# 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 Lara Super Thermal Power Station Stage-I (1600 MW) for the period from 01.04.2024 to 31.03.2029.

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#### Summary of Issues: Lara Super Thermal Power Station (2x 800 MW)

(In compliance with CERC notice dated 07.06.2024)

The major highlights of the Lara STPS (1600 MW) tariff petition are as follows:-

The present petition is being filed 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 revision of tariff of Lara Super Thermal Power Station, Stage-I (1600 MW) for the period from 01.04.2024 to 31.03.2029.

Lara STPS is located in Raigarh district in the Indian state of Chhattisgarh and comprises of two units of 800 MW having COD as on 07.11.2020. The power generated from Lara STPS is being supplied to various Discoms as per MoP allocation and respective PPAs including Maharashtra State Electricity Distribution Co Ltd. (MSEDCL), Gujarat Urja Vikas Nigam Ltd (GUVNL), Madhya Pradesh Power Management Company Ltd (MPPMCL), Chhattisgarh State Power Distribution Co. Ltd (CSPDCL), Electricity Deptt Goa, Dadra And Nagar Haveli and Daman and Diu Power Distribution Corporation Limited (DNHDDPDCL).

The tariff for Lara STPS for the period from 01.04.2024 to 31.3.2029 was determined by the Hon'ble Commission vide order dated 02.08.2024 in Petition No. 145/GT/2019. The capital cost allowed for tariff determination included the projected additional capital expenditure admitted by the Hon'ble Commission after prudence check. The petitioner 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.

The Petitioner in the instant petition has considered the opening capital cost for generating station as of 01.04.2024 by adjusting the admitted capital cost as on 31.03.2024, accounting for the difference between the admitted expenditure for the period 2019-24 and the actual expenditure as per true-up petition.

The projected additional Capital Expenditure generating station for the FY 2024-25, 2025-26, 2026-27, 2027-28 and 2028-29 are Rs 776.75 Cr, Rs 263.77 Cr, Rs 13.0 Cr, Rs 126.81 Cr and Rs 0.0 Cr respectively amounting to total of Rs 1180.33 Crores during the 2024-29 period. It is humbly requested to approve the projected Additional Capital expenditure during the period of 2024-29.

The Hon'ble Commission is requested to allow the claims for water charges, security expenses, and ash transportation expenses for the instant station as estimated by the Petitioner in Form 3A of Appendix-I. These claims shall be subject to retrospective adjustment based on actual expenditures during the truing-up process.

Furthermore, the consumption of capital spares shall be claimed at the time of truing up based on the actual consumption of spares during the period 2024–29.

Further, in order to avoid interest liabilities for beneficiaries until the 2024-29 tariff order is finalized, the petitioner requests permission to recover ash transportation charges monthly, subject to true-up at the end of the 2024-29 period.

The petitioner seeks permission to approach the Commission to recover the impact of wage revisions effective from 1.1.2027, as allowed under Tariff Regulations 2024, during the tariff true-up based on actual payments made.

The petitioner requests the Commission's approval to recover the filing and publication fees directly from the beneficiaries, as permitted under Regulation 94(1) of the Tariff Regulations 2024.

In the light of above submission and as per the Petition being filed by the Petitioner for revision of tariff of Lara Super Thermal Power Station, Stage-I (1600 MW), The Hon'ble Commission may please approve revised tariff for the tariff period 2024-29 as per provision of Regulation 9(2) of Tariff Regulations 2024.

# BEFORE THE HON'BLE CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

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IN THE MATTER OF

: Petition Under Section 62 and 79 (1) (a) of the Electricity Act, 2003 read with Chapter-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 Lara Super Thermal Power Station Stage-I (1600 MW) 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.

Respondents

 Madhya Pradesh Power Management Company Ltd.(MPPMCL)

Shakti Bhawan, Vidyut Nagar,

Jabalpur 482 008

**2.** Maharashtra State Electricity Distribution Co

Ltd. (MSEDCL)

Prakashgad, Bandra (East),

Mumbai 400 051

- Gujarat Urja Vikas Nigam Ltd.(GUVNL)
   Vidyut Bhavan, Race Course
   Vadodara 390 007
- Chhattisgarh State Power Distribution Co. Ltd (CSPDCL)
   P.O. Sundar Nagar,
   Danganiya, Raipur 492013
- Electricity DepartmentGovernment of GoaVidyut Bhawan, Panaji, Goa
- Dadra And Nagar Haveli and Daman and Diu
  Power Distribution Corporation Limited
  (DNHDDPDCL);

  1st & 2nd Floor, Vidyut Bhavan, Silvassa396230, DNH, India

#### The Petitioner humbly states that:

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.

- 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.
- The Petitioner is having power stations/ projects at different regions and places in the country. Lara Super Thermal Power Station Stage-I (2X800 MW) (hereinafter referred to as Lara STPS-I is one such station located in the State of Chhattisgarh. The power generated from LARA STPS-I is being supplied to the respondents herein above.
- 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 LARA STPS-I for the period from 01.04.2024 to 31.03.2029 as per the Tariff Regulations 2024.

- The tariff of the LARA STPS-I for the tariff period 1.4.2019 to 31.3.2024 was determined by the Hon'ble Commission vide its order dated 02.08.2024 in Petition No.145/GT/2019 in accordance with the CERC (Terms & Conditions of Tariff) Regulations 2019. The petitioner vide affidavit dated 21.11.2024 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 02.08.2024 in Petition No.145/GT/2019 has allowed a capital cost of Rs 15617.74 Cr. 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. 15343.36 Crs based on the actual expenditure after truing up exercise for the period 2019-24. Accordingly, the Petitioner has adjusted an amount of Rs. 274.38 Cr 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 15343.36 Cr. in the instant petition. The Hon'ble Commission may be pleased to accordingly adopt this adjustment in the admitted capital cost as on 31.3.2024 and determine the tariff in the present petition for the period 2024-29.
- 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.
- 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 Circuit cooling system
Allocation of Water	45 MCM
Rate of Water charges	Rs 5.5 per cubic meter
Total Water Charges	2227.5 lac per year

- 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.
- 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.

The present petition is filed on the basis of norms specified in the Tariff Regulations 2024. It is submitted that the petitioner has installed the Emission Control Systems (ECS) in Unit-1 of the instant station and is in the process of installing the Emission Control Systems (ECS) in Unit-2 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.

It is submitted that the Petitioner has already paid the requisite filing fee vide Transaction Id 37c568eba62158b7b321 on 24.04.2024 for the year 2024-25 and the details of the same have been duly furnished to the Hon'ble Commission vide our letter dtd. 27.04.2024. For the subsequent years, it shall be paid as per the provisions of the CERC (Payment of Fees) Regulations, 2012 as amended. 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. Further Regulation 94 (1) of Tariff Regulations 2024 provides that the application fee and publication expenses may be allowed to be recovered directly from the beneficiaries at the discretion of the Hon'ble Commission. Accordingly, it is prayed that Hon'ble Commission may be pleased to allow recover filing fee and publication fee directly from the beneficiaries.

- 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.
- 17) It is further submitted that the cut-off date for the instant station is 30.11.2023. However, few works related to balance of plant, township and Railway siding have gotten spilled up beyond the FY 2023-24 due to various reasons (as mentioned below) which were beyond the control of petitioner.
- After the first wave of COVID-19, subsequently the COVID-19 restrictions were relaxed, petitioner faced severe hardships in the commencement of the commissioning work, however, due to all out efforts of the petitioner and the team succeeded in declaring the Unit-2 of the instant station into Commercial operation on 07.11.2020. Hon'ble Commission in its order dated 02.08.2024 in petition no. 145/GT/2019 had also considered the difficulties faced by petitioner during 1st wave of COVID-19.
  - 19) It is further submitted that even when the impact of 1<sup>st</sup> wave of COVID-19 had not subsided completely, the 2nd wave of COVID-19 struck India with a recurrence and rise in number of COVID-19 cases from February 2021 onwards. In fact, the number of daily new cases peaked around April'21-May'21, which even surpassed the previous peak witnessed in September 2020 during 1<sup>st</sup> wave.
  - 20) It is submitted that the cases of infected persons in 2<sup>nd</sup> wave of COVID-19 continued to rise at a rapid pace. Also, the number of deaths reported due to COVID-19 were much higher in the 2<sup>nd</sup> wave compared to the 1<sup>st</sup> wave. To contain the spread of virus and break the chain of transmission, strict lockdown and several restrictions were further imposed by the Gol/ State Govt.
  - 21) It is pertinent to note that as lockdown was announced during 2<sup>nd</sup> wave, the migratory labours, who had started to come back after receding of 1<sup>st</sup> wave, once again started leaving the State thereby aggravating the existing problem of local manpower shortage being witnessed since 1<sup>st</sup> wave of COVID-19.
  - 22) It is also noteworthy that due to rising number of cases of COVID leading to high requirement of oxygen and consequentially its shortage in Govt/Private

Hospitals in the State, the agencies working at the Station faced acute oxygen availability to execute various works. Further, keeping in view the rapid rise in COVID cases and resultant rapid demand for medical Oxygen, the Govt. of India reviewed the supply of oxygen for industrial use in order to divert the same to meet the rising demand for medical oxygen in the country and save precious lives. Accordingly, Gol vide Notification No. 40-6/2020-DM-I(A)/Pt(2) prohibited the supply of Oxygen for industrial purposes by manufacturers and suppliers forthwith from 22.01.2021 till further orders. In view of acute shortage of industrial oxygen owing to above reasons, several ongoing works involving fabrication and erection of structural steel in civil works and works in other areas such as AHP, CHP Main Plant Civil, Offsite civil, FGD package, Railway Siding etc.

- 23) It is submitted that in spite of taking best preventive measures and initial vaccination, several employees of the Petitioner and contractors' manpower got infected from COVID-19 and some even succumbed to death. Due to such precarious and unprecedented situation, the progress of Add Cap works of the instant Station suffered extensively during March'21 to Aug'21 due to 2<sup>nd</sup> wave of COVID-19 and even afterwards as the situation unfolded and the normalcy began to resume with caution, it took reasonable time to resume the level of progress of works to pre-COVID levels, which further related to delay in the execution and competition of the balance works of plant. It is pertinent to mention that although petitioner tried to stretch itself to complete the balance work within cut-off date, however few balance works related to Main plant civil, Offsite civil, Township, FGD etc got spilled over beyond 2023 and are expected to be completed in the coming years.
- 24) It is further submitted that the Railway Siding works was awarded to M/S RITES Ltd and the Railway siding from Lara STPS to Kotarliya Station is operational. However, Non-Interlocking work (NI work) in respect of Kotarlia Station connection with Talaipalli Mines including construction of 132 kV incoming line, S&T modification works at Chakradhar Nagar station etc has been spilled over and are expected to get capitalized in the coming years.
- 25) This is to mention that the spill over of S&T modification works at Chakradhar Nagar station is attributed to the revision of ESP (Engineering Scale Plan). The

ESP of CKR (Chakradhar Nagar Station) was approved in 2018, however during Land Licensing agreement signing, Railway demanded 1 more loop line to get Rakes from UP direction towards Lara Line. After Several meetings and communications, Railway agreed to drop the additional Line requirement as Lara STPP rake requirement from UP line side through ChakardharNagar lines is NIL. Subsequently, the ESP was revised and approved on April-2022. Subsequently, checking of approved ESP of Chakradharnagar station has been done on 24.05.2024 due to the delay in cable clearance from Railways and the compliance of the observations are in progress.

- 26) It is further submitted that the Civil works in 1500m in Up and Down line was hindered due to existing ballast in Railway boundary. Despite several meetings and communication to Railways and follow up through PMG Portal, Ballast shifting was done in April-2024, Subsequently Earthwork was started in April 2024. The necessary documents in support are attached as Annexure-A3.
- 27) In view of the above submission, it is prayed before this Hon'ble Commission to extend the cut-off date for the station for the works under original scope which got spilled beyond cut-off date due to the reasons not attributable to NTPC as explained above under Regulation 76 of the Tariff Regulation 2019 and Regulation 102 of the Tariff Regulation 2024.

#### 28) Commissioning of FGD System of Lara STPS

It is submitted that the Hon'ble Commission vide Order dated 02.08.2024 in Petition No 145/GT/2019 for the instant Station had not considered the additional capitalization of FGD system, for the instant Station, on projection basis in FY 22-23 and FY 23-24 and provided liberty to approach to claim the expenditure on this count

It is further submitted that ODe of FGD System of Unit-1 of Lara STPS was achieved on 16.05.2024 and accordingly, the Petitioner capitalized the FGD System of U-1 and common systems in the books of accounts on 16.05.2023, i.e. in FY 24-25. A True copy of Certificates for the ODe of FGD of Unit-1 on

16.05.2024, issued by the Competent Authority of the Petitioner's company, are attached herewith at **Annexure-A6**.

It is further submitted that as brought out above in detail in para 19-24, the additional capitalization works under original scope, including for FGD system of the instant Station, were affected severely due to impact of 1<sup>st</sup> and 2<sup>nd</sup> wave of COVID-19.

It is also pertinent to mention that the MOEF&CC vide its notification dated 05.09.2022 (attached as **Annexure-A2**) has revised the timelines for implementation of FGD systems for the compliance of SOx emission. As per the Notification, MOEF&CC has categorized thermal power stations based upon its vicinity to National Capital Region (NCR) or cities having million plus population (Category A) / Critically Polluted Areas or Non-attainment cities (Category B)/ Other than those included in category A and B (Category C) and accordingly revised timelines for implementation and commissioning of FGD systems for SOx control.

Lara STPS is located in the Lara district in the state of Chhattisgarh, and it falls under "Category C" as per the MOEF&CC notification dated 05.09.2022 and accordingly, the instant station has to meet the MOEF&CC guidelines for compliance of SOx emissions norms by Dec'2026. However, the Petitioner has been able to achieve the operationalization of the original scope of works of FGD system for Lara STPS in FY 24-25, much ahead of the timeline prescribed by MOEF&CC.

In view of the above, it is submitted that Hon'ble Commission may be pleased to allow the capitalization of original scope of works of FGD system of Lara STPS during 2024-25 in terms of Regulations 24(1)(b)/ 24(1)(e) and exercising its power under Regulation 102 (Power to Relax) and Regulation 103 (power to remove difficulty) of Tariff Regulations, 2024.

29) 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.

- 30) It is 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- It is submitted that the Petitioner has uploaded the copy of the Petition at CERC site (Saudamini), the access of which is available to all the Respondents mentioned herein above and therefore the petition stands served to all the respondents. Further, the petitioner has also posted the Petition on the company website i.e. <a href="https://www.ntpc.co.in.">www.ntpc.co.in.</a>

- In accordance with the 'Conduct of Business Regulations 2023' of the Hon'ble Commission, the Petitioner shall, 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.
- 38) 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 31.3.2019 through true-up exercise are pending before the Hon'ble Commission and would take some time. The Petitioner, therefore, reserves its right to amend the tariff petition as per the outcome in such appeals/ petitions, if required.

#### **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 LARA STPS-I for the tariff period 01.04.2024 to 31.03.2029.
- ii) Allow the extension of cut-off date for the instant station beyond 30.11.2023 for 2 years under Regulation-102 of CERC Tariff Regulations 2024 i.e. Power to relax.
- iii) Allow the works related to Railway siding carried out by RITES Ltd during 2024-29.
- iv) Allow the recovery of filing fees as & when paid to the Hon'ble Commission and publication expenses from the beneficiaries.

- v) Allow reimbursement of Ash Utilization Expenditure directly from the beneficiaries on monthly basis, subject to true up.
- vi) Allow the recovery of pay/wage revision as additional O&M over and above the normative O&M.
- vii) Pass any other order as it may deem fit in the circumstances mentioned above.

**Petitioner** 

Noida

27.11.2024

#### 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 Lara STPS Stage-I (1600 MW) for the period from 01.04.2024 to 31.03.2029.

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

Respondents:

Madhya Pradesh Power Management Company Limited, Shakti Bhawan, Vidyut Nagar, Jabalpur 482 008

#### and Others

#### **AFFIDAVIT**

- I, Sameer Kumar Aggarwal, Son of Late Shri B K Aggarwal, aged about 51 years. working as Additional General Manager (Commercial) in the office of NTPC Limited, having its registered office at NTPC Bhawan, Scope Complex, Core-7, Lodhi Road, New Delhi-110003 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.

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

> समीर अग्रवाल/SAMEER AGGARWAL अपर महाप्रबंधक (वाणिज्यिक) Addl General Manager (Commercial) एन दी पी सी लिमिटेड/NTPC LIMITED EOC, A-8A. Sector-24, Noida-201 301 (U.P.)

fk Aggarish

instruction and the contents of the same are true and correct to the best of my knowledge and belief.

- 3. That the contents of Para No. 1 to 38 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.

(Deponent)

Verification:

समीर अग्रवाल/SAMEER AGGARWAL अपर महाप्रबंधक (वाणिज्यिक) Addl. General Manager (Commercial) एन टी पी सी लिमिटेड/NTPC LIMITED EOC, A-8A, Sector-24, Noida-201 301 (U.P.)

Verified at Noida on this 27th 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)
समीर अग्रवाल/SAMEER AGGARWAL
अपर महाप्रबंधक (वाणिज्यिक)
Addl. General Manager (Commercial)
एन टी पी सी लिमिटेड/NTPC LIMITED
EOC. A-8A, Sector-24, Noida-201 301 (U.P.)

YOGENDRA SNIGH
AREA NOIDA
AREA NOIDA
G.B. N. GAR
REGN. NO. 56TTING

YOGENDRA SINGH NOTARY NOIDA GB NAGAR (U.P.) INDIA 2 7 NOV 2024

# **TARIFF FILING FORMS (THERMAL)**

# FOR DETERMINATION OF TARIFF FOR

LARA Super Thermal power Station Stage-I

(From 01.04.2024 to 31.03.2029)

## <u>Checklist of Main Tariff Forms and other information for tariff filing for Thermal Stations</u>

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	NA
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	✓
FORM-5A**	Abstract of Claimed Capital Cost for the existing Projects	✓
FORM- 6	Financial Package upto COD	NA
FORM- 7	Details of Project Specific Loans	NA
FORM- 8	Details of Allocation of corporate loans to various projects	✓
FORM-9A**	Summary of Statement of Additional Capitalisation claimed during the period	✓
FORM-9 ##	Statement of Additional Capitalisation after COD	✓
FORM- 10	Financing of Additional Capitalisation	✓
FORM- 11	Calculation of Depreciation on original project cost	NA
FORM- 12	Statement of Depreciation	✓
FORM-12A**	Statement of Unrecovered Depreciation	NA
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	***

## Provided yearwise for the period 2024-29

#### PART-I

#### <u>List of Supporting Forms / documents for tariff filing for Thermal Stations</u>

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	✓

<sup>\*\*</sup> Additional Forms

<sup>\*\*\*</sup> Shall be provided at the time of true up

	Name of the Petitioner:	NTPC Limit	ed					
	Name of the Generating Station:		r Thermal power St	tation Stage-I				
	Place (Region/District/State):		ion/Raigarh/ Chhat					
			J				Amo	ınt in Rs. Lak
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	76,391.11	79,759.90	82,397.61	83,099.21	83,453.65	83,775.1
1.2	Interest on Loan	Rs Lakh	50,940.63	48,977.91	46,521.38	42,347.55	38,798.60	34,806.4
1.3	Return on Equity	Rs Lakh	84,898.10	88,642.04	91,564.41	92,335.07	92,728.98	93,086.2
1.4	Interest on Working Capital	Rs Lakh	14,912.45	12,934.09	13,086.89	13,158.47	13,221.43	13,309.3
1.5	O&M Expenses	Rs Lakh	81,622.36	103895.54	106066.03	108342.70	110743.71	113269.
	Total	Rs Lakh	308764.65	334209.48	339636.33	339283.01	338946.36	338246.
2	Primary Fuel							
2.1	Landed Fuel Cost (coal/gas/RLNG/ liquid) as per FSA approved by beneficiaries	Rs/Ton		1698.00				
	(%) of Fuel Quantity	(%)		100.00				
2.2	Landed Fuel Cost (coal from Integrated mine) as per FSA, if any, approved by beneficiaries or as per allocation of coal quantity				NA			
	(%) of Fuel Quantity							
2.3	Landed Fuel Cost Imported Coal as per FSA approved by beneficiaries				NA			
2.4	(%) of Fuel Quantity  Landed Fuel Cost (coal/gas /RLNG/liquid) other than FSA	Rs/Ton			NA			
	(%) of Fuel Quantity	(%)						
2.5	Landed Fuel Cost Imported Coal other than FSA.				NA			
	(%) of Fuel Quantity							
3	Secondary Fuel							
3.1	Secondary fuel oil cost	Rs/Unit		81549.780				
	Energy Charge Rate ex-bus (Paise/kWh) 2A, 2B, 2C, 2D	Rs/Unit		1.412				

	Name of the Petitioner:	NTPC Limited			FO	RM- 1(I)
		LARA Super Thermal po	Ct-4: Ct I			
	Name of the Generating Station:	LAKA Super Thermal po	ower Station Stage-1			mount in Rs. Lak
		Statement showing cla	imed capital cost –	(A+B)	A	mount in Ks. Lak
S. No.	Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
1	2	3	4	5	6	7
1	Opening Capital Cost	15,34,335.97	16,12,011.14	16,38,387.70	16,39,687.70	16,52,369.3
2	Add: Addition during the year/period	77,675.17	26,376.55	1,300.00	12,681.68	-
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	16,12,011.14	16,38,387.70	16,39,687.70	16,52,369.38	16,52,369.3
7	Average Capital Cost	15,73,173.56	16,25,199.42	16,39,037.70	16,46,028.54	16,52,369
		-, -,	., .,	.,,	-, -,	-,- ,
	Statement s	howing claimed capital of	cost eligible for RoE	E at normal rate (A)		
. No.	Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
1	2	3	4	5	6	7
1	Opening Capital Cost	1534335.97	1612011.14	1636897.61	1638197.61	1650879
2	Add: Addition during the year / period	77675.17	24886.46	1300.00	12681.68	0
3	Less: De-capitalisation during the year / period	0.00	0.00	0.00	0.00	0.
4	Less: Reversal during the year / period	0.00	0.00	0.00	0.00	0.
5	Add: Discharges during the year / period	0.00	0.00	0.00	0.00	0
6	Closing Capital Cost	1612011.14	1636897.61	1638197.61	1650879.29	1650879
7	Average Capital Cost	1573173.56	1624454.37	1637547.61	1644538.45	1650879
. No.	Statement showing claimed capit  Particulars	al cost eligible for RoE a	at one year MCLR +	+ 350 bps subject to c	ceiling of 14.00% (B)	2028-29
1	2	3	4	5	6	7
1	Opening Capital Cost	0.00	0.00	1490.09	1490.09	1490.
1	Add: Addition during the year / period	0.00	1490.09	0.00	0.00	0
2			0.00	0.00	0.00	0
	Less: De-capitalisation during the year / period	0.00	0.00			
2	Less: De-capitalisation during the year / period Less: Reversal during the year / period	0.00	0.00	0.00	0.00	0
2 3	1 0 1			0.00	0.00	0
2 3 4	Less: Reversal during the year / period	0.00	0.00		****	

	Name of the Petitioner:	NTPC Limited				
	Name of the Generating Station:	LARA Super TI	nermal power St	tation Stage-I		
	Statement showing Ret	urn on Equity a	t Normal Rate	2		
					Amour	ıt in Rs. Lakh
S. No.	Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
1	2	3	4	5	6	7
	Return on Equity					
1	Gross Opening Equity (Normal)	4,60,300.79	4,83,603.34	4,91,069.28	4,91,459.28	495263.786
2	Less: Adjustment in Opening Equity					
3	Adjustment during the year	-	0.00	0.00	0.00	0.0
4	Net Opening Equity (Normal)	4,60,300.79	4,83,603.34	4,91,069.28	4,91,459.28	4,95,263.79
5	Add: Increase in equity due to addition during the year / period	23302.55	7465.94	390.00	3804.50	0.0
7	Less: Decrease due to De-capitalisation during the year / period	0.00	0.00	0.00	0.00	0.0
8	Less: Decrease due to reversal during the year / period	0.00	0.00	0.00	0.00	0.0
9	Add: Increase due to discharges during the year / period	0.00	0.00	0.00	0.00	0.0
10	Net closing Equity (Normal)	4,83,603.34	4,91,069.28	4,91,459.28	4,95,263.79	4,95,263.79
11	Average Equity (Normal)	4,71,952.07	4,87,336.31	4,91,264.28	4,93,361.53	4,95,263.79
12	Rate of ROE (%)	18.782	18.782	18.782	18.782	18.78
13	Total ROE	88,642.04	91,531.51	92,269.26	92,663.16	93,020.44

(Petitioner)

						PART- FORM- 1(IIB
	Name of the Petitioner:	NTPC Limite	d			`
	Name of the Generating Station:	LARA Super	· Thermal pov	ver Station St	age-I	
	Statement showing Return on Equity	linked to SB	I MCLR + 3	350 basis po	ints:	
						Amount in Rs. Lakh
S. No.	Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
1	2	3	4	5	6	7
	Return on Equity (beyond the original scope of work including add	litional capitaliz	ation due to (	Change in Law,	, Force Majeur	·e)
1	Gross Opening Equity (Normal)	0.00	0.00	447.03	447.03	447.0
2	Less: Adjustment in Opening Equity	0.00	0.00	0.00	0.00	0.0
3	Adjustment during the year	0.00	0.00	0.00	0.00	0.0
4	Net Opening Equity (Normal)	0.00	0.00	447.03	447.03	447.0
5	Add: Increase in equity due to addition during the year / period	0.00	447.03	0.00	0.00	0.0
7	Less: Decrease due to De-capitalisation during the year / period	0.00	0.00	0.00	0.00	0.0
8	Less: Decrease due to reversal during the year / period	0.00	0.00	0.00	0.00	0.0
9	Add: Increase due to discharges during the year / period	0.00	0.00	0.00	0.00	0.0
10	Net closing Equity (Normal)	0.00	447.03	447.03	447.03	447.0
11	Average Equity (Normal)	0.00	223.51	447.03	447.03	447.0
12	Rate of ROE-Pre Tax (%)	14.723	14.723	14.723	14.723	14.72
13	Rate of ROE-Post Tax (%)	12.15	12.15	12.15	12.15	12.1
14	Total ROE	0.00	32.91	65.82	65.82	65.8

(Petitioner)

			PART FORM-
Plant Character	<u>ristics</u>		
Name of the Petitioner	NTPC Ltd.		
Name of the Generating Station	Lara STPS (2x800 I	MW)	
Unit(s)/Block(s)/Parameters	Unit-l	Unit-II	
Installed Capacity ( MW)	800	800	
Schedule COD as per Investment Approval	Apr-17	Oct-17	
Actual COD /Date of Taken Over (as applicable)	Oct-19	Nov-20	
Pit Head or Non Pit Head or Integrated Mine	Integrated Mine	Integrated Mine	
Name of the Boiler Manufacture	DOOSAN	DOOSAN	
Name of Turbine Generator Manufacture	HITACHI	HITACHI	
Main Steams Pressure at Turbine inlet (kg/Cm²) abs <sup>1</sup> .	247	247	
Main Steam Temperature at Turbine inlet (°C) 1	565	565	
Reheat Steam Pressure at Turbine inlet (kg/Cm <sup>2) 1</sup>	46	46	
Reheat Steam Temperature at Turbine inlet (°C) 1	593	593	
Main Steam flow at Turbine inlet under MCR condition (tons			
/hr) <sup>2</sup>	2298.07	2298.07	
Main Steam flow at Turbine inlet under VWO condition (tons		======	
/hr) <sup>2</sup>	2462.77	2462.77	
Unit Gross electrical output under MCR /Rated condition (MW) <sup>2</sup>			
	800	800	
Unit Gross electrical output under VWO condition (MW) <sup>2</sup>	840	840	
Guaranteed Design Gross Turbine Cycle Heat Rate (kCal/kWh)3			
	1829	1829	
Conditions on which design turbine cycle heat rate guaranteed			
% MCR	100%	100%	
% Makeup Water Consumption	0	0	
Design Capacity of Make up Water System	3%	3%	
Design Capacity of Inlet Cooling System	80400	80400	
Design Cooling Water Temperature (°C)	33	33	
Back Pressure	77	77	
Steam flow at super heater outlet under BMCR condition (tons/hr)	0550	0550	
Steam Pressure at super heater outlet under BMCR condition)	2550	2550	
(kg/Cm <sup>2</sup> )	250	250	
Steam Temperature at super heater outlet under BMCR condition	258	258	
(°C)	568	568	
Steam Temperature at Reheater outlet at BMCR condition (°C)	596	596	
Design / Guaranteed Boiler Efficiency (%) <sup>4</sup>	86.19	86.19	
Design Fuel with and without Blending of domestic/imported coal			
(GCV ) Domestic Design coal	3500	3500	
Blended Coal (Domestic Design 70%+ Imported 30%)	4400	4400	
Type of Cooling Tower	induced draft CT	induced draft CT	
Type of cooling system⁵		ation type CW	
Type of Boiler Feed Pump <sup>6</sup>	2x50%-TDBFP	2x50%-TDBFP	
21	2x30%-MDBFP	2x30%-MDBFP	

	_		PART- FORM-2
Plant Charact	eristics		. 0.1 2
Name of the Petitioner	NTPC Ltd.		
Name of the Generating Station	Lara STPS (2x800	MW)	
rumo or mo contraining outdon	2414 011 0 (2X000	,	
Unit(s)/Block(s)/Parameters	Unit-I	Unit-II	
Fuel Details <sup>7</sup>			
-Primary Fuel	Coal	Coal	
-Secondary Fuel	LDO	LDO	(Light Diesel Oil)
-Alternate Fuels	N.A.	N.A.	(Light Dissel Gil)
Types of SOX control system	Wet lime FGD	Wet lime FGD	
Typod of donated dystem	system is	system installation	
	operational w.e.f	in under process	
Types of NOX control system		NOX Burner system	
Details of CDM control evetom		1	
Details of SPM control system  Special Features/Site Specific Features <sup>8</sup>			
Special Technological Features  Special Technological Features			
	operation, Two Pas wall, single reheat,	ce-Tru Super Critical, ss, Top supported, me Blanced draft, Outdoo g, pulverised coal fired	embrane panel, spira or, <b>Front &amp; rear wal</b>
Environmental Regulation related features <sup>10</sup>	1.ESP is provided 2.FGD under operational w.e.f 16.05.2024	1.ESP is provided 2.FGD under implementation	
Any other special features			
1: At Turbine MCR condition.			
2: with 0% (Nil) make up and design Cooling water temperature 3: at TMCR output based on gross generation, 0% (Nil) makeup and des	ina Caalina watan tana		
4: With Performance coal based on Higher Heating Value (HHV) of fuel a		perature.	
5: Closed circuit cooling, once through cooling, sea cooling, natural draft		cooling etc	
6: Motor driven, Steam turbine driven etc.	cooming, madood drait	occining otc.	
7: Coal or natural gas or Naptha or lignite etc.			
8: Any site specific feature such as Merry-Go-Round, Vicinity to sea, Inta	ake /makeup water sys	tems etc. scrubbers e	tc. Specify all such
9: Any Special Technological feature like Advanced class FA technology	in Gas Turbines, etc.		
10: Environmental Regulation related features like FGD, ESP etc.,			
Note 1: In case of deviation from specified conditions in Regulation, corre	ection curve of manufa	cturer may also be su	bmitted
Note 2: Heat Balance Diagram has to be submitted along with above info			
Note 3: The Terms - MCR, BMCR, HHV, Performance coal, are as d	efined in CEA Techni		nstruction of Electri
<u>Plants and Electric Lines Regulations – 2010 notified by the Central Elect</u> Note 4: The copy of Certificate shall be submitted in terms of Regulation			
THOLE 4. THE COPY OF CERTIFICATE SHAILDE SUDHIILLEU III LEITHS OF REGULATION	+ as per Appendix-VI		
			Petitione

PART-I FORM- 3 Normative parameters considered for tariff computations NTPC Limited Name of the Petitioner: LARA Super Thermal power Station Stage-I Name of the Generating Station: (Year Ending March) Existing 2024-25 2025-26 2026-27 2027-28 2028-29 Particulars Unit 2023-24 2 3 5 6 15.50 Base Rate of Return on Equity % 15.50 15.50 15.50 15.50 15.50 Base Rate of Return on Equity on Add. % 12.150 12.150 12.150 12.150 12.150 Capitalization \* 17.4720 17.4720 17.4720 17.4720 17.4720 17.4720 Effective Tax Rate % Target Availability % 85.00 85.00 85.00 85.00 85.00 85.00 % 85.00 85.00 85.00 85.00 85.00 85.00 Peak Hours Off-Peak Hours % 85.00 85.00 85.00 85.00 85.00 85.00 3- Average Monthly Frequency Response Performa 0-1 6.75 6.75 6.75 Auxiliary Energy Consumption\$ % 6.25 6.75 6.75 Gross Station Heat Rate kCal/kWh 2228.16 2217.55 2217.55 2217.55 2217.55 2217.55 Specific Fuel Oil Consumption\*\* ml/kWh 0.50 1.00 1.00 1.00 1.00 1.00 Cost of Coal/Lignite for WC1 40 40 in Days 40 40 40 40 Cost of Main Secondary Fuel Oil for WC1 2 in Months Fuel Cost for WC2 in Months Liquid Fuel Stock for WC2 in Months O&M Expenses Rs lakh/MW 20.93 23.2 24.42 25.7 27.05 28.47 % of O&M 20.00 20.00 20.00 20.00 20.00 20.00 Maintenance Spares for WC Receivables for WC in Days 45 45 45 45 45 45 970050 Storage capacity of Primary fuel# MT 970050 970050 970050 970050 970050 SBI 1 Year MCLR plus 325 basis point3 % 12.00 11.90 11.90 11.90 11.90 11.90 Blending ratio of domestic coal/imported coal 100 100 100 100 100 100 Norms for consumption of reagent Specific Limestone consumption for Wet Limestone FGD Specific Limestone consumption for Lime Spray NA NA NA NA NA Dryer or Semi-dry FGD NA NA NA Specific consumption of sodium bicarbonate NA NA Specific Limestone consumption for CFBC based NA NA NA NA NA generating station NA NA NA NA Specific ammonia consumption of the SCR NA Transit and Handling Losses of coal or lignite, as 0.20% applicable

#shall be provided at the time of truing up

Petitioner

<sup>\*</sup>Rate of Return on Add - cap beyond the original scope of work including additional capitalization due to Change in Law, Force Majeure

<sup>\$</sup> Auxiliary Energy consumption is inclusive of FGD

<sup>\*\*</sup>Specific Fuel Oil Consumption of 1.0 ml/kwh has been considered due to front & rear wall fired boiler as per provision of CERC Tariff Regulation 2024

## Part-I FORM-3A ADDITIONAL FORM

## **Calculation of O&M Expenses**

Name of the Company:	NTPC Limited
Name of the Power Station:	LARA Super Thermal power Station Stage-I

Amount in Rs. Lakhs

S.No.	Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
1	2	3	4	5	7	8
1	O&M expenses under Reg.36(1)(1)					
1a	Normative	37120.00	39072.00	41120.00	43280.00	45552.00
2	O&M expenditure for FGD36(1)(9)	1152.20	1212.69	1276.36	1343.37	1413.89
	Sale of Gypsum	32.66	32.66	32.66	32.66	32.66
	Net O&M expenditure for FGD	1119.54	1180.03	1243.70	1310.71	1381.23
3	O&M expenses under Reg.36(1)(6)*					
3a	Water Charges (as per bills raised by WRD	2227.50	2227.50	2227.50	2227.50	2227.50
	in line with water agreement)					
3a1	Water Charges claimed under O&M**	0.00	0.00	0.00	0.00	0.00
3b	Security expenses	3156.00	3314.00	3479.00	3653.00	3836.00
3c	Capital Spares	deta	ails shall be p	rovided at the	e time of true	-up
4	O&M expenses-Ash Transportation	62500.00	62500.00	62500.00	62500.00	62500.00
·	Total O&M Expenses	103895.54	106066.03	108342.70	110743.71	113269.23

<sup>\*</sup> Actual figures shall be provided at the time of truing up

Petitioner

<sup>\*\*</sup> water charges incurred for the instant station has been adjusted from the advance amount given to WRD for water barrage construction, therefore not claimed here under O&M.

