Annualised	534.19	381.56	228.94	76.31	0.00
7 SBI VIII Total repayment from 31.01.2022 -9Y						
	Gross loan - Opening	18300.00	18300.00	18300.00	18300.00	18300.00
	Cumulative repayments of Loans upto previous period	0.00	0.00	0.00	2033.33	4066.67
	Net loan - Opening	18300.00	18300.00	18300.00	16266.67	14233.33
	Increase/ Decrease due to FERV	0.00	0.00	0.00	0.00	0.00
	Increase/ Decrease due to ACE/Drawl during the period	0.00	0.00	0.00	0.00	0.00
	Total	18300.00	18300.00	18300.00	16266.67	14233.33
	Repayments of Loans during the period	0.00	0.00	2033.33	2033.33	2033.33
	Net loan - Closing	18300.00	18300.00	16266.67	14233.33	12200.00
	Average Net Loan	18300.00	18300.00	17283.33	15250.00	13216.67
	Rate of Interest on Loan	8.2500%	8.2500%	8.2500%	8.2500%	8.2500%
	Interest on Loan Annualised	1509.75	1509.75	1425.88	1258.13	1090.38
8 SYNDICATE BANK III repayment from 01.12.2016 -16HY						
	Gross loan - Opening	5000.00	5000.00	5000.00	5000.00	5000.00
	Cumulative repayments of Loans upto previous period	1562.50	2187.50	2812.50	3437.50	4062.50
	Net loan - Opening	3437.50	2812.50	2187.50	1562.50	937.50
	Increase/ Decrease due to FERV	0	0	0	0	0
	Increase/ Decrease due to ACE/Drawl during the period	0.00	0.00	0.00	0.00	0.00
	Total	3437.50	2812.50	2187.50	1562.50	937.50
	Repayments of Loans during the period	625.00	625.00	625.00	625.00	625.00
	Net loan - Closing	2812.50	2187.50	1562.50	937.50	312.50
	Average Net Loan	3125.00	2500.00	1875.00	1250.00	625.00
	Rate of Interest on Loan	8.4500%	8.4500%	8.4500%	8.4500%	8.4500%
	Interest on Loan Annualised	264.06	211.25	158.44	105.63	52.81
9 SYNDICATE BANK IV repayment from 05.12.2021 -10 Y						
	Gross loan - Opening	10000.00	10000.00	10000.00	10000.00	10000.00
	Cumulative repayments of Loans upto previous period	0.00	0.00	0.00	1000.00	2000.00
	Net loan - Opening	10000.00	10000.00	10000.00	9000.00	8000.00
	Increase/ Decrease due to FERV	0	0	0	0	0
	Increase/ Decrease due to ACE/Drawl during the period	0.00	0.00	0.00	0.00	0.00
	Total	10000.00	10000.00	10000.00	9000.00	8000.00
	Repayments of Loans during the period	0.00	0.00	1000.00	1000.00	1000.00
	Net loan - Closing	10000.00	10000.00	9000.00	8000.00	7000.00
	Average Net Loan	10000.00	10000.00	9500.00	8500.00	7500.00
	Rate of Interest on Loan	8.4500%	8.4500%	8.4500%	8.4500%	8.4500%
	Interest on Loan Annualised	845.00	845.00	802.75	718.25	633.75

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Calculation of Interest on Actual Loans						
Name of the Company		NTPC LTD.			Form-13	
Name of the Power Station		VSTPS V			(Amount in lacs)	
Sl. no.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
2						
10	VIJAYA BANK V repayment from 29.09.2015 -14HY					
	Gross loan - Opening	5000.00	5000.00	5000.00	5000.00	5000.00
	Cumulative repayments of Loans upto previous period	2857.14	3571.43	4285.71	5000.00	5000.00
	Net loan - Opening	2142.86	1428.57	714.29	0.00	0.00
	Increase/ Decrease due to FERV	0	0	0	0	0
	Increase/ Decrease due to ACE/Drawl during the period	0.00	0.00	0.00	0.00	0.00
	Total	2142.86	1428.57	714.29	0.00	0.00
	Repayments of Loans during the period	714.29	714.29	714.29	0.00	0.00
	Net loan - Closing	1428.57	714.29	0.00	0.00	0.00
	Average Net Loan	1785.71	1071.43	357.14	0.00	0.00
	Rate of Interest on Loan	8.4000%	8.4000%	8.4000%	8.4000%	8.4000%
	Interest on Loan Annualised	150.00	90.00	30.00	0.00	0.00
11	Bonds- L 1A-repayment on 16.12.2023					
	Gross loan - Opening	5159.14	5159.14	5159.14	5159.14	5159.14
	Cumulative repayments of Loans upto previous period	0.00	0.00	0.00	0.00	0.00
	Net loan - Opening	5159.14	5159.14	5159.14	5159.14	5159.14
	Increase/ Decrease due to FERV	0	0	0	0	0
	Increase/ Decrease due to ACE/Drawl during the period	0.00	0.00	0.00	0.00	0.00
	Total	5159.14	5159.14	5159.14	5159.14	5159.14
	Repayments of Loans during the period	0.00	0.00	0.00	0.00	5159.14
	Net loan - Closing	5159.14	5159.14	5159.14	5159.14	0.00
	Average Net Loan	5159.14	5159.14	5159.14	5159.14	2579.57
	Rate of Interest on Loan	8.4400%	8.4400%	8.4400%	8.4400%	8.4400%
	Interest on Loan Annualised	435.43	435.43	435.43	435.43	217.72
12	Bonds- L 2A -repayment on 16.12.2028					
	Gross loan - Opening	2642.29	2642.29	2642.29	2642.29	2642.29
	Cumulative repayments of Loans upto previous period	0.00	0.00	0.00	0.00	0.00
	Net loan - Opening	2642.29	2642.29	2642.29	2642.29	2642.29
	Increase/ Decrease due to FERV	0	0	0	0	0
	Increase/ Decrease due to ACE/Drawl during the period	0.00	0.00	0.00	0.00	0.00
	Total	2642.29	2642.29	2642.29	2642.29	2642.29
	Repayments of Loans during the period	0.00	0.00	0.00	0.00	0.00
	Net loan - Closing	2642.29	2642.29	2642.29	2642.29	2642.29
	Average Net Loan	2642.29	2642.29	2642.29	2642.29	2642.29
	Rate of Interest on Loan	8.5100%	8.5100%	8.5100%	8.5100%	8.5100%
	Interest on Loan Annualised	224.86	224.86	224.86	224.86	224.86
13	Bonds- L 3A -repayment on 16.12.2033					
	Gross loan - Opening	3298.58	3298.58	3298.58	3298.58	3298.58
	Cumulative repayments of Loans upto previous period	0.00	0.00	0.00	0.00	0.00
	Net loan - Opening	3298.58	3298.58	3298.58	3298.58	3298.58
	Increase/ Decrease due to FERV	0	0	0	0	0
	Increase/ Decrease due to ACE/Drawl during the period					
	Total	3298.58	3298.58	3298.58	3298.58	3298.58
	Repayments of Loans during the period	0.00	0.00	0.00	0.00	0.00
	Net loan - Closing	3298.58	3298.58	3298.58	3298.58	3298.58
	Average Net Loan	3298.58	3298.58	3298.58	3298.58	3298.58
	Rate of Interest on Loan	8.6900%	8.6900%	8.6900%	8.6900%	8.6900%
	Interest on Loan Annualised	286.65	286.65	286.65	286.65	286.65
14	Bonds- L 1B -repayment on 16.12.2023					
	Gross loan - Opening	2205.61	2205.61	2205.61	2205.61	2205.61
	Cumulative repayments of Loans upto previous period	0.00	0.00	0.00	0.00	0.00
	Net loan - Opening	2205.61	2205.61	2205.61	2205.61	2205.61
	Increase/ Decrease due to FERV	0	0	0	0	0
	Increase/ Decrease due to ACE/Drawl during the period	0.00	0.00	0.00	0.00	0.00
	Total	2205.61	2205.61	2205.61	2205.61	2205.61
	Repayments of Loans during the period	0.00	0.00	0.00	0.00	2205.61
	Net loan - Closing	2205.61	2205.61	2205.61	2205.61	0.00
	Average Net Loan	2205.61	2205.61	2205.61	2205.61	1102.81
	Rate of Interest on Loan	8.6900%	8.6900%	8.6900%	8.6900%	8.6900%
	Interest on Loan Annualised	191.67	191.67	191.67	191.67	95.83

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Calculation of Interest on Actual Loans						
Name of the Company		NTPC LTD.			Form-13	
Name of the Power Station		VSTPS V				
(Amount in lacs)						
Sl. no.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
2						
15	Bonds- L 2B- repayment on 16.12.2028					
	Gross loan - Opening	966.15	966.15	966.15	966.15	966.15
	Cumulative repayments of Loans upto previous period	0.00	0.00	0.00	0.00	0.00
	Net loan - Opening	966.15	966.15	966.15	966.15	966.15
	Increase/ Decrease due to FERV	0	0	0	0	0
	Increase/ Decrease due to ACE/Drawl during the period	0.00	0.00	0.00	0.00	0.00
	Total	966.15	966.15	966.15	966.15	966.15
	Repayments of Loans during the period	0.00	0.00	0.00	0.00	0.00
	Net loan - Closing	966.15	966.15	966.15	966.15	966.15
	Average Net Loan	966.15	966.15	966.15	966.15	966.15
	Rate of Interest on Loan	8.7600%	8.7600%	8.7600%	8.7600%	8.7600%
	Interest on Loan Annualised	84.63	84.63	84.63	84.63	84.63
16	Bonds- L 3B- repayment on 16.12.2033					
	Gross loan - Opening	4228.23	4228.23	4228.23	4228.23	4228.23
	Cumulative repayments of Loans upto previous period	0.00	0.00	0.00	0.00	0.00
	Net loan - Opening	4228.23	4228.23	4228.23	4228.23	4228.23
	Increase/ Decrease due to FERV	0	0	0	0	0
	Increase/ Decrease due to ACE/Drawl during the period	0.00	0.00	0.00	0.00	0.00
	Total	4228.23	4228.23	4228.23	4228.23	4228.23
	Repayments of Loans during the period	0.00	0.00	0.00	0.00	0.00
	Net loan - Closing	4228.23	4228.23	4228.23	4228.23	4228.23
	Average Net Loan	4228.23	4228.23	4228.23	4228.23	4228.23
	Rate of Interest on Loan	8.9400%	8.9400%	8.9400%	8.9400%	8.9400%
	Interest on Loan Annualised	378.00	378.00	378.00	378.00	378.00
17	Bond LIV Repayment on 25.03.2023					
	Gross loan - Opening	33500.00	33500.00	33500.00	33500.00	33500.00
	Cumulative repayments of Loans upto previous period	0.00	0.00	0.00	0.00	6700.00
	Net loan - Opening	33500.00	33500.00	33500.00	33500.00	26800.00
	Increase/ Decrease due to FERV	0	0	0	0	0
	Increase/ Decrease due to ACE/Drawl during the period	0.00	0.00	0.00	0.00	0.00
	Total	33500.00	33500.00	33500.00	33500.00	26800.00
	Repayments of Loans during the period	0.00	0.00	0.00	6700.00	13400.00
	Net loan - Closing	33500.00	33500.00	33500.00	26800.00	13400.00
	Average Net Loan	33500.00	33500.00	33500.00	30150.00	20100.00
	Rate of Interest on Loan	8.5200%	8.5200%	8.5200%	8.5200%	8.5200%
	Interest on Loan Annualised	2854.20	2854.20	2854.20	2568.78	1712.52
18	Bond 57 Bullet Repayment on 15.12.2025					
	Gross loan - Opening	2200.00	2200.00	2200.00	2200.00	2200.00
	Cumulative repayments of Loans upto previous period	0.00	0.00	0.00	0.00	0.00
	Net loan - Opening	2200.00	2200.00	2200.00	2200.00	2200.00
	Increase/ Decrease due to FERV	0	0	0	0	0
	Increase/ Decrease due to ACE/Drawl during the period	0.00	0.00	0.00	0.00	0.00
	Total	2200.00	2200.00	2200.00	2200.00	2200.00
	Repayments of Loans during the period	0.00	0.00	0.00	0.00	0.00
	Net loan - Closing	2200.00	2200.00	2200.00	2200.00	2200.00
	Average Net Loan	2200.00	2200.00	2200.00	2200.00	2200.00
	Rate of Interest on Loan	8.2200%	8.2200%	8.2200%	8.2200%	8.2200%
	Interest on Loan Annualised	180.84	180.84	180.84	180.84	180.84
19	Bond 59 Bullet Repayment on 24.02.2021					
	Gross loan - Opening	9500.00	9500.00	9500.00	9500.00	9500.00
	Cumulative repayments of Loans upto previous period	0.00	0.00	9500.00	9500.00	9500.00
	Net loan - Opening	9500.00	9500.00	0.00	0.00	0.00
	Increase/ Decrease due to FERV	0	0	0	0	0
	Increase/ Decrease due to ACE/Drawl during the period	0.00	0.00	0.00	0.00	0.00
	Total	9500.00	9500.00	0.00	0.00	0.00
	Repayments of Loans during the period	0.00	9500.00	0.00	0.00	0.00
	Net loan - Closing	9500.00	0.00	0.00	0.00	0.00
	Average Net Loan	9500.00	4750.00	0.00	0.00	0.00
	Rate of Interest on Loan	8.3600%	8.3600%	8.3600%	8.3600%	8.3600%
	Interest on Loan Annualised	794.20	397.10	0.00	0.00	0.00
20	Bond 60 Bullet Repayment on 05.05.2026					
	Gross loan - Opening	2600.00	2600.00	2600.00	2600.00	2600.00

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Calculation of Interest on Actual Loans						
Name of the Company		NTPC LTD.			Form-13	
Name of the Power Station		VSTPS V				
(Amount in lacs)						
Sl. no.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
2						
	Cumulative repayments of Loans upto previous period	0.00	0.00	0.00	0.00	0.00
	Net loan - Opening	2600.00	2600.00	2600.00	2600.00	2600.00
	Increase/ Decrease due to FERV	0	0	0	0	0
	Increase/ Decrease due to ACE/Drawl during the period	0.00	0.00	0.00	0.00	0.00
	Total	2600.00	2600.00	2600.00	2600.00	2600.00
	Repayments of Loans during the period	0.00	0.00	0.00	0.00	0.00
	Net loan - Closing	2600.00	2600.00	2600.00	2600.00	2600.00
	Average Net Loan	2600.00	2600.00	2600.00	2600.00	2600.00
	Rate of Interest on Loan	8.0800%	8.0800%	8.0800%	8.0800%	8.0800%
	Interest on Loan Annualised	210.08	210.08	210.08	210.08	210.08
21	Bond 61 Repayment from 27.05.2021					
	Gross loan - Opening	800.00	800.00	800.00	800.00	800.00
	Cumulative repayments of Loans upto previous period	0.00	0.00	0.00	266.67	266.67
	Net loan - Opening	800.00	800.00	800.00	533.33	533.33
	Increase/ Decrease due to FERV	0	0	0	0	0
	Increase/ Decrease due to ACE/Drawl during the period	0.00	0.00	0.00	0.00	0.00
	Total	800.00	800.00	800.00	533.33	533.33
	Repayments of Loans during the period	0.00	0.00	266.67	0.00	0.00
	Net loan - Closing	800.00	800.00	533.33	533.33	533.33
	Average Net Loan	800.00	800.00	666.67	533.33	533.33
	Rate of Interest on Loan	8.1300%	8.1300%	8.1300%	8.1300%	8.1300%
	Interest on Loan Annualised	65.04	65.04	54.20	43.36	43.36
22	Bond 62 bullet Repayment on 23.08.2026					
	Gross loan - Opening	7500.00	7500.00	7500.00	7500.00	7500.00
	Cumulative repayments of Loans upto previous period	0.00	0.00	0.00	0.00	0.00
	Net loan - Opening	7500.00	7500.00	7500.00	7500.00	7500.00
	Increase/ Decrease due to FERV	0	0	0	0	0
	Increase/ Decrease due to ACE/Drawl during the period	0.00	0.00	0.00	0.00	0.00
	Total	7500.00	7500.00	7500.00	7500.00	7500.00
	Repayments of Loans during the period	0.00	0.00	0.00	0.00	0.00
	Net loan - Closing	7500.00	7500.00	7500.00	7500.00	7500.00
	Average Net Loan	7500.00	7500.00	7500.00	7500.00	7500.00
	Rate of Interest on Loan	7.6100%	7.6100%	7.6100%	7.6100%	7.6100%
	Interest on Loan Annualised	570.75	570.75	570.75	570.75	570.75
23	Bond 64 bullet Repayment on 07.11.2031					
	Gross loan - Opening	700.00	700.00	700.00	700.00	700.00
	Cumulative repayments of Loans upto previous period	0.00	0.00	0.00	0.00	0.00
	Net loan - Opening	700.00	700.00	700.00	700.00	700.00
	Increase/ Decrease due to FERV	0	0	0	0	0
	Increase/ Decrease due to ACE/Drawl during the period	0.00	0.00	0.00	0.00	0.00
	Total	700.00	700.00	700.00	700.00	700.00
	Repayments of Loans during the period	0.00	0.00	0.00	0.00	0.00
	Net loan - Closing	700.00	700.00	700.00	700.00	700.00
	Average Net Loan	700.00	700.00	700.00	700.00	700.00
	Rate of Interest on Loan	7.5200%	7.5200%	7.5200%	7.5200%	7.5200%
	Interest on Loan Annualised	52.64	52.64	52.64	52.64	52.64
24	Bond 66 bullet Repayment on 14.12.2031					
	Gross loan - Opening	3600.00	3600.00	3600.00	3600.00	3600.00
	Cumulative repayments of Loans upto previous period	0.00	0.00	0.00	0.00	0.00
	Net loan - Opening	3600.00	3600.00	3600.00	3600.00	3600.00
	Increase/ Decrease due to FERV	0	0	0	0	0
	Increase/ Decrease due to ACE/Drawl during the period	0.00	0.00	0.00	0.00	0.00
	Total	3600.00	3600.00	3600.00	3600.00	3600.00
	Repayments of Loans during the period	0.00	0.00	0.00	0.00	0.00
	Net loan - Closing	3600.00	3600.00	3600.00	3600.00	3600.00
	Average Net Loan	3600.00	3600.00	3600.00	3600.00	3600.00
	Rate of Interest on Loan	7.4000%	7.4000%	7.4000%	7.4000%	7.4000%
	Interest on Loan Annualised	266.40	266.40	266.40	266.40	266.40
25	Bond 67 bullet Repayment on 15.01.2029(ICICI VI Loan refinanced)					
	Gross loan - Opening	5500.00	5500.00	5500.00	5500.00	5500.00
	Cumulative repayments of Loans upto previous period	0.00	0.00	0.00	0.00	0.00
	Net loan - Opening	5500.00	5500.00	5500.00	5500.00	5500.00

