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-III of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2023 and Chapter-3, Regulation-9 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024 for approval of tariff of **Rihand Super Thermal Power Station, Stage-III (1000 MW) for the period from 01.04.2024 to 31.03.2029**.

INDEX

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AND

IN THE MATTER OF

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

Respondents

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

2. Rajasthan Urja Vika Nigam Limited (RUVNL)
(on behalf of DISCOMs of Rajasthan),
Vidyut Bhawan, Janpath,
Jaipur 302 005.

3. Tata Power Delhi Distribution Ltd.
Grid Substation, Hudson Road
Kingsway Camp
Delhi-110009.

4. BSES Rajdhani Power Ltd.,
2nd floor, B-Block
BSES Bhawan, Nehru Place
New Delhi-110019.

5 BSES Yamuna Power Ltd.,
Shakti Kiran Building
Karkardooma
Delhi-110092

6 Haryana Power Purchase Centre (HPPC)
Shakti Bhawan, Sector – VI,
Panchkula
Haryana – 134 109

7 Punjab State Power Corporation Ltd. (PSPCL)
The Mall
Patiala – 147 001

8 Himachal Pradesh State Electricity Board Ltd.
(HPSEB)
Kumar Housing Complex Building-II
Vidyut Bhawan
Shimla – 171 004

9 Power Development Department (J&K)
Govt. of J&K, Secretariat
Srinagar

10 Electricity Department (Chandigarh)
Union Territory of Chandigarh
Addl. Office Building
Sector-9 D, Chandigarh

11 Uttarakhand Power Corporation Ltd. (UPCL)
Urja Bhawan, Kanwali Road
Dehradun – 248 001
Uttarakhand.

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. Rihand Super Thermal Power Station, Stage-III (1000 MW) (hereinafter referred to as Rihand St-III) is one such station located in the State of Uttar Pradesh. The power generated from Rihand St-III is being supplied to the respondents herein above.

4) The Hon'ble Commission has notified the Central Electricity Regulatory Commission (Terms & Conditions of Tariff) Regulations, 2024 (hereinafter 'Tariff Regulations 2024') which came into force from 01.04.2024, specifying the terms & conditions and methodology of tariff determination for the period 01.04.2024 to 31.03.2029.

5) Regulation 9(2) of Tariff Regulations 2024 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 30.11.2024 , based on admitted capital cost including additional capital expenditure already admitted and incurred up to 31.3.2024 (either based on actual or projected additional capital expenditure) and estimated additional capital expenditure for the respective years of the tariff period 2024-29 along with the true up petition for the period 2019-24 in accordance with the CERC (Terms and Conditions of Tariff) Regulations, 2019."

In terms of above, the Petitioner is filing the present petition for determination of tariff for Rihand St-III for the period from 01.04.2024 to 31.03.2029 as per the Tariff Regulations 2024.

6) The tariff of the Rihand St-III for the tariff period 1.4.2019 to 31.3.2024 was determined by the Hon'ble Commission vide its order dated 27.12.2023 in Petition No.430/GT/2020 in accordance with the CERC (Terms & Conditions of Tariff) Regulations 2019. The petitioner vide affidavit dated 16.11.2024 had filed a separate true up petition for the period 01.04.2019 to 31.03.2024 for revision of tariff in line with the applicable provisions of Tariff Regulations 2019.

7) It is submitted that Hon'ble Commission vide order dated 08.04.2022 in Petition no. 426/GT/2020 has allowed a capital cost of Rs. 5,63,837.35 Lakh as on 31.03.2024 based on the admitted projected capital expenditure for the 2019-24 period. However, the actual closing capital cost as on 31.03.2024 has been worked out in the foresaid true-up petition as Rs. 5,70,571.38 Lakh based on the actual expenditure after truing up exercise for the period 2019-24. Accordingly, the Petitioner has adjusted an amount of Rs. 6,734.03 Lakh from

the admitted capital cost as on 31.03.2024 and accordingly the opening capital cost as on 01.04.2024 has been considered as Rs. 5,70,571.38 Lakh in the instant petition. The Hon'ble Commission may be pleased to accordingly adopt this adjustment in the admitted capital cost as on 31.3.2024 and determine the tariff in the present petition for the period 2024-29.

8) The capital cost claimed in the instant petition is based on the opening capital cost as on 01.04.2024 considered as above and projected estimated capital expenditures claimed for the period 2024-29 under Regulation 19 and Regulation 24, 25 and 26 of the Tariff Regulations, 2024.

9) The Petitioner further respectfully submits that as per Regulation 36(1)(6) of the Tariff Regulations 2024, the water charges, security expenses, ash transportation 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 2023-24 have been furnished below. 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 station
Type of cooling water system	Closed Cycle
Rate of Water charges	325.10 Paise/kWh
Total Water Charges	Rs. 477.83 lacs

10) Similarly, the Petitioner is claiming the security & ash transportation expenses based on the estimated expenses for the period 2024-29, 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 36(1)(6) based on actual consumption of spares during the period 2024-29.

11) However, it is submitted that the expenditure towards the ash transportation charges is recurring in nature and the Petitioner has been incurring ash transportation expenditure in its stations in the current tariff period also. In case the same is permitted to be recovered after the issuance of the tariff order for the period 2024-29, there will be additional liability on the beneficiary on account of the interest payment for the period till the time the tariff petitions for the period 2024-29 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 on a monthly basis subject to true-up at the end of the 2024-29 period.

12) The petitioner humbly submits that petition no. 227/MP/2024 has been filed by the petitioner concerning Ash Utilization Expenditure for its stations which is under active consideration of this Hon'ble Commission and the outcome of the said petition will be applicable to the instant petition also.

13) The Petitioner further respectfully submits that the wage/ salary revision of the employees of the Petitioner will be due with effect from 1.1.2027. As per Regulation 36(1)(8) of the Tariff Regulations 2024, the impact on account of implementation of wage/ pay revision shall be allowed at the time of truing up of tariff. The Petitioner therefore craves liberty to approach the Hon'ble Commission for allowing the impact on account of implementation of wage/ pay revision of the employees of the Petitioner with effect from 1.1.2027, based on the actual payments whenever paid by it.

14) The present petition is filed on the basis of norms specified in the Tariff Regulations 2024. 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 affect the Station APC, Heat Rate, O&M expenses, water consumption, etc. In addition the availability of the unit/ station would be also affected 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 CERC (Terms& Conditions of Tariff) Regulations 2024.

15) Further the petitioner has installed Emission Control System (ECS) for controlling Nox emissions and the tariff for the same has been claimed as a separate stream under regulation 29 of Central Electricity Regulatory Commission (Terms and Condition of Tariff) Regulations, 2024. The tariff forms for the ECS (DeNox) System are attached as **Appendix-IA**.

16) 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 CY 2009 and equipments including SG and TG specifications for tendering / award was stipulated considering the boiler efficiency and the turbine heat rate prescribed by the Hon'ble Commission in the Tariff Regulations at that time. Based on the same the equipments were ordered through 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 2024-29 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:

Quote

> *"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."

Unquote

Further, Hon'ble Commission vide its order dated 21.04.2022 in petition no. 362/GT/2020 while determining tariff of Kahalgaon STPS-II of NTPC Limited has relaxed the boiler efficiency for computing Gross Heat Rate of the station with appropriate operating margin. The same is quoted below:

Quote

"157. Accordingly, the Commission considered the SHR of 2425 kCal /kWh as approved for 2009-14 tariff period and in exercise of Power to Relax under Regulation 54 and Power to Remove Difficulty under Regulations 55 of Tariff Regulations, 2014 allowed boiler efficiency of the units of the generating station below 0.85 for the period 2014–19"

Unquote

17) Further, if the Petitioner had stipulated more stringent unit heat rate this would have increased the capital cost commensurate to the efficiency parameters sought. The benefit of the lower capital cost due to lower efficiency parameters has already been passed onto the beneficiaries in terms of lower capital cost. If now the boiler efficiency for working out the normative heat rate is considered as 86% instead of the actual design efficiency of 84.05%, the unit heat rate would be worked out to be 2347.61kcal/kwh and the operating margin available over the design heat rate would be 2.13% only which is much less than the operating margin of 4.5% allowed in the Tariff Regulations 2024. Moreover, it is submitted that boiler efficiency is largely a function of coal quality. In view of above submission, it is prayed that Gross Station Heat rate may be allowed based on guaranteed turbine cycle heat rate and actual boiler efficiency of 84.05% with an operating margin of 4.5 % 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 4.5%.

18) The petitioner has accordingly calculated the tariff for 2024-29 period based on the above and the same is enclosed as **Appendix-I** to this petition.

19) It is further submitted that in terms of Regulation 60 (5) of the Tariff Regulations 2024, the Petitioner is required to furnish details qua providing the details of Landed Price & Gross Calorific Value ("GCV") of coal in Form 15. It is further submitted that the Petitioner in terms of Regulation 40 of the Tariff Regulations 2019 was required to furnish the details for Landed Price & GCV of coal also as per Form 15 of the Tariff Regulations, 2019.

20) However, in so far as the present Petition is concerned, the Petitioner has prepared & submitted the data of coal as per Form 15 of the Tariff Regulations, 2019. The same is because of the following reasons:-

a) This Hon'ble Commission had notified the Tariff Regulations, 2019 on 07.03.2019 and the same was in effect till 31.03.2024.

b) The Petitioner being a diligent utility has been seamlessly providing the said data of coal in terms of the prescribed format (i.e. Form 15 of Annexure-I (Part I)) of the Tariff Regulations, 2019 to this Hon'ble Commission for computation of Interest on Working Capital.

c) Thereafter, this Hon'ble Commission on 15.03.2024 notified the Tariff Regulations, 2024, wherein the format of Form 15 was changed/ amended by this Hon'ble Commission and a new format was placed in the Tariff Regulations 2024 in the month of June'2024.

d) By virtue of the said change, the Petitioner has been obligated to furnish the data of coal for its existing plants month wise for the preceding 12 months i.e. for FY 2023-24 for computation of Interest on Working Capital.

21) It is humbly submitted that by virtue of the Tariff Regulations, 2024, this Hon'ble Commission has added a new format/ revised the format of Form-15 which has not prescribed in the past Tariff Regulations i.e. of 2019. Hence, it is only now

(in the Tariff Regulations 2024) that the Petitioner has been obligated to furnish the data of coal as per the new format of Form-15.

22) It is respectfully submitted that since the format for Form 15 has been changed in Tariff Regulations, 2024 and was notified in the month of June'2024, the Petitioner could not have been aware about the said changes earlier, hence the Petitioner did not maintain the data required in new format of Form 15 of Tariff Regulations, 2024.

23) Therefore, this Hon'ble Commission may kindly exempt the Petitioner from furnishing the data of coal in terms of new format of Form 15 of the Tariff Regulations, 2024 & may be allowed to furnish the details of coal for FY 2023-24 in terms of the prescribed format of Form-15 of the Tariff Regulations, 2019.

24) In light of the above submissions, it may kindly be noted that no prejudice shall be caused to any party if the Petitioner is allowed for providing the details of Landed Price & GCV of coal to this Hon'ble Commission in terms of Form 15 of the Tariff Regulations, 2019 as the value of Landed Price & GCV of coal will remains unaffected.

25) The Petitioner humbly submits that the pay/wage revision for the employees of the Petitioner will be due wef 01.01.2027. Further, the wage/pay revision of CISF and Kendriya Vidyalaya employees will also be due for revision during the tariff period 2024-29. Regulation-36(1)(8) of CERC (Terms & Conditions of Tariff) Regulations-2024 provides as below:

"In the case of a generating company owned by the Central or State Government, the impact on account of implementation of wage or pay revision shall be allowed at the time of truing up of tariff."

In accordance with the above said regulation, the Petitioner shall approach the Hon'ble Commission for allowing the impact of Pay/wage revision of employees of the Petitioner i.e. NTPC Limited, CISF and Kendriya Vidyalaya (wherever applicable) as additional O&M at the time of truing-up of tariff for the control period 2024-29. Hon'ble Commission may be pleased to consider the impact of

wage/pay revision as an additional impact on O&M and allow the same as additional O&M over and above the normative O&M.

26) 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.

27) In accordance with the 'Conduct of Business Regulations 2023' of the Hon'ble Commission, the Petitioner shall, within 7 days after filing the tariff petition, publish a notice about such filing in at least two daily leading digital newspapers one in English language and another in any of the Indian languages, having wide circulation in each of the States and Union Territories where the beneficiaries are situated, as per Form 14 appended to these regulations. Subsequently, the Petitioner shall submit the proof of publications as soft copies of the publications under an affidavit through the e-filing portal of the Hon'ble Commission within one week from the date of publication. Further, the Petitioner shall also submit the detail of expenses incurred for publication of the notice alongwith the prayer for recovery of Publication Expenses as per Regulation-94 of CERC Tariff Regulations 2024.

28) The filing fee for the instant Petition has been paid for FY 2024-25 vide Payment Reference No. 37c568eba62158b7b321 on 24.04.2024 as per Central Electricity Regulatory Commission (Payment of Fees) Regulations, 2012, as amended from time to time. For subsequent years, it shall be paid as per the provisions of CERC (Payment of Fee) Regulatios 2012. Further, the proof of payment of fees is being submitted in Form I specified under Regulation 12 of the Central Electricity Regulatory Commission (Payment of Fees) Regulations, 2012, as amended from time to time. Hon'ble Commission may be pleased to take the above into consideration and allow the recovery of filing fee for the instant station as per Regulation-94 of CERC Tariff Regulations 2024.

29) 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 31.3.2024 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 Rihand Super Thermal Power Station, Stage-III (1000 MW) for the tariff period 01.04.2024 to 31.03.2029.

ii) Allow the recovery of filing fees as & when paid to the Hon'ble Commission and publication expenses from the beneficiaries.

iii) Approve supplementary tariff for Rihand Super Thermal Power Station Stage-III (2x500MW) on installation of Emission Control System for controlling Nox emissions.

iv) Allow reimbursement of Ash Utilization Expenditure directly from the beneficiaries on monthly basis, subject to true up.

v) Allow the recovery of pay/wage revision as additional O&M over and above the normative O&M.

vi) Consider station heat rate based on design heat rate with applicable operating margin.

vii) Pass any other order as it may deem fit in the circumstances mentioned above.

(Petitioner)

Noida (U.P.)
23.11.2024

BEFORE THE CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

PETITION NO.....

IN THE MATTER OF : Petition Under Section 62 and 79 (1) (a) of the Electricity Act, 2003 read with Chapter-III of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2023 and Chapter-3, Regulation-9 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024 for approval of tariff of **Rihand Super Thermal Power Station St-III (1000MW)** for the period from 01.04.2024 to 31.03.2029.

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

NOTARY YOGENDRA SINGH AREA NOIDA G.B. NAGAR REGN. NO. 5077/08 NOTARIAL GOVT OF INDIA NOTARIAL

Respondents:

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

   And
   Others

AFFIDAVIT

I, Parimal Piyush, Son of Late Bharat Mishra, aged about 49 years, resident of IN1-2004, Inspire, Eldeco Aamantran, Sector-119, Noida (UP), do hereby solemnly affirm and state as follows:

1. That the deponent is the Additional General Manager (Commercial) of the Petitioner NTPC Ltd.,and is well conversant with the facts and the circumstances of the case and therefore competent to swear this affidavit.

2. That the accompanying Petition under Section 62 and 79 (1) (a) of the Electricity Act, 2003, has been filed by my authorized representative under my instruction and the contents of the same are true and correct to the best of my knowledge and belief.

NOTARY YOGENDRA SINGH AREA NOIDA G.B. NAGAR REGN. NO. 5077/08 GOVT OF INDIA

परिमल पीयूष/PARIMAL PIYUSH
अपर महाप्रबन्धक (वाणिज्यिक)
Addl. General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

3. That the contents of Para No.....1..... to.....29..... as mentioned in the Petition are true and correct based on the my personal knowledge, belief and records maintained in the office.

4. That the annexures annexed to the Petition are correct and true copies of the respective originals.

5. That the Deponent has not filed any other Petition or Appeal before any other forum or court of law with respect to the subject matter of the dispute.

परिमल पीयूष/PARIMAL PIYUSH
अपर महाप्रबन्धक (वाणिज्यिक)
Addl. General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

(Deponent)

Verification:

Verified at Noida on this 23rd day of November 2024, that the contents of my above noted affidavit are true and correct to my knowledge and no part of it is false and nothing material has been concealed therefrom.

(Deponent)

परिमल पीयूष/PARIMAL PIYUSH
अपर महाप्रबन्धक (वाणिज्यिक)
Addl. General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC, A-8A, Sector-24, Noida-201301 (U.P.)

NOTARY
YOGENDRA SINGH
AREA NOIDA
G.B. NAGAR
REGN. NO. 5577/08
GOVT. OF INDIA

ATTESTED
YOGENDRA SINGH
NOTARY NOIDA
G.B NAGAR (U.P.) INDIA
23 NOV 2024

TARIFF FILING FORMS (THERMAL)

FOR DETERMINATION OF TARIFF

FOR

Rihand Super Thermal Power Station Stage-III

(From 01.04.2024 to 31.03.2029)

PART-I

APPENDIX-I

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

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

PART-I

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

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

**** Additional Forms**

Provided yearwise for the period 2024-29

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

(Petitioner)

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

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

(Petitioner)

Summary of Tariff

PART-I
FORM-1

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

Amount in Rs. Lakhs

S. No.	Particulars	Unit	Existing 2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
1	2	3	4	5	6	7	8	9
1.1	Depreciation	Rs Lakh	30,978.39	31,376.22	31,764.35	12,295.82	12,439.42	12,814.67
1.2	Interest on Loan	Rs Lakh	7,564.11	5,432.50	3,560.15	2,297.28	1,315.33	565.27
1.3	Return on Equity	Rs Lakh	31,949.68	32,342.52	32,685.06	32,893.57	32,985.45	33,219.65
1.4	Interest on Working Capital	Rs Lakh	5,783.43	6,111.66	6,177.24	5,953.64	6,020.84	6,109.38
1.5	O&M Expenses	Rs Lakh	40,546.95	39,009.66	40,691.18	42,360.59	44,031.86	45,800.95
1.6	Special Allowance (If applicable)	Rs Lakh	0.00	-	-	-	-	-
	Total	Rs Lakh	**1,16,822.56**	**1,14,272.55**	**1,14,877.98**	**95,800.91**	**96,792.90**	**98,509.91**
2.1	Landed Fuel Cost of coal as per FSA approved by beneficiaries	Rs/Ton	2,409.13	2302.32				
	(%) of Fuel Quantity	(%)	100.00%	100.00%				
2.2	Landed Fuel Cost of Imported Coal as per FSA approved by beneficiaries	Rs/Ton	NA					
	(%) of Fuel Quantity	(%)	NA					
2.3	Landed Fuel Cost of coal other than FSA	Rs/Ton	NA					
	(%) of Fuel Quantity	(%)	NA					
2.4	Landed Fuel Cost Imported Coal other than FSA.	Rs/Ton	NA					
	(%) of Fuel Quantity	(%)	NA					
2.5	Secondary fuel oil cost	Rs/Unit	0.04	0.05	0.05	0.05	0.05	0.05
	Energy Charge Rate ex-bus 2A, 2B, 2C, 2D	Rs/Unit	1.54	1.59	1.59	1.59	1.59	1.59

(Petitioner)

PART-I
FORM-1(I)

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

Amount in Rs. Lakhs

Statement showing claimed capital cost – (A+B)

S. No.	Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
1	2	3	4	5	6	7
1	Opening Capital Cost	5,70,571.38	5,79,483.83	5,84,797.83	5,87,089.34	5,88,406.84
2	Add: Addition during the year	8,912.46	5,314.00	2,291.51	1,317.50	7,280.00
3	Less: De-capitalisation during the year	-	-	-	-	-
4	Less: Reversal during the year	-	-	-	-	-
5	Add: Discharges during the year	-	-	-	-	-
6	Closing Capital Cost	5,79,483.83	5,84,797.83	5,87,089.34	5,88,406.84	5,95,686.84
7	**Average Capital Cost**	**5,75,027.61**	**5,82,140.83**	**5,85,943.59**	**5,87,748.09**	**5,92,046.84**

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

S. No.	Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
1	2	3	4	5	6	7
1	Opening Capital Cost	5,70,266.23	5,70,266.23	5,74,926.23	5,76,926.23	5,76,926.23
2	Add: Addition during the year	-	4,660.00	2,000.00	-	7,280.00
3	Less: De-capitalisation during the year	-	-	-	-	-
4	Less: Reversal during the year	-	-	-	-	-
5	Add: Discharges during the year	-	-	-	-	-
6	Closing Capital Cost	5,70,266.23	5,74,926.23	5,76,926.23	5,76,926.23	5,84,206.23
7	**Average Capital Cost**	**5,70,266.23**	**5,72,596.23**	**5,75,926.23**	**5,76,926.23**	**5,80,566.23**

Statement showing claimed capital cost eligible for RoE linked to SBI MCLR (B)

S. No.	Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
1	2	3	4	5	6	7
1	Opening Capital Cost	305.14	9,217.60	9,871.60	10,163.11	11,480.61
2	Add: Addition during the year	8,912.46	654.00	291.51	1,317.50	-
3	Less: De-capitalisation during the year	-	-	-	-	-
4	Less: Reversal during the year	-	-	-	-	-
5	Add: Discharges during the year	-	-	-	-	-
6	Closing Capital Cost	9,217.60	9,871.60	10,163.11	11,480.61	11,480.61
7	**Average Capital Cost**	**4,761.37**	**9,544.60**	**10,017.35**	**10,821.86**	**11,480.61**

(Petitioner)

Statement showing Return on Equity at Normal Rate

PART-I
FORM-1(IIA)

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

Amount in Rs. Lakhs

S. No.	Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
1	2	3	4	5	6	7
	Return on Equity eligible for RoE at normal rate					
1	Gross Opening Equity (Normal)	1,71,079.87	1,71,079.87	1,72,477.87	1,73,077.87	1,73,077.87
2	Less: Adjustment in Opening Equity	-	-	-	-	-
3	Adjustment during the year	-	-	-	-	-
4	Net Opening Equity (Normal)	1,71,079.87	1,71,079.87	1,72,477.87	1,73,077.87	1,73,077.87
5	Add: Increase in equity due to addition during the year	0.00	1398.00	600.00	0.00	2184.00
7	Less: Decrease due to De-capitalisation during the year	0.00	0.00	0.00	0.00	0.00
8	Less: Decrease due to reversal during the year	0.00	0.00	0.00	0.00	0.00
9	Add: Increase due to discharges during the year	0.00	0.00	0.00	0.00	0.00
10	Net closing Equity (Normal)	1,71,079.87	1,72,477.87	1,73,077.87	1,73,077.87	1,75,261.87
11	Average Equity (Normal)	1,71,079.87	1,71,778.87	1,72,777.87	1,73,077.87	1,74,169.87
12	Rate of ROE (%)	18.782%	18.782%	18.782%	18.782%	18.782%
13	Total ROE	**32,132.22**	**32,263.51**	**32,451.14**	**32,507.49**	**32,712.59**

(Petitioner)

Statement showing Return on Equity linked to SBI MCLR+350 basis points:

PART-I
FORM-1(IIB)

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

Amount in Rs. Lakhs

S. No.	Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
1	2	3	4	5	6	7
	Return on Equity eligible for RoE at rate linked to SBI MCLR+350 basis points					
1	Gross Opening Equity (Normal)	91.54	2765.28	2961.48	3048.93	3444.18
2	Less: Adjustment in Opening Equity	0.00	0.00	0.00	0.00	0.00
3	Adjustment during the year	0.00	0.00	0.00	0.00	0.00
4	Net Opening Equity (Normal)	91.54	2765.28	2961.48	3048.93	3444.18
5	Add: Increase in equity due to addition during the year	2673.74	196.20	87.45	395.25	0.00
7	Less: Decrease due to De-capitalisation during the year	0.00	0.00	0.00	0.00	0.00
8	Less: Decrease due to reversal during the year	0.00	0.00	0.00	0.00	0.00
9	Add: Increase due to discharges during the year	0.00	0.00	0.00	0.00	0.00
10	Net closing Equity (Normal)	2765.28	2961.48	3048.93	3444.18	3444.18
11	Average Equity (Normal)	1428.41	2863.38	3005.21	3246.56	3444.18
12	Rate of ROE (Pre-Tax) (%)	12.15%	12.15%	12.15%	12.15%	12.15%
13	Rate of ROE (Post-Tax) (%)	14.72%	14.72%	14.72%	14.72%	14.72%
14	Total ROE	**210.29**	**421.55**	**442.43**	**477.97**	**507.06**

(Petitioner)

PART-I
FORM-2

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

Plant Characteristics

Unit(s)/Block(s)/Parameters	**Unit-I**	**Unit-II**
Installed Capacity (MW)	500	500
Schedule COD as per Investment Approval	NA	NA
Actual COD /Date of Taken Over (as applicable)	19.11.2012	27.03.2014
Pit Head or Non Pit Head or Integrated Mine	Pit Head	
Name of the Boiler Manufacture		
Name of Turbine Generator Manufacture		
Main Steams Pressure at Turbine inlet (kg/Cm^2) abs[1].		
Main Steam Temperature at Turbine inlet (^{o}C) [1]		
Reheat Steam Pressure at Turbine inlet (kg/Cm$^{2)}$ [1]		
Reheat Steam Temperature at Turbine inlet (^{o}C) [1]		
Main Steam flow at Turbine inlet under MCR condition (tons /hr)[2]		
Main Steam flow at Turbine inlet under VWO condition (tons /hr)[2]		
Unit Gross electrical output under MCR /Rated condition (MW)[2]		
Unit Gross electrical output under VWO condition (MW)[2]		
Guaranteed Design Gross Turbine Cycle Heat Rate (kCal/kWh)3		
Conditions on which design turbine cycle heat rate guaranteed		
% MCR	N/A	
% Makeup Water Consumption		
Design Capacity of Make up Water System(DM)---m^3/hr		
Design Capacity of Inlet Cooling System-m3/hr		
Design Cooling Water Temperature (^{0}C)		
Back Pressure(mm Hg abs)		
Steam flow at super heater outlet under BMCR condition (tons/hr)		
Steam Pressure at super heater outlet under BMCR condition) (kg/Cm2)		
Steam Temperature at super heater outlet under BMCR condition (0C)		
Steam Temperature at Reheater outlet at BMCR condition (^{0}C)		
Design / Guaranteed Boiler Efficiency (%)		
Design Fuel with and without Blending of domestic/imported coal		
Type of Cooling Tower	Induced draught type Cooling tower (IDCT)	
Type of cooling system[5]	Closed Cycle	
Type of Boiler Feed Pump[6]	2X60% Steam Driven + 1X50% Electrical Driven for each unit	
Type of Boiler based on Burner arrangement	Tangential Fire Boiler	
Type of coal Mill		
Fuel Details[7]		
-Primary Fuel	Coal	
-Secondary Fuel	LDO after Hon'ble Supreme Court order 24.10.2017 in W. P.(C) No (s).13029/1985.	
-Alternate Fuels	LDO	
Types of SOX control system	FGD under implementation	
Types of NOX control system		
Details of SPM control system	ESP	
Special Features/Site Specific Features[8]		
Special Technological Features[9]		
Environmental Regulation related features[10]	1.ESP is provided 2.FGD under implementation	

(Petitioner)

Normative parameters considered for tariff computations

PART-I
FORM-3

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

(Year Ending March)

Particulars	Unit	Existing 2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
1	2	3	4	5	6	7	8
Base Rate of Return on Equity at normal rate	%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%
Base Rate of Return on Equity on Add. Capitalization at Rate Linked to SBI MCLR	%	7.62%	12.15%	12.15%	12.15%	12.15%	12.15%
Effective Tax Rate	%	17.47%	17.47%	17.47%	17.47%	17.47%	17.47%
Target Availability	%	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%
ß- Average Monthly Frequency Response Performance ##	0-1						
Auxiliary Energy Consumption	%	6.25%	5.75%	5.75%	5.75%	5.75%	5.75%
Auxiliary Energy Consumption (FGD)*		FGD UNDER IMPLEMENTATION					
Gross Station Heat Rate	kCal/kWh	2358.84	2402.07	2402.07	2402.07	2402.07	2402.07
Specific Fuel Oil Consumption	ml/kWh	0.50	0.50	0.50	0.50	0.50	0.50
Cost of Coal/Lignite for WC	in Days	40	40	40	40	40	40
Cost of Main Secondary Fuel Oil for WC	in Months	2	2	2	2	2	2
Fuel Cost for WC	in Months						
Liquid Fuel Stock for WC	in Months						
O&M Expenses	Rs lakh/MW	25.84	27.17	28.60	30.10	31.68	33.34
Maintenance Spares for WC	% of O&M	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%
Receivables for WC	in Days	45.00	45.00	45.00	45.00	45.00	45.00
Storage capacity of Primary fuel*	MT	8.9 Lakh MT					
SBI 1 Year MCLR plus 350 basis point	%	12.00%	11.90%	11.90%	11.90%	11.90%	11.90%
Blending ratio of domestic coal/imported coal	%	NA	0.00%	0.00%	0.00%	0.00%	0.00%
Norms for consumption of reagent							
Specific Limestone consumption for Wet Limestone FGD		FGD UNDER IMPLEMENTATION					
Specific Limestone consumption for Lime Spray Dryer or Semi-dry FGD							
Specific consumption of sodium bicarbonate							
Specific Limestone consumption for CFBC based generating station							
specific urea consumption of the SNCR							
Specific ammonia consumption of the SCR							
Transit and Handling Losses of coal or lignite, as applicable							

Shall be provided at the time of truing-up.
*** Extra row added.**
***Combined storage capacity of Rihand St-I, Rihand St-II and Rihand St-III.**

(Petitioner)

Part-I
FORM-3A
ADDITIONAL FORM

Calculation of O&M Expenses

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

Amount in Rs. Lakhs

S.No.	Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
1	2	3	4	5	6	7
1	**O&M expenses under Reg.35(1)**					
1a	Normative	27,170.00	28,600.00	30,100.00	31,680.00	33,340.00
2	**O&M expenses under Reg.35(6)**					
2a	Water Charges	512.86	512.86	512.86	512.86	525.51
2b	Security expenses	1548.70	1630.49	1716.87	1808.14	1904.58
2c	Capital Spares*	SHALL BE PROVIDED AT THE TIME OF TRUE-UP				
3	O&M expenses-Ash Transportation	9778.10	9947.83	10030.86	10030.86	10030.86
	Total O&M Expenses	**39009.66**	**40691.18**	**42360.59**	**44031.86**	**45800.95**

(Petitioner)

PART-I
FORM- 9A
ADDITIONAL FORM

Year wise Statement of Additional Capitalisation after COD

Name of the Petitioner	NTPC Limited
Name of the Generating Station	Rihand Super Thermal Power Station Stage-III
COD	27-03-2014
For Financial Year	2024-29 (Summary)

Amount in Rs Lakh

Sl. No.	Head of Work /Equipment	ACE Claimed (Projected)					Justification	Admitted Cost by the Commission, if any
		2024-25	2025-26	2026-27	2027-28	2028-29		
1	2	3	4	5	6	7	8	9
A.	**Works eligble for RoE at Normal Rate**							
1	Ash Dyke Raising & Associated Works (Central Lagoon-I)		2,000.00					
2	Upgradation of Switchgear SCADA system		160.00					
3	Rail Line Extension for DAES		2,500.00				**Pl. refer Form-9 of respective FYs.**	
4	Ash Dyke Raising & Associated Works (Central Lagoon-II)			2,000.00				
5	Ash Dyke Construction					7,280.00		
	Total additional capitalization claimed with RoE at Normal Rate (A)	**-**	**4,660.00**	**2,000.00**	**-**	**7,280.00**		
B.	**Works eligble for Return on Equity linked to SBI MCLR:**							
1	Cooling Tower Augmentation Work	7,825.63						
2	Package of ClO2 Plants in RhSTPP	1,086.83						
4	Installation of CCTV for security in Plant and township		654.00	-				
5	Installation of Online mercury Analyzer for Flue gas Stack at 6X500 MW RhSTPP			120.00			**Pl. refer Form-9 of respective FYs.**	
6	Biomass Handling System			171.51				
7	Ash Utilization Infrastructure				1,317.50			
	Total additional capitalization claimed with RoE at Wtd. Average Rate of Interest (B)	**8,912.455**	**654.000**	**291.510**	**1,317.500**	**-**		
Total Add. Cap. Claimed (A+B)		**8,912.455**	**5,314.000**	**2,291.510**	**1,317.500**	**7,280.000**		

(Petitioner)

PART-I
FORM- 9

Year wise Statement of Additional Capitalisation after COD

Name of the Petitioner	NTPC Limited
Name of the Generating Station	Rihand Super Thermal Power Station Stage-III
COD	27-03-2014
For Financial Year	2024-25

Amount in Rs Lakh

Sl. No.	Head of Work /Equipment	ACE Claimed (Projected)				Regulations under which claimed	Justification	Admitted Cost by the Commission, if any
		Accrual basis as per IGAAP	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3			
1	2	3	4	5= (3-4)	6	7	8	9
A.	**Works eligble for RoE at Normal Rate**							
	Total additional capitalization claimed with RoE at Normal Rate (A)			-				
B.	**Works eligble for Return on Equity linked to SBI MCLR:**							
1	Cooling Tower Augmentation Work	7,825.63		7825.63		26(1)(i)	Cooling tower performance in closed cycle cooling water system is very crucial for ensuring efficient operation of the units. Basic factors affecting CT performance are Area & Volume of the fills, Water distribution across fill area through nozzles and Air flow. In order to improve the performance of cooling towers, additional cells are to be installed. This would help in improvement in efficiency of the units. Since any improvement in efficiency is being passed on to the beneficiaries through sharing of gains (reg. 81) regulations, hon'ble Commission may be pleased to allow the present capitalization.	
2	Package of ClO2 Plants in RhSTPP	1,086.83		1086.83		26(1)(b), 26(1)(d) & 26(1)(i)	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. 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. Installation of ClO2 system by replacing chlorine gas injecting system is being undertaken at all NTPC stations to enhance safety of personnel engaged in power plant operation. Work taken-up in accordance to the various provisions and objectives of the "National Disaster Management Guidelines – Chemical Disasters" which provides that industrial systems shall be continuously improved and upgraded for the prevention and management of chemical accidents. It is also pertinent that the action for insllation of CLO2 system is also in compliance with the duties necessitated for an employer (NTPC) under the clause 6(1)(a) and 6(1)(d) of "The Occupational Safety, Health and Working Conditions Code, 2020" notified by Ministry of Law & Justice, GoI vide Gazette Notification dated 29.09.2020 (attached as **Annexure-A/1**), relevant extracts of which are reproduced below: "DUTIES OF EMPLOYER AND EMPLOYEES, ETC. 6.(1) Every employer shall: (a) ensure that workplace is free from hazards which cause or are likely to cause injury or occupational disease to the employees; … (e) Provide and maintains, as far as is reasonably practicable, a working environment that is safe and without risk to the health of the employees" Some of the major benefits of installation of CLO2 system are as under: (a) Avoid possible accidents due to leakage of chlorine while handling (b) Improves safety of personnel and plant & equipment (c) Increases the shelf life of water retaining structures/ equipment such as clarifiers, storage tanks, cooling towers, condenser tubes & piping etc thereby reduces the replacement cost. (d) Helps in complying with statutory direction of some states that have already made it mandatory. In view of the contribution of the said work towards increased reliability & successful/ efficient operation of the system, enhanced safety of plant as well as surrounding area and compliance of statutory/ legal provisions, hon'ble Commission may be pleased to allow it under reg. 26(1)(i), 26(1)(d) and 26(1)(b) of Tariff Regulations, 2019.	
	Total (B)			**8,912.46**				
Total Add. Cap. Claimed (A+B)				**8,912.46**				

(Petitioner)

PART-I
FORM- 9

Year wise Statement of Additional Capitalisation after COD

Name of the Petitioner	**NTPC Limited**
Name of the Generating Station	**Rihand Super Thermal Power Station Stage-III**
COD	**27-03-2014**
For Financial Year	**2025-26**

Amount in Rs Lakh

Sl. No.	Head of Work /Equipment	ACE Claimed (Projected)				Regulations under which claimed	Justification	Admitted Cost by the Commission, if any
		Accrual basis as per IGAAP	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3			
1	2	3	4	5= (3-4)	6	7	8	9
A.	**Works eligble for RoE at Normal Rate**							
1	Ash Dyke Raising & Associated Works (Central Lagoon-I)	2,000.00		2,000.00		25(1)(c)	It is submitted that raising of Ash Dyke is a continuous activity performed during the life span of a power plant which is aimed at accommodating the Ash Generated from Power Plant. In order to have optimum utilization of land for ash disposal, conservation of forest/cultivating land and compliance with the directions of statutory bodies, capacity of ash dyke is being enhanced by raising for catering the need of disposal of ash from generating units. Raising of Ash Dyke is part of original scope of the project. Hon'ble Commission may be pleased to allow the capitalization under Regulation 25(1)(c).	
2	Upgradation of Switchgear SCADA system	160.00		160.00		25(2)(c)	The existing Switchgear SCADA system has been declared obsolete by the OEM. MOM with OEM recommending upgradation attached as **Annexure-B/1**. Further spares support for the system is also not available. In view of this, the system is being upgraded. Hon'ble Commission may be pleased to allow the same.	
3	Rail Line Extension for DAES	2,500.00		2,500.00		25(1)(b)	As per the directions of MoEF&CC vide notification dated 25.01.2016, coal/ lignite based Thermal Power plants shall have to comply with 100% fly Ash utilization targets. Copy of the notification is attached at **Annexure-B/2**. The notification also mandates separate access for dry ash silos to ease the delivery of fly ash. It is humbly submitted that in view of the remote location of the instant station, it is not possible to utilize 100% ash locally through access roads. Therefore, it has been decided to transport the ash to potential utilisation sites through railway line. The proposed Rail line extension work includes laying of Railway track within plant boundary upto dry ash silos to enable collection of ash directly from dry Ash silos. The projected capitalisation pertains to the Rail line extension work for transportation of Ash from the instant station. The present work was allowed in 2019-24 period by the Hon'ble Commission vide para 15 of order dtd. 27.12.2023 in petition no. 430/GT/2020 under change in law. However the work is expected to be completed in 2024-29 period.	

PART-I
FORM- 9

Year wise Statement of Additional Capitalisation after COD

Name of the Petitioner	NTPC Limited
Name of the Generating Station	Rihand Super Thermal Power Station Stage-III
COD	27-03-2014
For Financial Year	2025-26

Amount in Rs Lakh

Sl. No.	Head of Work /Equipment	ACE Claimed (Projected)				Regulations under which claimed	Justification	Admitted Cost by the Commission, if any
		Accrual basis as per IGAAP	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3			
1	2	3	4	5= (3-4)	6	7	8	9
	Total additional capitalization claimed with RoE at Normal Rate (A)			**4,660.00**				
B.	**Works eligble for Return on Equity linked to SBI MCLR:**							
		-		-				
2	Installation of CCTV for security in Plant and township	654		654		26(1)(d)	As per recommendation of CISF for ensuring safety and security of plant the CCTV system in plant premises is to be augmented. Relavant excerpts of CISF recommendation in its safety inspection report dtd. 03.12.2021 and review meeting dtd. 11.09.223 attached as **Annexure-B/3**). Hon'ble Commission may be pleased to allow the same.	
	Total (B)	**-**	**-**	**654.00**	**-**			
Total Add. Cap. Claimed (A+B)				**5,314.00**				

(Petitioner)

PART-I
FORM- 9

Year wise Statement of Additional Capitalisation after COD

Name of the Petitioner	**NTPC Limited**
Name of the Generating Station	**Rihand Super Thermal Power Station Stage-III**
COD	**27-03-2014**
For Financial Year	**2026-27**

Amount in Rs Lakh

Sl. No.	Head of Work /Equipment	ACE Claimed (Projected)				Regulations under which claimed	Justification	Admitted Cost by the Commission, if any
		Accrual basis as per IGAAP	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3			
1	2	3	4	5= (3-4)	6	7	8	9
A.	**Works eligble for RoE at Normal Rate**							
1	Ash Dyke Raising & Associated Works (Central Lagoon-II)	2,000.00		2,000.00		25(1)(c)	It is submitted that raising of Ash Dyke is a continuous activity performed during the life span of a power plant which is aimed at accommodating the Ash Generated from Power Plant. In order to have optimum utilization of land for ash disposal, conservation of forest/cultivating land and compliance with the directions of statutory bodies, capacity of ash dyke is being enhanced by raising for catering the need of disposal of ash from generating units. Raising of Ash Dyke is part of original scope of the project. Hon'ble Commission may be pleased to allow the capitalization under Regulation 25(1)(c).	
	Total additional capitalization claimed with RoE at Normal Rate (A)			**2,000.00**				
B.	**Works eligble for Return on Equity linked to SBI MCLR:**							
		-		-				
1	Installation of Online mercury Analyzer for Flue gas Stack at 6X500 MW RhSTPP	120.00		120.00		26(1)(b)	As per Guideilines for Continuous Emission Monitoring Systems issued by MoEF, the CEMS must have the capability of online data monitoring. The present capitalization has been done to enable measurement of mercury in Stack as per MoEF guidelines. (Relavant excerpts of MoEF guidelines attached as **Annexure-C/1**). Hon'ble Commission may be pleased to allow the same.	
2	Biomass Handling System	171.51		171.51		26(1)(b), 19(3)(h) & 26(1)(g)	Ministry of Power vide letter No. 11/86/2017-Th.II dtd. 17.11.12017 wherein all power generating utilities are mandated to cofire 5-10% blend of Biomass Pellers. In line with these directtions, CEA vide letter dtd. 24.11.2017 directed the petitioner to comply with the same. (CEA letter dtd. 24.11.2017 attached as **Annexure-C/2**). Based on these directions, biomass handling infrastructure work is being done and the same has been claimed under reg. 19(3)(h) & 26(1)(g) of Tariff Regulations, 2024 which specifically provides for capitalization for works towards Infrastructure for Biomass Handling System. Hon'ble Commission may be pleased to allow the same.	
		-		-				
	Total (B)			**291.51**				
Total Add. Cap. Claimed (A+B)				**2,291.51**				

(Petitioner)

PART-I
FORM- 9

Year wise Statement of Additional Capitalisation after COD

Name of the Petitioner	NTPC Limited
Name of the Generating Station	Rihand Super Thermal Power Station Stage-III
COD	27-03-2014
For Financial Year	2027-28

Amount in Rs Lakh

Sl. No.	Head of Work /Equipment	ACE Claimed (Projected)				Regulations under which claimed	Justification	Admitted Cost by the Commission, if any
		Accrual basis as per IGAAP	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3			
1	2	3	4	5= (3-4)	6	7	8	9
A.	Works eligble for RoE at Normal Rate							
	Total additional capitalization claimed with RoE at Normal Rate (A)			-				
B.	Works eligble for Return on Equity linked to SBI MCLR:							
1	Ash Utilization Infrastructure	1,322.50		1,317.50		26(1)(b)	MoEF&CC vide notification dtd. 31.12.2021 has mandated utilization of ash progressively within the timeline of 3-5 years. In view of this, the proposed expenditure is directed towards developing ash infrastructure towards ash utilization. (notification dtd 31.12.2021 attached as **Annexure-D/1**). The petitioner humbly submits that the present expenditure is towards developing infrastructure for enabling ash utlization as mandated by MoEF&CC. It is further submitted that Hon'ble Commission vide order dtd. 28.10.2022 in 205MP2021 has allowed recovery of ash transportation expeses after adjusting the revenue through sale of ash. The instant station is incurring expenditure on ash tranportation in excess of revenue through ash sale. Hon'ble Commision may be pleased to allow capitalization under 'compliance of existing law'. Hon'ble Commission may be pleased to allow the capitalization under 'compliance of existing law'.	
	Total (B)	-	-	1,317.50	-			
Total Add. Cap. Claimed (A+B)				1,317.50				

(Petitioner)

PART-I
FORM- 9

Year wise Statement of Additional Capitalisation after COD

Name of the Petitioner	NTPC Limited
Name of the Generating Station	Rihand Super Thermal Power Station Stage-III
COD	27-03-2014
For Financial Year	2028-29

Amount in Rs Lakh

Sl. No.	Head of Work /Equipment	ACE Claimed (Projected)				Regulations under which claimed	Justification	Admitted Cost by the Commission, if any
		Accrual basis as per IGAAP	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3			
1	2	3	4	5= (3-4)	6	7	8	9
A.	**Works eligble for RoE at Normal Rate**							
1	Ash Dyke Construction	7,280.00		7,280.00		25(1)(c)	It is submitted that Ash Dyke is required to accommodate the Ash Generated from Power Plant. Construction of Ash Dyke is part of original scope of the project. The present work was allowed by the Hon'ble Commission vide para 16 of order dtd. 27.12.2023 in petition no. 430/GT/2020. Hon'ble Commission may be pleased to allow the capitalization under Regulation 25(1)(c).	
	Total additional capitalization claimed with RoE at Normal Rate (A)			**7,280.00**				
B.	**Works eligble for Return on Equity linked to SBI MCLR:**							
	Total (B)	-	-	-	-			
Total Add. Cap. Claimed (A+B)				**7,280.00**				

(Petitioner)

PART-I

FORM- 11

Calculation of Depreciation

Name of the Petitioner		**NTPC Limited**		
Name of the Generating Station		**Rihand Super Thermal Power Station Stage-III**		
Sl.No.	**Name of the Assets1**	**Depreciation Rates as per CERC's Depreciation Rate Schedule**	**Gross Block as on 31.03.2024**	**Depreciation**
1	Land-Leasehold	3.34%	115.60	3.86
2	Plant & Machinary	5.28%	499254.13	26360.62
3	Cooling Towers & CW System.	5.28%	22880.47	1208.09
4	Air conditioning	5.28%	818.73	43.23
5	Chimney	5.28%	5873.72	310.13
6	Main Plant Building	3.34%	8996.06	300.47
7	Ash Dyke/Disposal Area	5.28%	410.41	21.67
8	S-Yard	5.28%	5685.31	300.18
9	Raw Water Reservoir	5.28%	1549.27	81.80
10	MGR & Wagons	5.28%	8163.32	431.02
11	Locomotive	9.50%	9478.40	900.45
12	Residential Building	3.34%	18635.03	622.41
13	WaterTreatment Plant	5.28%	6226.29	328.75
14	Spares	5.28%	22721.04	1199.67
15	Furniture & Fixtures,OFFICE EQUIPMENT	6.33%	1997.76	126.46
16	Other MBOAs / T&Ps.	6.33%	629.43	39.84
17	EDP,WP & SATCOM.	15.00%	1028.94	154.34
18	Construction equipment	5.28%	177.88	9.39
19	Temp.Constructions	100.00%	1313.18	1313.18
20	Central Repair/Workshop	5.28%	1378.63	72.79
21	Road/Bridge	3.34%	6912.06	230.86
22	Software	15.00%	12.20	1.83
23	Water Supply drainage	5.28%	133.49	7.05
24	5 Km Scheme	5.28%	0.28	0.01
25	Hospital Equipment	5.28%	136.14	7.19
26	Vehicle	9.50%	46.46	4.41
	Total		624574.24	34079.71
	Weighted Average Rate of Depreciation (%)			**5.4565%**

(Petitioner)

Statement of Depreciation

PART-I
FORM- 12

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

(Amount in Rs Lakh)

S. No.	Particulars	Existing 2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
1	2	3	4	5	6	7	8
1	Opening Capital Cost	563636.68	570571.38	579483.83	584797.83	587089.34	588406.84
2	Closing Capital Cost	570571.38	579483.83	584797.83	587089.34	588406.84	595686.84
3	Average Capital Cost	567104.03	575027.61	582140.83	585943.59	587748.09	592046.84
1a	Cost of IT Equipments & Software included in (1) above*	1,243.89	761.27	761.27	761.27	761.27	761.27
2a	Cost of IT Equipments & Software included in (2) above*	761.27	761.27	761.27	761.27	761.27	761.27
3a	Average Cost of IT Equipments & Software	1,002.58	761.27	761.27	761.27	761.27	761.27
4	Freehold land	0.00	0.00	0.00	0.00	0.00	0.00
5	Rate of depreciation	5.46%	5.46%	5.46%	5.46%	5.46%	5.46%
6	Depreciable value	5,10,493.88	5,17,600.97	5,24,002.88	5,27,425.36	5,29,049.41	5,32,918.29
7.	Balance useful life at the beginning of the period	15.31	14.31	13.31	12.31	11.31	10.31
8	Remaining depreciable value	2,27,876.25	2,04,677.76	1,79,703.45	1,51,361.58	1,40,689.81	1,32,119.27
9	Depreciation (for the period)	30,978.39	31,376.22	31,764.35	12,295.82	12,439.42	12,814.67
10	Depreciation (annualised)	**30,978.39**	**31,376.22**	**31,764.35**	**12,295.82**	**12,439.42**	**12,814.67**
11	Cumulative depreciation at the end of the period	3,13,596.02	3,44,299.43	3,76,063.77	3,88,359.60	4,00,799.01	4,13,613.69
12	Less: Cumulative depreciation adjustment on account of un-discharged liabilities deducted as on 01.04.2009	0.00	0.00	0.00	0.00	0.00	0.00
13	Add: Cumulative depreciation adjustment on account of liability Discharge	0.00	0.00	0.00	0.00	0.00	0.00
14	Less: Cumulative depreciation adjustment on account of de-capitalisation	672.81	0.00	0.00	0.00	0.00	0.00
15	Net Cumulative depreciation at the end of the period after adjustments	3,12,923.21	3,44,299.43	3,76,063.77	3,88,359.60	4,00,799.01	4,13,613.69

* Shall be revised at true-up.