		PART 1 FORM- 5	
Abstract of Admitted Capital Co	ost for the existing Projec	<u>ts</u>	
Name of the Company: NTPC Limited			
Name of the Power Station: LARA Super Thermal po	wer Station Stage-I		
Last date of order of Commission for the project	Date (DD-MM-YYYY)		
Reference of petition no. in which the above order was passe			
Following details (whether admitted and /or considered) as on which tariff is approved, in the above order by the Commission	the last date of the period for		
Capital cost (as on 31.03.2019)  Amount of un-discharged liabilities included in above (& formula part of admitted capital cost)	ming		
Amount of un-discharged liabilities corresponding to above admitted capital cost (but not forming part of admitted capital being allowed on cash basis) as on 1.4.2014		To be submitted at the	
Gross Normative Debt	(Rs. in lakh)	time of truing up	
Cumulative Repayment			
Net Normative Debt			
Normative Equity			
Cumulative Depreciation			
Freehold land			

		PART : FORM- 5A
Abstract of Claimed Capita	al Cost for the existing P	<u>rojects</u>
Name of the Company: NTPC Limited		
Name of the Power Station: LARA Super Thermal p	ower Station Stage-I	
Reference of Final True-up Tariff Petition	Affidavit dated	21.11.2024
Capital Cost		
	Rs. Lakhs	1,54,336.00
Adjustment as per Para (7) of this petition		27,438.00
Following details as considered by the Petitioner as on the final true-up tariff is claimed:	last date of the period for whi	
Capital cost as on 01.4.02024		1534335.97
Amount of un-discharged liabilities included in above (& forming part of admitted capital cost) as on 31.03.2024		
Amount of un-discharged liabilities corresponding to above admitted capital cost (but not forming part of admitted cap cost being allowed on cash basis)	vital	
Gross Normative Debt	(Rs. in lakh)*	1035384.08
Cumulative Repayment		205268.35
Net Normative Debt		830115.73
Normative Equity		460300.79
Cumulative Depreciation		201847.98
		3786.88

#### 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	LARA Super Thermal power Station Stage-I
COD	07-11-2020
For Financial Year	2024-29 (Summary)

			ACE Cla	imed (Actual /	Projected)		Ai	Admitted Co
Sl. No.	Head of Work /Equipment	2024-25	2025-26	2026-27	2027-28	2028-29	Regulation under which claimed/Justification	by the Commission
1	2	3	4	5.00	6.00	7.00	8	9
A.	Works under Original scope, Change in Law etc. el	igble for RoE	at Normal Rat	e				
1	Balance Civil works	1816.16	1187				As per Relevant Form- 9 of respective years	
2	FGD	57610.00					As per Relevant Form- 9 of respective years	
3	AHP	524.86	525				As per Relevant Form- 9 of respective years	
4	AC Packages	5.00					As per Relevant Form- 9 of respective years	
5	SG & STG Package	2688.00	500				As per Relevant Form- 9 of respective years	
6	СНР	50.00					As per Relevant Form- 9 of respective years	
7	Make up Pipe line	15.00					As per Relevant Form- 9 of respective years	
8	Station Piping	30.00					As per Relevant Form- 9 of respective years	
9	Station C&I	310.09					As per Relevant Form- 9 of respective years	
10	Works related to Ash Dyke Raising and AWRS	541.61	1736				As per Relevant Form- 9 of respective years	
11	Upgradation against Obsolescence of HMI	1000.53	1001				As per Relevant Form- 9 of respective years	
12	Railway siding works	8122.92	8600	1300.00	12681.68		As per Relevant Form- 9 of respective years	
13	Wagon supply	4961.00	4961				As per Relevant Form- 9 of respective years	
14	Supply and Erection of DI Pipe (2x8km) Package of Lara STPP-I (2x800 MW).		6377				As per Relevant Form- 9 of respective years	
	Total (A)							
		77,675	24886	1300.00	12681.68	0.00		
В.	Works beyond Original scope excluding add-cap du	e to Change in	Law eligible	for RoE at SB	MCLR + 350 b	asis points		
15	Diesel Electric Tower Car for OHE Maintenance		795				As per Relevant Form- 9 of respective years	
16	Barbed Wire Fencing along the Rail Track at various location from NTPC Lara to Talaipalli Mines at MGR.		105				As per Relevant Form- 9 of respective years	
			590				As per Relevant Form- 9 of respective	
17	Ash Brick plant Total (B)	_	1490	0.00	0.00	0.00	years	+
Total A	Add. Cap. Claimed (A+B)	77,675	26377	1300.00	12681.68	0.00		

(Petitioner)

								PART-I
					~	oar wise Statem	ent of Additional Capitalisation after COD	FORM-9
11				NTPC Limited		ear wise Statem	terit of Additional Capitalisation after COD	
_	e of the Petitioner e of the Generating Station					wer Station Stage-		
COD	or the Generating Station			07-11-2020	iermai po	wer station stage-		
	inancial Year			2024-25				
1 01 1	manciai reai			2024-23			Amo	ount in Rs Lakh
SI.	Head of Work /Equipment		ACE C	aimed (Projected	1	Regulations	Ann	Admitted Cost
No.	ricad of Work/Equipment		Un-discharged	annea (i rojectea	IDC	under which		by the
		Accrual basis as	Liability		include	claimed	Justification	Commission.
		per IGAAP	included in col.	Cash basis	d in col.			if any
		' '	3		3			-
1	2	3	4	5= (3-4)	6	7	8	9
A.	Works under Original scope, Chang	ge in Law etc. eligb	le for RoE at No	rmal Rate				
1	Balance Civil works	1816.16	0	1816.16		25(1)(d), 25(1)(f) and 102	It is submitted that the COD of the instant Station was in November 2020 and accordingly cut-off date to complete the works under original scope was on 30th November 2024. It is also pertinent to note that the period immediately after the COD, which is crucial with respect to expediting the progress of additional capitalization works within original scope, was impaired significantly by the unprecedented COVID-19 pandemic and its second wave. The various ways in which the COVID-19 pandemic and its second wave. The various ways in which the COVID-19 pandemic and the steps taken by the Petitioner in mitigating the same, along with supporting documents are provided herewith at Annexure-A.4. It is evident from the same that the 03 year period, after November 2020, available as per Tarriff Regulations 2019 to complete the works original scope of the instant Station was infested largely with the COVID-19 pandemic, which was spread with great force in the year 2020 and 2021, thereby significantly affecting the progress of works on account of various restrictions imposed and shortage in deployemnt of men, material and equipment due to the pandemic.  Nevertheless, the Petitioner by taking suitable measures was able to complete most of the works of original scope by FY 23-24. However, certain civil works in Plant area such as cement concrete flooring and paving, fencing, cladding panels, final finishing works, etc. are still under progress. Also, construction of some of the balance quarters in Township is in advanced stage, It is relevant to mention that Township were in the more than 03 years after COD since the focus is mainly on completion of balance Plant works. Also, progress of balance civil works in Plant was slow due to various clearances/ work permits/ and additional precautions that were mandatorily required for carrying out execution works in an operational Plant. Moreover, the said works, not immediately affecting the generation and taken up at a latest stage, have protected the beneficiaries against front loa	
2	FGD	57610.00	0	57610.00		25(1)(f) and 102		
3	AHP	524.86	0	524.86		25(1)(f) and 102	These works/packages pertain to the original scope of work and the same have been already completed within the cut-off date of the station. However, on	
4	AC Packages	5	0	5.00		05(4)(6) 4 400	account of non-closure of the contract in view of various reasons like final settlement of hill defect rectification, price adjustment as per the contract, these	
5	SG Package	2688	0	2688.00			balance amounts are still to be released by the Petitioner. Most of these deferred liabilities are proposed to be released during FY 2024-25 & 2025-26, during	
6	CHP	50	0	50.00		25(1)(f) and 102		
7	Make up Pipe line	15	0	15.00		25(1)(f) and 102	halance amount is to be released during the contract closing process in EV 2024-25. This amount partains to the work under original scope and the this	
8	Station Piping	30	0	30.00		25(1)(f) and 102	deferred liability may please be allowed by Hon'ble Commission for the pupose of tariff of the instant station excising regulation 25(1)(d).	
10	Station C&I	310.09	0	310.09		25(1)(f) and 102		
9	Works related to Ash Dyke Raising and AWRS	541.61	0	541.61		25(1)(c)	This is part of ongoing raising work of existing ash dyke and is within the original scope. As the existing capacity of ash dyke is envisaged to get exhausted accordingly, the raising and buttressing of the ash dyke is necessarily required for increasing its capacity for further disposal of ash generated from the instant station.	
11	Upgradation against Obsolescence of HMI	1000.53	0	1000.53		25(2)©	The HMI system previously deployed at Station relied on the Windows XP operating system. Since Microsoft no longer supports Windows XP, this created significant cybersecurity risks. To address these concerns and ensure continued functionality of the system, an upgrade project was necessary.  However, existing HMI software and hardware were not directly compatible with Windows 10. Therefore, the project scope encompassed a complete Replacement and Modernization (R&M) of the HMI system. Communication regarding non-support and non-availability from the HMI OEM, Yokogawa, regarding this incompatibility and obsolescence is attached as Annexure-A.1 Also, CEA (Cyber Security Dever Sector) Guidelines, 2012 (tatached herewith at Annexure-A2) provide for phasing out of legacy systems and ensuring security hardening with additional controls in consultation with the OEM. Hon'ble Commission had earlier allowed the upgradation of HMI on account of obsolescence in its various orders such as order dated 22.06.2023 in pet no. 257/GT/2020 order dtd 29.03.2023 in petition no. 442/GT/2020, order dtd 29.03.2023 in petition no. 396/GT/2020, order dtd 05.09.2023 in petition no. 396/GT/2020 etc.  Therefore, for continued and efficient operation of the system, it is humbly requested that Hon'ble Commission may be pleased to allow the same under Regulation 25(2)(c) of Tariff Regulations 2024 on account of obsolescence of Technology	

12	Railway siding works	8122.92	0	8122.92		25(1)(f) read with Regulation 102	It is submitted that the ESP of Chakardhar Nagar Station was approved in before COD of the station, however, during Land Licensing agreement signing. Railway demanded 1 more loop line to get RAkes from UP direction towards Lara Line. After Several meetings and communications, RAilway agreed to drop the additional Line requirement as Lara STPP rake requirement from UP line side through ChakardharNagar lines is NIL. The ESP was further revised and approved on April-2022. Subsequently NTPC requested Railways to give S&T Deposit works estimate. After approval of ESP, Package for S&T Building works was started, However, the execution was delayed due Cable clearance issue from Railways. The cable clearance was received in april-2024 and Building work started. After deposit of 31 CR in Dec-23, Railways finally floated NIT in Aug-24 as there were several observations in ESP and Proposed SIP. The ESP was again needed to be altered due to various Technical updates such as changing Turnouts from 1 in 8.5 to 1 in 12, Change from Curved switches to Thick web switches.  The expected timeline for completion of S&T Works is 2 years after date of award.  Further, Civil works in 1500m in Up and Down line was hindered due to existing ballast in Railway boundary, Despite several meetings and communication to Railways and follow up through PMG Portal, Ballast shifting was done in April-2024, Subsequently Earthwork was started in april 2024. For construction of 6 Nos bridge extension in Railway bounary, Cable shifting was required, Till date cable clearance of 4 Bridges is available however construction of 2 bridges in UP line could be taken up as existing retaining wall structure is to be dismantled (whihe is under the scope of Railway authorised body) before start of Bridge work in DN line.  Further commissioning of New Block station will require more than 200 hours of Block as it involves insertion of 16 Nos Points and Crossings in Railway Main lines and 8 Nos points in Loop line. The technical and safety scrutiny of such massive	
13	Wagon supply	4961.00	0	4961.00		25(1)(f) read with Regulation 102	Purchase Order for supply of 220 no. of BOBRNHSM1 wagons to Lara STPS was placed on 25.03.2022 ie. before cut-off date to M/s TEXMACO Rail and Engineering, Kolkata. Subsequently, the agency had communicated that a)The Rail Wheel Factory, under the Indian Railways, is the only Indian source for supply of wheelsets for the wagons. However, on account of increased demand of Indian Railways for supply of wagons for the next three years, Rail Wheel Factory have decided not to supply any wheelsets against orders/requirement other than for Indian Railways. The agency was made aware of such decision recently and there was no way and manner for them to know of such a circumstance. At the findian Railways. The agency was made aware of such decision recently and there was no way and manner for them to know of such a circumstance. At the Indian Railways. The agency was made aware of such decision recently and there was no way and manner for them to know of such a circumstance. At the Indian Railways. The agency was made aware of such accordingly submitted our bid. Considering the decision taken now by RWF, they are not allowed to source RWF wheelsets for supply of wagons to any party other than Indian Railway. In the light of the above stated compelling circumstances, they requested us to consider the following: a)To arrange to make available RWF wheelsets to them. b)Allow a price variation clause as per standard Railway clause for price variation. It is further submitted that as this is a firm price contract we have intimated the agency that this is not feasible to agree to their propositions, nor could the PO be terminated, but the party was not going ahead with execution plan of the contract and hence did not submit the PBG. This iso to mention that there are very limited number of manufacturers of the required wagons in India and they have Indian Railway as their priority customer. Because of the non-adherence to the PO terms, the PO was terminated on 15.09.2023 and a show cause notice was served to the vendor. Further	
	Total (A)	77,675	0	77,675	-			
В	Works beyond Original scope exlud	ling add-can due to	Change in Law	elighle for PoE	at SRI M	CLR + 350 hasis no	Ninte	
		g saa oap ado to	yo Luw	July 101 10E				
	Total (B)	-	-		-			
Total	Add. Cap. Claimed (A+B)	77,675.17	-	77675.17	-			
								(Petitioner)

								PART-I
								FORM-9
						Year wise Staten	nent of Additional Capitalisation after COD	
	of the Petitioner			NTPC Limited				
Name	of the Generating Station			LARA Super Th 07-11-2020	nermal po	wer Station Stage-	I	
	inancial Year			2025-26				
FOFF	inanciai fear			2025-26			Amo	unt in Rs Lakh
SI.	Head of Work /Equipment		ACE C	laimed (Projected	1)	Regulations under	Airc	Admitted Cost
No.	riodd o'i freiti, Equipment		Un-discharged	lamioa (i rojectoa	1	which claimed		by the
1		Accrual basis as	Liability	Cash basis	IDC		Justification	Commission,
		per IGAAP	included in col.	Cash basis	included in col. 3			if any
1	2	3	3 4	5= (3-4)	6	7	8	9
	Works under Original scope, Chan				<u> </u>	•	·	
, u	Trong under Original Scope, Onan	ge iii Law etc. eliga	oic for NoL at No	inui Ruto				
						25(1)(d) 25(1)(f)	### Page   Page	
1	Balance Civil works	1187.36	0	1187.36				
2	AHP	524.86	0	524.86		25/1)/f) and 102	As per addcap justification provided in 2024-25.	
3	SG Package	500	0	500.00				
4	Works related to Ash Dyke Raising and	1736.18	0	1736.18				
-	AWRS Upgradation against Obsolescence of	1730.10	-	1730.10		25(1)(0)	As per addcap justification provided in 2024-25.	
5	HMI	1000.53	0	1000.53		25(2)©	As per addcap justification provided in 2024-25.	
6	Railway siding works	8600.00	0	8600.00		25(1)(f) read with	As per addican justification provided in 2024-25	
7	Wagon supply	4961.00	0	4961.00		25(1)(f) read with		
	3 117	4901.00	0	4901.00		Regulation 102		
8	Supply and Erection of DI Pipe (2x8km) Package of Lara STPP-I (2x800 MW).	6376.53	0	6376.53				
	Total (A)	24,886	0	24,886	-			
R	Works beyond Original scope exlu	ding add can due t	o Chango in Law	v olighla for BoE	ot CDI M	CLD + 250 basis no	linto.	
_ D.	TVOIRS DEVOITE Original scope exit	umg add-cap dde t	o change in Lav	v eligble for RoL	at obi wi	DEIX + 330 basis po	mic	
	Diesel Electric Tower Car for OHE	Fower Car for OHE 795						
	Maintenance	750	1					
						26(1)(d) read with	sale manner. From the Commission may be pleased to Consider and allow the same.	
9	9		0	795.00	0	26(1)(i)		
	Barbed Wire Fencing along the Rail							
	Track at various location from NTPC	105.09						
	Lara to Talaipalli Mines at MGR.							
10			0	105.09	9	26(1)(d)	Commission may be pleased to allow the capitalization of same under Regulation 26(1)(d).	
		590					responsible to utilise 100 per cent utilisation of ash (fly ash, bottom ash, legacy pond ash) generated by it in an eco-friendly manner. For the compliance of the notification, NTPC Lara STPS has set up FlyAsh brick manufacturing Plants at its Coal based ThermalPowerPlants and	
	Ash Brick plant	390	1				Compinance of the hollication, NTPC Lata STPS has set up 17/481 brick manufacturing Plants at its Coal based intermative meritants and FlyAsh bricks are being manufactured on regular basis. These bricks are being utilized in Plant as well as township construction activities	
							exclusively which further helps in the utilioization of fly ash as mandated by MOEF&CC Gazette Notification dtd 31.12.2021. Hon'ble Commission	
11			0	590.00		26(1)(b)	may be pleased to allow the capitalization of same under Regulation 26(1)(b)	
Total	Total (B) Add. Cap. Claimed (A+B)	1,490.09		1,490.09		-		-
Total	Auu. Cap. Claimeu (ATD)	26,376.55	-	26,376.55	- 1			1
1								
1								(D-4141

								PART-I FORM- 9
		<u>Y</u>	ear wise State	ement of Addit	ional Ca	pitalisation afte	er COD	
Name	of the Petitioner			NTPC Limited				
	of the Generating Station				ermal pov	ver Station Stage-	-1	
COD				07-11-2020				
For Fi	nancial Year			2026-27				
								Amount in Rs Lakh
SI.	Head of Work /Equipment		ACE C	laimed (Projected)	)	Regulations		Admitted Cost
No.		Accrual basis as per IGAAP	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3	under which claimed	Justification	by the Commission, if any
1	2	3	4	5= (3-4)	6	7	8	9
<b>A</b> .	Railway siding works	1300.00	0	1300.00		25(1)(f) read with Regulation 102	As per addcap justification provided in 2024-25.	
	Total (A)	1,300	0	1,300	-			
	,	,		,				
B.	Works beyond Original scope extended	uding add-cap due	to Change in La	w eligble for Rol	E at SBI N	ICLR + 350 basis	points	•
	Total (B)	-	-	-	-			
Total	Add. Cap. Claimed (A+B)	1,300.00	-	1,300.00	-			
								(Petitioner)

								PART-I FORM- 9
			Year wise S	tatement of Ad	lditional	Capitalisation	after COD	i Okim- 3
Name	of the Petitioner			NTPC Limited			<del></del>	
	of the Generating Station				ermal pov	ver Station Stage-	1	
COD				07-11-2020				
For Fi	nancial Year			2027-28				
								Amount in Rs Lakh
SI.	Head of Work /Equipment		ACE C	laimed (Projected)		Regulations under		Admitted Cost
No.			Un-discharged		IDC	which claimed		by the
		Accrual basis as	Liability	Cash basis	included		Justification	Commission, if
		per IGAAP	included in col.	Casii basis	in col. 3			any
			3					
1	2	3	4	5= (3-4)	6	7	8	9
Α.	Works under Original scope, Chan	ge in Law etc. elig	ble for RoE at N	lormal Rate				
		1	Ι	T		05(4)(0		
1	Railway siding works	12681.68	0	12681.68		25(1)(f) read with Regulation 102	As per addcap justification provided in 2024-25.	
	Total (A)	12,682	0	12,682	_	Regulation 102	713 per addoup justification provided in 2024-20.	
	Total (Fly	12,002	, , , , , , , , , , , , , , , , , , ,	12,002				
В.	Works beyond Original scope exlu	ding add-cap due	to Change in La	w eliable for Ro	at SBI M	CLR + 350 basis p	oints	
	promo zoyona ongma ocopo ozna	amig and out and	g <u>-</u> .		- 4.0 - 2.1	оди осо висою р		
			I	1				
		1		1				
	Total (B)	-	-	-	-			
Total .	Total (B) Add. Cap. Claimed (A+B)	12,681.68	-	12,681.68	-			
Total		12,681.68		12,681.68				
Total .		12,681.68		12,681.68				
Total .		12,681.68		- 12,681.68				
Total .		12,681.68		12,681.68				
Total .		- 12,681.68		12,681.68				(Petitioner)

								PART-I			
								FORM- 9			
			Year wise S	Statement of	Addition	nal Capitalisation a	after COD				
Name	of the Petitioner			NTPC Limite	WTPC Limited						
Name o	of the Generating Station			LARA Super	Thermal	power Station Stage-l					
COD				07-11-2020 2028-29							
For Fi	or Financial Year										
							Am	ount in Rs Lakh			
			ACE Cla	imed (Projected	1)			Admitted Cost			
Sl. No.	Head of Work /Equipment	Accrual basis as per IGAAP	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3	Regulations under which claimed	Justification	by the Commission, if any			
1	2	3	4	5= (3-4)	6	7	8	9			
A.	Works under Original scope, Change in I	aw etc. eligble	for RoE at Norma	al Rate							
		1	Г	1							
	Total (A)	-	-	-	-						
D	Walakan I Oddala I aan ah Kasal	 		  - -	CDI MCI	D + 250 h					
B.	Works beyond Original scope exluding ad Total (B)	d-cap due to C	nange in Law eng	gbie for Roll at		R + 350 basis points					
	· · · · ·	_	_	-	-						
Total A	Add. Cap. Claimed (A+B)	-	-	-	-						
								(Petitioner)			
								(1 cutioner)			

Name of the Petitioner				NTPC Lir	mited					
Name of the Generating Stati	ion			LARA Sı	ıper Theri	mal power	Station St	age-I		
Date of Commercial Operation	n			07-11-202	0	_				
								Amount i	n Rs Lakh	
Financial Year (Starting from	OD) 1							Admitted		
COD)1 2024-25 2025-26 2026-2			2026-27	2027-28	2028-29	2024-25	2025-26	2026-27	2027-28	2028-29
1		3	4	5	6	7	8	9	10	11
Loan-3 and so on Total Loan?	Add cap is proposed to be financed in Debt:Equity ratio of 70:30									
Total Loan2 Equity		A	dd cap is j	proposed to	o be financ	ced in Deb	t:Equity ra	atio of 70:.	30	
Total Loan2	- - -	A	dd cap is j	proposed to	o be financ	ced in Deb	t:Equity ra	atio of 70:.	30	
Total Loan2  Equity Internal Resources	-	A	dd cap is p	proposed to	o be financ	ced in Deb	t:Equity ra	atio of 70:	30	

							PART-I FORM- 12
		Statement of	of Depreciation	<u>on</u>			
Nam	e of the Company :	NTPC Limited					
	e of the Power Station :	LARA Super T	hermal Power	Station Stage-I			
		•				(Amo	ount 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	14,79,120.12	15,34,335.98	16,12,011.15	16,38,387.70	16,39,687.70	16,52,369.38
2	Closing Capital Cost	15,34,335.97	16,12,011.15	16,38,387.70	16,39,687.70	16,52,369.38	16,52,369.38
3	Average Capital Cost	15,06,728.05	15,73,173.57	16,25,199.43	16,39,037.70	16,46,028.54	16,52,369.38
4	Average Cost of IT Equipments & Software	1,293.08					
5	Freehold land	3,786.88	3,786.88	3,786.88	3,786.88	3,786.88	3,786.88
6	Rate of depreciation	5.07%	5.07%	5.07%	5.07%	5.07%	5.07%
7	Depreciable value	13,52,776.36	14,12,448.02	14,59,271.29	14,71,725.74	14,78,017.50	14,83,724.25
8	Balance useful life at the beginning of the period	21.45	20.45	19.45	18.45	17.45	16.45
9	Remaining depreciable value	11,50,928.38	11,34,423.66	11,01,487.03	10,31,543.87	9,54,736.41	8,76,989.52
10	Depreciation (for the period)	76,391.11	79,759.90	82,397.61	83,099.21	83,453.65	83,775.13
11	Cumulative depreciation at the end of the period	2,78,239.09	3,57,784.26	4,40,181.87	5,23,281.08	6,06,734.73	6,90,509.86
12	Less: Cumulative depreciation adjustment on account of de-capitalisation	214.73					
13	Net Cumulative depreciation at the end of the period after adjustments	2,78,024.36	3,57,784.26	4,40,181.87	5,23,281.08	6,06,734.73	6,90,509.86
	janer aujusunems		ı				(Petitio

	Calculation of Interest on Actual					
of the Con	npany					
f the Power						
Sl. no.	Particulars					
31. 110.	raticulars	2024-25	2025-26	2026-27	2027-28	2028-29
1	AXIS BANK-IV	23000.00	22000.00	23000.00	23000.00	23000.00
	Gross loan - Opening Cumulative repayments of Loans upto	23000.00	23000.00 4600.00	6900.00	9200.00	11500.00
	previous period Net loan - Opening	20700.00	18400.00	16100.00	13800.00	11500.00
	Increase/ Decrease due to FERV Increase/ Decrease due to ACE/Drawl	0.00	0.00	0.00	0.00	0.00
	during the period			16100.00		11500.00
	Total Repayments of Loans during the period	20700.00 2300.00	18400.00 2300.00	2300.00	13800.00 2300.00	2300.00
	Net loan - Closing	18400.00	16100.00	13800.00	11500.00	9200.00
	Average Net Loan Rate of Interest on Loan	19550.00 <b>8.1500%</b>	17250.00 <b>8.1500%</b>	14950.00 <b>8.1500</b> %	12650.00 <b>8.1500</b> %	10350.00 <b>8.1500</b> %
	Interest on Loan Annualised	1593.33	1405.88	1218.43	1030.98	843.53
2	Bank Of India-IV					
	Gross loan - Opening Cumulative repayments of Loans upto	13600.00 0.00	13600.00 1133.33	13600.00 2266.67	13600.00 3400.00	13600.00 4533.33
	previous period Net loan - Opening	13600.00	12466.67	11333.33	10200.00	9066.67
	Increase/ Decrease due to FERV	0.00	0.00	0.00 0.00	0.00	0.00
	Increase/ Decrease due to ACE/Drawl during the period					
	Total Repayments of Loans during the period	13600.00 1133.33	12466.67 1133.33	11333.33 1133.33	10200.00 1133.33	9066.67 1133.33
	Net loan - Closing	12466.67	11333.33	10200.00	9066.67	7933.33
	Average Net Loan	13033.33	11900.00	10766.67	9633.33	8500.00
	Rate of Interest on Loan Interest on Loan Annualised	<b>8.3500%</b> 1088.28	<b>8.3500%</b> 993.65	<b>8.3500%</b> 899.02	<b>8.3500%</b> 804.38	<b>8.3500%</b> 709.75
3	Central Bank of India V					
,	Gross Ioan - Opening	3000.00	3000.00	3000.00	3000.00	3000.00
	Cumulative repayments of Loans upto previous period	1500.00	1800.00	2100.00	2400.00	2700.00
	Net loan - Opening Increase/ Decrease due to FERV	1500.00 0.00	1200.00 0.00	900.00	600.00	300.00 0.00
	Increase/ Decrease due to ACE Total	0.00 1500.00	0.00 1200.00	0.00 900.00	0.00 600.00	0.00 300.00
	Repayments of Loans during the period	300.00	300.00	300.00	300.00	300.00
	Net loan - Closing	1200.00	900.00	600.00	300.00	0.00
	Average Net Loan Rate of Interest on Loan	1350.00 <b>8.0500</b> %	1050.00 <b>8.0500%</b>	750.00 <b>8.0500%</b>	450.00 <b>8.0500%</b>	150.00 <b>8.0500%</b>
	Interest on Loan Annualised	108.68	84.53	60.38	36.23	12.08
4	Corporation Bank-III	6000.00	6000.00	6000.00	6000.00	6000.00
	Gross loan - Opening Cumulative repayments of Loans upto	3600.00	4200.00	4800.00	5400.00	6000.00
	previous period Net loan - Opening	2400.00	1800.00	1200.00	600.00	0.00
	Increase/ Decrease due to FERV Increase/ Decrease due to ACE	0.00	0.00	0.00	0.00	0.00
	Total	2400.00	1800.00	1200.00	600.00	0.00
	Repayments of Loans during the period	600.00	600.00	600.00	600.00	
	Net Ioan - Closing Average Net Loan	<b>1800.00</b> 2100.00	<b>1200.00</b> 1500.00	<b>600.00</b> 900.00	<b>0.00</b> 300.00	<b>0.00</b> 0.00
	Rate of Interest on Loan Interest on Loan Annualised	<b>8.1000%</b> 170.10	<b>8.1000%</b> 121.50	<b>8.1000%</b> 72.90	<b>8.1000%</b> 24.30	8.1000% 0.00
5	HDFC Bank Limited-IV	1,0110	121.50	72.330	2.1130	0.00
	Gross Ioan - Opening	10000.00	10000.00	10000.00	10000.00	10000.00
	Cumulative repayments of Loans upto previous period	3333.33	4444.44	5555.56	6666.67	7777.78
	Net loan - Opening Increase/ Decrease due to FERV	6666.67 0.00	5555.56 0.00	4444.44 0.00	3333.33 0.00	2222.22 0.00
	Increase/ Decrease due to ACE Total	0.00 6666.67	0.00 5555.56	0.00 4444.44	0.00 3333.33	0.00 2222.22
	Repayments of Loans during the period	1111.11	1111.11	1111.11	1111.11	1111.11
	Net loan - Closing	5555.56	4444.44	3333.33	2222.22	1111.11
	Average Net Loan Rate of Interest on Loan	6111.11 <b>7.9500%</b>	5000.00 <b>7.9500</b> %	3888.89 <b>7.9500%</b>	2777.78 <b>7.9500%</b>	1666.67 <b>7.9500</b> %
	Interest on Loan Annualised	485.83	397.50	309.17	220.83	132.50
6	HDFC Bank Limited-V	44000.00	44000.00	44000.00	44,000,00	44000 00
	Gross loan - Opening Cumulative repayments of Loans upto	41000.00 0.00	41000.00 4555.56	41000.00 9111.11	41000.00 13666.67	41000.00 18222.22
	previous period Net loan - Opening	41000.00	36444.44	31888.89	27333.33	22777.78
	Increase/ Decrease due to FERV Increase/ Decrease due to ACE	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00
	Total	41000.00	36444.44	31888.89	27333.33	22777.78
	Repayments of Loans during the period	4555.56	4555.56	4555.56	4555.56	4555.56
	Net Ioan - Closing Average Net Loan	36444.44 38722.22	31888.89 34166.67	27333.33 29611.11	22777.78 25055.56	18222.22 20500.00
	Rate of Interest on Loan	7.9500%	7.9500%	7.9500%	<b>7.9500%</b> 1991.92	7.9500%
	Interest on Loan Annualised	3078.42	2716.25	2354.08	1991.92	1629.75
7	Gross Ioan - Opening	3300.00	3300.00	3300.00	3300.00	3300.00
	Cumulative repayments of Loans upto	0.00	0.00	366.67	733.33	1100.00
	Net loan - Opening	3300.00	3300.00	2933.33	2566.67	2200.00
	Increase/ Decrease due to FERV Increase/ Decrease due to ACE	0.00	0.00 0.00	0.00	0.00	0.00
	Total  Repayments of Loans during the period	3300.00 0.00	3300.00 366.67	2933.33 366.67	2566.67 366.67	2200.00 366.67
	Net loan - Closing	3300.00	2933.33	2566.67	2200.00	1833.33
	Average Net Loan	3300.00	<b>30</b> 3116.67	2750.00	2383.33	2016.67