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Calculation of Interest on Actual Loans						
Name of the Company		NTPC LTD.			Form-13	
Name of the Power Station		VSTPS V				
(Amount in lacs)						
Sl. no.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	2					
	Increase/ Decrease due to FERV	0	0	0	0	0
	Increase/ Decrease due to ACE/Drawl during the period	0.00	0.00	0.00	0.00	0.00
	Total	5500.00	5500.00	5500.00	5500.00	5500.00
	Repayments of Loans during the period	0.00	0.00	0.00	0.00	0.00
	Net loan - Closing	5500.00	5500.00	5500.00	5500.00	5500.00
	Average Net Loan	5500.00	5500.00	5500.00	5500.00	5500.00
	Rate of Interest on Loan	8.4200%	8.4200%	8.4200%	8.4200%	8.4200%
	Interest on Loan Annualised	463.10	463.10	463.10	463.10	463.10
26	J&K Bank-IV Repayment from 31.03.2021					
	Gross loan - Opening	2200.00	2200.00	2200.00	2200.00	2200.00
	Cumulative repayments of Loans upto previous period	0.00	0.00	244.44	488.89	733.33
	Net loan - Opening	2200.00	2200.00	1955.56	1711.11	1466.67
	Increase/ Decrease due to FERV	0	0	0	0	0
	Increase/ Decrease due to ACE/Drawl during the period	0.00	0.00	0.00	0.00	0.00
	Total	2200.00	2200.00	1955.56	1711.11	1466.67
	Repayments of Loans during the period	0.00	244.44	244.44	244.44	244.44
	Net loan - Closing	2200.00	1955.56	1711.11	1466.67	1222.22
	Average Net Loan	2200.00	2077.78	1833.33	1588.89	1344.44
	Rate of Interest on Loan	8.3000%	8.3000%	8.3000%	8.3000%	8.3000%
	Interest on Loan Annualised	182.60	172.46	152.17	131.88	111.59
27	Vijaya Bank VI D4 Repayment from 14.03.2020					
	Gross loan - Opening	1000.00	1000.00	1000.00	1000.00	1000.00
	Cumulative repayments of Loans upto previous period	0.00	100.00	200.00	300.00	400.00
	Net loan - Opening	1000.00	900.00	800.00	700.00	600.00
	Increase/ Decrease due to FERV	0	0	0	0	0
	Increase/ Decrease due to ACE/Drawl during the period	0.00	0.00	0.00	0.00	0.00
	Total	1000.00	900.00	800.00	700.00	600.00
	Repayments of Loans during the period	100.00	100.00	100.00	100.00	100.00
	Net loan - Closing	900.00	800.00	700.00	600.00	500.00
	Average Net Loan	950.00	850.00	750.00	650.00	550.00
	Rate of Interest on Loan	8.4000%	8.4000%	8.4000%	8.4000%	8.4000%
	Interest on Loan Annualised	79.80	71.40	63.00	54.60	46.20
28	SBI X D10 Repayment from 01.10.2024					
	Gross loan - Opening	1500.00	1500.00	1500.00	1500.00	1500.00
	Cumulative repayments of Loans upto previous period	0.00	0.00	0.00	0.00	0.00
	Net loan - Opening	1500.00	1500.00	1500.00	1500.00	1500.00
	Increase/ Decrease due to FERV	0	0	0	0	0
	Increase/ Decrease due to ACE/Drawl during the period	0.00	0.00	0.00	0.00	0.00
	Total	1500.00	1500.00	1500.00	1500.00	1500.00
	Repayments of Loans during the period	0.00	0.00	0.00	0.00	0.00
	Net loan - Closing	1500.00	1500.00	1500.00	1500.00	1500.00
	Average Net Loan	1500.00	1500.00	1500.00	1500.00	1500.00
	Rate of Interest on Loan	8.2500%	8.2500%	8.2500%	8.2500%	8.2500%
	Interest on Loan Annualised	123.75	123.75	123.75	123.75	123.75
29	Corporation Bank-IV D1- Repayment from 11.01.2023(ICICI V Loan refinanced)					
	Gross loan - Opening	10000.00	10000.00	10000.00	10000.00	10000.00
	Cumulative repayments of Loans upto previous period	0.00	0.00	0.00	0.00	1111.11
	Net loan - Opening	10000.00	10000.00	10000.00	10000.00	8888.89
	Increase/ Decrease due to FERV	0	0	0	0	0
	Increase/ Decrease due to ACE/Drawl during the period	0.00	0.00	0.00	0.00	0.00
	Total	10000.00	10000.00	10000.00	10000.00	8888.89
	Repayments of Loans during the period	0.00	0.00	0.00	1111.11	1111.11
	Net loan - Closing	10000.00	10000.00	10000.00	8888.89	7777.78
	Average Net Loan	10000.00	10000.00	10000.00	9444.44	8333.33
	Rate of Interest on Loan	8.3833%	8.3833%	8.3833%	8.3833%	8.3833%
	Interest on Loan Annualised	838.33	838.33	838.33	791.76	698.61
	TOTAL LOAN					
	Gross loan - Opening	193903.26	193903.26	193903.26	193903.26	193903.26
	Cumulative repayments of Loans upto previous period	11819.64	31599.68	45968.06	53844.11	68258.00
	Net loan - Opening	182083.62	162303.58	147935.20	140059.15	125645.26
	Increase/ Decrease due to FERV	0.00	0.00	0.00	0.00	0.00

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Calculation of Interest on Actual Loans						
Name of the Company		NTPC LTD.			Form-13	
Name of the Power Station		VSTPS V				
(Amount in lacs)						
Sl. no.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	2					
	Increase/ Decrease due to ACE/Drawl during the period	0.00	0.00	0.00	0.00	0.00
	Total	182083.62	162303.58	147935.20	140059.15	125645.26
	Repayments of Loans during the period	19780.04	14368.38	7876.05	14413.89	26628.64
	Net loan - Closing	162303.58	147935.20	140059.15	125645.26	99016.62
	Average Net Loan	172193.60	155119.39	143997.17	132852.20	112330.94
	Rate of Interest on Loan	7.7631%	7.9124%	7.8917%	7.8553%	7.7455%
	Interest on Loan Annualised	13367.57	12273.62	11363.83	10435.92	8700.65
	Note: In case of foreign loans, opening loan balance considered at folowing exchange rate					
	Exchange rate 29.10.2015 US \$= INR 65.73					

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Calculation of Interest on Actual Loans						
Name of the Company		NTPC LTD.			Form-13	
Name of the Power Station		VSTPS V				
(Amount in lacs)						
Sl. no.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
2						
SBI VII D-8 repayment from 30.09.2015 -16HY						
	Gross loan - Opening	3800.00	3800.00	3800.00	3800.00	3800.00
	Cumulative repayments of Loans upto previous period	1900.00	2375.00	2850.00	3325.00	3800.00
	Net loan - Opening	1900.00	1425.00	950.00	475.00	0.00
	Increase/ Decrease due to FERV	0.00	0.00	0.00	0.00	0.00
	Increase/ Decrease due to ACE	0.00	0.00	0.00	0.00	0.00
	Total	1900.00	1425.00	950.00	475.00	0.00
	Repayments of Loans during the period	475.00	475.00	475.00	475.00	0.00
	Net loan - Closing	1425.00	950.00	475.00	0.00	0.00
	Average Net Loan	1662.50	1187.50	712.50	237.50	0.00
	Rate of Interest on Loan	8.2500%	8.2500%	8.2500%	8.2500%	8.2500%
	Interest on Loan Annualised	137.16	97.97	58.78	19.59	0.00
SBI VII D-9 repayment from 30.09.2015 -16HY						
	Gross loan - Opening	2500.00	2500.00	2500.00	2500.00	2500.00
	Cumulative repayments of Loans upto previous period	1250.00	1562.50	1875.00	2187.50	2500.00
	Net loan - Opening	1250.00	937.50	625.00	312.50	0.00
	Increase/ Decrease due to FERV	0.00	0.00	0.00	0.00	0.00
	Increase/ Decrease due to ACE	0.00	0.00	0.00	0.00	0.00
	Total	1250.00	937.50	625.00	312.50	0.00
	Repayments of Loans during the period	312.50	312.50	312.50	312.50	0.00
	Net loan - Closing	937.50	625.00	312.50	0.00	0.00
	Average Net Loan	1093.75	781.25	468.75	156.25	0.00
	Rate of Interest on Loan	8.2500%	8.2500%	8.2500%	8.2500%	8.2500%
	Interest on Loan Annualised	90.23	64.45	38.67	12.89	0.00
SBI VII D-16 repayment from 30.09.2015 -16HY						
	Gross loan - Opening	3500.00	3500.00	3500.00	3500.00	3500.00
	Cumulative repayments of Loans upto previous period	1750.00	2187.50	2625.00	3062.50	3500.00
	Net loan - Opening	1750.00	1312.50	875.00	437.50	0.00
	Increase/ Decrease due to FERV	0.00	0.00	0.00	0.00	0.00
	Increase/ Decrease due to ACE	0.00	0.00	0.00	0.00	0.00
	Total	1750.00	1312.50	875.00	437.50	0.00
	Repayments of Loans during the period	437.50	437.50	437.50	437.50	0.00
	Net loan - Closing	1312.50	875.00	437.50	0.00	0.00
	Average Net Loan	1531.25	1093.75	656.25	218.75	0.00
	Rate of Interest on Loan	8.2500%	8.2500%	8.2500%	8.2500%	8.2500%
	Interest on Loan Annualised	126.33	90.23	54.14	18.05	0.00
SBI VII D-17 repayment from 30.09.2015 -16HY						
	Gross loan - Opening	5000.00	5000.00	5000.00	5000.00	5000.00
	Cumulative repayments of Loans upto previous period	2500.00	3125.00	3750.00	4375.00	5000.00
	Net loan - Opening	2500.00	1875.00	1250.00	625.00	0.00
	Increase/ Decrease due to FERV	0.00	0.00	0.00	0.00	0.00
	Increase/ Decrease due to ACE	0.00	0.00	0.00	0.00	0.00
	Total	2500.00	1875.00	1250.00	625.00	0.00
	Repayments of Loans during the period	625.00	625.00	625.00	625.00	0.00
	Net loan - Closing	1875.00	1250.00	625.00	0.00	0.00
	Average Net Loan	2187.50	1562.50	937.50	312.50	0.00
	Rate of Interest on Loan	8.2500%	8.2500%	8.2500%	8.2500%	8.2500%
	Interest on Loan Annualised	180.47	128.91	77.34	25.78	0.00
SBI VII Total						
	Gross loan - Opening	14800.00	14800.00	14800.00	14800.00	14800.00
	Cumulative repayments of Loans upto previous period	7400.00	9250.00	11100.00	12950.00	14800.00
	Net loan - Opening	7400.00	5550.00	3700.00	1850.00	0.00
	Increase/ Decrease due to FERV	0.00	0.00	0.00	0.00	0.00
	Increase/ Decrease due to ACE	0.00	0.00	0.00	0.00	0.00
	Total	7400.00	5550.00	3700.00	1850.00	0.00
	Repayments of Loans during the period	1850.00	1850.00	1850.00	1850.00	0.00
	Net loan - Closing	5550.00	3700.00	1850.00	0.00	0.00
	Average Net Loan	6475.00	4625.00	2775.00	925.00	0.00
	Rate of Interest on Loan	8.2500%	8.2500%	8.2500%	8.2500%	0.0000%
	Interest on Loan Annualised	534.19	381.56	228.94	76.31	0.00

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Calculation of Interest on Actual Loans						
Name of the Company		NTPC LTD.			Form-13	
Name of the Power Station		VSTPS V				
(Amount in lacs)						
Sl. no.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
2						
SBI VIII D-4 repayment from 31.01.2022 -9Y						
	Gross loan - Opening	5700.00	5700.00	5700.00	5700.00	5700.00
	Cumulative repayments of Loans upto previous period	0.00	0.00	0.00	633.33	1266.67
	Net loan - Opening	5700.00	5700.00	5700.00	5066.67	4433.33
	Increase/ Decrease due to FERV	0.00	0.00	0.00	0.00	0.00
	Increase/ Decrease due to ACE	0.00	0.00	0.00	0.00	0.00
	Total	5700.00	5700.00	5700.00	5066.67	4433.33
	Repayments of Loans during the period	0.00	0.00	633.33	633.33	633.33
	Net loan - Closing	5700.00	5700.00	5066.67	4433.33	3800.00
	Average Net Loan	5700.00	5700.00	5383.33	4750.00	4116.67
	Rate of Interest on Loan	8.2500%	8.2500%	8.2500%	8.2500%	8.2500%
	Interest on Loan Annualised	470.25	470.25	444.13	391.88	339.63
SBI VIII D-7 repayment from 31.01.2022 -9Y						
	Gross loan - Opening	4500.00	4500.00	4500.00	4500.00	4500.00
	Cumulative repayments of Loans upto previous period	0.00	0.00	0.00	500.00	1000.00
	Net loan - Opening	4500.00	4500.00	4500.00	4000.00	3500.00
	Increase/ Decrease due to FERV	0.00	0.00	0.00	0.00	0.00
	Increase/ Decrease due to ACE	0.00	0.00	0.00	0.00	0.00
	Total	4500.00	4500.00	4500.00	4000.00	3500.00
	Repayments of Loans during the period	0.00	0.00	500.00	500.00	500.00
	Net loan - Closing	4500.00	4500.00	4000.00	3500.00	3000.00
	Average Net Loan	4500.00	4500.00	4250.00	3750.00	3250.00
	Rate of Interest on Loan	8.2500%	8.2500%	8.2500%	8.2500%	8.2500%
	Interest on Loan Annualised	371.25	371.25	350.63	309.38	268.13
SBI VIII D-8 repayment from 31.01.2022 -9Y						
	Gross loan - Opening	1300.00	1300.00	1300.00	1300.00	1300.00
	Cumulative repayments of Loans upto previous period	0.00	0.00	0.00	144.44	288.89
	Net loan - Opening	1300.00	1300.00	1300.00	1155.56	1011.11
	Increase/ Decrease due to FERV	0.00	0.00	0.00	0.00	0.00
	Increase/ Decrease due to ACE	0.00	0.00	0.00	0.00	0.00
	Total	1300.00	1300.00	1300.00	1155.56	1011.11
	Repayments of Loans during the period	0.00	0.00	144.44	144.44	144.44
	Net loan - Closing	1300.00	1300.00	1155.56	1011.11	866.67
	Average Net Loan	1300.00	1300.00	1227.78	1083.33	938.89
	Rate of Interest on Loan	8.2500%	8.2500%	8.2500%	8.2500%	8.2500%
	Interest on Loan Annualised	107.25	107.25	101.29	89.38	77.46
SBI VIII D-10 repayment from 31.01.2022 -9Y						
	Gross loan - Opening	4500.00	4500.00	4500.00	4500.00	4500.00
	Cumulative repayments of Loans upto previous period	0.00	0.00	0.00	500.00	1000.00
	Net loan - Opening	4500.00	4500.00	4500.00	4000.00	3500.00
	Increase/ Decrease due to FERV	0.00	0.00	0.00	0.00	0.00
	Increase/ Decrease due to ACE	0.00	0.00	0.00	0.00	0.00
	Total	4500.00	4500.00	4500.00	4000.00	3500.00
	Repayments of Loans during the period	0.00	0.00	500.00	500.00	500.00
	Net loan - Closing	4500.00	4500.00	4000.00	3500.00	3000.00
	Average Net Loan	4500.00	4500.00	4250.00	3750.00	3250.00
	Rate of Interest on Loan	8.2500%	8.2500%	8.2500%	8.2500%	8.2500%
	Interest on Loan Annualised	371.25	371.25	350.63	309.38	268.13
SBI VIII D-12 repayment from 31.01.2022 -9Y						
	Gross loan - Opening	1300.00	1300.00	1300.00	1300.00	1300.00
	Cumulative repayments of Loans upto previous period	0.00	0.00	0.00	144.44	288.89
	Net loan - Opening	1300.00	1300.00	1300.00	1155.56	1011.11
	Increase/ Decrease due to FERV	0.00	0.00	0.00	0.00	0.00
	Increase/ Decrease due to ACE	0.00	0.00	0.00	0.00	0.00
	Total	1300.00	1300.00	1300.00	1155.56	1011.11
	Repayments of Loans during the period	0.00	0.00	144.44	144.44	144.44
	Net loan - Closing	1300.00	1300.00	1155.56	1011.11	866.67
	Average Net Loan	1300.00	1300.00	1227.78	1083.33	938.89
	Rate of Interest on Loan	8.2500%	8.2500%	8.2500%	8.2500%	8.2500%
	Interest on Loan Annualised	107.25	107.25	101.29	89.38	77.46
SBI VIII D-14 repayment from 31.01.2022 -9Y						
	Gross loan - Opening	1000.00	1000.00	1000.00	1000.00	1000.00
	Cumulative repayments of Loans upto previous period	0.00	0.00	0.00	111.11	222.22
	Net loan - Opening	1000.00	1000.00	1000.00	888.89	777.78
	Increase/ Decrease due to FERV	0.00	0.00	0.00	0.00	0.00
	Increase/ Decrease due to ACE	0.00	0.00	0.00	0.00	0.00
	Total	1000.00	1000.00	1000.00	888.89	777.78

