

**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 **Gadarwara Super Thermal Power Station Stage-I (2x800 MW)** for the period from 01.04.2024 to 31.03.2029.

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## **Summary of Issues: Gadarwara STPS (2X800 MW)**

*(In compliance with CERC notice dated 07.06.2024)*

The major highlights of the Gadarwara (2x800 MW) petition for determination of tariff for period 01.04.2024 to 31.03.2029 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 Gadarwara (1600 MW) for the period from 01.04.2024 to 31.03.2029 on projection basis for period 01.4.2024 to 31.03.2029.

The instant station is located at Narsinghpur, Madhya Pradesh and the station achieved its COD on 01.03.2021.

The power generated from instant station is being supplied as per MoP allocation and respective PPAs to customers including MPPMCL (M.P), CSPDCL (Chhattisgarh), GUVNL (Gujarat), MSEDCL (Maharashtra), EDG (Electricity Deptt. of Goa), DNHDDPDCL (UT of DNHDD).

The tariff for instant station for the period from 01.04.2019 to 31.3.2024 is under active consideration of the CERC and the order is reserved in the matter in Petition No. 181/GT/2019. The capital cost as claimed in the petition no 181/GT/2019 for tariff determination included the projected additional capital expenditure upto 31.03.2024. The petitioner vide affidavit dated 23.11.2024 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.

The tariff of Gadarwara STPS for the tariff period 2024-29 based on projected expenditure for 2024-29 is annexed with the petition as per provisions of Regulation 9 of CERC Tariff Regulations 2024.

The projected Additional Capital Expenditure claimed on cash basis for the FY 2024-25, 2025-26, 2026-27, 2027-28, 2028-29 are Rs 26.41 Cr, Rs 738.87 Cr, Rs 35.99 Cr, Rs. 1.50 Cr & Rs 1.60 Cr. respectively amounting to total of Rs 804.38 Crores during the 2024-29 period. The same has been depicted year wise in Form 9A of the Appendix-I along with applicable regulations and justification for the claims. It is humbly requested to approve the projected Additional Capital expenditure during the period of 2024-29.

The major add cap pertains to capitalisation of FGD (Rs 605.84 Cr) in the year 2025-26 and certain balance left over works of original scope which got delayed due to various reasons. These balance leftover works constitute roughly 1% of the project cost. The petitioner has prayed for extension of cut off date for 02 years as detailed in the main petition. The Commission is requested to allow the same. The detailed reasons for the add cap has been given in the petition and appendix-I.

The Hon'ble Commission may please allow the claims of water charges and security expenses and ash transportation expenditures for the instant station as per projections, as claimed by the Petitioner in Form 3A of Appendix-I.

It is further mentioned that the Gadarwara STPS is a central government owned thermal power station which is of national importance. Safety and security of these nationally important infrastructure projects against any threat perception is a prime concern. The main security of these central government owned thermal power station is provided by the Central Industrial Security Force (CISF). CISF is a statutory body

set up under an Act of the Parliament of India and a central armed police force in India under the Ministry of Home Affairs (MHA) whose primary mission is to provide security to large institutions like Gadawara STPS. Deployment of the CISF is done as per the security threat perception, survey and as per the guidelines of MHA. In addition to the CISF, certain security is provided by other local and national agencies for critically less sensitive locations as per the plant specific needs. In view of this Hon'ble Commission may please allow the claims of security expenses as per projections as submitted in Form 3A.

The petitioner pleads that the Hon'ble Commission may please allow the claims of Capital spares for the instant station at the time of true-up. The same has not been claimed in Form-3A in the instant petition.

In the light of above submission and as per the Petition being filed by the Petitioner for revision of tariff of Gadawara STPS (2X800 MW), The Hon'ble Commission may please approve tariff for the tariff period 2024-29 as per provision of Regulation 9 of Tariff Regulations 2024.

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**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 **Gadarwara Super Thermal Power Station Stage-I (2x800 MW)** for the period from **01.04.2024 to 31.03.2029**.

**AND**  
**IN THE MATTER OF**

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

Respondents

1. Madhya Pradesh Power Management Company Ltd. (MPPMCL), Shakti Bhawan, Vidyut Nagar, Jabalpur 482 008
2. Maharashtra State Electricity Distribution Co Ltd. (MSEDCL) Prakashgad, Bandra (East), Mumbai 400 051
3. Gujarat Urja Vikas Nigam Ltd. (GUVNL)  
Vidyut Bhavan, Race Course  
Vadodara – 390 007
4. Chhattisgarh State Power Distribution Co. Ltd (CSPDCL)  
P.O. Sundar Nagar,  
Danganiya, Raipur – 492013

- 5 Electricity Department  
Government of Goa (EDG)  
Vidyut Bhawan, Panaji, Goa
- 6 Dadra And Nagar Haveli and Daman and Diu Power  
Distribution Corporation Limited (DNHDDPDCL).  
1<sup>st</sup> & 2<sup>nd</sup> Floor, Vidyut Bhavan, Silvassa-396230, DNH, India

The Petitioner humbly states that:

- 1) The Petitioner herein NTPC Ltd. (hereinafter referred to as '**Petitioner**' or '**NTPC**'), is a company incorporated under provisions of the Company Act, 1956 and a Government Company as defined under Section 2(45) of the Companies Act, 2013. Further, NTPC is a 'Generating Company' as defined under Section 2(28) of the Electricity Act, 2003.
- 2) In terms of Section 79(1)(a) of Electricity Act, 2003, the Hon'ble Commission has been vested with the functions to regulate the tariff of NTPC, being a Generating Company owned and controlled by the Central Government. The regulation of the tariff of NTPC is as provided under Section 79(1)(a) read with Section 61, 62 and 64 of the Electricity Act, 2003 and the Regulations notified by the Hon'ble Commission in exercise of powers under Section 178 read with Section 61 of the Electricity Act, 2003.
- 3) The Petitioner is having power stations/ projects at different regions and places in the country. Gadawara Super Thermal Power Station Stage-I (2x800 MW) (hereinafter referred to as "Gadawara Stage-I") is one such station located in the State of Madhya Pradesh. The power generated from Gadawara Stage-I is being supplied to the respondents herein above.
- 4) The Hon'ble Commission has notified the Central Electricity Regulatory Commission (Terms & Conditions of Tariff) Regulations, 2024 (hereinafter 'Tariff Regulations 2024')

which came into force from 01.04.2024, specifying the terms & conditions and methodology of tariff determination for the period 01.04.2024 to 31.03.2029.

- 5) Regulation 9(2) of Tariff Regulations 2024 provides as follows:

*“(2) In case of an existing generating station or unit thereof, or transmission system or element thereof, the application shall be made by the generating company or the transmission licensee, as the case may be, by 30.11.2024 , based on admitted capital cost including additional capital expenditure already admitted and incurred up to 31.3.2024 (either based on actual or projected additional capital expenditure) and estimated additional capital expenditure for the respective years of the tariff period 2024-29 along with the true up petition for the period 2019-24 in accordance with the CERC (Terms and Conditions of Tariff) Regulations, 2019.”*

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

- 6) The tariff of the Gadawara-I for the tariff period 1.4.2019 to 31.3.2024 in the petition no 181/GT/2029 is under the active consideration of the Hon'ble CERC and the order is reserved in the matter. The petitioner vide affidavit dated 23.11.2024 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) Since the order in the petition no 181/GT/2029 for 2019-24 period is reserved and order is yet to be issued. Therefore, the actual closing capital cost as on 31.03.2024 has been worked out in the aforesaid true-up petition as Rs. 13457.48 Cr based on the actual expenditure after truing up exercise for the period 2019-24. The Hon'ble Commission may be pleased to accordingly adopt this capital cost as on 01.04.2024 and determine the tariff in the present petition for the period 2024-29.
- 8) The capital cost claimed in the instant petition is based on the opening capital cost as on 01.04.2024 considered as above and projected estimated capital expenditures claimed

for the period 2024-29 under Regulation 19 and Regulation 24, 25 and 26 of the Tariff Regulations, 2024.

- 9) It is submitted that the as per the Terms & Conditions of Tariff Regulation 2019 the cut-off date of Gadarwara STPS is March'24. However, despite the continuous efforts and efficient project execution, certain balance works under original scope are spilling over the cut-off date on account of the reasons not under the reasonable control of the Petitioner. The estimated expenditure pertaining to these spills over works is approximately Rs 104 Cr. (excluding FGD) which is only 0.70% of approved cost. The spill over works mainly include balance civil construction works of plant and township civil works, Coal transportation system, Ash handling system, roads and drains, construction of buildings, FDPS. Accordingly, the Hon'ble Commission may kindly consider the facts brought out above and allow the expenditure for works under original scope claimed in the instant tariff petition during the Tariff Period 2024-29.
- 10) As far as the other spillover works are concerned, they are either the balance works of civil construction of Main Plant/Offsite/Township or the pending jobs like contract closing payments, furnishing works or other minor jobs of the various packages. In this regard, the Petitioner humbly submits that during the project execution, the prime concern of the Petitioner was to commence the Commercial Operation of the unit(s) to serve the beneficiaries at the earliest by supplying affordable and reliable power, despite various uncontrollable measures faced by the project. Therefore, the priority jobs of the main plant and other necessary works essential for declaration of Commercial Operation of the unit(s) were taken up on priority. Moreover, some of the reasons including ban on construction material like sand mining, Moorum, rainfall, COVID, land acquisition issues etc. which delayed the civil works prior to COD, had cascading effect on the non-COD related civil construction works also. It is further submitted that approx. 99% of the spill over works are expected to be capitalized in FY: 2025-26 i.e. within 02 years from succeeding financial year from cut-off date. It is also submitted that various clearances, safety measures, protocols and hindrances posed by a running plant also affected the balance leftover works and at the same time beneficiaries have been avoided from front loading of tariff.

- 11) Therefore, the petitioner humbly prays for extension of cut-off date by 02 years i.e. 31.03.2026. The petitioner shall be able to complete all the balance minor left over works within the extended cut off as prayed for.
- 12) 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. Water charges claimed is based on projection basis year on year and same may be allowed in tariff based on the same for the 2024-29. In accordance with provision of the Regulations, the petitioner shall be furnishing the details of actual for the relevant year at the time of truing up and the same shall be subject to retrospective adjustment.

Description	Remarks
Type of Plant	Coal based thermal power station
Type of cooling water system	Closed Circuit Cooling System
Consumption of Water	56 MCM
Rate of Water charges	3.48 Rs/CuM

- 13) 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.
- 14) 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.

- 15) The petitioner humbly submits that petition no. 227/MP/2024 has been filed by the petitioner concerning Ash utilisation 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.

- 16) The Petitioner humbly submits that the pay/wage revision for the employees of the Petitioner will be due w.e.f. 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. The 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.

- 17) It is submitted that Hon'ble Commission has prescribed boiler efficiency and turbine heat rate separately for deriving the unit heat rate where the Unit Heat Rate is not guaranteed by the suppliers. It is submitted that the instant station was envisaged during the period 2009-14 and equipments including SG and TG specifications for tendering / award was stipulated considering the boiler efficiency and the turbine heat rate prescribed by the Hon'ble Commission in the Tariff Regulations at that time. Based on the same the equipments were ordered through competitive bidding. It was not possible for the

petitioner to specify the efficiency parameters at the time of finalizing the contracts on the instant station as per the efficiency parameters specified in Tariff Regulations 2024-29 which are more stringent.