	Calculation of Interest on Actual					
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SI. no.	Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
	Rate of Interest on Loan Interest on Loan Annualised	<b>7.9500%</b> 262.35	<b>7.9500%</b> 247.78	7.9500%	<b>7.9500%</b> 189.48	<b>7.9500</b> %
		202.33	247.76	218.63	105.40	100.5
8	HDFC Bank Limited-VII Gross loan - Opening	4300.00	4300.00	4300.00	4300.00	4300.00
	Cumulative repayments of Loans upto	0.00	0.00	0.00	477.78	955.56
	previous period Net Ioan - Opening	4300.00	4300.00	4300.00	3822.22	3344.44
	Increase/ Decrease due to FERV Increase/ Decrease due to ACE	0.00	0.00	0.00	0.00	0.00
	Total	4300.00	4300.00	4300.00	3822.22	3344.44
	Repayments of Loans during the period	0.00	0.00	477.78	477.78	477.78
	Net loan - Closing Average Net Loan	4300.00 4300.00	4300.00 4300.00	3822.22 4061.11	3344.44 3583.33	2866.67 3105.56
	Rate of Interest on Loan	7.9500%	7.9500%	7.9500%	7.9500%	7.9500%
	Interest on Loan Annualised	341.85	341.85	322.86	284.88	246.89
9	Gross loan - Opening	40344.71	40344.71	40344.71	40344.71	40344.71
	Cumulative repayments of Loans upto	0.00	3362.06	6724.12	10086.18	13448.24
	nrevious period Net Ioan - Opening	40344.71	36982.65	33620.60	30258.54	26896.48
	Increase/ Decrease due to FERV Increase/ Decrease due to ACE	0.00	0.00	0.00	0.00	0.00
	Total	40344.71	36982.65	33620.60	30258.54 3362.06	26896.48
	Repayments of Loans during the period	3362.06	3362.06	3362.06		3362.06
	Net Ioan - Closing Average Net Loan	<b>36982.65</b> 38663.68	<b>33620.60</b> 35301.63	<b>30258.54</b> 31939.57	<b>26896.48</b> 28577.51	<b>23534.42</b> 25215.45
	Rate of Interest on Loan	7.9635%	7.9635%	7.9635%	7.9635%	7.9635%
	Interest on Loan Annualised	3079.00	2811.26	2543.52	2275.78	2008.04
10	HDFC Bank Limited-X Gross loan - Opening	11500.00	11500.00	11500.00	11500.00	11500.00
	Cumulative repayments of Loans upto	0.00	0.00	958.33	1916.67	2875.00
	previous period  Net loan - Opening	11500.00	11500.00	10541.67	9583.33	8625.00
	Increase/ Decrease due to FERV Increase/ Decrease due to ACE	0.00	0.00	0.00	0.00	0.00
	Total	11500.00	11500.00	10541.67	9583.33	8625.00
	Repayments of Loans during the period	0.00	958.33	958.33	958.33	958.33
	Net Ioan - Closing Average Net Loan	11500.00	10541.67	9583.33 10062.50	8625.00	7666.67 8145.83
	Rate of Interest on Loan	11500.00 <b>7.9500%</b>	11020.83 <b>7.9500%</b>	7.9500%	9104.17 <b>7.9500%</b>	7.9500%
	Interest on Loan Annualised	914.25	876.16	799.97	723.78	647.59
11	HDFC Bank Limited-XI Gross loan - Opening	392.00	392.00	392.00	392.00	392.00
	Cumulative repayments of Loans upto	0.00	0.00	0.00	0.00	32.67
	nrevious period Net Ioan - Opening	392.00	392.00	392.00	392.00	359.33
	Increase/ Decrease due to FERV Increase/ Decrease due to ACE	0.00	0.00	0.00 0.00	0.00	0.00
	Total	392.00	392.00	392.00	392.00	359.33
	Repayments of Loans during the period	0.00	0.00	0.00	32.67	32.67
	Net Ioan - Closing Average Net Loan	<b>392.00</b> 392.00	<b>392.00</b> 392.00	<b>392.00</b> 392.00	<b>359.33</b> 375.67	<b>326.67</b> 343.00
	Rate of Interest on Loan	7.8400%	7.8400%	7.8400%	7.8400%	7.8400%
	Interest on Loan Annualised	30.73	30.73	30.73	29.45	26.89
12	HDFC Bank Limited-XII Gross loan - Opening	11200.00	11200.00	11200.00	11200.00	11200.00
	Cumulative repayments of Loans upto	0.00	0.00	0.00	0.00	933.33
	nrevious period Net Ioan - Opening	11200.00	11200.00	11200.00	11200.00	10266.67
	Increase/ Decrease due to FERV Increase/ Decrease due to ACE	0.00 0.00	0.00	0.00	0.00	0.00
	Total	11200.00	11200.00	11200.00	11200.00	10266.67
	Repayments of Loans during the period	0.00	0.00	0.00	933.33	933.33
	Net loan - Closing Average Net Loan	11200.00 11200.00	11200.00 11200.00	11200.00 11200.00	10266.67 10733.33	9333.33 9800.00
	Rate of Interest on Loan	7.6000%	7.6000%	7.6000%	7.6000%	7.6000%
	Interest on Loan Annualised	851.20	851.20	851.20	815.73	744.80
13	ICICI Bank-VII Gross loan - Opening	3500.00	3500.00	3500.00	3500.00	3500.00
	Cumulative repayments of Loans upto	0.00	291.67	583.33	875.00	1166.67
	previous period Net Ioan - Opening	3500.00	3208.33	2916.67	2625.00	2333.33
	Increase/ Decrease due to FERV Increase/ Decrease due to ACE	0.00	0.00	0.00	0.00	0.00
	Total	3500.00	3208.33	2916.67	2625.00	2333.33
	Repayments of Loans during the period	291.67	291.67	291.67	291.67	291.67
	Net loan - Closing Average Net Loan	3208.33 3354.17	2916.67 3062.50	2625.00 2770.83	2333.33 2479.17	2041.67 2187.50
	Rate of Interest on Loan	8.0000%	8.0000%	8.0000%	8.0000%	8.0000%
	Interest on Loan Annualised	268.33	245.00	221.67	198.33	175.00
14	Jammu and Kashmir Bank III  Gross loan - Opening	13000.00	13000.00	13000.00	13000.00	13000.00
	Cumulative repayments of Loans upto	7800.00	9100.00	10400.00	11700.00	13000.00
	nrevious period Net Ioan - Opening	5200.00	3900.00	2600.00	1300.00	0.00
	Increase/ Decrease due to FERV Increase/ Decrease due to ACE	0.00	0.00	0.00	0.00	0.00
	Total	5200.00	3900.00	2600.00	1300.00	0.00
	Repayments of Loans during the period	1300.00	1300.00	1300.00	1300.00	0.00
	Net loan - Closing	3900.00	2600.00	1300.00	0.00	0.00

C	Calculation of Interest on Actual					
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Sl. no.	Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
	verage Net Loan ate of Interest on Loan	4550.00 <b>7.9800</b> %	3250.00 <b>7.9800</b> %	1950.00 <b>7.9800</b> %	650.00 <b>7.9800</b> %	0.00 <b>0.0000%</b>
	nterest on Loan Annualised	363.09	259.35	155.61	51.87	0.00
	NB-III ross loan - Opening	1500.00	1500.00	1500.00	1500.00	1500.00
Cı	umulative repayments of Loans upto	500.00	666.67	833.33	1000.00	1166.67
Ne	revious period et loan - Opening	1000.00	833.33	666.67	500.00	333.33
	ncrease/ Decrease due to FERV ncrease/ Decrease due to ACE/Drawl	0.00	0.00	0.00	0.00	0.00
	uring the period	1000.00	833.33	666.67	500.00	333.33
Re	epayments of Loans during the period	166.67	166.67	166.67	166.67	166.67
	et Ioan - Closing verage Net Loan	<b>833.33</b> 916.67	<b>666.67</b> 750.00	<b>500.00</b> 583.33	<b>333.33</b> 416.67	<b>166.67</b> 250.00
Ra	ate of Interest on Loan	7.9000%	7.9000%	7.9000%	7.9000%	7.9000%
	nterest on Loan Annualised	72.42	59.25	46.08	32.92	19.75
G	NB-IV ross loan - Opening	62300.00	62300.00	62300.00	62300.00	62300.00
nı	umulative repayments of Loans upto revious period	13844.44	20766.67	27688.89	34611.11	41533.33
N	et loan - Opening ncrease/ Decrease due to FERV	48455.56 0.00	41533.33 0.00	34611.11 0.00	27688.89 0.00	20766.67 0.00
In	ncrease/ Decrease due to ACE/Drawl	0.00	0.00	0.00	0.00	0.00
To	otal epayments of Loans during the period	48455.56 6922.22	41533.33 6922.22	34611.11 6922.22	27688.89 6922.22	20766.67 6922.22
A	et Ioan - Closing verage Net Loan	41533.33 44994.44	34611.11 38072.22	27688.89 31150.00	20766.67 24227.78	13844.44 17305.56
	ate of Interest on Loan hterest on Loan Annualised	<b>7.9000%</b> 3554.56	<b>7.9000%</b> 3007.71	<b>7.9000%</b> 2460.85	<b>7.9000%</b> 1913.99	<b>7.9000%</b> 1367.14
17 <b>S</b>	tate Bank of India-VIII					
G	ross loan - Opening umulative repayments of Loans upto	72044.46	72044.46	72044.46	72044.46	72044.46
10	revious period et Joan - Opening	22977.78 49066.68	30982.72 41061.74	38987.66 33056.80	46992.60 25051.86	54997.54 17046.92
In	crease/ Decrease due to FERV	0.00	0.00	0.00	0.00	0.00
dı	crease/ Decrease due to ACE/Drawl uring the period	0.00	0.00	0.00	0.00	0.00
	epayments of Loans during the period	49066.68	41061.74	33056.80	25051.86	17046.92
N	et loan - Closing	8004.94 41061.74	8004.94 33056.80	8004.94 25051.86	8004.94 17046.92	8004.94 9041.98
	verage Net Loan ate of Interest on Loan	45064.21 <b>8.2000</b> %	37059.27 <b>8.2000%</b>	29054.33 <b>8.2000</b> %	21049.39 <b>8,2000%</b>	13044.45 <b>8.2000</b> %
	nterest on Loan Annualised	3695.27	3038.86	2382.46	1726.05	1069.65
	tate Bank of India-IX	11255.54	11255.54	11255.54	11255.54	11255.54
Cı	ross loan - Opening umulative repayments of Loans upto					
No.	revious period et Ioan - Opening	3233.33 8022.20	5734.56 5520.97	6985.18 4270.36	8235.79 3019.74	9486.41 1769.13
	ncrease/ Decrease due to FERV ncrease/ Decrease due to ACE/Drawl	0.00	0.00	0.00	0.00	0.00
	uring the period	0.00 8022.20	0.00 5520.97	0.00 4270.36	0.00 3019.74	0.00 1769.13
	epayments of Loans during the period	2501.23	1250.62	1250.62	1250.62	1250.62
	et Ioan - Closing verage Net Loan	5520.97 6771.59	4270.36 4895.66	3019.74 3645.05	1769.13 2394.43	518.51 1143.82
Ra	ate of Interest on Loan	8.2000%	8.2000%	8.2000%	8.2000%	8.2000%
	nterest on Loan Annualised	541.73	391.65	291.60	191.55	91.51
	tate Bank of India-X ross loan - Opening	49890.00	49890.00	49890.00	49890.00	49890.00
	umulative repayments of Loans upto	0.00	5543.33	11086.67	16630.00	22173.33
	et Ioan - Opening ncrease/ Decrease due to FERV	49890.00 0.00	44346.67 0.00	38803.33 0.00	33260.00 0.00	27716.67 0.00
In	ncrease/ Decrease due to ACE/Drawl	0.00	0.00	0.00	0.00	0.00
To	otal	49890.00	44346.67	38803.33	33260.00	27716.67
	epayments of Loans during the period	5543.33	5543.33	5543.33	5543.33	5543.33
	et Ioan - Closing verage Net Loan	44346.67 47118.33	38803.33 41575.00	33260.00 36031.67	27716.67 30488.33	22173.33 24945.00
	ate of Interest on Loan hterest on Loan Annualised	<b>8.2000%</b> 3863.70	<b>8.2000%</b> 3409.15	<b>8.2000%</b> 2954.60	<b>8.2000%</b> 2500.04	<b>8.2000%</b> 2045.49
	tate Bank of India-XI					
G	ross loan - Opening umulative repayments of Loans upto	26600.00	26600.00	26600.00	26600.00	26600.00
10	revious period et loan - Opening	5911.11 20688.89	8866.67 17733.33	11822.22 14777.78	14777.78 11822.22	17733.33 8866.67
In	crease/ Decrease due to FERV	0.00	0.00	0.00	0.00	0.00
dı	ncrease/ Decrease due to ACE/Drawl uring the period	0.00	0.00	0.00	0.00	0.00
	epayments of Loans during the period	20688.89	17733.33	14777.78	11822.22	8866.67
	et Ioan - Closing	2955.56 17733.33	2955.56 14777.78	2955.56 11822.22	2955.56 8866.67	2955.56 5911.11
Av	verage Net Loan ate of Interest on Loan	19211.11 <b>8.2000</b> %	16255.56 <b>8.2000</b> %	13300.00 <b>8.2000</b> %	10344.44 <b>8.2000</b> %	7388.89 <b>8.2000%</b>
	nterest on Loan Annualised	1575.31	1332.96	1090.60	848.24	605.89
	tate Bank of India-XII	48000.00	40000 00	40000 00	48000.00	40000.00
Cı	ross loan - Opening umulative repayments of Loans upto		48000.00	48000.00		48000.00
In	revious period	0.00	11 0.00	5333.33	10666.67	16000.00

	Calculation of Interest on Actual					
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f the Powe	r Station					
Sl. no.	Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
	Net loan - Opening Increase/ Decrease due to FERV	48000.00 0.00	48000.00 0.00	42666.67 0.00	37333.33 0.00	32000.00 0.00
	Increase/ Decrease due to ACE/Drawl					
	during the period Total	0.00 48000.00	0.00 48000.00	0.00 42666.67	0.00 37333.33	0.00 32000.00
	Repayments of Loans during the period	0.00				
	Net Ioan - Closing	48000.00	5333.33 42666.67	5333.33 37333.33	5333.33 32000.00	5333.33 26666.67
	Average Net Loan Rate of Interest on Loan	48000.00 <b>8.2000</b> %	45333.33 <b>8.2000</b> %	40000.00 <b>8,2000</b> %	34666.67 <b>8.2000%</b>	29333.33 <b>8.2000%</b>
	Interest on Loan Annualised	3936.00	3717.33	3280.00	2842.67	2405.33
22	Union Bank-II					
	Gross loan - Opening Cumulative repayments of Loans upto	1000.00 750.00	1000.00 850.00	1000.00 950.00	1000.00 1000.00	1000.00 1000.00
	previous period	250.00		50.00	0.00	
	Net loan - Opening Increase/ Decrease due to FERV	0.00	150.00 0.00	0.00	0.00	0.00 0.00
	Increase/ Decrease due to ACE/Drawl during the period	0.00	0.00	0.00	0.00	0.00
	Total	250.00	150.00	50.00	0.00	0.00
	Repayments of Loans during the period	100.00	100.00	50.00	0.00	0.00
	Net Ioan - Closing Average Net Loan	<b>150.00</b> 200.00	50.00 100.00	<b>0.00</b> 25.00	0.00	<b>0.00</b>
	Rate of Interest on Loan	8.1000%	8.1000%	8.1000%	8.1000% 0.00	8.1000%
	Interest on Loan Annualised	16.20	8.10	2.03	0.00	0.00
23	UCO Bank-V Gross loan - Opening	2600.00	2600.00	2600.00	2600.00	2600.00
	Cumulative repayments of Loans upto	0.00	0.00	216.67	433.33	650.00
	previous period Net loan - Opening	2600.00	2600.00	2383.33	2166.67	1950.00
	Increase/ Decrease due to FERV Increase/ Decrease due to ACE/Drawl	0.00	0.00	0.00	0.00	0.00
	during the period					
	Total Repayments of Loans during the period	2600.00 0.00	2600.00 216.67	2383.33 216.67	2166.67 216.67	1950.00 216.67
	Net loan - Closing	2600.00	2383.33	2166.67	1950.00	1733.33
	Average Net Loan	2600.00	2491.67	2275.00	2058.33	1841.67
	Rate of Interest on Loan Interest on Loan Annualised	<b>8.1000%</b> 210.60	<b>8.1000%</b> 201.83	8.1000% 184.28	<b>8.1000%</b> 166.73	8.1000% 149.18
24	Bond 50-2A					
27	Gross Ioan - Opening	1428.26	1428.26	1428.26	1428.26	1428.26
	Cumulative repayments of Loans upto previous period	0.00	0.00	0.00	0.00	0.00
	Net loan - Opening Increase/ Decrease due to FERV	1428.26 0.00	1428.26 0.00	1428.26 0.00	1428.26 0.00	1428.26 0.00
	Increase/ Decrease due to ACE/Drawl	0.00	0.00	0.00	0.00	0.00
	during the period Total	1428.26	1428.26	1428.26	1428.26	1428.26
	Repayments of Loans during the period	0.00	0.00	0.00	0.00	1428.26
	Net loan - Closing	1428.26	1428.26	1428.26	1428.26	0.00
	Average Net Loan Rate of Interest on Loan	1428.26 8.5100%	1428.26 8.5100%	1428.26 8.5100%	1428.26 8.5100%	714.13 8.5100%
	Interest on Loan Annualised	121.55	121.55	121.55	121.55	60.77
25						
25	Bond 50-3A Gross loan - Opening	1783.01	1783.01	1783.01	1783.01	1783.01
	Cumulative repayments of Loans upto previous period	0.00	0.00	0.00	0.00	0.00
	Net loan - Opening	1783.01	1783.01	1783.01	1783.01	1783.01
	Increase/ Decrease due to FERV Increase/ Decrease due to ACE/Drawl	0.00	0.00	0.00	0.00	0.00
	during the period Total	1783.01	1783.01	1783.01	1783.01	1783.01
	Repayments of Loans during the period	0.00	0.00	0.00	0.00	0.00
	Net loan - Closing	1783.01	1783.01	1783.01	1783.01	1783.01
	Average Net Loan Rate of Interest on Loan	1783.01 8.6900%	1783.01 8.6900%	1783.01 8.6900%	1783.01 8.6900%	1783.01 8.6900%
	Interest on Loan Annualised	154.94	154.94	154.94	154.94	154.94
26	Gross loan - Opening	522.24	522.24	522.24	522.24	522.24
	Cumulative repayments of Loans upto previous period	0.00	0.00	0.00	0.00	0.00
	Net loan - Opening	522.24	522.24	522.24	522.24	522.24
	Increase/ Decrease due to FERV Increase/ Decrease due to ACE/Drawl	0.00	0.00 0.00	0.00	0.00	0.00
	during the period	522.24	522.24	522.24	522.24	522.24
	Repayments of Loans during the period	0.00	0.00	0.00	0.00	522.24
	Net loan - Closing	522.24	522.24	522.24	522.24	0.00
	Average Net Loan Rate of Interest on Loan	522.24 8.7600%	522.24 8.7600%	522.24 8.7600%	522.24 8.7600%	261.12 8.7600%
	Interest on Loan Annualised	45.75	45.75	45.75	45.75	22.87
27	Bond 50-3B Gross loan - Opening	2285.53	2285.53	2285.53	2285.53	2285.53
	Cumulative repayments of Loans upto	0.00	0.00	0.00	0.00	0.00
	nrevious period Net Ioan - Opening	2285.53	2285.53	2285.53	2285.53	2285.53
	Increase/ Decrease due to FERV Increase/ Decrease due to ACE/Drawl	0.00	0.00 0.00	0.00	0.00 0.00	0.00
	during the period					
	Total	2285.53	<b>19</b> 2285.53	2285.53	2285.53	2285.53

	Calculation of Interest on Actual					
of the Con	npany					
f the Power	r Station					
SI. no.	Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
	Repayments of Loans during the period	0.00	0.00	0.00	0.00	0.00
	Net Ioan - Closing	2285.53	2285.53	2285.53	2285.53	2285.53
	Average Net Loan Rate of Interest on Loan	2285.53 8.9400%	2285.53 8.9400%	2285.53 8.9400%	2285.53 8.9400%	2285.53 8.9400%
	Interest on Loan Annualised	204.33	204.33	204.33	204.33	204.33
28	Bond 53					
	Gross loan - Opening Cumulative repayments of Loans upto	12500.00 0.00	12500.00 12500.00	12500.00 12500.00	12500.00 12500.00	12500.00 12500.00
	previous period					
	Net loan - Opening Increase/ Decrease due to FERV	12500.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00
	Increase/ Decrease due to ACE/Drawl during the period	0.00	0.00	0.00	0.00	0.00
	Total Repayments of Loans during the period	12500.00 12500.00	0.00 0.00	0.00	0.00	0.00
	Net Ioan - Closing Average Net Loan	<b>0.00</b> 6250.00	<b>0.00</b> 0.00	<b>0.00</b> 0.00	<b>0.00</b> 0.00	<b>0.00</b>
	Rate of Interest on Loan Interest on Loan Annualised	9.2000% 575.00	9.2000% 0.00	9.2000% 0.00	9.2000% 0.00	9.2000%
	Interest on Edin Amiddised	373.00	0.00	0.00	0.00	0.00
29	Bond 54	_				
	Gross Ioan - Opening Cumulative repayments of Loans upto	53300.00 31980.00	53300.00 53300.00	53300.00 53300.00	53300.00 53300.00	53300.00 53300.00
	previous period  Net loan - Opening	21320.00	0.00	0.00	0.00	
	Increase/ Decrease due to FERV	0.00	0.00	0.00	0.00	0.00
	Increase/ Decrease due to ACE/Drawl during the period	0.00	0.00	0.00	0.00	0.00
	Total Repayments of Loans during the period	21320.00 21320.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00
	Net Ioan - Closing Average Net Loan	<b>0.00</b> 10660.00	<b>0.00</b> 0.00	<b>0.00</b> 0.00	<b>0.00</b> 0.00	<b>0.00</b>
	Rate of Interest on Loan Interest on Loan Annualised	8.5200% 908.23	8.5200% 0.00	8.5200% 0.00	8.5200% 0.00	8.5200% 0.00
	Theorese on Eddin Anniquised	300.23	0.00	0.00	0.00	0.00
30	Bond 57					
	Gross loan - Opening Cumulative repayments of Loans upto	13700.00	13700.00	13700.00 13700.00	13700.00 13700.00	13700.00 13700.00
	previous period					
	Net loan - Opening Increase/ Decrease due to FERV	13700.00 0.00	13700.00 0.00	0.00 0.00	0.00 0.00	0.00
	Increase/ Decrease due to ACE/Drawl during the period	0.00	0.00	0.00	0.00	0.00
	Total Repayments of Loans during the period	13700.00 0.00	13700.00 13700.00	0.00	0.00 0.00	0.00
	Net Ioan - Closing Average Net Loan	<b>13700.00</b> 13700.00	<b>0.00</b> 6850.00	<b>0.00</b> 0.00	<b>0.00</b> 0.00	<b>0.00</b>
	Rate of Interest on Loan Interest on Loan Annualised	8.2200% 1126.14	8.2200% 563.07	8.2200% 0.00	8.2200% 0.00	8.2200% 0.00
				3.55		
31	Bond 60					
	Gross loan - Opening Cumulative repayments of Loans upto	3100.00 0.00	3100.00 0.00	3100.00 0.00	3100.00 3100.00	3100.00 3100.00
	previous period Net loan - Opening	3100.00	3100.00	3100.00	0.00	0.00
	Increase/ Decrease due to FERV	0.00	0.00	0.00	0.00	0.00
	Increase/ Decrease due to ACE/Drawl during the period	0.00	0.00	0.00	0.00	0.00
	Total  Repayments of Loans during the period	3100.00 0.00	3100.00 0.00	3100.00 3100.00	0.00	0.00
	Net Ioan - Closing	3100.00	3100.00	0.00	0.00	0.00
	Average Net Loan Rate of Interest on Loan	3100.00	3100.00 8.0800%	1550.00	0.00	0.00
	Interest on Loan Annualised	8.0800% 250.48	250.48	8.0800% 125.24	8.0800% 0.00	8.0800% 0.00
32	Bond 61					
	Gross Ioan - Opening Cumulative repayments of Loans upto	11000.00 3666.67	11000.00 3666.67	11000.00 3666.67	11000.00 7333.33	11000.00 7333.33
	previous period					
	Net loan - Opening Increase/ Decrease due to FERV	7333.33 0.00	7333.33 0.00	7333.33 0.00	3666.67 0.00	3666.67 0.00
	Increase/ Decrease due to ACE/Drawl during the period	0.00	0.00	0.00	0.00	0.00
	Total	7333.33	7333.33	7333.33	3666.67	3666.67
	Repayments of Loans during the period	0.00	0.00	3666.67	0.00	0.00
	Net loan - Closing Average Net Loan	<b>7333.33</b> 7333.33	<b>7333.33</b> 7333.33	<b>3666.67</b> 5500.00	<b>3666.67</b> 3666.67	<b>3666.67</b> 3666.67
	Rate of Interest on Loan Interest on Loan Annualised	8.1300% 596.20	8.1300% 596.20	8.1300% 447.15	8.1300% 298.10	8.1300% 298.10
	ZHOCKOC OH EDAH AHHUMISEU	370.20	370.20	777.13	250.10	270.10
33	Bond 62					
	Gross Ioan - Opening Cumulative repayments of Loans upto	5300.00 0.00	5300.00 0.00	5300.00 0.00	5300.00 5300.00	5300.00 5300.00
	previous period					
	Net loan - Opening Increase/ Decrease due to FERV	5300.00 0.00	5300.00 0.00	5300.00 0.00	0.00	0.00
	Increase/ Decrease due to ACE/Drawl during the period	0.00	0.00	0.00	0.00	0.00
	Total	5300.00	5300.00	5300.00	0.00 0.00	0.00
	Repayments of Loans during the period	0.00	0.00	5300.00		
	Net Ioan - Closing Average Net Loan	<b>5300.00</b> 5300.00	5300.00 13 5300.00	<b>0.00</b> 2650.00	<b>0.00</b> 0.00	<b>0.0</b> 0

	Calculation of Interest on Actual					
of the Comp						
f the Power S						
SI. no.	Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
	ate of Interest on Loan nterest on Loan Annualised	7.6100% 403.33	7.6100% 403.33	7.6100% 201.67	7.6100% 0.00	7.6100% 0.00
	ross loan - Opening	8400.00	8400.00	8400.00	8400.00	8400.00
C	umulative repayments of Loans upto	0.00	0.00	0.00	8400.00	8400.00
N	revious period let loan - Opening	8400.00	8400.00	8400.00	0.00	0.00
I I	ncrease/ Decrease due to FERV ncrease/ Decrease due to ACE/Drawl	0.00	0.00	0.00	0.00	0.00
	uring the period otal	8400.00	8400.00	8400.00	0.00	0.00
R	epayments of Loans during the period	0.00	0.00	8400.00	0.00	0.00
	et Ioan - Closing verage Net Loan	<b>8400.00</b> 8400.00	<b>8400.00</b> 8400.00	<b>0.00</b> 4200.00	<b>0.00</b> 0.00	<b>0.00</b>
R	ate of Interest on Loan	7.5000%	7.5000%	7.5000%	7.5000%	7.5000%
1	nterest on Loan Annualised	630.00	630.00	315.00	0.00	0.00
	ond 64					
C	ross loan - Opening umulative repayments of Loans upto	8600.00 0.00	8600.00 0.00	8600.00 0.00	8600.00 0.00	8600.00 0.00
n N	revious period et Ioan - Opening	8600.00	8600.00	8600.00	8600.00	8600.00
I	ncrease/ Decrease due to FERV	0.00	0.00	0.00	0.00	0.00
d	uring the period	8600.00	8600.00	8600.00	8600.00	8600.00
	epayments of Loans during the period	0.00	0.00	0.00	0.00	0.00
	et loan - Closing	8600.00	8600.00	8600.00	8600.00	8600.00
	verage Net Loan ate of Interest on Loan	8600.00 7.5200%	8600.00 7.5200%	8600.00 7.5200%	8600.00 7.5200%	8600.00 7.5200%
I	nterest on Loan Annualised	646.72	646.72	646.72	646.72	646.72
	ond 66 ross loan - Opening	39500.00	39500.00	39500.00	39500.00	39500.00
C	umulative repayments of Loans upto	0.00	0.00	0.00	0.00	0.00
N N	et Ioan - Openina	39500.00	39500.00	39500.00	39500.00	39500.00
I	ncrease/ Decrease due to FERV ncrease/ Decrease due to ACE/Drawl	0.00	0.00	0.00 0.00	0.00	0.00
Т	uring the period otal	39500.00	39500.00	39500.00	39500.00	39500.00
R	epayments of Loans during the period	0.00	0.00	0.00	0.00	0.00
	et Ioan - Closing verage Net Loan	<b>39500.00</b> 39500.00	<b>39500.00</b> 39500.00	<b>39500.00</b> 39500.00	<b>39500.00</b> 39500.00	<b>39500.00</b> 39500.00
R	ate of Interest on Loan hterest on Loan Annualised	7.4000% 2923.00	7.4000% 2923.00	7.4000% 2923.00	7.4000% 2923.00	7.4000% 2923.00
1	iterest on Loan Annualised	2923.00	2923.00	2923.00	2923.00	2923.00
	ond 67	.=	.=	.=0.0	450.00.50	.=
	ross loan - Opening umulative repayments of Loans upto	47812.50 0.00	47812.50 0.00	47812.50 0.00	47812.50 0.00	47812.50 0.00
	revious period let loan - Opening	47812.50	47812.50	47812.50	47812.50	47812.50
	ncrease/ Decrease due to FERV ncrease/ Decrease due to ACE/Drawl	0.00	0.00	0.00 0.00	0.00	0.00
d	uring the period otal	47812.50	47812.50	47812.50	47812.50	47812.50
	epayments of Loans during the period	0.00	0.00	0.00	0.00	47812.50
	et Ioan - Closing	47812.50	47812.50	47812.50	47812.50	0.00
R	verage Net Loan ate of Interest on Loan	47812.50 8.3300%	47812.50 8.3300%	47812.50 8.3300%	47812.50 8.3300%	23906.25 8.3300%
I	nterest on Loan Annualised	3982.78	3982.78	3982.78	3982.78	1991.39
38 <b>B</b>	ond 69 (For refinancing Indian Bank					
	oan) iross loan - Opening	562.50	562.50	562.50	562.50	562.50
C	umulative repayments of Loans upto revious period	0.00	0.00	0.00	0.00	0.00
N	let loan - Opening Increase/ Decrease due to FERV	562.50	562.50	562.50	562.50	562.50
I	ncrease/ Decrease due to ACE/Drawl	0.00	0.00	0.00	0.00	0.00
T	uring the period otal	562.50	562.50	562.50	562.50	562.50
	epayments of Loans during the period	0.00	0.00	0.00	0.00	0.00
	et loan - Closing verage Net Loan	<b>562.50</b> 562.50				
R	ate of Interest on Loan hterest on Loan Annualised	7.7150% 43.40	7.7150% 43.40	7.7150% 43.40	7.7150% 43.40	7.7150% 43.40
	ond 69 (For refinancing United Bank	.50	.50	.50	.5.10	15.10
L	oan)	562.50	562.50	562.50	562.50	562.50
C	ross loan - Opening umulative repayments of Loans upto	0.00	0.00	0.00	0.00	0.00
N	revious period let Ioan - Opening	562.50	562.50	562.50	562.50	562.50
	ncrease/ Decrease due to FERV ncrease/ Decrease due to ACE/Drawl	0.00	0.00	0.00	0.00	0.00
d	uring the period	562.50	562.50	562.50	562.50	562.50
	epayments of Loans during the period	0.00	0.00	0.00	0.00	0.00
	et Ioan - Closing	562.50	562.50	562.50	562.50	562.50
	verage Net Loan ate of Interest on Loan	562.50 7.7650% 43.68	562.50 7.7650% 43.68	562.50 7.7650% 43.68	562.50 7.7650% 43.68	562.50 7.7650%