(Petitioner)

PART-1
FORM-13

Name of the Company : **NTPC Ltd**
Name of the Power Station: **Rihand-III** **(Amount in Rs. Lakhs)**

S.No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
1	**Bonds XLII Series**										
	Gross Drawl opening	800	800	800	800	800	800	800	800	800	800
	Cummulative repayment of drawl till prev yr	-	-	-	-	160	320	480	640	800	800
	Net Loan opening	800	800	800	800	640	480	320	160	-	-
	Increase decrease due to FERV	-	-	-	-	-	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-	-	-	-	-	-
	Total	800	800	800	800	640	480	320	160	-	-
	Repayment of loan during the year	-	-	-	160	160	160	160	160	-	-
	Net loan closing	800	800	800	640	480	320	160	-	-	-
	Average net loan	800	800	800	720	560	400	240	80	-	-
	Rate of interest on loan	9.0300%	9.0300%	9.0300%	9.0300%	9.0300%	9.0300%	9.0300%	9.0300%	0.0000%	0.0000%
	Interest on loan	72	72	72	65	51	36	22	7	-	-
2	**Bonds XLIV Series**										
	Gross Drawl opening	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500
	Cummulative repayment of drawl till prev yr	-	-	-	-	-	500	1,000	1,500	2,000	2,500
	Net Loan opening	2,500	2,500	2,500	2,500	2,500	2,000	1,500	1,000	500	-
	Increase decrease due to FERV	-	-	-	-	-	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-	-	-	-	-	-
	Total	2,500	2,500	2,500	2,500	2,500	2,000	1,500	1,000	500	-
	Repayment of loan during the year	-	-	-	-	500	500	500	500	500	-
	Net loan closing	2,500	2,500	2,500	2,500	2,000	1,500	1,000	500	-	-
	Average net loan	2,500	2,500	2,500	2,500	2,250	1,750	1,250	750	250	-
	Rate of interest on loan	9.2800%	9.2800%	9.2800%	9.2800%	9.2800%	9.2800%	9.2800%	9.2800%	9.2800%	0.0000%
	Interest on loan	232	232	232	232	209	162	116	70	23	-
3	**Bonds XXXVIII Series**										
	Gross Drawl opening	600	600	600	600	600	600	600	600	600	600
	Cummulative repayment of drawl till prev yr	129	171	214	257	300	343	386	429	471	514
	Net Loan opening	471	429	386	343	300	257	214	171	129	86
	Increase decrease due to FERV	-	-	-	-	-	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-	-	-	-	-	-
	Total	471	429	386	343	300	257	214	171	129	86
	Repayment of loan during the year	43	43	43	43	43	43	43	43	43	43
	Net loan closing	429	386	343	300	257	214	171	129	86	43
	Average net loan	450	407	364	321	279	236	193	150	107	64
	Rate of interest on loan	9.2000%	9.2000%	9.2000%	9.2000%	9.2000%	9.2000%	9.2000%	9.2000%	9.2000%	9.2000%
	Interest on loan	41	37	34	30	26	22	18	14	10	6
4	**Bonds L2A Series**										
	Gross Drawl opening	843	843	843	843	843	843	843	843	843	843
	Cummulative repayment of drawl till prev yr	-	-	-	-	-	-	-	-	-	-
	Net Loan opening	843	843	843	843	843	843	843	843	843	843
	Increase decrease due to FERV	-	-	-	-	-	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-	-	-	-	-	-
	Total	843	843	843	843	843	843	843	843	843	843
	Repayment of loan during the year	-	-	-	-	-	-	-	-	-	843
	Net loan closing	843	843	843	843	843	843	843	843	843	-
	Average net loan	843	843	843	843	843	843	843	843	843	421
	Rate of interest on loan	8.5100%	8.5100%	8.5100%	8.5100%	8.5100%	8.5100%	8.5100%	8.5100%	8.5100%	8.5100%
	Interest on loan	72	72	72	72	72	72	72	72	72	36
5	**Bonds L3A Series**										
	Gross Drawl opening	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052
	Cummulative repayment of drawl till prev yr	-	-	-	-	-	-	-	-	-	-
	Net Loan opening	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052
	Increase decrease due to FERV	-	-	-	-	-	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-	-	-	-	-	-
	Total	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052
	Repayment of loan during the year	-	-	-	-	-	-	-	-	-	-
	Net loan closing	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052
	Average net loan	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052
	Rate of interest on loan	8.6900%	8.6900%	8.6900%	8.6900%	8.6900%	8.6900%	8.6900%	8.6900%	8.6900%	8.6900%
	Interest on loan	91	91	91	91	91	91	91	91	91	91
6	**Bonds L2B Series**										
	Gross Drawl opening	308	308	308	308	308	308	308	308	308	308
	Cummulative repayment of drawl till prev yr	-	-	-	-	-	-	-	-	-	-
	Net Loan opening	308	308	308	308	308	308	308	308	308	308
	Increase decrease due to FERV	-	-	-	-	-	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-	-	-	-	-	-
	Total	308	308	308	308	308	308	308	308	308	308
	Repayment of loan during the year	-	-	-	-	-	-	-	-	-	308
	Net loan closing	308	308	308	308	308	308	308	308	308	-
	Average net loan	308	308	308	308	308	308	308	308	308	154
	Rate of interest on loan	8.7600%	8.7600%	8.7600%	8.7600%	8.7600%	8.7600%	8.7600%	8.7600%	8.7600%	8.7600%
	Interest on loan	27	27	27	27	27	27	27	27	27	13
7	**Bonds L3B Series**										
	Gross Drawl opening	1,348	1,348	1,348	1,348	1,348	1,348	1,348	1,348	1,348	1,348
	Cummulative repayment of drawl till prev yr	-	-	-	-	-	-	-	-	-	-
	Net Loan opening	1,348	1,348	1,348	1,348	1,348	1,348	1,348	1,348	1,348	1,348
	Increase decrease due to FERV	-	-	-	-	-	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-	-	-	-	-	-
	Total	1,348	1,348	1,348	1,348	1,348	1,348	1,348	1,348	1,348	1,348
	Repayment of loan during the year	-	-	-	-	-	-	-	-	-	-
	Net loan closing	1,348	1,348	1,348	1,348	1,348	1,348	1,348	1,348	1,348	1,348

	Average net loan	1,348	1,348	1,348	1,348	1,348	1,348	1,348	1,348	1,348	1,348
	Rate of interest on loan	8.9400%	8.9400%	8.9400%	8.9400%	8.9400%	8.9400%	8.9400%	8.9400%	8.9400%	8.9400%
	Interest on loan	121	121	121	121	121	121	121	121	121	121
8	**Bonds 54 Series**										
	Gross Drawl opening	28,300	28,300	28,300	28,300	28,300	28,300	28,300	28,300	28,300	28,300
	Cummulative repayment of drawl till prev yr	-	-	-	-	5,660	16,980	28,300	28,300	28,300	28,300
	Net Loan opening	28,300	28,300	28,300	28,300	22,640	11,320	-	-	-	-
	Increase decrease due to FERV	-	-	-	-	-	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-	-	-	-	-	-
	Total	28,300	28,300	28,300	28,300	22,640	11,320	-	-	-	-
	Repayment of loan during the year	-	-	-	5,660	11,320	11,320	-	-	-	-
	Net loan closing	28,300	28,300	28,300	22,640	11,320	-	-	-	-	-
	Average net loan	28,300	28,300	28,300	25,470	16,980	5,660	-	-	-	-
	Rate of interest on loan	8.5200%	8.5200%	8.5200%	8.5200%	8.5200%	8.5200%	0.0000%	0.0000%	0.0000%	0.0000%
	Interest on loan	2411	2411	2411	2170	1447	482	-	-	-	-
9	**Bonds 57 Series**										
	Gross Drawl opening	800	800	800	800	800	800	800	800	800	800
	Cummulative repayment of drawl till prev yr	-	-	-	-	-	-	-	800	800	800
	Net Loan opening	800	800	800	800	800	800	800	-	-	-
	Increase decrease due to FERV	-	-	-	-	-	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-	-	-	-	-	-
	Total	800	800	800	800	800	800	800	-	-	-
	Repayment of loan during the year	-	-	-	-	-	-	800	-	-	-
	Net loan closing	800	800	800	800	800	800	-	-	-	-
	Average net loan	800	800	800	800	800	800	400	-	-	-
	Rate of interest on loan	8.2200%	8.2200%	8.2200%	8.2200%	8.2200%	8.2200%	8.2200%	0.0000%	0.0000%	0.0000%
	Interest on loan	66	66	66	66	66	66	33	-	-	-
10	**Bonds 66 Series**										
	Gross Drawl opening	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200
	Cummulative repayment of drawl till prev yr	-	-	-	-	-	-	-	-	-	-
	Net Loan opening	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200
	Increase decrease due to FERV	-	-	-	-	-	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-	-	-	-	-	-
	Total	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200
	Repayment of loan during the year	-	-	-	-	-	-	-	-	-	-
	Net loan closing	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200
	Average net loan	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200
	Rate of interest on loan	7.4000%	7.4000%	7.4000%	7.4000%	7.4000%	7.4000%	7.4000%	7.4000%	7.4000%	7.4000%
	Interest on loan	237	237	237	237	237	237	237	237	237	237
11	**Bonds 67 Series**										
	Gross Drawl opening	4,270	4,270	4,270	4,270	4,270	4,270	4,270	4,270	4,270	4,270
	Cummulative repayment of drawl till prev yr	-	-	-	-	-	-	-	-	-	-
	Net Loan opening	4,270	4,270	4,270	4,270	4,270	4,270	4,270	4,270	4,270	4,270
	Increase decrease due to FERV	-	-	-	-	-	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-	-	-	-	-	-
	Total	4,270	4,270	4,270	4,270	4,270	4,270	4,270	4,270	4,270	4,270
	Repayment of loan during the year	-	-	-	-	-	-	-	-	-	4,270
	Net loan closing	4,270	4,270	4,270	4,270	4,270	4,270	4,270	4,270	4,270	-
	Average net loan	4,270	4,270	4,270	4,270	4,270	4,270	4,270	4,270	4,270	2,135
	Rate of interest on loan	8.4200%	8.4200%	8.4200%	8.4200%	8.4200%	8.4200%	8.4200%	8.4200%	8.4200%	8.4200%
	Interest on loan	360	360	360	360	360	360	360	360	360	180
12	**Bonds 72 Series (pfc-v D33 refinanced)**										
	Gross Drawl opening	-	-	1,663	1,663	1,663	1,663	1,663	1,663	1,663	1,663
	Cummulative repayment of drawl till prev yr	-	-	-	-	-	-	-	1,663	1,663	1,663
	Net Loan opening	-	-	1,663	1,663	1,663	1,663	1,663	-	-	-
	Increase decrease due to FERV	-	-	-	-	-	-	-	-	-	-
	Increase decrease due to ACE	-	1,663	-	-	-	-	-	-	-	-
	Total	-	1,663	1,663	1,663	1,663	1,663	1,663	-	-	-
	Repayment of loan during the year	-	-	-	-	-	-	1,663	-	-	-
	Net loan closing	-	1,663	1,663	1,663	1,663	1,663	-	-	-	-
	Average net loan	-	831	1,663	1,663	1,663	1,663	831	-	-	-
	Rate of interest on loan	0.0000%	6.67%	6.6700%	6.6700%	6.6700%	6.6700%	6.6700%	0.0000%	0.0000%	0.0000%
	Interest on loan	0	55	111	111	111	111	55	-	-	-
13	**Bonds 72 Series (pfc-v D34 refinanced)**										
	Gross Drawl opening	-	-	4,200	4,200	4,200	4,200	4,200	4,200	4,200	4,200
	Cummulative repayment of drawl till prev yr	-	-	-	-	-	-	-	4,200	4,200	4,200
	Net Loan opening	-	-	4,200	4,200	4,200	4,200	4,200	-	-	-
	Increase decrease due to FERV	-	-	-	-	-	-	-	-	-	-
	Increase decrease due to ACE	-	4,200	-	-	-	-	-	-	-	-
	Total	-	4,200	4,200	4,200	4,200	4,200	4,200	-	-	-
	Repayment of loan during the year	-	-	-	-	-	-	4,200	-	-	-
	Net loan closing	-	4,200	4,200	4,200	4,200	4,200	-	-	-	-
	Average net loan	-	2,100	4,200	4,200	4,200	4,200	2,100	-	-	-
	Rate of interest on loan	0.0000%	6.8400%	6.8400%	6.8400%	6.8400%	6.8400%	6.8400%	0.0000%	0.0000%	0.0000%
	Interest on loan	0	144	287	287	287	287	144	-	-	-
14	**Bonds 72 Series (pfc-v D36 refinanced)**										
	Gross Drawl opening	-	-	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750
	Cummulative repayment of drawl till prev yr	-	-	-	-	-	-	-	1,750	1,750	1,750
	Net Loan opening	-	-	1,750	1,750	1,750	1,750	1,750	-	-	-
	Increase decrease due to FERV	-	-	-	-	-	-	-	-	-	-
	Increase decrease due to ACE	-	1,750	-	-	-	-	-	-	-	-
	Total	-	1,750	1,750	1,750	1,750	1,750	1,750	-	-	-
	Repayment of loan during the year	-	-	-	-	-	-	1,750	-	-	-
	Net loan closing	-	1,750	1,750	1,750	1,750	1,750	-	-	-	-
	Average net loan	-	875	1,750	1,750	1,750	1,750	875	-	-	-
	Rate of interest on loan	0.0000%	6.9050%	6.9050%	6.9050%	6.9050%	6.9050%	6.9050%	0.0000%	0.0000%	0.0000%

	Interest on loan	0	60	121	121	121	121	60	-	-	-
15	**Bonds 72 Series (pfc-v D38 refinanced)**										
	Gross Drawl opening	-	-	6,125	6,125	6,125	6,125	6,125	6,125	6,125	6,125
	Cummulative repayment of drawl till prev yr	-	-	-	-	-	-	-	6,125	6,125	6,125
	Net Loan opening	-	-	6,125	6,125	6,125	6,125	6,125	-	-	-
	Increase decrease due to FERV	-	-	-	-	-	-	-	-	-	-
	Increase decrease due to ACE	-	6,125	-	-	-	-	-	-	-	-
	Total	-	6,125	6,125	6,125	6,125	6,125	6,125	-	-	-
	Repayment of loan during the year	-	-	-	-	-	-	6,125	-	-	-
	Net loan closing	-	6,125	6,125	6,125	6,125	6,125	-	-	-	-
	Average net loan	-	3,063	6,125	6,125	6,125	6,125	3,063	-	-	-
	Rate of interest on loan	0.0000%	6.8700%	6.8700%	6.8700%	6.8700%	6.8700%	6.8700%	0.0000%	0.0000%	0.0000%
	Interest on loan	0	210	421	421	421	421	210	-	-	-
16	**Bonds 72 Series (OTHERS)**										
	Gross Drawl opening	-	-	17,663	17,663	17,663	17,663	17,663	17,663	17,663	17,663
	Cummulative repayment of drawl till prev yr	-	-	-	-	-	-	-	17,663	17,663	17,663
	Net Loan opening	-	-	17,663	17,663	17,663	17,663	17,663	-	-	-
	Increase decrease due to FERV	-	-	-	-	-	-	-	-	-	-
	Increase decrease due to ACE	-	17,663	-	-	-	-	-	-	-	-
	Total	-	17,663	17,663	17,663	17,663	17,663	17,663	-	-	-
	Repayment of loan during the year	-	-	-	-	-	-	17,663	-	-	-
	Net loan closing	-	17,663	17,663	17,663	17,663	17,663	-	-	-	-
	Average net loan	-	8,831	17,663	17,663	17,663	17,663	8,831	-	-	-
	Rate of interest on loan	0.0000%	5.4800%	5.4800%	5.4800%	5.4800%	5.4800%	5.4800%	0.0000%	0.0000%	0.0000%
	Interest on loan	0	484	968	968	968	968	484	-	-	-
17	**Corporation Bank-III- D4**										
	Gross Drawl opening	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
	Cummulative repayment of drawl till prev yr	750	1,000	1,500	2,000	2,500	3,000	3,500	4,000	4,500	5,000
	Net Loan opening	4,250	4,000	3,500	3,000	2,500	2,000	1,500	1,000	500	-
	Increase decrease due to FERV	-	-	-	-	-	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-	-	-	-	-	-
	Total	4,250	4,000	3,500	3,000	2,500	2,000	1,500	1,000	500	-
	Repayment of loan during the year	250	500	500	500	500	500	500	500	500	-
	Net loan closing	4,000	3,500	3,000	2,500	2,000	1,500	1,000	500	-	-
	Average net loan	4,125	3,750	3,250	2,750	2,250	1,750	1,250	750	250	-
	Rate of interest on loan	8.0276%	6.7032%	6.0000%	7.2975%	7.9443%	8.1000%	8.1000%	8.1000%	8.1000%	0.0000%
	Interest on loan	331	251	195	201	179	142	101	61	20	-
18	**Corporation Bank-III-D6**										
	Gross Drawl opening	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
	Cummulative repayment of drawl till prev yr	750	1,000	1,500	2,000	2,500	3,000	3,500	4,000	4,500	5,000
	Net Loan opening	4,250	4,000	3,500	3,000	2,500	2,000	1,500	1,000	500	-
	Increase decrease due to FERV	-	-	-	-	-	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-	-	-	-	-	-
	Total	4,250	4,000	3,500	3,000	2,500	2,000	1,500	1,000	500	-
	Repayment of loan during the year	250	500	500	500	500	500	500	500	500	-
	Net loan closing	4,000	3,500	3,000	2,500	2,000	1,500	1,000	500	-	-
	Average net loan	4,125	3,750	3,250	2,750	2,250	1,750	1,250	750	250	-
	Rate of interest on loan	8.0276%	6.7032%	6.0000%	7.2975%	7.9443%	8.1000%	8.1000%	8.1000%	8.1000%	0.0000%
	Interest on loan	331	251	195	201	179	142	101	61	20	-
19	**Union Bank of India-II- D8**										
	Gross Drawl opening	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500
	Cummulative repayment of drawl till prev yr	625	875	1,125	1,375	1,625	1,875	2,125	2,375	2,500	2,500
	Net Loan opening	1,875	1,625	1,375	1,125	875	625	375	125	-	-
	Increase decrease due to FERV	-	-	-	-	-	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-	-	-	-	-	-
	Total	1,875	1,625	1,375	1,125	875	625	375	125	-	-
	Repayment of loan during the year	250	250	250	250	250	250	250	125	-	-
	Net loan closing	1,625	1,375	1,125	875	625	375	125	-	-	-
	Average net loan	1,750	1,500	1,250	1,000	750	500	250	63	-	-
	Rate of interest on loan	8.0795%	6.7019%	6.0000%	7.2975%	7.9443%	8.1000%	8.1000%	8.1000%	0.0000%	0.0000%
	Interest on loan	141	101	75	73	60	41	20	5	-	-
20	**Corporation Bank-IV D1**										
	Gross Drawl opening	12,286	12,286	12,286	12,286	12,286	12,286	12,286	12,286	12,286	12,286
	Cummulative repayment of drawl till prev yr	-	-	-	-	1,365	2,730	4,095	5,460	6,825	8,190
	Net Loan opening	12,286	12,286	12,286	12,286	10,921	9,556	8,190	6,825	5,460	4,095
	Increase decrease due to FERV	-	-	-	-	-	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-	-	-	-	-	-
	Total	12,286	12,286	12,286	12,286	10,921	9,556	8,190	6,825	5,460	4,095
	Repayment of loan during the year	-	-	-	1,365	1,365	1,365	1,365	1,365	1,365	1,365
	Net loan closing	12,286	12,286	12,286	10,921	9,556	8,190	6,825	5,460	4,095	2,730
	Average net loan	12,286	12,286	12,286	11,603	10,238	8,873	7,508	6,143	4,778	3,413
	Rate of interest on loan	8.1889%	6.8038%	6.1333%	7.4309%	8.0776%	8.1000%	8.1000%	8.1000%	8.1000%	8.1000%
	Interest on loan	1006	836	754	862	827	719	608	498	387	276
21	**HDFC Bank Ltd.-IV D1**										
	Gross Drawl opening	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000
	Cummulative repayment of drawl till prev yr	-	-	-	444	889	1,333	1,778	2,222	2,667	3,111
	Net Loan opening	4,000	4,000	4,000	3,556	3,111	2,667	2,222	1,778	1,333	889
	Increase decrease due to FERV	-	-	-	-	-	-	-	-	-	-
	Increase decrease due to ACE	-	-	-	-	-	-	-	-	-	-
	Total	4,000	4,000	4,000	3,556	3,111	2,667	2,222	1,778	1,333	889
	Repayment of loan during the year	-	-	444	444	444	444	444	444	444	444
	Net loan closing	4,000	4,000	3,556	3,111	2,667	2,222	1,778	1,333	889	444
	Average net loan	4,000	4,000	3,778	3,333	2,889	2,444	2,000	1,556	1,111	667
	Rate of interest on loan	8.0492%	6.3982%	5.9500%	7.2335%	7.9600%	7.9500%	7.9500%	7.9500%	0.0000%	0.0000%
	Interest on loan	322	256	225	241	230	194	159	124	-	-

22	**Jammu & Kashmir Bank-IV D2**											
	Gross Drawl opening	500	500	500	500	500	500	500	500	500	500	
	Cummulative repayment of drawl till prev yr	-	-	56	111	167	167	278	333	389	444	
	Net Loan opening	500	500	444	389	333	333	222	167	111	56	
	Increase decrease due to FERV	-	-	-	-	-	-	-	-	-	-	
	Increase decrease due to ACE	-	-	-	-	-	-	-	-	-	-	
	Total	500	500	444	389	333	333	222	167	111	56	
	Repayment of loan during the year	-	56	56	56	-	111	56	56	56	56	
	Net loan closing	500	444	389	333	333	222	167	111	56	-	
	Average net loan	500	472	417	361	333	278	194	139	83	28	
	Rate of interest on loan	7.9880%	6.6804%	5.8800%	6.9753%	7.9800%	7.9800%	7.9800%	7.9800%	7.9800%	7.9800%	
	Interest on loan	40	32	25	25	27	22	16	11	7	2	
23	**SBI-VIII D8**											
	Gross Drawl opening	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	
	Cummulative repayment of drawl till prev yr	-	-	-	111	222	333	444	556	667	778	
	Net Loan opening	1,000	1,000	1,000	889	778	667	556	444	333	222	
	Increase decrease due to FERV	-	-	-	-	-	-	-	-	-	-	
	Increase decrease due to ACE	-	-	-	-	-	-	-	-	-	-	
	Total	1,000	1,000	1,000	889	778	667	556	444	333	222	
	Repayment of loan during the year	-	-	111	111	111	111	111	111	111	111	
	Net loan closing	1,000	1,000	889	778	667	556	444	333	222	111	
	Average net loan	1,000	1,000	944	833	722	611	500	389	278	167	
	Rate of interest on loan	8.4675%	7.3893%	7.1833%	7.7442%	8.6596%	8.2000%	8.2000%	8.2000%	8.2000%	8.2000%	
	Interest on loan	85	74	68	65	63	50	41	32	23	14	
24	**SBI-VIII D21**											
	Gross Drawl opening	5,700	5,700	5,700	5,700	5,700	5,700	5,700	5,700	5,700	5,700	
	Cummulative repayment of drawl till prev yr	-	-	-	633	1,267	1,900	2,533	3,167	3,800	4,433	
	Net Loan opening	5,700	5,700	5,700	5,067	4,433	3,800	3,167	2,533	1,900	1,267	
	Increase decrease due to FERV	-	-	-	-	-	-	-	-	-	-	
	Increase decrease due to ACE	-	-	-	-	-	-	-	-	-	-	
	Total	5,700	5,700	5,700	5,067	4,433	3,800	3,167	2,533	1,900	1,267	
	Repayment of loan during the year	-	-	633	633	633	633	633	633	633	633	
	Net loan closing	5,700	5,700	5,067	4,433	3,800	3,167	2,533	1,900	1,267	633	
	Average net loan	5,700	5,700	5,383	4,750	4,117	3,483	2,850	2,217	1,583	950	
	Rate of interest on loan	8.4675%	7.3893%	7.1833%	7.7442%	8.6596%	8.2000%	8.2000%	8.2000%	8.2000%	8.2000%	
	Interest on loan	483	421	387	368	356	286	234	182	130	78	
25	**SBI-VIII D24**											
	Gross Drawl opening	3,214	3,214	3,214	3,214	3,214	3,214	3,214	3,214	3,214	3,214	
	Cummulative repayment of drawl till prev yr	-	-	-	357	714	1,071	1,429	1,786	2,143	2,500	
	Net Loan opening	3,214	3,214	3,214	2,857	2,500	2,143	1,786	1,429	1,071	714	
	Increase decrease due to FERV	-	-	-	-	-	-	-	-	-	-	
	Increase decrease due to ACE	-	-	-	-	-	-	-	-	-	-	
	Total	3,214	3,214	3,214	2,857	2,500	2,143	1,786	1,429	1,071	714	
	Repayment of loan during the year	-	-	357	357	357	357	357	357	357	357	
	Net loan closing	3,214	3,214	2,857	2,500	2,143	1,786	1,429	1,071	714	357	
	Average net loan	3,214	3,214	3,036	2,679	2,321	1,964	1,607	1,250	893	536	
	Rate of interest on loan	8.4675%	7.3893%	7.1833%	7.7442%	8.6596%	8.2000%	8.2000%	8.2000%	8.2000%	8.2000%	
	Interest on loan	272	238	218	207	201	161	132	102	73	44	
26	**HDFC Bank Ltd. IX (Hudco-I refinanced)**											
	Gross Drawl opening	-	-	2,043	2,043	2,043	2,043	2,043	2,043	2,043	2,043	
	Cummulative repayment of drawl till prev yr	-	-	-	-	-	-	170	341	511	681	
	Net Loan opening	-	-	2,043	2,043	2,043	2,043	1,873	1,703	1,532	1,362	
	Increase decrease due to FERV	-	-	-	-	-	-	-	-	-	-	
	Increase decrease due to ACE	-	2,043	-	-	-	-	-	-	-	-	
	Total	-	2,043	2,043	2,043	2,043	2,043	1,873	1,703	1,532	1,362	
	Repayment of loan during the year	-	-				170	170	170	170	170	
	Net loan closing	-	2,043	2,043	2,043	2,043	1,873	1,703	1,532	1,362	1,192	
	Average net loan	-	1,022	2,043	2,043	2,043	1,958	1,788	1,617	1,447	1,277	
	Rate of interest on loan	0.0000%	6.6191%	6.4250%	7.7085%	8.4350%	8.4250%	8.4250%	8.4250%	8.4250%	8.4250%	
	Interest on loan	0	68	131	157	172	165	151	136	122	108	
	TOTAL LOAN											
	Gross Drawl opening	312555	312555	345998	345998	345998	345998	345998	345998	345998	345998	
	Cummulative repayment of drawl till prev yr	65495	91819	122800	185951	235535	262886	279351	316642	321606	326286	
	Net Loan opening	247059	220736	223198	160047	110463	83112	66647	29356	24392	19712	
	Increase decrease due to FERV	0	0	0	0	0	0	0	0	0	0	
	Increase decrease due to ACE	0	33443	0	0	0	0	0	0	0	0	
	Total	247059	254179	223198	160047	110463	83112	66647	29356	24392	19712	
	Repayment of loan during the year	26323	30981	63150	49584	27351	16465	37290	4965	4680	8601	
	Net loan closing	220736	223198	160047	110463	**83112**	**66647**	**29356**	**24392**	**19712**	**11111**	
	Average net loan	233898	221967	191622	135255	96788	74879	48001	26874	22052	15412	
	Rate of interest on loan	7.5774%	7.1051%	6.8802%	7.2700%	7.6249%	7.3503%	7.5240%	8.2196%	7.8087%	7.8222%	
	Interest on loan	17723	15771	13184	9833	7380	5504	3612	2209	1722	1206	

S.NO	Bank Loan	Interest Rate	Applicable from	Applicable upto	Number of Days	Product	Weighted Average Rate of Interest
1	**HDFC Bank Limited-IV**	8.01%	01-Apr-23	31-May-23	61.00	4.89	
		7.95%	01-Jun-23	31-Mar-24	305.00	24.25	
					366.00	**29.13**	**7.96%**
2	**HDFC Bank Limited-IX**	8.01%	01-Apr-23	31-May-23	61.00	4.89	
		7.95%	01-Jun-23	31-Mar-24	305.00	24.25	
					366.00	**29.13**	**7.96%**
3	**Jammu & Kashmir Bank-IV**	7.98%	01-Apr-23	31-Mar-24	366.00	29.21	
					366.00	**29.21**	**7.98%**
4	**State Bank of India - VIII**	8.00%	01-Apr-23	13-May-23	43.00	3.44	
		8.10%	14-May-23	13-Aug-23	92.00	7.45	
		8.15%	14-Aug-23	13-Feb-24	184.00	15.00	
		8.20%	14-Feb-24	31-Mar-24	47.00	3.85	
					366.00	**29.74**	**8.13%**
5	**Union Bank-II**	7.90%	01-Apr-23	10-Jan-24	285.00	22.52	
		8.10%	11-Jan-24	31-Mar-24	81.00	6.56	
					366.00	**29.08**	**7.94%**
6	**Corporation Bank-III**	7.90%	01-Apr-23	10-Jan-24	285.00	22.52	
		8.10%	11-Jan-24	31-Mar-24	81.00	6.56	
					366.00	**29.08**	**7.94%**
7	**Corporation Bank-IV**	7.90%	01-Apr-23	10-Jan-24	285.00	22.52	
		8.10%	11-Jan-24	31-Mar-24	81.00	6.56	
					366.00	**29.08**	**7.94%**

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000521 **T00001** D00001

Unsecured Loan From HDFC Bank Ltd.-IV					
Source of Loan :	**HDFC Bank Ltd.-IV**				
Currency :	INR				
Amount of Loan :	20,00,00,00,000				
Total Drawn amount :	1,00,00,00,000				
Date of Drawal:	17.04.2017				
Interest Type :	Floating				
Fixed Interest Rate :					
Rate of Interest as on 01.04.2019	8.45%				
Margin, If Floating Interest :					
Are there any Caps/ Floor :	Y/N				
Frequency of Intt. Payment	MONTHLY				
If Above is yes, specify Caps/ Floor :					
Moratorium Period :	3 Years				
Moratorium effective from :	17.04.2017				
Repayment Period (Inc Moratorium) :	12 Years				
Repayment Frequency :	9 Yearly Instalment				
Repayment Type :	AVG				
First Repayment Date :	17.04.2021				
Base Exchange Rate :	RUPEE				
Date of Base Exchange Rate :	N.A.				
Project Code	Project Name	Amount			
	RIHAND-III	40,00,00,000.00	17.04.2017	D00001	
	DULANGA COAL MINE	9,00,00,000.00	17.04.2017	D00001	
	VINDHYACHAL-IV	41,00,00,000.00	17.04.2017	D00001	
	MOUDA-I	50,00,00,000.00	17.04.2017	D00001	
	ANANTPUR SOLAR PV	60,00,00,000	17.04.2017	D00001	7.90%
Total Allocated Amount		**1,00,00,00,000**			

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	17.04.2017
	MOUDA-II	95,00,00,000.00	17.04.2017
	BARH - II	30,00,00,000.00	17.04.2017
	VINDHYACHAL-V	22,00,00,000.00	17.04.2017
	KOLDAM	38,00,00,000.00	17.04.2017
	RIHAND-III	5,00,00,000.00	17.04.2017
Total Allocated Amount		**2,00,00,00,000.00**	

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	21.10.2015	D0008
	TAPOVAN VISHNUGAD	13,00,00,000	21.10.2015	D0008
	BONGAIGAON	23,00,00,000	21.10.2015	D0008
	BARH-II	22,00,00,000	21.10.2015	D0008
	KUDGI-I	81,00,00,000	21.10.2015	D0008
	MOUDA-II	25,00,00,000	21.10.2015	D0008
	SOLAPUR	35,00,00,000	21.10.2015	D0008
	VINDHYACHAL-V	13,00,00,000	21.10.2015	D0008
	LARA-I	85,00,00,000	21.10.2015	D0008
	GADARWARA	49,00,00,000	21.10.2015	D0008
	UNCHAHAR-IV	10,00,00,000	21.10.2015	D0008
	NORTH KARANPURA	8,00,00,000	21.10.2015	D0008
	DARLIPALLI	34,00,00,000	21.10.2015	D0008
	TANDA-II	26,00,00,000	21.10.2015	D0008
	PAKRI BARWADIH	12,00,00,000	21.10.2015	D0008
	RIHAND-III	10,00,00,000	21.10.2015	D0008
Total Allocated Amount		**5,00,00,00,000**		

Form 8

TRANCHE NO

BP NO 5050000442 **T00001** **D00021**

Unsecured Loan From SBI-VIII		
Source of Loan :	**SBI-VIII**	
Currency :	INR	
Amount of Loan :	1,00,00,00,00,000	
Total Drawn amount :	2,50,00,00,000	
Date of Drawl	21.09.2016	
Interest Type :	Floating	
Fixed Interest Rate :	----------	
Rate of Interest as on 01.04.2019	D00021- 8.25%	
Margin, If Floating Interest :	0.00%	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	6 Years	
Moratorium effective from :	21.09.2016	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	9 Yearly Installments	
Repayment Type :	AVG	
First Repayment Date :	31.01.2022	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	

Project Code	Project Name	Amount			
	BONGAIGAON	40,00,00,000	21.09.2016	9.10%	D00021
	MOUDA-II	15,00,00,000	21.09.2016	9.10%	D00021
	KUDGI	84,00,00,000	21.09.2016	9.10%	D00021
	BARH-II	8,00,00,000	21.09.2016	9.10%	D00021

	KOLDAM	18,00,00,000	21.09.2016	9.10%	D00021
	RIHAND-III	57,00,00,000	21.09.2016	9.10%	D00021
	VINDHYACHAL-IV	21,00,00,000	21.09.2016	9.10%	D00021
	MOUDA-I	7,00,00,000	21.09.2016	9.10%	D00021
Total Allocated Amount		**2,50,00,00,000**			

Form 8

TRANCHE NO

BP NO 5050000442 **T00001** **D00024**

Unsecured Loan From SBI-VIII		
Source of Loan :	**SBI-VIII**	
Currency :	INR	
Amount of Loan :	1,00,00,00,00,000	
Total Drawn amount :	11,50,00,00,000	
Date of Drawl	14.02.2017	
Interest Type :	Floating	
Fixed Interest Rate :	----------	
Rate of Interest as on 01.04.2019	D00024- 8.25%	
Margin, If Floating Interest :	0.00%	
Loan refinanacing Spread	0.5333%	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	6 Years	
Moratorium effective from :	14.02.2017	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	9 Yearly Installments	
Repayment Type :	AVG	
First Repayment Date :	31.01.2022	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	

Project Code	**Project Name**	**Amount**			
	BARH-I	3,00,00,00,000	14.02.2017	8.00%	D00024
	BONGAIGAON	34,28,57,142	14.02.2017	8.00%	D00024
	FARAKKA III	14,28,57,141	14.02.2017	8.00%	D00024
	GADARWARA	2,50,00,00,000	14.02.2017	8.00%	D00024
	KOLDAM	92,85,71,427	14.02.2017	8.00%	D00024
	KORBA-III	2,85,71,428	14.02.2017	8.00%	D00024
	KUDGI	1,00,00,00,000	14.02.2017	8.00%	D00024
	MOUDA-I	40,71,42,856	14.02.2017	8.00%	D00024
	NCTPP-II	15,71,42,855	14.02.2017	8.00%	D00024
	NORTH KARANPURA	1,00,00,00,000	14.02.2017	8.00%	D00024
	RIHAND-III	32,14,28,570	14.02.2017	8.00%	D00024
	SIMHADRI-II	53,28,57,141	14.02.2017	8.00%	D00024
	SIPAT-I	21,42,85,711	14.02.2017	8.00%	D00024
	SIPAT-II	5,71,42,856	14.02.2017	8.00%	D00024
	TAPOVAN VISHNUGAD	50,00,00,000	14.02.2017	8.00%	D00024

	VINDHYACHAL IV	32,42,85,714	14.02.2017	8.00%	D00024
	PAKRI BARWADIH	4,28,57,159	14.02.2017	8.00%	D00024
Total Allocated Amount		**11,50,00,00,000**			

Form 8

TRANCHE NO

BP NO 5050000331	**T00001**	**D00004**
Unsecured Loan From Corporation Bank-III		
Source of Loan :	**Corporation Bank-III**	
Currency :	INR	
Amount of Loan :	5,00,00,00,000	
Total Drawn amount :	50,00,00,000	
Date of Drawal :	28.03.2013	
Interest Type :	Floating	
Rate of Interest as on 01.04.2019	8.20%	
Margin, If Floating Interest :	Nil	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	5 Years	
Moratorium effective from :	28.09.2012	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	20 Half Yearly Instalment	
Repayment Type :	AVG	
First Repayment Date :	28-Mar-18	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	

Project Code	Project Name	Amount		
	RIHAND-III	50,00,00,000	28.03.2013	
Total Allocated Amount		**50,00,00,000**		

Form 8

TRANCHE NO

BP NO 5050000331	**T00001**	**D00006**
Unsecured Loan From Corporation Bank-III		
Source of Loan :	**Corporation Bank-III**	
Currency :	INR	
Amount of Loan :	5,00,00,00,000	
Total Drawn amount :	50,00,00,000	
Date of Drawal :	21.01.2014	
Interest Type :	Floating	
Rate of Interest as on 01.04.2019	8.20%	
Margin, If Floating Interest :	Nil	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		

Moratorium Period :	5 Years		
Moratorium effective from :	28.09.2012		
Repayment Period (Inc Moratorium) :	15 Years		
Repayment Frequency :	20 Half Yearly Instalment		
Repayment Type :	AVG		
First Repayment Date :	28-Mar-18		
Base Exchange Rate :	RUPEE		
Date of Base Exchange Rate :	N.A.		
Project Code	Project Name	Amount	
	RIHAND-III	50,00,00,000	21.01.2014
Total Allocated Amount		**50,00,00,000**	

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000321 **T00001** **D00008**

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

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000721 **T00001** **D00001**

Source of Loan :	**Corporation Bank-IV**	
Currency :	INR	
Amount of Loan :	20,00,00,00,000	
Total Drawn amount :	20,00,00,00,000	
Date of Drawal:	11.01.2019	
Interest Type :	Floating	
Rate of Interest as on 01.04.2019	8.25%	
Base Rate, If Floating Interest	-	
Loan Refinancing spread	0.1333%	
Margin, If Floating Interest :	-	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	3 Years	
Moratorium effective from :	11.01.2019	
Repayment Period (Inc Moratorium) :	12 Years	
Repayment Frequency :	9 Yearly Instalments	
Repayment Type :	AVG	
First Repayment Date :	11-Jan-23	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	

Project Code	Project Name	Amount	
	SINGRAULI 8MW HYDRO	8,75,00,000	11.01.2019
	FARIDABAD SOLAR PV	8,75,00,000	11.01.2019
	SINGRAULI SOLAR	8,75,00,000	11.01.2019
	FARAKKA III	11,42,85,716	11.01.2019
	RAJGARH SOLAR	13,12,50,000	11.01.2019
	NCTPP-II	14,28,57,139	11.01.2019
	GANDHAR R&M	16,60,71,436	11.01.2019
	SIMHADRI-II	23,21,42,855	11.01.2019
	SIPAT-I	23,43,75,000	11.01.2019
	MOUDA-II	50,00,00,000	11.01.2019
	VINDHYACHAL-V	1,00,00,00,000	11.01.2019
	SIPAT-II	1,01,07,14,287	11.01.2019
	MOUDA-I	1,05,44,64,284	11.01.2019
	RIHAND-III	1,22,85,71,426	11.01.2019
	VINDHYACHAL-IV	2,45,00,00,000	11.01.2019
	KOLDAM	2,71,51,78,577	11.01.2019
	BARH-II	6,75,75,89,280	11.01.2019
	KUDGI	2,00,00,00,000	11.01.2019
Total Allocated Amount		**20,00,00,00,000**	

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000981 **T00001** **D00004**

Unsecured Loan From HDFC Bank Ltd. IX		
Source of Loan :	**HDFC Bank Ltd. IX**	
Currency :	INR	
Amount of Loan :	50,00,00,00,000	
Total Drawn amount :	16,10,00,00,000	
Date of drawl	24.08.2020	
Interest Type :	Floating	
Fixed Interest Rate :		
Base Rate, If Floating Interest	6.30%	
Margin, If Floating Interest :	NIL	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	3 Years	
Moratorium effective from :	24.08.2020	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	12 Yearly Instalment	
Repayment Type :	AVG	
First Repayment Date :	30.06.2024	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	

Project Code	Project Name	Amount	
	BARH-II	**2,54,31,57,061**	24.08.2020
	BONGAIGAON	**2,06,81,00,000**	24.08.2020
	CHATTI BARIATU CMP	**13,60,00,000**	24.08.2020
	JETSAR SOLAR	**20,00,00,000**	24.08.2020
	KAHALGAON-II	**11,43,64,133**	24.08.2020
	KHARGONE	**1,20,00,00,000**	24.08.2020
	KOLDAM	**4,54,00,000**	24.08.2020
	KORBA-III	**2,14,43,267**	24.08.2020
	KUDGI	**45,00,00,000**	24.08.2020
	LARA-I	**7,85,71,430**	24.08.2020
	MOUDA-I	**69,46,38,787**	24.08.2020
	MOUDA-II	**1,60,00,00,000**	24.08.2020
	NORTH KARANPURA	**50,00,00,000**	24.08.2020
	PAKRI BARWADIH CMB	**1,07,21,55,097**	24.08.2020
	RAMMAM	**50,00,00,000**	24.08.2020
	RIHAND-III	**20,43,00,000**	24.08.2020
	SIMHADRI-II	**22,70,00,000**	24.08.2020
	SIPAT-I	**18,57,38,787**	24.08.2020
	SOLAPUR	**53,79,74,298**	24.08.2020
	TANDA-II	**1,20,00,00,000**	24.08.2020

	UNCHAHAR STPP IV	**18,00,00,000**	24.08.2020
	VINDHYACHAL-IV	**85,83,00,000**	24.08.2020
	VINDHYACHAL-V	**1,48,28,57,140**	24.08.2020
Total Allocated Amount		**16,10,00,00,000**	

Form 8-

Particulars	XXXVIII 9.17%	XLII 9%	XLIV9.25%	XLVII8.84%	XLIX8.80%	L 1A	L 2A	L 3A	L 1B	L 2B	L 3B	LI A	54	57	59	66	67	72
Series	38	42	44	47	49	50-1A	50-2A	50-3A	50-1B	50-2B	50-3B	51-1A	54	57	59	66	67	72
Source of Loan1	BONDS	BONDS	BONDS	BONDS	BONDS	BONDS	BONDS	BONDS	BONDS	BONDS	BONDS	BONDS	BONDS	BONDS	BONDS	BONDS	BONDS	BONDS
Currency2	INR	INR	INR	INR	INR	INR	INR	INR	INR	INR	INR	INR	INR	INR	INR	INR	INR	INR
Amount of Loan sanctioned	7500	50000	50000	39000	20000	48803	24995	31203	20864	9139	39997	7500	1030683	50000	65500	392500	400000	400000
Interest Type6	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed
Fixed Interest Rate, if applicable	9.17%	9.00%	9.25%	8.84%	8.80%	8.41%	8.48%	8.66%	8.66%	8.73%	8.91%	8.19%	8.49%	8.19%	8.33%	7.37%	8.30%	5.45%
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	N/A	N/A	N/A
Margin, if Floating Interest8	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	N/A	N/A	N/A
Are there any Caps/Floor9	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
If above is yes,specify caps/floor													N/A	N/A	N/A	N/A	N/A	N/A
Moratorium Period10	6 yrs	10 yrs.	11 yrs	10 yrs	10 yrs.	10 yrs.	15 yrs.	20 yrs.	10 yrs.	15 yrs.	20 yrs.	10 yrs.	8	10	5	15	10	5
Moratorium effective from #	22.03.11	25.01.2012	04.05.12	04.10.12	04.04.2013	16.12.2013	16.12.2013	16.12.2013	16.12.2013	16.12.2013	16.12.2013	04.03.2014	25-03-2015	15-12-2015	24-02-2016	14-12-2016	15-01-2019	15-10-2020
Repayment Period11	14 yrs	5 yrs	5 yrs	Bullet Repayment	Bullet Repayment	Bullet Repayment	Bullet Repayment	Bullet Repayment	Bullet Repayment	Bullet Repayment	Bullet Repayment	Bullet Repayment	Installments Due on 25/03/2023, 25/03/2024 & 25/03/2025	Bullet Repayment	Bullet Repayment	Bullet Repayment	Bullet Repayment	Bullet Repayment
Repayment effective from	22.03.2017	25.01.2023	04.05.23	04.10.22	04.04.2023	16.12.2023	16.12.2028	16.12.2033	16.12.2023	16.12.2028	16.12.2033	04.03.2024	25-03-2023	15-12-2025	24-02-2021	14-12-2031	15-01-2029	15-10-2025
Repayment Frequency12	Yearly	Yearly	Yearly	Bullet Repayment	Bullet Repayment	Bullet Repayment	Bullet Repayment	Bullet Repayment	Bullet Repayment	Bullet Repayment	Bullet Repayment	Bullet Repayment	Installments Due on 25/03/2023, 25/03/2024 & 25/03/2025	Bullet Repayment	Bullet Repayment	Bullet Repayment	Bullet Repayment	Bullet Repayment
Repayment Instalment13,14	500	10000	10000	39000	20000	4880265000	2499459000	3120276000	2086391000	913928000	3999681000	7500	Installments 1st - 206,136.61 2nd - 412,273.22 3rd - 412,273.22	50000	65500	392500	400000	400000
Base Exchange Rate16													N/A	N/A	N/A	N/A	N/A	N/A
Door to Door Maturity	20 yrs	15 yrs.	15yrs	10 yrs	10 yrs.	10 yrs.	15 yrs.	20 yrs.	10 yrs.	15 yrs.	20 yrs.	10 yrs.	10	10	5	15	10	5

Name of the Projects																		
RIHAND III	600	800	2,500	3,500	5,000	1,645	843	1,052	703	308	1,348	400	28,300	800	1,700	3,200	4,270	31,400

Rihand-III

(Rs Lakhs)

Year wise Prepayment of Loans

Sr. No.	Bank	ROI on prepayment date	Date of Prepayment	Replaced with Bank	ROI of relplaced Loan	Prepayment Amount	Benefit(%)	Benefit(%) retained with NTPC
Prepayment of Loans in 2016-17								
1	Allahabad Bank-III	9.55%	20-Dec-16	ICICI V	8.80%	2285.71	0.75%	0.25%
2	Dena Bank-II	9.40%	20-Dec-16	ICICI V	8.80%	10000.00	0.60%	0.20%
3	Punjab & Sind Bank-I	9.60%	14-Feb-17	SBI VIII	8.00%	3214.29	1.60%	0.53%
4	Bank of Maharashtra - III	8.70%	28-Mar-17	Karnataka Bank -II	7.70%	1785.71	1.00%	0.33%
5	Bank of Maharashtra - V	8.70%	28-Mar-17	Karnataka Bank -II	7.70%	2812.50	1.00%	0.33%
						20098.21		
Prepayment of Loans during 2017-18								
1	LIC-V	11.00%	16-Sep-17	ICICI-VI	7.90%	4270.00	3.10%	1.03%
						4270.00		
Prepayment of Loans during 2018-19								
1	ICICI Bank- V	8.60%	11-Jan-19	Corporation Bank -IV	8.20%	12285.71	0.40%	0.13%
2	ICICI Bank- VI	8.60%	15-Jan-19	Bonds Sr 67	8.33%	4270.00	0.27%	0.09%
						16555.71		

Rihand-III

(Rs Lakhs)

Year wise Prepayment of Loans

Sr. No.	Bank	ROI on prepayment date	Date of Prepayment	Replaced with Bank	ROI of relplaced Loan	Prepayment Amount	Benefit(%)	Benefit(%) retained with NTPC
Prepayment of Loans in 2020-2021								
1	HUDCO-I	7.25%	24-Aug-20	HDFC-IX	6.30%	2,043.00	0.95%	0.48%
2	PFC-V	7.83%	15-Oct-20	BOND-72	5.45%	1,662.50	2.38%	1.19%
3	PFC-V	8.17%	15-Oct-20	BOND-72	5.45%	4,200.00	2.72%	1.36%
4	PFC-V	8.30%	15-Oct-20	BOND-72	5.45%	1,750.00	2.85%	1.43%
6	PFC-V	8.23%	15-Oct-20	BOND-72	5.45%	6,125.00	2.78%	1.39%
						15,780.50		

(Petitioner)

Details of Source wise Fuel for Computation of Energy Charges **PART-I**

FORM- 15

Name of the Company :		**NTPC Limited**					
Name of the Power Station :		**Rihand Super Thermal Power Station Stage-III**					
S. No.	**Month**	**Unit**	**Apr-23**				
			Domestic (MGR)	**Domestic (Rail)**	**A-Auction**	**Imported**	**Bio Mass**
			Supplied by MGR	**Supplied by Rail**			
A)	**OPENING QUANTITY**						
1	Opening Quantity of Coal/ Lignite	(MT)	9,79,751.64				
2	Value of Stock	(Rs.)	2193952634				
B)	**QUANTITY**						
3	Quantity of Coal supplied by Coal Company	(MT)	12,40,031.14		-		
4	Adjustment (+/-) in quantity supplied made by Coal Company	(MT)	-		-		
5	Coal supplied by Coal Company (3+4)	(MT)	12,40,031.14				
6	Normative Transit & Handling Losses	(MT)	2,480.06		-		
7	Net coal / Lignite Supplied (5-6)	(MT)	12,37,551.08				
C)	**PRICE**						
8	Amount charged by the Coal Company*	(Rs.)	2,46,41,91,858.00				
9	Adjustment (+/-) in amount charged made by Coal Company	(Rs.)	8,00,13,969.00				
10	Unloading, Handling and Sampling Charges	(Rs.)	5,55,98,981.00				
11	Total amount Charged (8+9+10)	(Rs.)	2,59,98,04,808.00				
D)	**TRANSPORTATION**						
12	Transportation charges by rail ship, road transport	(Rs.)					
13	Adjustment (+/-) in amount charged made by Railways/ Transport Company	(Rs.)					
14	Demurrage Charges, if any	(Rs.)					
15	Cost of fuel in transporting coal through MGR system, if applicable	(Rs.)	2,69,72,340.00				
16	Total Transportation Charges (12+13+14+15)	(Rs.)	2,69,72,340.00				
17	Total amount Charged for coal supplied including Transportation (11+16)	(Rs.)	2,62,67,77,148.00				
E)	**TOTAL COST**						
18	**Landed cost of coal (2+17)/(1+7)**	**Rs./MT**	**2,174.15**				
19	Blending Ratio	%	100.00%	0.00%	0.00%	0.00%	0.00%
20	Weighted average cost of coal	Rs./MT	2174.14				
F)	**QUALITY**						
21	GCV of Domestic Coal of the opening stock as per bill of Coal Company	(kCal/Kg)	4515.00				
22	GCV of Domestic Coal supplied as per bill Coal Company	(kCal/Kg)	4450.00				
23	GCV of Imported Coal of the opening stock as per bill of Coal Company	(kCal/Kg)					
24	GCV of Imported Coal supplied as per bill Coal Company	(kCal/Kg)					
25	Weighted average GCV of coal/ Lignite as Billed	(kCal/Kg)	**4479.00**				
26	GCV of Domestic Coal of opening stock as received at Station	(kCal/Kg)	3730.00				
27	GCV of Domestic Coal supplied as received at Station	(kCal/Kg)	3737.00				
28	GCV of Imported Coal of opening stock as received at Station	(kCal/Kg)					
29	GCV of Imported Coal supplied as received at Station	(kCal/Kg)					
30	**Weighted average GCV of coal/ Lignite as Received**	**(kCal/Kg)**	**3734.00**				

(Petitioner)