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

**Quote**

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

**UNQUOTE**

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

**Quote**

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

**UNQUOTE**

- 18)** Further, if the Petitioner had stipulated more stringent unit heat rate this would have increased the capital cost commensurate to the efficiency parameters sought. The benefit

of the lower capital cost due to lower efficiency parameters has already been passed onto the beneficiaries in terms of lower capital cost. If now the boiler efficiency is taken at 86% instead of actual designed value of 85.01 %, it will result in significant losses for the petitioner in the form of reduced heat rate than as per the design value. Moreover, the boiler efficiency once designed cannot be changed later rather it deteriorates with passage of time. In view of above submission, it is prayed that Gross Station Heat rate may be allowed based on guaranteed turbine cycle heat rate of 1832 Kcal/Kwh and actual boiler efficiency of 85.01% with an operating margin of 4.5 % from the guaranteed design value. The tariff computation attached at Appendix-I is based on considering Station Heat Rate as per design heat rate with applicable operating margin of 4.5%.

- 19) 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 email dtd. 29.04.2024. For the subsequent years, it shall be paid as per the provisions of the CERC (Payment of Fees) Regulations, 2012 as amended. Further 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.
- 20) 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.
- 21) 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.

22) 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.

23) 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.

A True copy of the Form 15 of Tariff Regulations 2019 and Form 15 of Tariff Regulations 2024, is marked and annexed herewith as **Annexure-M**

24) 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.

25) 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.

- 26) 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.
- 27) 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. [www.ntpc.co.in](http://www.ntpc.co.in).
- 28) In accordance with the 'Conduct of Business Regulations 2023' of the Hon'ble Commission, the Petitioner shall, within 7 days after filing the tariff petition, publish a notice about such filing in at least two daily leading digital newspapers one in English language and another in any of the Indian languages, having wide circulation in each of the States and Union Territories where the beneficiaries are situated, as per Form 14 appended to these regulations. Subsequently, the Petitioner shall submit the proof of publications as soft copies of the publications under an affidavit through the e-filing portal of the Hon'ble Commission within one week from the date of publication. Further, the Petitioner shall also submit the detail of expenses incurred for publication of the notice along with the prayer for recovery of Publication Expenses as per Regulation-94 of CERC Tariff Regulations 2024.
- 29) It is submitted that the petitioner is filing this tariff petition subject to the outcome of its various appeals/ petitions pending before different courts. Besides, the petitions filed by NTPC for determination of capital base as on 31.03.2024 through true-up exercise are pending before the Hon'ble Commission and would take some time. The Petitioner, therefore, reserves its right to amend the tariff petition as per the outcome in such appeals/ petitions, if required.

### **Prayers**

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

- i) Approve tariff of Gadarwara STPS (2X800 MW) for the tariff period 01.04.2024 to 31.03.2029.
- ii) Allow the station heat rate as per actual turbine cycle heat rate and boiler efficiency.
- iii) Allow the recovery of filing fees as & when paid to the Hon'ble Commission and publication expenses from the beneficiaries.
- iv) Allow reimbursement of Ash utilization Charges directly from the beneficiaries on monthly basis, subject to true up.
- v) Allow the recovery of pay/wage revision as additional O&M over and above the normative O&M.
- vi) Pass any other order as it may deem fit in the circumstances mentioned above.

**Petitioner**

Noida

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**BEFORE THE CENTRAL ELECTRICITY REGULATORY COMMISSION**  
**NEW DELHI**

**PETITION NO.....**

**IN THE MATTER OF**



**Petitioner:**

: 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 **Gadarwara Super Thermal Power Station (2x800 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:**

1. 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.

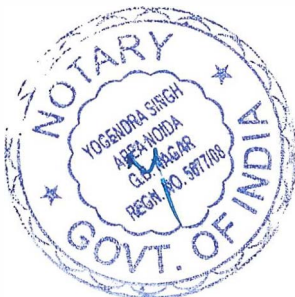


*Sk Aggarwal*

2. That the accompanying Petition under Section 62 and 79 (1) (a) of the Electricity Act, 2003, has been filed by my authorized representative under my instruction and the contents of the same are true and correct to the best of my knowledge and belief.
3. That the contents of Para No ... 1.. to .. 28.. as mentioned in the Petition are true and correct based on 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.

**Verification:**

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.



**ATTESTED**  
**YOGENDRA SINGH**  
**NOTARY NOIDA**  
**G B NAGAR (U.P.) INDIA**

**12/7 NOV 2024**

*Sk Aggarwal*  
(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.)

*Sk Aggarwal*  
(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.)

# **TARIFF FILING FORMS (THERMAL)**

## **FOR DETERMINATION OF TARIFF**

### **FOR**

#### **Gadarwara STPS (2X800 MW)**

(From 01.04.2024 to 31.03.2029)

### **PART-I**

#### **Appendix-I**

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

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

## Provided yearwise for the period 2024-29

\*\* Additional Forms

PART-I

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

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

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

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

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

**Summary of Tariff**

**Name of the Petitioner:** NTPC Limited  
**Name of the Generating Station:** Gadarwara STPS (2X800 MW)  
**Place (Region/District/State):** Western Region/Narsinghpur/ Madhya Pradesh

**Amount in Rs. Lakhs**

S. No.	Particulars	Unit	Existing 2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
1	2	3	4	5	6	7	8	9
1.1	Depreciation	Rs Lakh	67,063.06	68,606.27	70,555.10	72,528.30	72,623.77	72,631.66
1.2	Interest on Loan	Rs Lakh	44,887.88	40,547.52	37,890.40	35,875.05	32,668.96	28,860.70
1.3	Return on Equity	Rs Lakh	75,423.85	75,900.65	78,035.28	80,180.56	80,268.53	80,277.26
1.4	Interest on Working Capital	Rs Lakh	19,426.60	19,327.86	19,341.09	19,400.95	19,473.64	19,565.42
1.5	O&M Expenses	Rs Lakh	61,015.19	76337.70	76174.67	76755.94	79382.53	82171.18
1.6	Special Allowance (If applicable)	Rs Lakh						
1.7	Compensation Allowance (If applicable – relevant for column 4 only)	Rs. Lakh						
	<b>Total</b>	Rs Lakh	<b>267816.58</b>	<b>280719.99</b>	<b>281996.53</b>	<b>284740.80</b>	<b>284417.43</b>	<b>283506.23</b>
2.1	Landed Fuel Cost (coal/gas/RLNG/ liquid)	Rs/Ton		5507.43				
	(%) of Fuel Quantity	(%)		100				
2.2	Landed Fuel Cost (coal from Integrated mine) as per FSA, if any, approved by beneficiaries or as per allocation of coal quantity	Rs/Ton						
	(%) of Fuel Quantity	(%)						
2.3	Landed Fuel Cost Imported Coal		NA					
	(%) of Fuel Quantity							
2.4	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							
	Secondary fuel oil cost	Rs/Unit	0.045					
	Energy Charge Rate ex-bus (Paise/kWh)	Rs/Unit	3.628					

**(Petitioner)**

PART-I FORM- 1(I)						
Name of the Petitioner:		NTPC Limited				
Name of the Generating Station:		Gadarwara STPS (2X800 MW)				
Amount in Rs. Lakhs						
<b>Statement showing claimed capital cost – (A+B)</b>						
S. No.	Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
1	2	3	4	5	6	7
1	Opening Capital Cost	13,45,748.86	13,48,390.83	14,22,278.64	14,25,877.64	14,26,027.64
2	Add: Addition during the year/period	2,641.97	73,887.81	3,599.00	150.00	160.00
3	Less: De-capitalisation during the year/period	-	-	-	-	-
4	Less: Reversal during the year / period	-	-	-	-	-
5	Add: Discharges during the year/ period	-	-	-	-	-
6	Closing Capital Cost	13,48,390.83	14,22,278.64	14,25,877.64	14,26,027.64	14,26,187.64
7	<b>Average Capital Cost</b>	<b>13,47,069.84</b>	<b>13,85,334.73</b>	<b>14,24,078.14</b>	<b>14,25,952.64</b>	<b>14,26,107.64</b>
<b>Statement showing claimed capital cost eligible for RoE at normal rate (A)</b>						
S. No.	Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
1	2	3	4	5	6	7
1	Opening Capital Cost	1345748.86	1348168.83	1418756.64	1419455.64	1419605.64
2	Add: Addition during the year / period	2419.97	70587.81	699.00	150.00	160.00
3	Less: De-capitalisation during the year / period	0.00	0.00	0.00	0.00	0.00
4	Less: Reversal during the year / period	0.00	0.00	0.00	0.00	0.00
5	Add: Discharges during the year / period	0.00	0.00	0.00	0.00	0.00
6	Closing Capital Cost	1348168.83	1418756.64	1419455.64	1419605.64	1419765.64
7	<b>Average Capital Cost</b>	<b>1346958.84</b>	<b>1383462.73</b>	<b>1419106.14</b>	<b>1419530.64</b>	<b>1419685.64</b>
<b>Statement showing claimed capital cost eligible for RoE at one year MCLR + 350 bps subject to ceiling of 14.00% (B)</b>						
S. No.	Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
1	2	3	4	5	6	7
1	Opening Capital Cost	0.00	222.00	3522.00	6422.00	6422.00
2	Add: Addition during the year / period	222.00	3300.00	2900.00	0.00	0.00
3	Less: De-capitalisation during the year / period	0.00	0.00	0.00	0.00	0.00
4	Less: Reversal during the year / period	0.00	0.00	0.00	0.00	0.00
5	Add: Discharges during the year / period	0.00	0.00	0.00	0.00	0.00
6	Closing Capital Cost	222.00	3522.00	6422.00	6422.00	6422.00
7	<b>Average Capital Cost</b>	<b>111.00</b>	<b>1872.00</b>	<b>4972.00</b>	<b>6422.00</b>	<b>6422.00</b>
(Petitioner)						

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

**Name of the Petitioner:**

**NTPC Limited**

**Name of the Generating Station:**

**Gadarwara STPS (2X800 MW)**

**Statement showing Return on Equity at Normal Rate**

**Amount in Rs. Lakhs**

<b>S. No.</b>	<b>Particulars</b>	<b>2024-25</b>	<b>2025-26</b>	<b>2026-27</b>	<b>2027-28</b>	<b>2028-29</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
	<b>Return on Equity</b>					
1	Gross Opening Equity (Normal)	4,03,724.66	4,04,450.65	4,25,626.99	4,25,836.69	425881.6908
2	Less: Adjustment in Opening Equity	-				
3	Adjustment during the year		0.00	0.00	0.00	0.00
4	Net Opening Equity (Normal)	4,03,724.66	4,04,450.65	4,25,626.99	4,25,836.69	4,25,881.69
5	Add: Increase in equity due to addition during the year / period	725.99	21176.34	209.70	45.00	48.00
7	Less: Decrease due to De-capitalisation during the year / period	0.00	0.00	0.00	0.00	0.00
8	Less: Decrease due to reversal during the year / period	0.00	0.00	0.00	0.00	0.00
9	Add: Increase due to discharges during the year / period	0.00	0.00	0.00	0.00	0.00
10	Net closing Equity (Normal)	4,04,450.65	4,25,626.99	4,25,836.69	4,25,881.69	4,25,929.69
11	Average Equity (Normal)	4,04,087.65	4,15,038.82	4,25,731.84	4,25,859.19	4,25,905.69
12	Rate of ROE (%)	18.782	18.782	18.782	18.782	18.782
13	Total ROE	<b>75,895.74</b>	<b>77,952.59</b>	<b>79,960.95</b>	<b>79,984.87</b>	<b>79,993.61</b>

**(Petitioner)**

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

<b>Name of the Petitioner:</b>	<b>NTPC Limited</b>
<b>Name of the Generating Station:</b>	<b>Gadarwara STPS (2X800 MW)</b>