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Calculation of Interest on Actual Loans						
Name of the Company		NTPC LTD.			Form-13	
Name of the Power Station		VSTPS V				
(Amount in lacs)						
Sl. no.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
2						
	Repayments of Loans during the period	0.00	0.00	111.11	111.11	111.11
	Net loan - Closing	1000.00	1000.00	888.89	777.78	666.67
	Average Net Loan	1000.00	1000.00	944.44	833.33	722.22
	Rate of Interest on Loan	8.2500%	8.2500%	8.2500%	8.2500%	8.2500%
	Interest on Loan Annualised	82.50	82.50	77.92	68.75	59.58
SBI VIII Total						
	Gross loan - Opening	18300.00	18300.00	18300.00	18300.00	18300.00
	Cumulative repayments of Loans upto previous period	0.00	0.00	0.00	2033.33	4066.67
	Net loan - Opening	18300.00	18300.00	18300.00	16266.67	14233.33
	Increase/ Decrease due to FERV	0.00	0.00	0.00	0.00	0.00
	Increase/ Decrease due to ACE	0.00	0.00	0.00	0.00	0.00
	Total	18300.00	18300.00	18300.00	16266.67	14233.33
	Repayments of Loans during the period	0.00	0.00	2033.33	2033.33	2033.33
	Net loan - Closing	18300.00	18300.00	16266.67	14233.33	12200.00
	Average Net Loan	18300.00	18300.00	17283.33	15250.00	13216.67
	Rate of Interest on Loan	8.2500%	8.2500%	8.2500%	8.2500%	8.2500%
	Interest on Loan Annualised	1509.75	1509.75	1425.88	1258.13	1090.38

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Details of Source wise Fuel for Computation of Energy Charges

Name of the Company :		VSTPS Stage-V						
Name of the Power Station :		Oct-18		Nov-18		Dec-18		
S. No.	Month	Unit	Domestic	Imported	Domestic	Imported	Domestic	Imported
1	Quantity of Coal/Lignite supplied by Coal/Lignite Company	(MMT)	3.6357		3.5211		3.6942	
2	Adjustment (+/-) in quantity supplied made by Coal/Lignite Company	(MMT)						
3	Coal supplied by Coal/Lignite Company (3+4)	(MMT)	3.6357		3.5211		3.6942	
4	Normative Transit & Handling Losses (For coal/Lignite based projects)	(MMT)	0.0086		0.0083		0.0092	
5	Net coal / Lignite Supplied (3+4)	(MMT)	3.6271		3.5128		3.6849	
6	Amount charged by the Coal /Lignite Company	(Rs.)	7552838368		7558647937		7859601209	
7	Adjustment (+/-) in amount charged made by Coal/Lignite Company	(Rs.)	435552917		150000000		126483855	
8	Total amount Charged (6+7)	(Rs.)	7788391285		7708647937		7986085063	
9	Transportation charges by rail/ship/road transport	(Rs.)	149680783		147885090		169048155	
10	Adjustment (+/-) in amount charged made by Railways/Transport Company	(Rs.)						
11	Demurrage Charges, if any	(Rs.)						
12	Cost of diesel in transporting coal through MGR system, if applicable	(Rs.)	17051505		19129401		17343677	
13	Total Transportation Charges (9+10-11+12)	(Rs.)	166732288		16704491		186391832	
13A	Handling, Sampling and such other similar charges	(Rs.)	34788629		32948789		80527942	
14	Total amount Charged for coal/lignite supplied including Transportation (8+13+13A)	(Rs.)	7989912202		7908611218		8253004837	
15	Landed cost of coal/ Lignite (14/5)	Rs./MT	2202.86		2251.35		2239.67	
16	Blending Ratio (Domestic/Imported)	Rs./MT	100.00		100.00		100.00	
17	Weighted average cost of coal/ Lignite for preceding three months	Rs./MT						
18	GCV of Domestic Coal as per bill of Coal Company (Eq Basis)	(kCal/Kg)	4629		4694		4689	
19	GCV of Imported Coal as per bill Coal Company	(kCal/Kg)						
20	Weighted average GCV of coal/ Lignite as Billed	(kCal/Kg)	4629		4694		4689	
21	GCV of Domestic Coal as received at Station (TM basis)	(kCal/Kg)	3609		3699		3794	
22	GCV of Imported Coal of opening stock as received at Station	(kCal/Kg)						
23	Weighted average GCV of coal/ Lignite as Received (TM basis)	(kCal/Kg)	3609		3699		3794	



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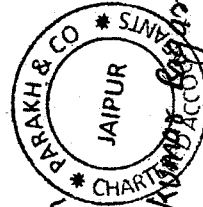
Details of Source wise Fuel for Computation of Energy Charges

S. No.	Month	Unit	NTPC Limited Vindhyachal STPP, Stage 1,2,3,4 & 5													
			Stage 1 Oct-18		Stage 2 Oct-18		Stage 3 Oct-18		Stage 4 Oct-18		Stage 5 Oct-18					
			Domestic	Imported	Domestic	Imported	Domestic	Imported	Domestic	Imported	Domestic	Imported				
1	Quantity of Coal/Lignite supplied by Coal/Lignite Company	(MMT)	3.6357		3.6357		3.6357		3.6357		3.6357		3.6357		3.6357	
2	Adjustment (+/-) in quantity supplied made by Coal/Lignite Company	(MMT)														
3	Coal supplied by Coal/Lignite Company (3+4)	(MMT)	3.6357		3.6357		3.6357		3.6357		3.6357		3.6357		3.6357	
4	Normative Transit & Handling Losses (For coal/Lignite based projects)	(MMT)	0.0086		0.0086		0.0086		0.0086		0.0086		0.0086		0.0086	
5	Net coal/Lignite Supplied (3-4)	(MMT)	3.6271		3.6271		3.6271		3.6271		3.6271		3.6271		3.6271	
6	Amount charged by the Coal/Lignite Company	(Rs.)	7352838368		7352838368		7352838368		7352838368		7352838368		7352838368		7352838368	
7	Adjustment (+/-) in amount charged made by Coal/Lignite Company	(Rs.)	435552917		435552917		435552917		435552917		435552917		435552917		435552917	
8	Total amount Charged (6+7)	(Rs.)	7788391285		7788391285		7788391285		7788391285		7788391285		7788391285		7788391285	
9	Transportation charges by rail/ship/road transport	(Rs.)	149680783		149680783		149680783		149680783		149680783		149680783		149680783	
10	Adjustment (+/-) in amount charged made by Railways/Transport Company	(Rs.)														
11	Demurrage Charges, if any.	(Rs.)														
12	Cost of diesel in transporting coal through MGR system, if applicable	(Rs.)	17051505		17051505		17051505		17051505		17051505		17051505		17051505	
13	Total Transportation Charges (9+10-11+12)	(Rs.)	166732288		166732288		166732288		166732288		166732288		166732288		166732288	
13A	Handling, Sampling and such other similar charges	(Rs.)	34788629		34788629		34788629		34788629		34788629		34788629		34788629	
14	Total amount Charged for coal/Lignite supplied including Transportation (8+13+13A)	(Rs.)	7989912202		7989912202		7989912202		7989912202		7989912202		7989912202		7989912202	
15	Landed cost of coal/Lignite (14/5)	Rs./MT	2202.86		2202.86		2202.86		2202.86		2202.86		2202.86		2202.86	
16	Blending Ratio (Domestic/Imported)		100.00		100.00		100.00		100.00		100.00		100.00		100.00	
17	Weighted average cost of coal/Lignite for preceding three months	Rs./MT														
18	GCV of Domestic Coal as per bill of Coal Company (Eq Basis)	(kCal/kg)	4629		4629		4629		4629		4629		4629		4629	
19	GCV of Imported Coal as per bill of Coal Company	(kCal/kg)														
20	Weighted average GCV of coal/Lignite as Billed	(kCal/kg)	4629		4629		4629		4629		4629		4629		4629	
21	GCV of Domestic Coal as received at Station (TM basis)	(kCal/kg)	3593		3574		3592		3593		3593		3593		3609	
22	GCV of Imported Coal of opening stock as received at Station	(kCal/kg)														
23	Weighted average GCV of coal/Lignite as Received (TM basis)	(kCal/kg)	3593		3574		3592		3593		3593		3593		3609	

Note: Qty and Value at Sl. No. 1 and 6 respectively also includes the Qty and Value of Opening stock.

Petitioner

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21/10/2020



Signature
G. Prakash & Co. Chartered Accountants

MPN - 425104
FRN - 0001475c

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S. No.		Month		NTPC Limited Vindhyachal STPP, Stage 1,2,3,4 & 5											
				Stage 1 Nov-18		Stage 2 Nov-18		Stage 3 Nov-18		Stage 4 Nov-18		Stage 5 Nov-18			
		Domestic	Imported	Domestic	Imported	Domestic	Imported	Domestic	Imported	Domestic	Imported	Domestic	Imported		
1	Quantity of Coal/Lignite supplied by Coal/Lignite Company	(MMT)	3.5211			3.5211				3.5211					
2	Adjustment (+/-) in quantity supplied made by Coal/Lignite Company	(MMT)													
3	Coal supplied by Coal/Lignite Company (3+4)	(MMT)	3.5211			3.5211				3.5211					
4	Normative Transit & Handling Losses (For coal/Lignite based projects)	(MMT)	0.0083			0.0083				0.0083					
5	Net coal/Lignite Supplied (3-4)	(MMT)	3.5128			3.5128				3.5128					
6	Amount charged by the Coal/Lignite Company	(Rs.)	7558647937			7558647937				7558647937					
7	Adjustment (+/-) in amount charged made by Coal/Lignite Company	(Rs.)	150000000			150000000				150000000					
8	Total amount charged (6+7)	(Rs.)	7708647937			7708647937				7708647937					
9	Transportation charges by rail/ship/road transport	(Rs.)	147885090			147885090				147885090					
10	Adjustment (+/-) in amount charged made by Railways/Transport Company	(Rs.)													
11	Demurrage Charges, if any	(Rs.)													
12	Cost of diesel in transporting coal through MGR system, if applicable	(Rs.)	19129401			19129401				19129401					
13	Total Transportation Charges (9+10-11+12)	(Rs.)	167014491			167014491				167014491					
13A	Handling, Sampling and each other similar charges	(Rs.)	32948789			32948789				32948789					
14	Total amount charged for coal/Lignite supplied including Transportation (8+13+13A)	(Rs.)	7908611218			7908611218				7908611218					
15	Landed cost of coal/Lignite (14/5)	Rs./MT	2251.35			2251.35				2251.35					
16	Blending Ratio (Domestic/imported)		100.00			100.00				100.00					
17	Weighted average cost of coal/Lignite for preceding three months	Rs./MT				2231.13									
18	GCV of Domestic Coal as per bill of Coal Company (Eq Basis)	(KCal/Kg)	4694			4694				4694					
19	GCV of Imported Coal as per bill of Coal Company	(KCal/Kg)													
20	Weighted average GCV of coal/Lignite as Billed	(KCal/Kg)	4694			4694				4694					
21	GCV of Domestic Coal as received at Station (TM basis)	(KCal/Kg)	3701			3701				3701					
22	GCV of Imported Coal as received at Station	(KCal/Kg)													
23	Weighted average GCV of coal/Lignite as Received (TM basis)	(KCal/Kg)	3701			3701				3701					

Note: Qty and Value at Sl. No. 1 and 6 respectively also includes the Qty and Value of Opening stock.

Petitioner

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Gotam Kumar Bagasriya
MRN - 425204
FRN - 0001475C

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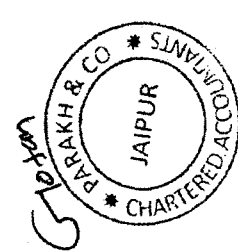
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Details of Source wise Fuel for Computation of Energy Charges

S. No.	Month	Unit	NTPC Limited Vindhyachal STPP, Stage 1,2,3,4 & 5												
			Stage 1 Dec-18		Stage 2 Dec-18		Stage 3 Dec-18		Stage 4 Dec-18		Stage 5 Dec-18				
			Domestic	Imported	Domestic	Imported	Domestic	Imported	Domestic	Imported	Domestic	Imported			
1	Quantity of Coal/Lignite supplied by Coal/Lignite Company	(MMT)	3.6942		3.6942		3.6942		3.6942		3.6942		3.6942		
2	Adjustment (+/-) in quantity supplied made by Coal/Lignite Company	(MMT)													
3	Coal supplied by Coal/Lignite Company (3-4)	(MMT)	3.6942		3.6942		3.6942		3.6942		3.6942		3.6942		
4	Normative Transit & Handling Losses (For coal/Lignite based projects)	(MMT)	0.0092		0.0092		0.0092		0.0092		0.0092		0.0092		
5	Net coal / Lignite Supplied (3-4)	(MMT)	3.6849		3.6849		3.6849		3.6849		3.6849		3.6849		
6	Amount charged by the Coal /Lignite Company	(Rs.)	7859601209		7859601209		7859601209		7859601209		7859601209		7859601209		
7	Adjustment (+/-) in amount charged made by Coal/Lignite Company	(Rs.)	126483855		126483855		126483855		126483855		126483855		126483855		
8	Total amount charged (6+7)	(Rs.)	7986085063		7986085063		7986085063		7986085063		7986085063		7986085063		
9	Transportation charges by rail/ship/road transport	(Rs.)	169048155		169048155		169048155		169048155		169048155		169048155		
10	Adjustment (+/-) in amount charged made by Railways/Transport Company	(Rs.)													
11	Demurrage Charges, if any	(Rs.)													
12	Cost of diesel in transporting coal through MGR system, if applicable	(Rs.)	17343677		17343677		17343677		17343677		17343677		17343677		
13	Total Transportation Charges (9+10-11+12)	(Rs.)	186391832		186391832		186391832		186391832		186391832		186391832		
13A	Handling, Sampling and such other similar charges	(Rs.)	80527942		80527942		80527942		80527942		80527942		80527942		
14	Total amount charged for coal/lignite supplied including Transportation (8+13+13A)	(Rs.)	8253004837		8253004837		8253004837		8253004837		8253004837		8253004837		
15	Landed cost of coal/ Lignite (14/5)	Rs./MT	2239.67		2239.67		2239.67		2239.67		2239.67		2239.67		
16	Bleeding Ratio (Domestic/Imported)	Rs./MT	100.00		100.00		100.00		100.00		100.00		100.00		
17	Weighted average cost of coal/ Lignite for preceding three months	Rs./MT					2231.13								
18	GCV of Domestic Coal as per bill of Coal Company (Eq Basis)	(kCal/kg)													
19	GCV of Imported Coal as per bill of Coal Company	(kCal/kg)	4689		4689		4689		4689		4689		4689		
20	Weighted average GCV of coal/ Lignite as Billed	(kCal/kg)													
21	GCV of Domestic Coal as received at Station (TM basis)	(kCal/kg)	4689		4689		4689		4689		4689		4689		
22	GCV of Imported Coal of opening stock as received at Station	(kCal/kg)	3796		3796		3796		3796		3796		3796		
23	Weighted average GCV of coal/ Lignite as Received (TM basis)	(kCal/kg)	3796		3796		3796		3796		3796		3796		
Note: Qty and Value at Sl. No. 1 and 6 respectively also includes the Qty and Value of Opening stock.															