Details of Source wise Fuel for Computation of Energy Charges **PART-I**

FORM- 15

Name of the Company :		**NTPC Limit**					
Name of the Power Station :		**Rihand Sup**					
S. No.	**Month**	**Unit**	**May-23**				
			Domestic (MGR)	**Domestic (Rail)**	**A-Auction**	**Imported**	**Bio Mass**
			Supplied by MGR	**Supplied by Rail**			
A)	**OPENING QUANTITY**						
1	Opening Quantity of Coal/ Lignite	(MT)	9,57,499.72				
2	Value of Stock	(Rs.)	2081740428				
B)	**QUANTITY**						
3	Quantity of Coal supplied by Coal Company	(MT)	12,25,605.54		-		
4	Adjustment (+/-) in quantity supplied made by Coal Company	(MT)	-		-		
5	Coal supplied by Coal Company (3+4)	(MT)	12,25,605.54				
6	Normative Transit & Handling Losses	(MT)	2,451.21		-		
7	Net coal / Lignite Supplied (5-6)	(MT)	12,23,154.33				
C)	**PRICE**						
8	Amount charged by the Coal Company*	(Rs.)	2,42,06,14,495.00				
9	Adjustment (+/-) in amount charged made by Coal Company	(Rs.)	13,70,48,095.00				
10	Unloading, Handling and Sampling Charges	(Rs.)	3,70,77,872.00				
11	Total amount Charged (8+9+10)	(Rs.)	2,59,47,40,462.00				
D)	**TRANSPORTATION**						
12	Transportation charges by rail ship, road transport	(Rs.)					
13	Adjustment (+/-) in amount charged made by Railways/ Transport Company	(Rs.)					
14	Demurrage Charges, if any	(Rs.)					
15	Cost of fuel in transporting coal through MGR system, if applicable	(Rs.)	2,93,07,484.00				
16	Total Transportation Charges (12+13+14+15)	(Rs.)	2,93,07,484.00				
17	Total amount Charged for coal supplied including Transportation (11+16)	(Rs.)	2,62,40,47,946.00				
E)	**TOTAL COST**						
18	**Landed cost of coal (2+17)/(1+7)**	**Rs./MT**	**2,157.98**				
19	Blending Ratio	%	100.00%	0.00%	0.00%	0.00%	0.00%
20	Weighted average cost of coal	Rs./MT		2157.97			
F)	**QUALITY**						
21	GCV of Domestic Coal of the opening stock as per bill of Coal Company	(kCal/Kg)	4479.00				
22	GCV of Domestic Coal supplied as per bill Coal Company	(kCal/Kg)	42525.00				
23	GCV of Imported Coal of the opening stock as per bill of Coal Company	(kCal/Kg)					
24	GCV of Imported Coal supplied as per bill Coal Company	(kCal/Kg)					
25	Weighted average GCV of coal/ Lignite as Billed	(kCal/Kg)		**4505.00**			
26	GCV of Domestic Coal of opening stock as received at Station	(kCal/Kg)	3734.00				
27	GCV of Domestic Coal supplied as received at Station	(kCal/Kg)	3881.00				
28	GCV of Imported Coal of opening stock as received at Station	(kCal/Kg)					
29	GCV of Imported Coal supplied as received at Station	(kCal/Kg)					
30	**Weighted average GCV of coal/ Lignite as Received**	**(kCal/Kg)**		**3816.00**			

(Petitioner)

Details of Source wise Fuel for Computation of Energy Charges **PART-I**

FORM- 15

Name of the Company :		**NTPC Limit**					
Name of the Power Station :		**Rihand Sup**					
S. No.	**Month**	**Unit**	**Jun-23**				
			Domestic (MGR)	**Domestic (Rail)**	**A-Auction**	**Imported**	**Bio Mass**
			Supplied by MGR	**Supplied by Rail**			
A)	**OPENING QUANTITY**						
1	Opening Quantity of Coal/ Lignite	(MT)	8,78,553.05				
2	Value of Stock	(Rs.)	1895892177				
B)	**QUANTITY**						
3	Quantity of Coal supplied by Coal Company	(MT)	12,21,805.92		-		
4	Adjustment (+/-) in quantity supplied made by Coal Company	(MT)	-		-		
5	Coal supplied by Coal Company (3+4)	(MT)	12,21,805.92				
6	Normative Transit & Handling Losses	(MT)	2,443.61		-		
7	Net coal / Lignite Supplied (5-6)	(MT)	12,19,362.31				
C)	**PRICE**						
8	Amount charged by the Coal Company*	(Rs.)	2,53,77,11,993.00				
9	Adjustment (+/-) in amount charged made by Coal Company	(Rs.)	19,70,90,288.00				
10	Unloading, Handling and Sampling Charges	(Rs.)	4,42,00,412.00				
11	Total amount Charged (8+9+10)	(Rs.)	2,77,90,02,693.00				
D)	**TRANSPORTATION**						
12	Transportation charges by rail ship, road transport	(Rs.)					
13	Adjustment (+/-) in amount charged made by Railways/ Transport Company	(Rs.)					
14	Demurrage Charges, if any	(Rs.)					
15	Cost of fuel in transporting coal through MGR system, if applicable	(Rs.)	2,79,36,256.00				
16	Total Transportation Charges (12+13+14+15)	(Rs.)	2,79,36,256.00				
17	Total amount Charged for coal supplied including Transportation (11+16)	(Rs.)	2,80,69,38,949.00				
E)	**TOTAL COST**						
18	**Landed cost of coal (2+17)/(1+7)**	**Rs./MT**	**2,241.68**				
19	Blending Ratio	%	100.00%	0.00%	0.00%	0.00%	0.00%
20	Weighted average cost of coal	Rs./MT		2241.67			
F)	**QUALITY**						
21	GCV of Domestic Coal of the opening stock as per bill of Coal Company	(kCal/Kg)	4505.00				
22	GCV of Domestic Coal supplied as per bill Coal Company	(kCal/Kg)	4530.00				
23	GCV of Imported Coal of the opening stock as per bill of Coal Company	(kCal/Kg)					
24	GCV of Imported Coal supplied as per bill Coal Company	(kCal/Kg)					
25	Weighted average GCV of coal/ Lignite as Billed	(kCal/Kg)		**4520.00**			
26	GCV of Domestic Coal of opening stock as received at Station	(kCal/Kg)	3816.00				
27	GCV of Domestic Coal supplied as received at Station	(kCal/Kg)	3863.00				
28	GCV of Imported Coal of opening stock as received at Station	(kCal/Kg)					
29	GCV of Imported Coal supplied as received at Station	(kCal/Kg)					
30	**Weighted average GCV of coal/ Lignite as Received**	**(kCal/Kg)**		**3843.00**			

(Petitioner)

Details of Source wise Fuel for Computation of Energy Charges **PART-I**

FORM- 15

Name of the Company :		**NTPC Limit**					
Name of the Power Station :		**Rihand Sup**					
S. No.	**Month**	**Unit**	**Jul-23**				
			Domestic (MGR)	**Domestic (Rail)**	**A-Auction**	**Imported**	**Bio Mass**
			Supplied by MGR	**Supplied by Rail**			
A)	**OPENING QUANTITY**						
1	Opening Quantity of Coal/ Lignite	(MT)	8,30,229.36				
2	Value of Stock	(Rs.)	1861098718				
B)	**QUANTITY**						
3	Quantity of Coal supplied by Coal Company	(MT)	13,15,874.98		-		
4	Adjustment (+/-) in quantity supplied made by Coal Company	(MT)	-		-		
5	Coal supplied by Coal Company (3+4)	(MT)	13,15,874.98				
6	Normative Transit & Handling Losses	(MT)	2,631.75		-		
7	Net coal / Lignite Supplied (5-6)	(MT)	13,13,243.23				
C)	**PRICE**						
8	Amount charged by the Coal Company*	(Rs.)	2,99,42,48,201.00				
9	Adjustment (+/-) in amount charged made by Coal Company	(Rs.)	-				
10	Unloading, Handling and Sampling Charges	(Rs.)	4,51,85,727.00				
11	Total amount Charged (8+9+10)	(Rs.)	3,03,94,33,928.00				
D)	**TRANSPORTATION**						
12	Transportation charges by rail ship, road transport	(Rs.)					
13	Adjustment (+/-) in amount charged made by Railways/ Transport Company	(Rs.)					
14	Demurrage Charges, if any	(Rs.)					
15	Cost of fuel in transporting coal through MGR system, if applicable	(Rs.)	3,07,96,879.00				
16	Total Transportation Charges (12+13+14+15)	(Rs.)	3,07,96,879.00				
17	Total amount Charged for coal supplied including Transportation (11+16)	(Rs.)	3,07,02,30,807.00				
E)	**TOTAL COST**						
18	**Landed cost of coal (2+17)/(1+7)**	**Rs./MT**	**2,300.63**				
19	Blending Ratio	%	100.00%	0.00%	0.00%	0.00%	0.00%
20	Weighted average cost of coal	Rs./MT		2300.63			
F)	**QUALITY**						
21	GCV of Domestic Coal of the opening stock as per bill of Coal Company	(kCal/Kg)	4520.00				
22	GCV of Domestic Coal supplied as per bill Coal Company	(kCal/Kg)	4614.00				
23	GCV of Imported Coal of the opening stock as per bill of Coal Company	(kCal/Kg)					
24	GCV of Imported Coal supplied as per bill Coal Company	(kCal/Kg)					
25	Weighted average GCV of coal/ Lignite as Billed	(kCal/Kg)		**4578.00**			
26	GCV of Domestic Coal of opening stock as received at Station	(kCal/Kg)	3843.00				
27	GCV of Domestic Coal supplied as received at Station	(kCal/Kg)	3911.00				
28	GCV of Imported Coal of opening stock as received at Station	(kCal/Kg)					
29	GCV of Imported Coal supplied as received at Station	(kCal/Kg)					
30	**Weighted average GCV of coal/ Lignite as Received**	**(kCal/Kg)**		**3885.00**			

(Petitioner)

Details of Source wise Fuel for Computation of Energy Charges **PART-I**

FORM- 15

Name of the Company :		**NTPC Limit**					
Name of the Power Station :		**Rihand Sup**					
S. No.	**Month**	**Unit**	**Aug-23**				
			Domestic (MGR)	**Domestic (Rail)**	**A-Auction**	**Imported**	**Bio Mass**
			Supplied by MGR	**Supplied by Rail**			
A)	**OPENING QUANTITY**						
1	Opening Quantity of Coal/ Lignite	(MT)	8,41,126.59				
2	Value of Stock	(Rs.)	1935118456				
B)	**QUANTITY**						
3	Quantity of Coal supplied by Coal Company	(MT)	12,54,897.38		-		
4	Adjustment (+/-) in quantity supplied made by Coal Company	(MT)	-		-		
5	Coal supplied by Coal Company (3+4)	(MT)	12,54,897.38				
6	Normative Transit & Handling Losses	(MT)	2,509.80		-		
7	Net coal / Lignite Supplied (5-6)	(MT)	12,52,387.58				
C)	**PRICE**						
8	Amount charged by the Coal Company*	(Rs.)	2,93,56,97,725.00				
9	Adjustment (+/-) in amount charged made by Coal Company	(Rs.)	-				
10	Unloading, Handling and Sampling Charges	(Rs.)	4,49,14,797.00				
11	Total amount Charged (8+9+10)	(Rs.)	2,98,06,12,522.00				
D)	**TRANSPORTATION**						
12	Transportation charges by rail ship, road transport	(Rs.)					
13	Adjustment (+/-) in amount charged made by Railways/ Transport Company	(Rs.)					
14	Demurrage Charges, if any	(Rs.)					
15	Cost of fuel in transporting coal through MGR system, if applicable	(Rs.)	2,94,58,740.00				
16	Total Transportation Charges (12+13+14+15)	(Rs.)	2,94,58,740.00				
17	Total amount Charged for coal supplied including Transportation (11+16)	(Rs.)	3,01,00,71,262.00				
E)	**TOTAL COST**						
18	**Landed cost of coal (2+17)/(1+7)**	**Rs./MT**	**2,362.15**				
19	Blending Ratio	%	100.00%	0.00%	0.00%	0.00%	0.00%
20	Weighted average cost of coal	Rs./MT		2362.15			
F)	**QUALITY**						
21	GCV of Domestic Coal of the opening stock as per bill of Coal Company	(kCal/Kg)	4551.00				
22	GCV of Domestic Coal supplied as per bill Coal Company	(kCal/Kg)	4592.00				
23	GCV of Imported Coal of the opening stock as per bill of Coal Company	(kCal/Kg)					
24	GCV of Imported Coal supplied as per bill Coal Company	(kCal/Kg)					
25	Weighted average GCV of coal/ Lignite as Billed	(kCal/Kg)		**4576.00**			
26	GCV of Domestic Coal of opening stock as received at Station	(kCal/Kg)	3919.00				
27	GCV of Domestic Coal supplied as received at Station	(kCal/Kg)	3866.00				
28	GCV of Imported Coal of opening stock as received at Station	(kCal/Kg)					
29	GCV of Imported Coal supplied as received at Station	(kCal/Kg)					
30	**Weighted average GCV of coal/ Lignite as Received**	**(kCal/Kg)**		**3887.00**			

(Petitioner)

Details of Source wise Fuel for Computation of Energy Charges **PART-I**

FORM- 15

Name of the Company :		**NTPC Limit**					
Name of the Power Station :		**Rihand Sup**					
S. No.	**Month**	**Unit**	**Sep-23**				
			Domestic (MGR)	**Domestic (Rail)**	**A-Auction**	**Imported**	**Bio Mass**
			Supplied by MGR	**Supplied by Rail**			
A)	**OPENING QUANTITY**						
1	Opening Quantity of Coal/ Lignite	(MT)	8,32,805.17				
2	Value of Stock	(Rs.)	1967208474				
B)	**QUANTITY**						
3	Quantity of Coal supplied by Coal Company	(MT)	12,11,972.00		-		
4	Adjustment (+/-) in quantity supplied made by Coal Company	(MT)	-		-		
5	Coal supplied by Coal Company (3+4)	(MT)	12,11,972.00				
6	Normative Transit & Handling Losses	(MT)	2,423.94		-		
7	Net coal / Lignite Supplied (5-6)	(MT)	12,09,548.06				
C)	**PRICE**						
8	Amount charged by the Coal Company*	(Rs.)	2,75,85,19,946.00				
9	Adjustment (+/-) in amount charged made by Coal Company	(Rs.)	-				
10	Unloading, Handling and Sampling Charges	(Rs.)	6,07,53,031.00				
11	Total amount Charged (8+9+10)	(Rs.)	2,81,92,72,977.00				
D)	**TRANSPORTATION**						
12	Transportation charges by rail ship, road transport	(Rs.)					
13	Adjustment (+/-) in amount charged made by Railways/ Transport Company	(Rs.)					
14	Demurrage Charges, if any	(Rs.)					
15	Cost of fuel in transporting coal through MGR system, if applicable	(Rs.)	2,89,62,178.00				
16	Total Transportation Charges (12+13+14+15)	(Rs.)	2,89,62,178.00				
17	Total amount Charged for coal supplied including Transportation (11+16)	(Rs.)	2,84,82,35,155.00				
E)	**TOTAL COST**						
18	**Landed cost of coal (2+17)/(1+7)**	**Rs./MT**	**2,357.79**				
19	Blending Ratio	%	100.00%	0.00%	0.00%	0.00%	0.00%
20	Weighted average cost of coal	Rs./MT		2357.79			
F)	**QUALITY**						
21	GCV of Domestic Coal of the opening stock as per bill of Coal Company	(kCal/Kg)	4576.00				
22	GCV of Domestic Coal supplied as per bill Coal Company	(kCal/Kg)	4702.00				
23	GCV of Imported Coal of the opening stock as per bill of Coal Company	(kCal/Kg)					
24	GCV of Imported Coal supplied as per bill Coal Company	(kCal/Kg)					
25	Weighted average GCV of coal/ Lignite as Billed	(kCal/Kg)		**4651.00**			
26	GCV of Domestic Coal of opening stock as received at Station	(kCal/Kg)	3887.00				
27	GCV of Domestic Coal supplied as received at Station	(kCal/Kg)	4057.00				
28	GCV of Imported Coal of opening stock as received at Station	(kCal/Kg)					
29	GCV of Imported Coal supplied as received at Station	(kCal/Kg)					
30	**Weighted average GCV of coal/ Lignite as Received**	**(kCal/Kg)**		**3988.00**			

(Petitioner)

Details of Source wise Fuel for Computation of Energy Charges **PART-I**

FORM- 15

Name of the Company :		**NTPC Limit**					
Name of the Power Station :		**Rihand Sup**					
S. No.	**Month**	**Unit**	**Oct-23**				
			Domestic (MGR)	**Domestic (Rail)**	**A-Auction**	**Imported**	**Bio Mass**
			Supplied by MGR	**Supplied by Rail**			
A)	**OPENING QUANTITY**						
1	Opening Quantity of Coal/ Lignite	(MT)	8,27,729.23				
2	Value of Stock	(Rs.)	1951612879				
B)	**QUANTITY**						
3	Quantity of Coal supplied by Coal Company	(MT)	11,84,019.34		-		
4	Adjustment (+/-) in quantity supplied made by Coal Company	(MT)	-		-		
5	Coal supplied by Coal Company (3+4)	(MT)	11,84,019.34				
6	Normative Transit & Handling Losses	(MT)	2,368.04		-		
7	Net coal / Lignite Supplied (5-6)	(MT)	11,81,651.30				
C)	**PRICE**						
8	Amount charged by the Coal Company*	(Rs.)	2,69,18,98,206.00				
9	Adjustment (+/-) in amount charged made by Coal Company	(Rs.)	-				
10	Unloading, Handling and Sampling Charges	(Rs.)	2,70,61,344.00				
11	Total amount Charged (8+9+10)	(Rs.)	2,71,89,59,550.00				
D)	**TRANSPORTATION**						
12	Transportation charges by rail ship, road transport	(Rs.)					
13	Adjustment (+/-) in amount charged made by Railways/ Transport Company	(Rs.)					
14	Demurrage Charges, if any	(Rs.)					
15	Cost of fuel in transporting coal through MGR system, if applicable	(Rs.)	2,61,29,857.00				
16	Total Transportation Charges (12+13+14+15)	(Rs.)	2,61,29,857.00				
17	Total amount Charged for coal supplied including Transportation (11+16)	(Rs.)	2,74,50,89,407.00				
E)	**TOTAL COST**						
18	**Landed cost of coal (2+17)/(1+7)**	**Rs./MT**	**2,337.39**				
19	Blending Ratio	%	100.00%	0.00%	0.00%	0.00%	0.00%
20	Weighted average cost of coal	Rs./MT		2337.39			
F)	**QUALITY**						
21	GCV of Domestic Coal of the opening stock as per bill of Coal Company	(kCal/Kg)	4650.00				
22	GCV of Domestic Coal supplied as per bill Coal Company	(kCal/Kg)	4373.00				
23	GCV of Imported Coal of the opening stock as per bill of Coal Company	(kCal/Kg)					
24	GCV of Imported Coal supplied as per bill Coal Company	(kCal/Kg)					
25	Weighted average GCV of coal/ Lignite as Billed	(kCal/Kg)		**4487.00**			
26	GCV of Domestic Coal of opening stock as received at Station	(kCal/Kg)	3988.00				
27	GCV of Domestic Coal supplied as received at Station	(kCal/Kg)	3789.00				
28	GCV of Imported Coal of opening stock as received at Station	(kCal/Kg)					
29	GCV of Imported Coal supplied as received at Station	(kCal/Kg)					
30	**Weighted average GCV of coal/ Lignite as Received**	**(kCal/Kg)**		**3871.00**			

(Petitioner)

Details of Source wise Fuel for Computation of Energy Charges **PART-I**

FORM- 15

Name of the Company :		**NTPC Limit**					
Name of the Power Station :		**Rihand Sup**					
S. No.	**Month**	**Unit**	**Nov-23**				
			Domestic (MGR)	**Domestic (Rail)**	**A-Auction**	**Imported**	**Bio Mass**
			Supplied by MGR	**Supplied by Rail**			
A)	**OPENING QUANTITY**						
1	Opening Quantity of Coal/ Lignite	(MT)	9,38,819.53				
2	Value of Stock	(Rs.)	2194385851				
B)	**QUANTITY**						
3	Quantity of Coal supplied by Coal Company	(MT)	12,33,259.08		-		
4	Adjustment (+/-) in quantity supplied made by Coal Company	(MT)	-		-		
5	Coal supplied by Coal Company (3+4)	(MT)	12,33,259.08				
6	Normative Transit & Handling Losses	(MT)	2,466.52		-		
7	Net coal / Lignite Supplied (5-6)	(MT)	12,30,792.56				
C)	**PRICE**						
8	Amount charged by the Coal Company*	(Rs.)	2,78,70,92,957.00				
9	Adjustment (+/-) in amount charged made by Coal Company	(Rs.)	-				
10	Unloading, Handling and Sampling Charges	(Rs.)	4,80,80,526.00				
11	Total amount Charged (8+9+10)	(Rs.)	2,83,51,73,483.00				
D)	**TRANSPORTATION**						
12	Transportation charges by rail ship, road transport	(Rs.)					
13	Adjustment (+/-) in amount charged made by Railways/ Transport Company	(Rs.)					
14	Demurrage Charges, if any	(Rs.)					
15	Cost of fuel in transporting coal through MGR system, if applicable	(Rs.)	2,58,27,276.00				
16	Total Transportation Charges (12+13+14+15)	(Rs.)	2,58,27,276.00				
17	Total amount Charged for coal supplied including Transportation (11+16)	(Rs.)	2,86,10,00,759.00				
E)	**TOTAL COST**						
18	**Landed cost of coal (2+17)/(1+7)**	**Rs./MT**	**2,330.09**				
19	Blending Ratio	%	100.00%	0.00%	0.00%	0.00%	0.00%
20	Weighted average cost of coal	Rs./MT		2330.09			
F)	**QUALITY**						
21	GCV of Domestic Coal of the opening stock as per bill of Coal Company	(kCal/Kg)	4487.00				
22	GCV of Domestic Coal supplied as per bill Coal Company	(kCal/Kg)	4695.00				
23	GCV of Imported Coal of the opening stock as per bill of Coal Company	(kCal/Kg)					
24	GCV of Imported Coal supplied as per bill Coal Company	(kCal/Kg)					
25	Weighted average GCV of coal/ Lignite as Billed	(kCal/Kg)		**4605.00**			
26	GCV of Domestic Coal of opening stock as received at Station	(kCal/Kg)	3871.00				
27	GCV of Domestic Coal supplied as received at Station	(kCal/Kg)	4009.00				
28	GCV of Imported Coal of opening stock as received at Station	(kCal/Kg)					
29	GCV of Imported Coal supplied as received at Station	(kCal/Kg)					
30	**Weighted average GCV of coal/ Lignite as Received**	**(kCal/Kg)**		**3949.00**			

(Petitioner)

Details of Source wise Fuel for Computation of Energy Charges **PART-I**

FORM- 15

Name of the Company :		**NTPC Limit**					
Name of the Power Station :		**Rihand Sup**					
S. No.	**Month**	**Unit**	**Dec-23**				
			Domestic (MGR)	**Domestic (Rail)**	**A-Auction**	**Imported**	**Bio Mass**
			Supplied by MGR	**Supplied by Rail**			
A)	**OPENING QUANTITY**						
1	Opening Quantity of Coal/ Lignite	(MT)	9,35,536.09				
2	Value of Stock	(Rs.)	2179880931				
B)	**QUANTITY**						
3	Quantity of Coal supplied by Coal Company	(MT)	12,47,860.96		-		
4	Adjustment (+/-) in quantity supplied made by Coal Company	(MT)	-		-		
5	Coal supplied by Coal Company (3+4)	(MT)	12,47,860.96				
6	Normative Transit & Handling Losses	(MT)	2,495.72		-		
7	Net coal / Lignite Supplied (5-6)	(MT)	12,45,365.24				
C)	**PRICE**						
8	Amount charged by the Coal Company*	(Rs.)	2,99,07,21,091.00				
9	Adjustment (+/-) in amount charged made by Coal Company	(Rs.)	-				
10	Unloading, Handling and Sampling Charges	(Rs.)	2,44,84,955.00				
11	Total amount Charged (8+9+10)	(Rs.)	3,01,52,06,046.00				
D)	**TRANSPORTATION**						
12	Transportation charges by rail ship, road transport	(Rs.)					
13	Adjustment (+/-) in amount charged made by Railways/ Transport Company	(Rs.)					
14	Demurrage Charges, if any	(Rs.)					
15	Cost of fuel in transporting coal through MGR system, if applicable	(Rs.)	2,57,60,717.00				
16	Total Transportation Charges (12+13+14+15)	(Rs.)	2,57,60,717.00				
17	Total amount Charged for coal supplied including Transportation (11+16)	(Rs.)	3,04,09,66,763.00				
E)	**TOTAL COST**						
18	**Landed cost of coal (2+17)/(1+7)**	**Rs./MT**	**2,393.89**				
19	Blending Ratio	%	100.00%	0.00%	0.00%	0.00%	0.00%
20	Weighted average cost of coal	Rs./MT		2393.89			
F)	**QUALITY**						
21	GCV of Domestic Coal of the opening stock as per bill of Coal Company	(kCal/Kg)	4606.00				
22	GCV of Domestic Coal supplied as per bill Coal Company	(kCal/Kg)	4624.00				
23	GCV of Imported Coal of the opening stock as per bill of Coal Company	(kCal/Kg)					
24	GCV of Imported Coal supplied as per bill Coal Company	(kCal/Kg)					
25	Weighted average GCV of coal/ Lignite as Billed	(kCal/Kg)		**4616.00**			
26	GCV of Domestic Coal of opening stock as received at Station	(kCal/Kg)	3948.00				
27	GCV of Domestic Coal supplied as received at Station	(kCal/Kg)	3911.00				
28	GCV of Imported Coal of opening stock as received at Station	(kCal/Kg)					
29	GCV of Imported Coal supplied as received at Station	(kCal/Kg)					
30	**Weighted average GCV of coal/ Lignite as Received**	**(kCal/Kg)**		**3927.00**			

(Petitioner)

Details of Source wise Fuel for Computation of Energy Charges **PART-I**

FORM- 15

Name of the Company :		**NTPC Limit**	
Name of the Power Station :		**Rihand Sup**	
S. No.	**Month**	**Unit**	**Jan-24**
			Coal Domestic
A)	**OPENING QUANTITY**		
1	Opening Quantity of Coal/ Lignite	(MT)	9,60,935.33
2	Value of Stock	(Rs.)	2300378408
B)	**QUANTITY**		
3	Quantity of Coal supplied by Coal Company	(MT)	11,52,719.62
4	Adjustment (+/-) in quantity supplied made by Coal Company	(MT)	-
5	Coal supplied by Coal Company (3+4)	(MT)	11,52,719.62
6	Normative Transit & Handling Losses	(MT)	2,305.44
7	Net coal / Lignite Supplied (5-6)	(MT)	11,50,414.18
C)	**PRICE**		
8	Amount charged by the Coal Company*	(Rs.)	2,68,09,97,132.00
9	Adjustment (+/-) in amount charged made by Coal Company	(Rs.)	-
10	Unloading, Handling and Sampling Charges	(Rs.)	1,18,85,714.87
11	Total amount Charged (8+9+10)	(Rs.)	2,69,28,82,846.87
D)	**TRANSPORTATION**		
12	Transportation charges by rail ship, road transport	(Rs.)	
13	Adjustment (+/-) in amount charged made by Railways/ Transport Company	(Rs.)	
14	Demurrage Charges, if any	(Rs.)	
15	Cost of fuel in transporting coal through MGR system, if applicable	(Rs.)	2,30,96,136.00
16	Total Transportation Charges (12+13+14+15)	(Rs.)	2,30,96,136.00
17	Total amount Charged for coal supplied including Transportation (11+16)	(Rs.)	2,71,59,78,982.87
E)	**TOTAL COST**		
18	**Landed cost of coal (2+17)/(1+7)**	**Rs./MT**	**2,375.90**
19	Blending Ratio	%	100.00%
20	Weighted average cost of coal	Rs./MT	2375.90
F)	**QUALITY**		
21	GCV of Domestic Coal of the opening stock as per bill of Coal Company	(kCal/Kg)	4616.00
22	GCV of Domestic Coal supplied as per bill Coal Company	(kCal/Kg)	4546.00
23	GCV of Imported Coal of the opening stock as per bill of Coal Company	(kCal/Kg)	
24	GCV of Imported Coal supplied as per bill Coal Company	(kCal/Kg)	
25	Weighted average GCV of coal/ Lignite as Billed	(kCal/Kg)	**4578.00**
26	GCV of Domestic Coal of opening stock as received at Station	(kCal/Kg)	3927.00
27	GCV of Domestic Coal supplied as received at Station	(kCal/Kg)	3822.00
28	GCV of Imported Coal of opening stock as received at Station	(kCal/Kg)	
29	GCV of Imported Coal supplied as received at Station	(kCal/Kg)	
30	**Weighted average GCV of coal/ Lignite as Received**	**(kCal/Kg)**	**3870.00**

(Petitioner)

Details of Source wise Fuel for Computation of Energy Charges **PART-I**

FORM- 15

Name of the Company :		**NTPC Limit**	
Name of the Power Station :		**Rihand Sup**	
S. No.	**Month**	**Unit**	**Feb-24**
			Coal Domestic
A)	**OPENING QUANTITY**		
1	Opening Quantity of Coal/ Lignite	(MT)	10,03,513.51
2	Value of Stock	(Rs.)	2384248730
B)	**QUANTITY**		
3	Quantity of Coal supplied by Coal Company	(MT)	9,90,144.70
4	Adjustment (+/-) in quantity supplied made by Coal Company	(MT)	-
5	Coal supplied by Coal Company (3+4)	(MT)	9,90,144.70
6	Normative Transit & Handling Losses	(MT)	1,980.29
7	Net coal / Lignite Supplied (5-6)	(MT)	9,88,164.41
C)	**PRICE**		
8	Amount charged by the Coal Company*	(Rs.)	2,22,64,21,407.00
9	Adjustment (+/-) in amount charged made by Coal Company	(Rs.)	-
10	Unloading, Handling and Sampling Charges	(Rs.)	2,12,13,075.98
11	Total amount Charged (8+9+10)	(Rs.)	2,24,76,34,482.98
D)	**TRANSPORTATION**		
12	Transportation charges by rail ship, road transport	(Rs.)	
13	Adjustment (+/-) in amount charged made by Railways/ Transport Company	(Rs.)	
14	Demurrage Charges, if any	(Rs.)	
15	Cost of fuel in transporting coal through MGR system, if applicable	(Rs.)	2,03,94,347.00
16	Total Transportation Charges (12+13+14+15)	(Rs.)	2,03,94,347.00
17	Total amount Charged for coal supplied including Transportation (11+16)	(Rs.)	2,26,80,28,829.98
E)	**TOTAL COST**		
18	**Landed cost of coal (2+17)/(1+7)**	**Rs./MT**	**2,335.86**
19	Blending Ratio	%	100.00%
20	Weighted average cost of coal	Rs./MT	2335.86
F)	**QUALITY**		
21	GCV of Domestic Coal of the opening stock as per bill of Coal Company	(kCal/Kg)	4578.00
22	GCV of Domestic Coal supplied as per bill Coal Company	(kCal/Kg)	4584.00
23	GCV of Imported Coal of the opening stock as per bill of Coal Company	(kCal/Kg)	
24	GCV of Imported Coal supplied as per bill Coal Company	(kCal/Kg)	
25	Weighted average GCV of coal/ Lignite as Billed	(kCal/Kg)	**4581.00**
26	GCV of Domestic Coal of opening stock as received at Station	(kCal/Kg)	3870.00
27	GCV of Domestic Coal supplied as received at Station	(kCal/Kg)	3864.00
28	GCV of Imported Coal of opening stock as received at Station	(kCal/Kg)	
29	GCV of Imported Coal supplied as received at Station	(kCal/Kg)	
30	**Weighted average GCV of coal/ Lignite as Received**	**(kCal/Kg)**	**3867.00**

(Petitioner)

Details of Source wise Fuel for Computation of Energy Charges **PART-I**

FORM- 15

Name of the Company :		**NTPC Limit**	
Name of the Power Station :		**Rihand Sup**	
S. No.	**Month**	**Unit**	**Mar-24**
			Coal Domestic
A)	**OPENING QUANTITY**		
1	Opening Quantity of Coal/ Lignite	(MT)	9,70,961.92
2	Value of Stock	(Rs.)	2268029926
B)	**QUANTITY**		
3	Quantity of Coal supplied by Coal Company	(MT)	11,92,591.94
4	Adjustment (+/-) in quantity supplied made by Coal Company	(MT)	-
5	Coal supplied by Coal Company (3+4)	(MT)	11,92,591.94
6	Normative Transit & Handling Losses	(MT)	2,385.18
7	Net coal / Lignite Supplied (5-6)	(MT)	11,90,206.76
C)	**PRICE**		
8	Amount charged by the Coal Company*	(Rs.)	2,54,34,48,575.00
9	Adjustment (+/-) in amount charged made by Coal Company	(Rs.)	-
10	Unloading, Handling and Sampling Charges	(Rs.)	4,87,49,775.38
11	Total amount Charged (8+9+10)	(Rs.)	2,59,21,98,350.38
D)	**TRANSPORTATION**		
12	Transportation charges by rail ship, road transport	(Rs.)	
13	Adjustment (+/-) in amount charged made by Railways/ Transport Company	(Rs.)	
14	Demurrage Charges, if any	(Rs.)	
15	Cost of fuel in transporting coal through MGR system, if applicable	(Rs.)	2,47,81,735.61
16	Total Transportation Charges (12+13+14+15)	(Rs.)	2,47,81,735.61
17	Total amount Charged for coal supplied including Transportation (11+16)	(Rs.)	2,61,69,80,085.99
E)	**TOTAL COST**		
18	**Landed cost of coal (2+17)/(1+7)**	**Rs./MT**	**2,260.36**
19	Blending Ratio	%	100.00%
20	Weighted average cost of coal	Rs./MT	2260.36
F)	**QUALITY**		
21	GCV of Domestic Coal of the opening stock as per bill of Coal Company	(kCal/Kg)	4581.00
22	GCV of Domestic Coal supplied as per bill Coal Company	(kCal/Kg)	4425.00
23	GCV of Imported Coal of the opening stock as per bill of Coal Company	(kCal/Kg)	
24	GCV of Imported Coal supplied as per bill Coal Company	(kCal/Kg)	
25	Weighted average GCV of coal/ Lignite as Billed	(kCal/Kg)	**4495.00**
26	GCV of Domestic Coal of opening stock as received at Station	(kCal/Kg)	3867.00
27	GCV of Domestic Coal supplied as received at Station	(kCal/Kg)	3775.00
28	GCV of Imported Coal of opening stock as received at Station	(kCal/Kg)	
29	GCV of Imported Coal supplied as received at Station	(kCal/Kg)	
30	**Weighted average GCV of coal/ Lignite as Received**	**(kCal/Kg)**	**3816.00**

(Petitioner)

Details of Secondary Fuel for Computation of Energy Charges

PART-I
FORM- 15A

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

Sl.No.	Month	Unit	Apr-23	
			LDO	HFO
1	Opening Quantity of Oil	KL	6337.55	0
2	Value of Opening	(Rs)	54,74,39,932.00	-
3	Quantity of Oil supplied by Oil Company	KL	-	
4	Adjustment (+/-) in quantity supplied made by Oil Company	KL		
5	Oil supplied by oil company (3+4)	KL	-	
6	Normative Transit & Handling Losses	KL	-	-
7	Net Oil Supplied (5-6)	KL	-	
8	Amount charged by the Oil Company	(Rs)	-	
9	Adjustment(+/-) in amount charged made by Oil Company	(Rs)		
10	Handling, Sampling and such other Similar Charges	(Rs)		
11	**Total amount charged (8+9+10)**	(Rs)	-	
12	Transportation charges by rail / ship / road transport			
	By Rail	(Rs)		
	By Road	(Rs)		
	By Ship	(Rs)		
13	Adjustment (+/-) in amount charged made by Railways/Transport Company	(Rs)		
14	Demurrage Charges, if any	(Rs)		
15	Cost of diesel in transporting Oil through MGR system, if applicable	(Rs)		
16	Total Transportation Charges (12+/-13-14+15)	(Rs)	-	
17	Total amount Charged for fuel supplied including Transportation (11+16)	(Rs)	-	
18	Landed Cost of Oil (LDO/HFO) (2+17)/(1+7)	(Rs)	86,380.39	
19	Blending Ratio		100.00%	
20	Weighted average cost of Oil		86380.39	
21	GCV of Oil of the Opening stock as per bill of Oil company	(kCal/Ltr)		
22	GCV of oil supplied as per bill of oil company	(kCal/Ltr)		
23	GCV if Imported coal of the opening stock as per bill of Oil company	(kCal/Ltr)		
24	GCV of Imported Oil supplied as per bill of coal company	(kCal/Ltr)		
25	Weighted average GCV if Oil as billed	(kCal/Ltr)		
26	GCV of Oil of the Opening stock as received at station	(kCal/Ltr)		
27	GCV of Oil supplied	(kCal/Ltr)	9,302.00	
28	GCV of Imported coal of the Opening stock as received at station	(kCal/Ltr)		
29	GCV of Imported coal supplied as received at station	(kCal/Ltr)		
30	Weighted average GCV of Oil	(kCal/Ltr)	9302.00	

(Petitioner)

Details of Secondary Fuel for Computation of Energy Charges **PART-I**
FORM- 15A

Name of the Company :	**NTPC Limite**	
Name of the Power Station :	**Rihand Supe**	

Sl.No.	Month	Unit	May-23	
			LDO	HFO
1	Opening Quantity of Oil	KL	5,910.55	-
2	Value of Opening	(Rs)	51,05,55,507.00	-
3	Quantity of Oil supplied by Oil Company	KL	-	
4	Adjustment (+/-) in quantity supplied made by Oil Company	KL		
5	Oil supplied by oil company (3+4)	KL	-	
6	Normative Transit & Handling Losses	KL		
7	Net Oil Supplied (5-6)	KL	-	
8	Amount charged by the Oil Company	(Rs)	-	
9	Adjustment(+/-) in amount charged made by Oil Company	(Rs)		
10	Handling, Sampling and such other Similar Charges	(Rs)		
11	**Total amount charged (8+9+10)**	(Rs)	-	
12	Transportation charges by rail / ship / road transport			
	By Rail	(Rs)		
	By Road	(Rs)		
	By Ship	(Rs)		
13	Adjustment (+/-) in amount charged made by Railways/Transport Company	(Rs)		
14	Demurrage Charges, if any	(Rs)		
15	Cost of diesel in transporting Oil through MGR system, if applicable	(Rs)		
16	Total Transportation Charges (12+/-13-14+15)	(Rs)		
17	Total amount Charged for fuel supplied including Transportation (11+16)	(Rs)	-	
18	Landed Cost of Oil (LDO/HFO) (2+17)/(1+7)	(Rs)	86,380.39	
19	Blending Ratio		100.00%	
20	Weighted average cost of Oil		86380.39	
21	GCV of Oil of the Opening stock as per bill of Oil company	(kCal/Ltr)		
22	GCV of oil supplied as per bill of oil company	(kCal/Ltr)		
23	GCV if Imported coal of the opening stock as per bill of Oil company	(kCal/Ltr)		
24	GCV of Imported Oil supplied as per bill of coal company	(kCal/Ltr)		
25	Weighted average GCV if Oil as billed	(kCal/Ltr)		
26	GCV of Oil of the Opening stock as received at station	(kCal/Ltr)		
27	GCV of Oil supplied	(kCal/Ltr)	9,302.00	
28	GCV of Imported coal of the Opening stock as received at station	(kCal/Ltr)		
29	GCV of Imported coal supplied as received at station	(kCal/Ltr)		
30	Weighted average GCV of Oil	(kCal/Ltr)	9302.00	

(Petitioner)

Details of Secondary Fuel for Computation of Energy Charges

PART-I
FORM- 15A

Name of the Company :	**NTPC Limite**	
Name of the Power Station :	**Rihand Supe**	

Sl.No.	Month	Unit	Jun-23	
			LDO	HFO
1	Opening Quantity of Oil	KL	5,880.55	
2	Value of Opening	(Rs)	50,79,64,095.00	
3	Quantity of Oil supplied by Oil Company	KL	-	
4	Adjustment (+/-) in quantity supplied made by Oil Company	KL		
5	Oil supplied by oil company (3+4)	KL	-	
6	Normative Transit & Handling Losses	KL	-	
7	Net Oil Supplied (5-6)	KL	-	
8	Amount charged by the Oil Company	(Rs)	-	
9	Adjustment(+/-) in amount charged made by Oil Company	(Rs)		
10	Handling, Sampling and such other Similar Charges	(Rs)		
11	**Total amount charged (8+9+10)**	(Rs)	-	
12	Transportation charges by rail / ship / road transport			
	By Rail	(Rs)		
	By Road	(Rs)		
	By Ship	(Rs)		
13	Adjustment (+/-) in amount charged made by Railways/Transport Company	(Rs)		
14	Demurrage Charges, if any	(Rs)		
15	Cost of diesel in transporting Oil through MGR system, if applicable	(Rs)		
16	Total Transportation Charges (12+/-13-14+15)	(Rs)	-	
17	Total amount Charged for fuel supplied including Transportation (11+16)	(Rs)	-	
18	Landed Cost of Oil (LDO/HFO) (2+17)/(1+7)	(Rs)	86,380.39	
19	Blending Ratio		100.00%	
20	Weighted average cost of Oil		86380.39	
21	GCV of Oil of the Opening stock as per bill of Oil company	(kCal/Ltr)		
22	GCV of oil supplied as per bill of oil company	(kCal/Ltr)		
23	GCV if Imported coal of the opening stock as per bill of Oil company	(kCal/Ltr)		
24	GCV of Imported Oil supplied as per bill of coal company	(kCal/Ltr)		
25	Weighted average GCV if Oil as billed	(kCal/Ltr)		
26	GCV of Oil of the Opening stock as received at station	(kCal/Ltr)		
27	GCV of Oil supplied	(kCal/Ltr)	9,302.00	
28	GCV of Imported coal of the Opening stock as received at station	(kCal/Ltr)		
29	GCV of Imported coal supplied as received at station	(kCal/Ltr)		
30	Weighted average GCV of Oil	(kCal/Ltr)	9302.00	

(Petitioner)

Details of Secondary Fuel for Computation of Energy Charges

PART-I
FORM- 15A

Name of the Company :	**NTPC Limite**	
Name of the Power Station :	**Rihand Supe**	

Sl.No.	Month	Unit	Jul-23	
			LDO	HFO
1	Opening Quantity of Oil	KL	5,580.55	
2	Value of Opening	(Rs)	48,20,49,979.00	
3	Quantity of Oil supplied by Oil Company	KL	-	
4	Adjustment (+/-) in quantity supplied made by Oil Company	KL		
5	Oil supplied by oil company (3+4)	KL	-	
6	Normative Transit & Handling Losses	KL	-	
7	Net Oil Supplied (5-6)	KL	-	
8	Amount charged by the Oil Company	(Rs)	-	
9	Adjustment(+/-) in amount charged made by Oil Company	(Rs)		
10	Handling, Sampling and such other Similar Charges	(Rs)		
11	**Total amount charged (8+9+10)**	(Rs)	-	
12	Transportation charges by rail / ship / road transport			
	By Rail	(Rs)		
	By Road	(Rs)		
	By Ship	(Rs)		
13	Adjustment (+/-) in amount charged made by Railways/Transport Company	(Rs)		
14	Demurrage Charges, if any	(Rs)		
15	Cost of diesel in transporting Oil through MGR system, if applicable	(Rs)		
16	Total Transportation Charges (12+/-13-14+15)	(Rs)	-	
17	Total amount Charged for fuel supplied including Transportation (11+16)	(Rs)	-	
18	Landed Cost of Oil (LDO/HFO) (2+17)/(1+7)	(Rs)	86,380.39	
19	Blending Ratio		100.00%	
20	Weighted average cost of Oil		86380.39	
21	GCV of Oil of the Opening stock as per bill of Oil company	(kCal/Ltr)		
22	GCV of oil supplied as per bill of oil company	(kCal/Ltr)		
23	GCV if Imported coal of the opening stock as per bill of Oil company	(kCal/Ltr)		
24	GCV of Imported Oil supplied as per bill of coal company	(kCal/Ltr)		
25	Weighted average GCV if Oil as billed	(kCal/Ltr)		
26	GCV of Oil of the Opening stock as received at station	(kCal/Ltr)		
27	GCV of Oil supplied	(kCal/Ltr)	9,302.00	
28	GCV of Imported coal of the Opening stock as received at station	(kCal/Ltr)		
29	GCV of Imported coal supplied as received at station	(kCal/Ltr)		
30	Weighted average GCV of Oil	(kCal/Ltr)	9302.00	

(Petitioner)

Details of Secondary Fuel for Computation of Energy Charges

PART-I
FORM- 15A

Name of the Company :	**NTPC Limite**	
Name of the Power Station :	**Rihand Supe**	

Sl.No.	Month	Unit	Aug-23	
			LDO	HFO
1	Opening Quantity of Oil	KL	5,462.55	
2	Value of Opening	(Rs)	47,18,57,094.00	
3	Quantity of Oil supplied by Oil Company	KL	-	
4	Adjustment (+/-) in quantity supplied made by Oil Company	KL		
5	Oil supplied by oil company (3+4)	KL	-	
6	Normative Transit & Handling Losses	KL	-	-
7	Net Oil Supplied (5-6)	KL	-	
8	Amount charged by the Oil Company	(Rs)	-	
9	Adjustment(+/-) in amount charged made by Oil Company	(Rs)		
10	Handling, Sampling and such other Similar Charges	(Rs)		
11	**Total amount charged (8+9+10)**	(Rs)	-	
12	Transportation charges by rail / ship / road transport			
	By Rail	(Rs)		
	By Road	(Rs)		
	By Ship	(Rs)		
13	Adjustment (+/-) in amount charged made by Railways/Transport Company	(Rs)		
14	Demurrage Charges, if any	(Rs)		
15	Cost of diesel in transporting Oil through MGR system, if applicable	(Rs)		
16	Total Transportation Charges (12+/-13-14+15)	(Rs)	-	
17	Total amount Charged for fuel supplied including Transportation (11+16)	(Rs)	-	
18	Landed Cost of Oil (LDO/HFO) (2+17)/(1+7)	(Rs)	86,380.39	
19	Blending Ratio		100.00%	
20	Weighted average cost of Oil		86380.39	
21	GCV of Oil of the Opening stock as per bill of Oil company	(kCal/Ltr)		
22	GCV of oil supplied as per bill of oil company	(kCal/Ltr)		
23	GCV if Imported coal of the opening stock as per bill of Oil company	(kCal/Ltr)		
24	GCV of Imported Oil supplied as per bill of coal company	(kCal/Ltr)		
25	Weighted average GCV if Oil as billed	(kCal/Ltr)		
26	GCV of Oil of the Opening stock as received at station	(kCal/Ltr)		
27	GCV of Oil supplied	(kCal/Ltr)	9,302.00	
28	GCV of Imported coal of the Opening stock as received at station	(kCal/Ltr)		
29	GCV of Imported coal supplied as received at station	(kCal/Ltr)		
30	Weighted average GCV of Oil	(kCal/Ltr)	9302.00	

(Petitioner)

Details of Secondary Fuel for Computation of Energy Charges **PART-I**
FORM- 15A

Name of the Company :	**NTPC Limite**	
Name of the Power Station :	**Rihand Supe**	

Sl.No.	Month	Unit	Sep-23	
			LDO	HFO
1	Opening Quantity of Oil	KL	4,884.55	
2	Value of Opening	(Rs)	42,19,29,230.00	
3	Quantity of Oil supplied by Oil Company	KL	-	
4	Adjustment (+/-) in quantity supplied made by Oil Company	KL		
5	Oil supplied by oil company (3+4)	KL	-	
6	Normative Transit & Handling Losses	KL	-	-
7	Net Oil Supplied (5-6)	KL	-	
8	Amount charged by the Oil Company	(Rs)	-	
9	Adjustment(+/-) in amount charged made by Oil Company	(Rs)		
10	Handling, Sampling and such other Similar Charges	(Rs)		
11	**Total amount charged (8+9+10)**	(Rs)	-	
12	Transportation charges by rail / ship / road transport			
	By Rail	(Rs)		
	By Road	(Rs)		
	By Ship	(Rs)		
13	Adjustment (+/-) in amount charged made by Railways/Transport Company	(Rs)		
14	Demurrage Charges, if any	(Rs)		
15	Cost of diesel in transporting Oil through MGR system, if applicable	(Rs)		
16	Total Transportation Charges (12+/-13-14+15)	(Rs)	-	
17	Total amount Charged for fuel supplied including Transportation (11+16)	(Rs)	-	
18	Landed Cost of Oil (LDO/HFO) (2+17)/(1+7)	(Rs)	86,380.39	
19	Blending Ratio		100.00%	
20	Weighted average cost of Oil		86380.39	
21	GCV of Oil of the Opening stock as per bill of Oil company	(kCal/Ltr)		
22	GCV of oil supplied as per bill of oil company	(kCal/Ltr)		
23	GCV if Imported coal of the opening stock as per bill of Oil company	(kCal/Ltr)		
24	GCV of Imported Oil supplied as per bill of coal company	(kCal/Ltr)		
25	Weighted average GCV if Oil as billed	(kCal/Ltr)		
26	GCV of Oil of the Opening stock as received at station	(kCal/Ltr)		
27	GCV of Oil supplied	(kCal/Ltr)	9,302.00	
28	GCV of Imported coal of the Opening stock as received at station	(kCal/Ltr)		
29	GCV of Imported coal supplied as received at station	(kCal/Ltr)		
30	Weighted average GCV of Oil	(kCal/Ltr)	9302.00	

(Petitioner)

Details of Secondary Fuel for Computation of Energy Charges

PART-I
FORM- 15A

Name of the Company :	**NTPC Limite**	
Name of the Power Station :	**Rihand Supe**	

Sl.No.	Month	Unit	Oct-23	
			LDO	HFO
1	Opening Quantity of Oil	KL	4,782.55	
2	Value of Opening	(Rs)	41,31,18,431.00	
3	Quantity of Oil supplied by Oil Company	KL	3,163.69	
4	Adjustment (+/-) in quantity supplied made by Oil Company	KL		
5	Oil supplied by oil company (3+4)	KL	3,163.69	
6	Normative Transit & Handling Losses	KL	-	-
7	Net Oil Supplied (5-6)	KL	3,163.69	
8	Amount charged by the Oil Company	(Rs)	29,37,35,028.00	
9	Adjustment(+/-) in amount charged made by Oil Company	(Rs)		
10	Handling, Sampling and such other Similar Charges	(Rs)		
11	**Total amount charged (8+9+10)**	(Rs)	29,37,35,028.00	
12	Transportation charges by rail / ship / road transport			
	By Rail	(Rs)		
	By Road	(Rs)		
	By Ship	(Rs)		
13	Adjustment (+/-) in amount charged made by Railways/Transport Company	(Rs)		
14	Demurrage Charges, if any	(Rs)		
15	Cost of diesel in transporting Oil through MGR system, if applicable	(Rs)		
16	Total Transportation Charges (12+/-13-14+15)	(Rs)	-	
17	Total amount Charged for fuel supplied including Transportation (11+16)	(Rs)	29,37,35,028.00	
18	Landed Cost of Oil (LDO/HFO) (2+17)/(1+7)	(Rs)	88,954.47	
19	Blending Ratio		100.00%	
20	Weighted average cost of Oil		88954.47	
21	GCV of Oil of the Opening stock as per bill of Oil company	(kCal/Ltr)		
22	GCV of oil supplied as per bill of oil company	(kCal/Ltr)		
23	GCV if Imported coal of the opening stock as per bill of Oil company	(kCal/Ltr)		
24	GCV of Imported Oil supplied as per bill of coal company	(kCal/Ltr)		
25	Weighted average GCV if Oil as billed	(kCal/Ltr)		
26	GCV of Oil of the Opening stock as received at station	(kCal/Ltr)		
27	GCV of Oil supplied	(kCal/Ltr)	9,249.00	
28	GCV of Imported coal of the Opening stock as received at station	(kCal/Ltr)		
29	GCV of Imported coal supplied as received at station	(kCal/Ltr)		
30	Weighted average GCV of Oil	(kCal/Ltr)	9249.00	