**Statement showing Return on Equity linked to SBI MCLR**

Amount in Rs. Lakhs						
S. No.	Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
1	2	3	4	5	6	7
	<b><u>Statement showing claimed capital cost eligible for RoE at one year MCLR + 350 bps subject to ceiling of 14.00%</u></b>					
1	Gross Opening Equity (Normal)	0.00	66.60	1056.60	1926.60	1926.60
2	Less: Adjustment in Opening Equity	0.00	0.00	0.00	0.00	0.00
3	Adjustment during the year	0.00	0.00	0.00	0.00	0.00
4	Net Opening Equity (Normal)	0.00	66.60	1056.60	1926.60	1926.60
5	Add: Increase in equity due to addition during the year / period	66.60	990.00	870.00	0.00	0.00
7	Less: Decrease due to De-capitalisation during the year / period	0.00	0.00	0.00	0.00	0.00
8	Less: Decrease due to reversal during the year / period	0.00	0.00	0.00	0.00	0.00
9	Add: Increase due to discharges during the year / period	0.00	0.00	0.00	0.00	0.00
10	Net closing Equity (Normal)	66.60	1056.60	1926.60	1926.60	1926.60
11	Average Equity (Normal)	33.30	561.60	1491.60	1926.60	1926.60
12	Rate of ROE (1 year MCLR+350 bps)	12.15	12.15	12.15	12.15	12.15
12	Grossed up rate of ROE (%)	14.723	14.723	14.723	14.723	14.723
13	Total ROE	<b>4.90</b>	<b>82.68</b>	<b>219.61</b>	<b>283.65</b>	<b>283.65</b>

**(Petitioner)**

**Plant Characteristics**

<b>Name of the Petitioner</b>		<b>NTPC Ltd.</b>
<b>Name of the Generating Station</b>		<b>Gadarwara STPS (2x800 MW)</b>
<b>Unit(s)/Block(s)/Parameters</b>	<b>Unit-I</b>	<b>Unit-II</b>
<b>Installed Capacity ( MW)</b>	800	800
<b>Actual COD /Date of Taken Over (as applicable)</b>	01.06.2019	01.03.2021
<b>Pit Head or Non Pit Head</b>	Non Pit Head	Non Pit Head
<b>Name of the Boiler Manufacture</b>	BHEL / ALSTOM POWER INC. USA	
<b>Name of Turbine Generator Manufacture</b>	BHEL/SIEMENS AG	
<b>Main Steams Pressure at Turbine inlet (kg/Cm<sup>2</sup>) abs<sup>1</sup>.</b>	247	247
<b>Main Steam Temperature at Turbine inlet (°C) <sup>1</sup></b>	565	565
<b>Reheat Steam Pressure at Turbine inlet (kg/Cm<sup>2</sup>) <sup>1</sup></b>	54.9	54.9
<b>Reheat Steam Temperature at Turbine inlet (°C) <sup>1</sup></b>	593	593
<b>Main Steam flow at Turbine inlet under MCR condition (tons /hr)<sup>2</sup></b>	2335.08	2335.08
<b>Main Steam flow at Turbine inlet under VWO condition (tons /hr)<sup>2</sup></b>	2517.71	2517.71
<b>Unit Gross electrical output under MCR /Rated condition (MW)<sup>2</sup></b>	800	800
<b>Unit Gross electrical output under VWO condition (MW)<sup>2</sup></b>	849.44	849.44
<b>Guaranteed Design Gross Turbine Cycle Heat Rate (kCal/kWh)<sup>3</sup></b>	1832	1832
<b>Conditions on which design turbine cycle heat rate guaranteed( kcal/kwhr)</b>		
% MCR	100	100
% Makeup Water Consumption	0	0
Design Capacity of Make up Water System(% of throttle steam flow)	3%	3%
Design Capacity of Inlet Cooling System		
Design Cooling Water Temperature (°C)	33	33
Back Pressure(Average condenser pressure in mmHg(A))	77	77
Steam flow at super heater outlet under BMCR condition (tons/hr)	2570	2570
Steam Pressure at super heater outlet under BMCR condition) (kg/Cm <sup>2</sup> )	257	257
Steam Temperature at super heater outlet under BMCR condition (°C)	568	568
Steam Temperature at Reheater outlet at BMCR condition (°C)	596	596
Design / Guaranteed Boiler Efficiency (%) <sup>4</sup>	85.01%	
Design Fuel with and without Blending of domestic/imported coal		
(GCV ) Domestic Design coal	3200 kcal/kg	3200 kcal/kg
Blended Coal (Domestic Design 70%+ Imported 30%)	4190 kcal/kg	4190 kcal/kg
<b>Type of Cooling Tower</b>	IDCT	
<b>Type of cooling system<sup>5</sup></b>	Open Recirculating type Cooling water system	
<b>Type of Boiler Feed Pump<sup>6</sup></b>	2X50%TDBFP & 2X30% MDBFP	2X50%TDBFP & 2X30% MDBFP
<b>Fuel Details<sup>7</sup></b>		
-Primary Fuel	Coal	Coal
-Secondary Fuel	LDO	LDO
-Alternate Fuels	-	-
Types of SOX control system	ECS is under implementation	
Types of NOX control system		
Details of SPM control system	ESP	
Boiler	Ultra super critical, Tangential/corner fired boiler	
<b>Special Features/Site Specific Features<sup>8</sup></b>		
<b>Special Technological Features<sup>9</sup></b>		
<b>Environmental Regulation related features<sup>10</sup></b>	1.ESP is provided 2.FGD under implementation	1.ESP is provided 2.FGD under implementation
<b>Any other special features</b>		

1: At Turbine MCR condition.

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

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

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

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

6: Motor driven, Steam turbine driven etc.

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

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

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

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

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

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

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

Normative parameters considered for tariff computations

Name of the Petitioner:		NTPC Limited						
Name of the Generating Station:		Gadarwara STPS (2X800 MW)						
(Year Ending March)								
Particulars	Unit	Existing 2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	
1	2	3	4	5	6	7	8	
Base Rate of Return on Equity \$\$	%	15.50	15.50	15.50	15.50	15.50	15.50	
Base Rate of Return on Equity on Add. Capitalization **	%	-	12.15	12.15	12.15	12.15	12.15	
Effective Tax Rate	%	17.4720	17.4720	17.4720	17.4720	17.4720	17.4720	
Target Availability	%	85.00	85.00	85.00	85.00	85.00	85.00	
Peak Hours	%	85.00	85.00	85.00	85.00	85.00	85.00	
Off Peak Hours	%	85.00	85.00	85.00	85.00	85.00	85.00	
β- Average Monthly Frequency Response Performance ##	0-1							
Auxiliary Energy Consumption	%	6.25	5.75	5.75	5.75	5.75	5.75	
Gross Station Heat Rate	kCal/kWh	2262.79	2252.02	2252.02	2252.02	2252.02	2252.02	
Specific Fuel Oil Consumption	ml/kWh	0.50	0.50	0.50	0.50	0.50	0.50	
Cost of Coal/Lignite for WC1	in Days	50	50	50	50	50	50	
Cost of Main Secondary Fuel Oil for WC1	in Months	2	2	2	2	2	2	
Fuel Cost for WC2	in Months							
Liquid Fuel Stock for WC2	in Months							
O&M Expenses	Rs lakh/MW	20.93	23.20	24.42	25.7	27.05	28.47	
Maintenance Spares for WC	% of O&M	20.00	20.00	20.00	20.00	20.00	20.00	
Receivables for WC	in Days	45	45	45	45	45	45	
Storage capacity of Primary fuel *	MT	500000	500000	500000	500000	500000	500000	
SBI 1 Year MCLR plus 325 basis point	%	12.00	11.90	11.90	11.90	11.90	11.90	
Blending ratio of domestic coal/imported coal	As per from 15							
Norms for consumption of reagent	FGD is under commissioning							
Specific Limestone consumption for Wet Limestone FGD								
Specific Limestone consumption for Lime Spray Dryer or Semi-dry FGD								
Specific consumption of sodium bicarbonate								
Specific Limestone consumption for CFBC based generating station								NA
specific urea consumption of the SNCR								NA
Specific ammonia consumption of the SCR								NA
Transit and Handling Losses of coal or lignite, as applicable								
** Rate of Return on Add - cap beyong original scope								
\$\$ Additional RoE due to better ramp rate would be claimed at the time of true-up or as per guidelines to be issued								
## To be submitted at the time of truing up based on RPC certification								
FGD is under implementation.								

**Calculation of O&M Expenses**

Name of the Company :		NTPC Limited				
Name of the Power Station :		Gadarwara STPS (2X800 MW)				
Amount in Rs. Lakhs						
S.No.	Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
1	2	3	4	5	6	7
1	O&M expenses under Reg.36(1)					
1a	Normative	37120.00	39072.00	41120.00	43280.00	45552.00
2	O&M expenses under Reg.36(6)					
2a	Water Charges ## **	1777.00	1886.00	1980.00	2070.00	2183.40
2b	Security expenses **	3029.70	3332.67	3655.94	4032.53	4435.78
2c	Capital Spares***					
3	O&M expenses-Ash Transportation**	34411.00	31884.00	30000.00	30000.00	30000.00
	Total O&M Expenses	76337.70	76174.67	76755.94	79382.53	82171.18

## Subject to true up, based on the contract of mandatory payment of 90% of allocation of 56 MCM and rate increase of 5% every month of january as per agreement

\*\* Subject to true up, is based on 10% escalation from 2023-24

\*\*\* Details Shall be provided at the truing up, based on projection for ash utilisation for 2024-29

**Petitioner**

<b>PART 1</b>		
<b>FORM- 5</b>		
<b><u>Abstract of Admitted Capital Cost for the existing Projects</u></b>		
<b>Name of the Company :</b>	<b>NTPC Limited</b>	
<b>Name of the Power Station :</b>	<b>Gadarwara STPS (2X800 MW)</b>	
		<b>Amount in Rs. Lakh</b>
Last date of order of Commission for the project	<b>Date (DD-MM-YYYY)</b>	
Reference of petition no. in which the above order was passed	<b>Affidavit</b>	
Following details (whether admitted and /or considered) as on the last date of the period for which tariff is approved/Claimed		
Capital cost claimed (as on 31.03.2024)	<b>(Rs. in lakh)</b>	1345748.86
Amount of un-discharged liabilities included in above (& forming part of admitted capital cost)		
Amount of un-discharged liabilities corresponding to above admitted capital cost (but not forming part of admitted capital cost being allowed on cash basis)		
Gross Normative Debt		942024.2012
Cumulative Repayment		2,65,598.93
Net Normative Debt		6,76,425.28
Normative Equity		403724.66
Cumulative Depreciation		2,65,726.27
Freehold land		39,391.16
<b>(Petitioner)</b>		

Statement Giving Details of Project Financed through a Combination of loan			
Form 8			
TRANCHE NO			
BP NO 5050001371		T00001	D00001
Unsecured Loan From AXIS BANK-IV			
Source of Loan :	AXIS BANK-IV		
Currency :	INR		
Amount of Loan :	19,00,00,00,000		
Total Drawn amount :	19,00,00,00,000		
Date of Drawl	29.03.2023		
Interest Type :	Floating		
Fixed Interest Rate :			
Base Rate, If Floating Interest	8.00%		
Margin, If Floating Interest :	-		
Are there any Caps/ Floor :	Y/N		
Frequency of Intt. Payment	MONTHLY		
If Above is yes, specify Caps/ Floor :			
Moratorium Period :	0 Years		
Moratorium effective from :	NIL		
Repayment Period (Inc Moratorium) :	10 Years		
Repayment Frequency :	10 Yearly Instalment		
Repayment Type :	AVG		
First Repayment Date :	29.03.2024		
Base Exchange Rate :	RUPEE		
Date of Base Exchange Rate :	N.A.		
Project Code	Project Name	Amount	
	TANDA-II	19,00,00,000.00	29.03.2023
	NCPS-FGD	24,00,00,000.00	29.03.2023
	TSTPS-R&M-I	8,00,00,000.00	29.03.2023
	BARH-I	2,20,00,00,000.00	29.03.2023
	NORTH KARANPURA	65,00,00,000.00	29.03.2023
	LARA-I	2,30,00,00,000.00	29.03.2023
	GADARWARA	4,84,00,00,000.00	29.03.2023
	DARLIPALLI	1,54,00,00,000.00	29.03.2023
	KHARGONE	1,15,00,00,000.00	29.03.2023
	TELANGANA	1,50,00,00,000.00	29.03.2023
	KERENDARI	3,40,00,00,000.00	29.03.2023
	CHATTI BARIATU	5,00,00,000.00	29.03.2023
	TAPOVAN VISHNUGAD	32,50,00,000.00	29.03.2023
	TALAIPALI	53,50,00,000.00	29.03.2023
Total Allocated Amount		19,00,00,00,000	