C	Calculation of Interest on Actual					
of the Comp	anv					
f the Power S						
SI. no.	Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
40 <b>B</b>	ond 69 (Others)					
G	ross loan - Opening umulative repayments of Loans upto	9475.00 0.00	9475.00 0.00	9475.00 0.00	9475.00 0.00	9475.00 0.00
DI	revious period					
	et loan - Opening ncrease/ Decrease due to FERV	9475.00 0.00	9475.00 0.00	9475.00 0.00	9475.00 0.00	9475.00 0.00
Ir	ncrease/ Decrease due to ACE/Drawl	0.00	0.00	0.00	0.00	0.00
T	uring the period otal	9475.00	9475.00	9475.00	9475.00	9475.00
R	epayments of Loans during the period	0.00	0.00	0.00	0.00	0.00
	et Ioan - Closing	9475.00	9475.00	9475.00	9475.00	9475.00
	verage Net Loan ate of Interest on Loan	9475.00 7.3500%	9475.00 7.3500%	9475.00 7.3500%	9475.00 7.3500%	9475.00 7.3500%
	nterest on Loan Annualised	696.41	696.41	696.41	696.41	696.41
	1=0					
	ond 73 ross Ioan - Opening	1700.00	1700.00	1700.00	1700.00	1700.00
C	umulative repayments of Loans upto revious period	0.00	0.00	0.00	0.00	0.00
N	et loan - Opening	1700.00	1700.00	1700.00	1700.00	1700.00
	ncrease/ Decrease due to FERV ncrease/ Decrease due to ACE/Drawl	0.00	0.00	0.00	0.00	0.00
dı	uring the period	1700.00	1700.00	1700.00	1700.00	1700.00
	epayments of Loans during the period	0.00	0.00	0.00	0.00	0.00
N	et loan - Closing	1700.00	1700.00	1700.00	1700.00	1700.00
A	verage Net Loan	1700.00	1700.00	1700.00	1700.00	1700.00
	ate of Interest on Loan Interest on Loan Annualised	6.4600% 109.82	6.4600% 109.82	6.4600% 109.82	6.4600% 109.82	6.4600% 109.82
42 <b>B</b>	ond 74					
G	ross Ioan - Opening	14000.00	14000.00	14000.00	14000.00	14000.00
	umulative repayments of Loans upto revious period	0.00	0.00	0.00	0.00	0.00
N	et loan - Opening	14000.00	14000.00	14000.00	14000.00	14000.00
	ncrease/ Decrease due to FERV ncrease/ Decrease due to ACE/Drawl	0.00	0.00	0.00 0.00	0.00	0.00 0.00
	uring the period	14000.00	14000.00	14000.00	14000.00	14000.00
	epayments of Loans during the period	0.00	0.00	0.00	0.00	0.00
N	et Ioan - Closing	14000.00	14000.00	14000.00	14000.00	14000.00
	verage Net Loan ate of Interest on Loan	14000.00 6.9000%	14000.00 6.9000%	14000.00 6.9000%	14000.00 6.9000%	14000.00 6.9000%
	nterest on Loan Annualised	966.00	966.00	966.00	966.00	966.00
43 4	.375% Fixed Rate Notes due 2024					
	ross loan - Opening	91995.60	91995.60	91995.60	91995.60	91995.60
	umulative repayments of Loans upto revious period	0.00	91995.60	91995.60	91995.60	91995.60
N	et Ioan - Opening	91995.60	0.00	0.00	0.00	0.00
	ncrease/ Decrease due to FERV ncrease/ Decrease due to ACE/Drawl	0.00	0.00	0.00 0.00	0.00	0.00 0.00
	uring the period	91995.60	0.00	0.00	0.00	0.00
	epayments of Loans during the period	91995.60	0.00	0.00	0.00	0.00
N	et Ioan - Closing	0.00	0.00	0.00	0.00	0.00
	verage Net Loan ate of Interest on Loan	45997.80 4.6277%	0.00 4.6277%	0.00 4.6277%	0.00 4.6277%	0.00 4.6277%
	nterest on Loan Annualised	2128.64	0.00	0.00	0.00	0.00
44 4	.25% Fixed Rate Notes due 2026					
		41389.24	41389.24	41389.24	41389.24	41389.24
C	ross loan - Opening umulative repayments of Loans upto	0.00	0.00	41389.24 41389.24	41389.24	41389.24 41389.24
	revious period et loan - Opening	41389.24	41389.24	0.00	0.00	0.00
Ir	crease/ Decrease due to FERV	0.00	0.00	0.00	0.00	0.00
	ncrease/ Decrease due to ACE/Drawl uring the period	0.00	0.00	0.00	0.00	0.00
T	otal epayments of Loans during the period	41389.24 0.00	41389.24 41389.24	0.00	0.00	0.00
	et loan - Closing verage Net Loan	<b>41389.24</b> 41389.24	<b>0.00</b> 20694.62	<b>0.00</b> 0.00	<b>0.00</b> 0.00	<b>0.00</b>
R	ate of Interest on Loan Interest on Loan	4.4955% 1860.65	4.4955% 930.33	4.4955% 0.00	4.4955% 0.00	4.4955% 0.00
	.75% Fixed Rate Notes due 2027	1800.03	930.33	0.00	0.00	0.00
	ross Ioan - Opening	33409.99	33409.99	33409.99	33409.99	33409.99
С	umulative repayments of Loans upto	0.00	0.00	0.00	33409.99	33409.99
N	revious period et loan - Opening	33409.99	33409.99	33409.99	0.00	0.00
	ncrease/ Decrease due to FERV ncrease/ Decrease due to ACE/Drawl	0.00	0.00	0.00	0.00	0.00
dı	urina the period					
	epayments of Loans during the period	33409.99 0.00	33409.99 0.00	33409.99 33409.99	0.00 0.00	0.00
	et loan - Closing	33409.99	33409.99	0.00	0.00	0.00
A	verage Net Loan	33409.99	33409.99	16704.99	0.00	0.00
	ate of Interest on Loan hterest on Loan Annualised	2.9088% 971.83	2.9088% 971.83	2.9088% 485.91	2.9088% 0.00	2.9088% 0.00
		3, 1.03	3, 1.03	.55.51	5.30	3.00
	PY Equ. 350Million A ross loan - Opening	13728.24	<b>15</b> 13728.24	13728.24	13728.24	13728.24

	Calculation of Interest on Actual					
of the Com	npany					
f the Power	Station					
Sl. no.	Particulars					
31. 110.	rai ticulai S	2024-25	2025-26	2026-27	2027-28	2028-29
	Cumulative repayments of Loans upto	0.00	0.00	0.00	4576.08	9152.16
	Net loan - Opening Increase/ Decrease due to FERV	13728.24 0.00	13728.24 0.00	13728.24 0.00	9152.16 0.00	4576.08 0.00
	Increase/ Decrease due to ACE/Drawl	0.00	0.00	0.00	0.00	0.00
	during the period Total	13728.24	13728.24	13728.24	9152.16	4576.08
	Repayments of Loans during the period	0.00	0.00	4576.08	4576.08	4576.08
	Net Ioan - Closing Average Net Loan	<b>13728.24</b> 13728.24	<b>13728.24</b> 13728.24	<b>9152.16</b> 11440.20	<b>4576.08</b> 6864.12	<b>0.00</b> 2288.04
	Rate of Interest on Loan	1.0219%	1.0219%	1.0219%	1.0219%	1.0219%
	Interest on Loan Annualised	140.29	140.29	116.91	70.14	23.38
47	JPY Equ. 350Million B Gross loan - Opening	6593.40	6593.40	6593.40	6593.40	6593.40
	Cumulative repayments of Loans upto	0.00	0.00	0.00	2197.80	4395.60
	nrevious period Net Ioan - Openina	6593.40	6593.40	6593.40	4395.60	2197.80
	Increase/ Decrease due to FERV Increase/ Decrease due to ACE/Drawl	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00 0.00
	during the period Total	6593.40	6593.40	6593.40	4395.60	2197.80
	Repayments of Loans during the period	0.00	0.00	2197.80	2197.80	2197.80
	Net Ioan - Closing	6593.40	6593.40	4395.60	2197.80	0.00
	Average Net Loan Rate of Interest on Loan	6593.40 1.0219%	6593.40 1.0219%	5494.50 1.0219%	3296.70 1.0219%	1098.90 1.0219%
	Interest on Loan Annualised	67.38	67.38	56.15	33.69	11.23
48	4.5% Fixed Rate Notes due 2028	29584.51	29584.51	29584.51	29584.51	29584.51
	Gross Ioan - Opening Cumulative repayments of Loans upto	0.00	0.00	0.00	0.00	29584.51
	previous period Net Ioan - Opening	29584.51	29584.51	29584.51	29584.51	0.00
	Increase/ Decrease due to FERV Increase/ Decrease due to ACE/Drawl	0.00	0.00 0.00	0.00	0.00	0.00
	during the period					
	Total Repayments of Loans during the period	29584.51 0.00	29584.51 0.00	29584.51 0.00	29584.51 29584.51	0.00 0.00
	Net Ioan - Closina	29584.51	29584.51	29584.51	0.00	0.00
	Average Net Loan	29584.51 4.7599%	29584.51 4.7599%	29584.51	14792.25 4.7599%	0.00 4.7599%
	Rate of Interest on Loan Interest on Loan Annualised	1408.19	1408.19	4.7599% 1408.19	704.10	4.7599% 0.00
49	JPY Equ. 300Million B					
	Gross Ioan - Opening Cumulative repayments of Loans upto	10319.58	10319.58	10319.58	10319.58 0.00	10319.58 3439.86
	previous period	10319.58	10319.58	10319.58	10319.58	6879.72
	Net loan - Opening Increase/ Decrease due to FERV	0.00	0.00	0.00	0.00	0.00
	Increase/ Decrease due to ACE/Drawl during the period	0.00	0.00	0.00	0.00	0.00
	Total Repayments of Loans during the period	10319.58 0.00	10319.58 0.00	10319.58 0.00	10319.58 3439.86	6879.72 3439.86
	Net loan - Closing	10319.58	10319.58	10319.58	6879.72	3439.86
	Average Net Loan	10319.58	10319.58	10319.58	8599.65	5159.79
	Rate of Interest on Loan Interest on Loan Annualised	1.0995% 113.46	1.0995% 113.46	1.0995% 113.46	1.0995% 94.55	1.0995% 56.73
50	JPY Equ. 300Million A					
50	Gross Ioan - Opening	12056.00	12056.00	12056.00	12056.00	12056.00 4018.67
	Cumulative repayments of Loans upto previous period	0.00	0.00	0.00	0.00	
	Net loan - Opening Increase/ Decrease due to FERV	12056.00 0.00	12056.00 0.00	12056.00 0.00	12056.00 0.00	8037.33 0.00
	Increase/ Decrease due to ACE/Drawl during the period	0.00	0.00	0.00	0.00	0.00
	Total  Repayments of Loans during the period	12056.00	12056.00	12056.00	12056.00	8037.33
		0.00	0.00	0.00	4018.67	4018.67
	Net Ioan - Closing Average Net Loan	<b>12056.00</b> 12056.00	<b>12056.00</b> 12056.00	<b>12056.00</b> 12056.00	<b>8037.33</b> 10046.66	<b>4018.67</b> 6028.00
	Rate of Interest on Loan Interest on Loan Annualised	1.0995% 132.56	1.0995% 132.56	1.0995% 132.56	1.0995% 110.46	1.0995% 66.28
		132.30	132.30	132.30	110.10	00.20
51	3.75% Euro Bonds 2024 II Gross Ioan - Opening	44030.74	44030.74	44030.74	44030.74	44030.74
	Cumulative repayments of Loans upto previous period	0.00	44030.74	44030.74	44030.74	44030.74
	Net loan - Opening Increase/ Decrease due to FERV	44030.74 0.00	0.00	0.00	0.00	0.00
	Increase/ Decrease due to ACE/Drawl	0.00	0.00	0.00	0.00	0.00
	during the period Total	44030.74	0.00	0.00	0.00	0.00
	Repayments of Loans during the period	44030.74	0.00	0.00	0.00	0.00
	Net Ioan - Closing Average Net Loan	<b>0.00</b> 22015.37	<b>0.00</b> 0.00	<b>0.00</b> 0.00	<b>0.00</b> 0.00	<b>0.00</b> 0.00
	Rate of Interest on Loan	3.9666%	3.9666%	3.9666%	3.9666%	3.9666%
	Interest on Loan Annualised	873.26	0.00	0.00	0.00	0.00
52	JPY Eau. 750 Million A Gross Ioan - Openina	22066.66	22066.66	22066.66	22066.66	22066.66
	Cumulative repayments of Loans upto	0.00	0.00	0.00	5516.67	11033.33
	Net Ioan - Opening	22066.66	22066.66	22066.66	16550.00	11033.33
<b></b>						
	Increase/ Decrease due to FERV Increase/ Decrease due to ACE/Drawl	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00

	Calculation of Interest on Actual					
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of the Con f the Power						
Sl. no.	Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
	Repayments of Loans during the period	0.00	0.00	5516.67	5516.67	5516.67
	Net loan - Closing	22066.66	22066.66	16550.00	11033.33	5516.67
	Average Net Loan Rate of Interest on Loan	22066.66 0.9185%	22066.66 0.9185%	19308.33 0.9185%	13791.66 0.9185%	8275.00 0.9185%
	Interest on Loan Annualised	202.68	202.68	177.35	126.68	76.01
53	JPY Equ. 750 Million B					
	Gross loan - Opening	6537.54 0.00	6537.54	6537.54	6537.54 1634.38	6537.54
	Cumulative repayments of Loans upto previous period  Net loan - Opening	6537.54	0.00 6537.54	0.00 6537.54	4903.15	3268.77
	Increase/ Decrease due to FERV	0.00	0.00	0.00	0.00	0.00
	Increase/ Decrease due to ACE/Drawl during the period	0.00	0.00	0.00	0.00	0.00
	Total	6537.54	6537.54	6537.54	4903.15	3268.77
	Repayments of Loans during the period	0.00	0.00	1634.38	1634.38	1634.38
	Net Ioan - Closing Average Net Loan	<b>6537.54</b> 6537.54	<b>6537.54</b> 6537.54	<b>4903.15</b> 5720.35	<b>3268.77</b> 4085.96	<b>1634.38</b> 2451.58
	Rate of Interest on Loan	0.9185%	0.9185%	0.9185%	0.9185%	0.9185%
	Interest on Loan Annualised	60.05	60.05	52.54	37.53	22.52
54	JPY Equ. 750 Million C	71.10.70	74.40.70	71.10.70	74.40.70	74.40.70
	Gross loan - Opening Cumulative repayments of Loans upto	7149.70 0.00	7149.70 0.00	7149.70 0.00	7149.70 1787.43	7149.70 3574.85
	previous period		1 1 1			
	Net loan - Opening Increase/ Decrease due to FERV	7149.70 0.00	7149.70 0.00	7149.70 0.00	5362.28 0.00	3574.85 0.00
	Increase/ Decrease due to ACE/Drawl during the period	0.00	0.00	0.00	0.00	0.00
	Total	7149.70	7149.70	7149.70	5362.28	3574.85
	Repayments of Loans during the period	0.00	0.00	1787.43	1787.43	1787.43
	Net loan - Closing	7149.70	7149.70	5362.28	3574.85	1787.43
	Average Net Loan Rate of Interest on Loan	7149.70 0.9185%	7149.70 0.9185%	6255.99 0.9185%	4468.56 0.9185%	2681.14 0.9185%
	Interest on Loan Annualised	65.67	65.67	57.46	41.04	24.63
55	JPY Equ. 750 Million D					
	Gross loan - Opening Cumulative repayments of Loans upto	4013.18 0.00	4013.18 0.00	4013.18 0.00	4013.18 1003.30	4013.18 2006.59
	previous period					
	Net loan - Opening Increase/ Decrease due to FERV	4013.18 0.00	4013.18 0.00	4013.18 0.00	3009.89 0.00	2006.59 0.00
	Increase/ Decrease due to ACE/Drawl	0.00	0.00	0.00	0.00	0.00
	during the period Total	4013.18	4013.18	4013.18	3009.89	2006.59
	Repayments of Loans during the period	0.00	0.00	1003.30	1003.30	1003.30
	Net loan - Closing	4013.18	4013.18	3009.89	2006.59	1003.30
	Average Net Loan Rate of Interest on Loan	4013.18 0.9185%	4013.18 0.9185%	3511.53 0.9185%	2508.24 0.9185%	1504.94 0.9185%
	Interest on Loan Annualised	36.86	36.86	32.25	23.04	13.82
56	JPY Equ. 750 Million E					
	Gross loan - Opening Cumulative repayments of Loans upto	8128.36 0.00	8128.36 0.00	8128.36 0.00	8128.36 2032.09	8128.36 4064.18
	previous period					
	Net loan - Opening Increase/ Decrease due to FERV	8128.36 0.00	8128.36 0.00	8128.36 0.00	6096.27 0.00	4064.18 0.00
	Increase/ Decrease due to ACE/Drawl during	0.00	0.00	0.00	0.00	0.00
	Total Repayments of Loans during the period	8128.36 0.00	8128.36 0.00	8128.36 2032.09	6096.27 2032.09	4064.18 2032.09
	Net loan - Closing	8128.36	8128.36	6096.27	4064.18	2032.09
	Average Net Loan	8128.36	8128.36	7112.31	5080.22	3048.13
	Rate of Interest on Loan Interest on Loan Annualised	0.8893% 72.29	0.8893% 72.29	0.8893% 63.25	0.8893% 45.18	0.8893% 27.11
57	JPY Eau. 750 Million F Gross loan - Opening	2062.77	2062.77	2062.77	2062.77	2062.77
	Cumulative repayments of Loans upto	0.00	0.00	0.00	515.69	1031.38
	Net loan - Opening	2062.77	2062.77	2062.77	1547.08	1031.38
	Increase/ Decrease due to FERV Increase/ Decrease due to ACE/Drawl during	0.00	0.00	0.00	0.00	0.00
	Total	2062.77	2062.77	2062.77	1547.08	1031.38
	Repayments of Loans during the period	0.00	0.00	515.69	515.69	515.69
	Net Ioan - Closing Average Net Loan	<b>2062.77</b> 2062.77	<b>2062.77</b> 2062.77	1547.08 1804.92	<b>1031.38</b> 1289.23	<b>515.69</b> 773.54
	Rate of Interest on Loan	0.8893%	0.8893%	0.8893%	0.8893%	0.8893%
	Interest on Loan Annualised	18.34	18.34	16.05	11.47	6.88
58	EURO Loan I Drawl III	0150.00	0150.00	0150.00	0150.00	0150.00
	Gross loan - Opening Cumulative repayments of Loans upto	9150.00 0.00	9150.00 0.00	9150.00 0.00	9150.00 0.00	9150.00 0.00
	previous period Net loan - Opening	9150.00	9150.00	9150.00	9150.00	9150.00
	Increase/ Decrease due to FERV	0.00	0.00	0.00	0.00	0.00
	Increase/ Decrease due to ACE/Drawl during Total	0.00 9150.00	0.00 9150.00	0.00 9150.00	0.00 9150.00	0.00 9150.00
	Repayments of Loans during the period	0.00	0.00	0.00	0.00	9150.00
	Net Ioan - Closing	9150.00	9150.00	9150.00	9150.00	0.00
	Average Net Loan Rate of Interest on Loan	9150.00 5.0634%	9150.00 5.0634%	9150.00 5.0634%	9150.00 5.0634%	4575.00 5.0634%
	Interest on Loan Annualised	463.30	463.30	463.30	463.30	231.65
59	USD 750 Million I Drawl 1					
	Gross loan - Opening	9000.00	9000.00	9000.00	9000.00	9000.00
	Cumulative repayments of Loans upto previous period	0.00	47	0.00	1285.71	2571.43

	Calculation of Interest on Actual					
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31. 110.	Faiticulais	2024-25	2025-26	2026-27	2027-28	2028-29
	Net loan - Opening	9000.00	9000.00	9000.00	7714.29	6428.57
	Increase/ Decrease due to FERV Increase/ Decrease due to ACE/Drawl during	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00
	Total  Repayments of Loans during the period	9000.00 0.00	9000.00	9000.00 1285.71	7714.29 1285.71	6428.57 1285.71
	Net loan - Closing	9000.00	9000.00	7714.29	6428.57	5142.86
	Average Net Loan Rate of Interest on Loan	9000.00 6.7698%	9000.00 6.7698%	8357.14 6.7698%	7071.43 6.7698%	5785.71 6.7698%
	Interest on Loan Annualised	609.28	609.28	565.76	478.72	391.68
60	USD 750 Million I Drawl III					
	Gross loan - Opening Cumulative repayments of Loans upto	200.07 0.00	200.07 0.00	200.07 0.00	200.07 28.58	200.07 57.16
	previous period Net Ioan - Opening	200.07	200.07	200.07	171.48	142.90
	Increase/ Decrease due to FERV Increase/ Decrease due to ACE/Drawl during	0.00	0.00 0.00	0.00	0.00 0.00	0.00
	Total	200.07 0.00	200.07	200.07	171.48	142.90
	Repayments of Loans during the period		0.00	28.58	28.58	28.58
	Net Ioan - Closing Average Net Loan	<b>200.07</b> 200.07	<b>200.07</b> 200.07	<b>171.48</b> 185.77	<b>142.90</b> 157.19	<b>114.32</b> 128.61
	Rate of Interest on Loan Interest on Loan Annualised	6.7698% 13.54	6.7698% 13.54	6.7698% 12.58	6.7698% 10.64	6.7698% 8.71
61	USD 750 Million I Drawl IV					
- J1	Gross Ioan - Opening Cumulative repayments of Loans upto	4400.17 0.00	4400.17 0.00	4400.17 0.00	4400.17 628.60	4400.17 1257.19
	previous period					
	Net loan - Opening Increase/ Decrease due to FERV	4400.17 0.00	4400.17 0.00	4400.17 0.00	3771.58 0.00	3142.98 0.00
	Increase/ Decrease due to ACE/Drawl during	0.00 4400.17	0.00 4400.17	0.00 4400.17	0.00 3771.58	0.00 3142.98
	Repayments of Loans during the period	0.00	0.00	628.60	628.60	628.60
	Net Ioan - Closing Average Net Loan	<b>4400.17</b> 4400.17	<b>4400.17</b> 4400.17	<b>3771.58</b> 4085.87	3142.98 2457.29	<b>2514.38</b> 2828.68
	Rate of Interest on Loan	6.7698%	6.7698%	6.7698%	3457.28 6.7698%	6.7698%
	Interest on Loan Annualised	297.88	297.88	276.61	234.05	191.50
62	USD 750 Million I Drawl V Gross loan - Opening	3003.34	3003.34	3003.34	3003.34	3003.34
	Cumulative repayments of Loans upto previous period	0.00	0.00	0.00	429.05	858.10
	Net loan - Opening Increase/ Decrease due to FERV	3003.34 0.00	3003.34 0.00	3003.34 0.00	2574.29 0.00	2145.24 0.00
	Increase/ Decrease due to ACE/Drawl during	0.00	0.00	0.00	0.00	0.00
	Total Repayments of Loans during the period	3003.34 0.00	3003.34 0.00	3003.34 429.05	2574.29 429.05	2145.24 429.05
	Net loan - Closing	3003.34	3003.34	2574.29	2145.24	1716.19
	Average Net Loan Rate of Interest on Loan	3003.34 6.7698%	3003.34 6.7698%	2788.82 6.7698%	2359.77 6.7698%	1930.72 6.7698%
	Interest on Loan Annualised	203.32	203.32	188.80	159.75	130.71
63	USD 750 Million I Drawl VI Gross Ioan - Opening	2000.00	2000.00	2000.00	2000.00	2000.00
	Cumulative repayments of Loans upto	0.00	0.00	0.00	285.71	571.43
	previous period Net Ioan - Opening	2000.00	2000.00	2000.00	1714.29	1428.57
	Increase/ Decrease due to FERV Increase/ Decrease due to ACE/Drawl during	0.00	0.00	0.00	0.00 0.00	0.00
	Total  Repayments of Loans during the period	2000.00	2000.00 0.00	2000.00 285.71	1714.29 285.71	1428.57 285.71
	Net loan - Closing	2000.00	2000.00	1714.29	1428.57	1142.86
	Average Net Loan	2000.00	2000.00	1857.14	1571.43	1285.71
	Rate of Interest on Loan Interest on Loan Annualised	6.7698% 135.40	6.7698% 135.40	6.7698% 125.72	6.7698% 106.38	6.7698% 87.04
64	JPY Equ. \$400 Million Drawl I					
	Gross Ioan - Opening Cumulative repayments of Loans upto	5100.00 0.00	5100.00 0.00	5100.00 0.00	5100.00 0.00	5100.00 728.57
	previous period  Net loan - Opening	5100.00	5100.00	5100.00	5100.00	4371.43
	Increase/ Decrease due to FERV	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00 0.00
	Increase/ Decrease due to ACE/Drawl during	5100.00	0.00 5100.00	5100.00	5100.00	4371.43
	Repayments of Loans during the period	0.00	0.00	0.00	728.57	728.57
	Net Ioan - Closing Average Net Loan	<b>5100.00</b> 5100.00	<b>5100.00</b> 5100.00	<b>5100.00</b> 5100.00	<b>4371.43</b> 4735.71	<b>3642.86</b> 4007.14
	Rate of Interest on Loan Interest on Loan Annualised	1.2155% 61.99	1.2155% 61.99	1.2155% 61.99	1.2155% 57.56	1.2155% 48.71
65	JPY Equ. \$400 Million Drawl II	51.55	52.55	51.55	37.30	10.71
- 03	Gross Ioan - Opening	6000.00	6000.00	6000.00	6000.00	6000.00
	Cumulative repayments of Loans upto previous period	0.00	0.00	0.00	0.00	857.14
	Net loan - Opening Increase/ Decrease due to FERV	6000.00 0.00	6000.00 0.00	6000.00 0.00	6000.00 0.00	5142.86 0.00
	Increase/ Decrease due to ACE/Drawl during	0.00 6000.00	0.00 6000.00	0.00 6000.00	0.00 6000.00	0.00 5142.86
	Repayments of Loans during the period	0.00	0.00	0.00	857.14	857.14
	Net Ioan - Closing	6000.00	6000.00	6000.00	<b>5142.86</b> 5571.43	<b>4285.71</b>
	Average Net Loan Rate of Interest on Loan	6000.00 1.2155%	6000.00 1.2155%	6000.00 1.2155%	1.2155%	4714.29 1.2155%
	Interest on Loan Annualised	72.93	72.93	72.93	67.72	57.30
66	JPY Equ. \$400 Million Drawl IV Gross loan - Opening	1150.00	1150.00	1150.00	1150.00	1150.00
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	Calculation of Interest on Actual					
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SI. no.	Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
	Cumulative repayments of Loans upto	0.00	0.00	0.00	0.00	164.29
	Net loan - Opening	1150.00	1150.00	1150.00	1150.00	985.71
	Increase/ Decrease due to FERV Increase/ Decrease due to ACE/Drawl durin	0.00	0.00	0.00	0.00	0.00
	Total Repayments of Loans during the period	1150.00 0.00	1150.00 0.00	1150.00 0.00	1150.00 164.29	985.71 164.29
	Net Ioan - Closing Average Net Loan	1150.00 1150.00	1150.00 1150.00	1150.00 1150.00	<b>985.71</b> 1067.86	<b>821.43</b> 903.57
	Rate of Interest on Loan Interest on Loan Annualised	1.2222% 14.06	1.2222% 14.06	1.2222% 14.06	1.2222% 13.05	1.2222%
		14.06	14.06	14.06	13.03	11.04
67	JBIC Green I Drawl I FGD  Gross loan - Opening	5509.38	5509.38	5509.38	5509.38	5509.38
	Cumulative repayments of Loans upto previous period	440.75	881.50	1322.25	1763.00	2203.75
	Net Ioan - Opening Increase/ Decrease due to FERV	5068.63 0.00	4627.88 0.00	4187.13 0.00	3746.38 0.00	3305.63 0.00
	Increase/ Decrease due to ACE/Drawl during	0.00 5068.63	0.00 4627.88	0.00 4187.13	0.00 3746.38	0.00 3305.63
	Repayments of Loans during the period	440.75	440.75	440.75	440.75	440.75
	Net Ioan - Closing Average Net Loan	<b>4627.88</b> 4848.25	<b>4187.13</b> 4407.50	<b>3746.38</b> 3966.75	<b>3305.63</b> 3526.00	2864.88 3085.25
	Rate of Interest on Loan Interest on Loan Annualised	1.0901% 52.85	1.0901% 48.05	1.0901% 43.24	1.0901% 38.44	1.0901% 33.63
68	JBIC Green I Drawl II FGD					
00	Gross Ioan - Opening	1684.91	1684.91	1684.91	1684.91	1684.91
	Cumulative repayments of Loans upto previous period	134.79	269.58	404.38	539.17	673.96
	Net loan - Opening Increase/ Decrease due to FERV	1550.11 0.00	1415.32 0.00	1280.53 0.00	1145.74 0.00	1010.94 0.00
	Increase/ Decrease due to ACE/Drawl durin	0.00	0.00	0.00	0.00	0.00
	Repayments of Loans during the period	1550.11 134.79	1415.32 134.79	1280.53 134.79	1145.74 134.79	1010.94 134.79
	Net Ioan - Closing Average Net Loan	<b>1415.32</b> 1482.72	<b>1280.53</b> 1347.92	<b>1145.74</b> 1213.13	<b>1010.94</b> 1078.34	<b>876.15</b> 943.55
	Rate of Interest on Loan	1.0901%	1.0901%	1.0901%	1.0901%	1.0901%
	Interest on Loan Annualised	16.16	14.69	13.22	11.75	10.29
69	JBIC Green I Drawl III FGD Gross loan - Opening	1986.00	1986.00	1986.00	1986.00	1986.00
	Cumulative repayments of Loans upto	158.88	317.76	476.64	635.52	794.40
	nrevious period Net Ioan - Opening	1827.12	1668.24	1509.36	1350.48	1191.60
	Increase/ Decrease due to FERV Increase/ Decrease due to ACE/Drawl durin	0.00	0.00	0.00	0.00	0.00
	Total Repayments of Loans during the period	1827.12 158.88	1668.24 158.88	1509.36 158.88	1350.48 158.88	1191.60 158.88
	Net loan - Closing	1668.24 1747.68	1509.36	1350.48	1191.60	1032.72
	Average Net Loan Rate of Interest on Loan	1.0901%	1588.80 1.0901%	1429.92 1.0901%	1271.04 1.0901%	1112.16 1.0901%
	Interest on Loan Annualised	19.05	17.32	15.59	13.86	12.12
70	JBIC Green I Drawl IV Gross loan - Opening	988.94	988.94	988.94	988.94	988.94
	Cumulative repayments of Loans upto	79.12	158.23	237.35	316.46	395.58
	previous period Net Ioan - Opening	909.83	830.71	751.60	672.48	593.37
	Increase/ Decrease due to FERV Increase/ Decrease due to ACE/Drawl during	0.00	0.00	0.00 0.00	0.00 0.00	0.00
	Total Repayments of Loans during the period	909.83 79.12	830.71 79.12	751.60 79.12	672.48 79.12	593.37 79.12
	Net Ioan - Closing	830.71	751.60	672.48	593.37	514.25
	Average Net Loan Rate of Interest on Loan	870.27 1.0901%	791.16 1.0901%	712.04 1.0901%	632.92 1.0901%	553.81 1.0901%
	Interest on Loan Annualised	9.49	8.62	7.76	6.90	6.04
	Total Loan					
	Gross loan - Opening Cumulative repayments of Loans upto	1078096.57 102210.21	1078096.57 314017.76	1078096.57 416692.59	1078096.57 540503.71	1078096.57 650147.21
	previous period Net Ioan - Opening	975886.37	764078.82	661403.98	537592.86	427949.37
	Increase/ Decrease due to FERV	0.00	0.00	0.00	0.00	0.00
	Increase/ Decrease due to ACE/Drawl during the period	0.00	0.00	0.00	0.00	0.00
	Total Repayments of Loans during the period	975886.37 211807.55	764078.82 102674.84	661403.98 123811.12	537592.86 109643.50	427949.37 137072.00
	Net Ioan - Closing Average Net Loan	764078.82 869982.59	661403.98 712741.40	537592.86 599498.42	427949.37 482771.11	290877.37 359413.37
	Rate of Interest on Loan	6.2818%	6.3293%	6.3973%	6.6484%	6.9005%
	Interest on Loan Annualised	54650.39	45111.22	38351.71	32096.61	24801.50
	HDFC Bank Limited-V- D3 Repayment from 25.09.2024- 9Y					,
	Gross Ioan - Opening Cumulative repayments of Loans upto	1000.00 0.00	1000.00 111.11	1000.00 222.22	1000.00 333.33	1000.00 444.44
	Net Ioan - Opening	1000.00	888.89	777.78	666.67	555.56
	Increase/ Decrease due to FERV Increase/ Decrease due to ACE	0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00
	Total Repayments of Loans during the period	1000.00 111.11	888.89 111.11	777.78 111.11	666.67 111.11	555.56 111.11
	Net loan - Closing	888.89	777.78	666.67	555.56	444.44
	Average Net Loan Rate of Interest on Loan	944.44 7.9500%	833.33 <b>49</b> 7.9500%	722.22 7.9500%	611.11 7.9500%	500.00 7.9500%