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Grotam Kumar Bagaria
MAN - 425104
FAN - 0001475C

Handwritten signature and date: 22/11/2018

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Details of Secondary Fuel for Computation of Energy Charges

Name of the Company :	NTPC Limited
Name of the Power Station :	Vindhyachal Super Thermal Power Station Stage-V

Sl.No.	Month	Unit	Oct-18 LDO	Nov-18 LDO	Dec-18 LDO
1	Quantity of oil supplied by Oil Company*	KL	2822.92	2607.92	2467.92
2	Value of Oil *	Rs	142365540	131522658	124462175
3	Adjustment (+/-) in quantity supplied made by Oil Company	KL	0	0	0
4	Oil supplied by Oil Company	KL	0	0	0
5	Normative transit & Handling losses	KL	0	0	0
6	Net Oil supplied (4-5)	KL	0	0	0
7	Amount charged by the Oil Company	(Rs)	0	0	0
8	Adjustment (+ / -) in amount charged by Oil Company	(Rs)	0	0	0
9	Total Amount charged (7+8)	(Rs)	0	0	0
10	Transportation charges by Rail / Ship / Road Transport	(Rs)	0	0	0
11	Adjustment (+/-) in amount charged by railways / transport company	(Rs)	0	0	0
12	Demurrage charges, if any	(Rs)	0	0	0
13	Cost of diesel in transporting Oil through MGR system, if applicable	(Rs)	0	0	0
14	Total transportation charges (10+/- 11 - 12 + 13)	(Rs)	0	0	0
15	Others- Entry Tax on oil	(Rs)	0	0	0
16	Total amount charged for Oil supplied including transportation (14 + 15)	(Rs)	0	0	0
17	Landed Cost of Oil (HFO/LDO) (2+16) / (1+6)	Rs/KL	50432	50432	50432
18	Weighted average GCV of Oil as fired	(kCal/L)	9470	9446	9479
19	Weighted average rate of Secondary Fuel	Rs/KL	50432.01	50432.01	50432.01



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(27)

Computation of Energy Charges

Name of the Company: NTPC Limited
Name of the Power Station: Vindhyaachal Super Thermal Power Station Stage-V

1(a) Rate of Energy Charge from lime stone (p/kwh)
= (LC)_n X LPL

2.592

1(b) Rate of Energy Charge from Sec. Fuel Oil/ Alternate Fuel (p/kwh)
= (Q_o)_n X P_s

2.522

2 Heat Contribution from SFO / Alternate Fuel (H_h)
= (Q_s)_n X (GCV)_s

4.732

3 Heat Contribution from coal (H_p)
= GHR- H_h

2396.83

4 Specific Primary Fuel Consumption (Qp)_n
= H_p / (GCV)_p

0.663

5 Rate of Energy charge from Primary Fuel (p/kwh) (REC)_p

147.878

6 Rate of Energy charge ex-bus (p/kWh) (REC)_s + (REC)_p + (REC)_{LS} / (1-(AUX))

165.147

0.015818824

		2019-20				2020-21				2021-22				2022-23				2023-24			
		No of Days in the year	Days	366	365	366	365	366	365	366	365	366	365	366	365	366	365	366			
Sp. Oil consumption	ml/kwh	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5				
Auxiliary consumption	%	7.36	7.36	7.36	7.36	7.36	7.36	7.36	7.36	7.36	7.36	7.36	7.36	7.36	7.36	7.36	7.36				
Heat Rate	Kcal/Kwh	2,401.56	2,401.56	2,401.56	2,401.56	2,401.56	2,401.56	2,401.56	2,401.56	2,401.56	2,401.56	2,401.56	2,401.56	2,401.56	2,401.56	2,401.56	2,401.56				
Sp. Lime Stone Consumption	Kg/kwh	0.0162	0.0162	0.0162	0.0162	0.0162	0.0162	0.0162	0.0162	0.0162	0.0162	0.0162	0.0162	0.0162	0.0162	0.0162	0.0162				

Computation of Variable Charges

Variable Charge (Coal)	p/kwh	159.627	159.627	159.627	159.627	159.627	159.627	159.627	159.627	159.627	159.627	159.627	159.627	159.627	159.627	159.627	159.627
Variable Charge (Oil)	p/kwh	2.722	2.722	2.722	2.722	2.722	2.722	2.722	2.722	2.722	2.722	2.722	2.722	2.722	2.722	2.722	2.722
Variable Charge (Lime Stone)	p/kwh	2.798	2.798	2.798	2.798	2.798	2.798	2.798	2.798	2.798	2.798	2.798	2.798	2.798	2.798	2.798	2.798
Total	p/kwh	165.147	165.147	165.147	165.147	165.147	165.147	165.147	165.147	165.147	165.147	165.147	165.147	165.147	165.147	165.147	165.147

Price of fuel from Form-15/15A

Coal Cost	(Rs./MT)	2231.09	2231.09	2231.09	2231.09	2231.09	2231.09	2231.09	2231.09	2231.09	2231.09	2231.09	2231.09	2231.09	2231.09	2231.09	2231.09
Oil Cost	(Rs./KL)	50432.01	50432.01	50432.01	50432.01	50432.01	50432.01	50432.01	50432.01	50432.01	50432.01	50432.01	50432.01	50432.01	50432.01	50432.01	50432.01
Lime Stone Cost	Rs/MT	1600.00	1600.00	1600.00	1600.00	1600.00	1600.00	1600.00	1600.00	1600.00	1600.00	1600.00	1600.00	1600.00	1600.00	1600.00	1600.00

Computation of Fuel Expenses for Calculation of IWC:

ESO in a year	(MUs)	3458.44	3448.99	3448.99	3448.99	3448.99	3448.99	3448.99	3448.99	3448.99	3448.99	3448.99	3448.99	3448.99	3448.99	3448.99	3448.99
ESO for 50 days	(MUs)	472.464	472.464	472.464	472.464	472.464	472.464	472.464	472.464	472.464	472.464	472.464	472.464	472.464	472.464	472.464	472.464
Cost of coal for 50 Days	(Rs. Lakh)	7541.79	7541.79	7541.79	7541.79	7541.79	7541.79	7541.79	7541.79	7541.79	7541.79	7541.79	7541.79	7541.79	7541.79	7541.79	7541.79
Cost of oil for 2 months	(Rs. Lakh)	156.89	156.89	156.89	156.89	156.89	156.89	156.89	156.89	156.89	156.89	156.89	156.89	156.89	156.89	156.89	156.89
Cost of Lime Stone for 50 days	(Rs Lakh)	132.19	132.19	132.19	132.19	132.19	132.19	132.19	132.19	132.19	132.19	132.19	132.19	132.19	132.19	132.19	132.19
Energy Expenses for 45 days	(Rs. Lakh)	7022.33	7022.33	7022.33	7022.33	7022.33	7022.33	7022.33	7022.33	7022.33	7022.33	7022.33	7022.33	7022.33	7022.33	7022.33	7022.33

Coal	3rd month	2nd month	1st month	Wtd. Avg.
Wtd. Avg. Price of Coal	Rs./MT	2202.86	2251.35	2231.09
Wtd. Avg. GCV of Coal as received	kCal/Kg	3609	3699	3701.18
Wtd. Avg. GCV of Coal as received after adjustment of 85 kcal/kg				
Sec. Oil				3616.18
Wtd. Avg. Price of Secondary Fuel	Rs/KL	50432.01	50432.01	50432.01
Wtd. Avg. GCV of Secondary Fuel	kCal/L	9470.00	9446.00	9464.89
Wtd. Avg. Price of Lime Stone	Rs/MT	1600.00	1600.00	1600.00

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PA


PETITIONER

Name of the Petitioner
Name of the Generating Station

NTPC Ltd
Vindhyachal Super Thermal Power Station Stage-V

Statement of Capital cost
(To be given for relevant dates and year wise)

(Amount in Rs. Lakh)

S. No.	Particulars	As on 01.04.2019		
		Accrual Basis	Un-discharged Liabilities	Cash Basis
A	a) Opening Gross Block Amount as per books	307665.12	5475.63	302189.49
	b) Amount of IDC in A(a) above	19476.23	0	19476.23
	c) Amount of FC in A(a) above	0	0	0
	d) Amount of FERV in A(a) above	6073.27	0	6073.27
	e) Amount of Hedging Cost in A(a) above	0	0	0
	f) Amount of IEDC in A(a) above	0	0	0
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			
To be provided at the time of truing up				
				

(Petitioner)

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Name of the Petitioner
Name of the Generating StationNTPC Ltd
Vindhyachal Super Thermal Power Station Stage-V**Statement of Capital Woks in Progress**

(To be given for relevant dates and year wise)

(Amount in Rs. Lakh)

S. No.	Particulars	As on 01.04.2019		
		Accrual Basis	Un-discharged Liabilities	Cash Basis
A	a) Opening CWIP as per books	205.65	17.81	187.84
	b) Amount of IDC in A(a) above	0	0	0
	c) Amount of FC in A(a) above	0	0	0
	d) Amount of FERV in A(a) above	0	0	0
	e) Amount of Hedging Cost in A(a) above	0	0	0
	f) Amount of IEDC in A(a) above	0	0	0
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			
	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			

To be provided at the time of truing up



(Petitioner)



Calculation of Interest on Normative Loan

Name of the Company :		NTPC Limited							
Name of the Power Station :		Vindhyaachal Super Thermal Power Station Stage-V							
S. No.	Particulars	(Amount in Rs Lakh)							
		Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24		
1	2	3	4	5	6	7	8		
1	Gross Normative loan – Opening	2,04,496.71	2,10,285.07	2,14,804.29	2,18,094.29	2,18,720.41	2,19,181.71		
2	Cumulative repayment of Normative loan up to previous year	30,289.43	45,260.05	61,899.26	78,844.14	95,942.32	1,13,083.06		
3	Net Normative loan – Opening	1,74,207.28	1,65,025.02	1,52,905.03	1,39,250.14	1,22,778.09	1,06,098.65		
4	Add: Increase due to addition during the year / period	4910.04	4,519.22	3,290.00	626.12	461.30	-		
5	Less: Decrease due to de-capitalisation during the year / period	-557.63	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	1435.95	0.00	0.00	0.00	0.00	0.00		
8	Less: Repayment of Loan	15528.24	16,639.21	16,944.89	17,098.18	17,140.74	17,158.80		
9	Net Normative loan - Closing	1,63,589.07	1,52,905.03	1,39,250.14	1,22,778.09	1,06,098.65	88,939.85		
10	Average Normative loan	1,68,898.17	1,58,965.03	1,46,077.59	1,31,014.12	1,14,438.37	97,519.25		
11	Weighted average rate of interest	7.5647	7.7631	7.9124	7.8917	7.8553	7.7455		
12	Interest on Loan	12776.64	12340.61	11558.24	10339.24	8989.48	7553.35		



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(Petitioner)

Calculation of Interest on Working Capital

Name of the Company :		NTPC Limited							
Name of the Power Station :		Vindhyachal Super Thermal Power Station Stage-V							
S. No.	Particulars	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	(Amount in Rs Lakh)	
								2022-23	2023-24
1	2	3	4	5	6	7	8		
1	Cost of Coal/Lignite	7,935.60	7541.79	7541.79	7541.79	7541.79	7541.79		
2	Cost of Main Secondary Fuel Oil	162.50	156.89	156.47	156.47	156.47	156.89		
3	Cost of Lime stone		132.19	132.19	132.19	132.19	132.19		
3	Fuel Cost								
4	Liquid Fuel Stock								
5	O & M Expenses	1,050.88	1131.68	1173.66	1217.43	1263.03	1310.10		
6	Maintenance Spares	2,522.10	2716.04	2816.78	2921.82	3031.28	3144.25		
7	Receivables	18,756.12	14819.01	14886.81	14841.28	14753.70	14630.57		
8	Total Working Capital	30427.20	26497.61	26707.70	26810.98	26878.46	26915.80		
9	Rate of Interest	13.5000	12.0500	12.0500	12.0500	12.0500	12.0500		
10	Interest on Working Capital	4107.67	3192.96	3218.28	3230.72	3238.85	3243.35		



Petitioner

Liability Flow Statement w/e 31.03.2019				Form-5
Name of the Petitioner				Part-I
Name of the Generating Station				
COD				Year of creation of liability capitalised in Gross Block
30.10.2015				
Sr. No.	PARTY	DESCRIPTION OF WORK	Year of creation of liability capitalised in Gross Block	Undischarged liabilities relating to GB 31.03.2019
1	KAMAL BUILDERS	Dismantling existing boundary wall and construction of Phase roads in plant area	2013-14	27,35,289.00
2	KAMAL BUILDERS	Construction of boundary wall on eastern side covering vacant land & dismantling of existing boundary wall of VSTPP	2013-14	10,33,539.00
3	JAI MATA DEE CONSTRUCTION	Construction of roads, drainage, sewer line and site levelling in CISF area under stage-V	2014-15	7,06,152.00
4	PAWAN CONSTRUCTIONS	Structural work over WBH road in CISF area under stage-V	2014-15	4,04,141.00
5	VIAJY CONSTRUCTION	External electrification around light post of CISF area	2014-15	12,20,000.00
6	VINDHYA CONSTRUCTION	Construction of 10 nos. CISF C-Type Quarters at VSTPP Stage-V	2014-15	5,44,857.00
7	SUJAN ENGINEERING WORKS	PHOTO COPIER MACHINE	2014-15	69,220.00
8	DHRUV ENTERPRISES	Supply of Parachute	2014-15	99,950.00
9	K2 INFOSYS	Procurement of Entry Level Server	2014-15	-
10	CSPL COMPUTERS PVT LTD	COMPUTER WITH ACCESSORIES	2014-15	-
11	RAJ COMPUTERS	Procurement of Attendance Recording System	2014-15	-
12	INTERACTIVE DATA SYSTEMS LIMITED	Supply of Laserjet colour printer	2014-15	41,941.00
13	SAM SYSTEMS	Diversion of existing Nala / Storm water drain Canal	COD 29.10.15	-31,785.00
14	JAI MATA DEE CONSTRUCTION	Construction of boundary wall on eastern side covering vacant land & dismantling of existing boundary wall of VSTPP	COD 29.10.15	5,000.00
15	JAI MATA DEE CONSTRUCTION	CONSTRUCTION OF BOUNDARY WALL AT DIFFERENT LOCATIONS IN STAGE V AREA OF VSTPP	COD 29.10.15	1,96,881.00
16	M K AGARWAL & CO	Construction of First Aid Centre and labour rest room in Stage-V area of VSTPP	COD 29.10.15	1,06,420.00
17	SHRI RAM BROTHERS	Misc. civil works in Stage-V area	COD 29.10.15	1,45,978.00
18	PAWAN CONSTRUCTIONS	Main Plant Power House	COD 29.10.15	1,74,52,639.00
19	L&T INFRA STRUCTURE	Construction of community garages on different locations in township of NTPC-Vindhyachal	COD 29.10.15	1,12,433.00
20	AJEET CONSTRUCTION CO	SG ESP	COD 29.10.15	8,29,57,866.08
21	BHEL SG	SG ESP MAND SPARES	COD 29.10.15	-
22	BHEL SG	SG ESP	COD 29.10.15	-
23	BHEL SG	TG	COD 29.10.15	1,47,25,542.77
24	BHEL TG	Ex-works supply of Main Equipment for Station C&I and Instrumentation Cable package	COD 29.10.15	20,44,873.17
25	YOKOGAWA INDIA LTD	Supply of Loco	COD 29.10.15	-
26	D L W	CHP Stage V Civil	COD 29.10.15	1,06,09,447.61
27	M V Bheral Engineering	Ash Handling System and AVRSS Package for Vindhyachal Stage-V	COD 29.10.15	1,63,07,092.77
28	MAGNUS BERBERAT PVT LTD	CWI System Equipment Package for Vindhyachal Stage-V (12500MM)	COD 29.10.15	-
29	LYOTI LIMITED	COOLING TOWERS PACKAGE	COD 29.10.15	98,94,776.00
30	PAHARPUR COOLING TOWERS LTD	Supply of GI Filings Resisting BLU (O&M) Project-S&V	COD 29.10.15	2,826.00
31	IMPREG INDIA	Study and design of L1 BUSDUCT PKG, WINDHYACHAL-V-EX_WORKS MAIN	COD 29.10.15	51,73,605.13
32	BHARAT HEAVY ELECTRICALS LTD	Supply of L1 BUSDUCT PKG, WINDHYACHAL-V-EX_WORKS MAIN	COD 29.10.15	4,62,793.92
33	GE INDIA INDUSTRIAL PVT LTD	ELECTRICAL EQUIPMENT SUPPLY & ERECTION PACKAGE	COD 29.10.15	37,29,566.98
34	PETRON ENGINEERING CONSTRUCTION	ERV/29.10.2015	COD 29.10.15	30,15,099.67
35	BHEL SG	ERV/29.10.2015	COD 29.10.15	14,97,605.88
36	BHEL ESP	ERV/29.10.2015	COD 29.10.15	-1,08,40,059.52
37	BHEL TG	ERV/29.10.2015	COD 29.10.15	1,458.00
38	INTERACTIVE DATA SYSTEMS LIMITED	Attendance Recording System	04.07.2015	-
39	MICRO VISION SURVEYO	Survey work in VSTPP Stage-V area	31.03.2016	-23,796.00
40	MICRO VISION SURVEYO	Topographical survey of work of stage-V	31.03.2016	-22,716.00
41	BASANT ENGINEERING CO	Laying of Raw water Pipe line from Cooling Tower No. 7 to Lake Park	31.03.2016	1,50,000.00
42	BHEL SG	WORKS ERV	2015-16	-
43	BHEL TG	WORKS ERV	2015-16	49,22,000.00
44	VOLTAS LTD	TOWER TYPE ATON AIRCONDITIONER Sqr.1	2015-16	6,530.00
45	INTERACTIVE DATA SYSTEMS	Attendance Record System	2015-16	-1,958.00