Statement Giving Details of Project Financed through a Combination of loan			
Form 8			
TRANCHE NO			
BP NO 50500001041	T00001	D00001	
Unsecured Loan From Bank Of India-IV			
Source of Loan :	Bank Of India-IV		
Currency :	INR		
Amount of Loan :	22000000000		
Total Drawn amount :	16,00,00,00,000		
Date of Drawal :	07.12.2020		
Interest Type :	Floating		
Fixed Interest Rate :			
Base Rate, If Floating Interest	6.00%		
Margin, If Floating Interest :	NIL		
Are there any Caps/ Floor :	Y/N		
Frequency of Intt. Payment	Monthly		
If Above is yes, specify Caps/ Floor :			
Moratorium Period :	3 Years		
Moratorium effective from :	07.12.2020		
Repayment Period (Inc Moratorium) :	15 Years		
Repayment Frequency :	Yearly		
Repayment Type :	AVG		
First Repayment Date :	07.12.2024		
Base Exchange Rate :	RUPEE		
Date of Base Exchange Rate :			
<b>Project Code</b>	<b>Project Name</b>	<b>Amount</b>	
	UNCHAHAH SOLAR PV	16,00,00,000	07.12.2020
	VINDHYACHAL-V	60,00,00,000	07.12.2020
	TALCHER SOLAR PV	20,00,00,000	07.12.2020
	BARH-I	20,00,00,000	07.12.2020
	BARH-II	88,00,00,000	07.12.2020
	KOLDAM	80,00,00,000	07.12.2020
	PAKRI BARWADIH CMB	2,00,00,00,000	07.12.2020
	SOLAPUR	1,72,00,00,000	07.12.2020
	KUDGI	2,72,00,00,000	07.12.2020
	LARA	1,36,00,00,000	07.12.2020
	GADARWARA	1,46,00,00,000	07.12.2020
	RAJGARH SOLAR PV	64,00,00,000	07.12.2020
	LATA TAPOVAN	36,00,00,000	07.12.2020
	DARLIPALLI	1,60,00,00,000	07.12.2020
	BILHAUR SOLAR 140MW	60,00,00,000	07.12.2020
	BILHAUR SOLAR 85MW	16,00,00,000	07.12.2020
	SAMBHU KI BHURJ-II-TOKALA	54,00,00,000	07.12.2020
Total Allocated Amount		16,00,00,00,000	

Form 8			
TRANCHE NO			
BP NO 5050000981		T00001	
		D00001	
Unsecured Loan From HDFC Bank Ltd. IX			
Source of Loan :	HDFC Bank Ltd. IX		
Currency :	INR		
Amount of Loan :	50,00,00,00,000		
Total Drawn amount :	3,00,00,00,000		
Date of drawl	30.06.2020		
Interest Type :	Floating		
Fixed Interest Rate :			
Base Rate, If Floating Interest	6.30%		
Margin, If Floating Interest :	NIL		
Are there any Caps/ Floor :	Y/N		
Frequency of Intt. Payment	MONTHLY		
If Above is yes, specify Caps/ Floor :			
Moratorium Period :	3 Years		
Moratorium effective from :	30.06.2020		
Repayment Period (Inc Moratorium) :	15 Years		
Repayment Frequency :	12 Yearly Instalment		
Repayment Type :	AVG		
First Repayment Date :	30.06.2024		
Base Exchange Rate :	RUPEE		
Date of Base Exchange Rate :	N.A.		
Project Code	Project Name	Amount	
	BARH-I	67,66,00,000	30.06.2020
	TAPOVAN VISHNUGAD	26,65,00,000	30.06.2020
	PAKRI BARWADIH CMB	49,00,00,000	30.06.2020
	LARA-I	25,59,00,000	30.06.2020
	GADARWARA	20,25,00,000	30.06.2020
	DARLIPALLI	20,00,00,000	30.06.2020
	TALAIPALI COAL MINE	15,00,00,000	30.06.2020
	BARAUNI-II	20,00,00,000	30.06.2020
	BILHAUR SOLAR 140MW	20,00,00,000	30.06.2020
	JETSAR SOLAR	5,00,00,000	30.06.2020
	KIRENDARI	15,00,00,000	30.06.2020
	CHATTI BARIATU CMB	15,85,00,000	30.06.2020
Total Allocated Amount		3,00,00,00,000	

Form 8			
TRANCHE NO			
BP NO 5050000981		T00001 D00003	
Unsecured Loan From HDFC Bank Ltd. IX			
Source of Loan :	HDFC Bank Ltd. IX		
Currency :	INR		
Amount of Loan :	50,00,00,00,000		
Total Drawn amount :	2,50,00,00,000		
Date of drawl	13.08.2020		
Interest Type :	Floating		
Fixed Interest Rate :			
Base Rate, If Floating Interest	6.30%		
Margin, If Floating Interest :	NIL		
Are there any Caps/ Floor :	Y/N		
Frequency of Intt. Payment	MONTHLY		
If Above is yes, specify Caps/ Floor :			
Moratorium Period :	3 Years		
Moratorium effective from :	13.08.2020		
Repayment Period (Inc Moratorium) :	15 Years		
Repayment Frequency :	12 Yearly Instalment		
Repayment Type :	AVG		
First Repayment Date :	30.06.2024		
Base Exchange Rate :	RUPEE		
Date of Base Exchange Rate :	N.A.		
Project Code	Project Name	Amount	
	BARH I	70,00,00,000	13.08.2020
	GADARWARA	50,00,00,000	13.08.2020
	NORTH KARANPURA	45,00,00,000	13.08.2020
	TELANGANA	35,00,00,000	13.08.2020
	TALAIPALI	50,00,00,000	13.08.2020
Total Allocated Amount		2,50,00,00,000	

TRANCHE NO			
BP NO 5050000981		T00001	D00007
Unsecured Loan From HDFC Bank Ltd. IX			
Source of Loan :	HDFC Bank Ltd. IX		
Currency :	INR		
Amount of Loan :	50,00,00,00,000		
Total Drawn amount :	3,00,00,00,000		
Date of drawl	04.11.2020		
Interest Type :	Floating		
Fixed Interest Rate :			
Base Rate, If Floating Interest	5.95%		
Margin, If Floating Interest :	NIL		
Are there any Caps/ Floor :	Y/N		
Frequency of Intt. Payment	MONTHLY		
If Above is yes, specify Caps/ Floor :			
Moratorium Period :	3 Years		
Moratorium effective from :	04.11.2020		
Repayment Period (Inc Moratorium) :	15 Years		
Repayment Frequency :	12 Yearly Instalment		
Repayment Type :	AVG		
First Repayment Date :	30.06.2024		
Base Exchange Rate :	RUPEE		
Date of Base Exchange Rate :	N.A.		
Project Code	Project Name	Amount	
	BARH I	1,25,00,00,000	04.11.2020
	NORTH KARANPURA	50,00,00,000	04.11.2020
	TAPOVAN VISHNUGARH	25,00,00,000	04.11.2020
	LARA-I	50,00,00,000	04.11.2020
	GADARWARA	50,00,00,000	04.11.2020
Total Allocated Amount		3,00,00,00,000	

<div> <div>BP NO 5050000981</div> <div> <div>TRANCHE NO</div> <div>T00001</div> <div>D00009</div> </div> </div>		
Unsecured Loan From HDFC Bank Ltd. IX		
Source of Loan :	HDFC Bank Ltd. IX	
Currency :	INR	
Amount of Loan :	50,00,00,00,000	
Total Drawn amount :	8,00,00,00,000	
Date of drawl	07.12.2020	
Interest Type :	Floating	
Fixed Interest Rate :		
Base Rate, If Floating Interest	5.95%	
Margin, If Floating Interest :	NIL	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	3 Years	
Moratorium effective from :	07.12.2020	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	12 Yearly Instalment	
Repayment Type :	AVG	
First Repayment Date :	30.06.2024	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	TANDA-II	82,00,00,000.00 07.12.2020
	BARH-I	1,30,00,00,000.00 07.12.2020
	NORTH KARANPURA	65,00,00,000.00 07.12.2020
	TAPOVAN VISHNUGARH	70,00,00,000.00 07.12.2020
	LARA-I	1,30,00,00,000.00 07.12.2020
	GADARWARA	25,00,00,000.00 07.12.2020
	RAMMAM	8,00,00,000.00 07.12.2020
	DARLIPALLI	50,00,00,000.00 07.12.2020
	KHARGONE	1,20,00,00,000.00 07.12.2020
	TELANGANA	1,20,00,00,000.00 07.12.2020
Total Allocated Amount		8,00,00,00,000

TRANCHE NO			
BP NO 5050000981		T00001	D00010
Unsecured Loan From HDFC Bank Ltd. IX			
Source of Loan :	HDFC Bank Ltd. IX		
Currency :	INR		
Amount of Loan :	50,00,00,00,000		
Total Drawn amount :	6,83,00,00,000		
Date of drawl	24.12.2020		
Interest Type :	Floating		
Fixed Interest Rate :			
Base Rate, If Floating Interest	5.95%		
Margin, If Floating Interest :	NIL		
Are there any Caps/ Floor :	Y/N		
Frequency of Intt. Payment	MONTHLY		
If Above is yes, specify Caps/ Floor :			
Moratorium Period :	3 Years		
Moratorium effective from :	24.12.2020		
Repayment Period (Inc Moratorium) :	15 Years		
Repayment Frequency :	12 Yearly Instalment		
Repayment Type :	AVG		
First Repayment Date :	30.06.2024		
Base Exchange Rate :	RUPEE		
Date of Base Exchange Rate :	N.A.		
Project Code	Project Name	Amount	
	TANDA-II	7,50,00,000.00	24.12.2020
	BARH I	68,00,00,000.00	24.12.2020
	NORTH KARANPURA	50,00,00,000.00	24.12.2020
	GADARWARA	50,00,00,000.00	24.12.2020
	LARA-I	30,00,00,000.00	24.12.2020
	DARLIPALLI	10,00,00,000.00	24.12.2020
	KHARGONE	84,00,00,000.00	24.12.2020
	TAPOVAN VISHNUGARH	25,00,00,000.00	24.12.2020
	RAMMAM	15,00,00,000.00	24.12.2020
	BARAUNI-II	3,00,00,000.00	24.12.2020
	RAMAGUNDAM FLOATING SOLAR	9,00,00,000.00	24.12.2020
	BILHAUR SOLAR 140MW	6,00,00,000.00	24.12.2020
	BILHAUR SOLAR 85MW	13,00,00,000.00	24.12.2020
	AURAIYA SOLAR 20MW	3,20,00,000.00	24.12.2020
	SIMHADRI FLOATING	1,50,00,000.00	24.12.2020
	KAYAMKULAM FS ( 22 MW)	4,00,00,000.00	24.12.2020
	JETSAR SOLAR	2,00,00,000.00	24.12.2020
	FATEHGARH (296MW)	60,00,00,000.00	24.12.2020
	BONGAIGAON	60,00,00,000.00	24.12.2020
	SOLAPUR	10,00,00,000.00	24.12.2020
	KORBA R&M	10,00,00,000.00	24.12.2020
	VINDHYACHAL R&M	5,30,00,000.00	24.12.2020
	FARAKKA R&M	2,50,00,000.00	24.12.2020
	KIRENDARI	4,00,00,000.00	24.12.2020
	PAKRI BARWADIH CMB	1,50,00,00,000.00	24.12.2020
Total Allocated Amount		6,83,00,00,000	