(Petitioner)

Details of Secondary Fuel for Computation of Energy Charges

PART-I
FORM- 15A

Name of the Company :	**NTPC Limite**	
Name of the Power Station :	**Rihand Supe**	

Sl.No.	Month	Unit	Nov-23	
			LDO	HFO
1	Opening Quantity of Oil	KL	6,737.24	
2	Value of Opening	(Rs)	59,93,07,508.00	
3	Quantity of Oil supplied by Oil Company	KL	-	
4	Adjustment (+/-) in quantity supplied made by Oil Company	KL		
5	Oil supplied by oil company (3+4)	KL	-	
6	Normative Transit & Handling Losses	KL	-	-
7	Net Oil Supplied (5-6)	KL	-	
8	Amount charged by the Oil Company	(Rs)	-	
9	Adjustment(+/-) in amount charged made by Oil Company	(Rs)		
10	Handling, Sampling and such other Similar Charges	(Rs)		
11	**Total amount charged (8+9+10)**	(Rs)	-	
12	Transportation charges by rail / ship / road transport			
	By Rail	(Rs)		
	By Road	(Rs)		
	By Ship	(Rs)		
13	Adjustment (+/-) in amount charged made by Railways/Transport Company	(Rs)		
14	Demurrage Charges, if any	(Rs)		
15	Cost of diesel in transporting Oil through MGR system, if applicable	(Rs)		
16	Total Transportation Charges (12+/-13-14+15)	(Rs)	-	
17	Total amount Charged for fuel supplied including Transportation (11+16)	(Rs)	-	
18	Landed Cost of Oil (LDO/HFO) (2+17)/(1+7)	(Rs)	88,954.47	
19	Blending Ratio		100.00%	
20	Weighted average cost of Oil		88954.47	
21	GCV of Oil of the Opening stock as per bill of Oil company	(kCal/Ltr)		
22	GCV of oil supplied as per bill of oil company	(kCal/Ltr)		
23	GCV if Imported coal of the opening stock as per bill of Oil company	(kCal/Ltr)		
24	GCV of Imported Oil supplied as per bill of coal company	(kCal/Ltr)		
25	Weighted average GCV if Oil as billed	(kCal/Ltr)		
26	GCV of Oil of the Opening stock as received at station	(kCal/Ltr)		
27	GCV of Oil supplied	(kCal/Ltr)	9,249.00	
28	GCV of Imported coal of the Opening stock as received at station	(kCal/Ltr)		
29	GCV of Imported coal supplied as received at station	(kCal/Ltr)		
30	Weighted average GCV of Oil	(kCal/Ltr)	9249.00	

(Petitioner)

Details of Secondary Fuel for Computation of Energy Charges

PART-I
FORM- 15A

Name of the Company :	**NTPC Limite**	
Name of the Power Station :	**Rihand Supe**	

Sl.No.	Month	Unit	Dec-23	
			LDO	HFO
1	Opening Quantity of Oil	KL	5,920.24	
2	Value of Opening	(Rs)	52,66,31,708.00	
3	Quantity of Oil supplied by Oil Company	KL	-	
4	Adjustment (+/-) in quantity supplied made by Oil Company	KL		
5	Oil supplied by oil company (3+4)	KL	-	
6	Normative Transit & Handling Losses	KL	-	-
7	Net Oil Supplied (5-6)	KL	-	
8	Amount charged by the Oil Company	(Rs)	-	
9	Adjustment(+/-) in amount charged made by Oil Company	(Rs)		
10	Handling, Sampling and such other Similar Charges	(Rs)		
11	**Total amount charged (8+9+10)**	(Rs)	-	
12	Transportation charges by rail / ship / road transport			
	By Rail	(Rs)		
	By Road	(Rs)		
	By Ship	(Rs)		
13	Adjustment (+/-) in amount charged made by Railways/Transport Company	(Rs)		
14	Demurrage Charges, if any	(Rs)		
15	Cost of diesel in transporting Oil through MGR system, if applicable	(Rs)		
16	Total Transportation Charges (12+/-13-14+15)	(Rs)	-	
17	Total amount Charged for fuel supplied including Transportation (11+16)	(Rs)	-	
18	Landed Cost of Oil (LDO/HFO) (2+17)/(1+7)	(Rs)	88,954.47	
19	Blending Ratio		100.00%	
20	Weighted average cost of Oil		88954.47	
21	GCV of Oil of the Opening stock as per bill of Oil company	(kCal/Ltr)		
22	GCV of oil supplied as per bill of oil company	(kCal/Ltr)		
23	GCV if Imported coal of the opening stock as per bill of Oil company	(kCal/Ltr)		
24	GCV of Imported Oil supplied as per bill of coal company	(kCal/Ltr)		
25	Weighted average GCV if Oil as billed	(kCal/Ltr)		
26	GCV of Oil of the Opening stock as received at station	(kCal/Ltr)		
27	GCV of Oil supplied	(kCal/Ltr)	9,249.00	
28	GCV of Imported coal of the Opening stock as received at station	(kCal/Ltr)		
29	GCV of Imported coal supplied as received at station	(kCal/Ltr)		
30	Weighted average GCV of Oil	(kCal/Ltr)	9249.00	

(Petitioner)

Details of Secondary Fuel for Computation of Energy Charges

PART-I
FORM- 15A

Name of the Company :	**NTPC Limite**	
Name of the Power Station :	**Rihand Supe**	

Sl.No.	Month	Unit	Jan-24	
			LDO	HFO
1	Opening Quantity of Oil	KL	5,550.24	
2	Value of Opening	(Rs)	49,37,18,555.00	
3	Quantity of Oil supplied by Oil Company	KL	-	
4	Adjustment (+/-) in quantity supplied made by Oil Company	KL		
5	Oil supplied by oil company (3+4)	KL	-	
6	Normative Transit & Handling Losses	KL	-	-
7	Net Oil Supplied (5-6)	KL	-	
8	Amount charged by the Oil Company	(Rs)	-	
9	Adjustment(+/-) in amount charged made by Oil Company	(Rs)		
10	Handling, Sampling and such other Similar Charges	(Rs)		
11	**Total amount charged (8+9+10)**	(Rs)	-	
12	Transportation charges by rail / ship / road transport			
	By Rail	(Rs)		
	By Road	(Rs)		
	By Ship	(Rs)		
13	Adjustment (+/-) in amount charged made by Railways/Transport Company	(Rs)		
14	Demurrage Charges, if any	(Rs)		
15	Cost of diesel in transporting Oil through MGR system, if applicable	(Rs)		
16	Total Transportation Charges (12+/-13-14+15)	(Rs)	-	
17	Total amount Charged for fuel supplied including Transportation (11+16)	(Rs)	-	
18	Landed Cost of Oil (LDO/HFO) (2+17)/(1+7)	(Rs)	88,954.47	
19	Blending Ratio		100.00%	
20	Weighted average cost of Oil		88954.47	
21	GCV of Oil of the Opening stock as per bill of Oil company	(kCal/Ltr)		
22	GCV of oil supplied as per bill of oil company	(kCal/Ltr)		
23	GCV if Imported coal of the opening stock as per bill of Oil company	(kCal/Ltr)		
24	GCV of Imported Oil supplied as per bill of coal company	(kCal/Ltr)		
25	Weighted average GCV if Oil as billed	(kCal/Ltr)		
26	GCV of Oil of the Opening stock as received at station	(kCal/Ltr)		
27	GCV of Oil supplied	(kCal/Ltr)	9,249.00	
28	GCV of Imported coal of the Opening stock as received at station	(kCal/Ltr)		
29	GCV of Imported coal supplied as received at station	(kCal/Ltr)		
30	Weighted average GCV of Oil	(kCal/Ltr)	9249.00	

(Petitioner)

Details of Secondary Fuel for Computation of Energy Charges **PART-I**
FORM- 15A

Name of the Company :	**NTPC Limite**	
Name of the Power Station :	**Rihand Supe**	

Sl.No.	Month	Unit	Feb-24	
			LDO	HFO
1	Opening Quantity of Oil	KL	4,618.24	-
2	Value of Opening	(Rs)	41,08,12,991.00	-
3	Quantity of Oil supplied by Oil Company	KL	3,158.470	
4	Adjustment (+/-) in quantity supplied made by Oil Company	KL		
5	Oil supplied by oil company (3+4)	KL	3,158.47	
6	Normative Transit & Handling Losses	KL		
7	Net Oil Supplied (5-6)	KL	3,158.47	
8	Amount charged by the Oil Company	(Rs)	24,50,23,090.00	
9	Adjustment(+/-) in amount charged made by Oil Company	(Rs)		
10	Handling, Sampling and such other Similar Charges	(Rs)		
11	**Total amount charged (8+9+10)**	(Rs)	24,50,23,090.00	
12	Transportation charges by rail / ship / road transport			
	By Rail	(Rs)		
	By Road	(Rs)		
	By Ship	(Rs)		
13	Adjustment (+/-) in amount charged made by Railways/Transport Company	(Rs)		
14	Demurrage Charges, if any	(Rs)		
15	Cost of diesel in transporting Oil through MGR system, if applicable	(Rs)		
16	Total Transportation Charges (12+/-13-14+15)	(Rs)		
17	Total amount Charged for fuel supplied including Transportation (11+16)	(Rs)	24,50,23,090.00	
18	Landed Cost of Oil (LDO/HFO) (2+17)/(1+7)	(Rs)	84,333.37	
19	Blending Ratio		100.00%	
20	Weighted average cost of Oil		84333.37	
21	GCV of Oil of the Opening stock as per bill of Oil company	(kCal/Ltr)		
22	GCV of oil supplied as per bill of oil company	(kCal/Ltr)		
23	GCV if Imported coal of the opening stock as per bill of Oil company	(kCal/Ltr)		
24	GCV of Imported Oil supplied as per bill of coal company	(kCal/Ltr)		
25	Weighted average GCV if Oil as billed	(kCal/Ltr)		
26	GCV of Oil of the Opening stock as received at station	(kCal/Ltr)		
27	GCV of Oil supplied	(kCal/Ltr)	9,210.00	
28	GCV of Imported coal of the Opening stock as received at station	(kCal/Ltr)		
29	GCV of Imported coal supplied as received at station	(kCal/Ltr)		
30	Weighted average GCV of Oil	(kCal/Ltr)	9210.00	

(Petitioner)

Details of Secondary Fuel for Computation of Energy Charges

PART-I
FORM- 15A

Name of the Company :	**NTPC Limite**		
Name of the Power Station :	**Rihand Supe**		

Sl.No.	Month	Unit	Mar-24		
			LDO	HFO	HSD
1	Opening Quantity of Oil	KL	7,381.71		-
2	Value of Opening	(Rs)	62,25,24,400.00		-
3	Quantity of Oil supplied by Oil Company	KL	-		
4	Adjustment (+/-) in quantity supplied made by Oil Company	KL			
5	Oil supplied by oil company (3+4)	KL	-		
6	Normative Transit & Handling Losses	KL	-	-	
7	Net Oil Supplied (5-6)	KL	-		
8	Amount charged by the Oil Company	(Rs)	-		-
9	Adjustment(+/-) in amount charged made by Oil Company	(Rs)			
10	Handling, Sampling and such other Similar Charges	(Rs)			
11	**Total amount charged (8+9+10)**	(Rs)	-		
12	Transportation charges by rail / ship / road transport				
	By Rail	(Rs)			
	By Road	(Rs)			
	By Ship	(Rs)			
13	Adjustment (+/-) in amount charged made by Railways/Transport Company	(Rs)			
14	Demurrage Charges, if any	(Rs)			
15	Cost of diesel in transporting Oil through MGR system, if applicable	(Rs)			
16	Total Transportation Charges (12+/-13-14+15)	(Rs)	-		
17	Total amount Charged for fuel supplied including Transportation (11+16)	(Rs)	-		
18	Landed Cost of Oil (LDO/HFO) (2+17)/(1+7)	(Rs)	84,333.39		
19	Blending Ratio		100.00%		
20	Weighted average cost of Oil		84333.39		
21	GCV of Oil of the Opening stock as per bill of Oil company	(kCal/Ltr)			
22	GCV of oil supplied as per bill of oil company	(kCal/Ltr)			
23	GCV if Imported coal of the opening stock as per bill of Oil company	(kCal/Ltr)			
24	GCV of Imported Oil supplied as per bill of coal company	(kCal/Ltr)			
25	Weighted average GCV if Oil as billed	(kCal/Ltr)			
26	GCV of Oil of the Opening stock as received at station	(kCal/Ltr)			
27	GCV of Oil supplied	(kCal/Ltr)	9,210.00		
28	GCV of Imported coal of the Opening stock as received at station	(kCal/Ltr)			
29	GCV of Imported coal supplied as received at station	(kCal/Ltr)			
30	Weighted average GCV of Oil	(kCal/Ltr)	9210.00		

(Petitioner)

Computation of Energy Charges

PART-I
FORM-15B
ADDITIONAL FORM

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

Computation of Energy Charges

			2024-25	2025-26	2026-27	2027-28	2028-29
1	Rate of Energy Charge from Sec. Fuel Oil/ Alternate Fuel (p/kwh)	$(REC)_s$ = $(Q_s)_n$ X P_s	4.343	4.343	4.343	4.343	4.343
2	Heat Contribution from SFO / Alternate Fuel	(H_s) = $(Qs)_n$ X $(GCV)_s$	4.635	4.635	4.635	4.635	4.635
3	Heat Contribution from coal	$(H_p)_s$ = GHR- H_s	2397.44	2397.44	2397.44	2397.44	2397.44
4	Specific Primary Fuel Consumption	$(Qp)_n$ = H_p/ $(GCV)_p$	0.633	0.633	0.633	0.633	0.633
5	Rate of Energy charge from Primary Fuel (p/kwh)	$(REC)_p$	145.788	145.788	145.788	145.788	145.788
6	Rate of Energy charge ex bus (p/kWh)	(REC) = $((REC)_s$ + $(REC)_p$ / (1-(AUX))	150.218	150.218	150.218	150.218	150.218

		2024-25	2025-26	2026-27	2027-28	2028-29
No of Days in the period	Days	365	365	365	366	365
No of Days in the year	Days	365	365	365	366	365
Sp. Oil consumption	ml/kwh	0.5	0.5	0.5	0.5	0.5
Auxiliary consumption	%	5.75%	5.75%	5.75%	5.75%	5.75%
Heat Rate	Kcal/Kwh	2,402.07	2,402.07	2,402.07	2,402.07	2,402.07
Computation of Variable Charges						
Variable Charge (Coal)	p/kwh	154.682	154.682	154.682	154.682	154.682
Variable Charge (Oil)	p/kwh	4.608	4.608	4.608	4.608	4.608
Total	p/kwh	159.290	159.290	159.290	159.290	159.290
Price of fuel from Form-15/15A						
Coal Cost	(Rs./MT)	2302.32	2302.32	2302.32	2302.32	2302.32
Oil Cost	(Rs./KL)	86861.91	86861.91	86861.91	86861.91	86861.91
Computation of Fuel Expenses for Calculation of IWC:						
ESO in a year	(MUs)	7017.86	7017.86	7017.86	7037.08	7017.86
ESO for 40 days	(MUs)	769.080	769.080	769.080	769.080	769.080
Cost of coal for 45 Days	(Rs. Lakh)	11896.32	11896.32	11896.32	11896.32	11896.32
Cost of oil for 2 months	(Rs. Lakh)	538.98	538.98	538.98	540.45	538.98
Energy Expenses for 45 day	(Rs. Lakh)	13782.05	13782.05	13782.05	13782.05	13782.05

Coal		2024-25	2025-26	2026-27	2027-28	2028-29
Wtd. Avg. Price of Coal	Rs./MT	2302.32	2302.32	2302.32	2302.32	2302.32
Wtd. Avg. GCV of Coal as received	kCal/Kg	3871.08	3871.08	3871.08	3871.08	3871.08
Wtd. Avg.	kCal/Kg	**3786.08**	**3786.08**	**3786.08**	**3786.08**	**3786.08**
Sec. Oil						
Wtd. Avg. Price of Secondary Fuel	Rs/KL	86861.91	86861.91	86861.91	86861.91	86861.91
Wtd. Avg. GCV of Secondary Fuel	kCal/L	9269.00	9269.00	9269.00	9269.00	9269.00

(Petitioner)

PART-I
FORM- L

Statement of Capital cost

Name of the Petitioner	NTPC Limited
Name of the Generating Station	Rihand Super Thermal Power Station Stage-III
COD	27-03-2014
For Financial Year	2024-29

(Rs Lakh)

Sl. No.	Particulars	2024-25			2025-26			2026-27			2027-28			2028-29		
		Accrual Basis	Un-discharged Liabilities	Cash Basis	Accrual Basis	Un-discharged Liabilities	Cash Basis	Accrual Basis	Un-discharged Liabilities	Cash Basis	Accrual Basis	Un-discharged Liabilities	Cash Basis	Accrual Basis	Un-discharged Liabilities	Cash Basis
A	a) Opening Gross Block Amount as per books	6,25,649.14	11,169.99	6,14,479.15	SHALL BE PROVIDED AT THE TIME OF TRUE-UP.											
	b) Amount of IDC in A(a) above	55,823.80														
	c) Amount of FC in A(a) above	1,004.00														
	d) Amount of FERV in A(a) above	52,821.89														
	e) Amount of Hedging Cost in A(a) above	0.00														
	f) Amount of IEDC in A(a) above	17,417.16														
B	a) Addition in Gross Block Amount during the period (Direct purchases)	SHALL BE PROVIDED AT THE TIME OF TRUE-UP.														
	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															

(Petitioner)

PART-I
FORM- M

Statement of Capital Works in Progress

Name of the Petitioner	**NTPC Limited**
Name of the Generating Station	**Rihand Super Thermal Power Station Stage-III**
COD	**27-03-2014**
For Financial Year	**2024-29**

(Rs Lakh)

Sl. No.	Particulars	2024-25			2025-26			2026-27			2027-28			2028-29		
		Accrual Basis	Un-discharged Liabilities	Cash Basis	Accrual Basis	Un-discharged Liabilities	Cash Basis	Accrual Basis	Un-discharged Liabilities	Cash Basis	Accrual Basis	Un-discharged Liabilities	Cash Basis	Accrual Basis	Un-discharged Liabilities	Cash Basis
A	a) Opening CWIP as per books	51,493.43	7,863	43,630.05	SHALL BE PROVIDED AT THE TIME OF TRUE-UP.											
	b) Amount of IDC in A(a) above	619.23														
	c) Amount of FC in A(a) above	-														
	d) Amount of FERV in A(a) above	-														
	e) Amount of Hedging Cost in A(a) above	-														
	f) Amount of IEDC in A(a) above	457.66														
B	a) Addition in CWIP during the period	SHALL BE PROVIDED AT THE TIME OF TRUE-UP.														
	b) Amount of IDC in B(a) above															
	c) Amount of FC in B(a) above															
	d) Amount of FERV in B(a) above															
	e) Amount of Hedging Cost in B(a) above															
	f) Amount of IEDC in B(a) above															
C	a) Transferred to Gross Block Amount during the period															
	b) Amount of IDC in C(a) above															
	c) Amount of FC in C(a) above															
	d) Amount of FERV in C(a) above															
	e) Amount of Hedging Cost in C(a) above															
	f) Amount of IEDC in C(a) above															
D	a) Deletion in CWIP during the period															
	b) Amount of IDC in D(a) above															
	c) Amount of FC in D(a) above															
	d) Amount of FERV in D(a) above															
	e) Amount of Hedging Cost in D(a) above															
	f) Amount of IEDC in D(a) above															
E	a) Closing CWIP as per books															
	b) Amount of IDC in E(a) above															
	c) Amount of FC in E(a) above															
	d) Amount of FERV in E(a) above															
	e) Amount of Hedging Cost in E(a) above															
	f) Amount of IEDC in E(a) above															

(Petitioner)

PART-I
FORM- N

Calculation of Interest on Normative Loan

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

(Amount in Rs Lakh)

S. No.	Particulars		Existing 2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
1	**2**		**3**	**4**	**5**	**6**	**7**	**8**
1	Gross Normative loan – Opening	A	3,94,545.67	3,99,399.96	4,05,638.68	4,09,358.48	4,10,962.54	4,11,884.79
2	Cumulative repayment of Normative loan up to previous year	B	2,82,617.63	3,12,923.21	3,44,299.43	3,76,063.78	3,88,359.60	4,00,799.02
3	**Net Normative loan – Opening**	**C=A-B**	1,11,928.04	86,476.75	61,339.25	33,294.70	22,602.94	11,085.77
4	Add: Increase due to addition during the year / period	D	5,082.26	6,238.72	3,719.80	1,604.06	922.25	5,096.00
5	Less: Decrease due to de-capitalisation during the year / period	E	676.74	-	-	-	-	-
6	Less: Decrease due to reversal during the year / period	F		-	-	-	-	-
7	Add: Increase due to discharges during the year / period	G	448.77	-	-	-	-	-
8	Normative Loan Closing	H=C+D-E-F+G	116782.33	92715.47	65059.05	34898.76	23525.19	16181.77
9	Repayment of Loan during the year	I	30978.39	31376.22	31764.35	12295.82	12439.42	12814.67
10	Repayment adjustment on account of decapitalization	J	672.81	0.00	0.00	0.00	0.00	0.00
11	Net Repayment of loan during the year	K=I-J	30,305.58	31,376.22	31,764.35	12,295.82	12,439.42	12,814.67
12	**Net Normative loan - Closing**	**L=H-K**	86,476.75	61,339.25	33,294.70	22,602.94	11,085.77	3,367.10
13	**Average Normative loan**	**M=Average(C,L)**	99,202.39	73,908.00	47,316.98	27,948.82	16,844.35	7,226.43
14	Weighted average rate of interest	N	7.625%	7.350%	7.524%	8.220%	7.809%	7.822%
15	**Interest on Loan**	**O=MxN**	**7564.11**	**5432.50**	**3560.15**	**2297.28**	**1315.33**	**565.27**
15	Cumulative repayment of Normative loan at the end of the period	P=B+K	3,12,923.21	3,44,299.43	3,76,063.78	3,88,359.60	4,00,799.02	4,13,613.69

(Petitioner)

PART -I
FORM- O

Calculation of Interest on Working Capital

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

(Amount in Rs Lakh)

S. No.	Particulars	Existing 2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
1	Cost of Coal/Lignite	11,474.23	11896.32	11896.32	11896.32	11896.32	11896.32
2	Cost of Main Secondary Fuel O	511.42	538.98	538.98	538.98	540.45	538.98
3	Fuel Cost						
4	Liquid Fuel Stock						
5	O & M Expenses	2,778.36	3250.81	3390.93	3530.05	3669.32	3816.75
6	Maintenance Spares	6,668.06	7801.93	8138.24	8472.12	8806.37	9160.19
7	Receivables	26,763.15	27870.45	27945.09	25593.12	25682.82	25927.11
8	Total Working Capital	48195.21	51358.48	51909.55	50030.58	50595.28	51339.34
9	Rate of Interest	12.00%	11.90%	11.90%	11.90%	11.90%	11.90%
10	**Interest on Working Capital**	**5783.43**	**6111.66**	**6177.24**	**5953.64**	**6020.84**	**6109.38**

(Petitioner)

Summary of issue involved in the petition						PART -I FORM-T
Name of the Company :		**NTPC Limited**				
Name of the Power Station :		**Rihand Super Thermal Power Station Stage-III**				
1	**Petitioner:**	**NTPC Limited**				
2	**Subject**	**Determination of Tariff for 2024-29 period**				
3	**Prayer:** i) Approve tariff of Rihand Super Thermal Power Station, Stage-III (1000 MW) for the tariff period 01.04.2024 to 31.03.2029. ii) Allow the recovery of filing fees as & when paid to the Hon'ble Commission and publication expenses from the beneficiaries. iii) Approve supplementary tariff for Rihand Super Thermal Power Station Stage-III (2x500MW) on installation of Emission Control System for controlling Nox emissions. iv) Allow reimbursement of Ash Utilization Expenditure directly from the beneficiaries on monthly basis, subject to true up. v) Allow the recovery of pay/wage revision as additional O&M over and above the normative O&M. vi) Consider station heat rate based on design heat rate with applicable operating margin. vii) Pass any other order as it may deem fit in the circumstances mentioned above.					
4	**Respondents**					
	Name of Respondents					
	1. Uttar Pradesh Power Corp. Ltd. (UPPCL)					
	2. Rajasthan Urja Vikas Nigam Limited (RUVNL)					
	3. Tata Power Delhi Distribution Limited					
	4. BSES Rajdhani Power Limited.					
	5. BSES Yamuna Power Limited,					
	6. Haryana Power Purchase Centre					
	7. Punjab State Power Corporation Limited,					
	8. Himachal Pradesh State Electricity Board Limited,					
	9. Power Development Department (J&K)					
	10. Electricity Department, Union Territory of Chandigarh					
	11. Uttarakhand Power Corporation Limited.					
5	**Project Scope**					
	Capital Cost as on 01.04.2024 (Rs. Lakh)	**584206.23**				
	Date of Station COD	**27-03-2014**				
	Claim (Rs Lakh)	**2024-25**	**2025-26**	**2026-27**	**2027-28**	**2028-29**
	AFC	**114272.55**	**114877.98**	**95800.91**	**96792.90**	**98509.91**
	Capital Cost	**575027.61**	**582140.83**	**585943.59**	**587748.09**	**592046.84**
	Initial spare	**N/A**				
	NAPAF (Gen)	**85%**				
	Any Specific					

(Petitioner)

SUPPLEMENTARY TARIFF FILING FORMS (THERMAL)

FOR DETERMINATION OF SUPPLEMENTARY TARIFF OF

Rihand Super Thermal Power Station Stage-III

(For ECS- DeNOx System for 2024-29 Period)

PART-I

APPENDIX-IA

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

Form No.	Title of Tariff Filing Forms (Thermal)	Tick
FORM- 1	Summary of Supplementary 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	**NA**
FORM- 4A	Details of Foreign Equity	**NA**
FORM-5	Abstract of Admitted Capital Cost for the existing Projects	**NA**
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	**NA**
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	**NA**
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	**NA**
FORM- Oi	Computation of Supplementary Energy Charges	✓
FORM- 16	Details of Reagent for Computation of Energy Charge Rate	**NA**
FORM-17	Details of Capital Spares	**NA**
FORM- 18	Non-Tariff Income	**NA**
FORM-19	Details of Water Charges	**NA**
FORM-20	Details of Statutory Charges	**NA**

PART-I

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

Form No.	Title of Tariff Filing Forms (Thermal)	Tick
FORM-A	Abstract of Capital Cost Estimates	**NA**
FORM-B	Break-up of Capital Cost for Coal/Lignite based projects	**NA**
FORM-C	Break-up of Capital Cost for Gas/Liquid fuel based Projects	**NA**
FORM-D	Break-up of Construction/Supply/Service packages	**NA**
FORM-E	Details of variables , parameters , optional package etc. for New Project	**NA**
FORM-F	Details of cost over run	**NA**
FORM-G	Details of time over run	**NA**
FORM –H	Statement of Additional Capitalisation during end of the useful life	**NA**
FORM –I	Details of Assets De-capitalised during the period	**NA**
FORM –J	Reconciliation of Capitalisation claimed vis-à-vis books of accounts	**NA**
FORM –K	Statement showing details of items/assets/works claimed under Exclusions	**NA**
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-Oi	Additional Form	**NA**
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	✓

*** Shall be provided at true-up.

(Petitioner)

PART-I
FORM-1

Summary of Supplementary Tariff (DeNOx System)

	Name of the Petitioner:	**NTPC Ltd.**
	Name of the Generating Station:	**Rihand Super Thermal Power Station Stage-III**

Amount in Rs. Lakhs

S. No.	Particulars	Unit	Existing 2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
1.1	Depreciation	Rs Lakh	80.20	80.20	80.20	80.20	80.20	80.20
1.2	Interest on Loan	Rs Lakh	71.38	62.92	58.37	57.17	48.05	41.86
1.3	Return on Equity	Rs Lakh	57.98	67.09	67.09	67.09	67.09	67.09
1.4	Interest on Working Capital	Rs Lakh	4.75	4.81	4.83	4.91	4.86	4.88
1.5	O&M Expenses	Rs Lakh	32.54	34.25	36.05	37.94	39.93	42.03
	Total	Rs Lakh	**246.86**	**249.27**	**246.54**	**247.32**	**240.14**	**236.07**

(Petitioner)

PART-I
FORM- 1(I)

	Name of the Petitioner:	**NTPC Ltd.**				
	Name of the Generating Station:	**Rihand Super Thermal Power Station Stage-III**				
						Amount in Rs. Lakhs
Statement showing claimed capital cost						
S. No.	**Particulars**	**2024-25**	**2025-26**	**2026-27**	**2027-28**	**2028-29**
1	**2**	**3**	**4**	**5**	**6**	**7**
1	Opening Capital Cost	1518.99	1518.99	1518.99	1518.99	1518.99
2	Add: Addition during the year/period	0.00	0.00	0.00	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	1518.99	1518.99	1518.99	1518.99	1518.99
7	**Average Capital Cost**	**1518.99**	**1518.99**	**1518.99**	**1518.99**	**1518.99**
Statement showing claimed capital cost eligible for RoE at rate at normal rate (A)						
S. No.	**Particulars**	**2024-25**	**2025-26**	**2026-27**	**2027-28**	**2028-29**
1	**2**	**3**	**4**	**5**	**6**	**7**
1	Opening Capital Cost	0.00	0.00	0.00	0.00	0.00
2	Add: Addition during the year / period					
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	0.00	0.00	0.00	0.00	0.00
7	**Average Capital Cost**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Statement showing claimed capital cost eligible for RoE at rate linked to SBI MCLR (B)						
S. No.	**Particulars**	**2024-25**	**2025-26**	**2026-27**	**2027-28**	**2028-29**
1	**2**	**3**	**4**	**5**	**6**	**7**
1	Opening Capital Cost	1,518.99	1,518.99	1,518.99	1,518.99	1,518.99
2	Add: Addition during the year / period	-	-			-
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	1518.99	1518.99	1518.99	1518.99	1518.99
7	**Average Capital Cost**	**1518.99**	**1518.99**	**1518.99**	**1518.99**	**1518.99**

(Petitioner)

PART-I

FORM- 1(IIA)

	Name of the Petitioner:	**NTPC Ltd.**				
	Name of the Generating Station:	**Rihand Super Thermal Power Station Stage-III**				

Statement showing Return on Equity at at rate linked to SBI MCLR

Amount in Rs. Lakhs

S. No.	**Particulars**	**2024-25**	**2025-26**	**2026-27**	**2027-28**	**2028-29**
1	**2**	**3**	**4**	**5**	**6**	**7**
	Return on Equity eligible for RoE at rate linked to SBI MCLR					
1	Gross Opening Equity (Normal)	455.70	455.70	455.70	455.70	455.70
2	Less: Adjustment in Opening Equity					
3	Adjustment during the year					
4	Net Opening Equity (Normal)	455.70	455.70	455.70	455.70	455.70
5	Add: Increase in equity due to addition during the year / period	-	-			-
7	Less: Decrease due to De-capitalisation during the year / period	-	-			-
8	Less: Decrease due to reversal during the year / period	-	-			-
9	Add: Increase due to discharges during the year / period	-	-			-
10	Net closing Equity (Normal)	455.70	455.70	455.70	455.70	455.70
11	Average Equity (Normal)	455.70	455.70	455.70	455.70	455.70
12	Rate of ROE (%)	14.722%	14.722%	14.722%	14.722%	14.722%
13	Total ROE	**67.09**	**67.09**	**67.09**	**67.09**	**67.09**

(Petitioner)

PART-I
FORM-2

Plant Characteristics		
Name of the Petitioner	**NTPC Ltd.**	
Name of the Generating Station	**Rihand Super Thermal Power Station Stage-III**	
Unit(s)/Block(s)/Parameters	**Unit-I**	**Unit-II**
Installed Capacity (MW)	500	500
Environmental Regulation related features	Combustion Modification Package for controlling NOx emissions	
Reagent	NA	
Date of Operation for Tariff (ODe)	01-03-2022	01-03-2022
Auxiliary Energy Consumption for emission control system (Design) (kW)*	NA	

(Petitioner)

PART-I
FORM-3

Normative parameters considered for supplementary tariff computations

Name of the Petitioner:	**NTPC Ltd.**
Name of the Generating Station:	**Rihand Super Thermal Power Station Stage-III**

(Year Ending March)

Particulars	Unit	Existing 2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
1	2	3	4	5	6	7	8
Base Rate of Return on Equity	%	12.00%	12.15%	12.15%	12.15%	12.15%	12.15%
Effective Tax Rate	%	17.47%	17.47%	17.47%	17.47%	17.47%	17.47%
Target Availability							
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	%	8.50%	8.50%	8.50%	8.50%	8.50%	8.50%
Auxiliary Energy Consumption for emission control system (Design)	%	-	-	-	-	-	-
Rate of Interest on Working Capital	%	12.00%	11.90%	11.90%	11.90%	11.90%	11.90%
O&M Expenses	% of Capital Cost	2					
Maintenance Spares for WC	% of O&M	20.00%					
Receivables for WC	in Days	45					

(Petitioner)

Part-I
FORM-3A
ADDITIONAL FORM

Calculation of O&M Expenses

Name of the Company :		**NTPC Ltd.**				
Name of the Power Station :		**Rihand Super Thermal Power Station Stage-III**				
						Amount in Rs. Lakhs
S.No.	**Particulars**	**2024-25**	**2025-26**	**2026-27**	**2027-28**	**2028-29**
1	**2**	**3**	**4**	**5**	**6**	**7**
1	**O&M expenses under Reg.35(1)(7)**					
1a	Normative O&M expenses- ECS	34.25	36.05	37.94	39.93	42.03
	Total O&M Expenses	**34.25**	**36.05**	**37.94**	**39.93**	**42.03**

(Petitioner)

PART-I
FORM- 9A
Additional Form

Year wise Statement of Additional Capitalisation after COD

Name of the Petitioner		**NTPC Ltd.**				
Name of the Generating Station		**Rihand Super Thermal Power Station Stage-III**				
For Financial Year		**2024-29 Summary**				
						Amount in Rs Lakh
Sl. No.	**Head of Work /Equipment**	**ACE Claimed (Projected)**				
		2024-25	**2025-26**	**2026-27**	**2027-28**	**2028-29**
1	**2**	**3**	**4**	**5**	**6**	**7**
1	Combustion Modification System Unit 1	-	-	-	-	-
2	Combustion Modification System Unit 2	-	-	-	-	-
Total Add Cap		**-**	**-**	**-**	**-**	**-**
5	Discharge of Liabilities	-	-	-	-	-
Total Add. Cap. Claimed including discharge of liabilities		**-**	**-**	**-**	**-**	**-**

(Petitioner)

PART-I

FORM- 9

Year wise Statement of Additional Capitalisation after COD

Name of the Petitioner	**NTPC Ltd.**
Name of the Generating Station	**Rihand Super Thermal Power Station Stage-III**
For Financial Year	**2024-25**

Amount in Rs Lakh

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

(Petitioner)

PART-I
FORM- 9

Year wise Statement of Additional Capitalisation after COD

Name of the Petitioner	**NTPC Ltd.**
Name of the Generating Station	**Rihand Super Thermal Power Station Stage-III**
For Financial Year	**2025-26**

Amount in Rs Lakh

Sl. No.	Head of Work /Equipment	ACE Claimed (Projected)				Regulations under which claimed	Justification	Admitted Cost by the Commission, if any
		Accrual basis as per IGAAP	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3			
1	2	3	4	5= (3-4)	6	7	8	9
1	Combustion Modification System Unit 1			-	0			
2	Combustion Modification System Unit 2							
3	**Discharge of liabilities**			-		25(1)(f)	Discharge of liabilities of works already admitted/ claimed. Hon'ble Commission may be pleased to allow the same	
	Total	-	-	-	-			

(Petitioner)

PART-I
FORM- 9

Year wise Statement of Additional Capitalisation after COD

Name of the Petitioner	**NTPC Ltd.**
Name of the Generating Station	**Rihand Super Thermal Power Station Stage-III**
For Financial Year	**2026-27**

Amount in Rs Lakh

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

(Petitioner)

PART-I

FORM- 9

Year wise Statement of Additional Capitalisation after COD

Name of the Petitioner	**NTPC Ltd.**
Name of the Generating Station	**Rihand Super Thermal Power Station Stage-III**
For Financial Year	**2027-28**

Amount in Rs Lakh

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

(Petitioner)

PART-I

FORM- 9

Year wise Statement of Additional Capitalisation after COD

Name of the Petitioner	**NTPC Ltd.**
Name of the Generating Station	**Rihand Super Thermal Power Station Stage-III**
For Financial Year	**2028-29**

Amount in Rs Lakh

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

(Petitioner)

PART-I
FORM- 11

Calculation of Depreciation

Name of the Petitioner		**NTPC Limited**		
Name of the Generating Station		**Rihand Super Thermal Power Station Stage-III**		
				Amount in Rs Lakh
Sl.No.	**Name of the Assets1**	**Depreciation Rates as per CERC's Depreciation Rate Schedule**	**Gross Block as on 01.04.2024**	**Depreciation**
1	Land-Free Hold	0.00%		0.00
2	Plant & Machinary	5.28%	1,534.05	81.00
3	Cooling Towers & CW System.	5.28%		0.00
4	Air conditioning	5.28%		0.00
5	Chimney	5.28%		0.00
6	Main Plant Building	3.34%		0.00
7	Ash Dyke/Disposal Area	5.28%		0.00
8	S-Yard	5.28%		0.00
9	Raw Water Reservoir	5.28%		0.00
10	MGR & Wagons	5.28%		0.00
11	Locomotive	9.50%		0.00
12	Residential Building	3.34%		0.00
13	WaterTreatment Plant	5.28%		0.00
14	Spares	5.28%		0.00
15	Furniture & Fixtures,OFFICE EQUIPMENT	6.33%		0.00
16	Other MBOAs / T&Ps.	6.33%		0.00
17	EDP,WP & SATCOM.	15.00%		0.00
18	Construction equipment	5.28%		0.00
19	Temp.Constructions	100.00%		0.00
20	Central Repair/Workshop	5.28%		0.00
21	Road/Bridge	3.34%		0.00
22	Software	15.00%		0.00
23	Water Supply drainage	5.28%		0.00
24	5 Km Scheme	5.28%		0.00
25	Hospital Equipment	5.28%		0.00
26	Vehicle	9.50%		0.00
	Total		1,534.05	81.00
	Weighted Average Rate of Depreciation (%)			5.2800%

(Petitioner)

PART-I
FORM- 12

Statement of Depreciation

Name of the Company :		**NTPC Ltd.**					
Name of the Power Station :		**Rihand Super Thermal Power Station Stage-III**					

(Amount in Rs Lakh)

S. No.	**Particulars**	**Existing 2023-24**	**2024-25**	**2025-26**	**2026-27**	**2027-28**	**2028-29**
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
1	Opening Capital Cost	1,518.99	1,518.99	1,518.99	1,518.99	1,518.99	1,518.99
2	Closing Capital Cost	1,518.99	1,518.99	1,518.99	1,518.99	1,518.99	1,518.99
3	Average Capital Cost	1,518.99	1,518.99	1,518.99	1,518.99	1,518.99	1,518.99
4	Freehold land						
5	Rate of depreciation (%)	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%
6	Depreciable value	1,367.09	1,367.09	1,367.09	1,367.09	1,367.09	1,367.09
8	Remaining depreciable value	1,280.31	1,199.87	1,119.67	1,039.47	959.26	879.06
9	Depreciation (for the period)	80.20	80.20	80.20	80.20	80.20	80.20
10	Depreciation (annualised)	**80.20**	**80.20**	**80.20**	**80.20**	**80.20**	**80.20**
11	Cumulative depreciation at the end of the period	167.22	247.42	327.62	407.82	488.03	568.23
12	Less: Cumulative depreciation adjustment on account of un-discharged liabilities deducted as on 01.04.2009	-	-	-	-	-	-
13	Add: Cumulative depreciation adjustment on account of liability Discharge	-	-	-	-	-	-
14	Less: Cumulative depreciation adjustment on account of de-capitalisation	-	-	-	-	-	-
12	Net Cumulative depreciation at the end of the period after adjustments	167.22	247.42	327.62	407.82	488.03	568.23

(Petitioner)

PART-I
FORM-N

Calculation of Interest on Normative Loan

Name of the Company :

Name of the Power Station :

(Amount in Rs Lakh)

S. No.	Particulars	Existing 2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
1	Gross Normative loan – Opening	1,063.29	1,063.29	1,063.29	1,063.29	1,063.29	1,063.29
2	Cumulative repayment of Normative loan up to previous year	87.01	167.22	247.42	327.62	407.82	488.03
3	**Net Normative loan – Opening**	976.28	896.07	815.87	735.67	655.47	575.26
4	Add: Increase due to addition during the year / period	-	-	-	-	-	-
5	Less: Decrease due to de-capitalisation during the year / period	-	-	-	-	-	-
6	Less: Decrease due to reversal during the year / period						
7	Add: Increase due to discharges during the year / period	-	-	-	-	-	-
8	Less: Repayment of Loan	80.20	80.20	80.20	80.20	80.20	80.20
9	**Net Normative loan - Closing**	896.07	815.87	735.67	655.47	575.26	495.06
10	**Average Normative loan**	936.18	855.97	775.77	695.57	615.37	535.16
11	Weighted average rate of interest	7.6249%	7.3503%	7.5240%	8.2196%	7.8087%	7.8222%
12	**Interest on Loan**	**71.38**	**62.92**	**58.37**	**57.17**	**48.05**	**41.86**

(Petitioner)

PART-I
FORM- O

Calculation of Interest on Working Capital

Name of the Company :		**NTPC Ltd.**					
Name of the Power Station :		**Rihand Super Thermal Power Station Stage-III**					

(Amount in Rs Lakh)

S. No.	Particulars		Existing 2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
1	Cost of Limestone/Reagent toward stock	**20 days**	-	-	-	-	-	-
2	Cost of Limestone/Reagent toward generation	**30 days**	-	-	-	-	-	-
3	Receivables	**45 days**	30.35	30.73	30.40	30.49	29.53	29.10
4	O & M Expenses	**1 month**	2.71	2.85	3.00	3.16	3.33	3.50
5	Maintenance Spares	**@20%**	6.51	6.85	7.21	7.59	7.99	8.41
6	Total Working Capital	**Rs. Lakh**	39.57	40.44	40.61	41.24	40.84	41.01
7	Rate of Interest	**%**	12.00%	11.90%	11.90%	11.90%	11.90%	11.90%
8	**Interest on Working Capital**	**Rs. Lakh**	**4.75**	**4.81**	**4.83**	**4.91**	**4.86**	**4.88**

(Petitioner)

PART -I
FORM-T

Summary of issue involved in the petition

Name of the Company :		**NTPC Ltd.**
Name of the Power Station :		**Rihand Super Thermal Power Station Stage-III**
1	**Petitioner:**	**NTPC Ltd.**
2	**Subject**	**Determination of Supplementary Tariff (for DeNOx System) for 2024-29 period**
3	**Prayer:** i) Approve Supplementary Tariff of Rihand Stage-III for the tariff period from the date of capitalization of the DeNOx scheme for period 01.04.2024 to 31.03.2029.	
4	**Respondents**	
	Name of Respondents	
	1. Uttar Pradesh Power Corp. Ltd. (UPPCL)	
	2. Rajasthan Urja Vikas Nigam Limited (RUVNL)	
	3. Tata Power Delhi Distribution Limited	
	4. BSES Rajdhani Power Limited.	
	5. BSES Yamuna Power Limited,	
	6. Haryana Power Purchase Centre	
	7. Punjab State Power Corporation Limited	
	8. Himachal Pradesh State Electricity Board Limited	
	9. Power Development Department, J&K	
	10. Electricity Department of Chandigarh	
	11. Uttarakhand Power Corporation Limited.	
5	**Project Scope**	
	Cost	**1518.99**
	Commissioning	
	Claim	**1518.99**
	AFC	
	Capital cost	**1518.99**
	Initial spare	**-**
	NAPAF (Gen)	**85%**
	Any Specific	**-**

(Petitioner)

Annexure-A/1

रजिस्ट्री सं॰ डी॰ एल॰—(एन)04/0007/2003—20 REGISTERED NO. DL—(N)04/0007/2003—20

भारत का राजपत्र
The Gazette of India

सी.जी.-डी.एल.-अ.-29092020-222112
CG-DL-E-29092020-222112

असाधारण
EXTRAORDINARY
भाग II — खण्ड 1
PART II — Section 1
प्राधिकार से प्रकाशित
PUBLISHED BY AUTHORITY

सं॰ 62] नई दिल्ली, मंगलवार, सितम्बर 29, 2020/ आश्विन 7, 1942 (शक)
No. 62] NEW DELHI, TUESDAY, SEPTEMBER 29, 2020/ASVINA 7, 1942 (SAKA)

इस भाग में भिन्न पृष्ठ संख्या दी जाती है जिससे कि यह अलग संकलन के रूप में रखा जा सके।
Separate paging is given to this Part in order that it may be filed as a separate compilation.

MINISTRY OF LAW AND JUSTICE
(Legislative Department)

New Delhi, the 29th September, 2020/*Asvina* 7, 1942 (*Saka*)

The following Act of Parliament received the assent of the President on the 28th September, 2020 and is hereby published for general information:—

THE OCCUPATIONAL SAFETY, HEALTH AND WORKING CONDITIONS CODE, 2020

No. 37 of 2020

[28*th September,* 2020.]

An Act to consolidate and amend the laws regulating the occupational safety, health and working conditions of the persons employed in an establishment and for matters connected therewith or incidental thereto.

Be it enacted by Parliament in the Seventy-first Year of the Republic of India as follows:—

CHAPTER I
Preliminary

1. (*1*) This Act may be called the Occupational Safety, Health and Working Conditions Code, 2020. Short title, commencement and application.

(*2*) It shall come into force on such date as the Central Government may, by notification appoint; and different dates may be appointed for different provisions of this Code and any reference in any such provision to the commencement of this Code shall be construed as a reference to the coming into force of that provision.

(*b*) has obtained the registration of his establishment so fraudulently or otherwise that the registration has become useless or ineffective to run the establishment,

then, in case of clause (*a*) such misrepresentation or suppression of any material fact shall be deemed to be the contravention of the provisions of this Code for prosecution of the employer under section 94 without affecting the registration and running of the establishment and in case of clause (*b*) the registering officer may, after giving an opportunity to the employer of the establishment to be heard, revoke the registration by an order and such process for revocation shall be completed by the registering officer within sixty days from coming into his notice the facts specified in clause (*b*).

(*7*) No employer of an establishment who—

(*a*) has not registered the establishment under this section; or

(*b*) has not preferred appeal under section 4 against the cancellation of the registration certificate of the establishment under sub-section (*5*) or revocation of the registration of the establishment under sub-section (*6*) or the appeal so preferred has been dismissed,

shall employ any employee in the establishment.

(*8*) Notwithstanding anything contained in this Code, where any establishment, to which this Code applies, has already been registered under any—

(*a*) Central Labour law; or

(*b*) any other law which may be notified by the Central Government and which applies to the establishment which is in existence at the time of the commencement of this Code,

shall be deemed to have been registered under the provisions of this Code, subject to the condition that the registration holder provides the details of registration to the concerned registering officer within such time and in such form as may be prescribed.

Appeal.

4. (*1*) Any person aggrieved by an order made under section 3 may, within thirty days from the date on which the order is communicated to him, prefer an appeal to an appellate officer who shall be a person notified in this behalf by the appropriate Government:

Provided that the appellate officer may entertain the appeal after the expiry of the said period of thirty days, if he is satisfied that the appellant was prevented by sufficient cause from filing the appeal in time.

(*2*) On receipt of an appeal under sub-section (*1*), the appellate officer shall, after giving the appellant an opportunity of being heard, dispose of the appeal within a period of thirty days from the date of receipt of such appeal.

Notice by employer of commencement and cessation of operation.

5. (*1*) No employer of an establishment being factory or mine or relating to contract labour or building or other construction work shall use such establishment to commence the operation of any industry, trade, business, manufacturing or occupation thereon without sending notice of such purpose in such form and manner and to such authority and within such time as may be prescribed and shall also intimate the cessation thereof to the said authority in such manner as may be prescribed by the appropriate Government.

(*2*) The notice or intimation under sub-section (*1*) shall be given electronically.

CHAPTER III

DUTIES OF EMPLOYER AND EMPLOYEES, ETC.

Duties of employer.

6. (*1*) Every employer shall,—

(*a*) ensure that workplace is free from hazards which cause or are likely to cause injury or occupational disease to the employees;

(*b*) comply with the occupational safety and health standards declared under section 18 or the rules, regulations, bye-laws or orders made under this Code;

(*c*) provide such annual health examination or test free of costs to such employees of such age or such class of employees of establishments or such class of establishments, as may be prescribed by the appropriate Government;

(*d*) provide and maintain, as far as is reasonably practicable, a working environment that is safe and without risk to the health of the employees;

(*e*) ensure the disposal of hazardous and toxic waste including disposal of e-waste;

(*f*) issue a letter of appointment to every employee on his appointment in the establishment, with such information and in such form as may be prescribed by the appropriate Government and where an employee has not been issued such appointment letter on or before the commencement of this Code, he shall, within three months of such commencement, be issued such appointment letter;

(*g*) ensure that no charge is levied on any employee, in respect of anything done or provided for maintenance of safety and health at workplace including conduct of medical examination and investigation for the purpose of detecting occupational diseases;

(*h*) relating to factory, mine, dock work, building or other construction work or plantation, ensure and be responsible for the safety and health of employees, workers and other persons who are on the work premises of the employer, with or without his knowledge, as the case may be.

(*2*) Without prejudice to the generality of the provisions of sub-section (*1*), the duties of an employer shall particularly in respect of factory, mines, dock, building or other construction work or plantation include—

(*a*) the provision and maintenance of plant and systems of work in the workplace that are safe and without risk to health;

(*b*) the arrangements in the workplace for ensuring safety and absence of risk to health in connection with the use, handling, storage and transport of articles and substances;

(*c*) the provision of such information, instruction, training and supervision as are necessary to ensure the health and safety of all employees at work;

(*d*) the maintenance of all places of work in the workplace in a condition that is safe and without risk to health and the provision and maintenance of such means of access to, and egress from, such places as are safe and without such risk;

(*e*) the provision, maintenance or monitoring of such working environment in the workplace for the employees that is safe, without risk to health as regards facilities and arrangements for their welfare at work.

Duties and responsibilities of owner, agent and manager in relation to mine.