Liability Flow Statement w.e.f 01.04.2019				
Name of the Particular		Form-S		
Name of the Generating Station		Part-I		
COD		30.10.2016		
Sr. No.	PARTY	DESCRIPTION OF WORK	Year of creation of liability capitalised in Gross Block	
			Undischarged liabilities relating to GB 31.03.2019	
46	PAWAN CONSTRUCTION	Construction of roads, drainage, sewer line and site levelling in CISF area under stage-V	2016-17	9,86,519.00
47	AAKAR ENGINEERS & CONTRACTORS	Construction of CISF barracks in new area of Township under Stage-V activities of VSTPP(Part-A)	2016-17	21,46,412.00
48	BHEL SG	SG ESP	2016-17	5,09,27,901.87
49	BHEL SG	SG ESP	2016-17	7,49,81,035.16
50	ALSTOM INDIA LIMITED	FGD PACKAGE	2016-17	3,85,84,393.47
51	BHEL TG	TG	2016-17	3,29,01,155.15
52	WALBER BEEKAY PVT LTD	Ash Handling System and AAWRS Package for Vindhyachal Stage-V	2016-17	54,35,159.26
53	WALBER BEEKAY PVT LTD	CW System Equipment Package for Vindhyachal Stage-V (12500MM)	2016-17	55,95,109.26
54	BRIDGE & ROOSE COMPANY INDIA LTD	Station Piping Package for VSTPP - V	2016-17	63,35,548.39
55	SURELAND INDUSTRIAL FIRE SAFETY LTD	FD'S package for VSTPP - V	2016-17	25,50,846.31
56	Advance Ventilation Pvt.Ltd	AC and ventilation Package for vstpp-v	2016-17	9,82,677.00
57	OE INDIA INDUSTRIAL PVT LTD	EL SUPPLY & LT BUSDUCT PKG, VINDHYACHAL-V-EX, WORKS MAIN	2016-17	1,55,07,448.96
58	PETRON ENGINEERING CONSTRUCTION	ELECTRICAL EQUIPMENT SUPPLY & ERECTION PACKAGE	2016-17	34,91,609.00
59	SIEMENS LTD.	Power transformer Package	2016-17	6,34,184.00
60	TECHNO ELECTRIC&ENGINEERING CO LTD	SWITCH YARD PACKAGE	2016-17	11,46,234.43
61	Rana Pratap Singh	Construction of pavement quality concrete road along with RCC drain for labour gate complex, and eastern side boundary wall of NTPC-VSTPP, Stage-V.	2016-17	3,82,860.00
62	A K GUPTA & COMPANY	Construction of New Boundary wall on the Northern and Eastern side of Administrative Building for Ash Truck Comidor of Stage-V and near New Metal Gate under VSTPP Stage-V.	2016-17	3,42,308.00
63	AURUM CONSTRUCTION	Lining of Nalal storm water drain near CISF Barrack and development of area for CISF Parade ground	2016-17	1,70,000.00
64	ELECTRO THERAPY	PROCURMENT OF WINCH MACHINES	2016-17	1,86,755.00
65	QUADRI ELECTRIC ENGINEERS	Round the Clock Maint. of Construction Power Network of NTPC/VSTPP Stage-IV & V.	2016-17	4,22,337.00
66	R B SHARMA	Job Contract for Construction of Stone Wall (Retaining Wall) along the Stage-IV & Stage-V Ash Pipeline Corridor in between Ash pipe and Rail embankment at NTPC-Vindhyachal.	2016-17	-74,39,262.57
67	BHEL SG	WORKS ERV	2016-17	33,24,393.29
68	BHEL TG	ERV	2016-17	-1,36,469.15
69	SURELAND INDUSTRIAL FIRE SAFETY LTD.	ERV	2016-17	-1,61,133.46
70	ALSTOM INDIA LIMITED	FGD ERV	2016-17	42,500.00
71	VAANSARI MARKETING SERVICES	FGD ERV	2016-17	10,500.00
72	RICOH INDIA LTD		2016-17	
73	DIESEL LOCOMOTIVE WORKS		2016-17	
74	SEMMINGTON IN-CORPORATION		2016-17	17,180.00
75	CCS COMPUTERS PVT LTD		2016-17	2,28,750.00

Liability Flow Statement w.e.f 01.04.2019		Form-S	
Name of the Pledgitor		Part-I	
Name of the Generating Station		Undischarged liabilities relating to	
COD		GB 31.03.2019	
Sr. No.	PARTY	DESCRIPTION OF WORK	Year of creation of liability capitalised in Gross Block
	NTPC Limited		
	VSTPP V		
	30.10.2016		
76	LECO INSTRUMENTS INDIA PVT LTD		48,000.00
77	LECO INSTRUMENTS INDIA PVT LTD		-
78	RAJAT ASSOCIATES		-
79	RUCHI INDIA LTD		27,28,366.00
80	RAJAT ASSOCIATES		-
81	SAM SYSTEMS		87,639.00
82	LAT INERA STRUCTURE	Main Plant Power House	21,43,911.00
83	LAT INERA STRUCTURE	Main Plant Power House-Chimney	-
84	BHEL SG	SO ESP	29,91,713.42
85	BHEL SG & ESP	SO ESP	-
86	ALSTOM INDIA LIMITED	FGD PACKAGE	23,51,613.57
87	ALSTOM INDIA LIMITED	FGD PACKAGE	1,01,21,474.59
88	BHEL TG	TG	14,82,054.22
89	BHEL TG	WORKS ERV	43,93,805.31
90	DRIPEX WATER ENGINEERING LTD.	CPU package for VSTPP V.	67,31,155.48
91	YOKOGAWA INDIA LTD	Ex-works supply of Main Equipment for Station C&I and Instrumentation Cable package	48,72,416.18
100	Monthly Bharat Engineering	CHP Stage V C&I	3,13,92,853.18
101	MACAMBER BEEKAY PVT LTD	Ash Handling System and AMRS Package for Vindhya Stage-V	1,57,51,789.95
102	JYOTI LIMITED	CIM System Equipment Package for Vindhya Stage-V (12500MM)	29,14,597.01
103	SURELAND INDUSTRIAL FIRE SAFETY LTD	FDPS package for VSTPP V	44,83,430.57
104	SURELAND INDUSTRIAL FIRE SAFETY LTD	ERV	-5,546.96
107	Advance Ventilation P&L Ltd	AC and ventilation Package for stage-V	12,26,581.48
108	BHARAT HEAVY ELECTRICALS LTD	Generator, Busducts and Associated Equipment	2,49,955.00
109	BHARAT HEAVY ELECTRICALS LTD	MV Switchgear and associated works VSTPP V	-1,49,000.00
110	GE INDIA INDUSTRIAL PVT LTD	LT SWGR & LT BUSDUCT PRG, VINHYACHAL-V-EX, WORKS MAIN EQUIPMENT	-2,54,154.69
111	PETRON ENGINEERING CONSTRUCTION	ELECTRICAL EQUIPMENT SUPPLY & ERECTION PACKAGE	-21,91,692.00
116	Rana Pratap Singh	Construction of pavement quality concrete road along with RCC drain for labour gate complex, and eastern side boundary wall of NTPC-VSTPP, Stage-V.	3,12,538.57
118	AJEET CONSTRUCTION CO	Job Contract for Construction of repair cum assembly workshop for boiler Equipment under stage V, at NTPC, Vindhya	3,01,497.00
119	A K GUPTA & COMPANY	Construction of Rest Rooms for Contractual Labourers in plant under Stage-V at NTPC-Vindhya	14,36,638.00
120	SHAILESH ASSOCIATES	Job Contract for Flooring work at Administrative Building and Services Building Stage-I under Stage-V capital Budget of NTPC-Vindhya	4,13,176.00
122	R B SHARMA	Job Contract for Construction of Stone Wall (Retaining Wall) along the Stage-IV & Stage-V Ash Pipeline Corridor in between Ash Pipe and Rail embankment at NTPC-Vindhya	7,08,001.86
124	R CHOUDHARY & CO	Extension of Record room at administrative building premises of NTPC Vindhya	1,04,226.00
125	FIBRO FLEX INDUSTRIES	Job Contract for Construction of Overstone Room, Tanks, Contractor Office, Weigh Bridge & Control Room and Truck Parking Area for FGD for Stage-V at NTPC-Vindhya	2,42,869.00
126	VAS ENGINEERING	Job contract for Construction of Drain & Area Development near WFGD SILV for scheduled VVIP visit on 10.12.2016 at NTPC-Vindhya	18,885.00
127	AJEET CONSTRUCTION CO	Job contract for Erection of Hand Rail by MS Round Tubes Between Main Plant & WFGD Stage-V	28,198.00
128	R CHOUDHARY & CO	Excavation of Chit work for Lime Storage area For WFGD SILV	31,786.00
129	COLOR DESIGN INDIA	Installation of 07 Nos. New furniture at different locations in Township of NTPC-Vindhya	2,07,575.00
131	BHAWANI INDUSTRIES	Procurement of kids play equipment for 18 parks of NTPC Vindhya	3,06,335.00
132	NUTECH LIFTING EQUIPMENTS INDIA	Supply of High pressure Jet Pump (C-2-8-2-MTMD)	3,27,080.00

Liability Flow Statement w.e.f 01.04.2019			
Sr. No.	PARTY	DESCRIPTION OF WORK	Year of creation of liability capitalised in Gross Block
Names of the Particular		Form-S	Part-I
COD		30.10.2015	
133	SEMINGTON IN-CORPORATION	PROCUREMENT OF HEAVY DUTY DIGITAL PHOTOCOPIER MACHINE	2017-18
134	SHARP BUSINESS SYSTEMS (INDIA)	PROCUREMENT OF MEDIUM DUTY NETWORK PHOTOCOPIER MACHINE	2017-18
137	Godrej & Boyce Mfg Co Ltd	Supply of LCD Projector for Club Movie.	2017-18
138	PITNEY BOWES INDIA PVT LTD	Supply of Framing Machine	2017-18
139	SCRUM SYSTEM PVT LTD	Supply of Enterprise Safety Training Kiosk for NTPC-Vidhyachal,Dist.	2017-18
140	Prology Technologies Pvt Ltd	SUPPLY OF DATA NETWORKING ITEMS	2017-18
141	JAGER INDIA PVT LTD	Supply of all in one desk top under	2017-18
142	HITACHI SYSTEMS MICRO CLINIC	Supply of server under Rate Contract	2017-18
144	INB COMPUTER SOLUTIONS PVT LTD	SUPPLY OF NAS (NETWORK ATTACHED STORAGE) SYSTEM	2017-18
145	U P INDUSTRIAL CO-OPERATIVE	SUPPLY OF VENETIAN BLINDS FOR GGM 42&43 VSR OFFICE	2017-18
146	CARE STREAM HEALTH INDIA PVT LTD	PROCUREMENT 42&43 INSTALLATION OF COMPUTED RADIOGRAPHY SYSTEM (CR)	2017-18
147	SIGATECH	Supply of Porta Cabin.	2017-18
151	PROGOS INTERNATIONAL MARKETING PVT	GRID TIED (INTERACTIVE) ROOFTOP SOLAR PV SYSTEM -Stage-5	2017-18
152	ATIS	Railway Station	2017-18
155	EESI	Light installations	2017-18
156	M K Sarwal & others	Tray trolley (formate)	2017-18
157	Premium Transpation	MGR seats & furniture	2017-18
158	Rena Prata Singh	DM plant building & other effluents buildings	2018-19
160	VJAY CONSTRUCTION	SG ESP	2018-19
161	AWADHESH KUMAR	SG ERV	2018-19
162	BHEL SG	RCC fresh FGD area	2018-19
163	BHEL SG	FGD PACKAGE	2018-19
164	G R CONSTRUCTION	FGD ERV	2018-19
165	ALSTOM INDIA LIMITED	TG ERV	2018-19
166	ALSTOM INDIA LIMITED	CHP Stage V Chhl	2018-19
167	BHEL TG	CW package	2018-19
168	BHEL TG	FDPS package for VSTPP V	2018-19
169	Monthly Bharat Engineering	ELECTRICAL EQUIPMENT SUPPLY & ERECTION PACKAGE	2018-19
170	IVOTI LIMITED	Power Transformers Package	2018-19
171	SURELAND INDUSTRIAL FIRE SAFETY LTD	design, supply, installation & CAMC for two years of In Motion Weigh Bridge System at NTPC	2018-19
172	SURELAND INDUSTRIAL FIRE SAFETY LTD	design, supply, erection and commissioning of CCTV system for coal sampling unit and EQMS at NTPC	2018-19
173	PETRON ENGINEERING CONSTRUCTION	Procurement of Nikon make Day Binocular through GEM	2018-19
174	SIEMENS LTD	Supply installation and commissioning of EV charger AC001.	2018-19
175	DIGITAL WEIGHING SYSTEMS PVT LTD	Supply of Desktop Computers.	2018-19
176	HEXXA GEO SYSTEMS INTEGRATORS	SUPPLY OF PERIPHERALS (FOR IT DEPTT.)	2018-19
177	ASIM NAVIGATION INDIA PVT LTD	SUPPLY OF PERIPHERALS (FOR IT DEPTT.)	2018-19
178	MASS-TECH CONTROL'S PVT LTD	SUPPLY OF PERIPHERALS (FOR IT DEPTT.)	2018-19
179	CORPORATE INFOTECH PVT LTD	SETTING OF NETWORKING FACILITY FOR SSC	2018-19
180	SAM SYSTEMS	Procurement of complete assembly of each slurry pump (O-4&5-P-M)	2018-19
181	RUCHI MARKETING	Supply of Circuit Breaker Timing kit	2018-19
182	RUAT ASSOCIATES	Supply of 20 KVA UPS and 48VDC SMPS	2018-19
183	ROCK TECHNOLOGIES SECURITY	Supply of 20 KVA UPS and 48VDC SMPS	2018-19
184	ACE MARKETING PVT LTD	SUPPLY OF UPS SYSTEM FOR RL (IT Deptt)	2018-19
185	SCORE ENERGY LTD		2018-19
186	POWER CONVERSION PVT LTD		2018-19
187	SUN POWER CONVERSION PVT LTD		2018-19
Total			64,76,83,182.37

Summary of issue involved in the petition

Name of the Company :		NTPC Limited				
Name of the Power Station :		Vindhyachal Super Thermal Power Station Stage-V				
1	Petitioner:	NTPC Limited				
2	Subject	Approval of Tariff for 2019-24				
3	<ul style="list-style-type: none"> 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) Allow additional O&M expenditure for FGD system vi) Allow additional APC of 1.11% in view of installation of FGD vii) Pass any other order as it may deem fit in the circumstances mentioned above. 					
4	Respondents	<ul style="list-style-type: none"> iv) Pass any other order as it may deem fit in the circumstances mentioned above. 				
Name of Respondents						
a. Madhya Pradesh Power Management Company Limited		e. Electricity Department, Goa				
b. Maharashtra State Electricity Distribution Co Ltd.		f. Electricity deartment, DNH				
c. Gujarat Urja Vikas Nigam Ltd. (GUVNL)						
d. Chattisgarh State Power Distribution Co. Ltd.,						
5	Project Scope					
	Cost					
	COD	30.10.2015				
	Claim					
	AFC	2019-20	2020-21	2021-22	2022-23	2023-24
	Capital cost (as on 1.4.2019)	63412.99	63789.73	63420.41	62725.29	61895.66
	Initial spare					
	NAPAF (Gen)					
	Any Specific	85%				
		3,00,407.24				

* Units of amounts shown in Rs Lakh

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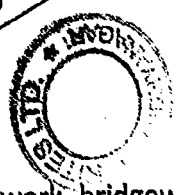
Railtech Infraventure Pvt. Ltd.

turning dreams in reality

() As Line - 1, 2, 3 has been completed traffic block of Line - 4 may be allowed forwarded to AGM (MFR) S STPS for n/a*
Date... 4/11/2019
9/11/19

TO,
Deputy General Manager
CCD/NTPC-VSTPP,
Through: RITES Ltd.