Form 8			
TRANCHE NO			
BP NO 5050000791		T00001	
		D00007	
Unsecured Loan From HDFC Bank Ltd. VII			
Source of Loan :	HDFC Bank Ltd. VII		
Currency :	INR		
Amount of Loan :	25,00,00,00,000		
Total Drawn amount :	4,95,00,00,000		
Date of drawl	28.05.2020		
Interest Type :	Floating		
Fixed Interest Rate :			
Base Rate, If Floating Interest	7.45%		
Margin, If Floating Interest :	NIL		
Are there any Caps/ Floor :	Y/N		
Frequency of Intt. Payment	MONTHLY		
If Above is yes, specify Caps/ Floor :			
Moratorium Period :	6 Years		
Moratorium effective from :	28.05.2020		
Repayment Period (Inc Moratorium) :	15 Years		
Repayment Frequency :	9 Yearly Instalment		
Repayment Type :	AVG		
First Repayment Date :	11.06.2026		
Base Exchange Rate :	RUPEE		
Date of Base Exchange Rate :	N.A.		
Project Code	Project Name	Amount	
	BARH-I	3,30,00,00,000	28.05.2020
	TAPOVAN VISHNUGAD	70,00,00,000	28.05.2020
	GADARWARA	45,00,00,000	28.05.2020
	THDC	32,68,00,000	28.05.2020
	NEEPCO	17,32,00,000	28.05.2020
Total Allocated Amount		4,95,00,00,000	

Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

T00001

D00001

BP NO 5050000791

Unsecured Loan From HDFC Bank Ltd. VII			
Source of Loan :	HDFC Bank Ltd. VII		
Currency :	INR		
Amount of Loan :	25,00,00,00,000		
Total Drawn amount :	3,85,00,00,000		
Date of drawl	11.06.2019		
Interest Type :	Floating		
Fixed Interest Rate :			
Base Rate, If Floating Interest	8.40%		
Margin, If Floating Interest :	NIL		
Are there any Caps/ Floor :	Y/N		
Frequency of Intt. Payment	MONTHLY		
If Above is yes, specify Caps/ Floor :			
Moratorium Period :	6 Years		
Moratorium effective from :	11.06.2019		
Repayment Period (Inc Moratorium) :	15 Years		
Repayment Frequency :	9 Yearly Instalment		
Repayment Type :	AVG		
First Repayment Date :	11.06.2026		
Base Exchange Rate :	RUPEE		
Date of Base Exchange Rate :	N.A.		
Project Code	Project Name	Amount	
	BONGAIGAON	1,21,00,00,000	11.06.2019 T00001
	LARA	28,00,00,000	11.06.2019 T00001
	TAPOVAN VISHNUGAD	15,00,00,000	11.06.2019 T00001
	BARH-I	98,00,00,000	11.06.2019 T00001
	GADARWARA	20,00,00,000	11.06.2019 T00001
	CHATTI BARIATU CMB	18,00,00,000	11.06.2019 T00001
	DARLIPALLI	20,00,00,000	11.06.2019 T00001
	DULANGA CMB	35,00,00,000	11.06.2019 T00001
	TALAIPALI CMB	30,00,00,000	11.06.2019 T00001
Total Allocated Amount		3,85,00,00,000	

Statement Giving Details of Project Financed through a Combination of loan			
Form 8			
TRANCHE NO			
BP NO 5050000791	T00001	D00002	
Unsecured Loan From HDFC Bank Ltd. VII			
Source of Loan :	HDFC Bank Ltd. VII		
Currency :	INR		
Amount of Loan :	25,00,00,00,000		
Total Drawn amount :	5,00,00,00,000		
Date of drawl	21.06.2019		
Interest Type :	Floating		
Fixed Interest Rate :			
Base Rate, If Floating Interest	8.40%		
Margin, If Floating Interest :	NIL		
Are there any Caps/ Floor :	Y/N		
Frequency of Intt. Payment	MONTHLY		
If Above is yes, specify Caps/ Floor :			
Moratorium Period :	6 Years		
Moratorium effective from :	21.06.2019		
Repayment Period (Inc Moratorium) :	15 Years		
Repayment Frequency :	9 Yearly Instalment		
Repayment Type :	AVG		
First Repayment Date :	11.06.2026		
Base Exchange Rate :	RUPEE		
Date of Base Exchange Rate :	N.A.		
Project Code	Project Name	Amount	
	NCPS-FGD	10,00,00,000	21.06.2019 T00001
	FSTPS R&M	10,00,00,000	21.06.2019 T00001
	KORBA-R&M	10,00,00,000	21.06.2019 T00001
	SOLAPUR	50,00,00,000	21.06.2019 T00001
	MOUDA-II	50,00,00,000	21.06.2019 T00001
	TELANGANA	30,00,00,000	21.06.2019 T00001
	Singrauli-R&M	30,00,00,000	21.06.2019 T00001
	Simhadri-R&M	15,00,00,000	21.06.2019 T00001
	Korba-R&M	10,00,00,000	21.06.2019 T00001
	Ramagundam-R&M	10,00,00,000	21.06.2019 T00001
	VSTPS R&M	10,00,00,000	21.06.2019 T00001
	TANDA-II	30,00,00,000	21.06.2019 T00001
	DARLIPALLI	30,00,00,000	21.06.2019 T00001
	NORTH KARANPURA	30,00,00,000	21.06.2019 T00001
	GADARWARA	40,00,00,000	21.06.2019 T00001
	LARA-I	15,00,00,000	21.06.2019 T00001
	BARH-I	1,20,00,00,000	21.06.2019 T00001
Total Allocated Amount		5,00,00,00,000	

Form 8			
TRANCHE NO			
BP NO 5050000791		T00001	D00004
Unsecured Loan From HDFC Bank Ltd. VII			
Source of Loan :	HDFC Bank Ltd. VII		
Currency :	INR		
Amount of Loan :	25,00,00,00,000		
Total Drawn amount :	5,00,00,00,000		
Date of drawl	10.01.2020		
Interest Type :	Floating		
Fixed Interest Rate :			
Base Rate, If Floating Interest	7.65%		
Margin, If Floating Interest :	NIL		
Are there any Caps/ Floor :	Y/N		
Frequency of Intt. Payment	MONTHLY		
If Above is yes, specify Caps/ Floor :			
Moratorium Period :	6 Years		
Moratorium effective from :	10.01.2020		
Repayment Period (Inc Moratorium) :	15 Years		
Repayment Frequency :	9 Yearly Instalment		
Repayment Type :	AVG		
First Repayment Date :	11.06.2026		
Base Exchange Rate :	RUPEE		
Date of Base Exchange Rate :	N.A.		
Project Code	Project Name	Amount	
	RIHAND-II & III FGD	20,00,00,000	10.01.2020 T00001
	GADARWARA	1,90,00,00,000	10.01.2020 T00001
	BARH-I	2,90,00,00,000	10.01.2020 T00001
Total Allocated Amount		5,00,00,00,000	

Form 8				
TRANCHE NO				
BP NO 5050001151		T00001		D00002
Unsecured Loan From HDFC Bank Ltd. X				
Source of Loan :	HDFC Bank Ltd. X			
Currency :	INR			
Amount of Loan :	30,00,00,00,000			
Total Drawn amount :	5,00,00,00,000			
Date of drawl	24.11.2021			
Interest Type :	Floating			
Fixed Interest Rate :				
Base Rate, If Floating Interest	5.83%			
Margin, If Floating Interest :	NIL			
Are there any Caps/ Floor :	Y/N			
Frequency of Intt. Payment	MONTHLY			
If Above is yes, specify Caps/ Floor :				
Moratorium Period :	3 Years			
Moratorium effective from :	24.11.2021			
Repayment Period (Inc Moratorium) :	15 Years			
Repayment Frequency :	12 Yearly Instalment			
Repayment Type :	AVG			
First Repayment Date :	24.11.2025			
Base Exchange Rate :	RUPEE			
Date of Base Exchange Rate :	N.A.			
Project Code	Project Name	Amount		
	NORTH KARANPURA	24,00,00,000.00	21.03.2022	5.83%
	RAMMAM	3,00,00,000.00	21.03.2022	5.83%
	TELANGANA	23,00,00,000.00	21.03.2022	5.83%
	LARA	50,00,00,000.00	21.03.2022	5.83%
	GADARWARA	50,00,00,000.00	21.03.2022	5.83%
	DARLIPALLI	77,00,00,000.00	21.03.2022	5.83%
	TANDA-II	65,00,00,000.00	21.03.2022	5.83%
	BARAUNI-II	20,00,00,000.00	21.03.2022	5.83%
	SINGRAULI R&M	15,00,00,000.00	21.03.2022	5.83%
	KORBA R&M	25,00,00,000.00	21.03.2022	5.83%
	RAMAGUNDAM I & II R&M	40,00,00,000.00	21.03.2022	5.83%
	VINDHYACHAL R&M	7,00,00,000.00	21.03.2022	5.83%
	FARAKKA R&M	10,00,00,000.00	21.03.2022	5.83%
	UNCHAHAR R&M	4,00,00,000.00	21.03.2022	5.83%
	RIHAND R&M	15,00,00,000.00	21.03.2022	5.83%
	KAHALGAON R&M	3,00,00,000.00	21.03.2022	5.83%
	CHATTI BARIATU CMB	5,00,00,000.00	21.03.2022	5.83%
	DULANGA COAL MINE	26,00,00,000.00	21.03.2022	5.83%
	TALAIPALI COAL MINE	26,00,00,000.00	21.03.2022	5.83%
	KIRENDARI	3,00,00,000.00	21.03.2022	5.83%
	BARH-II FGD	2,50,00,000.00	21.03.2022	5.83%
	MOUDA-II FGD	6,50,00,000.00	21.03.2022	5.83%
Total Allocated Amount		5,00,00,00,000		

Form 8				
TRANCHE NO				
BP NO 5050001151		T00001		D00003
Unsecured Loan From HDFC Bank Ltd. X				
Source of Loan :	HDFC Bank Ltd. X			
Currency :	INR			
Amount of Loan :	30,00,00,00,000			
Total Drawn amount :	6,30,00,00,000			
Date of drawl	02.05.2022			
Interest Type :	Floating			
Fixed Interest Rate :				
Base Rate, If Floating Interest	5.83%			
Margin, If Floating Interest :	NIL			
Are there any Caps/ Floor :	Y/N			
Frequency of Intt. Payment	MONTHLY			
If Above is yes, specify Caps/ Floor :				
Moratorium Period :	3 Years			
Moratorium effective from :	24.11.2021			
Repayment Period (Inc Moratorium) :	15 Years			
Repayment Frequency :	12 Yearly Instalment			
Repayment Type :	AVG			
First Repayment Date :	24.11.2025			
Base Exchange Rate :	RUPEE			
Date of Base Exchange Rate :	N.A.			
Project Code	Project Name	Amount		
	KHARGONE	60,00,00,000.00	02.05.2022	5.83%
	LARA	40,00,00,000.00	02.05.2022	5.83%
	GADARWARA	15,00,00,000.00	02.05.2022	5.83%
	DARLIPALLI	1,50,00,00,000.00	02.05.2022	5.83%
	TANDA-II	40,00,00,000.00	02.05.2022	5.83%
	BARAUNI-II	15,00,00,000.00	02.05.2022	5.83%
	TALAIPALI COAL MINE	15,00,00,000.00	02.05.2022	5.83%
	KIRENDARI	15,00,00,000.00	02.05.2022	5.83%
	TELANGANA	88,00,00,000.00	02.05.2022	5.83%
	NORTH KARANPURA	1,92,00,00,000.00	02.05.2022	5.83%
Total Allocated Amount		6,30,00,00,000		