	Calculation of Interest on Actual					
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Sl. no.	Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
	Interest on Loan Annualised	75.08	66.25	57.42	48.58	39.75
	HDFC Bank Limited-V- D4 Repayment from 25.09.2024- 9Y					
	Gross loan - Opening Cumulative repayments of Loans upto	10500.00	10500.00 1166.67	10500.00 2333.33	10500.00 3500.00	10500.00 4666.67
-	previous period					
	Net loan - Opening Increase/ Decrease due to FERV	10500.00 0.00	9333.33 0.00	8166.67 0.00	7000.00 0.00	5833.33 0.00
	Increase/ Decrease due to ACE Total	0.00 10500.00	0.00 9333.33	0.00 8166.67	0.00 7000.00	0.00 5833.33
	Repayments of Loans during the period	1166.67	1166.67	1166.67	1166.67	1166.67
	Net loan - Closing	9333.33	8166.67	7000.00	5833.33	4666.67
	Average Net Loan Rate of Interest on Loan	9916.67 7.9500%	8750.00 7.9500%	7583.33 7.9500%	6416.67 7.9500%	5250.00 7.9500%
	Interest on Loan Annualised	788.38	695.63	602.88	510.13	417.38
	HDFC Bank Limited-V- D9 Repayment from 25.09.2024- 9Y					
	Gross loan - Opening Cumulative repayments of Loans upto	5000.00 0.00	5000.00 555.56	5000.00 1111.11	5000.00 1666.67	5000.00 2222.22
-	nrevious period Net Ioan - Opening	5000.00	4444.44	3888.89	3333.33	2777.78
	Increase/ Decrease due to FERV	0.00	0.00	0.00	0.00	0.00
	Increase/ Decrease due to ACE Total	0.00 5000.00	0.00 4444.44	0.00 3888.89	0.00 3333.33	0.00 2777.78
	Repayments of Loans during the period	555.56	555.56	555.56	555.56	555.56
	Net loan - Closing	4444.44	3888.89	3333.33	2777.78	2222.22
	Average Net Loan Rate of Interest on Loan	4722.22 7.9500%	4166.67 7.9500%	3611.11 7.9500%	3055.56 7.9500%	2500.00 7.9500%
	Interest on Loan Annualised	375.42	331.25	287.08	242.92	198.75
	HDFC Bank Limited-V- D10 Repayment from 25.09.2024- 9Y	22500.00	22500.00	22500.00	22500.00	22500.00
	Gross loan - Opening Cumulative repayments of Loans upto	23500.00 0.00	23500.00 2611.11	23500.00 5222.22	23500.00 7833.33	23500.00 10444.44
	previous period Net Ioan - Opening	23500.00	20888.89	18277.78	15666.67	13055.56
	Increase/ Decrease due to FERV	0.00	0.00	0.00	0.00	0.00
	Increase/ Decrease due to ACE Total	0.00 23500.00	0.00 20888.89	0.00 18277.78	0.00 15666.67	0.00 13055.56
	Repayments of Loans during the period	2611.11	2611.11	2611.11	2611.11	2611.11
	Net loan - Closing	20888.89	18277.78	15666.67	13055.56	10444.44
	Average Net Loan Rate of Interest on Loan	22194.44 7.9500%	19583.33 7.9500%	16972.22 7.9500%	14361.11 7.9500%	11750.00 7.9500%
	Interest on Loan Annualised	1764.46	1556.88	1349.29	1141.71	934.13
	HDFC Bank Limited-V- D9 Repayment from 25.09.2024- 9Y (Transferred from Talainalli)					
	Gross Ioan - Opening	1000.00	1000.00	1000.00 222.22	1000.00	1000.00
	Cumulative repayments of Loans upto previous period		111.11		333.33	444.44
	Net loan - Opening Increase/ Decrease due to FERV	1000.00	888.89 0.00	777.78 0.00	666.67 0.00	555.56 0.00
	Increase/ Decrease due to ACE	0.00	0.00	0.00	0.00	0.00
	Total   Repayments of Loans during the period	1000.00 111.11	888.89 111.11	777.78 111.11	666.67 111.11	555.56 111.11
	Net loan - Closing	888.89	777.78	666.67	555.56	444.44
	Average Net Loan	944.44	833.33	722.22	611.11	500.00
	Rate of Interest on Loan Interest on Loan Annualised	7.9500% 75.08	7.9500% 66.25	7.9500% 57.42	7.9500% 48.58	7.9500% 39.75
	HDFC Bank Limited-VII- D1			+		
	Repayment from 11.06.2026- 9Y Gross loan - Opening	2800.00	2800.00	2800.00	2800.00	2800.00
	Cumulative repayments of Loans upto	0.00	0.00	0.00	311.11	622.22
	previous period Net Ioan - Opening	2800.00	2800.00	2800.00	2488.89	2177.78
	Increase/ Decrease due to FERV	0.00	0.00	0.00	0.00	0.00
	Increase/ Decrease due to ACE Total	0.00 2800.00	0.00 2800.00	0.00 2800.00	0.00 2488.89	0.00 2177.78
	Repayments of Loans during the period	0.00	0.00	311.11	311.11	311.11
	Net Ioan - Closing	2800.00	2800.00	2488.89	2177.78	1866.67
	Average Net Loan Rate of Interest on Loan	2800.00 7.9500%	2800.00 7.9500%	2644.44 7.9500%	2333.33 7.9500%	2022.22 7.9500%
	Interest on Loan Annualised	222.60	222.60	210.23	185.50	160.77
	HDFC Bank Limited-VII- D2 Repayment from 11.06.2026- 9Y					
	Gross Ioan - Opening	1500.00	1500.00	1500.00	1500.00	1500.00
	Cumulative repayments of Loans upto previous period	0.00	0.00	0.00	166.67	333.33
	Net loan - Opening Increase/ Decrease due to FERV	1500.00 0.00	1500.00 0.00	1500.00 0.00	1333.33 0.00	1166.67 0.00
	Increase/ Decrease due to ACE	0.00	0.00	0.00	0.00	0.00
	Total Repayments of Loans during the period	1500.00 0.00	1500.00 0.00	1500.00 166.67	1333.33 166.67	1166.67 166.67
	Net loan - Closing	1500.00	1500.00	1333.33	1166.67	1000.00
	Average Net Loan	1500.00	1500.00 7.9500%	1416.67	1250.00 7.9500%	1083.33 7.9500%
	Rate of Interest on Loan Interest on Loan Annualised	7.9500% 119.25	7.9500% 119.25	7.9500% 112.63	7.9500% 99.38	7.9500% 86.13
	HDFC Bank Limited-IX- D1 Repayment from 30.06.2024 -12Y					
	· ·	2559.00	50 2559.00	3550.00	3550.00	2559.00
	Gross loan - Opening	∠ɔɔy.uu	50 2559.00	2559.00	2559.00	2559.00

	Calculation of Interest on Actual					
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Sl. no.	Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
	Cumulative repayments of Loans upto	0.00	213.25	426.50	639.75	853.00
	previous period Net Ioan - Opening	2559.00	2345.75	2132.50	1919.25	1706.00
	Increase/ Decrease due to FERV	0.00	0.00	0.00	0.00	0.00
	Increase/ Decrease due to ACE Total	0.00 2559.00	0.00 2345.75	0.00 2132.50	0.00 1919.25	0.00 1706.00
	Repayments of Loans during the period	213.25	213.25	213.25	213.25	213.25
	Net Ioan - Closing Average Net Loan	<b>2345.75</b> 2452.38	<b>2132.50</b> 2239.13	1919.25 2025.88	1706.00 1812.63	1492.75 1599.38
	Rate of Interest on Loan	7.9500%	7.9500%	7.9500%	7.9500%	7.9500%
	Interest on Loan Annualised	194.96	178.01	161.06	144.10	127.15
	HDFC Bank Limited-IX- D4 Repayment from 30.06.2024 -12Y (for Refinancing Vijaya Bank V Loan)		227.71	207.71	207.71	
	Gross loan - Opening Cumulative repayments of Loans upto	285.71 0.00	285.71 23.81	285.71 47.62	285.71 71.43	285.71 95.24
	previous period Net Ioan - Opening	285.71	261.90	238.10	214.29	190.48
	Increase/ Decrease due to FERV	0.00	0.00	0.00	0.00	0.00
	Increase/ Decrease due to ACE Total	0.00 285.71	0.00 261.90	0.00 238.10	0.00 214.29	0.00 190.48
	Repayments of Loans during the period	23.81	23.81	23.81	23.81	23.81
	Net Ioan - Closina Average Net Loan	261.90	238.10 250.00	<b>214.29</b> 226.19	190.48 202.38	166.67
	Rate of Interest on Loan	273.81 8.3750%	8.3750%	8.3750%	8.3750%	178.57 8.3750%
	Interest on Loan Annualised  HDFC Bank Limited-IX- D4 Repayment from 30.06.2024 -12Y (for Refinancing Syndicate III Loan)	22.93	20.94	18.94	16.95	14.96
	Gross Ioan - Opening	500.00	500.00	500.00	500.00	500.00
	Cumulative repayments of Loans upto previous period	0.00	41.67	83.33	125.00	166.67
	Net loan - Opening	500.00	458.33	416.67	375.00	333.33
	Increase/ Decrease due to FERV Increase/ Decrease due to ACE	0.00	0.00	0.00	0.00	0.00
	Total Repayments of Loans during the period	500.00 41.67	458.33 41.67	416.67 41.67	375.00 41.67	333.33 41.67
	Net Ioan - Closing Average Net Loan	<b>458.33</b> 479.17	<b>416.67</b> 437.50	<b>375.00</b> 395.83	333.33 354.17	<b>291.67</b> 312.50
	Rate of Interest on Loan Interest on Loan Annualised	8.8000% 42.17	8.8000% 38.50	8.8000% 34.83	8.8000% 31.17	8.8000% 27.50
		72.17	30.30	54.05	31.17	27.50
	HDFC Bank Limited-IX- D7 Repayment from 30.06.2024 -12Y	5000.00	5000.00	5000.00	5000.00	5000.00
	Gross loan - Opening Cumulative repayments of Loans upto	0.00	416.67	833.33	1250.00	1666.67
	previous period Net Ioan - Opening	5000.00	4583.33	4166.67	3750.00	3333.33
	Increase/ Decrease due to FERV Increase/ Decrease due to ACE	0.00	0.00	0.00	0.00	0.00
	Total	5000.00	4583.33	4166.67	3750.00	3333.33
	Repayments of Loans during the period	416.67	416.67	416.67	416.67	416.67
	Net Ioan - Closing Average Net Loan	<b>4583.33</b> 4791.67	<b>4166.67</b> 4375.00	<b>3750.00</b> 3958.33	<b>3333.33</b> 3541.67	<b>2916.67</b> 3125.00
	Rate of Interest on Loan	7.9500%	7.9500%	7.9500%	7.9500%	7.9500%
	Interest on Loan Annualised	380.94	347.81	314.69	281.56	248.44
	HDFC Bank Limited-IX- D9 Repayment from 30.06.2024 -12Y  Gross loan - Opening	13000.00	13000.00	13000.00	13000.00	13000.00
	Cumulative repayments of Loans upto	0.00	1083.33	2166.67	3250.00	4333.33
	previous period Net Ioan - Opening	13000.00	11916.67	10833.33	9750.00	8666.67
	Increase/ Decrease due to FERV Increase/ Decrease due to ACE	0.00	0.00	0.00	0.00	0.00
	Total  Repayments of Loans during the period	13000.00	11916.67	10833.33	9750.00 1083.33	8666.67
		1083.33	1083.33	1083.33		1083.33
	Net Ioan - Closing Average Net Loan	<b>11916.67</b> 12458.33	10833.33 11375.00	<b>9750.00</b> 10291.67	<b>8666.67</b> 9208.33	<b>7583.33</b> 8125.00
	Rate of Interest on Loan Interest on Loan Annualised	7.9500% 990.44	7.9500% 904.31	7.9500% 818.19	7.9500% 732.06	7.9500% 645.94
	HDFC Bank Limited-IX- D10 Repayment from 30.06.2024 -12Y	330.11	301.31	010.13	732.00	0 15.5 1
	Gross loan - Opening	3000.00	3000.00	3000.00	3000.00	3000.00
	Cumulative repayments of Loans upto previous period	0.00	250.00	500.00	750.00	1000.00
	Net loan - Opening Increase/ Decrease due to FERV	3000.00	2750.00 0.00	2500.00 0.00	2250.00 0.00	2000.00
	Increase/ Decrease due to ACE	0.00	0.00	0.00	0.00	0.00
	Total Repayments of Loans during the period	3000.00 250.00	2750.00 250.00	2500.00 250.00	2250.00 250.00	2000.00 250.00
	Net Ioan - Closing Average Net Loan	<b>2750.00</b>	<b>2500.00</b>	2250.00 2375.00	2000.00 2125.00	<b>1750.00</b>
	Rate of Interest on Loan	2875.00 7.9500%	2625.00 7.9500%	2375.00 7.9500%	2125.00 7.9500%	1875.00 7.9500%
	Interest on Loan Annualised	228.56	208.69	188.81	168.94	149.06
	HDFC Bank Limited-IX- D1, D3,D5,D8 Repayment from 30.06.2024 - 12Y.Transferred from Talaipalli		51			

	Calculation of Interest on Actual					
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SI. no.	Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
	Gross loan - Opening	16000.00	16000.00	16000.00	16000.00 4000.00	16000.00
	Cumulative repayments of Loans upto previous period		1333.33	2666.67		5333.33
	Net loan - Opening Increase/ Decrease due to FERV	16000.00 0.00	14666.67 0.00	13333.33 0.00	12000.00 0.00	10666.67 0.00
	Increase/ Decrease due to ACE Total	0.00 16000.00	0.00 14666.67	0.00 13333.33	0.00 12000.00	0.00 10666.67
	Repayments of Loans during the period	1333.33	1333.33	1333.33	1333.33	1333.33
	Net loan - Closing	14666.67	13333.33	12000.00	10666.67	9333.33
	Average Net Loan Rate of Interest on Loan	15333.33 7.9500%	14000.00 7.9500%	12666.67 7.9500%	11333.33 7.9500%	10000.00 7.9500%
	Interest on Loan Annualised	1219.00	1113.00	1007.00	901.00	795.00
	HDFC Bank Limited-X- D2, D3,D5 Repayment from 24.11.2025 -12Y.					
	Gross loan - Opening Cumulative repayments of Loans upto	5000.00	5000.00 0.00	5000.00 416.67	5000.00 833.33	5000.00 1250.00
	previous period Net loan - Opening	5000.00	5000.00	4583.33	4166.67	3750.00
	Increase/ Decrease due to FERV	0.00	0.00	0.00	0.00	0.00
	Increase/ Decrease due to ACE Total	0.00 5000.00	0.00 5000.00	0.00 4583.33	0.00 4166.67	0.00 3750.00
	Repayments of Loans during the period	0.00	416.67	416.67	416.67	416.67
	Net loan - Closing Average Net Loan	<b>5000.00</b> 5000.00	<b>4583.33</b> 4791.67	<b>4166.67</b> 4375.00	<b>3750.00</b> 3958.33	<b>3333.33</b> 3541.67
	Rate of Interest on Loan Interest on Loan Annualised	7.9500% 397.50	7.9500% 380.94	7.9500% 347.81	7.9500% 314.69	7.9500% 281.56
	HDFC Bank Limited-X- D2, D3,D5 Repayment from 24.11.2025 -12Y.	337.30	300.34	347.01	314.03	201.30
	Gross Ioan - Opening	4000.00	4000.00	4000.00	4000.00	4000.00
	Cumulative repayments of Loans upto previous period	0.00	0.00	333.33	666.67	1000.00
	Net loan - Opening	4000.00	4000.00	3666.67	3333.33	3000.00
	Increase/ Decrease due to FERV Increase/ Decrease due to ACE	0.00	0.00	0.00	0.00	0.00
	Total Repayments of Loans during the period	4000.00	4000.00 333.33	3666.67 333.33	3333.33 333.33	3000.00 333.33
	Net loan - Closing	4000.00	3666.67	3333.33	3000.00	2666.67
	Average Net Loan	4000.00	3833.33	3500.00	3166.67	2833.33
	Rate of Interest on Loan Interest on Loan Annualised	7.9500% 318.00	7.9500% 304.75	7.9500% 278.25	7.9500% 251.75	7.9500% 225.25
	HDFC Bank Limited-X- D2, D3,D5 Repayment from 24.11.2025 -12Y.					
	Gross loan - Opening Cumulative repayments of Loans upto	2500.00 0.00	2500.00 0.00	2500.00 208.33	2500.00 416.67	2500.00 625.00
	previous period		2500.00			
	Net loan - Opening Increase/ Decrease due to FERV	2500.00 0.00	0.00	2291.67 0.00	2083.33 0.00	1875.00 0.00
	Increase/ Decrease due to ACE Total	0.00 2500.00	0.00 2500.00	0.00 2291.67	0.00 2083.33	0.00 1875.00
	Repayments of Loans during the period	0.00	208.33	208.33	208.33	208.33
	Net Ioan - Closing Average Net Loan	<b>2500.00</b> 2500.00	<b>2291.67</b> 2395.83	<b>2083.33</b> 2187.50	<b>1875.00</b> 1979.17	1666.67 1770.83
	Rate of Interest on Loan	7.9500%	7.9500%	7.9500%	7.9500%	7.9500%
	Interest on Loan Annualised	198.75	190.47	173.91	157.34	140.78
	HDFC Bank Limited-XII- D1 Repayment from 13.10.2027 -12Y  Gross loan - Opening	1000.00	1000.00	1000.00	1000.00	1000.00
	Cumulative repayments of Loans upto	0.00	0.00	0.00	0.00	83.33
	Previous period Net loan - Opening	1000.00	1000.00	1000.00	1000.00	916.67
	Increase/ Decrease due to FERV Increase/ Decrease due to ACE	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00
	Total Repayments of Loans during the period	1000.00	1000.00	1000.00 0.00	1000.00 83.33	916.67 83.33
	Net loan - Closing	1000.00	1000.00	1000.00	916.67	833.33
	Average Net Loan	1000.00	1000.00	1000.00	958.33	875.00
	Rate of Interest on Loan Interest on Loan Annualised	7.6000% 76.00	7.6000% 76.00	7.6000% 76.00	7.6000% 72.83	7.6000% 66.50
	HDFC Bank Limited-XII- D3 Repayment from 13.10.2027 -12Y					
	Gross loan - Opening	7000.00	7000.00	7000.00	7000.00	7000.00
	Cumulative repayments of Loans upto previous period	0.00	0.00	0.00	0.00	583.33
	Net loan - Opening Increase/ Decrease due to FERV	7000.00 0.00	7000.00 0.00	7000.00 0.00	7000.00 0.00	6416.67 0.00
	Increase/ Decrease due to ACE Total	0.00 7000.00	0.00 7000.00	0.00 7000.00	0.00 7000.00	0.00 6416.67
	Repayments of Loans during the period	0.00	0.00	0.00	583.33	583.33
	Net loan - Closing	7000.00	7000.00	7000.00	6416.67	5833.33
	Average Net Loan Rate of Interest on Loan	7000.00 7.6000%	7000.00 7.6000%	7000.00 7.6000%	6708.33 7.6000%	6125.00 7.6000%
	Interest on Loan Annualised	532.00	532.00	532.00	509.83	465.50
	HDFC Bank Limited-XII- D4 Repayment from 13.10.2027 -12Y		FO			
<u> </u>	Gross Ioan - Opening	3200.00	52 3200.00	3200.00	3200.00	3200.00

	Calculation of Interest on Actual					
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SI. no.	Particulars					
31. 110.	raticulars	2024-25	2025-26	2026-27	2027-28	2028-29
	Cumulative repayments of Loans upto previous period	0.00	0.00	0.00	0.00	266.6
	Net loan - Opening	3200.00	3200.00	3200.00	3200.00	2933.3
	Increase/ Decrease due to FERV	0.00	0.00	0.00	0.00	0.0
	Increase/ Decrease due to ACE	0.00	0.00	0.00	0.00	0.
	Total  Repayments of Loans during the period	3200.00 0.00	3200.00 0.00	3200.00 0.00	3200.00 266.67	2933.3 266.6
	Net loan - Closing	3200.00	3200.00	3200.00	2933.33	2666.6
	Average Net Loan	3200.00	3200.00	3200.00	3066.67	2800.
	Rate of Interest on Loan Interest on Loan Annualised	7.6000% 243.20	7.6000% 243.20	7.6000% 243.20	7.6000% 233.07	7.6000 212.
		243.20	243.20	243.20	233.07	212.0
	ICICI Bank Limited-VII- D2 Repayment from 30.12.2024 -12Y					
	Gross Ioan - Opening	2000.00	2000.00	2000.00	2000.00	2000.
	Cumulative repayments of Loans upto previous period	0.00	166.67	333.33	500.00	666.
	Net loan - Opening	2000.00	1833.33	1666.67	1500.00	1333.
	Increase/ Decrease due to FERV	0.00	0.00	0.00	0.00	0.
	Increase/ Decrease due to ACE	0.00	0.00	0.00	0.00	0.
	Total	2000.00	1833.33	1666.67	1500.00	1333.
	Repayments of Loans during the period	166.67	166.67	166.67	166.67	166.
	Net Ioan - Closing	1833.33	1666.67	1500.00	1333.33	1166.
	Average Net Loan	1916.67	1750.00	1583.33	1416.67	1250.
	Rate of Interest on Loan	8.0000%	8.0000%	8.0000%	8.0000%	8.0000
	Interest on Loan Annualised	153.33	140.00	126.67	113.33	100.
	ICICI Bank Limited-VII- D4 Repayment from 30.12.2024 -12Y					
	Gross Ioan - Opening	1500.00	1500.00	1500.00	1500.00	1500.
	Cumulative repayments of Loans upto previous period	0.00	125.00	250.00	375.00	500.
	Net Ioan - Opening	1500.00	1375.00	1250.00	1125.00	1000.
	Increase/ Decrease due to FERV	0.00	0.00	0.00	0.00	0.
	Increase/ Decrease due to ACE	0.00	0.00	0.00	0.00	0.
	Total Repayments of Loans during the period	1500.00 125.00	1375.00 125.00	1250.00 125.00	1125.00 125.00	1000. 125.
	Net loan - Closing	1375.00	1250.00	1125.00	1000.00	875.
	Average Net Loan	1437.50	1312.50	1187.50	1062.50	937.
	Rate of Interest on Loan	8.0000%	8.0000%	8.0000%	8.0000%	8.0000
	Interest on Loan Annualised	115.00	105.00	95.00	85.00	75.
	Jammu and Kashmir Bank III- D1 Repayment from 18.12.2018 -10Y					
	Gross Ioan - Opening	5000.00	5000.00	5000.00	5000.00	5000.
	Cumulative repayments of Loans upto previous period	3000.00	3500.00	4000.00	4500.00	5000.
	Net loan - Opening	2000.00	1500.00	1000.00	500.00	0.
	Increase/ Decrease due to FERV	0.00	0.00	0.00	0.00	0.
	Increase/ Decrease due to ACE	0.00	0.00	0.00	0.00	0.
	Total  Repayments of Loans during the period	2000.00 500.00	1500.00 500.00	1000.00 500.00	500.00 500.00	0.
	Net Ioan - Closing Average Net Loan	1500.00	1000.00	<b>500.00</b>	<b>0.00</b> 250.00	0.
	Rate of Interest on Loan	1750.00 7.9800%	1250.00 7.9800%	750.00 7.9800%	7.9800%	7.9800
	Interest on Loan  Interest on Loan Annualised	139.65	7.9800% 99.75	7.9800% 59.85	7.9800%	
	THEFEST OH LOCAL ANNUALISED	139.05	99.75	59.85	19.95	0.

Name of the Company:	NTPC Limited
Name of the Power Station :	LARA Super Thermal power Station Stage-I

S. No.	Month	Unit	Al	or-23		1ay-23	J	un-23	
			Domestic coal	Domestic Coal (NTPC Mines)	Domestic	Domestic Coal (NTPC Mines)	Domestic	Domestic Coal (NTPC Mines)	Imported
A)	OPENING QUANTITY								
1	Opening Quantity of Coal/Lignite	(MT)	61236.64		19164.97	437698.15	0	314488.77	
2	Value of Stock	(Rs.)	161947102.4	638623431.7	45666108.76	630713009.3	0	458611948.1	
B)	QUANTITY								
3	Quantity of Coal/Lignite supplied by Coal/Lignite Company for the particular month giving complete details of mode of transportation used for	(MT)	157006.39	510100.71	134089.58	541968.85	121487.24	612332.54	114.8
	transportation along with quantity  Adjustment (+/-) in quantity supplied made by Coal/Lignite	(MT)							
4	Company	(1411)	0						0
5	Coal supplied by Coal/Lignite Company (3+4)	(MT)	157006.39	510100.71	134089.58	541968.85	121487.24	612332.54	114.8
	Normativel Transit & Handling Losses (For coal/Lignite	(MT)	137000.37	310100.71	151005150	311700.03	121107121	012332.31	11110
6	based Projects) specify the	(1411)	1256.05	1173.56	1072.72	1253.24	971.90	1383.35	0.23
7	Net coal / Lignite Supplied (5- 6)	(MT)	155750.34	508927.15	133016.86	540715.61	120515.34	610949.19	114.57
C)	PRICE								
8	Amount charged by the Coal /Lignite Company	(Rs.)	28,78,08,070.59	672395478.5	22,75,12,920.44	723195085.3	20,53,21,050.87	815362258.7	2082002.01
9	Adjustment (+/-) in amount charged made by Coal/Lignite Company	(Rs.)							
	Unloading, Handling and Sampling charges.	(Rs.)	4759994.2	20315210.47	1836707.54	33912317.99	31088631.61	38300276.96	
10	Unloading charges								
10	Handling charges								
	Sampling charges								
11	Total amount Charged (8+9+10)	(Rs.)	292568064.8	692710688.9	229349628	757107403.3	236409682.5	853662535.7	2082002.01
D)	TRANSPORATION								
12	Transportation charges by rail/ship/road transport	(Rs.)	6,25,19,620.64	32380874.25	7,41,01,043.38	38978544.75	6,77,50,540.92	56749034.79	
	By Rail								
	By Road								
	By Ship								
	By MGR								
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.)							
16	Total Transportation Charges (12+13+14+15)	( Rs.)	6,25,19,620.64	3,23,80,874.25	7,41,01,043.38	3,89,78,544.75	6,77,50,540.92	5,67,49,034.79	
17	Total amount Charged for coal/lignite supplied including Transportation (11+16)	( Rs.)	355087685.4	725091563.2	303450671.4	796085948.1	304160223.4	910411570.5	2082002.01
E)	TOTAL COST								
18 19	Landed cost of coal/ Lignite (2+17)/(1+7) Blending Ratio	Rs./MT	2,382.79 28%	1,440.98 72%	2,294.08 19%	1,458.28 81%	2,523.83 17%		18,172.31 0%
20	Weighted average cost of coal/ Lignite for preceding twelve months	Rs./MT	170	04.69	10	617.08	16	62.21	
F)	QUALITY								
21	GCV of Domestic Coal of the opening coal stock as per bill of Coal Company		3445	3409	3414	3410	3437	3415	
22	GCV of Domestic Coal supplied as per bill of Coal Company	(kCal/Kg)	3402	3411	3440	3419	3426	3417	
23	GCV of Imported Coal of the opening stock as per bill Coal Company								
24	GCV of Imported Coal supplied as per bill Coal Company	(kCal/Kg)							5022
25	Weighted average GCV of coal/ Lignite as Billed	(kCal/Kg)	3	411		3419	1	3418	
26	GCV of Domestic Coal of the opening stock as received at Station	(kCal/Kg)	3169	3260	3120		3033		
27	GCV of Domestic Coal supplied as received at Station	(kCal/Kg)	3101	3112	3021	3184	3045	3074	
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)							4862
30	Weighted average GCV of coal/ Lignite as Received	(kCal/Kg)	3	163		3154		3100	