*Sanku Kumar
Manager
04/11/2019*



AGM (MFR)
J. K. Sengupta
AGM (MFR)
NTPC Limited-Vindhyachal

Name of Work: -Balance work of earthwork, bridgework, track construction work and track maintenance work of Rly siding and MGR system of NTPC Vindhyachal, stage -IV, package -2, Vindhyanagar.

LOA No.: -RITES/RPO-LKG/5904/NTPC/VSTPP/BALANCE/P-2/VOL-IV/660, Dated 23/11/2016.

Sub: -Regarding TRAFFIC BLOCK of Line No. 4 Exchange yard shaktinagar

Dear Sir,

With reference to above work, the traffic block of Line No. 4 Exchange yard shaktinagar from 05.01.2019 to 15.01.2019. For linking of track & final packing.

Therefore it is requested to arrange the Traffic block for timely execution of work.

Thanking you

RAILTECH INFRAVENTURE PVT. LTD.
Sanku Kumar
SUNIL KUMAR
SITE Incharge (R/P)

*→ To, Station Lk, Shaktinagar Rly. Stn.
SSTPS (NTPC) inspected Expend line No-2 with light loco movement and found line fit for rake movement. Kindly check status of line No-2 in view of safety and certify the same to start movement in line No-2 at the earliest.
S. N. Khuley 05/11/19*

Registered Office : 116-A, Main Vikash Marg, Shakarpur, New Delhi-110092, INDIA	ADDRESS FOR CORRESPONDENCE Corporate Office : 147/51-A, Old Bairehara, Alakhad-211003, (U.P.) INDIA
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CIN : U29253DL2008PTC176289



A Maharatna Company

o/c

एनटीपीसी लिमिटेड
(भारत सरकार का उद्यम)

NTPC Limited
(A part of India's Enterprise)

सिंगरौली / Singrauli

Ref: 031/O&M/MGR/Track

Date: 08/01/2019

To,
Station In-charge,
Railway station, Shaktinagar

Subject: Regarding certification for movement in Ex-change yard line no-2 and permitting block for line no-4 & 5 to carry out CTR work in R&M Package by RITES Ltd.

Reference:- Letter of M/s Railtech Infraventure Pvt. Ltd. Dated 04.01.2019 Carrying out Balanced work job of M/s Rites Ltd. Vide LOA no- ITES/RPO-LKO/5904/NTPC/VSTPP/BALANCE/P-2/VOL-IV/ 660 dated 23/11/2016 in R&M package of NTPC VSTPP (copy enclosed).

Dear Sir,

Kindly find attached above referred letter of M/s Railtech Infraventure Pvt. Ltd. in the reference to the certification for the rake movement through Ex-change yard line no-1, 2 and 3 in which CTR work in R&M Package awarded to RITES Ltd completed by the referred agency. But agency is requesting movement from Line no-2 from NTPC SSTPS.

Agency required permission for rake movement through Ex-change yard line no-2 after dual inspection for line fitness by NTPC & Railways respectively. In this regards NTPC has carried out Light loco movement for testing of line no-2. After Loco movement Line found fit for the rake movement from NTPC point of view. Now in lieu of safety we need certification approval by Shaktinagar railway station staff after checking the same. Kindly do needful inspection & certification of the line no-2 for starting movement through it now onwards.

Again, we would like to inform you that after starting movement in line no-2 agency is going to block the line and take up the CTR job in line no-4 & 5 simultaneously to prepare the same at the earliest to complete the said job referred above. For the purpose both Line no-4 & 5 will go under no rake movement block till further notice. This will take around 15 days approximately from the date of start of block. Till further information movement in line no-2 will be done as it is being done in line no-4 now days.

This is for dual consideration and suitable action from your end.
Treat it as most urgent in lieu of safe rake movement in ex-change yard lines.

Thanking you.

Yours faithfully

S. N. Pandey
Sachchidanand Pandey
Manager (MGR)

सचिदानन्द पाण्डेय/Sachchidanand Pandey
प्रबन्धक (ओ. एन. एम.-एच.टी. गार Monages(O&M-MGR)
एनटीपीसी सिंगरौली NTPC-Singrauli
शक्तिनगर, सोनभद्र (उ.प्र.)/Shaktinagar, Sonbhadra(U.P.)

A. Singh
08/01/19
SUPERVISOR
SHAKTINAGAR

Singrauli Super Thermal Power Station, PO: Shaktinagar, Dist: Sonbhadra (U.P.) 231 222 / Telex: 0948100071, Fax: 05446 232423
सिंगरौली सुपर थर्मल पावर स्टेशन, पी.ओ.: शक्तिनगर, जिला: सोनभद्र, २३१२२२ (उ.प्र.) ००७१, फोन २३२४२३-०५४४६
Registered Office: NTPC Bhawan, Scope Complex, 7 Institutional Area, Lodhi Road, New Delhi-110003
रजिस्टर ऑफिस भवन सी पी रो एन., स्कोप कॉम्प्लेक्स, ७ इंस्टीट्यूशनल एरिया, लोधी रोड, नई दिल्ली (110003)

Scanned by CamScanner

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Railtech Infraventure Pvt. Ltd.

turning dreams in reality

TO,

Deputy General Manager

CCD/NTPC-VSTPP.

Date 2/4/2019

*Sunil Kumar
Authorised Signatory*

Through: RITES Ltd.

Sub: - Balance work of earthwork, bridgework, track construction work and track maintenance work of Rly siding and MGR system of NTPC Vindhyachal, stage -IV, package -2, Vindhyanagar. (Loco trial for Line No.-01 and Traffic block of Line No.-04 at Shaktinagar Exchange Yard)

LOA.No:-RITES/RPO-LKO/5904/NTPC/VSTPP/BALANCE/P-2/VOL-IV/660, Dated 23/11/2016.

Dear Sir,

With reference to the above subject work, traffic block for line no.-04 at Shaktinagar Exchange Yard is required from 04.04.2019 to 15.04.2019 for laying & linking of track. We have completed the balance work of line no.-01 at Shaktinagar Exchange Yard.

Therefore it is requested to arrange loco for trail of Line no.-01 and grant traffic block of Line No.-04 at the earliest.

Thanking you

FOR RAILTECH INFRAVENTURE PVT. LTD.

Sunil Kumar
Authorised Signatory

SUNIL KUMAR
SITE In charge (RIPL)

- As the balance work of line-1 has been completed by RITES/RIPL, MGR-SSTPS is requested for location of line-1 and traffic block for line-4 as requested above.
- Forwarded to - 25/4/19

[Signature] AGM (ME)

[Signature] AGM/ME/SSTPS

[Signature] Shri S. D. Pandey

Registered Office : 116-A, Main Vikash Marg,
Shakarpur, New Delhi-110092, INDIA

ADDRESS FOR CORRESPONDENCE
Corporate Office : 147/91-A, Old Sakrahar,
Alahabad-211003, (U.P.) INDIA

(85)



सिंगरीली
SINGRAULI

Ref: 031 /O&M/MGR/Track

Date: 06/04/2019

To,
DTM/Chopan
E.C. Railway, Dhanbad,

Subject: Permission for issuing traffic block at Shaktinagar Ex-change yard line no 4 from 06.04.2019 to 21.04.2019 for completion of balance VSTPP R&M work

Ref: Permission letter from RITES Ltd. through VSTPP vide letter no.CCD/NTPC-VSTPP dated 02.04.2019 against LOA No: RITES/PO/VSTPP/5904/02/VOL-4/ dated 13.08.2018 for issuing traffic block at Shaktinagar Ex-change yard line no 4.

Dear Sir,

At the outset, we convey our thanks once again for issuing traffic blocks earlier at SKTN yard.

With reference to the above mentioned letter of M/s Railtech Infraventure Pvt Ltd completed CTR work in line no.-1 of Shaktinagar Ex-change yard and line is ready for the rake movement after loco trial by NTPC.

Further Vindhyachal is going to carry out the balanced CTR work of track **for Line No- 04 for balance track work at SKTN exchange yard from 06/04/2019** through their agency M/s Railtech Infraventure Pvt Ltd. For the said purpose agency has demanded traffic block of line no: 4 at Ex-change yard. During the course of work, Ex-change yard line no-1 shall be functional for coal transportation.

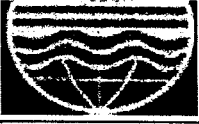
Hence kindly arrange to issue the traffic block **Ex-change yard line no 4 from 06/04/2019 to 21/04/2019** to the agency M/s Railtech Infraventure Pvt Ltd & M/s RITES Ltd. to carry out the CTR work for upgrading the track of SSTPS Exchange yard.

Thanking you.


M.V. Krishnan
AGM (MGR)
MGR, NTPC-SSTPS, Shaktinagar

Copy to: Station Manager/SKTN

एम वी कृष्णन / M.V. KRISHNAN
अपर महाप्रबन्धक (एम वी आर) VAGM (MGR)
सिंगरीली सि - सिंगरीली / NTPC Ltd. Singrauli
पिन - 824001, जिला - राँचेठ (Jharkhand)
दूरभाष - 0656-231223



RED-LARGE	CCA-Renewal	CONSENT NO: ***	PCB ID: 27155	<u>Annexure</u>
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To,
The Occupier,
M/s. Vindhyaahal Super Thermal Power Project (Stage- 5),
NTPC Limited,
Post Vindhyanagar, Tal & Dist: Singrauli (M.P.)

Consent No:AW-50443

Subject: Grant of Renewal of Consent to Operate under section 25 of the Water (Prevention & Control of Pollution) Act,1974 & under section 21 of the Air (Prevention & Control of Pollution) Act,1981

Ref: Your Renewal of Consent to Operate Application Receipt No. 835258 Dt. 20/06/2019 and last communication received on Dt.27/06/2019

With reference to your above application for renewal of consent to operate has been considered under the aforesaid Acts and existing rules therein. The M. P. Pollution Control Board has agreed to grant consent up to 31/07/2020, subject to the fulfillment of the terms & conditions, enclosed with this letter and-

SUBJECT TO THE FOLLOWING CONDITIONS :-

- a. Location: Post Vindhyanagar, Tal & Dist: Singrauli (M.P.)
- b. The capital investment : Rs. 3214 crores
- c. Product & Production Capacity:

Product	Qty / year
Generation of Electricity	1 X 500.0 MW

Note:- For any change in above industry shall obtain fresh consent from the board.

The Validity of the consent is up to 31/07/2020 and has to be renewed before expiry of consent validity. Online application through XGN with annual license fees in this regard shall be submitted to this office 6 months before expiry of the consent/Authorization. Board reserves the right to amend/cancel / revoke the above condition in part or whole as and when required.

Enclosures:-

- * Conditions under Water Act
- * Conditions under Air Act
- * General conditions

eSign
Digitally Signed by UIDAI

e-Signed On 08/09/2019 14:31:36
(Organic Authentication on AADHAR from UIDAI Server)

R.S. KORI
Member Secretary

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CONDITIONS PERTAINING TO WATER (PREVENTION & CONTROL OF POLLUTION) ACT 1974 :-

1. The daily quantity of trade effluent at out fall of the unit shall not exceed 10560.0 KL/day, and the daily quantity of sewage at out fall of the unit shall not exceed 40.0 KL/day

2. Trade Effluent Treatment:-

The applicant shall always operate & maintain in optimum working order its comprehensive effluent treatment system as per the proposal submitted to the Board and maintain the same properly to achieve following standards-

pH	Between	5.5 - 9.0	TDS	Not exceed	2100 mg/l.
Suspended Solids	Not exceed	100 mg/l.	Chlorides	Not exceed	1000 mg/l.
BOD ₅ Days 27 °C	Not exceed	30 mg/l.			
COD	Not exceed	250 mg/l.			
Oil and grease	Not exceed	10 mg/l.			

For other parameters general standards of discharge as notified under EP Act 1986 and notified by MPPCB from time to time shall be applicable.

3. Sewage Treatment :- The applicant shall always operate & maintain in optimum working order its sewage treatment system as per the proposal submitted to the Board and maintain the same properly to achieve following standards-

pH	Between	6.5 - 9.0
Suspended Solids	Not exceed	100 mg/l.
BOD ₅ Days 27 °C	Not exceed	30 mg/l.
COD	Not exceed	250 mg/l.
Oil and grease	Not exceed	10 mg/l.
Fecal Coliform (MPN / 100ml)	Not exceed	1000

4. The effluent and sewage shall be treated up to prescribed Standards and reused in the process, for cooling and for green belt devolvement/gardening, ash slurry preparation etc within premises. **Hence zero discharge condition shall be practiced.** In no case treated effluent shall be discharged outside of industry/unit premises.

5. Water meter preferably electromagnetic/ultrasonic type with digital flow recording facilities shall be installed separately for category wise consumption of water for Industrial cooling/boiler feed, mine spray, process & domestic purposes and data shall be submitted online through XGN monthly patrak/statements. The industry/unit shall also monitor the treated wastewater flow and report the same online through monthly patrak/statements.

Sr	Water Code (Qty in KLD)	WC : 70730.0	WWG : 10600.0
1	Boiler Feed	1200.0	360.0
2	Cooling Water	34680.0	7920.0
3	Domestic Purpose	50.0	40.0
4	Manufacturing Process	2400.0	0.0
5	Others	32400.0	2280.0

6. Any change in production capacity, process, raw material used etc. and for any enhancement of the above prior permission of the Board shall be obtained. All authorized discharges shall be consistent with terms and conditions of this consent. Facility expansions, production increases or process modifications which result new or increased discharges of pollutants must be reported by submission of a fresh consent application for prior permission of the Board

7. All treatment/control facilities/systems installed or used by the applicant shall be regularly maintained in good working order and operate effectively/efficiently to achieve compliance of the terms and conditions of this consent

8. The specific effluent limitations and pollution control systems applicable to the discharge permitted herein are set forth as above conditions.

9. Compilation of Monitoring data-

- Samples and measurements taken to meet the monitoring requirements specified above shall be representative of the volume and nature of monitored discharge.
- Following promulgation of guidelines establishing test procedures for the analysis of pollutants, all sampling and analytical methods used to meet the monitoring requirements specified above shall conform to such guidelines unless otherwise specified sampling and analytical methods shall conform to the latest edition of the Indian Standard specifications

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iii. The applicant shall take samples and measurement to meet the monthly requirements specified above and report online through XGN the same to the Board.

10. Recording of Monitoring Activities & Results-

i. The applicant shall make and maintain online records of all information resulting from monitoring activities by this Consent.

ii. The applicant shall record for each measurement of samples taken pursuant to the requirements of this Consent as follows:

- (i) The date, exact place and time of sampling
- (ii) The dates on which analysis were performed
- (iii) Who performed the analysis?
- (iv) The analytical techniques or methods used and
- (v) The result of all required analysis

iii. If the applicant monitors any Pollutant more frequently as is by this Consent he shall include the results of such monitoring in the calculation and reporting of values required in the discharge monitoring reports which may be prescribed by the Board. Such increased frequency shall be indicated on the Discharge Monitoring Report Form.

iv. The applicant shall retain for a minimum of 3 years all records of monitoring activities including all records of Calibration and maintenance of instrumentation and original strip chart regarding continuous monitoring instrumentation. The period of retention shall be extended during the course of any unresolved litigation regarding the discharge of pollutants by the applicant or when requested by Central or State Board or the court.

11. Reporting of Monitoring Results:-

Monitoring Information required by this Consent shall be summarized and reported by submitting a Discharge Monitoring report on line to the Board.

12. Limitation of discharge of oil Hazardous Substance in harmful quantities:-

The applicant shall not discharge oil or other hazardous substances in quantities defined as harmful in relevant regulations into natural water course. Nothing in this Consent shall be deemed to preclude the institution of any legal action nor relieve the applicant from any responsibilities, liabilities, or penalties to which the applicant is or may be subject to clauses.

13. Limitation of visible floating solids and foam:

During the period beginning date of issuance the applicant shall not discharge floating solids or visible foam.

14. Disposal of Collected Solid waste/sludge-

All hazardous waste/sludge shall be disposed of as per the Authorization issued under Hazardous & other waste (M&TM) Rules 2016. And/other Solids Sludges, dirt, silt or other pollutant separated from or resulting from treatment shall be disposed of in such a manner as to prevent any pollutant from such materials from entering any such water Any live fish, Shall fish or other animal collected or trapped as a result of intake water screening or treatment may be returned to eaters body habitat.

15. Provision for Electric Power Failure-

The applicant shall assure to the consent issuing authority that the applicant has installed or provided for an alternative electric power source sufficient to operate all facilities utilized by the applicant to maintain compliance with the terms and conditions of the Consent.

16. Prohibition of By pass system of treatment facilities-

The diversion or by-pass of any discharge from facilities utilized by the applicant to maintain compliance with the terms and conditions of this Consent is prohibited except :

- i. where unavoidable to prevent loss of life or severe property damage, or
- ii. Where excessive storm drainage or run off would damage any facilities necessary for compliance with the terms and conditions of this Consent. The applicant shall immediately notify the consent issuing authorities in writing of each such diversion or by-pass in accordance with the procedure specified above for reporting non-compliance.