Form 8				
TRANCHE NO				
BP NO 5050001151		T00001		D00005
Unsecured Loan From HDFC Bank Ltd. X				
Source of Loan :	HDFC Bank Ltd. X			
Currency :	INR			
Amount of Loan :	30,00,00,00,000			
Total Drawn amount :	2,76,79,00,000			
Date of drawl	01.06.2022			
Interest Type :	Floating			
Fixed Interest Rate :				
Base Rate, If Floating Interest	5.83%			
Margin, If Floating Interest :	NIL			
Are there any Caps/ Floor :	Y/N			
Frequency of Intt. Payment	MONTHLY			
If Above is yes, specify Caps/ Floor :				
Moratorium Period :	3 Years			
Moratorium effective from :	24.11.2021			
Repayment Period (Inc Moratorium) :	15 Years			
Repayment Frequency :	12 Yearly Instalment			
Repayment Type :	AVG			
First Repayment Date :	24.11.2025			
Base Exchange Rate :	RUPEE			
Date of Base Exchange Rate :	N.A.			
Project Code	Project Name	Amount		
	RAMAGUNDAM FS-100MW	1,79,00,000.00	01.06.2022	5.83%
	SAMBHU KI BHURJ-II	50,00,00,000.00	01.06.2022	5.83%
	NOKHRA SOLAR	50,00,00,000.00	01.06.2022	5.83%
	NOKH SOLAR PLOT-II	40,00,00,000.00	01.06.2022	5.83%
	KHARGONE	50,00,00,000.00	01.06.2022	5.83%
	LARA	25,00,00,000.00	01.06.2022	5.83%
	GADARWARA	20,00,00,000.00	01.06.2022	5.83%
	DARLIPALLI	40,00,00,000.00	01.06.2022	5.83%
Total Allocated Amount		2,76,79,00,000		

Form 8		
TRANCHE NO		
T00001		
BP NO 5050001441	D000001	
Unsecured Loan From HDFC Bank Ltd. XII		
Source of Loan :	HDFC Bank Ltd. XII	
Currency :	INR	
Amount of Loan :	50,00,00,00,000	
Total Drawn amount :	5,00,00,00,00,000	
Date of drawl	13-Oct-23	
Interest Type :	Floating	
Fixed Interest Rate :		
Base Rate, If Floating Interest	7.65%	
Margin, If Floating Interest :	NIL	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	3 Years	
Moratorium effective from :	13.10.2023	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	12 Yearly Instalment	
Repayment Type :	AVG	
First Repayment Date :	13.10.2027	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	SINGRAULI-I & II FGD	17,00,00,000.00
	UNCHAHAAR-I, II & III-FGD	1,00,00,000.00
	TANDA II	20,00,00,000.00
	KORBA-I,FGD	8,00,00,000.00
	VINDHYACHAL-III&IV FGD	1,00,00,000.00
	SIPAT-I (3X660 MW) FGD	3,00,00,000.00
	SIPAT-II (3X660 MW) FGD	7,00,00,000.00
	TSTPS STAGE-II & I FGD	1,00,00,000.00
	BARH I	75,00,00,000.00
	TAPOVAN VISHNUGARH (4X130	24,00,00,000.00
	BARH II FGD	1,00,00,000.00
	NORTH KARANPURA	50,00,00,000.00
	RAMAGUNDAM-I & II FGD	3,00,00,000.00
	RAMAGUNDAM-III (1X500 MW)	1,00,00,000.00
	MOUDA-I FGD	2,00,00,000.00
	MAUDA II FGD	3,00,00,000.00
	SOLAPUR FGD	1,00,00,000.00
	KUDGI FGD	1,00,00,000.00
	LARA	10,00,00,000.00
	LARA, STAGE-II, 2X800 MW	80,00,00,000.00
	GADARWARA	10,00,00,000.00
	RAMMAM (3X40MW)	13,50,00,000.00
	KHARGONE	20,00,00,000.00
	TELANGANA	92,50,00,000.00
	TALLAIPALLI	16,00,00,000.00
	BARAUNI-II	10,00,00,000.00
	KERANDARI CMB	9,00,00,000.00
	NABINAGAR	20,00,00,000.00
	Total Allocated Amount	5,00,00,00,000.00



	NABINAGAR	20,00,00,000.00	01-12-2023
	CHATTI BARIATU CMB	20,00,00,000.00	01-12-2023
	TALAIPALI COAL MINE	22,00,00,000.00	01-12-2023
	KERANDARI	14,00,00,000.00	01-12-2023
	PAKRI BARWADIH CMB	60,00,00,000.00	01-12-2023
	RIHAND- I FGD	5,00,00,000.00	01-12-2023
	RIHAND- II & III FGD	5,00,00,000.00	01-12-2023
	UNCHAHAH-I, II & III-FGD	4,00,00,000.00	01-12-2023
	VINDHYACHAL-I &II FGD	8,50,00,000.00	01-12-2023
	VINDHYACHAL-III &IV FGD	5,50,00,000.00	01-12-2023
	SIPAT-II FGD	4,00,00,000.00	01-12-2023
	KORBA-I, II & III FGD	20,50,00,000.00	01-12-2023
	BARH-II FGD	2,00,00,000.00	01-12-2023
	RAMAGUNDAM-I & II FGD	20,00,00,000.00	01-12-2023
	RAMAGUNDAM-III FGD	4,00,00,000.00	01-12-2023
	MOUDA-I FGD	2,00,00,000.00	01-12-2023
	MOUDA-II FGD	1,00,00,000.00	01-12-2023
	SOLAPUR-FGD	1,00,00,000.00	01-12-2023
	KUDGI-FGD	2,00,00,000.00	01-12-2023
	SINGRAULI-I & II FGD	21,00,00,000.00	01-12-2023
	FARAKKA-I, II & III FGD	1,00,00,000.00	01-12-2023
	KAHALGAON-I & II FGD	17,00,00,000.00	01-12-2023
	TSTPS STAGE-II & I FGD	6,00,00,000.00	01-12-2023
	<b>Total Allocated Amount</b>	<b>10,00,00,00,000.00</b>	

Form 8		
TRANCHE NO		
BP NO 5050001441	T00001	D00004
Unsecured Loan From HDFC Bank Ltd. XII		
Source of Loan :	HDFC Bank Ltd. XII	
Currency :	INR	
Amount of Loan :	50,00,00,00,000	
Total Drawn amount :	8,75,00,00,000	
Date of drawl	01-Jan-24	
Interest Type :	Floating	
Fixed Interest Rate :		
Base Rate, If Floating Interest	7.65%	
Margin, If Floating Interest :	NIL	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	3 Years	
Moratorium effective from :	13.10.2023	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	12 Yearly Instalment	
Repayment Type :	AVG	
First Repayment Date :	13.10.2027	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	BARH-I (3X 660MW)	2,40,00,00,000.00
	TAPOVAN VISHNUGARH (4X130	32,00,00,000.00
	NORTH KARANPURA (3X660)	1,47,00,00,000.00
	RAMMAM (3X40MW)	3,00,00,000.00
	TELANGANA (2X800MW)	40,00,00,000.00
	GANDHAR 20MW	1,00,00,000.00
	RIHAND SOLAR (20MW)	1,00,00,000.00
	ANTA SOLAR (90MW)	2,00,00,000.00
	NOKH SOLAR PLOT-II (245MW	22,00,00,000.00
	NOKH SOLAR PLOT-III (245M	36,00,00,000.00
	LARA	32,00,00,000.00
	GADARWARA	9,00,00,000.00
	DARLIPALLI	25,00,00,000.00
	TANDA-II	20,00,00,000.00
	BARAUNI-II (2X250MW)	9,00,00,000.00
	NABINAGAR	9,00,00,000.00

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	CHATTI BARIATU CMB	9,50,00,000.00	01-01-2024
	TALAIPALI COAL MINE	20,00,00,000.00	01-01-2024
	KERANDARI	3,50,00,000.00	01-01-2024
	PAKRI BARWADIH CMB	40,00,00,000.00	01-01-2024
	DULANGA COAL MINE	3,00,00,000.00	01-01-2024
	RIHAND- I FGD	11,50,00,000.00	01-01-2024
	RIHAND- II & III FGD	1,00,00,000.00	01-01-2024
	VINDHYACHAL-I &II FGD	3,00,00,000.00	01-01-2024
	VINDHYACHAL-III &IV FGD	1,00,00,000.00	01-01-2024
	SIPAT-I (3X660 MW) FGD	1,00,00,000.00	01-01-2024
	SIPAT-II FGD	6,50,00,000.00	01-01-2024
	KORBA-I,II,III FGD	26,50,00,000.00	01-01-2024
	BARH-II FGD	1,00,00,000.00	01-01-2024
	RAMAGUNDAM-I & II FGD	16,00,00,000.00	01-01-2024
	RAMAGUNDAM-III FGD	3,50,00,000.00	01-01-2024
	SOLAPUR-FGD	35,00,00,000.00	01-01-2024
	KUDGI-FGD	4,00,00,000.00	01-01-2024
	SINGRAULI-I & II FGD	6,00,00,000.00	01-01-2024
	FARAKKA-I , II & III FGD	15,50,00,000.00	01-01-2024
	KAHALGAON-I & II FGD	18,00,00,000.00	01-01-2024
	TSTPS STAGE-II & I FGD	21,50,00,000.00	01-01-2024
	<b>Total Allocated Amount</b>	<b>8,75,00,00,000.00</b>	



Statement Giving Details of Project Financed through a Combination of loan		
Form 8		
TRANCHE NO		
BP NO 5050000711	T00001	D00001
Unsecured Loan From Punjab National Bank-IV		
Source of Loan :	Punjab National Bank-IV	
Currency :	INR	
Amount of Loan :	20,00,00,00,000	
Total Drawn amount :	20,00,00,00,000	
Date of Drawl	01.01.2019	
Interest Type :	Floating	
Fixed Interest Rate :		
Base Rate, If Floating Interest	8.60%	
Margin, If Floating Interest :	0.00%	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	3 Years	
Moratorium effective from :	01.01.2019	
Repayment Period (Inc Moratorium) :	12 Years	
Repayment Frequency :	9 Yearly Instalment	
Repayment Type :	AVG	
First Repayment Date :	14.02.2023	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	UNCHAHAH STPP IV	65,00,00,000.00 01.01.2019
	TANDA-II	85,00,00,000.00 01.01.2019
	NCTPP-II	36,43,00,000.00 01.01.2019
	DADRI GAS R&M	56,00,00,000.00 01.01.2019
	KORBA-III	15,00,00,000.00 01.01.2019
	SIPAT-II	17,14,00,000.00 01.01.2019
	FARAKKA-III	8,57,00,000.00 01.01.2019
	KAHALGAON-II	17,14,00,000.00 01.01.2019
	BARH-I	1,08,57,00,000.00 01.01.2019
	BARH-II	8,00,00,000.00 01.01.2019
	NORTH KARANPURA	1,09,00,00,000.00 01.01.2019
	KOLDAM	6,43,00,000.00 01.01.2019
	TAPOVAN VISHNUGAD	28,57,00,000.00 01.01.2019
	PAKRI BARWADIH	1,42,00,00,000.00 01.01.2019
	CHATTI BARIATU	10,00,00,000.00 01.01.2019
	BONGAIGAON	36,43,00,000.00 01.01.2019
	KUDGI	60,00,00,000.00 01.01.2019
	LARA	1,23,00,00,000.00 01.01.2019
	GADARWARA	2,27,72,00,000.00 01.01.2019
	DARLIPALLI	2,73,00,00,000.00 01.01.2019
	KHARGONE	50,00,00,000.00 01.01.2019
	ANANTPUR SOLAR	17,00,00,000.00 01.01.2019
	TALAIPALI COAL MINE	5,00,00,00,000.00 01.01.2019
Total Allocated Amount		20,00,00,00,000.00