7. (*1*) The owner and agent of every mine shall jointly and severally be responsible for making financial and other provisions and for taking such other steps as may be necessary for compliance with the provisions of this Code and the rules, regulations, bye-laws and orders made thereunder, relating to mine.

(*2*) In the event of any contravention by any person whosoever of any of the provisions of this Code or of the rules, regulations, bye-laws or orders made thereunder, relating to mine, except those which specifically require any person to do any act or thing or prohibit any person from doing an act or thing, besides the person who contravenes, then, each of the following persons shall also be deemed to be guilty of such contravention unless he

Annexure-B/1

Honeywell

MINUTES OF MEETING

HPS SYSTEMS

CUSTOMER /CLIENT: - M/s NTPC RIHAND	PROJECT: - **NTPC RIHAND SCADA (INP-016837): SITE MAINTENANCE SERVICES RFQ.**
PROJECT PO NO: -4000264128-14.09.2021	PROJECT INP: - 016837
SAT DURATION: - TOTAL 03 DAYS (04-April-2023 TO 06-April-2023)	MOM DATE: - 06-April-2023
MOM LOCATION: - M/s NTPC RIHAND	WRITTEN BY: - SHASHIKANT SHETTY
DOC NO: - INP-016837/NTPC/MOM-04	TOTAL PAGES: - 2 SHEETS

	ATTENDENTS	SIGNATURES
1	Mr. Virendra Kumar(DGM(EMD))	
2	Mr. Shadab Alam Khan, Sr. Manager (EMD)	06/04/2023
3	Mr.	
4		शादाब आलम खान/SHADAB ALAM KHAN
5		वरि० प्रबंधक (ई०एम०डी०) /Sr. Manager (EMD)
6		एनटीपीसी–रिहंदनगर/NTPC Rihand Nagar
7		सोनभद्र (उ०प्र०)/Sonebhadra (U.P.) 231223
8		
9		
10		
11		
12	Mr. SHASHIKANT SHETTY (M/s HAIL)	06/04/2023
13		
14		

CC TO: -	REMARKS: -

Honeywell

MINUTES OF MEETING

HPS SYSTEMS

Sr.No.	DESCRIPTION OF DISCUSSION	ACTION BY	DUE DATE
1	M/s. HAIL representatives Mr. Shashikant Shetty started MV Automation System maintenance services on 04th &06th April 2023.	Info	NA
1A	Following activities held during this visit	Info	NA
2	Checking and establishing communication between Numerical Relays (Make : ABB/GE) and Data concentrators Experion System (R400). 1) DC-4, Total number of relay=87 Nos, Communicated relay = 69 Nos, NON communicated relay = 18 Nos. 2) Analog and Status tag Updating found Channel 6UAA board Relay not working.	Info	NA
3	Checking and attending any defects of Ruggedcom make Ethernet switches installed as a part of Data concentrator Network. 1) DC-1 – All Switch are found ok and communicated 2) DC-2- 16 Input 2 switches and 8 input 1 switch found faulty. 3) DC-3—Network will be preform by NTPC. 4) DC-4 ---8 input 1 switch found faulty 5) DC-5- Network will be preform by NTPC	Info	NA
5	Checking and attending any defects in communication media (OFCs etc.)- Not Found.	Info	NA
6	Checking and establishing any communication between DC and Work stations/printers.- All Working station OWS and EWS in OFF condition	Info	NA
7	Checking Software on DC, Work stations and upgrading any software if required.- 1) DC-1 – All Hardwar and software in working Condition. 2) DC-2- All Hardwar and software in working Condition.. 3) DC-3— All Hardwar and software in working Condition.. 4) DC-4 - Replace Hard Disk with DC-5. 5) **DC-5- Physical Hardware problem 5 Nos(146GB).**	Info	NA
8	Checking and establishing communication between all 05 No. DCs over DSA.- Found OK.	Info	NA
9	Checking and establishing communication between DC and DDCMIS over OPC.-Not Checked	Info	NA
10	Checking and ensuring time synchronization between DCs and Numerical relays.- GPS System not in working condition	Info	NA
11	Carrying out any addition, deletion and modification in programming, display of Work stations (OWS) and I/O of Networks.-Not required.	Info	NA
12	Any other interventions required for smooth functioning of Honeywell SCADA System- Not Required.	Info	NA

Honeywell

MINUTES OF MEETING
HPS SYSTEMS

Sr.No.	DESCRIPTION OF DISCUSSION	ACTION BY	DUE DATE
14	**Recommendation** 1) **Required all system software and hardware(DC) up gradation**	Info	NA

06/04/2023

NTPC Rihand

06/04/2023

HAIL

Annexure-B/2

रजिस्ट्री सं० डी० एल०-33004/99 REGD. NO. D. L.-33004/99

भारत का राजपत्र
The Gazette of India

असाधारण
EXTRAORDINARY
भाग II—खण्ड 3—उप-खण्ड (ii)
PART II—Section 3—Sub-section (ii)
प्राधिकार से प्रकाशित
PUBLISHED BY AUTHORITY

सं. 225] नई दिल्ली, बुधवार, जनवरी 27, 2016/माघ 7, 1937
No. 225] NEW DELHI, WEDNESDAY, JANUARY 27, 2016/ MAGHA 7 , 1937

पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय

अधिसूचना

नई दिल्ली, 25 जनवरी, 2016

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

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

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

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

1. उक्त अधिसूचना के पैरा 1 में-

(क) उप पैरा 1(क) में "सौ किलोमीटर" शब्दों के स्थान पर "तीन सौ किलोमीटर" शब्द रखें जाएंगे;

(ख) उप पैरा 3 में "100 कि.मी." अंकों और शब्दों के स्थान पर "तीन सौ किलोमीटर" शब्द रखें जाएंगे;

(ग) उप पैरा 5 में "सौ किलोमीटर" शब्दों के स्थान पर "तीन सौ किलोमीटर" शब्द रखें जाएंगे;

(घ) उप पैरा 7 में "सौ किलोमीटर" शब्दों के स्थान पर "तीन सौ किलोमीटर" शब्द रखें जाएंगे;

(114)

2. उक्त अधिसूचना के पैरा 2 में:-

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

"परंतु यह और कि शुष्क ईएसपी फ्लाई ऐश के 20 प्रतिशत का नि:शुल्क प्रदाय करने का निबंधन उन तापीय विद्युत संयंत्रों पर लागू नहीं होगा, जो विहित रीति में सौ प्रतिशत फ्लाई ऐश का उपयोग करने में समर्थ हैं।"

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

"(8) प्रत्येक कोयला या लिग्नाइट आधारित तापीय विद्युत संयंत्र (जिसके अंतर्गत कैपटिव और/या सह उत्पादन केन्द्र भी है), अधिसूचना की तारीख से तीन मास के भीतर उनके पास उपलब्ध प्रत्येक किस्म की ऐश के स्टाक के ब्यौरे अपनी वेबसाइट पर अपलोड करेगा और उसके पश्चात् मास में कम से कम एक बार स्टाक की स्थिति को अद्यतन करेगा।

(9) प्रत्येक कोयला या लिग्नाइट आधारित तापीय विद्युत संयंत्र समर्पित शुष्क ऐश साइलोस प्रतिष्ठापित करेगा, जिनके पास पृथक् पहुंच मार्ग होंगे, जिससे कि फ्लाई ऐश के परिदान को सुगम बनाया जा सके।

(10) कोयला या लिग्नाइट आधारित तापीय विद्युत संयंत्र से 100 किलोमीटर की परिधि के भीतर सड़क संनिर्माण परियोजनाओं या ऐश आधारित उत्पादों के संनिर्माण के लिए या कृषि संबंधित क्रियाकलापों में मृदा अनुकूलक के रूप में उपयोग के लिए ऐश के परिवहन की लागत ऐसे कोयला या लिग्नाइट आधारित तापीय विद्युत संयंत्र द्वारा वहन की जाएगी और 100 किलोमीटर की परिधि से परे और 300 किलोमीटर की परिधि के भीतर ऐसे परिवहन की लागत को उपयोक्ता और कोयला या लिग्नाइट आधारित तापीय विद्युत संयंत्र के बीच समान रूप से अंश भाजित की जाएगी।

(11) कोयला या लिग्नाइट आधारित तापीय विद्युत संयंत्र अपने परिसरों के भीतर या अपने परिसरों के आस-पास ऐश आधारित उत्पाद संनिर्माण सुविधाओं का संवर्धन करेंगे, उन्हें अपनाएंगे और उनकी स्थापना करेंगे (वित्तीय और अन्य सहबद्ध अवसंरचना)।

(12) नगरों के आस-पास बने कोयला या लिग्नाइट आधारित तापीय विद्युत संयंत्र ऐश आधारित उत्पाद विनिर्माण इकाइयों का संवर्धन करेंगे और उनकी स्थापना का समर्थन और उसमें सहायता करेंगे ताकि ईंटों और अन्य भवन संनिर्माण सामग्रियों की अपेक्षाओं की पूर्ति की जा सके और साथ ही परिवहन में कमी की जा सके।

(13) यह सुनिश्चित करने के लिए कि किसी सड़क संनिर्माण का संविदाकार सड़क निर्माण में ऐश का उपयोग करता है, सड़क संनिर्माण के लिए संबद्ध प्राधिकारी संविदाकार को किए जाने वाले संदाय को तापीय विद्युत संयंत्र से ऐश के प्रदाय के प्रमाणीकरण के साथ जोड़ेगा।

(14) कोयला या लिग्नाइट आधारित तापीय विद्युत संयंत्र, 300 किलोमीटर की परिधि के भीतर प्रधानमंत्री ग्रामीण सड़क योजना के अधीन सड़क संनिर्माण परियोजनाओं और भवनों, सड़कों, बांधों और तटबंधों के संनिर्माण को अंतर्वलित करने वाले सरकार के आस्ति सृजन कार्यक्रमों के स्थल तक ऐश के परिवहन की संपूर्ण लागत का वहन करेगा।"।

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

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

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

"(8) विभिन्न संनिर्माण परियोजनाओं का अनुमोदन करने वाले सभी राज्य प्राधिकारियों का यह उत्तरदायित्व होगा कि वे यह सुनिश्चित करें कि फ्लाई ऐश का उपयोग करने या फ्लाई ऐश आधारित उत्पादों के लिए तापीय विद्युत संयंत्रों और संनिर्माण अभिकरण या संविदाकारों के बीच परस्पर समझ ज्ञापन या कोई अन्य ठहराव किया जाता है।

(9) राज्य प्राधिकारी, दस लाख या अधिक की जनसंख्या वाले नगरों की भवन निर्माण संबंधी उप विधियों का संशोधन करेंगे ताकि भार वहन करने वाली संरचनाओं हेतु तकनीकी अपेक्षाओं के अनुसार आवश्यक विनिर्देशों को ध्यान में रखते हुए ऐश आधारित ईंटों के आज्ञापक उपयोग को सुनिश्चित किया जा सके।

(11 S)

(10) संबद्ध प्राधिकारी सभी सरकारी स्कीमों या कार्यक्रमों में, उदाहरणार्थ महात्मा गांधी राष्ट्रीय ग्रामीण रोजगार गारंटी अधिनियम, 2005 (मनरेगा), स्वच्छ भारत अभियान, शहरी और ग्रामीण आवासन स्कीम, जहां संनिर्मित क्षेत्र एक हजार वर्ग फुट से अधिक है और अवसंरचना संबंधी संनिर्माण में, जिसके अंतर्गत अभिहित औद्योगिक संपदाओं या पार्कों या विशेष आर्थिक जोनों में भवन निर्माण भी है, ऐश आधारित ईंटों या उत्पादों के आज्ञापक उपयोग को सुनिश्चित करेंगे।

(11) कृषि मंत्रालय कृषि क्रियाकलापों में ऐश के मृदा अनुकूलक के रूप में उपयोग का संवर्धन करने पर विचार कर सकेगा।"

5. सभी संबद्ध प्राधिकारियों द्वारा उपरोक्त उपबंधों का अनुपालन करने की समयावधि 31 दिसंबर, 2017 है। कोयला या लिग्नाइट आधारित तापीय विद्युत संयंत्र, उनके द्वारा उत्पादित फ्लाई ऐश के 100 प्रतिशत उपयोग के अतिरिक्त उपरोक्त उपबंधों का अनुपालन 31 दिसंबर, 2017 से पूर्व करेंगे।

[फा. सं. 9-8/2005-एचएसएमडी]

बिश्वनाथ सिन्हा, संयुक्त सचिव

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

MINISTRY OF ENVIRONMENT, FORESTS AND CLIMATE CHANGE

NOTIFICATION

New Delhi, the 25th January, 2016

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

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

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

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

1. In the said notification, in paragraph 1,-

(a) in sub-paragraph 1(A), for the words "hundred kilometers", the words "three hundred kilometers" shall be substituted;

(b) in sub-paragraph (3), for the figures and letters "100 km", the words "three hundred kilometers" shall be substituted;

(c) in sub-paragraph (5), for the words "hundred Kilometers", the words "three hundred Kilometers" shall be substituted;

(d) in sub-paragraph (7), for the words "hundred Kilometers", the words "three hundred Kilometers" shall be substituted.

(116)

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

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

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

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

"(8) Every coal or lignite based thermal power plants (including captive and or co-generating stations) shall, within three months from the date of notification, upload on their website the details of stock of each type of ash available with them and thereafter shall update the stock position at least once a Month.

(9) Every coal or lignite based thermal power plants shall install dedicated dry ash silos having separate access roads so as to ease the delivery of fly ash.

(10) The cost of transportation of ash for road construction projects or for manufacturing of ash based products or use as soil conditioner in agriculture activity within a radius of hundred kilometers from a coal or lignite based thermal power plant shall be borne by such coal or lignite based thermal power plant and the cost of transportation beyond the radius of hundred kilometers and up to three hundred kilometers shall be shared equally between the user and the coal or lignite based thermal power plant.

(11) The coal or lignite based thermal power plants shall promote, adopt and set up (financial and other associated infrastructure) the ash based product manufacturing facilities within their premises or in the vicinity of their premises so as to reduce the transportation of ash.

(12) The coal or lignite based thermal power plants in the vicinity of the cities shall promote, support and assist in setting up of ash based product manufacturing units so as to meet the requirements of bricks and other building construction materials and also to reduce the transportation.

(13) To ensure that the contractor of road construction utilizes the ash in the road, the Authority concerned for road construction shall link the payment of contractor with the certification of ash supply from the thermal power plants.

(14) The coal or lignite based thermal power plants shall within a radius of three hundred kilometers bear the entire cost of transportation of ash to the site of road construction projects under Pradhan Mantri Gramin Sadak Yojna and asset creation programmes of the Government involving construction of buildings, road, dams and embankments".

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

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

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

"(8) It shall be the responsibility of all State Authorities approving various construction projects to ensure that Memorandum of Understanding or any other arrangement for using fly ash or fly ash based products is made between the thermal power plants and the construction agency or contractors.

(9) The State Authorities shall amend Building Bye Laws of the cities having population One million or more so as to ensure the mandatory use of ash based bricks keeping in view the specifications necessary as per technical requirements for load bearing structures.

(10) The concerned Authority shall ensure mandatory use of ash based bricks or products in all Government Scheme or programmes e.g. Mahatma Gandhi National Rural Employment Guarantee Act, 2005 (MNREGA), SWACHH BHARAT ABIYAN, Urban and Rural Housing Scheme, where built up area is more than 1000 square feet and in infrastructure construction including buildings in designated industrial Estates or Parks or Special Economic Zone.

(117)

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

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

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

BISHWANATH SINHA, Jt. Secy.

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

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Annexure-B/3

Receipt No- 7883
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AIG/ES
Head Clerk/E

गुप्त

महानिदेशालय
Directorate General
केन्द्रीय औद्योगिक सुरक्षा बल
Central Industrial Security Force
(गृह मत्रांलय)
(Ministry of Home Affairs)

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Block No. 13, C.G.O. Complex,
लोधी रोड,नई दिल्ली–110 003
Lodhi Road, New Delhi-110 003

आसूचना शाखा / Intelligence Branch

पत्रांक आई–13019 / आसू / आरएसटीपीएस (रि) / आईबी निरीक्षण / पूख / 21–3821 दिनांक 03 / 12 / 2021

सेवा में,

अ... / उत्तर
केऔसुब महिपालपुर परिसर, नई दिल्ली

विषय :– <u>आसूचना ब्यूरो की आईएसआई टीम द्वारा किये गए सुरक्षा निरीक्षण की रिपोर्ट का प्रेषण ।</u>

आसूचना ब्यूरो की आईएसआई टीम द्वारा दिनांक 26–27 अगस्त 2021 को Rihand Super Thermal Power Station (RSTPS), Rihand Nagar, District Sonebhadra, Uttar Pradesh के संदर्भ में किये गए सुरक्षा निरीक्षण की रिपोर्ट आसूचना ब्यूरो (गृह मंत्रालय) से इस निदेशालय को प्राप्त हुई है। उक्त रिपोर्ट की प्रति इस पत्र के साथ संलग्न कर सुरक्षात्मक अनुशंसाओं को क्रियान्वित किये जाने हेतु प्रेषित किया जाता है।

02 इस संबंध में अनुरोध है कि आसूचना ब्यूरो की आईएसआई टीम द्वारा उक्त निरीक्षण रिपोर्ट में की गई अनुशंसाओं के क्रियान्वयन हेतु अपने स्तर एवं संबंधित प्रबंधन से सम्पर्क कर आवश्यक कारवाई की जाए। इस निदेशालय के परिपत्र संख्या 03 / 2004 दिनांक 27.01.2004 के तहत जारी निर्देशों के परिप्रेक्ष्य मे त्रैमासिक प्रगति रिपोर्ट इस निदेशालय को प्रेषित की जाए।

संलग्नक :– यथोपरोक्त।

[redacted]

आंतरिक वितरण :–

1. महानिरीक्षक / पूख
2. उप महानिरीक्षक / ऑप्स व न.म. केऔसुब मुख्यालय, नई दिल्ली। – कृपया उपरोक्त निरीक्षण रिपोर्ट की एक प्रति सूचनार्थ एवं अग्रिम कारवाई हेतु प्रेषित है।

–तथैव–

[redacted]

20. SECURITY RECOMMENDATIONS:

(a) Pending Recommendations – Present status and comments of the management:

S. No	Recommendations	Management's view	IB's Remarks
[redacted]			
2.	High resolution CCTVs for better footage during bad weather and night are required. Recordings to be retained for 90 days. Video analytics may also be employed. (2019).	New CCTV pro[illegible]t under process.	May be expedited

[redacted]

एनटीपीसी
NTPC
A Maharatna Company

NTPC Limited
(A Government of India Enterprise)
Rihand Super Thermal Power Station

Minutes of Meeting of Security Review Meeting held with CISF on 11/09/2023

Security Review Meeting was convened under the chairmanship of Sh. Sanjiv Kumar, Chief General Manager (Rihand) on 11.09.2023 at Manthan Conference Hall, Administrative building. The Representatives of Management & CISF were attended the meeting and the followings are discussed.

S No	Point	Discussion held	Responsible Dept.
1	Gate passes issue / renewal	Temporary passes shall be issued without police verification for a period of 14 days initially. In case police verification request is available the initial temporary pass shall be issued for 28 days. For project group gate passes where police verification request is not available, special dispensation for temporary gate pass of 28 days shall be allowed on forwarding by GM(O&M). Renewal of gate passes shall be done for 3 times for a duration of 28 days each upon submission of police verification request copy and other necessary documents. Subsequent to receipt of police verification the gate passes shall be renewed for a period of 3 months. Night permission, Sunday/holiday permission may be processed for the same period mentioned in the gate pass issue/renewal. Note :- Temporary Permission for without police verification, jointly agreed by CISF & NTPC. However, other requirements viz. labour license, WC /	Concerned EIC /HR/ CISF

Arrival

P.T.O...

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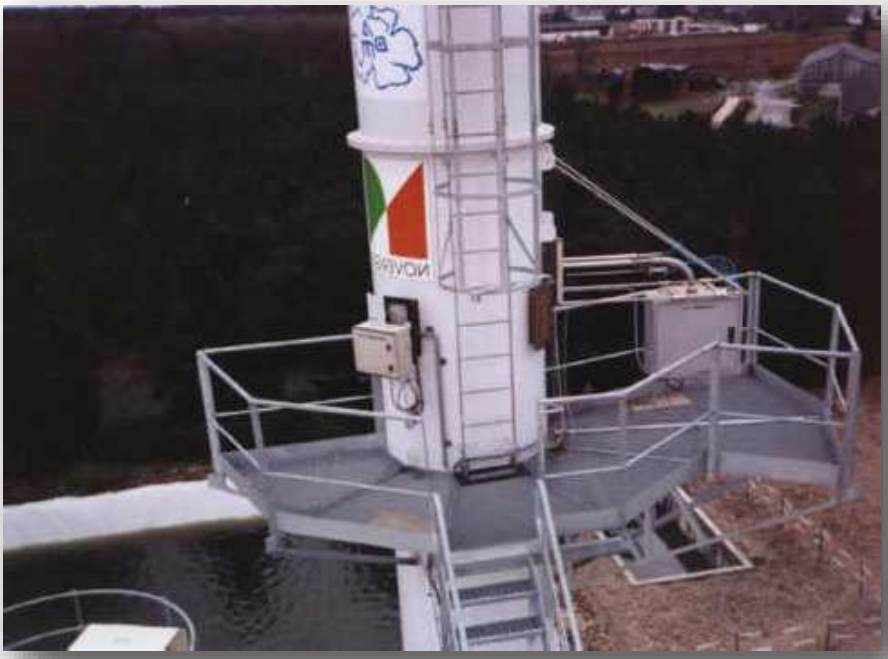
Rihand Super Thermal Power Station

10	Gate Pass SOP Finalization	Draft SOP shared with CISF. Same may be reviewed and implemented at the earliest.	CISF
11	Problem w.r.t Material Gate	Joint Visit of P&S, O&M Civil & CISF may be done and Problem to be rectified for smooth operation of Gates	P&S O&M Civil
12	Installation of CCTV in plant area	Work likely to start by 15th October 2023	IT
13	Identification of temporary gate passes without police verification	There is provision of unchecking the police verification status in CLIMS and passes may be issued with the status of NIL police verification. Different Color Paper may be used for printing of such passes. Colored Paper to be provided by HR	CISF HR
14	Display of through CLIMS gate pass details on TV monitor during Entry/Exit of Workers	IT to explore the possibility for the same.	IT
15	Revolving Lights fitting to be done over Watch Towers.	For watch towers where provision of revolving lights on roof top is not feasible, another Structure to be constructed adjacent to such watch towers for fitting revolving lights.	P&S / Civil(O&M)
16	12 No walkie Talkie sets and Separate frequency are required for establishing proper communication	Repair of damaged Walkie Talkie sets may be done/ New Walkie talkie sets to be provided by IT. CISF may take up the issue related to separate frequency in coordination with Ministry.	IT CISF
17	Constitution of Standing group for coordination and review of security arrangement committee (SG-CRAS)	CISF may share the Guidelines for Committee Formation	CISF
18	Installation of Lighting Arrestors in CISF Control Room	Discussed. Lighting arrestors are already installed at appropriate locations.	-

P.T.O.

Guidelines for Continuous Emission Monitoring Systems



CENTRAL POLLUTION CONTROL BOARD
Parivesh Bhawan, East Arjun Nagar,
Delhi-110032

August, 2018
Revision-01

Note: Efforts have been made to include all available monitoring technologies/instrumentation in the document. In case any high end technology/ instrumentation is not covered or is introduced subsequently the details be forwarded to CPCB, so that the same can be incorporated while reviewing this document subsequently.

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CONTENTS

1.0 BACKGROUND

In order to track release of pollutants through air emissions and effluent discharge from industries with high pollution potential, Central Pollution Control Board (vide its letter No. B-29016/04/06PCI-1/5401 dated 05.02.2014 issued directions under section 18(1) b of the Water and Air Acts to the State Pollution Control Boards and Pollution Control Committees for directing the 17 categories of highly polluting industries (such as Pulp & Paper, Distillery, Sugar, Tanneries, Power Plants, Iron & Steel, Cement, Oil Refineries, Fertilizer, Chloral Alkali Plants, Dye & Dye Intermediate Units, Pesticides, Zinc, Copper, Aluminum, Petrochemicals and Pharma Sector, etc.,), Common Effluent Treatment Plants (CETP),Sewage Treatment Plants (STPs), Common Bio Medical Waste and Common Hazardous Waste Incinerators; for installation of online effluent quality and emission monitoring systems. The directions envisage:

a) Installation of online emission quality monitoring system in 17 categories of highly polluting industries and in Common Hazardous waste and Biomedical waste incinerators for measurement of the parameters, Particulate Matter, NH_3 (Ammonia), SO_2 (Sulphur Dioxide), NO_X (Oxides of Nitrogen) and other sector specific parameters, not later than by March 31, 2015 and transmission of online data so generated simultaneously to SPCB/PCC and CPCB as well. The deadline was later extended to June 31, 2015.

b) Installation of surveillance system with industrial grade IP (Internet Protocol) cameras having PAN, Tilt, Zoom (PTZ) with leased line real time connection for data streaming and transmission of the same in case of industries claiming Zero Liquid Discharge (ZLD); and

c) Ensure regular maintenance and operation of the online system with tamper proof mechanism having facilities for online calibration (onsite/ offsite; Remote).

In addition to above, G.S.R. 96(E) January 29, 2018 Notified by MoEF&CC under Environment (Protection) Act, 1986 mandates installation of CEMS with the Boilers used in the Industries namely Sugar, Cotton Textile, Composite Woolen Mills, Synthetic Rubber, Pulp & Paper, Distilleries, Leather Industries, Calcium Carbide, Carbon Black, Natural

Rubber, Asbestos, Caustic Soda, Small Boilers, Aluminium Plants, Tanneries, Inorganic Chemicals & other such industries using boilers.

Parameters required to be monitored in the stack emissions using Continuous Emission Monitoring system, are industry specific and are specified below: -

a) PM (Particulate Matter)

b) HF (as Total Fluoride)

c) NH_3 (as Ammonia)

d) SO_2 (Sulphur Dioxide)

e) NO_X (Oxides of Nitrogen as NO_2)

f) Cl_2 (Chlorine)

g) HCl (Hydrochloric acid) and HF (Hydro Fluoric Acid)

h) TOC (Total Organic Carbon) / THC (Total Hydro Carbon) / VOC (Volatile Organic Carbon)- C_nH_m

i) Hg (Gaseous mercury)

j) Process parameters (Mandatory) to be monitored at each stack at sampling point/plane:

1 Temperature

2 Flow (applicable wherever load based standards prescribed and DC Tribo system installed for monitoring of PM)

k) Diluents gas CO_2 or O_2 as prescribed in the emission standards of respective processes /industries

l) Carbon Monoxide as prescribed in the emission standards of respective processes /industries i.e. Incinerators, etc.;

m) The emission values should be corrected for Moisture Content (For In-situ and Hot extractive analyzer real time moisture monitoring values of inbuilt measurements can be used). Moisture content value recorded during manual monitoring conducted by empaneled labs, at the time of verification/calibration can be considered for correction.

n) For normalization of emission values absolute pressure is also required to be monitored in the sampling plane. Value recorded during manual monitoring can be used for normalization.

o) Real time moisture monitoring is incinerator stack.

Annexure-I

12. Parameters for online monitoring as per Guidelines

Sl. No	Category	Emission Parameters
1	Aluminium	PM, Fluoride
2	Cement	PM,NOx,SO_2
3	Distillery	PM
4	Dye and dye Intermediate	-
5	Chlor Alkali	Cl_2, HCl
6	Fertilizers	PM, HF, Ammonia
7	Iron & steel	PM,SO_2, NOx
8	Oil refinery	PM,CO,NOx,SO_2
9	Petro chemical	PM,CO,NOx,SO_2
10	Pesticides	-
11	Pharmaceuticals	-
12	Power Plants	PM, NOx, SO_2
	Thermal Power Plants	PM, NOx, SO_2, Total Mercury(Gaseous)**
13	Pulp & paper	-
14	Sugar	-
15	Tannery	-
16	Zinc	PM, SO_2
17	Copper	PM, SO_2
18	Textile (GPI)	-
19	Dairy (GPI)	-
20	Slaughter House	-
21	Boiler	SO_2, NOx, PM

** Online CEMS for Mercury may be applicable in case such condition is stipulated in EC issued by MoEF&CC / SEIAA

13. Formulae for Data Reporting ANNEXURE II

SN	Parameters	Units of Expression	Standard values	Algorithm	Remarks
01	Barometric Pressure (P_{bar})	mm of Hg			
02	Standard Pressure (P_{std})	mm of Hg	760		
03	Actual Pressure (P_{actual})	mm Hg			
04	Stack Temperature (T_S)	Kelvin		x º C + 273.15	x = temperature in stack
05	Temperature at Analyser (T_m)	Kelvin		x º C + 273.15	x = temperature in stack
06	Standard Temperature (T_{std})	Kelvin	298	25 º C + 273.15 = 298	
07	Moisture (M)	%			
08	Moisture Fraction (Mw)	Ratio		(M) /100	
09	Wet m^3 to Wet Nm^3	Wet Nm^3		x m^3 * {(P_{actual})/ (P_{std})} { T_m / (T_{std}) }	x=volume measured by analyser
10	Wet Nm^3 to Dry Nm^3	Dry Nm^3		x m^3 * {(P_{actual})/ (P_{std})}*{T_m/ (T_{std})}*{1 / (1 – Mw)}	x=volume measured by analyser
11	Conversion of ppmw of any gas to mg/Nm^3	mg/Nm^3		(x ppmw) * (molecular weight) / 24.45 x=value measured by analyser in NM^3	All the instantaneous values required to be corrected in CEMS
12	Conversion of ppmv of any gas to mg/Nm^3	mg/Nm^3		{(x ppmv)}*{(12.187)}*{(MW)} / {(273.15 + 25 °C)} x=value measured by analyser in Nm^3	This is not applicable for CEMS as Pressure correction is not applied
13	CO_2 Correction		12 % or as specified	C_f = {x mg/Nm^3} * {(12 / Measured CO_2)} ***Correction not needed wherever CO_2 is > 12%*** *C_f=correction factor*	All the instantaneous values required to be corrected in CEMS wherever mandated as per standard
14	O_2 Correction		11%	C_f = {x mg/Nm^3} * (20.9 - 11)} /{ (20.9 - Measured O_2)} ***Correction not needed wherever O_2 is < 11%***	All the instantaneous values required to be corrected in CEMS wherever mandated as per standard

				C_f=correction factor	
15	O_2 Correction		3 %	C_f = {x mg/Nm^3 * (20.9 - 3)} /{ (20.9 - Measured O_2)} ***Correction not needed wherever O_2 is < 3%*** *C_f=correction factor*	Applicable for gas and liquid fuel in Petrochemical industries
16	Combustion Efficiency			{(%CO2)*100} / {(% CO2 + %CO)}	Applicable for Biomedical Waste Incinerator

S. No.	References
1.0	**CPCB's CEMS related Documents** i) Direction for installation of CEMS and CWQMS in 17 Categories Industries, CETP, HWI, BMWI ii) Draft Notification on CEMS and CWQMS iii) Minutes of Meeting with Industries on Online Monitoring iv) List of Parameters for CEMS and CWQMS v) First hand information on list of suppliers vi) CPCB/e-PUBLICATION/2013-14 on "Specifications and Guidelines for Continuous Emissions Monitoring Systems (CEMS) for PM Measurement With Special Reference to Emission Trading Programs"
2.0	**USEPA Documents related to CEMS** a) Continuous Monitoring Manual b) 40 CFR Part 75: CEMS Field Audit Manual c) USEPA CEMS Performance Specification i) PS – 2 : Performance Specification for SO_2 and NO_X ii) PS – 3 : Performance Specification for O_2 and CO_2 iii) PS – 4 : Performance Specification for CO iv) PS – 4A: Performance Specification and Test Procedure for CO v) PS – 4B: Performance Specification and Test Procedure for CO and O_2 vi) PS – 6: Performance Specification and Test Procedure for Emission Rate vii) PS – 8A: Performance Specification and Test Procedure for Hydrocarbon (TOC) viii) PS – 11: Performance Specification and Test Procedure for PM CEMS ix) PS – 15: Performance Specification for Extractive FTIR CEMS x) PS – 18: Performance Specification for HCl – CEMS d) Quality Assurance (QA) Documents i) Procedure 1: QA Requirement for Gaseous CEMS ii) Procedure 2: QA Requirement for PM CEMS iii) Procedure 5: QA Requirement for Total Gaseous Mercury (TGM) CEMS and Sorbent Trap e) 40 CFR part 180 f) COMS (Continuous Opacity Monitoring System)
3.0	EN Documents i) EN 15267 – Part 1: Certification of AMS (CEMS) ii) EN 15267 – Part 2: Certification of AMS (CEMS) iii) EN 15267 – Part 3: Certification of AMS (CEMS) iv) EN 14181 – Quality Assurance of AMS (CEMS) v) EN 14884 – Test Method AMS (CEMS) for TGM
4.0	UK Documents a) RM:QG-06: Calibration of PM CEMS (Low Concentration) b) MCERTS : BS EN 13284: PM CEMS
5.0	Standard Operating Procedure for Compliance Monitoring using CEMS – Abu Dhabi

सत्यमेव जयते

भारत सरकार
Government of India
विद्युत मंत्रालय
Ministry of Power
केंद्रिय विद्युत प्राधिकरण
Central Electricity Authority
सचिव कार्यालय
Office of the Secretary

No. CEA/TETD-TT/2017/M-25/1137 - 1251 Dated: 24.11.2017

To

All State Power Secretaries, Thermal Power Generating Plants/ Utilities (Public or Private), Power Equipment Manufacturers – As per list

Subject: Biomass Utilization for Power Generation through Co-firing in Pulverised Coal Fired Boilers- Advisory के बारे में ।

Dear Sir,

As you may be aware that stubble burning has been cited as a major cause of recent smog in North- West India. Stubble burning is deliberate setting fire of the straw stubble that remains after harvesting of paddy and other crops. Instead of burning in open fields, these can be collected, processed and can be used as Biomass fuel to generate power.

Biomass Co-firing is a well proven technology. With increasing environmental awareness, power plants all over the world have adopted Biomass Co-firing as a strategy to combat pollution. UNFCCC recognizes Biomass Co-firing as a carbon neutral technology for mitigation of carbon emission from coal based power plants.

NTPC have successfully demonstrated the Co-firing of 7% blend of Biomass pellets with coal in its Dadri Power Plant. This can be replicated in other coal fired power plants having bowl mills/vertical roller mills/ beater mills.

Ministry of Power vide letter No. 11/86/2017-Th.II dated 17th November, 2017 have forwarded 'Policy for Biomass Utilization for Power Generation through Co-firing in Pulverised Coal Fired Boilers' and has requested to issue the same to all the Power Plants/ Utilities (public or private), State Governments, Power equipment manufacturers and other stake holders. The Policy has been uploaded on CEA website www.cea.nic.in

सेवा भवन, नवम तल, आर.के.पुरम, नई दिल्ली- 66, टेलीफैक्स: 011- 26715475 ई-मेल cetetd-cea@gov.in वेबसाइट: www.cea.nic.in
Sewa Bhawan,9th Floor,R K Puram,New Delhi-66,Telefax:011- 26715475, e-mail Website www.cea.nic.in

'In order to promote use of the Biomass pellets, all fluidized bed and pulverized coal units (coal based thermal power plants) except those having ball and tube mill, of power generating utilities, public or private, located in India, shall endeavor to use 5-10% blend of Biomass pellets made, primarily, of agro residue along with coal after assessing the technical feasibility, viz. safety aspects etc.'

Yours faithfully,

24/11/2017

(P.C. Kureel)
Secretary, CEA

सेवा भवन, नवम तल, आर.के.पुरम, नई दिल्ली- 66, टेलीफैक्स: 011- 26715475 ई-मेल cetetd-cea@gov.in वेबसाइट: www.cea.nic.in
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To

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2. Chairman, Damodar Valley Corporation, DVC Towers, VIP Road, Kolkata- 700 054

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9. AES (India) Private Limited, 9th Floor, Tower – B, DLF Building No. 10, Cyber City, Phase – II, Gurgaon – 122 002 Haryana

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17. DHARIWAL Infrastructure (P) Ltd., CF-366, Salt lake City, Sector-1, Kolkata – 700064

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32. M/s KVK Energy & Infrastructure (P) Limited, 6-3-1109/A/1, 3rd Floor, Navabharath Chambers, Somajiguda, Raj Bhavan Road, Hyderabad-500082

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48. M/s SKS Ispat and Power Limited, 501 B, Elegant Business Park, Andheri Kurla Road, J.B. Nagar, Andheri (E), Mumbai-400 059

49. M/s SLS Energy Private Limited, 1445, "Vajras", 1st Floor, 28th Main, Southend 'A' Cross Jayanagar, 9th Block (East), Bangalore-560069

50. M/s Sophia Power Company Ltd., Indiabulls House, 448-451, Udyog Vihar, Phase-V, Gurgaon-122001

51. Chief Operating Officer, Spectrum Power Generation Limited, Plot No 231, 8-2-293/82/A/231, 3rd Floor, Road No. 36, Jubilee Hills, Hyderabad-500 033

52. M/s SRM Energy Private Limited, 43, Free Press House,215, Nariman Point, Mumbai-400021

53. M/s Sterlite Energy Pvt. Ltd., 1st Floor, City Mart Commercial Complex, Baramundra, Bhubaneswar-751003

54. M/s. Simhapuri Energy pvt. Ltd., Madhucon, Greenland, 6-3-866/2, 3rd Floor, Begumpet, Hyderabd-500016

55. Managing Director, Tata Power Company Limited, 24, Homi Mody Street, Mumbai-400 001

56. Shri K. Chandrashekhar, Director (Projects), Tata Power Company Limited, Dharavi Receiving Station, Matunga, Mumbai-400 019

57. M/s Torrent Power Limited, Torrent House, Off Ashram Road, Ahemdabad-380009

58. DGEN Mega Power Project, Torrent Energy Limited, Plot No. Z-9, Dahej SEZ Area (Eastern Side), Taluka Vagra, Distt. Bharuch – 392130 Gujarat

59. M/s VIDEOCON Industries Limited, VIDEOCON Towers, 12th Floor, E-1, Jhandewalan Extn., New Delhi-110055

60. VANDANA VIDYUT Ltd., Vandana Bhawan, MG Road, Raipur – 492 001, Chhattisgarh

61. Wardha Power Company Private Limited, Sony Apartment, 2nd Floor, 19, REbella Road, Bandra West, Mumbai – 400 050

62. CEO, Jinbhuvish Power Generation Pvt. Limited, 155- A, Mittal Tower, Nariman Point, Mumbai- 400 021

63. Managing Director, Godawari Power and Ispat Ltd., Plot No. 428/2, Phase I, Industrial Area, Distt. Raipur, Siltara – 493111 Chhattisgarh

64. Managing Director, Godawari Power and Ispat Ltd., Hira Arcade, 1st Floor, New Bus Stand, Pandri, Raipur – 492001 Chhattisgarh

POLICY OF MINISTRY OF POWER

FOR

BIOMASS UTILIZATION FOR POWER GENERATION

THROUGH CO- FIRING IN PULVERIZED COAL

FIRED BOILERS

Biomass Utilisation for Power Generation through Co-firing in Coal Based Power Plants

1. Introduction

Stubble burning has been cited as a major cause of recent smog in north-west India. Stubble burning is deliberate setting fire of the straw stubble that remains after harvesting of paddy and other crops. During the months of October and November of each year, farmers in north-west India burn an estimated 30-40 million tonnes of crop waste from their paddy fields after harvesting. The primary reasons for stubble burning are; (a) reduce the cost of clearing the field for next crop, (b) reduce the turnaround time between harvesting and sowing for next (winter) crop and (c) lack of other alternatives, viz. availability of appropriate agricultural implements, viz., implements to take out the stubble and "Happy Seeders" for zero tilling sowing etc.

1.1. Various options for safely disposing such bio-mass are (i) setting up power plants exclusively based on bio-mass, (ii) co-firing of pellets made out of bio-mass in the coal based thermal plants, (iii) *in-situ* in-corporation of bio-mass into the soil using appropriate agricultural implements or composting and (iv) manufacturing of various products such as Ethanol, Bio CNG and Board etc.

2. Biomass co-firing in coal based power plants

The estimated 30-40 million metric tonnes of paddy straw that remains un-utilised and burnt in north-west India has potential to generate about 6000-8000 MW and 45000 million units of electricity annually, by co-firing it along with coal in existing coal fired power plants. Biomass co-firing has a potential to create a market for large scale consumption of agro residue and convert it into electricity in eco-friendly and cost effective manner while mitigating problem of air quality deterioration. Market mechanism for agro residue utilisation will also enable additional income to farmers.

2.1 The existing power plant infrastructure cannot directly use raw agro residue bio-mass in a pulverised coal fired type boiler and it is required to be processed into dense bio-mass in the form of pellets. The densification of biomass in the form of pellets also reduces its transportation cost, which is a major component in overall fuel price. Promoting agro-residue processing capacity into pellets for power sector shall also create employment opportunities and develop entrepreneurship.

2.2 Biomass co-firing is a well proven technology. With increasing environmental awareness, power plants all over the world has adopted, biomass co-firing as a strategy to combat pollution. According to open source data, 230 plants across globe, majority located in European and American countries, have experience of biomass co-firing. UNFCC recognizes biomass co-firing as a carbon neutral technology for mitigation of carbon emission from coal based power plants.

3. Status of Biomass co-firing in India

NTPC has successfully demonstrated the co-firing of 7% blend of biomass pellets with coal in its Dadri power plant. This can be replicated in other coal fired power plants too. The blend of coal and pellets can safely be pulverized in power plants having bowl mills/vertical roller mills/beater mills. However, this method is not suitable for power plant having ball and tube type of mills due to higher risk of fire hazard. Approximately, 2.5 to 3.0 lakh tonnes of Biomass pellets are required for 7% blending in a thermal power plant of 1000MW capacity.

4. Benefits of using biomass pellets co-firing in Coal based power plants

a) Eliminate/minimize burning of agro-residue and create economic value of agro residue by promoting its use as fuel in power plants in co-firing mode.
b) Improve the air quality index while creating additional income for farmers.
c) Encourage the establishment of decentralised pellets manufacturing units and generate employment opportunities.

5. Biomass Utilisation for Power Generation through Co-firing in Coal based power plants.

Therefore, in order to promote use of the bio-mass pellets, all the Power plants/Utilities are hereby advised as follows:

a) All fluidised bed and pulverised coal units(coal based thermal power plants) except those having ball and tube mill, of power generation utilities, public or private, located in India, shall endeavour to use 5-10% blend of biomass pellets made, primarily, of agro residue along with coal after assessing the technical feasibility, viz. safety aspects etc.
b) CEA shall develop/issue Specifications for the pellets. CEA will also provide technical assistance/advise to Utilities on how to use bio-mass pellets for blending with coal in coal based thermal power plants.
c) The Appropriate Commission will determine the compensation (for plants other than those whose Tariff has been already determined under section 62 of Electricity Act) to be allowed in tariff for increase in cost of generation on account of using bio-mass pallets, viz., cost of pellets, increase in auxiliary power consumption (APC) and plant heat rate (HR) etc. Increase in cost of generation will not be taken into account for the purpose of merit order for despatch of electricity. The Appropriate Commission shall devise a suitable mechanism to ensure the use of biomass as per (a) above.

Annexure-D/1

रजिस्ट्री सं. डी.एल.- 33004/99 REGD. No. D. L.-33004/99

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अधिसूचना

नई दिल्ली, 31 दिसम्बर, 2021

का.आ. 5481(अ).—केन्द्रीय सरकार ने भारत सरकार के तत्कालीन पर्यावरण और वन मंत्रालय की अधिसूचना सं. का.आ. 763 (अ) तारीख 14 सितम्बर, 1999 द्वारा कोयला या लिग्नाइट आधारित ताप विद्युत संयंत्रों से तीन सौ किलोमीटर के विनिर्दिष्ट व्यास के भीतर ईंटों के विनिर्माण के लिए उपजाऊ मिट्टी के उत्खनन को प्रतिबंधित करने के लिए और भवन निर्माण सामग्री के विनिर्माण में और संनिर्माण क्रियाकलाप में फ्लाई-राख के उपयोग को बढ़ावा देने के लिए निदेश जारी किए हैं;

और, प्रदूषणकर्ता भुगतान सिद्धांत (पीपीपी) के आधार पर, ऐसा करके कोयला या लिग्नाइट आधारित ताप विद्युत संयंत्रों द्वारा फ्लाई-राख का 100 प्रतिशत उपयोग सुनिश्चित करते हुए और फ्लाई-राख प्रबंधन प्रणाली की संधारणीयता के लिए पूर्वोक्त अधिसूचना को और अधिक प्रभावकारी ढंग से कार्यान्वित करने हेतु, केंद्रीय सरकार ने मौजूदा अधिसूचना की समीक्षा की;

और प्रदूषणकर्ता भुगतान सिद्धांत के आधार पर पर्यावरणीय प्रतिकर निर्धारित किए जाने की आवश्यकता है;

और, विनिर्माण को बढ़ावा देकर तथा निर्माण कार्य के क्षेत्र में राख आधारित उत्पादों तथा भवन निर्माण सामग्रियों के प्रयोग को अनिवार्य करके उपजाऊ मिट्टी को संरक्षित करने की आवश्यकता है;

और, सड़क बनाने, सड़क एवं फ्लाई ओवर के रेलिंग बनाने, तटरेखा की सुरक्षा का उपाय करने, अनुमोदित परियोजनाओं के निचले क्षेत्रों को भरने, खनित स्थलों को फिर से भरने में मिट्टी की सामग्रियों से भरने के विकल्प के रूप में राख उपयोग को बढ़ावा देकर उपजाऊ मिट्टी और प्राकृतिक संसाधनों को संरक्षित करने की आवश्यकता है;

और, पर्यावरण को सुरक्षित करना तथा कोयला अथवा लिग्नाइट आधारित ताप विद्युत संयंत्रों से सृजित फ्लाई राख के निक्षेपण तथा निपटान की रोकथाम करना आवश्यक है;

और, उक्त अधिसूचना में जो 'राख' शब्द का प्रयोग किया गया है उसमें कोयला या लिग्नाइट आधारित ताप विद्युत संयंत्रों से सृजित फ्लाई-राख और बॉटम-राख दोनों शामिल हैं;

और, केंद्रीय सरकार प्रदूषणकर्ता भुगतान सिद्धांत के आधार पर, पर्यावरणीय प्रतिकर की प्रणाली सहित राख के उपयोग के लिए एक व्यापक ढांचा लाना चाहती है;

अत: पर्यावरण (संरक्षण) नियम, 1986 के नियम (5) के उप-नियम (3) के खंड (घ) के साथ पठित पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 3 की उप-धारा (1) और उप-धारा (2) के खंड (v) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए, भारत सरकार के पर्यावरण एवं वन मंत्रालय की अधिसूचना जो का.आ. 763 (अ) तारीख 14 सितम्बर, 1999 द्वारा भारत के राजपत्र, असाधारण भाग ।।, खंड 3, उप खंड (i) में प्रकाशित का अधिक्रमण करते हुए, कोयला या लिग्नाईट आधारित ताप विद्युत संयंत्रों द्वारा राख के उपयोग के संबंध में प्रारूप अधिसूचना जो सा.का.नि. 285 (अ) तारीख 22 अप्रैल, 2021 द्वारा भारत के राजपत्र, असाधारण, भाग-2, धारा 3, उप धारा (i) में प्रकाशित की गई थी जिसमें उन सभी व्यक्तियों से जिनका इससे प्रभावित होना सामान्य है उस तारीख से, जिसको उक्त प्रारूप उपबंधों की शासकीय राजपत्र में अंतर्विष्ट प्रतियां जनता को उपलब्ध करा दी गई थी, साठ दिनों के अवसान से पूर्व आक्षेप और सुझाव आमंत्रित किए गए थे।

और उक्त प्रारूप अधिसूचना के संबंध में उससे संभावित तौर पर प्रभावित होने वाले सभी व्यक्तियों से प्राप्त आक्षेपों और सुझावों पर केंद्रीय सरकार द्वारा सम्यक रूप से विचार कर लिया गया है;

अत: पर्यावरण (संरक्षण) नियम, 1986 के नियम (5) के उप-नियम (3) के खंड (घ) के साथ पठित पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 3 की उप-धारा (1) और उप-धारा (2) के खंड (v) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए और अधिसूचना का.आ. 763 (अ) तारीख 14 सितम्बर, 1999 का उन बातों के सिवाय अधिकांत करते हुए जिन्हें ऐसे अधिक्रमण से पूर्व किया गया है या करने का लोप किया गया है, केन्द्रीय सरकार कोयलों या लिग्नाईट आधारित ताप विद्युत संयंत्रों से राख के उपयोग के संबंध में निम्नलिखित अधिसूचना जारी करती है, जो इस अधिसूचना के प्रकाशन की तिथि से प्रवृत्त होगी, अर्थात्

क. फ्लाई-राख और बॉटम-राख का निपटान करने हेतु ताप विद्युत संयंत्रों (टीपीपी) के उत्तरदायित्व.-

(1) प्रत्येक कोयला या लिग्नाइट आधारित ताप विद्युत संयंत्र (जिनमें कैप्टिव और/या सह-उत्पादन केंद्र शामिल हैं या दोनों) की यह प्राथमिक जिम्मेदारी होगी कि वह अपने द्वारा सृजित राख (फ्लाई-राख और बॉटम-राख) का उप पैरा (2) में दिए गए पारि-अनुकूल तरीके से 100 प्रतिशत उपयोग सुनिश्चित करे;

(2) कोयला या लिग्नाइट आधारित ताप विद्युत संयंत्रों से सृजित राख का उपयोग केवल निम्नलिखित पारि-अनुकूल प्रयोजनों के लिए किया जाएगा, अर्थात्:-

(i) फ्लाई राख पर आधारित उत्पाद अर्थात्: ईंट ब्लॉक टाइल, फाइबर सीमेंट शीट, पाइप, बोर्ड, पैनल का विनिर्माण;

(ii) सीमेंट विनिर्माण, रेडी-मिक्स कंक्रीट;

(iii) सड़क निर्माण और फ्लाई-ओवर के रेलिंग का निर्माण, राख और जिओ-पॉलीमर आधारित निर्माण सामग्री;

(iv) बांध का निर्माण;

(v) निचले क्षेत्र को भरना;

(vi) खनन कार्य से रिक्त हुए स्थान को भरना;

(vii) सिंटर्ड या शीत–बद्ध राख संचय का विनिर्माण;

(viii) मृदा परीक्षण के आधार पर नियंत्रित तरीके से कृषि;

(ix) तटीय जिलों में तटरेखा संरक्षण संरचनाओं का निर्माण;

(x) अन्य देशों को राख का निर्यात;