17. Industry/Institute/mine management shall submit the information online through XGN in reference to compliance of consent conditions.

18. All the recommendations made in the Charter on Corporate Responsibilities for Environment Protection (CREP) for thermal power sector shall be strictly implemented.

19. Industry shall comply with the parameters notified in the Environment (Protection) Rules, 1986 notified by G.S.R. 3305(E) 7/12/15 for Thermal Power Plants.

20. The effluent will be treated in ETP and be used in ash slurry preparation, dust suppression and plantation. The domestic effluent of plant and colony will be treated through sewage treatment plant and will be used

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21. Industry shall maintain closed cycle cooling system with cooling towers. The specific water consumption for Cooling water shall not exceed 2.5 m³/ MWh and achieve zero waste water discharged as per the MoEF & CC notification dated 2015. All the cooling tower blow down shall be reused in fire fighting, service water, coal handling plant and ash handling after proper treatment.
22. Regular reports for proximate and ultimate analysis of the coal for all parameters including mercury shall be submitted to the Board.
24. The industry shall operate & maintain Ash Water Recirculation System (AWRS) to ensure 100% Re circulation of overflow of the ash dyke. Industry shall make arrangement for transportation of fly ash to ash pond in the form of medium slurry mode system having 38% ash and 62% water as per MoEF directives.
25. Water table depletion study in and around the project area shall be carried out by the project. All possible efforts including rain water harvesting to recharge ground water shall be taken up for the ground water enrichment in consultation with the Central Ground Water Authority.
26. Fly ash shall be collected in dry form and the storage facility (silo) of fly ash should be at least for one day. Un-utilized fly ash shall be disposed off in the ash pond in the form of medium concentration slurry disposal. Industry shall also monitor mercury and other heavy metals (As, Hg, Cr, Pb etc.) in the bottom ash as also in the effluents from the ash pond. For disposal of ash in low lying area/mine for void filling prior permission from the Board shall be obtained, and conditions stipulated therein shall be followed.
27. Ash pond shall be lined with HDPE/LDPE lining or any other suitable impermeable media such that no leachette takes place at any point of time. Ash pond water shall be re-circulated and utilized in the process or other beneficial purposes in the plant.
28. Regular monitoring of ground water level shall be carried out by establishing a network of existing wells and constructing new peizometers in the vicinity of ash pond site.
29. Industry shall regenerate the village ponds/surface water bodies located within 5 km radius of the project site as a part of its social welfare activities.



CONDITIONS PERTAINING TO AIR (PREVENTION & CONTROL OF POLLUTION) ACT 1981 :-

1. The applicant shall provide comprehensive air pollution control system consisting of control equipments as per the proposal submitted to the Board with reference to generation of emission and same shall be operated & maintained continuously so as to achieve the level of pollutants to the following standards:-

Name of section	Capacity	Stack height(meters)	Fuel	Control equipment to be installed	P.M, SO _x , NO _x , Hg(mg/NM ³)
Boiler	1590 TPH	275	COAL	Air Preheater, Bag Filter, Dust Collector, Dust Suppressor, E.S.P, Green Belt, Heater/Furnace-Low Sulphur Fuel, Ventilated Working Shed, Water Sprinkler, Flue Gas Desulphurisation (FGD)	50, 200, 300, 0.03

2. Ambient air quality at the boundary of the industry/unit premises shall be monitored and reported to the Board regularly on quarterly basis: The Ambient air quality norms are prescribed in MoEF gazette notification no. GSR/826(E), dated: 16/11/09. Some of the parameters are as follows:

- Particulate Matter (less than 10 micron) - 100 µg/m³ (PM10 µg/m³ 24 hrs. basis)
- Particulate Matter (less than 2.5 micron) - 60 µg/m³ (PM2.5 µg/m³ 24 hrs. basis)
- Sulphur Dioxide [SO₂] (24 hrs. Basis) - 80 µg/m³
- Nitrogen Oxides [NO_x] (24 hrs. Basis) - 80 µg/m³
- Carbon Monoxide [CO] (8 hrs. Basis) - 2000 µg/ m³

3. The industry shall take adequate measures for control of noise level generated from industrial activities within the premises less than 75 dB(A) during day time and 70 dB(A) during night time.

4. Industry/Unit shall provide with each stack port hole with safe platform of 1 meter width with support & spiral ladder/ Stepped ladder with hand rail up to monitoring platform as per specifications given in part-III emission regulation of CPCB. In no case monkey ladder shall be allowed as stack monitoring facility.

5. The industry/unit shall make the necessary arrangements for control of the fugitive emission from any source of emission/section/activities.

6. All other fugitive emission sources such as leakages, seepages, spillages etc shall be ensured to be plugged or sealed or made airtight to avoid the public nuisance.

7. The industry/ unit shall ensure all necessary arrangements for control of odour nuisance from the industrial activities or process within premises

8. All the internal roads shall be made pucca to control the fugitive emissions of particulate matter generated due to transportation and internal movements. Good housekeeping practices shall be adopted to avoid leakages, seepages, spillages etc.

9. Industry shall take effective steps for extensive tree plantation of the local tree species within or around the industry/unit premises for general improvement of environmental conditions and as stated in additional condition

10. The industry shall have to ensure compliance of the directions issued by CPCB under section 5 of the EP Act, 1986 vide letter no. B.3014/07-015-180/PC/II/MP/1590 dated 11/12/07 pertaining to Unit 1 (Stage V) regarding compliance of emission standards pertaining to PM, SO_x, NO_x, Hg. FGD installed shall be continuously operated to achieve the SO₂ emission norms. Immediate measures shall be taken by installation of low NO_x burners, providing Over fire Air (OFA) etc. for progressive reduction of NO_x emission up to the specified limits by the year 2022. The PM emission has to be complied immediately.

11. Industry should make appropriate arrangement for protection of the green belt. Massive plantation shall be undertaken under the guidance of forest Department/Horticulture expert. Local Species shall be planted all around the periphery of the industry as well as the ash dyke.

12. Industry shall always operate and keep in good working order the CAAQMS installed at suitable locations so as to monitor and keep an eye on the ambient air quality and stack emission. The management shall provide and ensure uninterrupted connectivity of CAAQMS with Environment Surveillance Centre at the HQ of M.P. Pollution Control Board for monitoring and data transmission purpose. Similarly CEMS provided to monitor the emissions at each stack and CEQMS provided for the monitoring of treated effluent quality, shall be always operated and kept in good working order and uninterrupted connectivity with Environment Surveillance Centre at the HQ of M.P shall be ensured.

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14. The industry shall have to install working order MS (Mild Steel) or HD (High Density Polyethylene) or more suitable material Zirconium Oxide (ZrO₂) or more suitable material with high melting point (above 1500°C) with high viscosity and high strength mechanism to display all emission sources/stacks and yards coal conveyors/crushers and other dust emitting points and to ensure uninterrupted connectivity for transparent surveillance.

15. Industry shall have to operate all the pollution control arrangement at all points and non point sources. Suitable air pollution control equipments installed for the control of fugitive emission during the handling/transportation of raw material and fly ash etc should be maintained in good working order.
16. Ash and sulphur contents in the coal shall not exceed 34% and 0.5% respectively at any given time.
17. Regular monitoring of ground level concentration of SO₂, NO_x, PM_{2.5} and PM₁₀ and Hg shall be carried out in the impact zone and records shall be maintained. If at any stage these levels are found to exceed the prescribed limits, necessary control measures shall be taken immediately.
18. Coal transportation to the plant site shall be undertaken by rail and no road transportation shall be undertaken as far as possible. The entire internal roads should be made pucca and good housekeeping practices shall be adopted. Regular maintenance and water sprinkling on haul roads shall be ensure for the mitigation of transport borne dust.
19. Industry shall operate efficiently dust extraction and dust suppression system to control fugitive emissions from the crushing house, dumper, conveyor belt, moving vehicles, pneumatic compressors, raw material handling and other vulnerable dusty areas.

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GENERAL CONDITIONS:

MANAGEMENT & DISPOSAL OF FLY ASH

1. THE INDUSTRY MANAGEMENT SHALL ENSURE ALL THE COMPLIANCES REGARDING DISPOSAL AND UTILIZATION OF FLY ASH FROM ITS UNIT AS STIPULATED IN MOEF/CC NOTIFICATIONS NO. S.O. 73(4) DATED 17/09/99 AND ITS AMENDMENTS AND NOTIFICATION NO. S.O. 37(4) DATED 27/03/03, S.O. 270(4) DATED 03/03/09 AND S.O. 254(4) DATED 25/1/16.

2. For ensuring free delivery of fly ash within the radius of 100 Km and up to 300 Km radius to the prospective users as per respective clauses 2(10) & 2(14) of the Fly Ash Notification, the industry management shall procure/make provision of the Bulkers / trucks / transport vehicles under its control to ensure fast and quick delivery of fly ash.

3. The industry management shall keep, maintain and update the record of all the prospective users of fly ash within the radius of 100 Km and consistent liaison with them, provide fly ash to them in a timely manner and will submit a monthly compliance report to the Board.

4. Industry shall submit complete time bound record for utilization of fly ash in compliance of fly ash notification as amended up to date. Other alternatives like setting up of brick, pig ironing unit, cementation of canals, etc. for using the use of fly ash for other building products. Dry fly ash collection system shall be installed for regular disposal of zero residue fly ash in dry form. The filling of low lying areas inside the premises shall be undertaken strictly in accordance with the prior permission granted by the MoEF.

5. The non hazardous solid waste arresting in the industry/unit/unit premises sweeping, etc. be disposed off scientifically so as not to cause any nuisance/pollution. The applicant shall take necessary permission from civic authorities for disposal to dumping site. If required.

Non Hazardous Solid wastes:-

Type of waste	Quantity	Disposal
Scrap/ Plastic packing material wood, card board, gunny bags etc	Lumpsum	Sale to authorized party/As Per CPCB. MoEF Guide lines / Others.

6. The applicant shall allow the staff of Madhya Pradesh Pollution Control Board and/or their authorized representative, upon the representation of credentials:

- a. To inspect raw material stock, manufacturing processes, reactors, premises etc to perform the functions of the Board.
- b. To enter upon the applicant's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this Consent.
- c. To have access at reasonable times to any records required to be kept under the terms and conditions of this Consent.
- d. To inspect at reasonable times any monitoring equipment or monitoring method required in this Consent: or,
- e. To sample at reasonable times any discharge or pollutants.

7. This consent/authorisation is transferable, in case of change of ownership/management and addresses of new Owner/partner/Directors/proprietor should immediately apply for the same.

8. The issuance of this Consent does not convey any property rights in either real or personal property or any exclusive privileges, nor does it authorise any invasion of personal rights, nor any infringement of Central, State or local laws or regulations.

9. Industry shall install separate electric metering arrangement for running of pollution control devices and this arrangement shall be made in such fashion that any non functioning of pollution control devices shall immediately stop electric supply to the production and shall remain tripped till such time unless the pollution control device/devices are made functional. The record of electricity consumption for running of pollution control equipment shall be maintained and submitted to the Board every month

10. This consent is granted in respect of Water pollution control Act 1974 or Air Pollution Control act, 1981 or Authorization under the provisions of Hazardous and other Waste (Management & Transboundary movement) Rules 2016 only and does not relate to any other Department/Agencies. License required from other Department/Agencies have to be obtained by the unit separately and have to comply separately as per there Act / Rules.

11. Balance consent/authorisation fee, if any shall be recoverable by the Board even at a later date.

12. The applicant shall submit such information, forms and fees as required by the board not later than 180 day prior to the

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13. The industry/unit shall establish a separate environmental cell, headed by senior officer of the unit for reporting the environmental compliances. The industry/ Unit shall submit environmental statement for the previous year ending 31st March on or before 30th September every year to the Board.
14. Industry shall obtain membership of Emergency Response Center of the Board if needed.
15. Knowingly making any false statement for obtaining consent or compliance of consent conditions shall result in the imposition of criminal penalties as provided under the section 42(g) of the Water Act or section 38 (g) of the Air Act.
16. After notice and opportunity for the hearing, this consent may be modified, suspended or revoked by the Board in whole or in part during its term for cause including, but not limited to, the following :
 - (a) Violation of any terms and conditions of this Consent.
 - (b) Obtaining this Consent by misrepresentation of failure to disclose fully all relevant facts.
 - (c) A change in any condition that requires temporary or permanent reduction or elimination of the authorized discharge.
17. On violation of any of the above-mentioned conditions the consent granted will automatically be taken as canceled and necessary action will be initiated against the industry.

Consent/authorization as required under the Water (Prevention & Control of Pollution) Act, 1974 , The Air (Prevention & Control of Pollution) Act,1981 is granted to your industry subject to fulfillment of all the conditions mentioned above. For renewal purpose you shall have to make an application to this Board through XGN at least Six months before the date of expiry of this consent/authorization. The applicant without valid consent (for operation) of the Board shall not bring in to use any outlet for the discharge of effluent and gaseous emission.

For and on behalf of
M.P. Pollution Control Board

(Member Secretary)

R.S. KORI
Member Secretary

e-Sign
Digitally Signed with Aadhaar

e-Signed On 08/09/2019 14:31:36
(Organic Authentication on AADHAR from UIDAI Server)
TRAN # 8010220660



JUPITER WAGONS LIMITED

CIN : U35202WB2006PLC110822

Ref : NTPC/JWL/05-16

Date : 25.09.2018

The Dy. General Manager (C & M)
M/s. NTPC Limited,
Vindhyachal Super Thermal Power Station,
P.O. Vindhyanager,
Dist. Singrauli,
M.P. - 486 885.

Kind Attn : Mr. Sukkhuram, DGM/Purchase.

Dear Sir,

Sub : Your P.O. No.4200043462 date 28.06.2016 for
supply of 48 nos. BOBRNHSM1 Wagons

- Ref: 1. Your Amendment version no. 1 dated 09.12.2017.
2. Your letter No. 060/O&M/MGR/2018/257 dated 01.02.2018.
3. Your e_mail dated 07.02.2018
4. Our letter No. NTPC/JWL/05-16 dated 13.02.2018
5. Your letter No. 060/O&M/FM dated 15.02.2018.
6. Your letter No. 060/O&M/MGR/2018-19/ dated 06.09.2018.

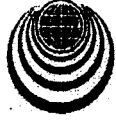
With reference to your subject P.O. and subsequent amendment letters, we could not able to manufacture the 48 nos. BOBRNHSM1 wagons due to steep hike price of raw materials and other bought out components.

Sir, at first we were not getting the wheel sets from RWF/Bangalore, as they have issued proforma invoice on 08.03.2018, though we placed our P.O. on 01.02.2017, the delay had taken place by the wheel sets manufacturer due to the finalization of prices hike of wheel sets.

In the mean time, the prices of other bought out items and steel had been increased due to the price hike of raw materials and petroleum products.

We are enclosing a statement highlighting increase of various critical components.

Contd...2



JUPITER
ENGINEERING THE FUTURE



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JUPITER WAGONS LIMITED

CIN : U35202WB2006PLC110822

Page...2.

Components	Prices at the time of Quotation	Current price	% Increase
Mild Steel	35,000	50,000	42.85%
Bogie	1,70,000	2,25,000	32.35%
Coupler	60,000	75,000	25%

Sir, further Railway wagons falling under chapter 86 of the tariff schedule are taxed @5% , whereas major inputs such as steel and paints are taxed @ 12% or 18% this has led to a situation of accumulated credit due to inverted tax structure. All though, there are enabling provision under GST laws under section 54 of CGST Act, to refund of such accumulated credit in case of inverted rate structure, however, notification no. 5/2017 - Central Tax (Rates) and Notification No. 5/2017-Intregrated Tax (Rates) both dated 28.06.2017 restricts and / or debars refund of accumulated input tax credit for wagons under chapter head 86.

Thus aforesaid provision led to a situation whereby Companies exclusively manufacturing wagons will have blockage of funds on account of accumulated credit having no scope of utilization.

In view of the above reason, we would once again request you to kindly revise at least 15% on basic price to enable us to complete the subject P.O.

An early action in this regards would be highly appreciated.

Thanking You,

Yours Faithfully,
For Jupiter Wagons Ltd.

(SUDIPTA MUKHERJEE)
(AGM/Mktg)

c.c : Mr. Rajesh Agarwal, DGM/MGR/NTPC/VSTPS --- For Information Please.

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Account - D

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.

Exm...

मेरे द्वारा मन्त्रालय

AS...