Form 8			
TRANCHE NO			
BP NO 5050000531		T00001 D0001	
Unsecured Loan From SBI-IX			
Source of Loan :	SBI-IX		
Currency :	INR		
Amount of Loan :	30,00,00,00,000		
Total Drawn amount :	3,00,00,00,000		
Date of Drawal:	17.04.2017		
Interest Type :	Floating		
Fixed Interest Rate :	-----		
Base Rate, If Floating Interest	7.90%		
Margin, If Floating Interest :	0.00%		
Are there any Caps/ Floor :	Y/N		
Frequency of Intt. Payment	Monthly		
If Above is yes, specify Caps/ Floor :			
Moratorium Period :	3 Years		
Moratorium effective from :	17.04.2017		
Repayment Period (Inc Moratorium) :	12 Years		
Repayment Frequency :	9 Yearly Instalments		
Repayment Type :	AVG		
First Repayment Date :	31.03.2021		
Base Exchange Rate :	RUPEE		
Date of Base Exchange Rate :	N.A.		
<b>Project Code</b>	<b>Project Name</b>	<b>Amount</b>	
	BARH-I	40,00,00,000	17.04.2017 7.90%
	TAPOVAN VISHNUGARH	27,00,00,000	17.04.2017 7.90%
	BONGAIGAON	36,00,00,000	17.04.2017 7.90%
	SINGRAULI8 MW SMALL HYDRO	6,00,00,000	17.04.2017 7.90%
	GADARWARA	58,00,00,000	17.04.2017 7.90%
	DARLIPALLI	73,00,00,000	17.04.2017 7.90%
	RAMMAM	13,00,00,000	17.04.2017 7.90%
	KUDGI	47,00,00,000	17.04.2017 7.90%
<b>Total Allocated Amount</b>		<b>3,00,00,00,000.00</b>	

Statement Giving Details of Project Financed through a Combination of loan				
Form 8				
TRANCHE NO				
BP NO 5050000531		T00001		D0002
Unsecured Loan From SBI-IX				
Source of Loan :	SBI-IX			
Currency :	INR			
Amount of Loan :	30,00,00,00,000			
Total Drawn amount :	2,00,00,00,000			
Date of Drawal:	04.05.2017			
Interest Type :	Floating			
Fixed Interest Rate :	-----			
Base Rate, If Floating Interest	7.90%			
Margin, If Floating Interest :	0.00%			
Are there any Caps/ Floor :	Y/N			
Frequency of Intt. Payment	Monthly			
If Above is yes, specify Caps/ Floor :				
Moratorium Period :	3 Years			
Moratorium effective from :	04.05.2017			
Repayment Period (Inc Moratorium) :	12 Years			
Repayment Frequency :	9 Yearly Installments			
Repayment Type :	AVG			
First Repayment Date :	31.03.2021			
Base Exchange Rate :	RUPEE			
Date of Base Exchange Rate :	N.A.			
Project Code	Project Name	Amount		
	BARH-I	54,00,00,000	04.05.2017	7.90%
	TAPOVAN VISHNUGARH	16,00,00,000	04.05.2017	7.90%
	BONGAIGAON	20,00,00,000	04.05.2017	7.90%
	LARA	22,00,00,000	04.05.2017	7.90%
	GADARWARA	12,00,00,000	04.05.2017	7.90%
	TELANGANA	16,00,00,000	04.05.2017	7.90%
	KOLDAM	10,00,00,000	04.05.2017	7.90%
	PAKRI BARWADIH CMB	50,00,00,000	04.05.2017	7.90%
Total Allocated Amount		2,00,00,00,000.00		

Form 8			
TRANCHE NO			
BP NO 5050000531		T00001	D0007
Unsecured Loan From SBI-X			
Source of Loan :	SBI-X		
Currency :	INR		
Amount of Loan :	30,00,00,00,000		
Total Drawn amount :	4,00,00,00,000		
Date of Drawal:	29.05.2018		
Interest Type :	Floating		
Fixed Interest Rate :	-----		
Base Rate, If Floating Interest	7.85%		
Margin, If Floating Interest :	0.00%		
Are there any Caps/ Floor :	Y/N		
Frequency of Intt. Payment	Monthly		
If Above is yes, specify Caps/ Floor :			
Moratorium Period :	3 Years		
Moratorium effective from :	29.05.2018		
Repayment Period (Inc Moratorium) :	12 Years		
Repayment Frequency :	9 Yearly Installments		
Repayment Type :	AVG		
First Repayment Date :	31.03.2021		
Base Exchange Rate :	RUPEE		
Date of Base Exchange Rate :	N.A.		
<b>Project Code</b>	<b>Project Name</b>	<b>Amount</b>	
	BARH-I	80,00,00,000	7.85%
	TAPOVAN VISHNUGARH	30,00,00,000	7.85%
	BONGAIGAON	40,00,00,000	7.85%
	SOLAPUR	20,00,00,000	7.85%
	GADARWARA	1,40,00,00,000	7.85%
	NORTH KARANPURA	90,00,00,000	7.85%
<b>Total Allocated Amount</b>		<b>4,00,00,00,000.00</b>	7.85%

Statement Giving Details of Project Financed through a Combination of loan				
Form 8				
TRANCHE NO				
T00001				
D0010				
BP NO 5050000531				
Unsecured Loan From SBI-IX				
Source of Loan :	SBI-IX			
Currency :	INR			
Amount of Loan :	30,00,00,00,000			
Total Drawn amount :	6,85,00,00,000			
Date of Drawal:	29.06.2018			
Interest Type :	Floating			
Fixed Interest Rate :	-----			
Base Rate, If Floating Interest	7.85%			
Margin, If Floating Interest :	0.00%			
Are there any Caps/ Floor :	Y/N			
Frequency of Intt. Payment	Monthly			
If Above is yes, specify Caps/ Floor :				
Moratorium Period :	3 Years			
Moratorium effective from :	29.06.2018			
Repayment Period (Inc Moratorium) :	12 Years			
Repayment Frequency :	9 Yearly Installments			
Repayment Type :	AVG			
First Repayment Date :	31.03.2021			
Base Exchange Rate :	RUPEE			
Date of Base Exchange Rate :	N.A.			
Project Code	Project Name	Amount		
	BARH-I	40,00,00,000	29.06.2018	7.85%
	TAPOVAN VISHNUGARH	15,00,00,000	29.06.2018	7.85%
	BONGAIGAON	15,00,00,000	29.06.2018	7.85%
	SOLAPUR	20,00,00,000	29.06.2018	7.85%
	LARA-I	55,00,00,000	29.06.2018	7.85%
	GADARWARA	1,00,00,00,000	29.06.2018	7.85%
	NORTH KARANPURA	60,00,00,000	29.06.2018	7.85%
	DARLIPALLI	45,00,00,000	29.06.2018	7.85%
	TANDA II	60,00,00,000	29.06.2018	7.85%
	RAMMAM	10,00,00,000	29.06.2018	7.85%
	KHARGONE	75,00,00,000	29.06.2018	7.85%
	TELANGANA	75,00,00,000	29.06.2018	7.85%
	TTPS R&M	10,00,00,000	29.06.2018	7.85%
	VINDHYACHAL R&M	10,00,00,000	29.06.2018	7.85%
	FARAKKA R&M	50,00,00,000	29.06.2018	7.85%
	DADRI GAS R&M	45,00,00,000	29.06.2018	7.85%
Total Allocated Amount		6,85,00,00,000.00		

Statement Giving Details of Project Financed through a Combination of loan		
Form 8		
TRANCHE NO		
T00001		
BP NO 5050000422	D0003	
Unsecured Loan From Syndicate Bank-IV		
Source of Loan :	Syndicate Bank-IV	
Currency :	INR	
Amount of Loan :	10,00,00,00,000	
Total Drawn amount :	5,00,00,00,000	
Date of Drawal:	24.01.2020	
Interest Type :	Floating	
Fixed Interest Rate :		
Base Rate, If Floating Interest	D00003 - 7.6%	
Margin, If Floating Interest :		
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	5 Years	
Moratorium effective from :	24.01.2020	
Repayment Period (Inc Moratorium) :	15	
Repayment Frequency :	10 Yearly Payments	
Repayment Type :	Average	
First Repayment Date :	05.12.2021	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
<b>Project Code</b>	<b>Project Name</b>	<b>Amount</b>
	TAPOVAN VISHNUGAD	30,00,00,000.00
	GADARWARA	40,00,00,000.00
	DARLIPALLI	40,00,00,000.00
	TANDA-II	1,20,00,00,000.00
	KHARGONE	1,20,00,00,000.00
	TELANGANA	1,30,00,00,000.00
	JETSAR SOLAR	20,00,00,000.00
	<b>Total Allocated Amount</b>	<b>5,00,00,00,000.00</b>

## Form 8

Form 8

EARLIER BP NO 5050001232

TRANCHE NO

BP NO 5050001323

T00001

D00001

**Unsecured Loan From UCO BANK V**

Source of Loan :		UCO BANK V
Currency :		INR
Amount of Loan :		7,50,00,00,000
Total Drawn amount :		2,90,00,00,000
Date of Drawal:		12-09-2023
Interest Type :		Floating
Fixed Interest Rate :		
Base Rate, If Floating Interest		8.00%
Margin, If Floating Interest :		NIL
Are there any Caps/ Floor :		Y/N
Frequency of Intt. Payment		MONTHLY
If Above is yes, specify Caps/ Floor :		
Moratorium Period :		3 Years
Moratorium effective from :		12-Sep-23
Repayment Period (Inc Moratorium) :		15 Years
Repayment Frequency :		12 Yearly
Repayment Type :		AVG
First Repayment Date :		30.03.2026
Base Exchange Rate :		RUPEE
Date of Base Exchange Rate :		N.A.