(xi) समय-समय पर यथाधिसूचित किसी अन्य पारि-अनुकूल प्रयोजन के लिए।

(3) अध्यक्ष, केंद्रीय प्रदूषण नियंत्रण बोर्ड (सीपीसीबी) की अध्यक्षता में एक समिति गठित की जाएगी जिसमें पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय (एमओईएफसीसी), विद्युत मंत्रालय, खान मंत्रालय, कोयला मंत्रालय, सड़क परिवहन और राजमार्ग मंत्रालय, कृषि अनुसंधान एवं शिक्षा विभाग, सड़क कांग्रेस संस्थान तथा राष्ट्रीय सीमेंट एवं भवन सामग्री परिषद के प्रतिनिधियों को सदस्यों के रूप में शामिल किया जाएगा, जिसका प्रयोजन राख के उपयोग के पारि-अनुकूल तौर-तरीकों की जांच करना, उनकी समीक्षा एवं अनुशंसा करना तथा प्रौद्योगिकीय विकासों तथा पणधारी से प्राप्त अनुरोधों के आधार पर उप-पैरा (2) में यथोल्लिखित ऐसे तौर-तरीकों की सूची में समिति द्वारा सुझाए गए तौर-तरीकों को शामिल करना या किसी तौर-तरीके को सूची से हटाना या उसमें संशोधन करना है। जब भी इस प्रयोजन के लिए अपेक्षित हो, यह समिति राज्य प्रदूषण नियंत्रण बोर्ड या प्रदूषण नियंत्रण समिति, ताप विद्युत संयंत्र और खानों के प्रचालकों को आमंत्रित कर सकती है। इस समिति सिफारिश के आधार पर, पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय ऐसे पारि-अनुकूल प्रयोजन प्रकाशित करेगा।

(4) प्रत्येक कोयला या लिग्नाइट आधारित ताप विद्युत संयंत्र उस वर्ष के दौरान सृजित राख (फ्लाई-राख और बॉटम-राख) का 100 प्रतिशत उपयोग करने हेतु उत्तरदायी होगा; तथापि, किसी भी स्थिति में, किसी वर्ष में राख का उपयोग 80 प्रतिशत से नीचे नहीं होगा और साथ ही, उस ताप विद्युत संयंत्र को तीन वर्ष की अवधि में 100 प्रतिशत औसत राख के उपयोग का लक्ष्य प्राप्त करना होगा :

परंतु, यह और कि पहली बार के लिए लागू तीन वर्ष के चक्र को ऐसे ताप विद्युत संयंत्रों, जहां राख का उपयोग 60-80 प्रतिशत के बीच होता है, एक वर्ष के लिए और ऐसे संयंत्रों, जहां राख का उपयोग 60 प्रतिशत से कम है, दो वर्ष के लिए बढ़ाया जा सकता है, और राख के उपयोग की प्रतिशतता की गणना के प्रयोजन के लिए वर्ष 2021-2022 में उपयोग की प्रतिशत प्रमात्रा को नीचे दी गई तालिका के अनुसार ध्यान में रखा जाएगा:

तापीय विद्युत संयंत्रों के उपयोग की प्रतिशतता	100 प्रतिशत उपयोगिता प्राप्त करने के लिए प्रथम अनुपालन चक्र	100 प्रतिशत उपयोगिता प्राप्त करने के लिए द्वितीय अनुपालन चक्र
>80 प्रतिशत	3 वर्ष	3 वर्ष
60-80 प्रतिशत	4 वर्ष	3 वर्ष
<60 प्रतिशत	5 वर्ष	3 वर्ष

परन्तु, ताप विद्युत संयंत्रों के लिए 80 प्रतिशत न्यूनतम उपयोग प्रतिशतता, क्रमश: 60-80 प्रतिशत और <60 प्रतिशत की उपयोगिता की श्रेणी के तहत आने वाले ताप विद्युत संयंत्रों के लिए प्रथम अनुपालन चक्र के पहले वर्ष और पहले दो वर्षों पर लागू नहीं होगी।

परन्तु, अनुपालन चक्र के अंतिम वर्ष में सृजित 20 प्रतिशत राख को अगले चक्र में भी ले जाया जाएगा जिसका उपयोग उस अनुपालन चक्र के दौरान सृजित राख के साथ अगले तीन वर्षों में किया जाएगा।

(5) अप्रयुक्त संचित राख अर्थात् लीगेसी राख, जिसका इस अधिसूचना के प्रकाशन से पहले भंडारण किया गया है, को ताप विद्युत संयंत्र (टीपीपी) द्वारा इस रीति से क्रमिक रूप से उपयोग में लाया जाएगा, कि लीगेसी राख को इस अधिसूचना के प्रकाशन की तिथि से दस वर्षों के भीतर पूरी तरह उपयोग कर लिया जाएगा और यह उस विशिष्ट वर्ष के चालू संचालनों के माध्यम से राख उत्सर्जन के लिए निर्धारित उपयोग लक्ष्यों से अतिरिक्त होगा।

परन्तु, निम्नलिखित प्रतिशतताओं में यथा उल्लिखित लीगेसी राख की न्यूनतम मात्रा का उपयोग तास्थानी वर्ष के दौरान कर लिया जाएगा और लीगेसी राख की न्यूनतम मात्रा की ताप विद्युत संयंत्र की संस्थापित क्षमता के अनुसार वार्षिक राख उत्सर्जन के आधार पर की जानी है।

प्रकाशन की तिथि से वर्ष	पहला	दूसरा	तीसरा-दसवां
लीगेसी राख का उपयोग (वार्षिक राख की प्रतिशतता)	कम से कम 20 प्रतिशत	कम से कम 35 प्रतिशत	कम से कम 50 प्रतिशत

परन्तु, यह और कि लीगेसी राख का उपयोग वहां अपेक्षित नहीं है, जहां राख के तालाब या डाइक स्थिर हो गए हैं और हरित पट्टी के निर्माण या पौध रोपण से पुनरूद्धार किया गया है और संबंधित राज्य प्रदूषण नियंत्रण बोर्ड इस संबंध में प्रमाणित करेगा। किसी राख तालाब या डाइक के स्थिरीकरण और भूमि-उद्धार का कार्य, जिसमें केन्द्रीय प्रदूषण नियंत्रण बोर्ड या राज्य प्रदूषण नियंत्रण बोर्ड द्वारा प्रमाणन शामिल है, इस अधिसूचना के प्रकाशन की तारीख से एक वर्ष के भीतर किया जाएगा। अन्य सभी राख के कुंड या डाइक में शेष बचे राख का उपयोग ऊपर उल्लिखित समय-सीमाओं के अनुसार क्रमिक रूप से किया जाएगा।

टिप्पण: राख के उपयोग के लक्ष्यों को हासिल करने के लिए उप पैरा (4) और (5) के अधीन दायित्व 01 अप्रैल, 2022 की तारीख से लागू होंगे।

(6) किसी भी नए तापीय विद्युत संयंत्र (टीपीपी) में 0.1 हेक्टेयर प्रति मेगावाट (एमडब्ल्यू) क्षेत्रफल के साथ आपातकालीन या अस्थायी राख कुंड की अनुमति दी जा सकती है। राख के तालाब या डाइकों का तकनीकी विर्निदेश, केन्द्रीय विद्युत प्राधिकरण (सीईए) के परामर्श से केन्द्रीय प्रदूषण नियंत्रण बोर्ड द्वारा बनाए गए दिशानिर्देशों के अनुसार होगा और ये दिशानिर्देश राख के कुंड या डाइक के संबंध में इसकी सुरक्षा, पर्यावरणीय प्रदूषण, उपलब्ध प्रमात्रा, निपटान का तरीका, निपटान में जल की खपत या संरक्षण, राख जल पुनर्चक्रण और ग्रीन बेल्ट आदि के वार्षिक प्रमाणन के लिए कार्यविधि भी निर्धारित करेंगे और इस अधिसूचना के प्रकाशन की तारीख से तीन महीनों के भीतर प्रस्तुत किए जाएंगे।

(7) प्रत्येक कोयला या लिग्नाईट आधारित ताप विद्युत संयंत्र यह सुनिश्चित करेगा कि राख की लदाई, उतराई, ढुलाई, भंडारण और निपटान पर्यावरणीय दृष्टि से अनुकूल रीति से किया गया है और वायु और जल प्रदूषण की रोकथाम के लिए सभी ऐहितयात किए गए हैं और इस संबंध में स्थिति की सूचना इस अधिसूचना में संलग्न अनुबंध में संबंधित राज्य प्रदूषण नियंत्रण बोर्ड (एसपीसीबी) या प्रदूषण नियंत्रण समिति (पीसीसी) को दी जाएगी।

(8) प्रत्येक कोयला या लिग्नाइट आधारित तापीय विद्युत संयंत्र, संस्थापित क्षमता पर आधारित राख के कम से कम 16 घंटों के भंडारण के लिए समर्पित शुष्क फ्लाई राख साइलोस प्रतिष्ठापित करेगा, जिनके पास पृथक पहुंच मार्ग होंगे, जिससे कि राख पहुंचाने के कार्य को सुगम बनाया जा सके। इसकी सूचना संबंधित राज्य प्रदूषण नियंत्रण बोर्ड (एसपीसीबी) या प्रदूषण नियंत्रण समिति (पीसीसी) को उपाबंध में दी जाएगी और केन्द्रीय प्रदूषण नियंत्रण

बोर्ड (सीपीसीबी) या राज्य केन्द्रीय प्रदूषण नियंत्रण बोर्ड (एसपीसीबी) या प्रदूषण नियंत्रण समिति द्वारा समय-समय पर निरीक्षण किया जाएगा।

(9) प्रत्येक कोयला या लिग्नाईट आधारित तापीय विद्युत संयंत्र (जिसके अंतर्गत कैप्टिव या सह उत्पादन केन्द्र भी है या दोनों), वास्तविक उपयोगकर्ता (उपयोगकर्ताओं) के हित के लिए केन्द्रीय प्रदूषण नियंत्रण बोर्ड के वेब पोर्टल या मोबाईल फोन एप्प का लिंक उपलब्ध कराकर ताप विद्युत संयंत्र के पास राख की उपलब्धता के वास्तविक आंकड़े प्रदान करेगा।

(10) राख के 100 प्रतिशत उपयोग का वैधानिक दायित्व, जहां भी लागू हो, विधि में बदलाव के रूप में माना जाएगा।

ख. राख के उपयोग के प्रयोजनार्थ, उत्तरवर्ती उप पैराग्राफ लागू होंगे .-

(1) ऐसे सभी अभिकरण (सरकारी, अर्द्धसरकारी और निजी), जो सड़क बिछाने, सड़क और फ्लाई ओवर के किनारों, तटीय जिलों में तटरेखा की सुरक्षा संरचनाओं और लिग्नाईट या कोयला आधारित ताप विद्युत संयंत्र से 300 किमी के भीतर बांधों जैसे निर्माण संबंधी कार्यकलापों में लगे हुए हैं, इन कार्यकलापों में अनिवार्य रूप से राख का उपयोग करेंगे :

परंतु इसको परियोजना स्थल पर निशुल्क पहुंचाया जाए और परिवहन लागत, ऐसे कोयला या लिग्नाईट आधारित ताप विद्युत संयंत्रों द्वारा वहन की जाए।

परंतु यह और कि ताप विद्युत संयंत्र पारस्परिक सहमत हुई शर्तों के अनुसार राख की लागत और परिवहन के लिए शुल्क ले सकता है उस मामले में जहां ताप विद्युत संयंत्र अन्य माध्यम से राख का निपटान करने में समर्थ है और ये अभिकरण इसके लिए प्रर्थाना कर सकते हैं और बिना लागत और बिना परिवहन शुल्क के राख उपलब्ध कराने के प्रावधान तभी लागू होंगे यदि उसके लिए ताप विद्युत संयंत्र उस निर्माण अभिकरण को नोटिस जारी करता है।

(2) उक्त कार्यकलापों में राख का उपयोग भारतीय मानक ब्यूरो, भारतीय रोड कांग्रेस, केन्द्रीय भवन अनुसंधान संस्थान, रूड़की, केन्द्रीय सड़क अनुसंधान संस्थान, दिल्ली, केन्द्रीय लोक निर्माण विभाग, राज्य लोक निर्माण विभागों और अन्य केन्द्रीय और राज्य सरकार के अभिकरणों द्वारा निर्धारित किए गए विनिर्देशों और दिशानिर्देशों के अनुसार किया जाएगा।

(3) तापीय विद्युत संयंत्र की 300 किलोमीटर की परिधि के भीतर अवस्थित सभी खानों के लिए विस्तारित उत्पादक उत्तरदायित्व (ईपीआर) के तहत खुली आवर्त खानों में राख का पृष्ठ भंडारण करना या अधिक भार के ढेरों के साथ राख का मिश्रण करना बाध्यकारी होगा। सभी खान के स्वामी या प्रचालक (चाहे सरकारी, सार्वजनिक और निजी क्षेत्र के हो) कोयला या लिग्नाईट आधारित तापीय विद्युत संयंत्रों से तीन सौ किलोमीटर (सड़क द्वारा) के भीतर, महानिदेशक, खान सुरक्षा (डीजीएमएस) के दिशानिर्देशों के अनुसार ओवर बर्डन के बाह्य निक्षेप खान की बैकफिलिंग अथवा स्टोविंग (प्रचालित या छोड़ी गई खानों, जैसा भी मामला हो) के लिए उपयोग की गई सामग्रियों के भार-दर-भार के आधार पर कम से कम 25 प्रतिशत राख को मिश्रित करने के लिए उपाय करेंगे :

परंतु ऐसे तापीय विद्युत केन्द्र नि:शुल्क राख प्रदान करके और परिवहन की लागत को वहन करके या पारस्परिक सहमत हुई शर्तों पर लिए गए निर्णय के अनुसार लागत या परिवहन व्यवस्था करके राख की अपेक्षित मात्रा की उपलब्धता को सुकर बनायेंगे और खानों के खाली स्थानों और ढेरो में अधिकभार के साथ राख को मिश्रित करना, सृजित अधिभार के लिए इस अधिसूचना के प्रकाशन की तिथि से लागू होगा और उक्त कार्यकलापों में राख का उपयोग, केंद्रीय प्रदूषण नियंत्रण बोर्ड, महानिदेशक खान सुरक्षा और भारतीय खदान ब्यूरो द्वारा निर्धारित दिशा-निर्देशों के अनुसार किया जाएगा।

स्पष्टीकरण .- इस उप-पैरा के प्रयोजन के लिए यह भी स्पष्ट किया जाता है कि लागत मुक्त राख और नि:शुल्क परिवहन के उपबंध केवल तभी लागू होंगे यदि ताप विद्युत संयंत्र इसके लिए खान मालिक को नोटिस देते हैं और अधिभार वाले ढेर के साथ मिश्रित करने और खान में खाली स्थान को भरने के लिए राख के 25 प्रतिशत हिस्से के उपयोग का अधिदेश तब तक लागू नहीं होगा जब तक कि ताप विद्युत संयंत्र द्वारा खान मालिक को नोटिस न दिया गया हो।

(5) (i) सभी खान मालिकों को खान में खाली स्थानों में राख को समायोजित करने के लिए खान बंद योजना (प्रगामी और अंतिम) तैयार करनी होगी और खान में खाली स्थान में राख के निपटान और अधिभार वाले ढेर के साथ राख को मिश्रित करने के लिए खान योजनाओं को संबंधित प्राधिकारी अनुमोदित करेगा। पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय द्वारा ताप विद्युत संयंत्रों और कोयला खदानों की पर्यावरणीय मंजूरी की अपेक्षा से छूट देने के साथ-साथ ऐसे निपटान के लिए अपनाए जाने वाले दिशानिर्देशों के संबंध में तारीख 28 अगस्त, 2019 को दिशानिर्देश जारी किए गए।

(ii) मंत्रालय, केन्द्रीय प्रदूषण नियंत्रण बोर्ड, महानिदेशक, खान सुरक्षा (डीजीएमएस) और भारतीय खान ब्यूरो (आईबीएम) के साथ परामर्श करके, खानों में खाली स्थानों में राख के निपटान करने तथा अधिभार वाले ढेरो में इसे मिश्रित करना सुगम बनाने के लिए समय-समय पर आगे भी दिशानिर्देश जारी कर सकता है और यह खान मालिकों की जिम्मेदारी होगी कि वे ऐसी खानों को अभिज्ञात करने की तिथि से एक वर्ष के भीतर विभिन्न विनियामक प्राधिकरणों द्वारा जारी की गई अनुमतियों में आवश्यक संशोधन या परिवर्तन प्राप्त करेंगे।

(6) (i) पर्यावरणीय प्रदूषण के संदर्भ में सुरक्षा, व्यवहार्यता (आर्थिक व्यवहार्यता नहीं) और पहलुओं की जांच सहित राख से खान में खाली स्थान को वापस भरने/अधिभार वाले ढेर के साथ राख को मिश्रित करने के लिए खानों की पहचान करने के लिए पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय, विद्युत मंत्रालय, खान मंत्रालय, कोयला मंत्रालय, महानिदेशक खान सुरक्षा और भारतीय खान ब्यूरो से प्रतिनिधियों को शामिल करते हुए अध्यक्ष, केन्द्रीय प्रदूषण नियंत्रण बोर्ड (सीपीसीबी) की अध्यक्षता में एक समिति का गठन किया जाएगा और यह समिति पणधारी मंत्रालयों या विभागों के लिए अभिज्ञात खानों (भूमिगत और खुली, दोनों) के संबंध में तैयार की गई तिमाही रिपोर्टों को अद्यतन करेगी और यह समिति, इस अधिसूचना के प्रकाशन के तुरंत पश्चात उपयुक्त खानों की पहचान करना आरंभ करेगी।

(ii) ताप विद्युत संयंत्र या खानें, उपरोक्त अनुसार अधिदेशित उपयोग लक्ष्यों को पूरा करने के लिए उपर्युक्त समिति द्वारा पहचान किए जाने तक राख के निपटान हेतु प्रतीक्षा नहीं करेंगी।

(7) राख से निचले क्षेत्र को भरने का कार्य, अनुमोदित परियोजनाओं के लिए राज्य प्रदूषण नियंत्रण बोर्ड की पूर्व अनुमति से और केन्द्रीय प्रदूषण नियंत्रण बोर्ड द्वारा निर्धारित दिशा-निर्देशों के अनुसार किया जाएगा और राज्य प्रदूषण नियंत्रण बोर्ड या प्रदूषण नियंत्रण समिति द्वारा अनुमोदित स्थलों, अवस्थान, क्षेत्र और अनुमत मात्रा को अपनी वेबसाइट पर प्रतिवर्ष प्रकाशित किया जाएगा।

(8) केन्द्रीय प्रदूषण नियंत्रण बोर्ड, संगत पणधारी के साथ मिलकर, राज्य प्रदूषण नियंत्रण बोर्ड (एसपीसीबी) या प्रदूषण नियंत्रण समिति (पीसीसी) द्वारा अनुमति प्रदान करने के लिए समयबद्ध ऑनलाइन आवेदन प्रक्रिया प्रस्तुत करने के साथ-साथ इस अधिसूचना के अधीन परिकल्पित सभी प्रकार के कार्यकलापों के लिए एक वर्ष के भीतर दिशानिर्देश प्रस्तुत करेगा।

(9) कोयला या लिग्नाइट आधारित तापीय ऊर्जा संयंत्र से तीन सौ किलोमीटर के दायरे में स्थित सभी भवन निर्माण परियोजनाएं (केंद्रीय, राज्य और स्थानीय प्राथिकरणों सरकारी उपक्रमों, अन्य सरकारी अभिकरणों तथा सभी निजी अभिकरणों) राख की ईटों, टाईल्स, धातुमल राख अथवा अन्य राख आधारित उत्पादों का उपयोग करेंगी बशर्ते कि वे वैकल्पिक उत्पादों की कीमत से अधिक कीमत पर उपलब्ध न हो।

(10) राख आधारित उत्पादों के विनिर्माण और ऐसे उत्पादों में राख के उपयोग में भारतीय मानक ब्यूरो, भारतीय सड़क कांग्रेस और केंद्रीय प्रदूषण नियंत्रण बोर्ड द्वारा निर्धारित विनिर्देशों और दिशानिर्देशों की अनुपालना होगी।

ग. गैर-अनुपालन के लिए पर्यावरणीय प्रतिकर .-

(1) तीन वर्ष के चक्र के प्रथम दो वर्षों में, यदि कोयला या लिग्नाइट आधारित तापीय ऊर्जा संयंत्र (कैप्टिव और/ या सह-उत्पादक स्टेशनों या दोनों सहित) ने कम-से-कम 80 प्रतिशत राख (फ्लाई-राख और बॉटम-राख) उपयोग नहीं की है तो ऐसे गैर-अनुपालन ताप विद्युत संयंत्रों पर प्रस्तुत की गई वार्षिक रिपोर्टों के आधार पर वित्तीय वर्ष के

अंत में अप्रयुक्त राख पर 1000 रुपए प्रति टन की दर से पर्यावरणीय प्रतिकर लगाया जाएगा और यदि यह तीन वर्ष के चक्र के तीसरे वर्ष में 100 प्रतिशत राख का उपयोग करने में असमर्थ रहता है, तो वह अप्रयुक्त मात्रा पर 1000 रुपए प्रति टन की दर से पर्यावरणीय प्रतिकर के भुगतान का पात्र होगा, जिस पर पहले पर्यावरणीय प्रतिकर नहीं लगायी गयी है।

परंतु पर्यावरणीय प्रतिकर को पैरा क के उप-पैरा (4) में उल्लिखित विभिन्न उपयोगी श्रेणियों के अनुसार प्रथम अनुपालन चक्र के अंतिम वर्ष के अंत में अनुमान लगाया जाएगा और अधिरोपित किया जाएगा।

(2) अधिकारियों द्वारा एकत्रित पर्यावरणीय प्रतिकर को केन्द्रीय प्रदूषण नियंत्रण बोर्ड के निर्दिष्ट खाते में जमा किया जाएगा।

(3) लैगेसी राख के मामले में, यदि कोयला या लिग्नाइट आधारित तापीय ऊर्जा संयंत्र (कैप्टिव या सह-उत्पादक स्टेशनों या दोनों सहित) ने स्थापित क्षमता पर आधारित उत्पन्न राख का कम-से-कम 20 प्रतिशत (प्रथम वर्ष के लिए), 35 प्रतिशत (द्वितीय वर्ष के लिए), 50 प्रतिशत (तीसरे से दसवें वर्ष तक) उपयोग के बराबर लक्ष्य प्राप्त नहीं किया है तो उस वित्तीय वर्ष के दौरान अप्रयुक्त लैगेसी राख पर 1000 रुपए प्रति टन की दर से पर्यावरणीय प्रतिकर लगाया जाएगा और यदि 10 वर्ष के अंत में लैगेसी राख का उपयोग नहीं किया जाता है तो 1000 रुपए प्रति टन की दर से शेष अप्रयुक्त मात्रा पर पर्यावरणीय प्रतिकर लगाया जाएगा जिस पर पहले पर्यावरणीय प्रतिकर नहीं लगाया गया है।

(4) अधिकृत खरीददारों या उपभोक्ता अभिकरणों तक राख भेजने की जिम्मेदारी परिवाहकों या वाहन मालिक की जिम्मेदारी है और यदि इसका अनुपालन नहीं किया जाता है, तो अनधिकृत उपयोगकर्ताओं अथवा गैर-अधिकृत उपयोगर्ताओं को ऐसी मात्रा गलत तरीके से वितरित करने पर 1500 रूपए प्रति टन की दर से पर्यावरणीय प्रतिकर लगायी, इसके अतिरिक्त राज्य प्रदूषण नियंत्रण बोर्ड (एसपीसीबी) या प्रदूषण नियंत्रण समिति (पीसीसी) द्वारा गैर अनुपालनकर्ता परिवाहकों पर अभियोजन लागू होगा।

(5) इस अधिसूचना के पैरा ख में विहित पर्यावरण अनुकूल तरीके में राख के उपयोग की जिम्मेदारी खरीददार या उपभोगकर्ता एजेंसियों की है और ऐसा नहीं करने पर केन्द्रीय प्रदूषण नियंत्रण बोर्ड (एसपीसीबी) या प्रदूषण नियंत्रण समिति (पीसीसी) द्वारा 1500 रूपए प्रति टन की दर से पर्यावरणीय प्रतिकर लगाया जाएगा।

(6) यदि उपयोगकर्ता अधिकरण पैरा ख के अधीन निर्धारित सीमा तक अथवा पैरा घ के उप-पैरा (1) के अधीन, दिए गए नोटिस के माध्यम से सूचित की गई सीमा, इनमें से जो भी कम हो, तक राख का उपयोग नहीं करती है, वे अतिरिक्त राख की मात्रा का 1500 रूपए प्रति टन की दर से भुगतान करने के लिए उत्तरदायी होंगी।

परंतु भवन निर्माण के संबंध में पर्यावरणीय प्रतिकर निर्मित क्षेत्र के 75 रूपये प्रति वर्ग फीट की दर से वसूल किया जाएगा।

(7) (i) ताप विद्युत संयंत्रों अन्य बकायादारों से केन्द्रीय प्रदूषण नियंत्रण बोर्ड द्वारा लगायी गई का पर्यावरणीय प्रतिकर उपयोग अप्रयुक्त राख के सुरक्षित निपटान हेतु किया जाएगा और राख आधारित उत्पादों सहित राख के उपयोग के संबंध में और अधिक अनुसंधान करने के लिए भी निधि का उपयोग किया जा सकता है।

(ii) अप्रयुक्त मात्रा पर लगाए गए पर्यावरणीय प्रतिकर के पश्चात भी राख के उपयोग का उत्तरदायित्व ताप विद्युत संयंत्रों की होगी और यदि पश्चातवती चक्रों में पर्यावरणीय प्रतिकर लगाने के पश्चात ताप विद्युत संयंत्र, किसी विशेष चक्र की राख के उपयोग के लक्ष्य को प्राप्त करता है तो अगले चक्र के दौरान अप्रयुक्त मात्रा पर एकत्र की गई पर्यावरणीय प्रतिकर में 10 प्रतिशत कटौती के पश्चात उक्त रकम ताप विद्युत संयंत्र को वापस कर दी जाएगी और पश्चातवती चक्रों में राख के उपयोग के मामले में एकत्र की गई पर्यावरणीय प्रतिकर की 20 प्रतिशत, 30 प्रतिशत और उसी क्रम में कटौती की जानी है।

घ. राख या राख आधारित उत्पादों की आपूर्ति हेतु प्रक्रिया ._

(1) ताप विद्युत संयंत्रों के स्वामी अथवा राख की ईटों या टाईल्स या धातुमल आधारित राख के विनिर्माता उन व्यक्तियों या अभिकरणों को लिखित सूचना देंगे जो बिक्री या परिवहन या दोनों के लिए प्रस्तुत राख या राख आधारित उत्पादों के उपयोग के लिए उत्तरदायी हैं।

(2) ऐसे व्यक्ति या उपयोगकर्ता अभिकरणों जिन्हें ताप विद्युत संयंत्रों के स्वामी द्वारा या राख की ईटों या टाईल्स या धातुमल आधारित राख के उत्पादकों द्वारा सूचना दी गई है, यदि वे पहले ही राख या राख उत्पादों के उपयोग के प्रयोजन से अन्य अभिकरणों के साथ जुड़े हुए हैं, यदि वे किसी भी राख/राख उत्पादों का उपयोग नहीं कर सकते हैं अथवा कम मात्रा का उपयोग कर सकते हैं, तदनुसार ताप विद्युत संयंत्र को सूचित करेंगे।

ड. प्रवर्तन, निगरानी, लेखा परीक्षा और प्रतिवेदन करना

(1) केंद्रीय प्रदूषण नियंत्रण बोर्ड (सीपीसीबी) और संबंधित राज्य प्रदूषण नियंत्रण बोर्ड (एसपीसीबी) या प्रदूषण नियंत्रण समिति (पीसीसी), उपबंधों के अनुपालना सुनिश्चित करने के लिए प्रवर्तन और निगरानी प्राधिकरण होंगे। सीपीसीबी या एसपीसीबी या पीसीसी तिमाही आधार पर राख के उपयोग की निगरानी करेंगे और सीपीसीबी इस प्रयोजन के लिए अधिसूचना की प्रकाशन की तारीख से छ: माह के भीतर एक पोर्टल विकसित करेगा। संबंधित जिला अधिकारी के पास इस अधिसूचना के उपबंधों को लागू करने और निगरानी करने के लिए समवर्ती अधिकारिता होगी।

(2) (i) ताप विद्युत संयंत्र, राख उत्सर्जन और उपयोग से संबंधित मासिक सूचना वेब पोर्टल पर अगले महीने की 5 तारीख तक अपलोड करेगा। कोयला या लिग्नाइट आधारित ताप ऊर्जा संयंत्रों द्वारा केंद्रीय प्रदूषण नियंत्रण बोर्ड, संबंधित राज्य प्रदूषण नियंत्रण बोर्ड या प्रदूषण नियंत्रण समिति (पीसीसी), केंद्रीय विद्युत प्राधिकरण (सीईए) और पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय के संबंधित एकीकृत क्षेत्रीय कार्यालयों को इस अधिसूचना के उपबंधों के अनुपालन संबंधी सूचना उपलब्ध कराते हुए वार्षिक कार्यान्वयन रिपोर्ट प्रत्येक वर्ष (1 अप्रैल से 31 मार्च तक की अवधि के लिए) अप्रैल माह के 30वें दिन तक प्रस्तुत की जाएगी। सीपीसीबी और सीईए द्वारा सभी ताप विद्युत संयंत्रों द्वारा प्रस्तुत वार्षिक रिपोर्टों का समेकन किया जाएगा और उसे पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय को 31 मई तक प्रस्तुत किया जाएगा।

(ii) सभी अन्य उपयोगकर्ता अधिकरण पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय या राज्य स्तरीय पर्यावरण प्रभाव आकलन प्राधिकरण (एसईआईएए) द्वारा जारी पर्यावरणीय मंजूरी (ईसी) अथवा राज्य प्रदूषण नियंत्रण बोर्ड (एसपीसीबी) या प्रदूषण नियंत्रण समिति (पीसीसी) द्वारा जारी संचालन की सहमति (सीटीओ), जो भी लागू हो, की अनुपालना रिपोर्ट में इस अधिसूचना में आज्ञापकता के अनुसार राख के उपभोग या उपयोग या निस्तारण तथा राख आधारित उत्पादों के उपयोग संबंधी सूचना प्रस्तुत करेंगे। केन्द्रीय प्रदूषण नियंत्रण बोर्ड (सीपीसीबी) या राज्य प्रदूषण नियंत्रण बोर्ड (एसपीसीबी) या प्रदूषण नियंत्रण समिति (पीसीसी) अधिसूचना के उपबंधों के प्रभावी कार्यान्वयन की समीक्षा करने हेतु ताप विद्युत संयंत्रों के अतिरिक्त अन्य सभी अधिकरणों की राख उपयोग की वार्षिक रिपोर्ट प्रकाशित करेंगे।

(3) इस अधिसूचना के उपबंधों की निगरानी और कार्यान्वयन के प्रयोजन के लिए केन्द्रीय प्रदूषण नियंत्रण बोर्ड (सीपीसीबी) की अध्यक्षता में एक समिति का गठन किया जाएगा जिसके सदस्य विद्युत मंत्रालय, कोयला मंत्रालय, खनन मंत्रालय, पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय, सड़क परिवहन और राजमार्ग मंत्रालय और भारी उद्यम विभाग से होने के साथ-साथ समिति के अध्यक्ष द्वारा नामित किए जाने वाले कोई संबंधित पणधारी होंगे। यह समिति संगत पणधारी को आमंत्रित कर सकती है। यह समिति इस अधिसूचना के उपबंधों के प्रभावी और दक्ष कार्यान्वयन के लिए सिफारिशें कर सकती है। यह समिति छ: माह में कम से कम एक बार एक बैठक करेगी और वार्षिक कार्यान्वयन रिपोर्टों की समीक्षा करेगी और यह समिति, इस अधिसूचना द्वारा आजापक किए गए अनुसार छ: महीनों में कम से कम एक बार संगत पणधारी (को) को आमंत्रित करके राख के उपयोग की निगरानी करने के लिए पणधारी से साथ परामर्शदात्री बैठकें आयोजित करेगी। यह समिति पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय (एमओईएफसीसी) को छ: मासिक रिपोर्ट प्रस्तुत करेगी।

(4) ताप विद्युत संयंत्रों और राख के उपयोगकर्ताओं या राख आधारित उत्पादों के विनिर्माताओं के बीच के विवाद का समाधान करने के प्रयोजन से राज्य सरकारें या संघ राज्यक्षेत्र की सरकारें इस अधिसूचना के प्रकाशन की तारीख से तीन माह के भीतर राज्य प्रदूषण नियंत्रण बोर्ड (एसपीसीबी) या प्रदूषण नियंत्रण समिति (पीसीसी) की अध्यक्षता में एक समिति का गठन करेंगी जिसमें विद्युत विभाग के प्रतिनिधि और एक प्रतिनिधि उस विभाग का होगा, जो विवाद वाले संबंधित अभिकरण का कार्य देख रहे हैं।

(5) केन्द्रीय प्रदूषण नियंत्रण बोर्ड (सीपीसीबी) द्वारा प्राधिकृत लेखा परीक्षकों द्वारा ताप विद्युत संयंत्रों और उपयोगकर्ता अभिकरणों द्वारा किए गए राख के निपटान की अनुपालन लेखा परीक्षा संचालित की जाएगी और लेखा परीक्षा की रिपोर्ट प्रत्येक वर्ष 30 नवम्बर तक केन्द्रीय प्रदूषण नियंत्रण बोर्ड (सीपीसीबी) और संबंधित राज्य प्रदूषण नियंत्रण बोर्ड (एसपीसीबी) या प्रदूषण नियंत्रण समिति (पीसीसी) को प्रस्तुत की जाएगी। केन्द्रीय प्रदूषण नियंत्रण बोर्ड (सीपीसीबी) और संबंधित राज्य प्रदूषण नियंत्रण बोर्ड (एसपीसीबी) या प्रदूषण नियंत्रण समिति (पीसीसी) लेखा परीक्षा की रिपोर्ट प्राप्त होने के पंद्रह दिनों के भीतर अनुपालन न करने वाले ताप विद्युत संयंत्रों के विरूद्ध कार्रवाई प्रारंभ करेगें।

[फा. सं. एचएसएम-9/1/2019-एचएसएम]

नरेश पाल गंगवार, संयुक्त सचिव

उपाबंध

31 मई तक अथवा उससे पहले प्रस्तुत की जाने वाली राख संबंधी उपबंधों की अनुपालन रिपोर्ट (01 अप्रैल से 31 मार्च की अवधि के लिए) ।

क्र.सं.	**ब्यौरा**	
1.	विद्युत संयंत्र का नाम	
2.	कंपनी का नाम	
3.	जिला	
4.	राज्य	
5.	पत्राचार के लिए डाक का पता :	
6.	ई-मेल :	
7.	विद्युत संयंत्र की संस्थापित क्षमता (मेगा वॉट) :	
8.	संयंत्र लोड फैक्टर (पीएलएफ) :	
9.	उत्पादित यूनिटों की संख्या (एमडब्ल्यूएच) :	
10.	विद्युत संयंत्र के अंतर्गत कुल क्षेत्र (हेक्टेयर) (राख कुंडों के अधीन क्षेत्र सहित) :	
11.	रिपोर्टिंग की अवधि के दौरान कोयला खपत की मात्रा (प्रति वर्ष मीट्रिक टन) :	
12.	औसत राख सामग्री प्रतिशतता में (%) :	
13.	रिपोर्टिंग की अवधि के दौरान वर्तमान में उत्पादित राख की मात्रा (प्रति वर्ष मीट्रिक टन) : फ्लाई राख (प्रति वर्ष मीट्रिक टन) : बॉटम राख (प्रति वर्ष मीट्रिक टन) :	
14.	ड्राई फ्लाई राख भंडारण गड्ढा (गड्ढों) की क्षमता (मीट्रिक टन) :	
15.	**रिपोर्टिंग की अवधि के दौरान वर्तमान में उत्पादित राख के उपयोग का ब्यौरा:** (क) रिपोर्टिंग की अवधि के दौरान वर्तमान में उपयोग की गई राख की	

	कुल मात्रा (एमटीपीए) : (ख) उपयोग की गई फ्लाई राख की मात्रा (एमटीपीए) : i. फ्लाई-एश आधारित उत्पाद (ईंट या ब्लॉक या टाइल्स या फाइबर सीमेंट शीट या पाइप या बोर्ड/पैनल) : ii. सीमेंट विनिर्माण : iii. रेडी मिक्स कंक्रीट : iv. राख और जीओ-पॉलिमर आधारित निर्माण सामग्री : v. सिंटर्ड या कोल्ड बॉन्डेड राख एग्रीगेट का निर्माण : vi. सड़कों, सड़क और फ्लाई ओवर के पुश्तों का निर्माण : vii. बांधों का निर्माण : viii. निम्न भू-क्षेत्र का भराव : ix. खनिज क्षेत्रों का भराव : x. अधिभार वाले डम्पों में उपयोग : xi. कृषि : xii. तटीय जिलों में तटरेखा सुरक्षा संरचनाओं का निर्माण : xiii. अन्य देशों को राख का निर्यात : xiv. अन्य (कृपया विनिर्दिष्ट करें) : (ग) उपयोग किए गए तल के राख की मात्रा (एमटीपीए) : i. फ्लाई-एश आधारित उत्पाद (ईंट या ब्लॉक या टाइल्स या फाइबर सीमेंट शीट या पाइप या बोर्ड या पैनल) : ii. सीमेंट विनिर्माण : iii. रेडी मिक्स कंक्रीट : iv. राख और जीओ-पॉलिमर आधारित निर्माण सामग्री : v. सिंटर्ड या कोल्ड बॉन्डेड राख एग्रीगेट का निर्माण : vi. सड़कों, सड़क और फ्लाईओवर के पुश्तों का निर्माण : vii. बांधों का निर्माण : viii. निम्न भू-क्षेत्र का भराव : ix. खनिज क्षेत्रों का भराव : x. अधिभार वाले डम्पों में उपयोग : xi. कृषि : xii. तटीय जिलों में तटरेखा सुरक्षा संरचनाओं का निर्माण : xiii. अन्य देशों को राख का निर्यात : xiv. अन्य (कृपया विनिर्दिष्ट करें) : रिपोर्टिंग की अवधि के दौरान वर्तमान में अप्रयुक्त राख की कुल मात्रा (एमटीपीए :	
16.	रिपोर्टिंग की अवधि के दौरान वर्तमान में उत्पादित राख का प्रतिशतता उपयोग (%) :	
17.	**राख कुंडों में राख के निपटान का ब्यौरा** क) तारीख 31 मार्च तक (रिपोर्टिंग की अवधि को छोड़कर) राख कुण्ड (कुण्डों) में निपटान किए गए राख की कुल मात्रा (मीट्रिक टन):	

	ख) रिपोर्टिंग की अवधि के दौरान राख कुण्ड (कुण्डों) में निपटान किए गए राख की मात्रा (मीट्रिक टन): ग) रिपोर्टिंग की अवधि के दौरान राख कुण्डों में गारा निस्सरण हेतु खपत हुए जल की कुल मात्रा (मी^{3}): घ) राख कुण्डों की कुल संख्या: (i) सक्रिय: (ii) खाली किए गए (पुन: भरा जाना है) (iii) पुन: भरे गए: ड.) राख कुण्डों के अधीन कुल क्षेत्र (हेक्टेयर):	
18.	**अलग-अलग राख कुण्ड का ब्यौरा** *राख कुण्ड 1,2 आदि (यदि राख कुण्डों की संख्या एक से अधिक हो, तो कृपया निम्नलिखित ब्यौरा अलग से उपलब्ध कराएं)* क) स्थिति: निर्माणाधीन या सक्रिय या खाली किया गया या पुन: भरा गया ख) राख कुण्ड में राख का निपटान शुरू करने की तारीख/महीना/वर्ष या महीना/वर्ष): ग) राख कुण्ड की क्षमता पूर्ण किए जाने के पश्चात् उसमें राख निपटान रोकने की तारीख (तारीख/महीना/वर्ष या महीना/वर्ष): (सक्रिय राख कुण्डों के लिए लागू नहीं) ग) क्षेत्र (हेक्टेयर): घ) डाइक की ऊंचाई (मी.): घ) आयतन (मी^{3}): ड.) तारीख 31 मार्च तक निपटान किए गए राख की मात्रा (मीट्रिक टन): च) उपलब्ध आयतन का प्रतिशत (%) और आगे निपटान किए जा सकने वाले राख की मात्रा (मीट्रिक टन): छ) राख कुण्ड के भरे जाने की अनुमानित अवधि (वर्षों और महीनों की संख्या): ड.) निर्देशांक (अक्षांश और देशान्तर): (कृपया न्यूनतम 4 निर्देशांकों को विनिर्दिष्ट करें) ज) राख कुण्ड में की गई लाइनिंग का प्रकार: एचडीपीई लाइनिंग या एलडीपीई लाइनिंग या क्ले लाइनिंग या कोई लाइनिंग नहीं छ) निपटान की विधि: शुष्क निपटान या नम गारा (नम गारा के मामले में कृपया विनिर्दिष्ट करें कि क्या एचसीएसडी या एमसीएसडी या एलसीएसडी है) ज) राख का अनुपात: गारा मिश्रण में जल (1:____): झ) संस्थापित और कार्यशील राख जल पुनर्चक्रण प्रणाली (एडब्ल्यूआरएस): हां या नहीं ञ) जमीन के अंदर या जल निकाय में राख कुण्ड से निस्सरित अपशिष्ट जल की मात्रा (मी^{3}): ट) डाइक की स्थिरता का अध्ययन कराए जाने की पिछली तारीख और उस संगठन का नाम जिसने अध्ययन किया: ठ) लेखा-परीक्षा किए जाने की पिछली तारीख और उस संगठन का नाम जिसने लेखा-परीक्षा की:	
19.	उपयोग किए गए पुराने राख की मात्रा (एमटीपीए): i. फ्लाई-एश आधारित उत्पाद (ईंट या ब्लॉक या टाइल्स या फाइबर	

	सीमेंट शीट या पाइप या बोर्ड या पैनल): ii. सीमेंट विनिर्माण: iii. रेडी मिक्स कंक्रीट: iv. राख और जीओ-पॉलिमर आधारित निर्माण सामग्री: v. सिंटर्ड या कोल्ड बॉन्डेड राख एग्रीगेट का निर्माण: vi. सड़कों, सड़क और फ्लाई ओवर के पुश्तों का निर्माण: vii. बांधों का निर्माण: viii. निम्न भू-क्षेत्र का भराव: ix. खनिज क्षेत्रों का भराव: x. अधिभार वाले डम्पों में उपयोग: xi. कृषि: xii. तटीय जिलों में तटरेखा सुरक्षा संरचनाओं का निर्माण: xiii. अन्य देशों को राख का निर्यात xiv. अन्य (कृपया विनिर्दिष्ट करें):	

20.	**सार :**			
	ब्यौरा	सृजित मात्रा (एमटीपी)	उपयोग की गई मात्रा (एमटीपी) और (%)	शेष मात्रा (एमटीपी)
	रिपोर्टिंग की अवधि के दौरान राख			
	पुरानी राख			
	कुल			
21.	कोई अन्य सूचना : वार्षिक अनुपालन रिपोर्ट, और विद्युत संयंत्रों और राख कुण्डों की शेष फाइलों की सॉफ्ट कॉपी ई-मेल:- moefcc-coalash@gov.in पर भेजी जाए।			
22.	प्राधिकृत हस्ताक्षरकर्ता के हस्ताक्षर			

MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

NOTIFICATION

New Delhi, the 31st December, 2021

S.O. 5481(E).—Whereas by notification of the Government of India in the erstwhile Ministry of Environment and Forests *vide* S.O.763 (E), dated the 14th September, 1999, as amended from time to time, the Central Government, issued directions for restricting the excavation of top soil for manufacturing of bricks and promoting the utilisation of fly ash in the manufacturing of building materials and in construction activity within a specified radius of three hundred kilometres from the coal or lignite based thermal power plants;

And whereas, to implement the aforesaid notification more effectively based on the polluter pays principle (PPP) thereby ensuring 100 per cent utilisation of fly ash by the coal or lignite based thermal power plants and for the sustainability of the fly ash management system, the Central Government reviewed the existing notification; and whereas environmental compensation needs to be introduced based on the polluter pays principle;

And whereas, there is a need to conserve top soil by promoting manufacture and mandating use of ash based products and building materials in the construction sector;

And whereas, there is a need to conserve top soil and natural resources by promoting utilisation of ash in road laying, road and flyover embankments, shoreline protection measures, low lying areas of approved projects, backfilling of mines, as an alternative for filling of earthen materials;

And whereas, it is necessary to protect the environment and prevent the dumping and disposal of fly ash discharged from coal or lignite based thermal power plants on land;

And whereas, in the said notification the phrase 'ash', has been used which includes both fly ash as well as bottom ash generated from the Coal or Lignite based thermal power plants;

And whereas, the Central Government intends to bring out a comprehensive framework for ash utilisation including system of environmental compensation based on polluter pays principle;

And whereas, a draft notification on ash utilisation by coal or lignite thermal power plants in supersession of the notification of the Government of India, Ministry of Environment and Forests published in the Gazette of India, Extra Ordinary part II, section 3, sub-section (i) *vide* S.O.763 (E), dated the 14th September, 1999, by notification in exercise of the powers conferred under sub-section (1) and clause (v) of sub-section (2) of section 3 of the Environment (Protection) Act, 1986 (29 of 1986) read with clause (d) of sub-rule (3) of rule (5) of the Environment (Protection) Rules, 1986, was published in the Gazette of India, Extraordinary, Part II, section 3, sub-section (i), *vide* G.S.R. 285(E), dated the 22nd April, 2021 inviting objections and suggestions from all persons likely to be affected thereby before the expiry of sixty days from the date on which copies of the Gazette containing the said draft provisions were made available to the public;

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

Now, therefore, in exercise of the powers conferred by sub-section (1) and clause (v) of sub-section (2) of section 3 of the Environment (Protection) Act, 1986 (29 of 1986) read with clause (d) of sub-rule (3) of rule (5) of the Environment (Protection) Rules, 1986, and in supersession of the Notification S.O.763 (E), dated the 14th September, 1999 except as respect things done or omitted to be done before such supersession, the Central Government hereby issues the following notification on ash utilisation from coal or lignite thermal power plants which shall come into force on the date of the publication of this notification, namely:-

A. Responsibilities of thermal power plants to dispose fly ash and bottom ash.—

(1) Every coal or lignite based thermal power plant (including captive or co-generating stations or both) shall be primarily responsible to ensure 100 per cent utilisation of ash (fly ash, and bottom ash) generated by it in an eco-friendly manner as given in sub-paragraph (2);

(2) The ash generated from coal or lignite based thermal power plants shall be utilised only for the following eco-friendly purposes, namely:-

(i) Fly ash based products viz. bricks, blocks, tiles, fibre cement sheets, pipes, boards, panels;

(ii) Cement manufacturing, ready mix concrete;

(iii) Construction of road and fly over embankment, Ash and Geo-polymer based construction material;

(iv) Construction of dam;

(v) Filling up of low lying area;

(vi) Filling of mine voids;

(vii) Manufacturing of sintered or cold bonded ash aggregate;

(viii) Agriculture in a controlled manner based on soil testing;

(ix) Construction of shoreline protection structures in coastal districts;

(x) Export of ash to other countries;

(xi) Any other eco-friendly purpose as notified from time to time.

(3) A committee shall be constituted under the chairmanship of Chairman, Central Pollution Control Board (CPCB) and having representatives from Ministry of Environment, Forest and Climate Change (MoEFCC), Ministry of Power, Ministry of Mines, Ministry of Coal, Ministry of Road Transport and Highways, Department of Agricultural Research and Education, Institute of Road Congress, National Council for Cement and Building Materials, to examine and review and recommend the eco-friendly ways of utilisation of ash and make inclusion or exclusion or modification in the list of such ways as mentioned in Sub-paragraph (2) based on technological developments and requests received from stakeholders. The committee may invite State Pollution Control Board or Pollution Control Committee, operators of thermal power plants and mines, cement plants and other stakeholders as and when required for this purpose. Based on the recommendations of the Committee, Ministry of Environment, Forest and Climate Change (MoEFCC) may publish such eco-friendly purpose.

(4) Every coal or lignite based thermal power plant shall be responsible to utilise 100 per cent ash (fly ash and bottom ash) generated during that year, however, in no case shall utilisation fall below 80 per cent in any year, and the thermal power plant shall achieve average ash utilisation of 100 per cent in a three years cycle:

Provided that the three years cycle applicable for the first time is extendable by one year for the thermal power plants where ash utilisation is in the range of 60-80 per cent, and two years where ash utilisation is below 60 per cent and for the purpose of calculation of percentage of ash utilisation, the percentage quantity of utilisation in the year 2021- 2022 shall be taken into account as per the table below:

Utilisation percentages of thermal power plants	First compliance Cycle to meet 100 per cent utilisation	Second compliance cycle onwards, to meet 100 per cent utilisation
>80 per cent	3 years	3 years
60-80 per cent	4 years	3 years
<60 per cent	5 years	3 years

Provided further that the minimum utilisation percentage of 80 per cent shall not be applicable to the first year and first two years of the first compliance cycle for the thermal power plants under the utilisation category of 60-80 per cent and <60 per cent, respectively.

Provided also that 20per cent of ash generated in the final year of compliance cycle may be carried forward to the next cycle which shall be utilised in the next three years cycle along with the ash generated during that cycle.

(5) The unutilised accumulated ash i.e. legacy ash, which is stored before the publication of this notification, shall be utilised progressively by the thermal power plants in such a manner that the utilization of legacy ash shall be completed fully within ten years from the date of publication of this notification and this will be over and above the utilisation targets prescribed for ash generation through current operations of that particular year:

Provided that the minimum quantity of legacy ash in percentages as mentioned below shall be utilised during the corresponding year and the minimum quantity of legacy ash is to be calculated based on the annual ash generation as per installed capacity of thermal power plant.

Year from date of publication	1st	2nd	3rd -10th
Utilisation of legacy ash (in percentage of Annual ash)	At least 20 per cent	At least 35 per cent	At least 50 per cent

Provided further that the legacy ash utilisation shall not be required where ash pond or dyke has stabilised and the reclamation has taken place with greenbelt or plantation and the concerned State Pollution Control Board shall certify in this regard. Stabilisation and reclamation of an ash pond or dyke including certification by the Central Pollution Control Board (CPCB) or State Pollution Control Board (SPCB) or Pollution Control Committee (PCC) shall be carried out within a year from the date of publication of this notification. The ash remaining in all other ash ponds or dykes shall be utilised in progressive manner as per the above mentioned timelines.

Note: The obligations under sub-paragraph (4) and (5) above for achieving the ash utilisation targets shall be applicable from 1st April, 2022.

(6) Any new as well as operational thermal power plant may be permitted an emergency or temporary ash pond with an area of 0.1 hectare per Mega Watt (MW). Technical specifications of ash ponds or dykes shall be as per the guidelines of Central Pollution Control Board (CPCB) made in consultation with Central Electricity Authority (CEA) and these guidelines shall also lay down a procedure for annual certification of the ash pond or dyke on its safety, environmental pollution, available volume, mode of disposal, water consumption or conservation in disposal, ash water recycling and greenbelt, etc., and shall be put in place within three months from the date of publication of this notification.