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ಕರ್ನಾಟಕ ಸರ್ಕಾರ

ಕಾರ್ಖಾನೆಗಳು, ಬಾಯ್ಲರುಗಳು, ಕೈಗಾರಿಕಾ ಸುರಕ್ಷತೆ ಮತ್ತು ಸ್ವಾಸ್ಥ್ಯ ಇಲಾಖೆ

ಸಂಖ್ಯೆ: ಕಾಬಾನಿ/ಎಫ್‌ಪಿಎಲ್/ಎಫ್‌ಪಿಎನ್/ಸಿಆರ್-167/2015-16

ನಿರ್ದೇಶಕರ ಕಾರ್ಯಾಲಯ,

ಕಾರ್ಮಿಕ ಭವನ, 2ನೇ ಮಹಡಿ, ಬನ್ನೇರುಘಟ್ಟ ರಸ್ತೆ,

ಬೆಂಗಳೂರು-29, ದಿನಾಂಕ: 13.04.2016

ನಿರ್ದೇಶಕರು, ಕಾರ್ಖಾನೆಗಳು, ಬಾಯ್ಲರುಗಳು, ಕೈಗಾರಿಕಾ ಸುರಕ್ಷತೆ ಮತ್ತು ಸ್ವಾಸ್ಥ್ಯ ಇಲಾಖೆ, ಬೆಂಗಳೂರು ಇವರ ನಡವಳಿಗಳು

ಓದಿದೆ: ಕಾರ್ಖಾನೆಗಳ ಕಾಯ್ದೆ 1948ರ ಸೆಕ್ಷನ್ 6(1) ಹಾಗೂ ಕರ್ನಾಟಕ ಕಾರ್ಖಾನೆಗಳ ನಿಯಮಾವಳಿಗಳು, 1969ರ 3ನೇ ನಿಯಮ.

ವಿಷಯ: ಕಾರ್ಖಾನೆಗಳ ಕಾಯ್ದೆ 1948ರ ಮೇರೆಗೆ ಮೆ|| ಕೂಡಗಿ ಸೂಪರ್ ಥರ್ಮಲ್ ಪವರ್ ಪ್ರಾಜೆಕ್ಟ್ (ಎನ್.ಟಿ.ಪಿ.ಸಿ.ಲಿಮಿಟೆಡ್), ವಿಜಯಪುರ ಈ ಕಾರ್ಖಾನೆಯ ನಕ್ಷೆಗಳನ್ನು ಅನುಮೋದಿಸುವ ಕುರಿತು.

- ಉಲ್ಲೇಖ : 1) ಅರ್ಜಿ ನಮೂನೆ-1ರ ದಿನಾಂಕ : 27.01.2016.
2) ಸ್ಥಳ ಪರಿವೀಕ್ಷಣೆಯ ದಿನಾಂಕ : 05.02.2016.
3) ಅಂತಿಮ ಪರಿಶೋಧನೆಯ ದಿನಾಂಕ : 07.04.2016.

ಮೆ|| ಕೂಡಗಿ ಸೂಪರ್ ಥರ್ಮಲ್ ಪವರ್ ಪ್ರಾಜೆಕ್ಟ್ (ಎನ್.ಟಿ.ಪಿ.ಸಿ.ಲಿಮಿಟೆಡ್), ವಿಜಯಪುರ ಈ ಕಾರ್ಖಾನೆಯ ನಕ್ಷೆಗಳು ಕಾರ್ಖಾನೆಗಳ ಕಾಯ್ದೆ 1948ರ ಹಾಗೂ ಅದರಿಂದ ರೂಪಿತವಾದ ನಿಯಮಗಳಲ್ಲಿ ಕಲ್ಪಿಸಿರುವ ಅವಕಾಶಗಳಿಗನುಸಾರವಾಗಿ ಪರಿಶೋಧಿಸಿದ ಮೇಲೆ ಸದರಿ ಕಾರ್ಖಾನೆಗೆ ಸಂಬಂಧಪಟ್ಟ ಕಟ್ಟಡ ಹಾಗೂ ಯಂತ್ರ ವಿದ್ಯಾನ ಇವುಗಳ ನೀಲಿ ನಕ್ಷೆಗಳು ಅಗತ್ಯವಿರುವ ಕಾರ್ಖಾನೆಗಳು ಕಾಯ್ದೆ 1948ರ ಹಾಗೂ ಕರ್ನಾಟಕ ಕಾರ್ಖಾನೆಗಳ ನಿಯಮಾವಳಿಗಳು 1969ರ 3(4) ನೇ ನಿಯಮಕ್ಕನುಸಾರವಾಗಿ ಕಲ್ಪಿಸಿರುವ ಎಲ್ಲಾ ಅವಕಾಶಗಳು ಮತ್ತು ಈ ಕೆಳಕಂಡ ಷರತ್ತುಗಳ ಅನುವರ್ತನೆಗೊಳಪಟ್ಟು ಅನುಮೋದಿತವಾಗಿವೆ.

1. ಇದೇ ಕಛೇರಿಯ ಪತ್ರ ಸಂಖ್ಯೆ: ಸಿಎಸ್‌ಎಂಸಿ/ಟಿಎಫ್‌ಸಿ/ಸಿಆರ್-13/2013-14, ದಿ: 23.09.2013 ರಂತೆ ವಿಧಿಸಿರುವ ಷರತ್ತಿನಂತೆ ಅಪಾಯಕಾರಿ ಕ್ಲೋರಿನ್ ರಾಸಾಯನಿಕದ ಉಪಯೋಗವನ್ನು ಕನಿಷ್ಠ ಅಪಾಯಕಾರಿ ರಾಸಾಯನಿಕಕ್ಕೆ ಬದಲಾಯಿಸುವುದು ಮತ್ತು ಇತರೆ ಸದರಿ ಪತ್ರದಲ್ಲಿ ಸೂಚಿಸಿರುವ ಎಲ್ಲಾ ಷರತ್ತುಗಳನ್ನು ಕಟ್ಟುನಿಟ್ಟಾಗಿ ಪಾಲಿಸುವುದು.
2. ಹಾಲಿ ಇಲಾಖೆಯಿಂದ ಅನುಮೋದನೆಗೊಂಡಿರುವ ಎಲ್ಲಾ ಕಟ್ಟಡ ಮತ್ತು ಯಂತ್ರ ವಿದ್ಯಾನ ನಕ್ಷೆಗಳನ್ನು ಕ್ರೋಡೀಕರಿಸಿ ಯಾವುದೇ ಕಟ್ಟಡ ಮತ್ತು ಯಂತ್ರ ವಿದ್ಯಾನ ಅನುಮೋದನೆಗೊಳ್ಳದಿದ್ದಲ್ಲಿ ಅಥವಾ ಬದಲಾವಣೆಗಳಿದ್ದಲ್ಲಿ ಅವುಗಳಿಗೆ ಸಂಬಂಧಿಸಿದಂತೆ ನಕ್ಷೆಗಳನ್ನು ಸಲ್ಲಿಸಿ ಅನುಮೋದನೆ ಪಡೆಯುವುದು.
3. ಕಾರ್ಖಾನೆಯಲ್ಲಿನ ಎಲ್ಲಾ ಕಟ್ಟಡ ಮತ್ತು ಸ್ವಕಚ್ಚೆಗಳನ್ನು ಉಪಯೋಗಕ್ಕೆ ತೆಗೆದುಕೊಳ್ಳುವ ಪೂರ್ವದಲ್ಲಿ ದೃಢೀಕೃತ ಸಿವಿಲ್ ಇಂಜಿನಿಯರ್‌ಗಳಿಂದ ದೃಢೀಕರಣ ಪ್ರಮಾಣ ಪತ್ರಗಳನ್ನು ನಮೂನೆ-1ಎ ನಂತೆ ಪ್ರತ್ಯೇಕವಾಗಿ ಪಡೆದು ಕ್ಷೇತ್ರಾಧಿಕಾರಿಗಳಿಗೆ ಸಲ್ಲಿಸಿ, ನಂತರವೇ ಉಪಯೋಗಕ್ಕೆ ತೆಗೆದುಕೊಳ್ಳುವುದು.

ಇವುಗಳಿಗೆ ಅನುಮೋದನೆ ನೀಡುವುದಾಗಿ ಸೂಚಿಸಿ

ಇಂ.ಆರ್.ಕೆ.ಆರ್.

ಇಂ.ಆರ್.ಕೆ.ಆರ್. (ತಹಶೀಲ್ದಾರ್)

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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. ✓

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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.

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

Phone No. 080-26531200
Fax No. 080-26531202

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

To,
General Manager,
M/s NIPC Limited,
Kudgi Super Thermal Power Project,
Plot No. 9, Mallikarjun Nagar,
Munagali Road, Bijapur-589 108

Sir,

Subject: [REDACTED]

- 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 mine for the establishment of super thermal power project for generating electrical power of 3 X 800 MW at Near Kudugi village, Basavana bagewadi Taluk, Bijapur District.

The site clearance is issued subject to the following conditions:

1. [REDACTED]
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, 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.

A.G.M (P.K.S.)
Date 17/10/2013

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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 31 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 30% 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.



(100)

Ref.No.01/HR-S&C/ISS/2018

केन्द्रीय कार्यालय / Corporate Centre

05.12.2018

Jan-20

✓ The Inspector General
NCR Sector
Central Industrial Security Force
Ministry of Home Affairs
5th Floor, Block No.11, CGO Complex
New Delhi-110 003

Sub.: Our visit to NTPC, Vindhyachal and NTPC, Singrauli Projects for joint study reg..
Ref.: Our letter dt. 26.11.2018

Dear Sir,

As discussed with you during our meeting dated 26.11.2018, in addition to NTPC Dadri, we are also going to explore the possibilities of implementation of Integrated Security System in five (5) other projects / sites of NTPC, namely i.e. Singrauli, Vindhyachal, Kudgi, Kawas, Koldam in the 1st phase.

As you are aware, NTPC, Singrauli(UP) and NTPC, Rihand(UP) are situated in close proximity of NTPC, Vindhyachal(MP) which is the biggest power plant of the country as on date. There has been a talk of merging these two establishments of CISF into a single unified command as a part of rationalization.

In the above context, in order to have a first hand study on the possibility of rationalization through integrated security system, may we request you to kindly associate for a visit to NTPC Vindhyachal and Singrauli on 14-15 December, 2018 as I would like to personally visit these project sites on the said dates to have a threadbare discussion on the subject.

However, in case you are not available in view of your other pressing official preoccupation, you may kindly depute a senior officer from CISF to associate in the process

Hope to have a prompt and positive response from you in this regard.

With warm regards.

Yours Sincerely,


09/12/18



(A.N.Verma)

Executive Director (HR)

DISPATCHER
OFFICE OF THE INSPECTOR GRS
BLOCK NO-11, 5th FLOOR
CGO COMPLEX
NEW DELHI-110003

पंजीकृत कार्यालय : एनटीपीसी भवन, स्कोप कॉम्प्लेक्स, 7, इन्स्टीट्यूशनल एरिया, लोधी रोड, नई दिल्ली-110003

कार्पोरेट पहचान नम्बर: L40101DL1975GO1007966 टेलीफोन नं.: 011-24387333 फैक्स नं.: 011-24381018 ईमेल : ntpccc@ntpc.co.in वेबसाइट : www.ntpc.co.in

Registered Office : NTPC Bhawan, Scope Complex, 7, Institutional Area, Lodhi Road, New Delhi-110003
Corporate Identification Number : L40101DL1975GO1007966 Tel. : 011-24387333 Fax : 011-24381018 E-mail : ntpccc@ntpc.co.in
Website : www.ntpc.co.in



(10)

12.09.2018

Ref. No. 01: HR: S&C: 001

Inspector General (NCR Sector)
Central Industrial Security Force
Ministry of Home Affairs (MHA)
5TH Floor, Block No (11), CGO Complex.
New Delhi- 110003.

Sub : Integrated Security System for NTPC Stations/Projects
Ref : Our meeting today in your office

Dear Sir,

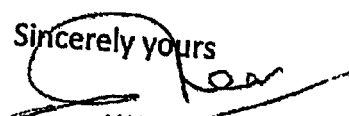
Kindly refer to the meeting we had today in your office and the presentation made on Integrated Security System for NTPC Project/Units, on the basis of Pilot study carried out at NTPC, Dadri jointly by NTPC and CISF.

As desired, we are enclosing the copy of the said presentation for your kind reference and further deliberation at your end.

I am sure this initiative would be carried forward under your guidance and active cooperation. We hope to hear from you soon in this regard for further course of action in this regard.

Thanking you

Sincerely yours


AN Verma
Executive Director (HR)

Encl : As above

पंजीकृत कार्यालय : एनटीपीसी भवन, स्कोप कॉम्प्लेक्स, 7, इंस्टीट्यूशनल एरिया, लोधी रोड, नई दिल्ली-110003

दूरभाष नम्बर: L40101DL1975GO1007966 टेलीफोन नं.: 011-24387333 फैक्स नं.: 011-24361018 ईमेल : ntpccc@ntpc.co.in वेबसाइट : www.ntpc.co.in

Registered Office : NTPC Bhawan, Scope Complex, 7, Institutional Area, Lodhi Road, New Delhi-110003

Tel. : 011-24387333 Fax : 011-24361018 E-mail : ntpccc@ntpc.co.in

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सप्तर्षि राय
निदेशक (मानव संसाधन)

SAPTARSHI ROY
Director (Human Resources)

एन टी पी सी लिमिटेड
(भारत सरकार का उद्यम)

NTPC Limited
(A Govt. of India Enterprise)

केन्द्रीय कार्यालय / Corporate Centre

Dated: 08.11.2018

Subject: Integrated Security System in NTPC Stations /Projects.

Dear *Shri Rajesh Ranjan,*

At the outset, let me thank you for your positive response to our proposal for creating an integrated security system in NTPC project sites.

We are consciously aware that security is a very critical and sensitive aspect of creating huge national assets of critical sectors, like that of ours. CISF, being the exclusive Govt. of India instrumentality, dedicated for Industrial Security, has been deployed at our project / operational sites for protection of our men and material.

In this regard, we are actively considering to take advantage of the latest technological advancement in the area of Security, which will not only enhance the security preparedness of our vital installations of national interest but also can create a possibility of rationalizing the deployment of CISF, thus making the system less susceptible to human error. We are initiating induction of latest technology to strengthen integrated security system in our power stations. CISF has always being our partner in progress. We strongly believe that rationalization of the deployed strength can take place as a consequence of Integrated Security System, as this initiative can yield results only with active support and involvement of CISF.

We are very thankful for the recent responses from CISF to our team who has been closely interacting for the last 3-4 months to realize the subject objective.

We would also like to bring to your kind knowledge that we are working out the blue prints for installation of Integrated Security system for one big operational thermal sites, one operational hydro site and one green field site to start with. Other sites will be taken up in phases subsequently. We will be seeking your active cooperation and guidance for further progress in this direction so that the existing strength in the concerned project sites are rationalised without compromising on the quality of security service and essential manpower with specialised training only are deployed to meet the requirement.

To take this initiative forward for its successful implementation through participative approach, we are contemplating a discussion on the issue with the top team of NTPC and CISF officials to seek valuable guidance at the earliest as per mutual convenience.

We shall be soliciting your kind response in this direction.

Warm regards,

Yours Sincerely,

Saptarshi Roy
Saptarshi Roy

Sh. Rajesh Ranjan, IPS
Director General (CISF)
CISF Head Quarter,
CGO Complex, Lodhi Road.
New Delhi-110003



एनटीपीसी लिमिटेड

(भारत सरकार का उद्योग)

NTPC Limited

(A Govt. of India Enterprise)

कॉर्पोरेट कार्यालय / Corporate Centre

Dated: 26.11.2018

Ref. No. 01: HR: S&C: 001

To
The Inspector General
NCR Sector
Central Industrial Security Force
Ministry of Home Affairs (MHA)
5th floor, Block No. (11), CGO Complex,
New Delhi - 110003.

Sub.: Integrated Security System in NTPC Stations / Projects.
Ref.: Our meeting in your office on dt. 26.11.2018 reg.

Dear Sir,

As you are aware, we are going for an "Integrated Security System" in NTPC to augment security preparedness by adoption of state of the art technology based security systems in NTPC. In this connection in addition to NTPC, Dadri, we are also contemplating pilot implementation of the system at few other projects of NTPC as well, as indicated by our Director (HR) in his communication dtd. 08.11.2018 to DG (CISF). The projects are as follows.

- 1) NTPC, Singrauli (a big thermal power station in Uttar Pradesh)
- 2) NTPC, Vindhyachal (a big thermal power station in Madhya Pradesh)
- 3) NTPC, Kudgi (a green field project in Karnataka)
- 4) NTPC, Kawas (a gas based project in Gujarat)
- 5) NTPC, Koldam (a hydro project in Himachal Pradesh)

In the above context, you are requested to kindly issue necessary instructions to the CISF unit heads at the referred sites to associate and facilitate in the process, as we will be seeking their support during visits to these sites, as and when required, in the near future.

As suggested by ED (HR), you may also kindly let us know your availability to join us for a joint visit to our Singrauli and Vindhyachal/Rihand project sites for a study reg. integrated security system and possibility of developing a unified command, technological upgradation and consequential rationalisation of CISF deployment.

Thanking you in anticipation of a prompt response please.

Yours Sincerely,

S.N. Panigrahi
Addl. GM (HR-S&C).

- for kind information and n. a. please.

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RECEIVED
PATCHER
THE INSPECTOR GENERAL
5th FLOOR
CGO COMPLEX
DELHI-110003

J.S. Negi, DIG (I&P)

CISF Head Quarter,

CGO Complex, 5th Floor, New Delhi