weighted avg price of coal weighted average GCV 1,698.00 3,121.58

#### Details of Source wise Fuel for Computation of Energy Charges

Name of the Company: NTPC Limit
Name of the Power Station: LARA Supe

S. No.	Month	Unit	Ju	ıl-23		Aug-23	-	Se	p-23
			Domestic	Domestic Coal (NTPC Mines)	Domestic	Domestic Coal (NTPC Mines)	Imported	Domestic	Domestic Coal (NTPC Mines)
A)	OPENING QUANTITY								
1	Opening Quantity of Coal/Lignite	(MT)		335697.96	9602.2	318751.95		49417.4	350626.61
2	Value of Stock	(Rs.)		496606384.7	21680811.42	479470529		115844394.3	526777700.8
B)	QUANTITY								
	Quantity of Coal/Lignite supplied by Coal/Lignite Company	(MT)							
	for the particular								
3	month giving complete details of mode of transportation		218522.38	565791.59	281451.81	440470.6	67	209136.83	445941.88
	used for								
	transportation along with quantity								
4	Adjustment (+/-) in quantity supplied made by Coal/Lignite	(MT)							
_	Company	a rm	210522.20	565701.50	201451.01	440470 6		200126.02	445041.00
5	Coal supplied by Coal/Lignite Company (3+4)	(MT)	218522.38	565791.59	281451.81	440470.6	67	209136.83	445941.88
	Normativel Transit & Handling Losses (For coal/Lignite	(MT)							
6	based Projects) specify the		1748.18	1225.60	2251.61	880.94	0.13	1673.09	915.46
	source								
7	Net coal / Lignite Supplied (5-	(MT)	216774.20	564565,99	279200.20	439589.66	66.87	207463.74	445026.42
	6)								
C)	PRICE								
8	Amount charged by the Coal /Lignite Company	(Rs.)	38,30,39,712.48	773095627	50,08,18,050.84	572829194	1346413.99	35,80,61,449.09	589383897
9	Adjustment (+/-) in amount charged made by Coal/Lignite	(Rs.)							
	Company			********	=======================================			************	
	Unloading, Handling and Sampling charges.	(Rs.)	527389.57	31812685.42	720861.4	41295653.88		26956824.41	40761626.11
10	Unloading charges								
	Handling charges								
	Sampling charges								
11	Total amount Charged (8+9+10)	(Rs.)	383567102.1	804908312.4	501538912.2	614124847.9	1346413.99	385018273.5	630145523.1
D)	TRANSPORATION								
12	Transportation charges by rail/ship/road transport	(Rs.)	10,58,87,161.00	52673206	15,37,92,184.52	45729023.4		9,87,63,264.40	47437472.4
	By Rail								
	By Road								
	By Ship								
	By MGR								
13	Adjustment (+/-) in amount charged made by	(Rs.)							
	Railways/Transport Company								
14	Demurrage Charges, if any	( Rs.)							
15	Cost of fuel in transporting coal through MGR system, if	( Rs.)							
	applicable								
16	Total Transportation Charges (12+13+14+15)	( Rs.)	10,58,87,161.00	5,26,73,206.00	15,37,92,184.52	4,57,29,023.40	0.00	9,87,63,264.40	4,74,37,472.40
17	Total amount Charged for coal/lignite supplied including	( Rs.)	489454263.1	857581518.4	655331096.8	659853871.3	1346413.99	483781537.9	677582995.5
	Transportation (11+16)								
E)	TOTAL COST					4 404 40	*****		
18	Landed cost of coal/ Lignite (2+17)/(1+7)	Rs./MT	2,257.90	1,504.21	2,344.20	1,502.39	20,136.00	2,334.25	1,513.68
19	Blending Ratio	n 2 cm	26%	74%	37%	63%	0%	32%	68%
20	Weighted average cost of coal/ Lignite for preceding twelve	Rs./MT	170	02.21		1815.70		177	3.80
	months								
F)	QUALITY	4 C 107 :							
21	GCV of Domestic Coal of the opening coal stock as per bill	(kCal/Kg)		_		[			_
	of Coal Company	2 m 187	3426	3416	3086	3427		2878	3412
22	GCV of Domestic Coal supplied as per bill of Coal	(kCal/Kg)	3086	3434	2871	3401		3156	3412
<u> </u>	Company	2 0 177	2 300			2.01		1	
23	GCV of Imported Coal of the opening stock as per bill Coal	(KCal/Kg)							
	Company	0 m 1 m 1							
24	GCV of Imported Coal supplied as per bill Coal Company	(kCal/Kg)					5016		
				220					114
25	Weighted average GCV of coal/ Lignite as Billed	(kCal/Kg)	3	338				3.	14
26	GCV of Domestic Coal of the opening stock as received at	(kCal/Kg)	3045	3111	2672	3194		2822	3127
	Station Color Colo	4 e 101 :							
27	GCV of Domestic Coal supplied as received at Station	(kCal/Kg)	3672	3243	2827	3079		2997	3128
28	GCV of Imported Coal of opening stock as received at	(kCal/Kg)							
	Station	2 - 15-							
29 30	GCV of Imported Coal supplied as received at Station	(kCal/Kg)		0.57		2015	5334		7.5
	Weighted average GCV of coal/ Lignite as Received	(kCal/Kg)	1 3	057	1	3015		1 30	)75

weighted avg price of coal weighted average GCV

PART-I FORM- 15

Name of the Company: NTPC Limit
Name of the Power Station: LARA Supe

S. No.	Month	Unit		Oct-23	N	ov-23	D	ec-23	J	an-24	Fe	b-24	M	ar-24
			Domestic	Domestic Coal (NTPC Mines)	Domestic	Domestic Coal (NTPC Mines)	Domestic	Domestic Coal (NTPC Mines)	Domestic	Domestic Coal (NTPC Mines)	Domestic	Domestic Coal (NTPC Mines)	Domestic	Domestic Coal (NTPC Mines)
	OPENING QUANTITY													
1	Opening Quantity of Coal/Lignite	(MT)	2487.13	247543.03	12976.11	236846.83	76646.08	355822.36	134078.38	386590.51	185779.38	244576.49	220786.02	209482.75
	Value of Stock	(Rs.)	5805720.08	374702309.7	25218135.1	364485204.8	141681508.42	568125913.10	238348656.7	646141609.3	399283476.9	405355791.8	490242060.1	332920057
B)	QUANTITY													
	Quantity of Coal/Lignite supplied by Coal/Lignite Company	(MT)												
	for the particular													
3	month giving complete details of mode of transportation		227216.71	556998.8	146408.24	446136.6	138034.57	403771.08	144899.2	534009	145475.44	585470.2	166324.47	650233.57
	used for													
	transportation along with quantity													
4	Adjustment (+/-) in quantity supplied made by Coal/Lignite	(MT)												
	Company													
5	Coal supplied by Coal/Lignite Company (3+4)	(MT)	227216.71	556998.8	146408.24	446136.6	138034.57	403771.08	144899.2	534009	145475.44	585470.2	166324.47	650233.57
	Normativel Transit & Handling Losses (For coal/Lignite	(MT)												
6	based Projects) specify the		1817.73	1114.00	1171.27	893.07	1104.28	809.93	1159.19	1068.02	1163.80	1170.94	1330.60	1346.49
	source													
7	Net coal / Lignite Supplied (5-	(MT)	225398.98	555884.80	145236.97	445243.53	136930.29	402961.15	143740.01	532940.98	144311.64	584299.26	164993.87	648887.08
,	6)		223390.90	333004.00	143230.97	443243.33	130930.29	402901.13	143/40.01	332940.96	144311.04	304299.20	104993.87	040007.00
C)	PRICE													
8	Amount charged by the Coal /Lignite Company	(Rs.)	334252482.1	724373379	197700327.6	580271697	154894261.3	538884307	274520908.8	712172347	265242898.5	780802733	404806687	883329594.1
9	Adjustment (+/-) in amount charged made by Coal/Lignite	(Rs.)												
,	Company													
	Unloading, Handling and Sampling charges.	(Rs.)	48175.5	28453996.24	362869.43	6570123.23	11396267.38	37290586.63		104751039.8	47201.92	78088755.74	4365520.84	26190055.38
10	Unloading charges													
10	Handling charges													
	Sampling charges													
11	Total amount Charged (8+9+10)	(Rs.)	334300657.6	752827375.2	198063197	586841820.2	166290528.7	576174893.6	274520908.8	816923386.8	265290100.4	858891488.7	409172207.8	909519649.5
D)	TRANSPORATION	T												
12	Transportation charges by rail/ship/road transport	(Rs.)	102777082.7	108870891	69177899.87	137736655.8	71698748.62	123918625.4	84227315.24	60946616	68373653.76	53041892	53697066.9	54824276
	By Rail													
	By Road													
	By Ship													
	By MGR													
	Adjustment (+/-) in amount charged made by	(Rs.)												
13	Railways/Transport Company	l` ′											0	
14	Demurrage Charges, if any	(Rs.)												
	Cost of fuel in transporting coal through MGR system, if	(Rs.)												
15	applicable	()												
16	Total Transportation Charges (12+13+14+15)	( Rs.)	#######################################	10,88,70,891.00	6.91.77.899.87	13,77,36,655.80	7,16,98,748.62	12,39,18,625.40	8,42,27,315.24	6,09,46,616.00	6,83,73,653.76	5.30.41.892.00	5,36,97,066.90	5,48,24,276.00
	Total amount Charged for coal/lignite supplied including	(Rs.)												
17	Transportation (11+16)	(16.)	437077740.2	861698266.2	267241096.9	724578476	237989277.3	700093519	358748224.1	877870002.8	333663754.1	911933380.7	462869274.7	964343925.5
E)	TOTAL COST													
18	Landed cost of coal/ Lignite (2+17)/(1+7)	Rs./MT	1,943.44	1,538.91	1,848.51	1,596.66	1,777.68	1,671.39	2,149.23	1,657.38	2,220.44	1,589.25	2,470.61	1,511.31
19	Blending Ratio	103./1011	28%	73%			18%							79%
	Weighted average cost of coal/ Lignite for preceding twelve	Re /MT												
20	months	103.7111	1	650.15	16	47.03	16	90.09	11	716.40	168	33.93	17	12.76
F)	QUALITY													
	GCV of Domestic Coal of the opening coal stock as per bill	(kCal/Kg)												
21	of Coal Company	(KCal/Kg)	3102	3412	3147	3404	3405	3402	3237	3402	3211	3401	3226	3401
	GCV of Domestic Coal supplied as per bill of Coal	(kCal/Kg)												
22	Company	(KCal/Kg)	3147	3401	3112	3401	3145	3402	3187	3401	3245	3401	3134	3415
	GCV of Imported Coal of the opening stock as per bill Coal	(kCal/Ka)												
23	Company	(KCal/Kg)												
	GCV of Imported Coal supplied as per bill Coal Company	(kCal/Kg)												
24	GC v of imported coar supplied as per one coar company	(KCal/Kg)												
25	Weighted average GCV of coal/ Lignite as Billed	(kCal/Kg)	+	3334	<del>                                     </del>	3345	-	3373		3379	2	375	3	364
	GCV of Domestic Coal of the opening stock as received at	(kCal/Kg)	+										<del>                                     </del>	
26	Station	(kCal/Kg)	2963	3128	2879	3198	2967	3118	2895	3157	2892	3236		
27	GCV of Domestic Coal supplied as received at Station	(kCal/Kg)	2878	3229	2975	3075	2855	3191	2889	3294	3000	3237		
	GCV of Imported Coal of opening stock as received at	(kCal/Kg)	20/0	3229	29/3	3073	2033	3191	2009	3294	3000	3237		
28	Station	(kCal/Kg)									1			
29	GCV of Imported Coal supplied as received at Station	(kCal/Kg)	1			<del>                                     </del>		<del> </del>						
	Weighted average GCV of coal/ Lignite as Received	(kCal/Kg)	1	3111		3088		3111		3195	2	192	2	198
30	weighted average GC v of coal/ Lightte as Received	[(kCal/Kg)		2111	-	,000	-	7111	l	21/2	,	1/2		170

weighted avg price of coal weighted average GCV

														FORM- 15A
	ls of Secondary Fuel for Computation of Energy		_	1										
		NTPC I	Super Thermal	namon Station	Stage I									
Name	of the rower Station :	LAKA	Super Therman	power station i	stage-1									
Sl.No.	Month	Unit	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24
			LDO	LDO	LDO	LDO	LDO	LDO	LDO	LDO	LDO	LDO	LDO	LDO
1	Opening quantity of oil	KL	8433.34	7746	7519.43	6422.24	5172.3	7025.57	6490.97	6223.97	6122.14	5146.29	4644.49	7238.27
2	Value of opening	Rs	677384958.12	622176240.40	603977942.12	515848574.61	415450540.69	580049331.96	535911581.79	513867351.67	505460161.16	424891142.05	383461199.44	586056018.43
3	Quantity of oil supplied by Oil Company*	KL												
4	Value of Oil *	(Rs)												
5	Adjustment (+/-) in quantity supplied made by Oil													
	Company	KL												
6	Oil supplied by Oil Company	KL					3091.39						3034.72	
7	Normative transit & Handling losses	KL												
8	Net Oil supplied (4-5)	KL					3091.39						3034.72	
9	Amount charged by the Oil Company	(Rs)					266821271.4						238295603.5	
10	Adjustment (+ / -) in amount charged by OII Company	(Rs)												
11	Total Amount charged (7+8)	(Rs)					266821271.4						238295603.5	
12	Transportation charges by Rail / Ship / Road Transport	(Rs)												
13	Adjustment (+/-) in amount charged by railways /													
	transport company	(Rs)												
14	Demurrage charges, if any	(Rs)												
15	Cost of diesel in transporting Oil through MGR system, if													
16	applicable  Total transportation charges ( 10+/- 11 - 12 + 13 )	(Rs)												-
17	Others- Entry Tax on oil	(Rs)												<del>                                     </del>
18	Total amount charged for Oil supplied including	(24.5)												
	transportation (14 + 15)	(Rs)			0									
19	Landed Cost of Oil	Rs/KL	80322.26	80322.26	80322.30	80322.22	82562.61	82562.60	82562.63	82562.63	82562.66	82562.61	80966.25	80966.31
21	Weighted average GCV of Oil	(kCal/L	9412	9412	9412	9412	9363	9363	9363	9363	9363	9363	9291	9291
22	Weighted average rate of Secondary Fuel  * Including opening stock	Rs/KL	80322.26	80322.26	80322.30	80322.22	82562.61	82562.60	82562.63	82562.63	82562.66	82562.61	80966.25	80966.31

\* Including opening stock

Weighted avg price of oil 81549.78 weighted avg GCV of oil 9367.33

## PART-I

## FORM-16A

## Details of Reagent for

## Computation of Supplementary Energy Charge Rate

Name of the Petitioner: NTPC LTD

Name of the Generating Station: LARA STPS

			For Preceding (From COD or from 01.04.2024 as the				
S. No.	Month	Unit	2nd Month(February)	3rd Month (March)	4th Month (April)		
1	Quantity of Reagent supplied by Limestone or Reagent supply Company	(Metric Tonne)	3,944.50	0	992.86		
2	Adjustment (+/-) in quantity supplied made by Limestone or Reagent supply Company	(Metric Tonne)	0	0	0		
3	Limestone supplied by Limestone supply company (1+2)	(Metric Tonne)	3,944.50	-	992.86		
4	Net Limestone Supplied (3-4)	(Metric Tonne)	3,944.50	0	992.86		
5	Amount charged by Limestone Supply Company(INCLUDING 5% GST)	(Rs.)	24,35,068		6,16,443		
6	Adjustment (+/-) in amount charged made for Reagent supply by the Company	(Rs.)	0	0	0		
7	Total amount Charged (6±7)	(Rs.)	24,35,068		6,16,443		
8	Transportation charges by rail/ship/road transport	(Rs.)	93,68,863		23,54,696		
9	Adjustment (+/-) in amount charged made by Railways/Transport Company	(Rs.)	0	0	0		
10	Demurrage Charges, if any	(Rs.)	0	0	0		
11	Total Transportation Charges (8(±)9-10)	(Rs.)	93,68,863	-	23,54,696		
12	Total amount Charged for Reagent supplied including Transportation (7+11)	(Rs.)	1,18,03,931	-	29,71,139		
13	Weighted Average Cost of Reagent during the month	(Rs/Tonne)	2992.50		2992.51		
14	Purity of Reagent received during the month(as CaCO3)	(%)	85.48%		85.48%		
15	Sulphur Content in the Coal	(%)	0.48		0.48		

### Name of the Petitioner Name of the Generating Station

## NTPC Ltd Lara STPS (1600 MW)

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

ount in Rs. Lakh)

	I		(Amount in Rs. As on 01.04.2024	. Lakh)
S. No.	Particulars	Accrual Basis	Un-discharged Liabilities	Cash Basis
A	a) Opening Gross Block Amount as per books	1616329.66	41521.41	1537439.60
	b) Amount of IDC in A(a) above	243069.31	0.00	243054.6
	c) Amount of FC in A(a) above	0.00	0.00	0.0
	d) Amount of FERV in A(a) above	67493.89	0.00	67493.8
	e) Amount of Hedging Cost in A(a) above	0.00	0.00	0.0
	f) Amount of IEDC in A(a) above	117509.37	0.00	117509.3
В	a) Addition in Gross Block Amount during the period (Direct purchases)			
	b) Amount of IDC in B(a) above			
	c) Amount of FC in B(a) above			
	d) Amount of FERV in B(a) above			
	e) Amount of Hedging Cost in B(a) above			
	f) Amount of IEDC in B(a) above			
С	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	To be	provided at the time of to	ruing-up
	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			
Е	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			
	, , , , , , , , , , , , , , , , , , , ,			

Name of the Petitioner Name of the Generating Station

## NTPC Ltd Lara STPS (1600 MW)

## Statement of Capital Woks in Progress (To be given for relevant dates and year wise)

			01.04.2024	(Amount in Rs. Lak			
S. No.	Particulars	Accrual Basis	Un-discharged Liabilities	Cash Basis			
A	a) Opening CWIP as per books	111065.72	17730.71	85025.36			
	b) Amount of IDC in A(a) above	11341.26	0.00	11341.26			
	c) Amount of FC in A(a) above	0.00	0.00	0.00			
	d) Amount of FERV in A(a) above	118.80	0.00	118.80			
	e) Amount of Hedging Cost in A(a) above	0.00	0.00	0.00			
	f) Amount of IEDC in A(a) above	6800.98	0.00	6800.98			
В	a) Addition in CWIP during the period						
	b) Amount of IDC in B(a) above	_					
	c) Amount of FC in B(a) above						
	d) Amount of FERV in B(a) above						
	e) Amount of Hedging Cost in B(a) above						
	f) Amount of IEDC in B(a) above						
C	a) Transferred to Gross Block Amount during the period						
	b) Amount of IDC in C(a) above	$\dashv$					
	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  To be provided at the time of truing						
D.	N. L. C. CWID L			0 1			
D	a) Deletion in CWIP during the period b) Amount of IDC in D(a) above	_					
	c) Amount of FC in D(a) above	$\dashv$					
	d) Amount of FERV in D(a) above	$\dashv$					
	e) Amount of Hedging Cost in D(a) above	$\dashv$					
	f) Amount of Tedging Cost in D(a) above	<del>- </del>					
	if 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						

#### PART-I FORM- N Calculation of Interest on Normative Loan Name of the Company: NTPC Limited LARA Super Thermal power Station Stage-I Name of the Power Station: (Amount in Rs Lakh) Existing 2024-25 2025-26 2026-27 2027-28 2028-29 S. No. **Particulars** 2023-24 5 6 8 10,35,384.08 10,74,035.19 11,28,407.81 11,46,871.39 11,47,781.39 11,56,658.57 Gross Normative loan – Opening Cumulative repayment of Normative loan up to 2,05,268.35 2,81,659.46 3,61,419.36 4,43,816.97 5,26,916.18 6,10,369.83 previous year 8,30,115.73 7,92,375.72 7,66,988.45 7.03.054.42 6,20,865.21 5,46,288.74 3 Net Normative loan - Opening 54,372.62 18,463.59 910.00 8,877.18 Add: Increase due to addition during the year / period 38651.10 5 Repayment adjustment on acount of decapitalization 6 Less: Repayment of Loan 76,391.11 79,759.90 82,397.61 83,099.21 83,453.65 83,775.13 7,92,375.72 Net Normative loan - Closing 7,66,988.45 7,03,054.42 6,20,865.21 5,46,288.74 4,62,513.61 Average Normative loan 8,11,245.73 7,79,682.08 7,35,021.43 6,61,959.81 5,83,576.97 5,04,401.17 Weighted average rate of interest 9 0.0628 6.2818 6.3293 6.3973 6.6484 6.9005 48977.91 Interest on Loan 50940.55 46521.38 42347.55 38798.60 34806.45 Cumulative repayment of Normative loan at the end 11 2,81,659.46 3,61,419.36 4,43,816.97 5,26,916.18 6,10,369.83 6,94,144.96 of the period

#### **Computation of Energy Charges**

<u>Form-O(i)</u> ADDITIONAL FORM

Name of the Company : NTPC LTD
Name of the Power Station LARA STPS-I

			2024.25	2025.26	2027 27	2027.20	2020.20
Installed Capacity			2024-25 1600	2025-26 1600	2026-27 1600	2027-28 1600	2028-29 1600
No of Days in the year		Days	365	365	365	366	365
Sp. Oil consumption		ml/kwh	1	303	303	1	303
Auxiliary consumption		%	6.75	6.75	6.75	6.75	6.75
Heat Rate		Kcal/Kwh	2,217.55	2,217.55	2,217.55	2,217.55	2,217.55
Computation of Variable C	harges		Ź	,	, i		,
Variable Charge (Coal)		p/kwh	131.011	131.011	131.011	131.011	131.011
Variable Charge (Oil)		p/kwh	8.745	8.745	8.745	8.745	8.745
Total		p/kwh	139.76	139.76	139.76	139.76	139.76
Computation of Fuel Expen	ses for Calculation of IWC:					-	
ESO in a year		(MUs)	11109.43	11109.43	11109.43	11139.87	11109.43
ESO for	40 days	(MUs)	1217.472	1217.472	1217.472	1217.472	1217.472
Cost of coal for 40 Days		(Rs. Lakh)	15950.19	15950.19	15950.19	15950.19	15950.19
Cost of oil for 2 months		(Rs. Lakh)	1619.25	1619.25	1619.25	1623.69	1619.25
Energy Expenses for 45 days		(Rs. Lakh)	19141.76	19141.76	19141.76	19141.76	19141.76
Г.							
			2024-25	2025-26	2026-27	2027-28	2028-29
Wtd. Avg. Price of Coal		Rs./MT	1698.00	1698.00	1698.00	1698.00	1698.00
Wtd. Avg. GCV of Coal as re	ceived	kCal/Kg	3121.58	3121.58	3121.58	3121.58	3121.58
Wtd. Avg. GCV of Coal as received-85		kCal/Kg	3036.58	3036.58	3036.58	3036.58	3036.58
Wtd. Avg. Price of Secondary	Fuel	Rs/KL	81549.78	81549.78	81549.78	81549.78	81549.78
Wtd. Avg. GCV of Secondary	7 Fuel	kCal/L	9367.33	9367.33	9367.33	9367.33	9367.33
Rate of Energy Charge from Sec. Fuel Oil/ Alternate Fuel	$(REC)_s = (Q_s)_n \times P_s$	p/kwh	8.15	8.15	8.15	8.15	8.15
Heat Contribution from SFO / Alternate Fuel	$(H_s) = (Qs)_n \times (GCV)_s$						
		kcal/kwh	9.37	9.37	9.37	9.37	9.37
Heat Contribution from coal	$= (Qs)_n X (GCV)_s$ $(H_p) = GHR- H_s$	kcal/kwh	2,208.18	2,208.18	2,208.18	2,208.18	2,208.18
Specific Primary Fuel Consumption	$(Qp)_n = H_p/(GCV)_p$		0.727	0.727	0.727	0.727	0.727
Rate of Energy charge from Primary Fuel	(REC) <sub>p</sub>	(p/kWh)	123.48	123.48	123.48	123.48	123.48
Rate of Energy charge ex- bus	(REC) = ((REC) <sub>s</sub> +(REC)LS / (1-(AUX))	(p/kWh)	141.161	141.161	141.161	141.161	141.161

Form-O(ii)
Additional Form
Computation of Supplemenatry ECR and IOWC corresponding to FGD

Particular	Unit	2024-25	2025-26	2026-27	2027-28	2028-29
No. of days	days	365.00	365.00	365.00	366.00	365.00
FGD Capacity ODe achieved	MW	1600	1600	1600	1600	1600
FGD Capacity ODE achieved	IVIVV	1600	1600	1600	1600	1600
CVPF	kCal/Kg	3121.58	3121.58	3121.58	3121.58	3121.58
CVSF	kCal/Litre	9367.33	9367.33	9367.33	9367.33	9367.33
LPPF	Rs/MT	1698.00	1698.00	1698.00	1698.00	1698.00
LPSF	Rs/KL	9367.33	9367.33	9367.33	9367.33	9367.33
AUX-Norm	%	5.75	5.75	5.75	5.75	5.75
GHR-Norm	kCal/kWh	2,217.55	2217.55	2217.55	2217.55	2217.55
SFC-Norm	Litre/kWh	0.001	0.001	0.001	0.001	0.001
ECR	Rs/kWh	1.28437	1.28	1.28	1.28	1.28
AUX for DESOX(Norm)	%	1	1.00	1.00	1.00	1.00
NEW AUX-NORM	%	6.75	6.75	6.75	6.75	6.75
NEW GHR-NORM	kCal/kWh	2,217.55	2217.55	2217.55	2217.55	2217.55
NEW-SFC-NORM	Litre/kWh	0.001	0.001	0.001	0.001	0.001
NEW ECR	Rs/kWh	1.298	1.30	1.30	1.30	1.30
Delta ECR	Rs/kWh	0.014	0.014	0.014	0.014	0.014
			0.00	0.00	0.00	0.00
Design SO2 removal efficiency	%	96.55	96.55	96.55	96.55	96.55
Landed price of reagent	Rs/MT	2992.50	2992.50	2992.50	2992.50	2992.50
K(FGD Constant)	number	35.40166667	35.40	35.40	35.40	35.40
SHR Station Heat rate	kCal/kWh	2,217.55	2217.55	2217.55	2217.55	2217.55
S-Sulphur Content	%	0.48	0.48	0.48	0.48	0.48
CVPF	kCal/Kg	3036.58	3036.58	3036.58	3036.58	3036.58
LP-Lime stone purity	%	85.48	85.48	85.48	85.48	85.48
Specific Regent consumption 'SRC' =(K x SHR x S /CVPF) x						
(85/LP)	gm/kWh	12.38	12.38	12.38	12.38	12.38
ECR (corresponding to reagent consumption)	Rs/kWh	0.040	0.040	0.040	0.040	0.040
			0.00	0.00	0.00	0.00
Supplementary ECR	Rs/kWh	0.054	0.054	0.054	0.054	0.054
			0.00	0.00	0.00	0.00
ESO in the period	MUs	11109.43	11109.43	11109.43	11109.43	11109.43
Cost of limestone in the period	Rs Lakh	4414.62	4414.62	4414.62	4414.62	4414.62
Supplementary Energy Expenses in the period	Rs Lakh	5944.77	5944.77	5944.77	5944.77	5944.77
Cost of limestone for 50 days in FY 23-24	Rs Lakh	604.74	604.74	604.74	604.74	604.74
Supplementary Energy Expenses for 45 days in FY 23-24	Rs Lakh	732.92	732.92	732.92	732.92	732.92

PART	1
FORM-	O

## **Calculation of Interest on Working Capital**

Name of the Company:	NTPC Limited
Name of the Power Station:	LARA Super Thermal power Station Stage-I

(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	36,845.10	15950.19	15950.19	15950.19	15950.19	15950.19
2	Cost of Limestone for ECS (FGD)		604.74	604.74	604.74	604.74	604.74
3	Cost of Main Secondary Fuel Oil	836.14	1619.25	1619.25	1619.25	1623.69	1619.25
4	O & M Expenses (Including ECS i.e.						
	FGD))	3,403.66	8657.96	8838.84	9028.56	9228.64	9439.10
5	Maintenance Spares	8,168.78	20779.11	21213.21	21668.54	22148.74	22653.85
6	Receivables	75,016.69	61078.59	61747.65	61704.09	61548.41	61576.30
7	Total Working Capital	124270.37	108689.84	109973.88	110575.37	111104.41	111843.43
8	Rate of Interest	12.0000	11.9000	11.9000	11.9000	11.9000	11.9000
9	Interest on Working Capital	14912.44	12934.09	13086.89	13158.47	13221.43	13309.37

## Summary of issue involved in the petition

lame of t	the Company :	NTPC Limited	ssue invoived in th							
	the Power Station :	LARA Super Therm	al power Station Stag	ge-I						
1	Petitioner:	NTPC Limited	1							
2	Subject	Approval of tariff of LARA STPS Stage-I (2X800 MW) for the period from 01.04.2024 to 31.03.2029								
3	i)Approve tariff of LARA ST ii) Allow the extension of Regulations 2024 i.e. Power t iii)Allow the works related to iv)Allow the recovery of filin v)Allow reimbursement of A vi)Allow the recovery of pay, vii)Pass any other order as it	cut-off date for the instant to relax.  • Railway siding carried out g fees as & when paid to the sh Utilization Expenditure d /wage revision as additional	by RITES Ltd during the Hon'ble Commission lirectly from the beneficed with the beneficial control of the beneficial contr	11.2023 for 2 years using 2024-29. In and publication expericiaries on monthly been the normative O&N	enses from the bene pasis, subject to true	ficiaries.				
4	Respondents SIX(6) no. respondents									
	Name of Respondents									
	a.MSEDCL, Maharashtra b.GUVNL, Gujarat c.MPPMCL, MP d.CSPDCL, Chhattisgarh e.Electricity Deptt, Goa f.DNHDDPDCL									
5	Project Scope									
		2024-25	2025-26	2026-27	2027-28	2028-29				
	Cost									
	Commissioning									
	Claim		220/2/2							
	AFC (in Rs lakh)	334209.48		339283.01	338946.36					
	Capital cost (in Rs Lakh)	16,12,011.14	16,38,387.70	16,39,687.70	16,52,369.38	16,52,369.3				
	Initial spare	NA 950/	NA 950/	NA 950/	NA 950/	NA OF				
	NAPAF (Gen)	85%	85%	85%	85%	85				
	Any Specific									

To, NTPC Limted Noida

#### TO WHOMSOEVER IT MAY CONCERN

Sub: Support for Installed System at Various Location at NTPC Plants

As per Lifecycle policy of Yokogawa, we have Two Phases in Lifecycle:

- a) Standard Sales Phase
- b) Maintenance Phase

The Hardware is supported for at least 10 Years in the maintenance phase

While in Standard Sales Phase the Hardware is supplied for all NEW Projects and / or expansion projects while in Maintenance phase initially it is provided for expansion projects and later only for maintenance purpose

The Hardware (CENTUM VP) Supplied at NTPC except controllers for Barh - Offsites is in Standard Sales Phase Please note as WINDOWS 7 Support is not available from Microsoft, CENTUM VP Licensed Software version is also changed to be compatible to WINDOWS 10. The earlier version of CENTUM VP Software compatible to WINDOWS 7 is obsolete.