(7) Every coal or lignite based thermal power plant shall ensure that loading, unloading, transport, storage and disposal of ash is done in an environmentally sound manner and that all precautions to prevent air and water pollution are taken and status in this regard shall be reported to the concerned State Pollution Control Board (SPCB) or Pollution Control Committee (PCC) in Annexure attached to this notification.

(8) Every coal or lignite based thermal power plant shall install dedicated silos for storage of dry fly ash silos for at least sixteen hours of ash based on installed capacity and it shall be reported upon to the concerned State Pollution Control Board (SPCB) or Pollution Control Committee (PCC) in the Annexure and shall be inspected by Central Pollution Control Board (CPCB) or State Pollution Control Board (SPCB) or Pollution Control Committee (PCC) from time to time.

(9) Every coal or lignite based thermal power plant (including captive or co-generating stations or both) shall provide real time data on daily basis of availability of ash with Thermal Power Plant (TPP), by providing link to Central Pollution Control Board's web portal or mobile phone App for the benefit of actual user(s).

(10) Statutory obligation of 100 per cent utilisation of ash shall be treated as a change in law, wherever applicable.

B. **For the purpose of utilisation of ash, the subsequent sub-paras shall apply.—**

(1) All agencies (Government, Semi-government and Private) engaged in construction activities such as road laying, road and flyover embankments, shoreline protection structures in coastal districts and dams within 300 kms from the lignite or coal based thermal power plants shall mandatorily utilise ash in these activities:

Provided that it is delivered at the project site free of cost and transportation cost is borne by such coal or lignite based thermal power plants.

Provided further that thermal power plant may charge for ash cost and transportation as per mutually agreed terms, in case thermal power plant is able to dispose the ash through other means and those agencies makes a request for it and the provisions of ash free of cost and free transportation shall be applicable, if thermal power plant serves a notice on the construction agency for the same.

(2) The utilisation of ash in the said activities shall be carried out in accordance with specifications and guidelines laid down by the Bureau of Indian Standards, Indian Road Congress, Central Building Research Institute, Roorkee, Central Road Research Institute, Delhi, Central Public Works Department, State Public Works Departments and other Central and State Government Agencies.

(3) It shall be obligatory on all mines located within 300 kilometres radius of thermal power plant, to undertake backfilling of ash in mine voids or mixing of ash with external Overburden dumps, under Extended Producer Responsibility (EPR). All mine owners or operators (Government, Public and Private Sector) within three hundred kilometres (by road) from coal or lignite based thermal power plants, shall undertake measures to mix at least 25 per cent of ash on weight to weight basis of the materials used for external dump of overburden, backfilling or stowing of mine (running or abandoned as the case may be) as per the guidelines of the Director General of Mines Safety (DGMS):

Provided that such thermal power stations shall facilitate the availability of required quantity of ash by delivering ash free of cost and bearing the cost of transportation or cost or transportation arrangement decided on mutually agreed terms and mixing of ash with overburden in mine voids and dumps shall be applicable for the overburden generated from the date of publication of this notification and the utilisation of ash in the said activities shall be carried out in accordance with guidelines laid down by the Central Pollution Control Board, Director General of Mines Safety and Indian Bureau of Mines.

Explanation.- For the purpose of this sub-paragraph, it is also clarified that the provisions of ash free of cost and free transportation shall be applicable, if thermal power plants serve a notice on the mine owner for the same and the mandate of using 25 per cent of ash for mixing with overburden dump and filling up of mine voids shall not be applicable unless a notice is served on the mine owner by thermal power plant.

(4) (i) All mine owners shall get mine closure plans (progressive and final) to accommodate ash in the mine voids and the concerned authority shall approve mine plans for disposal of ash in mine voids and mixing of ash with overburden dumps. The Ministry of Environment, Forest and Climate Change (MoEFCC) has issued guidelines on 28th August, 2019 regarding exemption of requirement of Environmental Clearance of thermal power plants and coal mines along with the guidelines to be followed for such disposal.

(ii) The Ministry in consultation with Central Pollution Control Board (CPCB), Director General of Mine Safety (DGMS) and Indian Bureau of Mines (IBM) may issue further guidelines time to time to facilitate ash disposal in mine voids and mixing with overburden dumps and it shall be the responsibility of mine owners to get the necessary amendments or modifications in the permissions issued by various regulatory authorities within one year from the date of identification of such mines.

(5) (i) There shall be a committee headed by Chairperson, Central Pollution Control Board (CPCB) with representatives from Ministry of Environment, Forest and Climate Change, Ministry of Power, Ministry of Mines, Ministry of Coal, Director General of Mine Safety and Indian Bureau of Mines for identification of mines for backfilling of mine voids with ash or mixing of ash with overburden dump including examination of safety, feasibility (not economic feasibility) and aspects of environmental contamination and the committee shall get updated quarterly reports prepared regarding identified mines (both underground and opencast) for the stakeholder Ministries or Departments and the committee shall start identifying the suitable mines immediately after the publication of this notification.

(ii) Thermal power plants or mines shall not wait for disposal of ash till the identification is done by the above mentioned committee, to meet the utilisation targets mandated as above.

(6) Filling of low lying areas with ash shall be carried out with prior permission of the State Pollution Control Board or Pollution Control Committee for approved projects, and in accordance with guidelines laid down by Central Pollution Control Board (CPCB) and the State Pollution Control Board or Pollution Control Committee (PCC) shall publish approved sites, location, area and permitted quantity annually on its website.

(7) Central Pollution Control Board after engaging relevant stakeholders, shall put in place the guidelines within one year for all types of activities envisaged under this notification including putting in place time bound online application process for the grant permission by State Pollution Control Boards (SPCBs) or Pollution Control Committees (PCCs).

(8) All building construction projects (Central, State and Local authorities, Govt. undertakings, other Govt. agencies and all private agencies) located within a radius of three hundred kilometres from a coal or lignite based thermal power plant shall use ash bricks, tiles, sintered ash aggregate or other ash based products, provided these are made available at prices not higher than the price of alternative products.

(9) Manufacturing of ash based products and use of ash in such products shall be in accordance with specifications and guidelines laid down by the Bureau of Indian Standards, Indian Road Congress, and Central Pollution Control Board.

C. Environmental compensation for non-compliance.—

(1) In the first two years of a three years cycle, if the coal or lignite based thermal power plant (including captive or co-generating stations or both) has not achieved at least 80 per cent ash (fly ash and bottom ash) utilisation, then such non-compliant thermal power plants shall be imposed with an environmental compensation of Rs. 1000 per ton on unutilised ash during the end of financial year based on the annual reports submitted and if it is unable to utilise 100 per cent of ash in the third year of the three years cycle, it shall be liable to pay an environmental compensation of Rs. 1000 per ton on the unutilised quantity on which environmental compensation has not been imposed earlier:

Provided that the environmental compensation shall be estimated and imposed at the end of last year of the first compliance cycle as per the various utilisation categories as mentioned in sub-paragraph (4) of Para A.

(2) Environmental compensation collected by the authorities shall be deposited in the designated account of Central Pollution Control Board.

(3) In case of legacy ash, if the coal or lignite based thermal power plant (including captive or co-generating stations or both) has not achieved utilisation equivalent to at least 20 per cent (for the first year), 35 per cent (for the second year), 50 per cent (for third to tenth year) of ash generated based on installed capacity, an environmental compensation of Rs. 1000 per ton of unutilised legacy ash during that financial year shall be imposed and if the utilization of legacy ash is not completed at the end of 10 years, an environmental compensation of Rs.1000 per ton shall be imposed on the remaining unutilised quantity which has not been imposed earlier.

(4) It shall be the responsibility of the transporters or vehicle owner to deliver ash to authorised purchaser or user agency and if it is not complied, then an environmental compensation of Rs. 1500 per ton on such quantity as mis-delivered to unauthorised users or non- delivered to authorised users will be imposed besides prosecution of such non-compliant transporters by State Pollution Control Board (SPCB) or Pollution Control Committee (PCC).

(5) It is the responsibility of the purchasers or user agencies to utilise ash in an eco-friendly manner as laid down at para B of this notification and if it is not complied, then an environmental compensation of Rs. 1500 or per ton shall be imposed by State Pollution Control Board (SPCB) or Pollution Control Committee (PCC).

(6) If the user agencies do not utilise ash to the extent obligated under para B or the extent to which they have been intimated through Notice(s) served under sub-paragraph (1) of para D, whichever is lower, they shall be liable to pay Rs. 1500 per ton of ash for the quantity they fall short off:

Provided that the environmental compensation on building constructions shall be levied at Rs.75/- per square feet of built up area of construction.

(7) (i) The environmental compensation collected by Central Pollution Control Board from the thermal power plants and other defaulters shall be used towards the safe disposal of the unutilised ash and the fund may also be utilised for advancing research on use of ash including ash based products.

(ii) The liability of ash utilisation shall be with thermal power plants even after imposition of environmental compensation on unutilised quantities and in case thermal power plant achieves the ash utilisation of any

particular cycle after imposition of environmental compensation in subsequent cycles, the said amount shall be returned to thermal power plant after deducting 10 per cent of the environmental compensation collected on the unutilised quantity during the next cycle and deduction of 20 per cent, 30 per cent, and so on, of the environmental compensation collected is to be made in case of utilisation of ash in subsequent cycles.

D. Procedure for supply of ash or ash based products.—

(1) The owner of thermal power plants or manufacturers of ash bricks or tiles or sintered ash aggregate shall serve written notice to persons or agencies who are liable to utilise ash or ash based products, offering for sale, or transport or both.

(2) Persons or user agencies who have been served notices by owner of thermal power plants or manufacturers of ash bricks or tiles or sintered ash aggregate, if they have already tied up with other agencies for the purpose of utilisation of ash or ash products, shall inform the thermal power plant accordingly, if they cannot use any ash or ash products or use reduced quantity.

E. Enforcement, Monitoring, Audit and Reporting.—

(1) The Central Pollution Control Board (CPCB) and the concerned State Pollution Control Board (SPCB) or Pollution Control Committee (PCC) shall be the enforcing and monitoring authority for ensuring compliance of the provisions and shall monitor the utilisation of ash on quarterly basis. Central Pollution Control Board shall develop a portal for the purpose within six months of date of publication of the notification. The concerned District Magistrate shall have concurrent jurisdiction for enforcement and monitoring of the provisions of this notification.

(2) (i) Thermal power plants shall upload monthly information regarding ash generation and utilisation by 5th of the next month on the web portal. Annual implementation report (for the period 1st April to 31st March) providing information about the compliance of provisions in this notification shall be submitted by the 30th day of April, every year to the Central Pollution Control Board, concerned State Pollution Control Board or Pollution Control Committee (PCC), Central Electricity Authority (CEA), and concerned Integrated Regional Office of Ministry of Environment, Forest and Climate Change by the coal or lignite based thermal power plants. Central Pollution Control Board and Central Electricity Authority shall compile the annual reports submitted by all the thermal power plants and submit to Ministry of Environment, Forest and Climate Change by 31st May.

(ii) All other user agencies shall submit consumption or utilisation or disposal of ash and use of ash based products as mandated in this notification in the compliance report of Environmental Clearance (EC) issued by Ministry of Environment, Forest and Climate Change or State Level Environment Impact Assessment Authority (SEIAA) or Consent to Operate (CTO) issued by State Pollution Control Board (SPCB) or Pollution Control Committee (PCC), whichever is applicable. The Central Pollution Control Board (CPCB) or State Pollution Control Board (SPCB) or Pollution Control Committee (PCC) shall publish annual report of ash utilisation of all other agencies except thermal power plants to review the effective implementation of the provisions of the notification.

(3) For the purpose of monitoring the implementation of the provisions of this notification, a committee shall be constituted under the Chairperson, Central Pollution Control Board (CPCB), with members from Ministry of Power, Ministry of Coal, Ministry of Mines, Ministry of Environment, Forest and Climate Change, Ministry Road Transportation and Highways, Department of Heavy Industry as well as any concerned stakeholder(s), to be nominated by the Chairman of the committee. The committee may make recommendations for effective and efficient implementation of the provisions of the notification. The committee shall meet at least once in six months and review annual implementation reports and the committee shall also hold stakeholder consultations for monitoring of ash utilisation as mandated by this notification by inviting relevant stakeholder(s) at least once in six months. The committee shall submit the six monthly report to Ministry of Environment, Forest and Climate Change (MoEFCC).

(4) For the purpose of resolving disputes between thermal power plants and users of ash or manufacturer of ash based products, the State Governments or Union territory administration constitute a Committee within three months from the date of publication of this notification under the Chairman, State Pollution Control Board (SPCB) or Pollution Control Committee (PCC) with representatives from Department of Power, and one representative from the Department which deals with the subject of concerned agency with which dispute is made.

(5) The compliance audit for ash disposal by the thermal power plants and the user agency shall be conducted by auditors, authorised by Central Pollution Control Board (CPCB) and audit report shall be submitted to Central Pollution Control Board (CPCB) and concerned State Pollution Control Board (SPCB) or Pollution Control Committee (PCC) by 30th November every year. Central Pollution Control Board (CPCB) and concerned State Pollution Control Board (SPCB) or Pollution Control Committee (PCC) shall initiate action against non-compliant thermal power plants within fifteen days of receipt of audit report.

[F. No. HSM-9/1/2019-HSM]

NARESH PAL GANGWAR, Jt. Secy.

Annexure

Ash Compliance Report (for the period 1st April-31st March) to be submitted on or before 31st May.

Sl. No.	Details	
1.	Name of Power Plant	
2.	Name of the company	
3.	District	
4.	State	
5.	Postal address for communication:	
6.	E-mail:	
7.	Power Plant installed capacity (MW):	
8.	Plant Load Factor (PLF):	
9.	No. of units generated (MWh):	
10.	Total area under power plant (ha): (including area under ash ponds)	
11.	Quantity of coal consumption during reporting period (Metric Tons per Annum):	
12	Average ash content in percentage (per cent):	
13.	Quantity of current ash generation during reporting period (Metric Tons per Annum): Fly ash (Metric Tons per Annum): Bottom ash (Metric Tons per Annum):	
14.	Capacity of dry fly ash storage silo(s) (Metric Tons) :	
15	Details of utilisation of current ash generated during reporting period (a) Total quantity of current ash utilised (MTPA) during reporting period: (b) Quantity of fly ash utilised (MTPA): (i) Fly ash based products (bricks or blocks or tiles or fibre cement sheets or pipes or boards or panels) (ii) Cement manufacturing:	

	(iii) Ready mix concrete: (iv) Ash and Geo-polymer based construction material: (v) Manufacturing of sintered or cold bonded ash aggregate: (vi) Construction of roads, road and fly over embankment: (vii) Construction of dams: (viii) Filling up of low lying area: (ix) Filling of mine voids: (x) Use in overburden dumps: (xi) Agriculture: (xii) Construction of shoreline protection structures in coastal districts; (xiii) Export of ash to other countries: (xiv) Others (please specify): (c) Quantity of bottom ash utilised (MTPA): (i) Fly ash based products (bricks or blocks or tiles or fibre cement sheets or pipes or boards or panels): (ii) Cement manufacturing: (iii) Ready mix concrete: (iv) Ash and Geo-polymer based construction material: (v) Manufacturing of sintered or cold bonded ash aggregate: (vi) Construction of roads, road and flyover embankment: (vii) Construction of dams: (viii) Filling up of low lying area: (ix) Filling of mine voids: (x) Use in overburden dumps: (xi) Agriculture: (xii) Construction of shoreline protection structures in coastal districts: (xiii) Export of ash to other countries: (xiv) Others (please specify): Total quantity of current ash unutilised (MTPA) during reporting period:	
16.	Percentage utilisation of current ash generated during reporting period (per cent):	
17.	Details of disposal of ash in ash ponds (a) Total quantity of ash disposed in ash pond(s) (Metric Tons) as on 31st March (excluding reporting period): (b) Quantity of ash disposed in ash pond(s) during reporting period (Metric Tons): (c) Total quantity of water consumption for slurry discharge into ash ponds during reporting period (m^3): (d) Total number of ash ponds: (i) Active: (ii) Exhausted (yet to be reclaimed): (iii) Reclaimed: (e) total area under ash ponds (ha):	
18.	Individual ash pond details *Ash pond-1,2, etc (please provide below mentioned details separately, if number of ash ponds is more than one)* (a) Status: Under construction or Active or Exhausted or	

	Reclaimed (b) Date of start of ash disposal in ash pond (DD/MM/YYYY or MMYYYY): (c) Date of stoppage of ash disposal in ash pond after completing its capacity (DD/MM/YYYY or MM/YYYY): (Not applicable for active ash ponds) (c) area (hectares): (d) dyke height (m): (d) volume (m^3): (e) quantity of ash disposed as on 31st March (Metric Tons): (f) available volume in percentage (per cent) and quantity of ash can be further disposed (Metric Tons): (g) expected life of ash pond (number of years and months): (e) co-ordinates (Lat and Long): (please specify minimum 4 co-ordinates) (f) type of lining carried in ash pond: HDPE lining or LDPE lining or clay lining or No lining g) mode of disposal: Dry disposal or wet slurry (in case of wet slurry please specify whether HCSD or MCSD or LCSD) (h) Ratio of ash: water in slurry mix (1:___): (i) Ash water recycling system (AWRS) installed and functioning: Yes or No (j) Quantity of wastewater from ash pond discharged into land or water body (m3): (k) Last date when the dyke stability study was conducted and name of the organisation who conducted the study: (l) Last date when the audit was conducted and name of the organisation who conducted the audit:	
19.	Quantity of legacy ash utilised (MTPA): i. Fly ash based products (bricks or blocks or tiles or fibre cement sheets or pipes or boards or panels): ii. Cement manufacturing: iii. Ready mix concrete: iv. Ash and Geo-polymer based construction material: v. Manufacturing of sintered or cold bonded ash aggregate: vi. Construction of roads, road and flyover embankment: vii. Construction of dams: viii. Filling up of low lying area: ix. Filling of mine voids: x. Use in overburden dumps: xi. Agriculture: xii. Construction of shoreline protection structures in coastal districts; xiii. Export of ash to other countries: xiv. Others (please specify):	
20.	Summary:	

Details	Quantity generated (MTP)	Quantity utilised (MTP) and (per cent)	Balance quantity (MTP)

	Current ash during reporting period			
	Legacy ash			
	Total			
21.	Any other information: Soft copy of the annual compliance report, and shape files of power plant and ash ponds may be e-mailed to:- moefcc-coalash@gov.in			
22.	Signature of Authorised Signatory			

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FORM-15

Details/Information to be provided to beneficiaries under Clause (2) of Regulation 40 of CERC (Terms & Conditions of Tariff) Regulations, 2019

Details of Source wise Fuel for Computation of Energy Charges (in case of coal)

Name of the Petitioner:	**NTPC Limited**	
Name of the Generating Station:	**Rihand STPP**	**Stage-III**
Month:	**Apr-23**	**Revised**

S.No.	Particulars	Unit	Domestic Coal		E-Auction	Imported Coal	Bio Mass
			Supplied by MGR	Supplied by Rail			
A)	**OPENING QUANTITY**						
1	Opening Quantity ofCoal/Lignite	MT	979751.64	0.00	0.00	0.00	0.00
2	Value of Stock	Rs.	2193952634	0	0	0	0
B)	**QUANTITY**						
3	Quantity of coal supplied by the coal Company	MT	1240031.14	0.00	0.00	0.00	0.00
4	Adjustment (+/-) in quantity supplied by the coal Company	MT	0.00	0.00	0.00	0.00	0.00
5	Coal supplied by the Coal Company (1+2)	MT	1240031.14	0.00	0.00	0.00	0.00
6	Normative transit & handling losses	MT	2480.06	0.00	0.00	0.00	0.00
7	**Net Coal / Lignite supplied (5 - 6)**	**MT**	**1237551.08**	**0.00**	**0.00**	**0.00**	**0.00**
C)	**PRICE**						
8	Amount charged by the Coal / Lignite Company	Rs.	2464191858	0	0	0	0
9	Adjustment (+ / -) in amount charged by coal / Lignite Company	Rs.	80013969	0	0	0	0
10	Handling, Sampling such Other similer Charges	Rs.	55598981	0	0	0	0
11	**Total Amount charged (8 +9+10)**	**Rs.**	**2599804808**	**0**	**0**	**0**	**0**
D)	**TRANSPORATION**						
12	Transportation charges by Rail / Ship / Road Transport	Rs.	0	0	0	0	0
13	Adjustment (+/-) in amount charged by Railways / transport Company	Rs.	0	0	0	0	0
14	Demurrage charges, if any	Rs.	0	0	0	0	0
15	Cost of diesel in transporting coal through MGR system	Rs.	26972340	0	0	0	0
16	**Total transportation charges (12+ 13 + 14 + 15)**	**Rs.**	**26972340**	**0**	**0**	**0**	**0**
17	**Total amount charged for coal supplied including transportation (11+16)**	**Rs.**	**2626777148**	**0**	**0**	**0**	**0**
E)	**TOTAL COST**						
18	Landed cost of coal/ Lignite(2+17)/(1+7)	**Rs./MT**	**2174.14**		**0.00**	**0.00**	**0.00**
19	Blending Ratio(Domestic/Imported)		100.00%		0.00%	0.00%	0.00%
20	**Weighted average cost of coal (Including Bio Mass)**	**Rs./MT**	**2174.14**				
20a	**Weighted average cost of coal (Excluding Bio Mass)**	**Rs./MT**	**2174.14**				
F)	**QUALITY**						
21	GCV of Domestic Coal of the opening coal stock as per bill of Coal Company	(Kcal/Kg)	4515		0		0
22	GCV of Domestic Coal supplied as per bill of Coal Company	(Kcal/Kg)	4450		0		0
23	GCV of Imported Coal of the opening stock as per bill Coal Company	(Kcal/Kg)				0	
24	GCV of Imported Coal supplied as per bill Coal Company	(Kcal/Kg)				0	
25	Weighted average GCV of coal/ Lignite as Billed (Including Biomass)	(Kcal/Kg)	**4479**				
25a	Weighted average GCV of coal/ Lignite as Billed (Excluding Bio Mass)	(Kcal/Kg)	**4479**				
26	GCV of Domestic Coal of the opening stock as received at Station	(Kcal/Kg)	3730		0		0
27	GCV of Domestic Coal supplied as received at Station	(Kcal/Kg)	3737		0		0
28	GCV of Imported Coal of opening stock as received at Station	(Kcal/Kg)				0	
29	GCV of Imported Coal of supplied as received at Station	(Kcal/Kg)				0	
30	Weighted average GCV of coal/ Lignite as Received (Including Biomass)	(Kcal/Kg)	**3734**				
30a	Weighted average GCV of coal/ Lignite as Received (Excluding Bio Mass)	(Kcal/Kg)	**3734**				

Sr Mgr (Finance)

FORM-15

Details/Information to be provided to beneficiaries under Clause (2) of Regulation 40 of CERC (Terms & Conditions of Tariff) Regulations, 2019

Details of Source wise Fuel for Computation of Energy Charges (in case of coal)

Name of the Petitioner:	**NTPC Limited**	
Name of the Generating Station:	**Rihand STPP**	**Stage-III**
Month:	**May-23**	**Revised**

S.No.	Particulars	Unit	Domestic Coal		E-Auction	Imported Coal	Bio Mass
			Supplied by MGR	Supplied by Rail			
A)	**OPENING QUANTITY**						
1	Opening Quantity ofCoal/Lignite	MT	957499.72	0.00	0.00	0.00	0.00
2	Value of Stock	Rs.	2081740428	0	0	0	0
B)	**QUANTITY**						
3	Quantity of coal supplied by the coal Company	MT	1225605.54	0.00	0.00	0.00	0.00
4	Adjustment (+/-) in quantity supplied by the coal Company	MT	0.00	0.00	0.00	0.00	0.00
5	Coal supplied by the Coal Company (1+2)	MT	1225605.54	0.00	0.00	0.00	0.00
6	Normative transit & handling losses	MT	2451.21	0.00	0.00	0.00	0.00
7	**Net Coal / Lignite supplied (5 - 6)**	**MT**	**1223154.33**	**0.00**	**0.00**	**0.00**	**0.00**
C)	**PRICE**						
8	Amount charged by the Coal / Lignite Company	Rs.	2420614495	0	0	0	0
9	Adjustment (+ / -) in amount charged by coal / Lignite Company	Rs.	137048095	0	0	0	0
10	Handling, Sampling such Other similer Charges	Rs.	37077872	0	0	0	0
11	**Total Amount charged (8 +9+10)**	**Rs.**	**2594740462**	**0**	**0**	**0**	**0**
D)	**TRANSPORATION**						
12	Transportation charges by Rail / Ship / Road Transport	Rs.	0	0	0	0	0
13	Adjustment (+/-) in amount charged by Railways / transport Company	Rs.	0	0	0	0	0
14	Demurrage charges, if any	Rs.	0	0	0	0	0
15	Cost of diesel in transporting coal through MGR system	Rs.	29307484	0	0	0	0
16	**Total transportation charges (12+ 13 + 14 + 15)**	**Rs.**	**29307484**	**0**	**0**	**0**	**0**
17	**Total amount charged for coal supplied including transportation (11+16)**	**Rs.**	**2624047946**	**0**	**0**	**0**	**0**
E)	**TOTAL COST**						
18	Landed cost of coal/ Lignite(2+17)/(1+7)	**Rs./MT**	**2157.97**		**0.00**	**0.00**	**0.00**
19	Blending Ratio(Domestic/Imported)		100.00%		0.00%	0.00%	0.00%
20	**Weighted average cost of coal (Including Bio Mass)**	**Rs./MT**	**2157.97**				
20a	**Weighted average cost of coal (Excluding Bio Mass)**	**Rs./MT**	**2157.97**				
F)	**QUALITY**						
21	GCV of Domestic Coal of the opening coal stock as per bill of Coal Company	(Kcal/Kg)	4479		0		0
22	GCV of Domestic Coal supplied as per bill of Coal Company	(Kcal/Kg)	4525		0		0
23	GCV of Imported Coal of the opening stock as per bill Coal Company	(Kcal/Kg)				0	
24	GCV of Imported Coal supplied as per bill Coal Company	(Kcal/Kg)				0	
25	Weighted average GCV of coal/ Lignite as Billed (Including Biomass)	(Kcal/Kg)	**4505**				
25a	Weighted average GCV of coal/ Lignite as Billed (Excluding Bio Mass)	(Kcal/Kg)	**4505**				
26	GCV of Domestic Coal of the opening stock as received at Station	(Kcal/Kg)	3734		0		0
27	GCV of Domestic Coal supplied as received at Station	(Kcal/Kg)	3881		0		0
28	GCV of Imported Coal of opening stock as received at Station	(Kcal/Kg)				0	
29	GCV of Imported Coal of supplied as received at Station	(Kcal/Kg)				0	
30	Weighted average GCV of coal/ Lignite as Received (Including Biomass)	(Kcal/Kg)	**3816**				
30a	Weighted average GCV of coal/ Lignite as Received (Excluding Bio Mass)	(Kcal/Kg)	**3816**				

Sr Mgr (Finance)

FORM-15

Details/Information to be provided to beneficiaries under Clause (2) of Regulation 40 of CERC (Terms & Conditions of Tariff) Regulations, 2019

Details of Source wise Fuel for Computation of Energy Charges (in case of coal)

Name of the Petitioner:	**NTPC Limited**	
Name of the Generating Station:	**Rihand STPP**	**Stage-III**
Month:	**Jun-23**	**Revised**

S.No.	Particulars	Unit	Domestic Coal		E-Auction	Imported Coal	Bio Mass
			Supplied by MGR	Supplied by Rail			
A)	**OPENING QUANTITY**						
1	Opening Quantity ofCoal/Lignite	MT	878553.05	0.00	0.00	0.00	0.00
2	Value of Stock	Rs.	1895892177	0	0	0	0
B)	**QUANTITY**						
3	Quantity of coal supplied by the coal Company	MT	1221805.92	0.00	0.00	0.00	0.00
4	Adjustment (+/-) in quantity supplied by the coal Company	MT	0.00	0.00	0.00	0.00	0.00
5	Coal supplied by the Coal Company (1+2)	MT	1221805.92	0.00	0.00	0.00	0.00
6	Normative transit & handling losses	MT	2443.61	0.00	0.00	0.00	0.00
7	**Net Coal / Lignite supplied (5 - 6)**	**MT**	**1219362.31**	**0.00**	**0.00**	**0.00**	**0.00**
C)	**PRICE**						
8	Amount charged by the Coal / Lignite Company	Rs.	2537711993	0	0	0	0
9	Adjustment (+ / -) in amount charged by coal / Lignite Company	Rs.	197090288	0	0	0	0
10	Handling, Sampling such Other similer Charges	Rs.	44200412	-1	0	0	0
11	**Total Amount charged (8 +9+10)**	**Rs.**	**2779002693**	**-1**	**0**	**0**	**0**
D)	**TRANSPORATION**						
12	Transportation charges by Rail / Ship / Road Transport	Rs.	0	0	0	0	0
13	Adjustment (+/-) in amount charged by Railways / transport Company	Rs.	0	0	0	0	0
14	Demurrage charges, if any	Rs.	0	0	0	0	0
15	Cost of diesel in transporting coal through MGR system	Rs.	27936256	0	0	0	0
16	**Total transportation charges (12+ 13 + 14 + 15)**	**Rs.**	**27936256**	**0**	**0**	**0**	**0**
17	**Total amount charged for coal supplied including transportation (11+16)**	**Rs.**	**2806938949**	**-1**	**0**	**0**	**0**
E)	**TOTAL COST**						
18	Landed cost of coal/ Lignite(2+17)/(1+7)	**Rs./MT**	**2241.67**		**0.00**	**0.00**	**0.00**
19	Blending Ratio(Domestic/Imported)		100.00%		0.00%	0.00%	0.00%
20	**Weighted average cost of coal (Including Bio Mass)**	**Rs./MT**	**2241.67**				
20a	**Weighted average cost of coal (Excluding Bio Mass)**	**Rs./MT**	**2241.67**				
F)	**QUALITY**						
21	GCV of Domestic Coal of the opening coal stock as per bill of Coal Company	(Kcal/Kg)	4505		0		0
22	GCV of Domestic Coal supplied as per bill of Coal Company	(Kcal/Kg)	4530		0		0
23	GCV of Imported Coal of the opening stock as per bill Coal Company	(Kcal/Kg)				0	
24	GCV of Imported Coal supplied as per bill Coal Company	(Kcal/Kg)				0	
25	Weighted average GCV of coal/ Lignite as Billed (Including Biomass)	(Kcal/Kg)	**4520**				
25a	Weighted average GCV of coal/ Lignite as Billed (Excluding Bio Mass)	(Kcal/Kg)	**4520**				
26	GCV of Domestic Coal of the opening stock as received at Station	(Kcal/Kg)	3816		0		0
27	GCV of Domestic Coal supplied as received at Station	(Kcal/Kg)	3863		0		0
28	GCV of Imported Coal of opening stock as received at Station	(Kcal/Kg)				0	
29	GCV of Imported Coal of supplied as received at Station	(Kcal/Kg)				0	
30	Weighted average GCV of coal/ Lignite as Received (Including Biomass)	(Kcal/Kg)	**3843**				
30a	Weighted average GCV of coal/ Lignite as Received (Excluding Bio Mass)	(Kcal/Kg)	**3843**				

Sr Mgr (Finance)

FORM-15

Details/Information to be provided to beneficiaries under Clause (2) of Regulation 40 of CERC (Terms & Conditions of Tariff) Regulations, 2019

Details of Source wise Fuel for Computation of Energy Charges (in case of coal)

Name of the Petitioner:	**NTPC Limited**	
Name of the Generating Station:	**Rihand STPP**	**Stage-III**
Month:	**Jul-23**	**Revised**

S.No.	Particulars	Unit	Domestic Coal		E-Auction	Imported Coal	Bio Mass
			Supplied by MGR	Supplied by Rail			
A)	**OPENING QUANTITY**						
1	Opening Quantity ofCoal/Lignite	MT	830229.36	0.00	0.00	0.00	0.00
2	Value of Stock	Rs.	1861098718	0	0	0	0
B)	**QUANTITY**						
3	Quantity of coal supplied by the coal Company	MT	1315874.98	0.00	0.00	0.00	0.00
4	Adjustment (+/-) in quantity supplied by the coal Company	MT	0.00	0.00	0.00	0.00	0.00
5	Coal supplied by the Coal Company (1+2)	MT	1315874.98	0.00	0.00	0.00	0.00
6	Normative transit & handling losses	MT	2631.75	0.00	0.00	0.00	0.00
7	**Net Coal / Lignite supplied (5 - 6)**	**MT**	**1313243.23**	**0.00**	**0.00**	**0.00**	**0.00**
C)	**PRICE**						
8	Amount charged by the Coal / Lignite Company	Rs.	2994248201	0	0	0	0
9	Adjustment (+ / -) in amount charged by coal / Lignite Company	Rs.	0	0	0	0	0
10	Handling, Sampling such Other similer Charges	Rs.	45185727	0	0	0	0
11	**Total Amount charged (8 +9+10)**	**Rs.**	**3039433928**	**0**	**0**	**0**	**0**
D)	**TRANSPORATION**						
12	Transportation charges by Rail / Ship / Road Transport	Rs.	0	0	0	0	0
13	Adjustment (+/-) in amount charged by Railways / transport Company	Rs.	0	0	0	0	0
14	Demurrage charges, if any	Rs.	0	0	0	0	0
15	Cost of diesel in transporting coal through MGR system	Rs.	30796879	0	0	0	0
16	**Total transportation charges (12+ 13 + 14 + 15)**	**Rs.**	**30796879**	**0**	**0**	**0**	**0**
17	**Total amount charged for coal supplied including transportation (11+16)**	**Rs.**	**3070230807**	**0**	**0**	**0**	**0**
E)	**TOTAL COST**						
18	Landed cost of coal/ Lignite(2+17)/(1+7)	**Rs./MT**	**2300.63**		**0.00**	**0.00**	**0.00**
19	Blending Ratio(Domestic/Imported)		100.00%		0.00%	0.00%	0.00%
20	**Weighted average cost of coal (Including Bio Mass)**	**Rs./MT**	**2300.63**				
20a	**Weighted average cost of coal (Excluding Bio Mass)**	**Rs./MT**	**2300.63**				
F)	**QUALITY**						
21	GCV of Domestic Coal of the opening coal stock as per bill of Coal Company	(Kcal/Kg)	4520		0		0
22	GCV of Domestic Coal supplied as per bill of Coal Company	(Kcal/Kg)	4614		0		0
23	GCV of Imported Coal of the opening stock as per bill Coal Company	(Kcal/Kg)				0	
24	GCV of Imported Coal supplied as per bill Coal Company	(Kcal/Kg)				0	
25	Weighted average GCV of coal/ Lignite as Billed (Including Biomass)	(Kcal/Kg)	**4578**				
25a	Weighted average GCV of coal/ Lignite as Billed (Excluding Bio Mass)	(Kcal/Kg)	**4578**				
26	GCV of Domestic Coal of the opening stock as received at Station	(Kcal/Kg)	3843		0		0
27	GCV of Domestic Coal supplied as received at Station	(Kcal/Kg)	3911		0		0
28	GCV of Imported Coal of opening stock as received at Station	(Kcal/Kg)				0	
29	GCV of Imported Coal of supplied as received at Station	(Kcal/Kg)				0	
30	Weighted average GCV of coal/ Lignite as Received (Including Biomass)	(Kcal/Kg)	**3885**				
30a	Weighted average GCV of coal/ Lignite as Received (Excluding Bio Mass)	(Kcal/Kg)	**3885**				

Sr Mgr (Finance)

FORM-15

Details/Information to be provided to beneficiaries under Clause (2) of Regulation 40 of CERC (Terms & Conditions of Tariff) Regulations, 2019

Details of Source wise Fuel for Computation of Energy Charges (in case of coal)

Name of the Petitioner:	**NTPC Limited**	
Name of the Generating Station:	**Rihand STPP**	**Stage-III**
Month:	**Aug-23**	**Revised**

S.No.	Particulars	Unit	Domestic Coal		E-Auction	Imported Coal	Bio Mass
			Supplied by MGR	Supplied by Rail			
A)	**OPENING QUANTITY**						
1	Opening Quantity ofCoal/Lignite	MT	841126.59	0.00	0.00	0.00	0.00
2	Value of Stock	Rs.	1935118456	0	0	0	0
B)	**QUANTITY**						
3	Quantity of coal supplied by the coal Company	MT	1254897.38	0.00	0.00	0.00	0.00
4	Adjustment (+/-) in quantity supplied by the coal Company	MT	0.00	0.00	0.00	0.00	0.00
5	Coal supplied by the Coal Company (1+2)	MT	1254897.38	0.00	0.00	0.00	0.00
6	Normative transit & handling losses	MT	2509.80	0.00	0.00	0.00	0.00
7	**Net Coal / Lignite supplied (5 - 6)**	**MT**	**1252387.59**	**0.00**	**0.00**	**0.00**	**0.00**
C)	**PRICE**						
8	Amount charged by the Coal / Lignite Company	Rs.	2935697725	0	0	0	0
9	Adjustment (+ / -) in amount charged by coal / Lignite Company	Rs.	0	0	0	0	0
10	Handling, Sampling such Other similer Charges	Rs.	44914797	0	0	0	0
11	**Total Amount charged (8 +9+10)**	**Rs.**	**2980612522**	**0**	**0**	**0**	**0**
D)	**TRANSPORATION**						
12	Transportation charges by Rail / Ship / Road Transport	Rs.	0	0	0	0	0
13	Adjustment (+/-) in amount charged by Railways / transport Company	Rs.	0	0	0	0	0
14	Demurrage charges, if any	Rs.	0	0	0	0	0
15	Cost of diesel in transporting coal through MGR system	Rs.	29458740	0	0	0	0
16	**Total transportation charges (12+ 13 + 14 + 15)**	**Rs.**	**29458740**	**0**	**0**	**0**	**0**
17	**Total amount charged for coal supplied including transportation (11+16)**	**Rs.**	**3010071262**	**0**	**0**	**0**	**0**
E)	**TOTAL COST**						
18	Landed cost of coal/ Lignite(2+17)/(1+7)	**Rs./MT**	**2362.15**		**0.00**	**0.00**	**0.00**
19	Blending Ratio(Domestic/Imported)		100.00%		0.00%	0.00%	0.00%
20	**Weighted average cost of coal (Including Bio Mass)**	**Rs./MT**	**2362.15**				
20a	**Weighted average cost of coal (Excluding Bio Mass)**	**Rs./MT**	**2362.15**				
F)	**QUALITY**						
21	GCV of Domestic Coal of the opening coal stock as per bill of Coal Company	(Kcal/Kg)	4551		0		0
22	GCV of Domestic Coal supplied as per bill of Coal Company	(Kcal/Kg)	4592		0		0
23	GCV of Imported Coal of the opening stock as per bill Coal Company	(Kcal/Kg)				0	
24	GCV of Imported Coal supplied as per bill Coal Company	(Kcal/Kg)				0	
25	Weighted average GCV of coal/ Lignite as Billed (Including Biomass)	(Kcal/Kg)	**4576**				
25a	Weighted average GCV of coal/ Lignite as Billed (Excluding Bio Mass)	(Kcal/Kg)	**4576**				
26	GCV of Domestic Coal of the opening stock as received at Station	(Kcal/Kg)	3919		0		0
27	GCV of Domestic Coal supplied as received at Station	(Kcal/Kg)	3866		0		0
28	GCV of Imported Coal of opening stock as received at Station	(Kcal/Kg)				0	
29	GCV of Imported Coal of supplied as received at Station	(Kcal/Kg)				0	
30	Weighted average GCV of coal/ Lignite as Received (Including Biomass)	(Kcal/Kg)	**3887**				
30a	Weighted average GCV of coal/ Lignite as Received (Excluding Bio Mass)	(Kcal/Kg)	**3887**				

Sr Mgr (Finance)

FORM-15

Details/Information to be provided to beneficiaries under Clause (2) of Regulation 40 of CERC (Terms & Conditions of Tariff) Regulations, 2019

Details of Source wise Fuel for Computation of Energy Charges (in case of coal)

Name of the Petitioner:	**NTPC Limited**	
Name of the Generating Station:	**Rihand STPP**	**Stage-III**
Month:	**Sep-23**	**Revised**

S.No.	Particulars	Unit	Domestic Coal		E-Auction	Imported Coal	Bio Mass
			Supplied by MGR	Supplied by Rail			
A)	**OPENING QUANTITY**						
1	Opening Quantity ofCoal/Lignite	MT	832805.17	0.00	0.00	0.00	0.00
2	Value of Stock	Rs.	1967208474	0	0	0	0
B)	**QUANTITY**						
3	Quantity of coal supplied by the coal Company	MT	1211972.00	0.00	0.00	0.00	0.00
4	Adjustment (+/-) in quantity supplied by the coal Company	MT	0.00	0.00	0.00	0.00	0.00
5	Coal supplied by the Coal Company (1+2)	MT	1211972.00	0.00	0.00	0.00	0.00
6	Normative transit & handling losses	MT	2423.94	0.00	0.00	0.00	0.00
7	**Net Coal / Lignite supplied (5 - 6)**	**MT**	**1209548.06**	**0.00**	**0.00**	**0.00**	**0.00**
C)	**PRICE**						
8	Amount charged by the Coal / Lignite Company	Rs.	2758519946	0	0	0	0
9	Adjustment (+ / -) in amount charged by coal / Lignite Company	Rs.	0	0	0	0	0
10	Handling, Sampling such Other similer Charges	Rs.	60753031	0	0	0	0
11	**Total Amount charged (8 +9+10)**	**Rs.**	**2819272977**	**0**	**0**	**0**	**0**
D)	**TRANSPORATION**						
12	Transportation charges by Rail / Ship / Road Transport	Rs.	0	0	0	0	0
13	Adjustment (+/-) in amount charged by Railways / transport Company	Rs.	0	0	0	0	0
14	Demurrage charges, if any	Rs.	0	0	0	0	0
15	Cost of diesel in transporting coal through MGR system	Rs.	28962178	0	0	0	0
16	**Total transportation charges (12+ 13 + 14 + 15)**	**Rs.**	**28962178**	**0**	**0**	**0**	**0**
17	**Total amount charged for coal supplied including transportation (11+16)**	**Rs.**	**2848235155**	**0**	**0**	**0**	**0**
E)	**TOTAL COST**						
18	Landed cost of coal/ Lignite(2+17)/(1+7)	**Rs./MT**	**2357.79**		**0.00**	**0.00**	**0.00**
19	Blending Ratio(Domestic/Imported)		100.00%		0.00%	0.00%	0.00%
20	**Weighted average cost of coal (Including Bio Mass)**	**Rs./MT**	**2357.79**				
20a	**Weighted average cost of coal (Excluding Bio Mass)**	**Rs./MT**	**2357.79**				
F)	**QUALITY**						
21	GCV of Domestic Coal of the opening coal stock as per bill of Coal Company	(Kcal/Kg)	4576		0		0
22	GCV of Domestic Coal supplied as per bill of Coal Company	(Kcal/Kg)	4702		0		0
23	GCV of Imported Coal of the opening stock as per bill Coal Company	(Kcal/Kg)				0	
24	GCV of Imported Coal supplied as per bill Coal Company	(Kcal/Kg)				0	
25	Weighted average GCV of coal/ Lignite as Billed (Including Biomass)	(Kcal/Kg)	**4651**				
25a	Weighted average GCV of coal/ Lignite as Billed (Excluding Bio Mass)	(Kcal/Kg)	**4651**				
26	GCV of Domestic Coal of the opening stock as received at Station	(Kcal/Kg)	3887		0		0
27	GCV of Domestic Coal supplied as received at Station	(Kcal/Kg)	4057		0		0
28	GCV of Imported Coal of opening stock as received at Station	(Kcal/Kg)				0	
29	GCV of Imported Coal of supplied as received at Station	(Kcal/Kg)				0	
30	Weighted average GCV of coal/ Lignite as Received (Including Biomass)	(Kcal/Kg)	**3988**				
30a	Weighted average GCV of coal/ Lignite as Received (Excluding Bio Mass)	(Kcal/Kg)	**3988**				

Sr Mgr (Finance)

FORM-15

Details/Information to be provided to beneficiaries under Clause (2) of Regulation 40 of CERC (Terms & Conditions of Tariff) Regulations, 2019

Details of Source wise Fuel for Computation of Energy Charges (in case of coal)

Name of the Petitioner:	**NTPC Limited**	
Name of the Generating Station:	**Rihand STPP**	**Stage-III**
Month:	**Oct-23**	**Revised**

S.No.	Particulars	Unit	Domestic Coal		E-Auction	Imported Coal	Bio Mass
			Supplied by MGR	Supplied by Rail			
A)	**OPENING QUANTITY**						
1	Opening Quantity ofCoal/Lignite	MT	827729.23	0.00	0.00	0.00	0.00
2	Value of Stock	Rs.	1951612879	0	0	0	0
B)	**QUANTITY**						
3	Quantity of coal supplied by the coal Company	MT	1184019.34	0.00	0.00	0.00	0.00
4	Adjustment (+/-) in quantity supplied by the coal Company	MT	0.00	0.00	0.00	0.00	0.00
5	Coal supplied by the Coal Company (1+2)	MT	1184019.34	0.00	0.00	0.00	0.00
6	Normative transit & handling losses	MT	2368.04	0.00	0.00	0.00	0.00
7	**Net Coal / Lignite supplied (5 - 6)**	**MT**	**1181651.30**	**0.00**	**0.00**	**0.00**	**0.00**
C)	**PRICE**						
8	Amount charged by the Coal / Lignite Company	Rs.	2691898206	0	0	0	0
9	Adjustment (+ / -) in amount charged by coal / Lignite Company	Rs.	0	0	0	0	0
10	Handling, Sampling such Other similer Charges	Rs.	27061344	0	0	0	0
11	**Total Amount charged (8 +9+10)**	**Rs.**	**2718959550**	**0**	**0**	**0**	**0**
D)	**TRANSPORATION**						
12	Transportation charges by Rail / Ship / Road Transport	Rs.	0	0	0	0	0
13	Adjustment (+/-) in amount charged by Railways / transport Company	Rs.	0	0	0	0	0
14	Demurrage charges, if any	Rs.	0	0	0	0	0
15	Cost of diesel in transporting coal through MGR system	Rs.	26129857	0	0	0	0
16	**Total transportation charges (12+ 13 + 14 + 15)**	**Rs.**	**26129857**	**0**	**0**	**0**	**0**
17	**Total amount charged for coal supplied including transportation (11+16)**	**Rs.**	**2745089407**	**0**	**0**	**0**	**0**
E)	**TOTAL COST**						
18	Landed cost of coal/ Lignite(2+17)/(1+7)	**Rs./MT**	**2337.39**		**0.00**	**0.00**	**0.00**
19	Blending Ratio(Domestic/Imported)		100.00%		0.00%	0.00%	0.00%
20	**Weighted average cost of coal (Including Bio Mass)**	**Rs./MT**	**2337.39**				
20a	**Weighted average cost of coal (Excluding Bio Mass)**	**Rs./MT**	**2337.39**				
F)	**QUALITY**						
21	GCV of Domestic Coal of the opening coal stock as per bill of Coal Company	(Kcal/Kg)	4650		0		0
22	GCV of Domestic Coal supplied as per bill of Coal Company	(Kcal/Kg)	4373		0		0
23	GCV of Imported Coal of the opening stock as per bill Coal Company	(Kcal/Kg)				0	
24	GCV of Imported Coal supplied as per bill Coal Company	(Kcal/Kg)				0	
25	Weighted average GCV of coal/ Lignite as Billed (Including Biomass)	(Kcal/Kg)	**4487**				
25a	Weighted average GCV of coal/ Lignite as Billed (Excluding Bio Mass)	(Kcal/Kg)	**4487**				
26	GCV of Domestic Coal of the opening stock as received at Station	(Kcal/Kg)	3988		0		0
27	GCV of Domestic Coal supplied as received at Station	(Kcal/Kg)	3789		0		0
28	GCV of Imported Coal of opening stock as received at Station	(Kcal/Kg)				0	
29	GCV of Imported Coal of supplied as received at Station	(Kcal/Kg)				0	
30	Weighted average GCV of coal/ Lignite as Received (Including Biomass)	(Kcal/Kg)	**3871**				
30a	Weighted average GCV of coal/ Lignite as Received (Excluding Bio Mass)	(Kcal/Kg)	**3871**				

Sr Mgr (Finance)

FORM-15

Details/Information to be provided to beneficiaries under Clause (2) of Regulation 40 of CERC (Terms & Conditions of Tariff) Regulations, 2019

Details of Source wise Fuel for Computation of Energy Charges (in case of coal)

Name of the Petitioner:	**NTPC Limited**	
Name of the Generating Station:	**Rihand STPP**	**Stage-III**
Month:	**Nov-23**	**Revised**

S.No.	Particulars	Unit	Domestic Coal		E-Auction	Imported Coal	Bio Mass
			Supplied by MGR	Supplied by Rail			
A)	**OPENING QUANTITY**						
1	Opening Quantity ofCoal/Lignite	MT	938819.53	0.00	0.00	0.00	0.00
2	Value of Stock	Rs.	2194385851	0	0	0	0
B)	**QUANTITY**						
3	Quantity of coal supplied by the coal Company	MT	1233259.08	0.00	0.00	0.00	0.00
4	Adjustment (+/-) in quantity supplied by the coal Company	MT	0.00	0.00	0.00	0.00	0.00
5	Coal supplied by the Coal Company (1+2)	MT	1233259.08	0.00	0.00	0.00	0.00
6	Normative transit & handling losses	MT	2466.52	0.00	0.00	0.00	0.00
7	**Net Coal / Lignite supplied (5 - 6)**	**MT**	**1230792.56**	**0.00**	**0.00**	**0.00**	**0.00**
C)	**PRICE**						
8	Amount charged by the Coal / Lignite Company	Rs.	2787092957	0	0	0	0
9	Adjustment (+ / -) in amount charged by coal / Lignite Company	Rs.	0	0	0	0	0
10	Handling, Sampling such Other similer Charges	Rs.	48080526	0	0	0	0
11	**Total Amount charged (8 +9+10)**	**Rs.**	**2835173483**	**0**	**0**	**0**	**0**
D)	**TRANSPORATION**						
12	Transportation charges by Rail / Ship / Road Transport	Rs.	0	0	0	0	0
13	Adjustment (+/-) in amount charged by Railways / transport Company	Rs.	0	0	0	0	0
14	Demurrage charges, if any	Rs.	0	0	0	0	0
15	Cost of diesel in transporting coal through MGR system	Rs.	25827276	0	0	0	0
16	**Total transportation charges (12+ 13 + 14 + 15)**	**Rs.**	**25827276**	**0**	**0**	**0**	**0**
17	**Total amount charged for coal supplied including transportation (11+16)**	**Rs.**	**2861000759**	**0**	**0**	**0**	**0**
E)	**TOTAL COST**						
18	Landed cost of coal/ Lignite(2+17)/(1+7)	**Rs./MT**	**2330.09**		**0.00**	**0.00**	**0.00**
19	Blending Ratio(Domestic/Imported)		100.00%		0.00%	0.00%	0.00%
20	**Weighted average cost of coal (Including Bio Mass)**	**Rs./MT**	**2330.09**				
20a	**Weighted average cost of coal (Excluding Bio Mass)**	**Rs./MT**	**2330.09**				
F)	**QUALITY**						
21	GCV of Domestic Coal of the opening coal stock as per bill of Coal Company	(Kcal/Kg)	4487		0		0
22	GCV of Domestic Coal supplied as per bill of Coal Company	(Kcal/Kg)	4695		0		0
23	GCV of Imported Coal of the opening stock as per bill Coal Company	(Kcal/Kg)				0	
24	GCV of Imported Coal supplied as per bill Coal Company	(Kcal/Kg)				0	
25	Weighted average GCV of coal/ Lignite as Billed (Including Biomass)	(Kcal/Kg)	**4605**				
25a	Weighted average GCV of coal/ Lignite as Billed (Excluding Bio Mass)	(Kcal/Kg)	**4605**				
26	GCV of Domestic Coal of the opening stock as received at Station	(Kcal/Kg)	3871		0		0
27	GCV of Domestic Coal supplied as received at Station	(Kcal/Kg)	4009		0		0
28	GCV of Imported Coal of opening stock as received at Station	(Kcal/Kg)				0	
29	GCV of Imported Coal of supplied as received at Station	(Kcal/Kg)				0	
30	Weighted average GCV of coal/ Lignite as Received (Including Biomass)	(Kcal/Kg)	**3949**				
30a	Weighted average GCV of coal/ Lignite as Received (Excluding Bio Mass)	(Kcal/Kg)	**3949**				

Sr Mgr (Finance)

FORM-15

Details/Information to be provided to beneficiaries under Clause (2) of Regulation 40 of CERC (Terms & Conditions of Tariff) Regulations, 2019

Details of Source wise Fuel for Computation of Energy Charges (in case of coal)

Name of the Petitioner:	**NTPC Limited**	
Name of the Generating Station:	**Rihand STPP**	**Stage-III**
Month:	**Dec-23**	**Revised**

S.No.	Particulars	Unit	Domestic Coal		E-Auction	Imported Coal	Bio Mass
			Supplied by MGR	Supplied by Rail			
A)	**OPENING QUANTITY**						
1	Opening Quantity ofCoal/Lignite	MT	935536.09	0.00	0.00	0.00	0.00
2	Value of Stock	Rs.	2179880931	0	0	0	0
B)	**QUANTITY**						
3	Quantity of coal supplied by the coal Company	MT	1247860.96	0.00	0.00	0.00	0.00
4	Adjustment (+/-) in quantity supplied by the coal Company	MT	0.00	0.00	0.00	0.00	0.00
5	Coal supplied by the Coal Company (1+2)	MT	1247860.96	0.00	0.00	0.00	0.00
6	Normative transit & handling losses	MT	2495.72	0.00	0.00	0.00	0.00
7	**Net Coal / Lignite supplied (5 - 6)**	**MT**	**1245365.24**	**0.00**	**0.00**	**0.00**	**0.00**
C)	**PRICE**						
8	Amount charged by the Coal / Lignite Company	Rs.	2990721091	0	0	0	0
9	Adjustment (+ / -) in amount charged by coal / Lignite Company	Rs.	0	0	0	0	0
10	Handling, Sampling such Other similer Charges	Rs.	24484955	0	0	0	0
11	**Total Amount charged (8 +9+10)**	**Rs.**	**3015206046**	**0**	**0**	**0**	**0**
D)	**TRANSPORATION**						
12	Transportation charges by Rail / Ship / Road Transport	Rs.	0	0	0	0	0
13	Adjustment (+/-) in amount charged by Railways / transport Company	Rs.	0	0	0	0	0
14	Demurrage charges, if any	Rs.	0	0	0	0	0
15	Cost of diesel in transporting coal through MGR system	Rs.	25760717	0	0	0	0
16	**Total transportation charges (12+ 13 + 14 + 15)**	**Rs.**	**25760717**	**0**	**0**	**0**	**0**
17	**Total amount charged for coal supplied including transportation (11+16)**	**Rs.**	**3040966763**	**0**	**0**	**0**	**0**
E)	**TOTAL COST**						
18	Landed cost of coal/ Lignite(2+17)/(1+7)	**Rs./MT**	**2393.89**		**0.00**	**0.00**	**0.00**
19	Blending Ratio(Domestic/Imported)		100.00%		0.00%	0.00%	0.00%
20	**Weighted average cost of coal (Including Bio Mass)**	**Rs./MT**	**2393.89**				
20a	**Weighted average cost of coal (Excluding Bio Mass)**	**Rs./MT**	**2393.89**				
F)	**QUALITY**						
21	GCV of Domestic Coal of the opening coal stock as per bill of Coal Company	(Kcal/Kg)	4606		0		0
22	GCV of Domestic Coal supplied as per bill of Coal Company	(Kcal/Kg)	4624		0		0
23	GCV of Imported Coal of the opening stock as per bill Coal Company	(Kcal/Kg)				0	
24	GCV of Imported Coal supplied as per bill Coal Company	(Kcal/Kg)				0	
25	Weighted average GCV of coal/ Lignite as Billed (Including Biomass)	(Kcal/Kg)	**4616**				
25a	Weighted average GCV of coal/ Lignite as Billed (Excluding Bio Mass)	(Kcal/Kg)	**4616**				
26	GCV of Domestic Coal of the opening stock as received at Station	(Kcal/Kg)	3948		0		0
27	GCV of Domestic Coal supplied as received at Station	(Kcal/Kg)	3911		0		0
28	GCV of Imported Coal of opening stock as received at Station	(Kcal/Kg)				0	
29	GCV of Imported Coal of supplied as received at Station	(Kcal/Kg)				0	
30	Weighted average GCV of coal/ Lignite as Received (Including Biomass)	(Kcal/Kg)	**3927**				
30a	Weighted average GCV of coal/ Lignite as Received (Excluding Bio Mass)	(Kcal/Kg)	**3927**				

Sr Mgr (Finance)

Part 1

Details of Sourcewise fuel for computation of Energy Charges

Form - 15 version: 1

Company	**NTPC Limited**
Name of the generating Station	**Rihand Superthermal Power-STAGE 03**
Month	**January-2024**

SL	Particulars	Unit	COAL-DOMESTIC
A)	**OPENING QUANTITY**		
1	Opening Stock of coal	MT	960935.33
2	Value of Stock	Rs.	2300378407.67
B)	**QUANTITY**		
3	Quantity of Coal /Lignite supplied by Coal / Lignite Company	MT	1152719.62
3.01	- Qty Received (Pit Head)	MT	1152719.62
3.02	- Qty Received (Non Pit Head)	MT	0.00
4	Adjustment (+/-) in quantity supplied made by Coal / Lignite Company	MT	0.00
5	Coal supplied by Coal/Lignite Company (3+4)	MT	1152719.62
6	Normative transit & Handling losses (for Coal /Lignite based projects)	MT	2305.44
6.01	- Normative Loss (Pit Head)	MT	2305.44
6.02	- Normative Loss (Non Pit Head)	MT	0.00
7	Net Coal / Lignite supplied (5 - 6)	MT	1150414.18
C)	**PRICE**		
8	Amount charged by the Coal / Lignite Company	Rs.	2680997132.00
9	Adjustment (+ / -) in amount charged by coal / Lignite Company	Rs.	0.00
10	Handling,Sampling and such other Similar charges	Rs.	11885714.87
11	Total Amount charged (8 +9+10)	Rs.	2692882846.87
D)	**TRANSPORTATION**		
12	Transportation charges by Rail / Ship / Road Transport	Rs.	0.00
13	Adjustment (+/-) in amount charged by railways / transport company	Rs.	0.00
14	Demurrage charges, if any	Rs.	0.00
15	Cost of diesel in transporting Coal through MGR system, if applicable	Rs.	23096136.00
16	Total transportation charges (12+/- 13 - 14 + 15)	Rs.	23096136.00
17	Total amount charged for Coal / Lignite supplied including transportation (11 + 16)	Rs.	2715978982.87
E)	**TOTAL COST**		
18	Landed Cost of Coal/Lignite (2+17) / (1+7)	Rs./MT	2375.90
19	Blending Ratio (Domestic/Imported)	%	100.00
20	Weighted average cost of Coal /Lignite (Including biomass)	Rs./MT	2375.90
20.10	Weighted average cost of Coal /Lignite (Excluding biomass)	Rs./MT	2375.90
F)	**QUALITY**		
21	GCV of Domestic coal of the opening coal stock as per bill of coal company	kCal/Kg	4616
22	GCV of Domestic coal supplied as per bill of coal company	kCal/Kg	4546
23	GCV of Imported coal of the opening coal stock as per bill of coal company	kCal/Kg	0
24	GCV of Imported coal supplied as per bill of coal company	kCal/Kg	0
25	Weighted average GCV of Coal /Lignite as billed (Including biomass)	kCal/Kg	4578
25.10	Weighted average GCV of Coal /Lignite as billed (Excluding biomass)	kCal/Kg	4578
26	GCV of Domestic coal of the Opening stock as received at station	kCal/Kg	3927
27	GCV of Domestic coal/biomass supplied as received at station	kCal/Kg	3822
28	GCV of Imported coal of the Opening stock as received at station	kCal/Kg	0
29	GCV of Imported coal supplied as received at station	kCal/Kg	0
30	Weighted average GCV of coal/ Lignite as Received (Including biomass)	kCal/Kg	3870
30.10	Weighted average GCV of coal/ Lignite as Received (Excluding biomass)	kCal/Kg	3870

Submitted On :16.04.2024

Part 1

Details of Sourcewise fuel for computation of Energy Charges

Form - 15 version: 1

Company	**NTPC Limited**
Name of the generating Station	**Rihand Superthermal Power-STAGE 03**
Month	**February-2024**

SL	Particulars	Unit	COAL-DOMESTIC
A)	**OPENING QUANTITY**		
1	Opening Stock of coal	MT	1003513.51
2	Value of Stock	Rs.	2384248730.30
B)	**QUANTITY**		
3	Quantity of Coal /Lignite supplied by Coal / Lignite Company	MT	990144.70
3.01	- Qty Received (Pit Head)	MT	990144.70
3.02	- Qty Received (Non Pit Head)	MT	0.00
4	Adjustment (+/-) in quantity supplied made by Coal / Lignite Company	MT	0.00
5	Coal supplied by Coal/Lignite Company (3+4)	MT	990144.70
6	Normative transit & Handling losses (for Coal /Lignite based projects)	MT	1980.29
6.01	- Normative Loss (Pit Head)	MT	1980.29
6.02	- Normative Loss (Non Pit Head)	MT	0.00
7	Net Coal / Lignite supplied (5 - 6)	MT	988164.41
C)	**PRICE**		
8	Amount charged by the Coal / Lignite Company	Rs.	2226421407.00
9	Adjustment (+ / -) in amount charged by coal / Lignite Company	Rs.	0.00
10	Handling,Sampling and such other Similar charges	Rs.	21213075.98
11	Total Amount charged (8 +9+10)	Rs.	2247634482.98
D)	**TRANSPORTATION**		
12	Transportation charges by Rail / Ship / Road Transport	Rs.	0.00
13	Adjustment (+/-) in amount charged by railways / transport company	Rs.	0.00
14	Demurrage charges, if any	Rs.	0.00
15	Cost of diesel in transporting Coal through MGR system, if applicable	Rs.	20394347.00
16	Total transportation charges (12+/- 13 - 14 + 15)	Rs.	20394347.00
17	Total amount charged for Coal / Lignite supplied including transportation (11 + 16)	Rs.	2268028829.98
E)	**TOTAL COST**		
18	Landed Cost of Coal/Lignite (2+17) / (1+7)	Rs./MT	2335.86
19	Blending Ratio (Domestic/Imported)	%	100.00
20	Weighted average cost of Coal /Lignite (Including biomass)	Rs./MT	2335.86
20.10	Weighted average cost of Coal /Lignite (Excluding biomass)	Rs./MT	2335.86
F)	**QUALITY**		
21	GCV of Domestic coal of the opening coal stock as per bill of coal company	kCal/Kg	4578
22	GCV of Domestic coal supplied as per bill of coal company	kCal/Kg	4584
23	GCV of Imported coal of the opening coal stock as per bill of coal company	kCal/Kg	0
24	GCV of Imported coal supplied as per bill of coal company	kCal/Kg	0
25	Weighted average GCV of Coal /Lignite as billed (Including biomass)	kCal/Kg	4581
25.10	Weighted average GCV of Coal /Lignite as billed (Excluding biomass)	kCal/Kg	4581
26	GCV of Domestic coal of the Opening stock as received at station	kCal/Kg	3870
27	GCV of Domestic coal/biomass supplied as received at station	kCal/Kg	3864
28	GCV of Imported coal of the Opening stock as received at station	kCal/Kg	0
29	GCV of Imported coal supplied as received at station	kCal/Kg	0
30	Weighted average GCV of coal/ Lignite as Received (Including biomass)	kCal/Kg	3867
30.10	Weighted average GCV of coal/ Lignite as Received (Excluding biomass)	kCal/Kg	3867

Submitted On :16.04.2024

Part 1

Details of Sourcewise fuel for computation of Energy Charges

Form - 15 version: 1

Company	**NTPC Limited**
Name of the generating Station	**Rihand Superthermal Power-STAGE 03**
Month	**March-2024**

SL	Particulars	Unit	COAL-DOMESTIC
A)	**OPENING QUANTITY**		
1	Opening Stock of coal	MT	970961.92
2	Value of Stock	Rs.	2268029925.95
B)	**QUANTITY**		
3	Quantity of Coal /Lignite supplied by Coal / Lignite Company	MT	1192591.94
3.01	- Qty Received (Pit Head)	MT	1192591.94
3.02	- Qty Received (Non Pit Head)	MT	0.00
4	Adjustment (+/-) in quantity supplied made by Coal / Lignite Company	MT	0.00
5	Coal supplied by Coal/Lignite Company (3+4)	MT	1192591.94
6	Normative transit & Handling losses (for Coal /Lignite based projects)	MT	2385.18
6.01	- Normative Loss (Pit Head)	MT	2385.18
6.02	- Normative Loss (Non Pit Head)	MT	0.00
7	Net Coal / Lignite supplied (5 - 6)	MT	1190206.76
C)	**PRICE**		
8	Amount charged by the Coal / Lignite Company	Rs.	2543448575.00
9	Adjustment (+ / -) in amount charged by coal / Lignite Company	Rs.	0.00
10	Handling,Sampling and such other Similar charges	Rs.	48749775.38
11	Total Amount charged (8 +9+10)	Rs.	2592198350.38
D)	**TRANSPORTATION**		
12	Transportation charges by Rail / Ship / Road Transport	Rs.	0.00
13	Adjustment (+/-) in amount charged by railways / transport company	Rs.	0.00
14	Demurrage charges, if any	Rs.	0.00
15	Cost of diesel in transporting Coal through MGR system, if applicable	Rs.	24781735.61
16	Total transportation charges (12+/- 13 - 14 + 15)	Rs.	24781735.61
17	Total amount charged for Coal / Lignite supplied including transportation (11 + 16)	Rs.	2616980085.99
E)	**TOTAL COST**		
18	Landed Cost of Coal/Lignite (2+17) / (1+7)	Rs./MT	2260.36
19	Blending Ratio (Domestic/Imported)	%	100.00
20	Weighted average cost of Coal /Lignite (Including biomass)	Rs./MT	2260.36
20.10	Weighted average cost of Coal /Lignite (Excluding biomass)	Rs./MT	2260.36
F)	**QUALITY**		
21	GCV of Domestic coal of the opening coal stock as per bill of coal company	kCal/Kg	4581
22	GCV of Domestic coal supplied as per bill of coal company	kCal/Kg	4425
23	GCV of Imported coal of the opening coal stock as per bill of coal company	kCal/Kg	0
24	GCV of Imported coal supplied as per bill of coal company	kCal/Kg	0
25	Weighted average GCV of Coal /Lignite as billed (Including biomass)	kCal/Kg	4495
25.10	Weighted average GCV of Coal /Lignite as billed (Excluding biomass)	kCal/Kg	4495
26	GCV of Domestic coal of the Opening stock as received at station	kCal/Kg	3867
27	GCV of Domestic coal/biomass supplied as received at station	kCal/Kg	3775
28	GCV of Imported coal of the Opening stock as received at station	kCal/Kg	0
29	GCV of Imported coal supplied as received at station	kCal/Kg	0
30	Weighted average GCV of coal/ Lignite as Received (Including biomass)	kCal/Kg	3816
30.10	Weighted average GCV of coal/ Lignite as Received (Excluding biomass)	kCal/Kg	3816

Submitted On :16.04.2024

Details of Sourcewise fuel for computation of Energy Charges **FORM -15 A**

	Company		NTPC	
	Name of the generating Station		Rihand Stage-I, II & III	
	Month		Apr-2023	
SL	Particulars	Unit	LDO	HFO
A)	**OPENING QUANTITY**			
1	Opening Stock of Oil	KL	6,337.55	0.00
2	Value of Stock	Rs	54,74,39,932	0.00
B)	**QUANTITY**			
3	Quantity of Oil supplied by Oil Company	KL	0.00	0.00
4	Adjustment (+/-) in quantity supplied made by Oil Company	KL	0.00	0.00
5	Coal supplied by Oil Company (3+4)	KL	0.00	0.00
6	Normative transit & Handling losses	KL	NA	NA
7	Net Oil supplied (5 - 6)	KL	0.00	0.00
C)	**PRICE**			
8	Amount charged by the Oil Company	Rs	0	0
9	Adjustment (+ / -) in amount charged by Oil Company	Rs	0	0
10	Handling,Sampling and such other Similar charges	Rs	0	0
11	**Total Amount charged (8 +9+10)**	Rs	0	0
D)	**TRANSPORTATION**	Rs		
12	Transportation charges by Rail / Ship / Road Transport			
	By Rail	Rs	0	0
	By Road	Rs	0	0
	By Ship	Rs	0	0
13	Adjustment (+/-) in amount charged by railways / transport company	Rs	0	0
14	Demurrage charges, if any	Rs	0	0
15	Cost of diesel in transporting Coal through MGR system, if applicable	Rs	0	0
16	Total transportation charges (12+/- 13 - 14 + 15)	Rs	0	0
17	Total amount charged for Oil supplied including transportation (11 + 16)	Rs	0	0
E)	**TOTAL COST**			
18	Landed Cost of OIl (LDO/HFO) (2+17) / (1+7)	**Rs/KL**	**86,380.39**	**0.00**
19	Blending Ratio		1.00	0.00
20	Weighted average cost of OIl		**86,380.39**	
F)	**QUALITY**			
21	GCV of OIl of the opening stock as per bill of Oil company	(Kcal/Ltr)		
22	GCV of oil supplied as per bill of oil company	(Kcal/Ltr)		
23	GCV of Imported coal of the opening coal stock as per bill of coal company	(Kcal/Ltr)		
24	GCV of Imported coal supplied as per bill of coal company	(Kcal/Ltr)		
25	Weighted average GCV of Oil as billed	(Kcal/Ltr)		
26	GCV of Oil of the Opening stock as received at station	(Kcal/Ltr)		
27	GCV of Oil supplied	(Kcal/Ltr)	9302	0
28	GCV of Imported coal of the Opening stock as received at station	(Kcal/Ltr)		
29	GCV of Imported coal supplied as received at station	(Kcal/Ltr)		
30	Weighted average GCV of Oil	(Kcal/Ltr)	**9302**	

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Sr Mgr(Finance)

Details of Sourcewise fuel for computation of Energy Charges **FORM -15 A**

	Company		**NTPC**	
	Name of the generating Station		**Rihand Stage-I, II & III**	
	Month		**May-2023**	
SL	**Particulars**	**Unit**	**LDO**	**HFO**
A)	**OPENING QUANTITY**			
1	Opening Stock of Oil	KL	5,910.55	0.00
2	Value of Stock	Rs	51,05,55,507	0.00
B)	**QUANTITY**			
3	Quantity of Oil supplied by Oil Company	KL	0.00	0.00
4	Adjustment (+/-) in quantity supplied made by Oil Company	KL	0.00	0.00
5	Coal supplied by Oil Company (3+4)	KL	0.00	0.00
6	Normative transit & Handling losses	KL	NA	NA
7	Net Oil supplied (5 - 6)	KL	0.00	0.00
C)	**PRICE**			
8	Amount charged by the Oil Company	Rs	0	0
9	Adjustment (+ / -) in amount charged by Oil Company	Rs	0	0
10	Handling,Sampling and such other Similar charges	Rs	0	0
11	**Total Amount charged (8 +9+10)**	Rs	0	0
D)	**TRANSPORTATION**	Rs		
12	Transportation charges by Rail / Ship / Road Transport			
	By Rail	Rs	0	0
	By Road	Rs	0	0
	By Ship	Rs	0	0
13	Adjustment (+/-) in amount charged by railways / transport company	Rs	0	0
14	Demurrage charges, if any	Rs	0	0
15	Cost of diesel in transporting Coal through MGR system, if applicable	Rs	0	0
16	Total transportation charges (12+/- 13 - 14 + 15)	Rs	0	0
17	Total amount charged for Oil supplied including transportation (11 + 16)	Rs	0	0
E)	**TOTAL COST**			
18	Landed Cost of OIl (LDO/HFO) (2+17) / (1+7)	**Rs/KL**	**86,380.39**	**0.00**
19	Blending Ratio		1.00	0.00
20	Weighted average cost of OIl		**86,380.39**	
F)	**QUALITY**			
21	GCV of OIl of the opening stock as per bill of Oil company	(Kcal/Ltr)		
22	GCV of oil supplied as per bill of oil company	(Kcal/Ltr)		
23	GCV of Imported coal of the opening coal stock as per bill of coal company	(Kcal/Ltr)		
24	GCV of Imported coal supplied as per bill of coal company	(Kcal/Ltr)		
25	Weighted average GCV of Oil as billed	(Kcal/Ltr)		
26	GCV of Oil of the Opening stock as received at station	(Kcal/Ltr)		
27	GCV of Oil supplied	(Kcal/Ltr)	9302	0
28	GCV of Imported coal of the Opening stock as received at station	(Kcal/Ltr)		
29	GCV of Imported coal supplied as received at station	(Kcal/Ltr)		
30	Weighted average GCV of Oil	(Kcal/Ltr)	**9302**	

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Sr Mgr(Finance)

Details of Sourcewise fuel for computation of Energy Charges **FORM -15 A**

	Company		**NTPC**	
	Name of the generating Station		**Rihand Stage-I, II & III**	
	Month		**June-2023**	
SL	**Particulars**	**Unit**	**LDO**	**HFO**
A)	**OPENING QUANTITY**			
1	Opening Stock of Oil	KL	5,880.55	0.00
2	Value of Stock	Rs	50,79,64,095	0.00
B)	**QUANTITY**			
3	Quantity of Oil supplied by Oil Company	KL	0.00	0.00
4	Adjustment (+/-) in quantity supplied made by Oil Company	KL	0.00	0.00
5	Coal supplied by Oil Company (3+4)	KL	0.00	0.00
6	Normative transit & Handling losses	KL	NA	NA
7	Net Oil supplied (5 - 6)	KL	0.00	0.00
C)	**PRICE**			
8	Amount charged by the Oil Company	Rs	0	0
9	Adjustment (+ / -) in amount charged by Oil Company	Rs	0	0
10	Handling,Sampling and such other Similar charges	Rs	0	0
11	**Total Amount charged (8 +9+10)**	Rs	0	0
D)	**TRANSPORTATION**	Rs		
12	Transportation charges by Rail / Ship / Road Transport			
	By Rail	Rs	0	0
	By Road	Rs	0	0
	By Ship	Rs	0	0
13	Adjustment (+/-) in amount charged by railways / transport company	Rs	0	0
14	Demurrage charges, if any	Rs	0	0
15	Cost of diesel in transporting Coal through MGR system, if applicable	Rs	0	0
16	Total transportation charges (12+/- 13 - 14 + 15)	Rs	0	0
17	Total amount charged for Oil supplied including transportation (11 + 16)	Rs	0	0
E)	**TOTAL COST**			
18	Landed Cost of OIl (LDO/HFO) (2+17) / (1+7)	**Rs/KL**	**86,380.39**	**0.00**
19	Blending Ratio		1.00	0.00
20	Weighted average cost of OIl		**86,380.39**	
F)	**QUALITY**			
21	GCV of OIl of the opening stock as per bill of Oil company	(Kcal/Ltr)		
22	GCV of oil supplied as per bill of oil company	(Kcal/Ltr)		
23	GCV of Imported coal of the opening coal stock as per bill of coal company	(Kcal/Ltr)		
24	GCV of Imported coal supplied as per bill of coal company	(Kcal/Ltr)		
25	Weighted average GCV of Oil as billed	(Kcal/Ltr)		
26	GCV of Oil of the Opening stock as received at station	(Kcal/Ltr)		
27	GCV of Oil supplied	(Kcal/Ltr)	9302	0
28	GCV of Imported coal of the Opening stock as received at station	(Kcal/Ltr)		
29	GCV of Imported coal supplied as received at station	(Kcal/Ltr)		
30	Weighted average GCV of Oil	(Kcal/Ltr)	**9302**	

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Sr Mgr(Finance)

Details of Sourcewise fuel for computation of Energy Charges **FORM -15 A**

	Company		NTPC	
	Name of the generating Station		Rihand Stage-I, II & III	
	Month		July-2023	
SL	Particulars	Unit	LDO	HFO
A)	**OPENING QUANTITY**			
1	Opening Stock of Oil	KL	5,580.55	0.00
2	Value of Stock	Rs	48,20,49,979	0.00
B)	**QUANTITY**			
3	Quantity of Oil supplied by Oil Company	KL	0.00	0.00
4	Adjustment (+/-) in quantity supplied made by Oil Company	KL	0.00	0.00
5	Coal supplied by Oil Company (3+4)	KL	0.00	0.00
6	Normative transit & Handling losses	KL	NA	NA
7	Net Oil supplied (5 - 6)	KL	0.00	0.00
C)	**PRICE**			
8	Amount charged by the Oil Company	Rs	0	0
9	Adjustment (+ / -) in amount charged by Oil Company	Rs	0	0
10	Handling,Sampling and such other Similar charges	Rs	0	0
11	**Total Amount charged (8 +9+10)**	Rs	0	0
D)	**TRANSPORTATION**	Rs		
12	Transportation charges by Rail / Ship / Road Transport			
	By Rail	Rs	0	0
	By Road	Rs	0	0
	By Ship	Rs	0	0
13	Adjustment (+/-) in amount charged by railways / transport company	Rs	0	0
14	Demurrage charges, if any	Rs	0	0
15	Cost of diesel in transporting Coal through MGR system, if applicable	Rs	0	0
16	Total transportation charges (12+/- 13 - 14 + 15)	Rs	0	0
17	Total amount charged for Oil supplied including transportation (11 + 16)	Rs	0	0
E)	**TOTAL COST**			
18	Landed Cost of OIl (LDO/HFO) (2+17) / (1+7)	**Rs/KL**	**86,380.39**	**0.00**
19	Blending Ratio		1.00	0.00
20	Weighted average cost of OIl		**86,380.39**	
F)	**QUALITY**			
21	GCV of OIl of the opening stock as per bill of Oil company	(Kcal/Ltr)		
22	GCV of oil supplied as per bill of oil company	(Kcal/Ltr)		
23	GCV of Imported coal of the opening coal stock as per bill of coal company	(Kcal/Ltr)		
24	GCV of Imported coal supplied as per bill of coal company	(Kcal/Ltr)		
25	Weighted average GCV of Oil as billed	(Kcal/Ltr)		
26	GCV of Oil of the Opening stock as received at station	(Kcal/Ltr)		
27	GCV of Oil supplied	(Kcal/Ltr)	9302	0
28	GCV of Imported coal of the Opening stock as received at station	(Kcal/Ltr)		
29	GCV of Imported coal supplied as received at station	(Kcal/Ltr)		
30	Weighted average GCV of Oil	(Kcal/Ltr)	**9302**	

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Sr Mgr(Finance)

Details of Sourcewise fuel for computation of Energy Charges **FORM -15 A**

	Company		NTPC	
	Name of the generating Station		Rihand Stage-I, II & III	
	Month		Aug-2023	
SL	Particulars	Unit	LDO	HFO
A)	**OPENING QUANTITY**			
1	Opening Stock of Oil	KL	5,462.55	0.00
2	Value of Stock	Rs	47,18,57,094	0.00
B)	**QUANTITY**			
3	Quantity of Oil supplied by Oil Company	KL	0.00	0.00
4	Adjustment (+/-) in quantity supplied made by Oil Company	KL	0.00	0.00
5	Coal supplied by Oil Company (3+4)	KL	0.00	0.00
6	Normative transit & Handling losses	KL	NA	NA
7	Net Oil supplied (5 - 6)	KL	0.00	0.00
C)	**PRICE**			
8	Amount charged by the Oil Company	Rs	0	0
9	Adjustment (+ / -) in amount charged by Oil Company	Rs	0	0
10	Handling,Sampling and such other Similar charges	Rs	0	0
11	**Total Amount charged (8 +9+10)**	Rs	0	0
D)	**TRANSPORTATION**	Rs		
12	Transportation charges by Rail / Ship / Road Transport			
	By Rail	Rs	0	0
	By Road	Rs	0	0
	By Ship	Rs	0	0
13	Adjustment (+/-) in amount charged by railways / transport company	Rs	0	0
14	Demurrage charges, if any	Rs	0	0
15	Cost of diesel in transporting Coal through MGR system, if applicable	Rs	0	0
16	Total transportation charges (12+/- 13 - 14 + 15)	Rs	0	0
17	Total amount charged for Oil supplied including transportation (11 + 16)	Rs	0	0
E)	**TOTAL COST**			
18	Landed Cost of OIl (LDO/HFO) (2+17) / (1+7)	**Rs/KL**	**86,380.39**	**0.00**
19	Blending Ratio		1.00	0.00
20	Weighted average cost of OIl		**86,380.39**	
F)	**QUALITY**			
21	GCV of OIl of the opening stock as per bill of Oil company	(Kcal/Ltr)		
22	GCV of oil supplied as per bill of oil company	(Kcal/Ltr)		
23	GCV of Imported coal of the opening coal stock as per bill of coal company	(Kcal/Ltr)		
24	GCV of Imported coal supplied as per bill of coal company	(Kcal/Ltr)		
25	Weighted average GCV of Oil as billed	(Kcal/Ltr)		
26	GCV of Oil of the Opening stock as received at station	(Kcal/Ltr)		
27	GCV of Oil supplied	(Kcal/Ltr)	9302	0
28	GCV of Imported coal of the Opening stock as received at station	(Kcal/Ltr)		
29	GCV of Imported coal supplied as received at station	(Kcal/Ltr)		
30	Weighted average GCV of Oil	(Kcal/Ltr)	**9302**	

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Sr Mgr(Finance)

Details of Sourcewise fuel for computation of Energy Charges **FORM -15 A**

	Company		NTPC	
	Name of the generating Station		Rihand Stage-I, II & III	
	Month		Sep-2023	
SL	Particulars	Unit	LDO	HFO
A)	**OPENING QUANTITY**			
1	Opening Stock of Oil	KL	4,884.55	0.00
2	Value of Stock	Rs	42,19,29,230	0.00
B)	**QUANTITY**			
3	Quantity of Oil supplied by Oil Company	KL	0.00	0.00
4	Adjustment (+/-) in quantity supplied made by Oil Company	KL	0.00	0.00
5	Coal supplied by Oil Company (3+4)	KL	0.00	0.00
6	Normative transit & Handling losses	KL	NA	NA
7	Net Oil supplied (5 - 6)	KL	0.00	0.00
C)	**PRICE**			
8	Amount charged by the Oil Company	Rs	0	0
9	Adjustment (+ / -) in amount charged by Oil Company	Rs	0	0
10	Handling,Sampling and such other Similar charges	Rs	0	0
11	**Total Amount charged (8 +9+10)**	Rs	0	0
D)	**TRANSPORTATION**	Rs		
12	Transportation charges by Rail / Ship / Road Transport			
	By Rail	Rs	0	0
	By Road	Rs	0	0
	By Ship	Rs	0	0
13	Adjustment (+/-) in amount charged by railways / transport company	Rs	0	0
14	Demurrage charges, if any	Rs	0	0
15	Cost of diesel in transporting Coal through MGR system, if applicable	Rs	0	0
16	Total transportation charges (12+/- 13 - 14 + 15)	Rs	0	0
17	Total amount charged for Oil supplied including transportation (11 + 16)	Rs	0	0
E)	**TOTAL COST**			
18	Landed Cost of OIl (LDO/HFO) (2+17) / (1+7)	**Rs/KL**	**86,380.39**	**0.00**
19	Blending Ratio		1.00	0.00
20	Weighted average cost of OIl		**86,380.39**	
F)	**QUALITY**			
21	GCV of OIl of the opening stock as per bill of Oil company	(Kcal/Ltr)		
22	GCV of oil supplied as per bill of oil company	(Kcal/Ltr)		
23	GCV of Imported coal of the opening coal stock as per bill of coal company	(Kcal/Ltr)		
24	GCV of Imported coal supplied as per bill of coal company	(Kcal/Ltr)		
25	Weighted average GCV of Oil as billed	(Kcal/Ltr)		
26	GCV of Oil of the Opening stock as received at station	(Kcal/Ltr)		
27	GCV of Oil supplied	(Kcal/Ltr)	9302	0
28	GCV of Imported coal of the Opening stock as received at station	(Kcal/Ltr)		
29	GCV of Imported coal supplied as received at station	(Kcal/Ltr)		
30	Weighted average GCV of Oil	(Kcal/Ltr)	**9302**	

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Sr Mgr(Finance)

Details of Sourcewise fuel for computation of Energy Charges **FORM -15 A**

	Company		NTPC	
	Name of the generating Station		Rihand Stage-I, II & III	
	Month		Oct-2023	
SL	Particulars	Unit	LDO	HFO
A)	**OPENING QUANTITY**			
1	Opening Stock of Oil	KL	4,782.55	0.00
2	Value of Stock	Rs	41,31,18,431	0.00
B)	**QUANTITY**			
3	Quantity of Oil supplied by Oil Company	KL	3,163.69	0.00
4	Adjustment (+/-) in quantity supplied made by Oil Company	KL	0.00	0.00
5	Coal supplied by Oil Company (3+4)	KL	3,163.69	0.00
6	Normative transit & Handling losses	KL	NA	NA
7	Net Oil supplied (5 - 6)	KL	3,163.69	0.00
C)	**PRICE**			
8	Amount charged by the Oil Company	Rs	29,37,35,028	0
9	Adjustment (+ / -) in amount charged by Oil Company	Rs	0	0
10	Handling,Sampling and such other Similar charges	Rs	0	0
11	**Total Amount charged (8 +9+10)**	Rs	29,37,35,028	0
D)	**TRANSPORTATION**	Rs		
12	Transportation charges by Rail / Ship / Road Transport			
	By Rail	Rs	0	0
	By Road	Rs	0	0
	By Ship	Rs	0	0
13	Adjustment (+/-) in amount charged by railways / transport company	Rs	0	0
14	Demurrage charges, if any	Rs	0	0
15	Cost of diesel in transporting Coal through MGR system, if applicable	Rs	0	0
16	Total transportation charges (12+/- 13 - 14 + 15)	Rs	0	0
17	Total amount charged for Oil supplied including transportation (11 + 16)	Rs	29,37,35,028	0
E)	**TOTAL COST**			
18	Landed Cost of OIl (LDO/HFO) (2+17) / (1+7)	**Rs/KL**	**88,954.47**	**0.00**
19	Blending Ratio		1.00	0.00
20	Weighted average cost of OIl		**88,954.47**	
F)	**QUALITY**			
21	GCV of OIl of the opening stock as per bill of Oil company	(Kcal/Ltr)		
22	GCV of oil supplied as per bill of oil company	(Kcal/Ltr)		
23	GCV of Imported coal of the opening coal stock as per bill of coal company	(Kcal/Ltr)		
24	GCV of Imported coal supplied as per bill of coal company	(Kcal/Ltr)		
25	Weighted average GCV of Oil as billed	(Kcal/Ltr)		
26	GCV of Oil of the Opening stock as received at station	(Kcal/Ltr)		
27	GCV of Oil supplied	(Kcal/Ltr)	9249	0
28	GCV of Imported coal of the Opening stock as received at station	(Kcal/Ltr)		
29	GCV of Imported coal supplied as received at station	(Kcal/Ltr)		
30	Weighted average GCV of Oil	(Kcal/Ltr)	**9249**	

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Sr Mgr(Finance)

Details of Sourcewise fuel for computation of Energy Charges **FORM -15 A**

	Company		NTPC	
	Name of the generating Station		Rihand Stage-I, II & III	
	Month		Nov-2023	
SL	Particulars	Unit	LDO	HFO
A)	**OPENING QUANTITY**			
1	Opening Stock of Oil	KL	6,737.24	0.00
2	Value of Stock	Rs	59,93,07,508	0.00
B)	**QUANTITY**			
3	Quantity of Oil supplied by Oil Company	KL	0.00	0.00
4	Adjustment (+/-) in quantity supplied made by Oil Company	KL	0.00	0.00
5	Coal supplied by Oil Company (3+4)	KL	0.00	0.00
6	Normative transit & Handling losses	KL	NA	NA
7	Net Oil supplied (5 - 6)	KL	0.00	0.00
C)	**PRICE**			
8	Amount charged by the Oil Company	Rs	0	0
9	Adjustment (+ / -) in amount charged by Oil Company	Rs	0	0
10	Handling,Sampling and such other Similar charges	Rs	0	0
11	**Total Amount charged (8 +9+10)**	Rs	0	0
D)	**TRANSPORTATION**	Rs		
12	Transportation charges by Rail / Ship / Road Transport			
	By Rail	Rs	0	0
	By Road	Rs	0	0
	By Ship	Rs	0	0
13	Adjustment (+/-) in amount charged by railways / transport company	Rs	0	0
14	Demurrage charges, if any	Rs	0	0
15	Cost of diesel in transporting Coal through MGR system, if applicable	Rs	0	0
16	Total transportation charges (12+/- 13 - 14 + 15)	Rs	0	0
17	Total amount charged for Oil supplied including transportation (11 + 16)	Rs	0	0
E)	**TOTAL COST**			
18	Landed Cost of OIl (LDO/HFO) (2+17) / (1+7)	**Rs/KL**	**88,954.47**	**0.00**
19	Blending Ratio		1.00	0.00
20	Weighted average cost of OIl		**88,954.47**	
F)	**QUALITY**			
21	GCV of OIl of the opening stock as per bill of Oil company	(Kcal/Ltr)		
22	GCV of oil supplied as per bill of oil company	(Kcal/Ltr)		
23	GCV of Imported coal of the opening coal stock as per bill of coal company	(Kcal/Ltr)		
24	GCV of Imported coal supplied as per bill of coal company	(Kcal/Ltr)		
25	Weighted average GCV of Oil as billed	(Kcal/Ltr)		
26	GCV of Oil of the Opening stock as received at station	(Kcal/Ltr)		
27	GCV of Oil supplied	(Kcal/Ltr)	9249	0
28	GCV of Imported coal of the Opening stock as received at station	(Kcal/Ltr)		
29	GCV of Imported coal supplied as received at station	(Kcal/Ltr)		
30	Weighted average GCV of Oil	(Kcal/Ltr)	**9249**	

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Sr Mgr(Finance)

Details of Sourcewise fuel for computation of Energy Charges **FORM -15 A**

	Company		NTPC	
	Name of the generating Station		Rihand Stage-I, II & III	
	Month		Dec-2023	
SL	Particulars	Unit	LDO	HFO
A)	**OPENING QUANTITY**			
1	Opening Stock of Oil	KL	5,920.24	0.00
2	Value of Stock	Rs	52,66,31,708	0.00
B)	**QUANTITY**			
3	Quantity of Oil supplied by Oil Company	KL	0.00	0.00
4	Adjustment (+/-) in quantity supplied made by Oil Company	KL	0.00	0.00
5	Coal supplied by Oil Company (3+4)	KL	0.00	0.00
6	Normative transit & Handling losses	KL	NA	NA
7	Net Oil supplied (5 - 6)	KL	0.00	0.00
C)	**PRICE**			
8	Amount charged by the Oil Company	Rs	0	0
9	Adjustment (+ / -) in amount charged by Oil Company	Rs	0	0
10	Handling,Sampling and such other Similar charges	Rs	0	0
11	**Total Amount charged (8 +9+10)**	Rs	0	0
D)	**TRANSPORTATION**	Rs		
12	Transportation charges by Rail / Ship / Road Transport			
	By Rail	Rs	0	0
	By Road	Rs	0	0
	By Ship	Rs	0	0
13	Adjustment (+/-) in amount charged by railways / transport company	Rs	0	0
14	Demurrage charges, if any	Rs	0	0
15	Cost of diesel in transporting Coal through MGR system, if applicable	Rs	0	0
16	Total transportation charges (12+/- 13 - 14 + 15)	Rs	0	0
17	Total amount charged for Oil supplied including transportation (11 + 16)	Rs	0	0
E)	**TOTAL COST**			
18	Landed Cost of OIl (LDO/HFO) (2+17) / (1+7)	**Rs/KL**	**88,954.47**	**0.00**
19	Blending Ratio		1.00	0.00
20	Weighted average cost of OIl		**88,954.47**	
F)	**QUALITY**			
21	GCV of OIl of the opening stock as per bill of Oil company	(Kcal/Ltr)		
22	GCV of oil supplied as per bill of oil company	(Kcal/Ltr)		
23	GCV of Imported coal of the opening coal stock as per bill of coal company	(Kcal/Ltr)		
24	GCV of Imported coal supplied as per bill of coal company	(Kcal/Ltr)		
25	Weighted average GCV of Oil as billed	(Kcal/Ltr)		
26	GCV of Oil of the Opening stock as received at station	(Kcal/Ltr)		
27	GCV of Oil supplied	(Kcal/Ltr)	9249	0
28	GCV of Imported coal of the Opening stock as received at station	(Kcal/Ltr)		
29	GCV of Imported coal supplied as received at station	(Kcal/Ltr)		
30	Weighted average GCV of Oil	(Kcal/Ltr)	**9249**	

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Sr Mgr(Finance)

Details of Sourcewise fuel for computation of Energy Charges **FORM -15 A**

	Company		NTPC	
	Name of the generating Station		Rihand Stage-I, II & III	
	Month		Jan-2024	
SL	Particulars	Unit	LDO	HFO
A)	**OPENING QUANTITY**			
1	Opening Stock of Oil	KL	5,550.24	0.00
2	Value of Stock	Rs	49,37,18,555	0.00
B)	**QUANTITY**			
3	Quantity of Oil supplied by Oil Company	KL	0.00	0.00
4	Adjustment (+/-) in quantity supplied made by Oil Company	KL	0.00	0.00
5	Coal supplied by Oil Company (3+4)	KL	0.00	0.00
6	Normative transit & Handling losses	KL	NA	NA
7	Net Oil supplied (5 - 6)	KL	0.00	0.00
C)	**PRICE**			
8	Amount charged by the Oil Company	Rs	0	0
9	Adjustment (+ / -) in amount charged by Oil Company	Rs	0	0
10	Handling,Sampling and such other Similar charges	Rs	0	0
11	**Total Amount charged (8 +9+10)**	Rs	0	0
D)	**TRANSPORTATION**	Rs		
12	Transportation charges by Rail / Ship / Road Transport			
	By Rail	Rs	0	0
	By Road	Rs	0	0
	By Ship	Rs	0	0
13	Adjustment (+/-) in amount charged by railways / transport company	Rs	0	0
14	Demurrage charges, if any	Rs	0	0
15	Cost of diesel in transporting Coal through MGR system, if applicable	Rs	0	0
16	Total transportation charges (12+/- 13 - 14 + 15)	Rs	0	0
17	Total amount charged for Oil supplied including transportation (11 + 16)	Rs	0	0
E)	**TOTAL COST**			
18	Landed Cost of OIl (LDO/HFO) (2+17) / (1+7)	**Rs/KL**	**88,954.47**	**0.00**
19	Blending Ratio		1.00	0.00
20	Weighted average cost of OIl		**88,954.47**	
F)	**QUALITY**			
21	GCV of OIl of the opening stock as per bill of Oil company	(Kcal/Ltr)		
22	GCV of oil supplied as per bill of oil company	(Kcal/Ltr)		
23	GCV of Imported coal of the opening coal stock as per bill of coal company	(Kcal/Ltr)		
24	GCV of Imported coal supplied as per bill of coal company	(Kcal/Ltr)		
25	Weighted average GCV of Oil as billed	(Kcal/Ltr)		
26	GCV of Oil of the Opening stock as received at station	(Kcal/Ltr)		
27	GCV of Oil supplied	(Kcal/Ltr)	9249	0
28	GCV of Imported coal of the Opening stock as received at station	(Kcal/Ltr)		
29	GCV of Imported coal supplied as received at station	(Kcal/Ltr)		
30	Weighted average GCV of Oil	(Kcal/Ltr)	**9249**	

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Sr Mgr(Finance)

Details of Sourcewise fuel for computation of Energy Charges **FORM -15 A**

	Company		**NTPC**	
	Name of the generating Station		**Rihand Stage-I, II & III**	
	Month		**Jan-2024**	
SL	**Particulars**	**Unit**	**LDO**	**HFO**
A)	**OPENING QUANTITY**			
1	Opening Stock of Oil	KL	4,618.24	0.00
2	Value of Stock	Rs	41,08,12,991	0.00
B)	**QUANTITY**			
3	Quantity of Oil supplied by Oil Company	KL	3,158.47	0.00
4	Adjustment (+/-) in quantity supplied made by Oil Company	KL	0.00	0.00
5	Coal supplied by Oil Company (3+4)	KL	3,158.47	0.00
6	Normative transit & Handling losses	KL	NA	NA
7	Net Oil supplied (5 - 6)	KL	3,158.47	0.00
C)	**PRICE**			
8	Amount charged by the Oil Company	Rs	24,50,23,090	0
9	Adjustment (+ / -) in amount charged by Oil Company	Rs	0	0
10	Handling,Sampling and such other Similar charges	Rs	0	0
11	**Total Amount charged (8 +9+10)**	Rs	24,50,23,090	0
D)	**TRANSPORTATION**	Rs		
12	Transportation charges by Rail / Ship / Road Transport			
	By Rail	Rs	0	0
	By Road	Rs	0	0
	By Ship	Rs	0	0
13	Adjustment (+/-) in amount charged by railways / transport company	Rs	0	0
14	Demurrage charges, if any	Rs	0	0
15	Cost of diesel in transporting Coal through MGR system, if applicable	Rs	0	0
16	Total transportation charges (12+/- 13 - 14 + 15)	Rs	0	0
17	Total amount charged for Oil supplied including transportation (11 + 16)	Rs	24,50,23,090	0
E)	**TOTAL COST**			
18	Landed Cost of OIl (LDO/HFO) (2+17) / (1+7)	**Rs/KL**	**84,333.37**	**0.00**
19	Blending Ratio		1.00	0.00
20	Weighted average cost of OIl		**84,333.37**	
F)	**QUALITY**			
21	GCV of OIl of the opening stock as per bill of Oil company	(Kcal/Ltr)		
22	GCV of oil supplied as per bill of oil company	(Kcal/Ltr)		
23	GCV of Imported coal of the opening coal stock as per bill of coal company	(Kcal/Ltr)		
24	GCV of Imported coal supplied as per bill of coal company	(Kcal/Ltr)		
25	Weighted average GCV of Oil as billed	(Kcal/Ltr)		
26	GCV of Oil of the Opening stock as received at station	(Kcal/Ltr)		
27	GCV of Oil supplied	(Kcal/Ltr)	9210	0
28	GCV of Imported coal of the Opening stock as received at station	(Kcal/Ltr)		
29	GCV of Imported coal supplied as received at station	(Kcal/Ltr)		
30	Weighted average GCV of Oil	(Kcal/Ltr)	**9210**	

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Sr Mgr(Finance)

FORM-15 Ver- 0

Details of Sourcewise fuel for computation of Energy Charges

Company	**NTPC Limited**
Name of the generating Station	**Rihand Superthermal Power(STAGE 03)**
Month	**March-2024**

SL	Particulars	Unit	LDO	HFO	HSD
A)	**OPENING QUANTITY**				
1	Opening Stock Of Oil	KL	7381.709	0.000	0.000
2	Value Of Stock	Rs.	622524400.00	0.00	0.00
B)	**QUANTITY**				
3	Quantity Of Oil Supplied By Oil Company	KL	0.000	0.000	0.000
4	Adjustment (+/-) In Quantity Supplied Made By Oil Company	KL	0.000	0.000	0.000
5	Oil Supplied By Oil Company (3+4)	KL	0.000	0.000	0.000
6	Normative Transit & Handling Losses	KL	0.000	0.000	0.000
7	Net Oil Supplied (5 - 6)	KL	0.000	0.000	0.000
C)	**PRICE**				
8	Amount Charged By The Oil Company	Rs.	0.00	0.00	0.00
9	Adjustment (+ / -) In Amount Charged By Oil Company	Rs.	0.00	0.00	0.00
10	Handling,Sampling And Such Other Similar Charges	Rs.	0.00	0.00	0.00
11	**Total Amount Charged (8 +9+10)**	**Rs.**	**0.00**	**0.00**	**0.00**
D)	**TRANSPORTATION**				
12	Transportation Charges By Rail / Ship / Road Transport	Rs.	0.00	0.00	0.00
13	Adjustment (+/-) In Amount Charged By Railways/Transport	Rs.	0.00	0.00	0.00
14	Demurrage Charges, If Any	Rs.	0.00	0.00	0.00
15	Cost Of Diesel InTransporting Oil Through MGR System	Rs.	0.00	0.00	0.00
16	Total Transportation Charges (12+/- 13 - 14 + 15)	Rs.	0.00	0.00	0.00
17	Total Amount Charged For Oil Supplied Incl Transportation (11+16)	Rs.	0.00	0.00	0.00
E)	**TOTAL COST**				
18	Landed Cost Of Oil (LDO/HFO) (2+17) / (1+7)	Rs.	84333.37	0.00	0.00
19	Blending Ratio		1.000	0.000	0.000
20	**Weighted Average Cost Of Oil**	**Rs.**	**84333.37**		
F)	**QUALITY**				
21	GCV Of Oil Of The Opening Stock As Per Bill Of Oil Company	Kcal/Ltr	0	0	0
22	GCV Of Oil Supplied As Per Bill Of Oil Company	Kcal/Ltr	0	0	0
23	GCV Of Imported Oil Of The Op Stock As Per Bill Of Oil Company	Kcal/Ltr	0	0	0
24	GCV Of Imported Oil Supplied As Per Bill Of Oil Company	Kcal/Ltr	0	0	0
25	Weighted Average GCV Of Oil As Billed	Kcal/Ltr	0	0	0
26	GCV Of Oil Of The Opening Stock As Received At Station	Kcal/Ltr	0	0	0
27	GCV Of Oil Supplied	Kcal/Ltr	9210	0	0
28	GCV Of Imported Oil Of The Opening Stock As Received At Station	Kcal/Ltr	0	0	0
29	GCV Of Imported Oil Supplied As Received At Station	Kcal/Ltr	0	0	0
30	**Weighted Average GCV Of Oil**	**Kcal/Ltr**	**9210**		

Submitted on :02.04.2024