 $\label{thm:compatible} \textit{The Workstation, Server, network Switches compatible to WINDOWS~7~are~also~obsolete~and~are~not~available~.}$ 

The Same will not be available for following Projects

- 1. Kudgi STPP- 1, 3x 800 MW
- 2. Lara STPP- 1, 2x 800 MW
- 3. NTPC Barh STPP-I. 3 x 660 MW
- 4. BRBCL- 4 x 250 MW
- 5. NTPC Talcher, Kaniya- 2 x 500 MW
- 6. NTPC Vindyachal-V, 1 x 500 MW

Further:

## <u>Support Availability -for Windows 10 and Windows Server 2019 along with Control System:</u>

Support for the Supplied control system will be available for next 10 years from year 2022 after Upgradation of HMI, when read in conjunction with following:

- Windows 10 LTSC Version Support will be available till 2029 (as per Microsoft)
- Windows Server 2019 will be available till 2029 (as per Microsoft)
- In ONLY BARH SSTPP- offsites section the support for supplied controller will be available till 2025

With the Operating System and CENTUM VP System Software Upgrade - application Software and the NEW CENTUM VP System Software will work seamlessly

We endeavor to provide unstinted Services and envisage to have continued relation with your esteemed organization

Thanking you and assuring you best of attention at all times Yours sincerely

For Yokogawa India Limited



Avnish Garg

AVP- System Sales

CIN No.: U74210KA1987FLC008304 Email ID: YIL-contactus@yokogawa.com Website: http://fwww.yokogawa.com/in

[भाग II—खण्ड 3 (ii)] भारत का राजपत्र : असाधारण

(NOx)	
पारा ( Hg)	0.03 mg/Nm <sup>3</sup>

- \* टीपीपी (इकाईयां) इस अधिसूचना के प्रकाशन की तारीख से दो वर्ष के भीतर परिसीमाओं को पूरा करेंगी।
- \*\* इसके अंतर्गत सभी टीपीपी (इकाईयां) हैं, जिन्हें पर्यावरणीय निकासी प्रदान की गई है और संनिर्माण के अधीन है । [फा. सं. क्यू-15017/40/2007-सीपीडब्ल्यू]

डा. राशिद हसन, सलाहकार

**टिप्पण :-** मूल नियम भारत के राजपत्र, असाधारण, भाग ा, खंड 3, उपखंड (ii) में सं. का.आ. 844(अ) 19 नवंबर, 1986 द्वारा प्रकाशित किए गए थे और उनका पश्चातवर्ती का.आ. 433(अ) तारीख 18 अप्रैल, 1987 ; सा.का.नि 176(अ) तारीख 2 अप्रैल, 1996; सा.का.नि. 97 (अ), तारीख 18 फ़रवरी, 2009 ; सा.का.नि 149(अ) तारीख 4 मार्च, 2009 ; सा.का.नि. 543(अ) तारीख 22 जुलाई, 2009 ; सा.का.नि. 739(अ) तारीख 9 सितम्बर, 2010 ; सा.का.नि. 809(अ) तारीख 4 अक्टूबर, 2010, सा.का.नि. 215(अ) तारीख 15 मार्च, 2011 ; सा.का.नि. 221(अ) तारीख 18 मार्च, 2011 ; सा.का.नि. 354(अ) तारीख 2 मई, 2011 ; सा.का.नि. 424(अ) तारीख 1 जून, 2011 ; सा.का.नि. 446(अ) तारीख 13 जून, 2011 ; सा.का.नि. 152(अ) तारीख 16 मार्च, 2012 ; सा.का.नि. 266(अ) तारीख 30 मार्च, 2012 ; सा.का.नि. 277(अ) तारीख 31 मार्च, 2012; सा.का.नि. 820(अ) तारीख 9 नवम्बर, 2012 ; सा.का.नि. 176(अ) तारीख 18 मार्च, 2013 ; सा.का.नि. 535(अ) तारीख 7 अगस्त, 2013 ; सा.का.नि. 771(अ) तारीख 11 दिसम्बर, 2013 ; सा.का.नि. 2(अ) तारीख 2 जनवरी, 2014 ; सा.का.नि. 229(अ) तारीख 28 मार्च, 2014 ; सा.का.नि. 232(अ) तारीख 31 मार्च, 2014 ; सा.का.नि. 325(अ) तारीख 7 मई, 2014, सा.का.नि. 612(अ) तारीख 25 अगस्त, 2014 और अन्तिम संशोधन सा.का.नि. 789(अ) तारीख 11 नवम्बर, 2014 किया गया था।

# MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE NOTIFICATION

New Delhi, the 7th December, 2015

- **S.O.** 3305(E).— In exercise of the powers conferred by sections 6 and 25 of the Environment (Protection) Act, 1986 (29 of 1986), the Central Government hereby makes the following rules further to amend the Environment (Protection) Rules, 1986, namely:—
- 1. (1) These rules may be called the Environment (Protection) Amendment Rules, 2015.
  - (2) They shall come into force on the date of their publication in the Official Gazette.
- 2. In the Environment (Protection) Rules, 1986, in Schedule I, -
  - (a) after serial number 5 and entries relating thereto, the following serial number and entries shall be inserted, namely:—

Sr. No.	Industry	Parameter	Standards
1	2	3	4
"5A.	Thermal Power	Water	I. All plants with Once Through Cooling (OTC)
	Plant (Water	consumption	shall install Cooling Tower (CT) and
	consumption limit)		achieve specific water consumption upto
	•		maximum of 3.5m <sup>3</sup> /MWh within a period

of two years from the date of publication of this notification.  II. All existing CT-based plants reduce specific water consumption upto maximum of
3.5m³/MWh within a period of two years from the date of publication of this notification.  III. New plants to be installed after 1st January, 2017 shall have to meet specific water consumption upto maximum of 2.5 m³/MWh and achieve zero waste water discharged";

(b) for serial number 25, and the entries related thereto, the following serial number and entries shall be substituted, namely:-

Sr. No.	Industry	Parameter	Standards	
1	2	3	4	
"25.	Thermal Power Plant	TPPs (units) installed before 31st December, 2003*		
		Particulate Matter	100 mg/Nm <sup>3</sup>	
		Sulphur Dioxide (SO <sub>2</sub> )	600 mg/Nm³ (Units Smaller than 500MW capacity units)	
			200 mg/Nm³ (for units having capacity of 500MW and above)	
		Oxides of Nitrogen (NOx)	600 mg/Nm³	
		Mercury ( Hg)	0.03 mg/Nm³(for units having capacity of 500MW and above)	
		TPPs (units) installed after 1st January,2003, upto 31st December, 2016*		
		Particulate Matter	50 mg/Nm <sup>3</sup>	
		Sulphur Dioxide (SO <sub>2</sub> )	600 mg/Nm³ (Units Smaller than 500MW capacity units)	
			200 mg/Nm³ (for units having capacity of 500MW and above)	
		Oxides of Nitrogen (NOx)	300 mg/Nm <sup>3</sup>	
		Mercury ( Hg)	$0.03\mathrm{mg/Nm^3}$	
		TPPs (units) to be installed from 1st January, 2017**		
		Particulate Matter	$30 \text{ mg/Nm}^3$	
		Sulphur Dioxide (SO <sub>2</sub> )	100 mg/Nm <sup>3</sup>	
		Oxides of Nitrogen (NOx)	100 mg/Nm <sup>3</sup>	
		Mercury (Hg)	0.03 mg/Nm <sup>3</sup>	

 $<sup>{}^{*}</sup>$ TPPs (units) shall meet the limits within two years from date of publication of this notification.

[F. No. Q-15017/40/2007-CPW]

Dr. RASHID HASAN, Advisor

<sup>\*\*</sup>Includes all the TPPs (units) which have been accorded environmental clearance and are under construction".

Note: - The principal rules were published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section (i) vide number S.O. 844(E), dated the 19<sup>th</sup> November, 1986 and subsequently amended vide the following notifications:— S.O. 433(E), dated 18<sup>th</sup> April 1987; G.S.R. 176(E) dated 2<sup>nd</sup> April, 1996; G.S.R. 97(E), dated the

18<sup>th</sup> February, 2009; G.S.R. 149(E), dated the 4<sup>th</sup> March, 2009; G.S.R. 543(E), dated 22<sup>nd</sup> July, 2009; G.S.R. 739(E), dated the 9<sup>th</sup> September, 2010; G.S.R. 809(E), dated, the 4<sup>th</sup> October, 2010, G.S.R. 215(E), dated the 15<sup>th</sup> March, 2011; G.S.R. 221(E), dated the 18<sup>th</sup> March, 2011; G.S.R. 354(E), dated the 2<sup>nd</sup> May, 2011; G.S.R. 424(E), dated the 1<sup>st</sup> June, 2011; G.S.R. 446(E), dated the 13th June, 2011; G.S.R. 152(E), dated the 16th March, 2012; G.S.R. 266(E), dated the 30<sup>th</sup> March, 2012; and G.S.R. 277(E), dated the 31<sup>st</sup> March, 2012; and G.S.R. 820(E), dated the 9<sup>th</sup> November, 2012; G.S.R. 176(E), dated the 18<sup>th</sup> March, 2013; G.S.R. 535(E), dated the 7<sup>th</sup> August, 2013; G.S.R. 771(E), dated the 11<sup>th</sup> December, 2013; G.S.R. 2(E), dated the 2<sup>nd</sup> January, 2014; G.S.R. 229(E), dated the 28<sup>th</sup> March, 2014; G.S.R. 232(E), dated the 31<sup>st</sup> March, 2014; G.S.R. 325(E), dated the 07<sup>th</sup> May, 2014, G.S.R. 612,(E), dated the 25<sup>th</sup> August, 2014 and lastly amended vide notification G.S.R. 789(E), dated 11<sup>th</sup> November, 2014.







No. RITES/PU-BSP/NTPC-LARA-STPP/ 49

Date: 06th March, 2024.

To,

The AXEN (Const.), SEC Railway, Raigarh.

Sub.: - DPR & Detail Engineering and PMC of Coal Transportation System associated Electrical packages for Lara Super Thermal Power Project Stage-I (2X800MW) at Raigarh district of Chhattisgarh State. Regarding re-assembling of de-assembled one number turn out (1 in 12) at KRL east end on 4<sup>th</sup> line alignment.

#### Ref.: -

- (1) LOA No-CS-9548-350-9-CY-LOA-6176 Dated 24.06.2014.
- (2) Approved ESP of Kotarlia yard CE's No. TR/BSP/KRL/YD/1895/2023, ALT-1.
- (3) Your letter no. AXEN/C/RIG/IMP-127 dated 05.02.2024.
- (4) This office letter no. RITES/PU-BSP/NTPC-Lara-STPP/33 dated 19th Feb., 2024.
- (5) This office letter no. RITES/PU-BSP/NTPC-Lara-STPP/48 dated 04th April,2024.

#### Dear Sir.

In connection with the above subject and references, the approval of alteration of ESP of Kotarlia yard has been got approved on dated 22.11.2023. The preparatory works for laying of turnouts were done as per approved ESP in consultation with SECR official at site. Accordingly, two numbers of point were assembled towards bank of Up line near east end LC for laying during NI work.

Now, as per your letter one number of assembled point was dismantled for cutting of earth work, and will be reassembled by you before NI activity of NTPC Lara. During discussion held with Dy. CSTE (Project) & Sr. DOM, the readiness for PNI/NI work is communicated by RITES from 12.04.2024 vide letter ref. at sr. no. (5) above (copy attached). Since, agency deployed by SECR Con. is unable to re-assembled said point and crossing, our agency is deployed immediately to re-assemble both the point and crossing towards up line side, to match out the target submitted of readiness. The same is also communicated over phone to you on dated 04.04.2024 & on 06.04.2024. Therefore, we are going to start the work immediately your kind cooperation in this regard is solicited.

Thanking You.

Yours Sincerely,

(Nilesh Shrivastava) 6 04 2024 Jt. General Manager (C)

Encl.: As above letter.

Copy to:

1) DRM, SECR, BSP for information please.

- 2) ADRM -1, SECR, BSP for information please.
- 3) Sr. DEN (E), SECR, BSP for information please.
- 4) Sr. DOM (Co), SECR, BSP for information please.
- 5) Dy. CSTE (P), RIG @ BSP, SECR, BSP for information please.
- 6) Dy. CE/C/BRJN @ BSP, SECR, BSP for information please.
- 7) Regional Head / Group General Manager (P), RITES, RPO-BBS for inf. pl.
- 8) General Manager (Civil), RITES, PU-BSP for inf. pl.
- 9) AGM (RSW), NTPC Lara for inf. pl.
- 10) M/s Rajesh Kumar for taking up of the work to meet out the readiness target.

40/424, रजत श्री हाजस, प्रथम तल, नियर एस.बी.आई., कोतरा रोड, रायगढ़ (छ.ग.) 496001, टेली : 07762-235800 40/424, Rajat Shree House, 1st Floor, Near SBI, Kotra Road, Raigarh (C.G.) 496001, Tel.: 07762-235800 पंजीकृत कार्यालय : स्कोप मीनार, लक्ष्मी नगर, दिल्ली - 110092 (भारत), Registered Office : SCOPE Minar, Laxml Nagar, Delhi - 110092 (INDIA) CIN No.: L74899DL 1974GOI007227



#### SOUTH EAST CENTRAL RAILWAY



Date: 05/2/24

Office of the Dy.Chief Engineer/Con S.E.C. Railway, Raigarh

No. AXEN/C/RIG/IMP-127/

To

Dy. General Manger (Civil) RITES Limited, NTPC-Lara Raigarh, Chhattisgarh NTPC, Lara.

Sub:- Regarding shifting of assembled One set turnout (1in12) at KRL east on 4th line alignment.

With reference to above subject turnout has been assembled at KRL east end near LC-283 on 4th line alignment, which is hampering earth cutting and linking work in connection with KRL yard NI and JMG-KRL 4th line work. So the above said one set turnout (1in 12) is being dissembled and will be reassembled after linking of 4th line at same location.

This is for your information and necessary action please.

AXEN/C/RIG S.E.C. Railway

PY to: DY. CEICIBRON @ BSP For Kind Information Please.





राइटस लिमिटेड (भारत सरकार का प्रतिष्ठान) RITES LIMITED (Schedule 'A' Enterprise of Govt. of India) UNDER MINISTRY OF RAILWAY

No. RITES/PU-BSP/NTPC-LARA-STPP/ 33

Date: 19th Feb., 2024.

To,

The AXEN (Const.),

Raigarh, SEC Railway.

Sub.:- DPR & Detail Engineering and PMC of Coal Transportation System associated Electrical packages for Lara Super Thermal Power Project Stage-I (2X800MW) at Raigarh district of Chhattisgarh State. Regarding shifting of assembled one number turn out (1 in 12) at KRL east end on 4th line alignment.

Ref.: -

(1) LOA No-CS-9548-350-9-CY-LOA-6176 Dated 24.06.2014.

(2) Approved ESP of Kotarlia yard CE's No. TR/BSP/KRL/YD/1895/2023, ALT-1.

(3) Your letter no. AXEN/C/RIG/IMP-127 dated 05.02.2024.

#### Dear Sir.

In connection with the above subject and references, the approval of alteration of ESP of Kotarlia yard has been got approved on dated 22.11.2023. The preparatory works for laying of turnouts were done as per approved ESP in consultation with SECR official at site. Accordingly, two numbers of point were assembled towards bank of Up line near east end LC for laying during NI work. The NI works are planned very soon and readiness of said NI program is already communicated to all BO's of SECR along with photographs of all activities.

Now, as per your letter one number of assembled point is being dismantled for cutting of earth work, which is affecting our readiness schedule and may delay the NI program. It is therefore, requested to re-assemble the above point at the earliest at same location suitably to fit for the movement of T-28 track machine. Also, it is requested linking activities may not be performed in this location so as to allow moving of crawlers of T-28 track machine not only for this turnouts but also for another turnout assembled besides this turn out.

An early action in this regard is requested. Thanking You.

Yours Singerely

Jt. General Manager (C)

Encl.: Nil. Copy to:

1) ADRM -1, SECR, BSP for information please.

2) Sr. DEN (E), SECR, BSP for information please. 3) Sr. DOM (Co), SECR, BSP for information please.

4) Dy CSTE (P), RIG @ BSP, SECR, BSP for information please.

5) Dy. CE/C/BRJN @ BSP, SECR, BSP for information please.

6) Regional Head / Group General Manager (P), RITES, RPO-BBS for inf. pl.

7) General Manager (Civil), RITES, PU-BSP for inf. pl.

8) AGM (RSW), NTPC Lara for inf. pl.



#### SOUTH EAST CENTRAL RAILWAY



Office of the Dy.Chief Engineer/Con S.E.C. Railway, Raigarh

Date: 05/2/24

No. AXEN/C/RIG/IMP-127/

To

Dy. General Manger (Civil) RITES Limited, NTPC-Lara Raigarh, Chhattisgarh NTPC, Lara.

Sub:- Regarding shifting of assembled One set turnout (1in12) at KRL east on 4th line alignment.

With reference to above subject turnout has been assembled at KRL east end near LC-283 on 4th line alignment, which is hampering earth cutting and linking work in connection with KRL yard NI and JMG-KRL 4th line work. So the above said one set turnout (1in 12) is being dissembled and will be reassembled after linking of 4th line at same location.

This is for your information and necessary action please.

AXEN/C/RIG S.E.C. Railway

y to: Dy. celcleRON@BSP for Kind Information please.







Yours Singerely

Jt. General Manager (C)

(Nilesh Shrivastava) 4 04 2024

No. RITES/PU-BSP/NTPC-LARA-STPP/ 48

Date: 04th April, 2024.

To,

The Dy. CSTE (Projects),

Raigarh @ BSP

South East Central Railway, Bilaspur.

Sub: - DPR & Detail Engineering and PMC of Coal Transportation System associated Electrical packages for Lara Super Thermal Power Project Stage-I (2X800MW) at Raigarh district of Chhattisgarh State. Regarding re-submission joint Pre-NI/NI programme for connectivity of NTPC Talaipali Mines line to DN grid of KRL station along with consent of readiness for NI work.

#### Ref: -

- 1) LOA No-CS-9548-350-9-CY-LOA-6176 Dated 24.06.2014.
- 2) Approved ESP of Kotarlia yard CE's No. TR/BSP/KRL/YD/1895/2023, ALT-1.
- 3) Part ESP No. CE's/TR BSP/KRL/YD/1936/2024, (Part Plan).
- 4) Rly letter P/Optg/KRL/NTPC Lara/PNI-NI/24/02 dated 02.04.2024.
- 5) Your office letter No. S&T/Project/RIG/ dated 03.04.2024.

#### Dear Sir,

In connection with above subject and references, please find attached herewith signed copy of Pre NI – NI program by RITES Engineering and TRD section of Kotarlia station yard for further necessary action at your end. Also, we have submitted our readiness for taking up of the NI work since long back. Now, one number of our assembled point and crossing set near up line bank towards east end of KRL yard was dismantled by SECR construction on dated 05.02.2024 with due intimation that they will reassembled it.

Again, RITES/NTPC agency is instructed for reassembling of the above dismantled point and crossing at the earliest.

Now, we are submitting our readiness for taking up of the PNI/NI work from 12.04.2024 onwards.

Thanking You.

Encl.: Signed copy of PNI – NI program.

Copy to:

1) CE (Track Machine), SECR, BSP for inf. and requested necessary action for providing T-28 track machine along with Unimat tamping machine during PNI/NI period as approved by SECR from 12.04.2024 please.

2) Sr. DOM, SECR, BSP for inf. pl.

- 3) Sr. DEN (E), SECR, BSP for inf. pl.
- 4) Sr. DEE (TRD), SECR, BSP for inf. pl.
- 5) Regional Head / Group General Manager (P), RITES, RPO-BBS for inf. pl.
- 6) General Manager (Civil), RITES, PU-BSP for inf. pl.
- 7) AGM (RSW), NTPC Lara for inf. pl.

40/424, रजत श्री हाऊस, प्रथम तल, नियर एस.बी.आई., कोतरा रोड, रायगढ (छ.ग.) 496001, टेली : 07762-235800 40/424, Rajat Shree House, 1st Floor, Near SBI, Kotra Road, Raigarh (C.G.) 496001, Tel. : 07762-235800

पंजीकृत कार्यालय : स्कॉप मीनार, लक्ष्मी नगर, दिल्ली - 110092 (भारत), Registered Office : SCOPE Minar, Laxmi Nagar, Delhi - 110092 (INDIA) CIN No. : L74899DL1974GOI007227



#### भारत सरकार नागर विमानन मंत्रालय

रेल संरक्षा आयोग, दक्षिण-पूर्व परिषंडल 14, स्ट्रैण्ड रोड (12 तल), कोलकाता-700 001 दूरभाष: 2248 4858 (बी एस एन एल) 44604(एस ई आर), 27062 (ई आर) फैक्स 22484858 (बी एस एन एल) 42221 (एस ई आर)

HOUI/NO CRS/SECR/BSP/1348



GOVERNMENT OF INDIA

MINISTRY OF CIVIL AVIATION

COMMISSION OF RAILWAY SAFETY IS E CIRCLE

14 STRAND ROAD (12TH FLOOR), KOLKATA 1700 (90)

PHONE 2248 4858 (BSNL), 44604 (SER), 27062 (ER)

FAX 22484858 (BSNL), 42221 (SER)

दिनांक / Date 09.10 2019

General Manager South East Central Railway, Bilaspur

विषय: Condonation to the infringement of gradient of 1 in 283.846, which is steeper than 1 in 400 between Ch:511.26 and Ch:940.72 on the proposed connectivity to NTPC Lara siding from Kotarlia station yard (West end) of Bilaspur division of South East Central Railway.

संदर्भ: आवेदन संख्या SECR/HQ/Engg/TC-5/CRS Condonation/KRL/7592, दिनांक 10.09.19.

Sanction is hereby accorded for condonation to the infringement of gradient of 1 in 283.846, which is steeper than 1 in 400 between Ch:511.26 and Ch:940.72 on the proposed connectivity to NTPC Lara siding from Kotarlia station yard (West end) of Bilaspur division of South East Central Railway, subject to the following stipulations:

- 1. The following points shall be incorporated in SWR and being displayed in front of SM:
  - a) No load should be stabled on main line without a live engine attached.
  - b) Stabling of vehicles on non-isolated line of the yard is not permitted without live engine attached or proper securing of vehicles in accordance with the GR 5.23 and SRs.
  - c) If any running line is blocked by a train, the line must be isolated by setting the concerned point against that line.
  - d) During attachment and detachment of Locomotive, wagon of the train shall be properly secured by providing sufficient no. of skids and ensuring no train in Block section.
  - e) Train engine (if any) of passenger train occupied by passengers should not be detached under any circumstances.
  - f) No shunting shall be allowed at Raigarh end of the station unless sufficient number of brakes are put on and all precautions are taken to prevent vehicles getting out of control and a live locomotive is attached towards the falling side of the gradient as specified in para 5.20 of G&SR.
  - g) Shunting shall be supervised by person as specified in para 5.13 & 5.14 of G&SR.

क्किएम



## दक्षिण पूर्व मध्य रेलवे SOUTH EAST CENTRAL RAILWAY



Office of the

कार्यालय

मुख्य संकेत एवं दूरसंचार इंजीनियर / परियोजना बिलासपुर छत्तीसगढ ४९५००४ Chief Signal & Telecom Engineer/Project

Bilaspur, Chattisgarh 495004

SECR/S&T/DRG/CKR/01

Date: 24.05.2024

#### Jt. GM (C) RITES Ltd., Raigarh

**Sub:** Checking of initial paper print ESP of **CHAKRADHARNAGAR** station in between RIG- KRL.

**Ref:** i) Sr. DSTE/CO/BSP's letter no. SY/CKR/24/ Dated: 25.04.2023.

- ii) Dy.COM/P&S/BSP's letter no. OPTG/SIP-CKR/04-13 Dated: 24.04.2023.
- iii) DSTE/P/RIG's letter no. S&T/PROJ/BSP/CKR/SIP/COMMENT/Dated: 02.05.2024.
  - iv) Sr. DOM/BSP's letter no. P/AC-TC/CKR/24/11 Dated: 13.05.2024.
  - v) Dy. CSTE/Project/D&D/BSP's letter no. SECR/S&T/DRG/CKR/01 Dated:22.05.2024

With reference to above, checking of approved ESP of **CHAKRADHARNAGAR** station has been done by this office and following observations are stipulated in ESP/SIP.

- 1. Orientation of point at CH: 818.15m may be examined again.
- 2. End Goomties are to be shown in ESP if Distributed EI is provided.
- 3. New X-ing station should be renamed as Chakradharnagar at all places in the revised ESP.
- 4. 'CKR' code already used as a CHIKODI ROAD in South Western Railway/SWR, it is to be reviewed.
- 5. Observation of Dy. COM(P&S)/BSP in regard to correction in ESP may be looked into Vide letter no. OPTG/SIP-CKR/04-13 Dt: 24.04.2023.
- 6. Distance in kilometer from mines and Lara plant VIA Fly-over & New X-ing station needs to be shown in ESP.
- 7. Gradient have been shown with chainages but reference line is not mentioned e.g. at CH: 874.0m (FCSB) & CH: 594.0m (FCSB) in red & magenta color towards Raigarh End in ESP.
- 8. Nomenclature of Cabin near L.C. No 287/C needs to be shown in ESP.
- 9. Sectional speed is mentioned 110KMPH vide sr. no. (1) of note of ESP may be updated in view of memorandum no. 14 of date 15.03.2024.
- 10. There is not dismantling involved, therefore, sr. no. (3) of the note of ESP may be reexamined.
- 11. Sr. no. (1) of the note of ESP may be rechecked in regard to mentioning of 1 in 8.5 Turnout.

ESP is to be modified as per above observation and approved copy of altered ESP is to be handed over to this office. Compliance of observations may be sent for finalization of SIP.

DSTE/Project/RIG @BSP

#### Copy to:

- 1. CSTE/Project-II/BSP for info please
- 2. Dy. CSTE/Project/Sdg/BSP for info please
- 3. AGM (RSW), NTPC Lara for info & n/a please.



# दक्षिण पूर्व मध्य रेलवे बिलासपुर (छ. ग.)



आशीष कुमार मीना मंडल संकेत एवं दूरसंचार/ ईंजीनियर/ रायगढ़

फोन - 66202, 66204

प्र.क.- DSTE/RIG/04\_24/

ादनाक - 12.04.2024

To,
JGM/RITES,
Raigarh, C.G.

Subject: Clearance for Earth cutting work at Bridge 122,123 & 125.

S&T cable clearance issued against proposed work as per below provided plan. S&T cables are laid in area shown by dotted lines. The cable route plan is given as available at site & cross-trenching should be done before execution of work for physical verification of cables.

It is imperative that the your team strictly follows the approved plan and no work shall be carried out in any other areas apart from the area for which we are providing clearance. In case of any cable cut in any other areas while execution of the work RITES will held responsible.

This is for your kind information please.

Enclosed: Cable Route Plan

(आशीष कुमार मीना) मं. सं. एवं दूर. इंजी./रायगढ़

<u> </u>	
BRIDGE NO. 125	7
581/8A -> 20.60M	
581110A -> 26.50M	
-	cable Rouf Plan
BRIDGENO. 123	
582/24A -> 12:00M	8
582/26A -> 10.00M	
BRIDGENO. 122	
583/10A -> 3.00 M	-)
583/12A -> 12.50M	11.
5 83/124	*** 35
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(आशीष कुमार मीना) मं. सं. एवं दूर. इंजी./रायगढ़





राइट्स लिमिटेड (भारत सरकार का प्रतिष्ठान) RITES LIMITED (Schedule 'A' Enterprise of Govt. of India) UNDER MINISTRY OF RAILWAY

No.: RITES/RIG/Stn.Bldg/2024/45

Date: 20.03.24

To, Sr.DSTE (Coordination) SECR-Bilaspur C.G.-495001

Sub: Construction of S&T Building Cabin at Chakradhar Nagar with 02 nos. of end goomty and platform amenities at Kotarlia station of NTPC Railway siding (2×800MW) in Raigarh District, Chhatisgarh-Thereof reg. S&T cable clearance.

#### Ref:

- 1. RITES Letter no. 39 dated 27.02.2024
- Joint Survey Report dated 04.03.2024 at new X-ing station at Km 583/086 by RITES, SSE (Sig) & SSE(Telecom)

Dear Sir.

This letter is in connection to the above subject. The subject work is already awarded to agency and work has been started at site. Before start of the work, joint cable survey was conducted in presence of SSE(Sig) & SSE(Telecom) and the presence of cables were only identified at the toe of the up line formation, and not on the proposed building area. Prior to excavation in the stipulated area, telephonic conversation was held with the SSE(Sig) regarding take up of the work, and was assured from his end that the area is free of any live cables.

But during excavation for foundation work of New Station Building work near Mast No.583/3, S&T cable was detected and damaged inadvertently. Immediate action was taken for restoration with help of concerned authority, SSE( Sig)/Raigarh and damaged cable restored very shortly and also informed that agency is ready to bear the penalty, if any.

Even after willing to bear the penalty, FIR was lodged by SECR/Bilaspur, regarding the above matter. It is therefore requested that necessary action may be taken at your end to relocate the cables falling in the alignment for smooth execution and timely completion of work. There is immense pressure from NTPC regarding completion of work, hence earliest action is expected from your end.

Thanking you,

Encl: -as above.

Yours Faithfully

(Manish Kumar) JGM (Civil)/RIG

#### Copy to:

- 1. Sr. DEN/ (East), Bilaspur, for kind information please
- 2. ADSTE (Construction), Raigarh, for kind information please
- 3. ADSTE (Open Line), Raigarh, for kind information please
- 4. GM(C), PU-Bilaspur, for kind information please
- 5. SSE (Signals), SECR, Raigarh, for information.
- 6. SSE (Telecom), SECR, Raigarh, for information.

FRITES

राइदस निषिटेड (भारत शरकार का प्रतिकार) RITES LIMITED THOSE R MINISTRY OF RAILWAY

No RITES/SIT OFFICE/RIG/NTPC-LARA/2024/39 Date: 27.02.2024

ADSTE(Open Line), Raigarh, CG-49 (00)1

Execution of Earthwork in formation, Construction of Minor Bridges, Blanketing, P Way linking works including supply of Track ballast in connection with construction of Railway Infrastructure at Kotarlia Station, Proposed CKRU, CKRD lines excluding Proposed CKR Station of NTPC Railway Siding, in Raigarh District, Chhattisgarh State -Thereof reg. S&T cable clearance in Railway Yard of Chakradharnagar UP and Down Line.

Ref.: Sr.Divl Engineer/ (East), Bilaspur's letter no. SECR/BSP/Engg/LL/NTPC-Lara-Kotarliya-New CKR/115 dated 06.04.2022

Dear Sir.

This letter is in reference to above subject matter. Agency has been mobilized with both manpower and machinery for taking up the CKRU-CKRD line work which is under NTPC-Lara Project. However could not take up the work due to falling S&T cables within the Railway yard from Chainage (-)328.3 m to 1218 m UP Line (corresponding railway CH 583 441 Km to 532.00 Km) and from (-) 326.8 m to 1224 m (corresponding railway CH 583 441 Km to 581.7 Km) DN Line which requires attention.

To facilitate the smooth progress of work, we kindly request your assistance in clearing the S&T cables at the earliest convenience. If necessary, a site visit at your convenience may be conducted to provide additional details for early clearance of S&T cables from NTPC formation.

It is therefore requested to do the needful in clearing the existing S&T cables from NTPC formation (CKFU-CKRD Line) to ensure timely completion of the project

Thanking You

Tekan | se | signal and patel | tele coM
Yours Faithfully

22/02/2024 (Manish Kumar) JGM (Civil)/Raigarh

Copy to:

1. Sr DivI Engineer/ (East), Bilaspur, for kind information please

2. AU N SECR, Brajrajnagar, for kind information please

3. AD TE/Construction, Raigarh, for kind information please

3 AD TE/Construction, Raigarh, for kind information please
4 GV Capu-Bilaspur, for kind information please
Tolot survey is required for further
work. Plan for Joint survey. SSE I sig | Raigarh.
and SSE | Telecond | Printing have also nominated for
this survey.

ANA

WALL



#### Dt - 04.03.2024

#### Telecom note-

- (1) Shifting of telecom cable at DN line side before cutting earth is required between above km no. which include-
  - 3X 6 Quad cable, 2X OFC cable and all Emergency communication socket (03 nos).
  - b. Trenching route and position for EC socket is decided in presence of S nT person.
  - c. Jointing of 6 Quad cable with proper jointing kit and Splicing of OFC cable with proper joint enclose is required.
  - EC socket also need proper jointing with main cable after shifting.
- (2) Filling of earth and excavation of earth at bridge no 122 and 123 may allowed as cable route is above the bridge but before excavation at bridge no 124 prior information to this office

(1) All tilecom cubie are fresent throughout DN Line. So cable shifting signal notes. is organized.

- (1) In UP line side from km 581/26-28 to km 583/15-17 throughout signaling cables are present, that are laid from IB goomty to S-29, UP IB INN distant, UP IB distant, DN inner distant signal,, up line track & axle counter location and to lx-287 gate goomty.
- (2) In DN line side cables various cables are laid between km 580/2 to 583/26.
- (3) 4 nos. location box are also on way of lines all are need to shifting.
- (4) All signaling cable are need to shifting before the earth cutting work.

Before any earth cutting work all cables are need to shift.

RITES/RIG



# दक्षिण पूर्व मध्य रेलवे SOUTH EAST CENTRAL RAILWAY



Office of the Dy. Chief Engineer/(Con) S.E.C. Railway, Raigarh Date: 06.04.2024

No. AXEN/C/RIG/IMP-127/1777

Dy. General Manager (Civil) RITES Limited, NTPC-Lara Raigarh, Chhattisgarh

Sub :- Regarding assembly one set turnout (1in12) at Kotarliya yard East end.

1) AXEN/C/RIG/IMP-127/ Dtd:-05.02.2024

- 2) RITES/PU-BSP/NTPC-LARA-STPP/33 Dtd:- 19.02.2024
- 3) RITES/PU-BSP/NTPC-LARA-STPP/48 Dtd:- 04.04.2024
- 4) RITES/PU-BSP/NTPC-LARA-STPP/49 Dtd:- 06.04.2024

In connection with above subject and references you are informed that turnout re-assembly will be done at Kotarliya east end on 4th line alingment but track linking work for 4th line is balance on this patch which will be done within 7 days by SECR construction thereafter turnout re-assembly can be done above it. Otherwise if your are willing to re-assemble turnout immediately kindly link the track in above said patch and re-assembly of turnout can be done over it.

This is for your information and necessary action please.

Asstt. Executive Engineer/Con

South East Central Rail way Raigarh, Chhattisgarh

सहा.कार्यपालन अभियंता (निर्माण) Assistant Executive Engineer (Con.) Copy to:- (i) CE/CON-I/BSP for kind information please.

(ii) Dy. CE/CON/BRJN@BSP for kind information please.

द.पू.म.रेल्वे /रायगढ़ (iii) JGM/RITES Limited, NTPC Lara for kind information and necess & EactRail May Raigard No.F.18/4/2020-PPD
Government of India
Ministry of Finance
Department of Expenditure
Procurement Policy Division

Room No.512, Lok Nayak Bhavan, New Delhi dated the 19<sup>th</sup> February, 2020.

#### OFFICE MEMORANDUM

Subject: Force Majeure Clause (FMC)

Attention is invited to para 9.7.7 of the "Manual for Procurement of Goods, 2017" issued by this Department, which is reproduced as under:

A Force Majeure (FM) means extraordinary events or circumstance beyond human control such as an event described as an act of God (like anatural calamity) or events such as a war, strike, riots, crimes (but not including negligence or wrong-doing, predictable/ seasonal rain and any other events specifically excluded in the clause). An FM clause in the contract frees both parties from contractual liability or obligation when prevented by such events from fulfilling their obligations under the contract. An FM clause does not excuse a party's non-performance entirely, but only suspends it for the duration of the FM. The firm has to give notice of FM as soon as it occurs and it cannot be claimed ex-post facto. There may be a FM situation affecting the purchase organisation only. In such a situation, the purchase organisation is to communicate with the supplier along similar lines as above for further necessary action. If the performance in whole or in part or any obligation under this contract is prevented or delayed by any reason of FM for a period exceeding 90 (Ninety) days, either party may at its option terminate the contract without any financial repercussion on either side.

2. A doubt has arisen if the disruption of the supply chains due to spread of corona virus in China or any other country will be covered in the Force Majeure Clause (FMC). In this regard it is clarified that it should be considered as a case of natural calamity and FMC may be invoked, wherever considered appropriate, following the due procedure as above.

(Kotluru Narayana Reddy)
Deputy Secretary to the Govt. of India

Tel.No.24621305

Email: kn.reddy@gov.in

To,

Secretaries of all Central Government Ministries/ Departments

# No. 40-3/2020-DM-I(A) Government of India Ministry of Home Affairs

North Block, New Delhi-110001 Dated 24<sup>th</sup> March, 2020

#### ORDER

Whereas, the National Disaster Management Authority (NDMA), is satisfied that the country is threatened with the spread of COVID-19 epidemic, which has already been declared as a pandemic by the World Health Organisation, and has considered it necessary to take effective measures to prevent its spread across the country and that there is a need for consistency in the application and implementation of various measures across the country while ensuring maintenance of essential services and supplies, including health infrastructure;

Whereas in exercise of the powers under section 6(2)(i) of the Disaster Management Act, 2005, the National Disaster Management Authority (NDMA), has issued an Order no. 1-29/2020-PP (Pt.II) dated 24.03.2020 (Copy enclosed) directing the Ministries/ Departments of Government of India, State/Union Territory Governments and State/ Union Territory Authorities to take effective measures so as to prevent the spread of COVID-19 in the country;

Whereas under directions of the aforesaid Order of NDMA, and in exercise of the powers, conferred under Section 10(2)(I) of the Disaster Management Act, the undersigned, in his capacity as Chairperson, National Executive Committee, hereby issues guidelines, as per the Annexure, to Ministries/ Departments of Government of India, State/Union Territory Governments and State/ Union Territory Authorities with the directions for their strict implementation. This Order shall remain in force, in all parts of the country for a period of 21 days with effect from 25.03.2020.

Home Secretary 12020

To

- 1. The Secretaries of Ministries/ Departments of Government of India
- 2. The Chief Secretaries/Administrators of States/Union Territories (As per list attached)

#### Copy to:

- i. All members of the National Executive Committee.
- ii. Member Secretary, National Disaster Management Authority.

## Annexure to Ministry of Home Affairs Order No .40-3/2020-D dated ()24.03.2020

Guidelines on the measures to be taken by Ministries/ Departments of Government of India, State/Union Territory Governments and State/ Union Territory Authorities for containment of COVID-19 Epidemic in the Country.

 Offices of the Government of India, its Autonomous/ Subordinate Offices and Public Corporations shall remain closed.

Exceptions:

Defence, central armed police forces, treasury, public utilities (including petroleum, CNG, LPG, PNG), disaster management, power generation and transmission units, post offices, National Informatics Centre, Early Warning Agencies

2. Offices of the State/ Union Territory Governments, their Autonomous Bodies, Corporations, etc. shall remain closed.

Exceptions:

- a. Police, home guards, civil defence, fire and emergency services, disaster management, and prisons.
- b. District administration and Treasury
- c. Electricity, water, sanitation
- d. Municipal bodies—Only staff required for essential services like sanitation, personnel related to water supply etc

The above offices (SI. No 1 & 2) should work with minimum number of employees. All other offices may continue to work-from-home only.

- 3. Hospitals and all related medical establishments, including their manufacturing and distribution units, both in public and private sector, such as dispensaries, chemist and medical equipment shops, laboratories, clinics, nursing homes, ambulance etc. will continue to remain functional. The transportation for all medical personnel, nurses, para-medical staff, other hospital support services be permitted.
- 4. Commercial and private establishments shall be closed down. *Exceptions*:
  - a. Shops, including ration shops (under PDS), dealing with food, groceries, fruits and vegetables, dairy and milk booths, meat and fish, animal fodder. However, district authorities may encourage and facilitate home delivery to minimize the movement of individuals outside their homes.
  - b. Banks, insurance offices, and ATMs.
  - c. Print and electronic media
  - d. Telecommunications, internet services, broadcasting and cable services. IT and IT enabled Services only (for essential services) and as far as possible to work from home.
  - e. Delivery of all essential goods including food, pharmaceuticals, medical equipment through E-commerce5



- f. Petrol pumps, LPG, Petroleum and gas retail and storage outlets.
- g. Power generation, transmission and distribution units and services.
- Capital and debt market services as notified by the Securities and Exchange Board of India
- i. Cold storage and warehousing services.
- j. Private security services

All other establishments may work-from-home only.

- 5. Industrial Establishments will remain closed. Exceptions:
  - a. Manufacturing units of essential commodities.
  - b. Production units, which require continuous process, after obtaining required permission from the State Government
- 6. All transport services air, rail, roadways will remain suspended.

Exceptions:

- a. Transportation for essential goods only.
- b. Fire, law and order and emergency services.
- 7. Hospitality Services to remain suspended

Exceptions:

- a. Hotels, homestays, lodges and motels, which are accommodating tourists and persons stranded due to lockdown, medical and emergency staff, air and sea crew.
- b. Establishments used/ earmarked for quarantine facilities.
- 8. All educational, training, research, coaching institutions etc. shall remain closed.
- All places of worship shall be closed for public. No religious congregations will be permitted, without any exception.
- 10. All social/ political/ sports/ entertainment/ academic/ cultural/ religious functions / gatherings shall be barred.
- 11. In case of funerals, congregation of not more than twenty persons will be permitted.
- 12. All persons who have arrived into India after 15.02.2020, and all such persons who have been directed by health care personnel to remain under strict home/institutional quarantine for a period as decided by local Health Authorities, failing which they will be liable to legal action under Sec. 188 of the IPC.
- 13. Wherever exceptions to above containment measures have been allowed, the organisations/employers must ensure necessary precautions against COVID-19

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virus, as well as social distance measures, as advised by the Health Department from time to time.

- 14. In order to implement these containment measures, the District Magistrate will deploy Executive Magistrates as Incident Commanders in the respective local jurisdictions. The Incident Commander will be responsible for the overall implementation of these measures in their respective jurisdictions. All other line department officials in the specified area will work under the directions of such incident commander. The Incident Commander will issue passes for enabling essential movements as explained.
- 15. All enforcing authorities to note that these strict restrictions fundamentally relate to movement of people, but not to that of essential goods.
- 16. The Incident Commanders will in particular ensure that all efforts for mobilisation of resources, workers and material for augmentation and expansion of hospital infrastructure shall continue without any hindrance.
- 17. Any person violating these containment measures will be liable to be proceeded against as per the provisions of Section 51 to 60 of the Disaster Management Act, 2005, besides legal action under Sec. 188 of the IPC (as per Appendix).

18. The above containment measures will remain in force, in all parts of the country, for a period of 21 days with effect from 25.03.2020.

Union Home Secretary

# न्यायालय जिला दण्डाधिकारी, जिला खरगोन म.प्र.

क्रमांक/ 2857

/सां.ले./2020

खरगोन, दिनांक 24/03/2020

# :: संशोधित आदेश ::

( दण्ड प्रक्रिया संहिता 1973 की धारा-144 के अन्तर्गत )

{ पारित दिनांक 24/03/2020 }

विश्व स्वास्थ्य संगठन (WHO) द्वारा कोरोना वायरस रोग के फैलने की गंभीर स्थिति को देखते हुए महामारी (Pandemic) घोषित किया गया है। मध्यप्रदेश शासन, लोक स्वास्थ्य एवं परिवार कल्याण विभाग के पत्र क्रमांक एफ 10-02/2020/सत्रह/मेडी-2 दिनांक 07 मार्च 2020 के परिपेक्ष्य में मध्यप्रदेश पब्लिक हेल्थ एक्ट 1949 अन्तर्गत् नोवेल कोरोना वायरस बीमारी अधिसूचित की जा चुकी है। मुख्य चिकित्सा एवं स्वास्थ्य अधिकारी खरगोन ने अपने प्रतिवेदन में जिले को लोक हित में लॉक डाउन करने का अनुरोध किया है। मध्यप्रदेश शासन द्वारा जारी निर्देश एवं मध्यप्रदेश पब्लिक हेल्थ एक्ट 1949 के उपबंध के परिपेक्ष्य में नोवल कोरोना वायरस के संक्रमण से स्वास्थ्य एवं जीवन की सुरक्षा के खतरे की उत्पन्न स्थिति एवं इन परिस्थितियों को दृष्टिगत रखते हुए जन सामान्य के स्वास्थ्य की सुरक्षा एवं लोक शांति बनाए रखने के लिए खरगोन जिले की सम्पूर्ण राजस्व सीमा क्षेत्र में, मैं गोपाल चन्द्र डाड, जिला दण्डाधिकारी, जिला खरगोन म.प्र. दण्ड प्रक्रिया संहिता 1973 की धारा 144 के अंतर्गत निम्नानुसार प्रतिबंधात्मक आदेश जारी करता हूँ:-

- 1. जिले में तत्काल प्रभाव से दिनांक 31/03/2020 के रात्रि 12 बजे तक टोटल लॉक डाउन घोषित किया जाता है, टोटल लॉक में किसी भी व्यक्ति को अपने घर से बाहर निकलने के अनुमति नहीं होगी।
- 2. जिले की सभी सीमाएं सील की जाती है, किसी भी माध्यम सड़क एवं रेल से जिले की सीमा में बाहरी लोगों का आगमन प्रतिबंधित किया जाता है। खरगोन जिले की सीमा से लगी महाराष्ट्र की सीमा से आने वाले प्रत्येक व्यक्ति की जानकारी समीपस्थ स्वास्थ्य केन्द्र पर देना एवं उनकी स्क्रीनिंग की जाना अनिवार्य होगा।
- 3. सम्पूर्ण जिले में म.प्र. व अन्य राज्यों के समस्त सार्वजनिक यात्री वाहनों तथा रोडवेज, लोक परिवहन सेवा, संविदा वाहन, प्रक्रम वाहन, टेक्सी, कैब, मेक्सी कैब तथा ऑटो रिक्शा आदि जिले से बाहर जाने एवं अंदर आने तथा जिले के भीतर संचालन को प्रतिबंधित किया जाता है।
- 4. जिले के निवासी यदि महत्वपुर्ण कार्य से बाहर गये हुए हैं उनके द्वारा प्रमाण प्रस्तुत करने पर स्वयं के वाहन से अपने निवास स्थान आने-जाने की अनुमित रहेगी।
- 5. जिले के समस्त राज्य शासन एवं केन्द्र शासन के शासकीय, अर्द्धशासकीय, अशासकीय कार्यालय बंद रहेंगे। अत्यावश्यक सेवा वाले विभाग यथा राजस्व, स्वास्थ्य, पुलिस, विद्युत, दूर संचार, नगरपालिका, पंचायत, कार्यालयों के लेखा शाखा (भुगतान, वेतन, मानदेय हेतु) इससे मुक्त रहेंगे।
- 6. दवा दुकानें, हॉस्पिटल तथा पेट्रोल पम्प को छोड़कर समस्त व्यावसायिक प्रतिष्ठान बंद रहेंगे।
- 7. समस्त लोक सेवा केन्द्र बंद रहेंगे।
- 8. एटीएम, एटीएम गार्ड, एटीएम में केश लोडिंग किये जाने वाले कर्मचारीगण इससे मुक्त रहेंगे, परन्तु इन्हें लगातार सेनेटाईज किया जाये।
- 9. समस्त धार्मिक स्थल में आमजन का प्रवेश प्रतिबंधित रहेगा। सामूहिक आरती, पूजा, तकरीर, लंगर, हवन, प्रवचन, प्रार्थना, सामूहिक भोज, भंडारे प्रतिबंधित रहेंगे। केवल इनके पूजारी, मौलवी, पादरी आदि को पूजा-अर्चना की छूट रहेगी।
- 10. आमजन के लिए थोक सब्जी मंडी से सब्जी एवं फल क्रय करना प्रतिबंधित रहेगा। थोक सब्जी मंडी से फुटकर सब्जी एवं फल विक्रेता प्रात: 05.00 बजे से 09.00 बजे तक क्रय कर अपने हाथ ठेलों में मोहल्ले में जाकर बेच सकेंगे।
- 11. समस्त निर्माण कार्यों को प्रतिबंधित किया जाता है।

243/2000

खरगोन, दिनांक24/03/2020 प्रतिलिपि-: सचिव, मध्यप्रदेश शासन गृह विभाग मंत्रालय, भोपाल। 1. आयुक्त इंदौर संभाग इंदौर। 2. पुलिस महानिरीक्षक, इंदौर रेंज इंदौर। 3. उप पुलिस महानिरीक्षक निमाड़ रेंज खरगोन। 4. पुलिस अधीक्षक, जिला खरगोन की ओर आवश्यक कार्यवाही हेतु प्रेषित। मुख्य कार्यपालन अधिकारी जिला पंचायत खरगोन की ओर भेजकर लेख है कि आदेश की 6. मुनादी/चस्पादगी जिले की समस्त ग्राम पंचायतों में उचित माध्यम से करावे। मुख्य चिकित्सा एवं स्वास्थ्य अधिकारी खरगोन की ओर आवश्यक कार्यवाही हेतु। 7. अनुविभागीय दण्डाधिकारी, (समस्त).....जिला खरगोन। 8. अनुविभागीय अधिकारी,(पुलिस) (समस्त)......जिला खरगोन । 9. परियोजना अधिकारी, शहरी विकास अभिकरण, खरगोन की ओर सूचनार्थ एवं आवश्यक कार्यवाही हेतु। 10. सहायक संचालक, जनसंपर्क खरगोन की ओर भेजकर लेख है कि समस्त स्थानीय न्यूज पेपर में प्रकाशित 11. कराने हेतु प्रेषित। तहसीलदार/थाना प्रभारी (समस्त).....। 12. मुख्य नगरपालिका अधिकारी, (समस्त).....। 13. प्रभारी अधिकारी पुलिस कंट्रोल रूम खरगोन। 14. सर्व संबंधित ..... 15.

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जिला-खरगोन म.प्र.

# No. F. 18/4/2020-PPD Government of India Ministry of Finance Department of Expenditure Procurement Policy Division

North Block, New Delhi New Delhi dated the 13<sup>th</sup> May, 2020

# OFFICE MEMORANDUM

Subject: Force Majeure Clause (FMC)

Attention is invited to Department of Expenditure's O.M. No. 18/4/2020-PPD dated 19<sup>th</sup> February, 2020 on the invocation of Force Majeure Clause (FMC). Vide the O.M., it was clarified that disruption of supply chains due to spread of Coronavirus will be covered under FMC which could be invoked, wherever considered appropriate, following the due procedure as stated in para 9.7.7. of the Manual on Procurement of Goods.

2. Subsequent to issuance of the above referred O.M., further disruptions have affected transportation, manufacturing and distribution of goods and services in the country. Limitations placed on the movement of men and material as per the guidelines issued by the Ministry of Home Affairs (MHA) under the Disaster Management Act, 2005 (DM Act 2005) and the respective State and UT governments from time to time have severely impaired the fulfilment of contractual obligations for supply of goods, works and consultancy services (including other services), and affected the volume of vehicular traffic.

3. Attention in this regard is invited to para 9.7.7 of the "Manual for Procurement of Goods 2017", Para 6.4.2 of the "Manual for Procurement of Works 2019" and para 8.14.1 of the "Manual for Procurement of Consultancy and other Services 2017" issued by the Department of Expenditure. The above referred three Manuals recognize extraordinary events or circumstances beyond human control leading to delays in or non-fulfilment of contractual obligations. In a situation of such events happening, and after following due procedure, parties to the contract are allowed flexibility to invoke FMC following prescribed due procedure.

4. It is recognised that in view of the restrictions placed on the movement of goods, services and manpower on account of the lockdown situation prevailing overseas and in the country in terms of the guidelines issued by the MHA under the DM Act 2005 and the respective State and UT Governments, it may not be possible for the parties to the contract to fulfil contractual obligations. In respect of Public-private Partnership (PPP) concession contracts, a period of the contract may have become unremunerative. Therefore, after fulfilling due procedure and wherever applicable, parties to the contract may invoke FMC for all construction/works contracts, goods and services contracts and PPP contracts with Government Agencies and in such event, date for completion of contractual obligations which had to be completed on or after 20<sup>th</sup> February 2020 shall stand extended for a period not less than

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three months and not more than six months without imposition of any cost or penalty on the contractor/concessionaire. Concession period in PPP contracts ending on or after 20<sup>th</sup> February 2020 shall be extended by not less than three and not more than six months. The period of extension (between three and six months) may be decided based on the specific circumstances of the case and the period for which performance was affected by the *force majeure* events.

5. It is clarified that invocation of FMC would be held valid only in a situation where the parties to the contract were not in default of the contractual obligations as on 19<sup>th</sup> February, 2020. It is further clarified that invocation of FMC does not absolve all non-performances of a party to the contract, but only in respect of such non-performance as is attributable to a lockdown situation or restrictions imposed under any Act or executive order of the Government/s on account of COVID-19 global pandemic. It may be noted that, subject to above stated, all contractual obligations shall revive on completion of the period.

(Kotluru Narayana Reddy)

Deputy Secretary to the Govt. of India Tel.No.: 24621305

Email: kn.reddy@gov.in

To, Secretaries of all Central Government Ministries/Departments

# अजय भल्ला, भा.प्र.से. AJAY BHALLA, IAS



गृह सचिव Home Secretary भारत सरकार Government of India नॉर्थ ब्लॉक/North Block नई दिल्ली/New Delhi

No. 40-6/2020-DM-I(A)/ Pt (2)

18th April, 2021

Dear Chief Secretaries,

Please refer to my DO letter of even no. dated 16th April 2021, whereby a supply plan of medical oxygen, prepared by the Empowered Group (EG)-II, which is mandated for coordinating medical logistics including oxygen, and required to be followed by all States/ UTs and concerned agencies, was shared.

- 2. Keeping in view the rapid rise in COVID cases and resultant rapid demand for medical Oxygen, particularly in high-burden States of Maharashtra, Madhya Pradesh, Gujarat, Delhi, Uttar Pradesh, Chhattisgarh, Karnataka, Kerala, Tamil Nadu, Haryana, Punjab, Rajasthan, etc., EG-II has reviewed the supply of oxygen for industrial use in order to divert the same to meet the rising demand for medical oxygen in the country and save precious lives. Accordingly, EG II has recommended to prohibit the supply of Oxygen for industrial purposes by manufacturers and suppliers forthwith from 22.04.2021 till further orders, with the exception of nine specified industries. The recommendation of the EG-II has been accepted by the Government and the said decision, alongwith the list of nine exempted industries, have been conveyed by Secretary, Ministry of Health & Family Welfare, vide his DO letter dated 18th April 2021 (copy enclosed).
- 3. I, therefore, urge you to issue necessary instructions to all the authorities concerned in your State to ensure compliance to the decision of EG-II and take necessary measures to prohibit supply of Oxygen for industrial purposes, except those exempted nine industries. It will help in augmenting supply for medical oxygen in the country and in saving precious lives.

With regards.

Yours sincerely,

Encl: As above

Chief Secretaries of All States





# राजेश भूषण, आईएएस RAJESH BHUSHAN, IAS SECRETARY

भारत सरकार स्वास्थ्य एवं परिवार कल्याण विभाग स्वास्थ्य एवं परिवार कल्याण मंत्रालय Government of India Department of Health and Family Welfare Ministry of Health and Family Welfare D.O. No.17/S(HFW)/MO/2021 18th April 2021

The Empowered Group-II (EG-II) headed by Secretary, Department for Promotion of Industry & Internal Trade (DPIIT) is mandated by Govt. of India to manage requisite supplies of medical equipments, drugs including medical oxygen across the country in the wake of resurgence of COVID-19 cases. Medical oxygen is one life saving drug, whose supplies are being regularly monitored and managed by this Group.

- There has been a significant surge in the demand for medical oxygen. Department for Promotion of Industry and Internal Trade (DPIIT) has conveyed that this has already reached about 60 percent of the total daily Oxygen production, and is expected to rise further.
- While every effort is being made to meet the rising demand for medical oxygen, 3. including augmenting daily production and stocks and States/UTs are taking appropriate steps for optimum and rationalized utilisation of available stock of oxygen, the present trend necessitates additional measures. The matter has been deliberated by the DPIIT with all the stakeholders and after due deliberations, it has been considered prudent to restrict industrial usage of oxygen to meet the rising demand for medical oxygen.
- Accordingly, the EG-II has recommended that the supply of Oxygen for industrial 4. purposes by manufacturers and suppliers be prohibited forthwith from 22.04.2021 till further orders. This recommendation has been accepted & the said prohibition on supply would come into effect from 22/04/2021.
- The aforesaid prohibition, however, shall not apply to the supply of oxygen for the industries listed hereunder:
  - Ampoules & Vials i)
  - Pharmaceutical ii)
  - Petroleum refineries iii)
  - Steel plants iv)
  - Nuclear energy facilities V)
  - Oxygen cylinder manufacturers vi)
  - Waste water treatment plants vii)
  - Food & water purification viii)
  - Process industries which require uninterrupted operation of furnaces, ix) processes, etc. as approved by respective State governments
- The industrial units (other than those listed above) which would not be in a position to obtain oxygen are advised to consider alternate measures such as import of Oxygen or setting up their own Air Separator Units (ASU) for generation of Oxygen for their captive requirements. ....contd/-

7.	All Chief	Secretaries	are advised	to ensure	effective	implementation 8	& compliance
of this	Order.						

Yours sincerely

(Rajesh Bhushan)

Chief Secretary /Administrator All States/UTs

Copy to:

Principal Secretary to PM for information

(Rajesh Bhushan)

Copy to:

Cabinet Secretary for information

(Rajesh Bhushan)

Copy to:

Home Secretary with the request to issue appropriate directions to States / UTs to facilitate effective implementation of the above Order.

. (Rajesh Bhushan)



सी.जी.-डी.एल.-अ.-01012022**-**232336 CG-DL-E-01012022-232336

#### असाधारण EXTRAORDINARY

भाग II—खण्ड 3—उप-खण्ड (ii) PART II—Section 3—Sub-section (ii)

#### प्राधिकार से प्रकाशित PUBLISHED BY AUTHORITY

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#### पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय

#### 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;

7703 GI/2021 (1)

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 अविध 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	कम से कम 20	कम से कम 35	कम से कम 50 प्रतिशत
(वार्षिक राख की प्रतिशतता)	प्रतिशत	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 अनुमित दी जा सकती है। राख के तालाब या डाइकों का तकनीकी विनिर्देश, 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।

- प्रत्येक कोयला या लिग्नाईट आधारित तापीय विद्युत संयंत्र (जिसके अंतर्गत कैप्टिव या सह उत्पादन केन्द्र भी है या (9)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 .-

ऐसे सभी अभिकरण (सरकारी, अर्द्धसरकारी और निजी), जो सड़क बिछाने, सड़क और फ्लाई ओवर के किनारों, (1) 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।

- उक्त कार्यकलापों में राख का उपयोग भारतीय मानक ब्यूरो, भारतीय रोड कांग्रेस, केन्द्रीय भवन अनुसंधान (2) 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।
- तापीय विद्युत संयंत्र की 300 किलोमीटर की परिधि के भीतर अवस्थित सभी खानों के लिए विस्तारित उत्पादक (3)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 :

परंत 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, सुजित 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।

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 अनुमित 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 अनुमित 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।

- अधिकारियों द्वारा एकत्रित पर्यावरणीय प्रतिकर को केन्द्रीय प्रदूषण नियंत्रण बोर्ड के निर्दिष्ट खाते में जमा किया (2)
- लैगेसी राख के मामले में, यदि कोयला या लिग्नाइट आधारित तापीय ऊर्जा संयंत्र (कैप्टिव या सह-उत्पादक (3) 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।
- अधिकृत खरीददारों या उपभोक्ता अभिकरणों तक राख भेजने की जिम्मेदारी परिवाहकों या वाहन मालिक की (4) 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।
- इस अधिसूचना के पैरा ख में विहित पर्यावरण अनुकूल तरीके में राख के उपयोग की जिम्मेदारी खरीददार या (5) 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।
- यदि उपयोगकर्ता अधिकरण पैरा ख के अधीन निर्धारित सीमा तक अथवा पैरा घ के उप-पैरा (1) के अधीन, दिए (6) 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 ईंटों 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 छः 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 छः 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 जलवाय परिवर्तन मंत्रालय (एमओईएफसीसी) को छः 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 सिमिति (पीसीसी) को प्रस्तुत की जाएगी। केन्द्रीय प्रदूषण नियंत्रण बोर्ड (सीपीसीबी) और संबंधित राज्य प्रदूषण नियंत्रण बोर्ड (एसपीसीबी) या प्रदूषण नियंत्रण सिमिति (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 टर्न) :	
14.	ड्राई फ्लाई राख भंडारण गड्डा (गड्डों) 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
4-	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):
	[ (युग्ञा) न । गपटाम । पर पर राख का कुल माता (माद्रिक टम्).

- 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 (मी³):
- 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<sup>3</sup>):
- 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 न्यनतम 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 विनिर्टिष्ट 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 (मी³):
- 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

	सी	मेंट शीट या पाइ	प या बोर्ड या पैनल):				
	ii. सी	मेंट विनिर्माण:					
	iii. रेर्ड	ो मिक्स कंक्रीट:					
	iv. रा	ब और जीओ-पॉ	लिमर आधारित निर्माण	सामर्ग्र	t:		
	<b>v</b> . सिं	टर्ड या कोल्ड बॉ	न्डेड राख एग्रीगेट का नि	र्माण:			
	vi. सङ़	कों, सड़क और	फ्लाई ओवर के पुश्तों का	निर्माप	ग:		
	vii. बां	धों का निर्माण:					
	viii. नि	म्न भू-क्षेत्र का भ	राव:				
	ix. र्खा	नेज क्षेत्रों का भग	राव:				
	<b>x</b> . র্গা	धेभार वाले डम्पं	ों में उपयोग:				
	xi. कृर्ी	षे:					
	xii. तर्ट	ोय जिलों में तट	रेखा सुरक्षा संरचनाओं क	ा निर्मा	ोण:		
	xiii. अन	य देशों को राख	का निर्यात				
	xiv. अन	य (कृपया विनि	र्दिष्ट करें):				
20.	सार :	·					
	ब्र	गौरा	सृजित मात्रा		योग की गई मात्रा	शेष मात्रा (ए	मटीपी)
			(एमटीपी)	(एः	मटीपी) और (%)		
		गे अवधि के ∣					
	दौरान राख						
	पुरानी राख						
	कुल						
21.	कोई अन्य सृ						
	वार्षिक अनु	पालन रिपोर्ट,	और विद्युत संयंत्रों और	राख			
	कुण्डों की शे	प फाइलों की स	ॉफ्ट कॉपी ई-मेल:- <u>moe</u>	efcc-			
	coalash@	<u>gov.in</u> पर भेर्ज	ी जाए।				
22.	प्राधिकृत हर	ताक्षरकर्ता के हर	स्ताक्षर				

# 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 14<sup>th</sup> 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 14<sup>th</sup> 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 14<sup>th</sup> 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.
- (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 Subparagraph (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	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup> -10 <sup>th</sup>
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 1<sup>st</sup> 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 28<sup>th</sup> 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 1<sup>st</sup> April to 31<sup>st</sup> March) providing information about the compliance of provisions in this notification shall be submitted by the 30<sup>th</sup> 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 31 <sup>st</sup> 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 <sup>3</sup> ):
	(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
	· ·

	Reclaim	ned					
		e of start of ash dispo	osal in ash pond (DD/N	ИМ/Ү	YYY or		
	(c) Dat	te of stoppage of	ash disposal in ash /MM/YYYY or MM/Y				
	(Not app	plicable for active as	sh ponds)				
	(c) area	(hectares):					
	(d) dyke	e height (m):					
	(d) volu	me (m <sup>3</sup> ):					
	(e) quan	tity of ash disposed	as on 31st March (Meta	ric To	ns):		
		able volume in perc urther disposed (Me	entage (per cent) and q tric Tons):	uanti	ty of ash		
	(g) expe	ected life of ash pond	d (number of years and	mont	hs):		
	(e) co-o	rdinates (Lat and Lo	ong):				
	(please	specify minimum 4	co-ordinates)				
		of lining carried in r clay lining or No li	n ash pond: HDPE lin	ing o	r LDPE		
	g) mode	e of disposal: Dry d	isposal or wet slurry (i er HCSD or MCSD or I				
	(h) Rati	io of ash: water in sl	urry mix (1:):				
		n water recycling ning: Yes or No	system (AWRS) i	nstall	ed and		
		ntity of wastewater body (m3):	from ash pond dischar	ged i	nto land		
			e stability study was conducted the study:		cted and		
		date when the audation who conducted	lit was conducted and the audit:	nam	e of the		
19.	Ouantity	y of legacy ash utilis	sed (MTPA):				
	i.	Fly ash based prod	ucts (bricks or blocks or s or pipes or boards or p				
	ii.	Cement manufactu					
	iii.	Ready mix concret	e:				
	iv.	Ash and Geo-polyr	ner based construction	mate	rial:		
	v.	Manufacturing of saggregate:	intered or cold bonded	ash			
	vi.		nds, road and flyover er	nbanl	cment:		
	vii.	Construction of dar					
	viii.	Filling up of low ly	ing area:				
	ix.	Filling of mine voi					
	x.	Use in overburden	dumps:				
	xi.	Agriculture:					
	xii.	Construction of she coastal districts;	oreline protection struc	tures	in		
	xiii.	Export of ash to otl	her countries:				
	xiv.	Others (please spec					
20.	Summa	ry:					
	Details	-	Quantity generated (M		Quantity (MTP) ar	utilised nd (per cent)	Balance quantity (MTP)

	Current ash during reporting period		
	Legacy ash		
	Total		
21.	Any other information: Soft copy of the annual com of power plant and ash pond coalash@gov.in		
22.	Signature of Authorised Sig	natory	





Ref. No. NTPC/D(Proj.)/2024-25/01

Date: 16th May, 2024

# CERTIFICATE

This is to certify that Emission Control System (ECS) has been successfully commissioned and put into use at NTPC Lara Super Thermal Power Station (2 X 800 MW) as per the details below:

Unit No.	Capacity (MW)	Name of ECS Scheme	Date of Operation
Unit # 1	800 MW	Wet Limestone based Flue Gas Desulfurization (FGD) System	16.05.2024

It is further certified that above ECS scheme is meeting the applicable technical and environment standards. The above-said unit is meeting the revised emission standards as specified in the MOEF Notification dated 07.12.2015, notified under Environment (Protection) Amendment Rules, 2015.

(K. S/Sundaram)
Director (Projects)