Project Code	Project Name	Amount
	LARA	26,00,00,000.00
	KHARGONE	30,00,00,000.00
	GADARWARA	30,00,00,000.00
	DARLIPALLI	30,00,00,000.00
	TANDA-II	30,00,00,000.00
	NABINAGAR	32,00,00,000.00
	RIHAND- II & III FGD	6,00,00,000.00
	UNCHAHAR-I, II & III-FGD	4,00,00,000.00
	VINDHYACHAL-I &II FGD	8,00,00,000.00
	VINDHYACHAL-III &IV FGD	10,00,00,000.00
	SIPAT-II FGD	10,00,00,000.00
	KORBA-I, II & III FGD	8,00,00,000.00
	BARH-II FGD	4,00,00,000.00
	RAMAGUNDAM-I & II FGD	15,00,00,000.00
	RAMAGUNDAM-III FGD	4,00,00,000.00
	SIMHADRI-II & I FGD	9,00,00,000.00
	MOUDA-I FGD	5,00,00,000.00
	SOLAPUR-FGD	15,00,00,000.00
	KUDGI-FGD	4,00,00,000.00
	FARAKKA-I , II & III FGD	10,00,00,000.00
	<b>Total Allocated Amount</b>	<b>2,90,00,00,000.00</b>

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Form 8		
TRANCHE NO		
T00001		
BP NO 5050000362	D00001	
Unsecured Loan From Central Bank of India -V		
Source of Loan :	Central Bank of India -V	
Currency :	INR	
Amount of Loan :	4,90,00,00,000	
Total Drawn amount :	50,00,00,000	
Date of Drawal	28.06.2013	
Interest Type :	Floating	
Fixed Interest Rate :		
Base Rate, If Floating Interest	D00001- 10.25%	
Margin, If Floating Interest :	NIL	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	5 Years	
Moratorium effective from :	28.06.2013	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	10 Yearly	
Repayment Type :	Avg	
First Repayment Date :	28.06.2019	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	LARA-I	30,00,00,000
	GADARWARA	20,00,00,000
Total Allocated Amount		50,00,00,000

28.06.2013 T00001  
28.06.2013 T00001

Form 8			
TRANCHE NO			
BP NO 5050000421		T00001 D00002	
Unsecured Loan From HDFC Bank Ltd.-III			
Source of Loan :	HDFC Bank Ltd.-III		
Currency :	INR		
Amount of Loan :	20,00,00,00,000		
Total Drawn amount :	2,00,00,00,000		
Date of Drawal:	01.01.2016		
Interest Type :	Floating		
Fixed Interest Rate :			
Base Rate, If Floating Interest	D0002 - 8.45%		
Margin, If Floating Interest :			
Are there any Caps/ Floor :	Y/N		
Frequency of Intt. Payment	MONTHLY		
If Above is yes, specify Caps/ Floor :			
Moratorium Period :	6 Years		
Moratorium effective from :	01.01.2016		
Repayment Period (Inc Moratorium) :	15 Years		
Repayment Frequency :	9 Yearly Instalment		
Repayment Type :	AVG		
First Repayment Date :	04.12.2021		
Base Exchange Rate :	RUPEE		
Date of Base Exchange Rate :	N.A.		
Project Code	Project Name	Amount	
	GADARWARA	1,44,00,00,000	01.01.2016
	SOLAPUR	56,00,00,000	01.01.2016
Total Allocated Amount		2,00,00,00,000.00	

Form 8		
TRANCHE NO		
T00001		
BP NO 5050000421	D00005	
Unsecured Loan From HDFC Bank Ltd.-III		
Source of Loan :	HDFC Bank Ltd.-III	
Currency :	INR	
Amount of Loan :	20,00,00,00,000	
Total Drawn amount :	2,00,00,00,000	
Date of Drawal:	11.07.2016	
Interest Type :	Floating	
Fixed Interest Rate :		
Base Rate, If Floating Interest	D00005- 8.45%	
Margin, If Floating Interest :	NIL	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	6 Years	
Moratorium effective from :	11.07.2016	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	9 Yearly Instalment	
Repayment Type :	AVG	
First Repayment Date :	04.12.2021	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	TAPOVAN VISHNUGAD	9,00,00,000
	SOLAPUR	9,00,00,000
	GADARWARA	36,00,00,000
	UNCHAHAH STPP IV	15,00,00,000
	NORTH KARANPURA	4,00,00,000
	DARLIPALLI	48,00,00,000
	TANDA-II	9,00,00,000
	ANANTPUR SOLAR	9,00,00,000
	MOUDA-II	20,00,00,000
	KUDGI	31,00,00,000
	PAKRI BARWADIH	10,00,00,000
Total Allocated Amount		2,00,00,00,000

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Form 8			
TRANCHE NO			
BP NO 5050000641		T00001	
		D00002	
Unsecured Loan From HDFC Bank Ltd. VI			
Source of Loan :	HDFC Bank Ltd. VI		
Currency :	INR		
Amount of Loan :	15,00,00,00,000		
Total Drawn amount :	5,00,00,00,000		
Date of drawl	11.10.2018		
Interest Type :	Floating		
Fixed Interest Rate :			
Base Rate, If Floating Interest	8.30%		
Margin, If Floating Interest :	NIL		
Are there any Caps/ Floor :	Y/N		
Frequency of Intt. Payment	MONTHLY		
If Above is yes, specify Caps/ Floor :			
Moratorium Period :	6 Years		
Moratorium effective from :	11.10.2018		
Repayment Period (Inc Moratorium) :	15 Years		
Repayment Frequency :	9 Yearly Instalment		
Repayment Type :	AVG		
First Repayment Date :	26.09.2025		
Base Exchange Rate :	RUPEE		
Date of Base Exchange Rate :	N.A.		
Project Code	Project Name	Amount	
	BARH-I	55,00,00,000	11.10.2018
	TAPOVAN VISHNUGARH	10,00,00,000	11.10.2018
	BONGAIGAON	10,00,00,000	11.10.2018
	SOLAPUR	14,00,00,000	11.10.2018
	LARA-I	33,00,00,000	11.10.2018
	GADARWARA	68,00,00,000	11.10.2018
	NORTH KARANPURA	42,00,00,000	11.10.2018
	DARLIPALLI	34,00,00,000	11.10.2018
	TANDA II	31,00,00,000	11.10.2018
	RAMMAM	3,00,00,000	11.10.2018
	KHARGONE	48,00,00,000	11.10.2018
	TELANGANA	42,00,00,000	11.10.2018
	AURAIYA R&M	50,00,00,000	11.10.2018
	NCTPP R&M	10,00,00,000	11.10.2018
	KAWAS R&M	15,00,00,000	11.10.2018
	GANDHAR R&M	35,00,00,000	11.10.2018
Total Allocated Amount		5,00,00,00,000	

Form 8			
TRANCHE NO			
BP NO 5050000641		T00001	D00003
<b>Unsecured Loan From HDFC Bank Ltd. VI</b>			
Source of Loan :	HDFC Bank Ltd. VI		
Currency :	INR		
Amount of Loan :	15,00,00,00,000		
Total Drawn amount :	3,00,00,00,000		
Date of drawl	01.01.2019		
Interest Type :	Floating		
Fixed Interest Rate :			
Base Rate, If Floating Interest	8.30%		
Margin, If Floating Interest :	NIL		
Are there any Caps/ Floor :	Y/N		
Frequency of Intt. Payment	MONTHLY		
If Above is yes, specify Caps/ Floor :			
Moratorium Period :	6 Years		
Moratorium effective from :	01.01.2019		
Repayment Period (Inc Moratorium) :	15 Years		
Repayment Frequency :	9 Yearly Instalment		
Repayment Type :	AVG		
First Repayment Date :	26.09.2025		
Base Exchange Rate :	RUPEE		
Date of Base Exchange Rate :	N.A.		
Project Code	Project Name	Amount	
	BARH-I	80,00,00,000	01.01.2019
	TAPOVAN VISHNUGAD	30,00,00,000	01.01.2019
	SOLAPUR	40,00,00,000	01.01.2019
	GADARWARA	1,50,00,00,000	01.01.2019
<b>Total Allocated Amount</b>		<b>3,00,00,00,000</b>	

Form 8		
TRANCHE NO		
T00001		
D00002		
Unsecured Loan From J & K BANK-III		
Source of Loan :	J & K BANK-III	
Currency :	INR	
Amount of Loan :	3,50,00,00,000	
Total Drawn amount :	50,00,00,000	
Date of Drawal :	26.03.2013	
Interest Type :	Floating	
Fixed Interest Rate :		
Base Rate, If Floating Interest	D00002 - 10.25%	
Margin, If Floating Interest :	-	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	5 YEARS	
Moratorium effective from :		
Repayment Period (Inc Moratorium) :	15 YEARS	
Repayment Frequency :	10 Equal Yearly Instalments	
Repayment Type :	AVG	
First Repayment Date :	18.12.2018	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	GADARWARA	50,00,00,000.00
Total Allocated Amount		50,00,00,000.00

26.03.2013

Form 8		
TRANCHE NO		
T00001		
D00004		
Unsecured Loan From J & K BANK-III		
Source of Loan :	J & K BANK-III	
Currency :	INR	
Amount of Loan :	3,50,00,00,000	
Total Drawn amount :	50,00,00,000	
Date of Drawal :	01.11.2013	
Interest Type :	Floating	
Fixed Interest Rate :		
Base Rate, If Floating Interest	D00004 - 10.25%	
Margin, If Floating Interest :	-	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	5 YEARS	
Moratorium effective from :	01.11.2013	
Repayment Period (Inc Moratorium) :	15 YEARS	
Repayment Frequency :	10 Equal Yearly Instalments	
Repayment Type :	AVG	
First Repayment Date :	18.12.2018	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	GADARWARA	50,00,00,000.00
		01.11.2013
Total Allocated Amount		50,00,00,000.00

Form 8		
TRANCHE NO		
T00001		
D0002		
BP NO 5050000442		
Unsecured Loan From SBI-VIII		
Source of Loan :	SBI-VIII	
Currency :	INR	
Amount of Loan :	1,00,00,00,00,000	
Total Drawn amount :	2,00,00,00,00,000	
Interest Type :	Floating	
Fixed Interest Rate :	-----	
Base Rate, If Floating Interest	D0001-3-10.10%	
Margin, If Floating Interest :	0.15%	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	6 Years	
Moratorium effective from :	21.01.2015	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	9 Yearly Installments	
Repayment Type :	AVG	
First Repayment Date :	31.01.2022	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
<b>Project Code</b>	<b>Project Name</b>	<b>Amount</b>
	BONGAIGAON	1,00,00,00,000
	GADARWARA	1,00,00,00,000
<b>Total Allocated Amount</b>		<b>2,00,00,00,000.00</b>

Statement Giving Details of Project Financed through a Combination of loan			
Form 8			
TRANCHE NO			
BP NO 5050000442		T00001	D0003
Unsecured Loan From SBI-VIII			
Source of Loan :	SBI-VIII		
Currency :	INR		
Amount of Loan :	1,00,00,00,00,000		
Total Drawn amount :	2,00,00,00,00,000		
Interest Type :	Floating		
Fixed Interest Rate :	-----		
Base Rate, If Floating Interest	D0001-3-10.10%		
Margin, If Floating Interest :	0.15%		
Are there any Caps/ Floor :	Y/N		
Frequency of Intt. Payment	Monthly		
If Above is yes, specify Caps/ Floor :			
Moratorium Period :	6 Years		
Moratorium effective from :	21.01.2015		
Repayment Period (Inc Moratorium) :	15 Years		
Repayment Frequency :	9 Yearly Installments		
Repayment Type :	AVG		
First Repayment Date :	31.01.2022		
Base Exchange Rate :	RUPEE		
Date of Base Exchange Rate :	N.A.		
Project Code	Project Name	Amount	
	GADARWARA	2,00,00,00,00,000	27.02.2015
Total Allocated Amount		2,00,00,00,00,000	

Statement Giving Details of Project Financed through a Combination of loan			
Form 8			
TRANCHE NO			
BP NO 5050000442		T00001	D0004
Unsecured Loan From SBI-VIII			
Source of Loan :	SBI-VIII		
Currency :	INR		
Amount of Loan :	1,00,00,00,00,000		
Total Drawn amount :	10,00,00,00,000		
Interest Type :	Floating		
Fixed Interest Rate :	-----		
Base Rate, If Floating Interest	D0004-9.70%		
Margin, If Floating Interest :	0.00%		
Are there any Caps/ Floor :	Y/N		
Frequency of Intt. Payment	Monthly		
If Above is yes, specify Caps/ Floor :			
Moratorium Period :	6 Years		
Moratorium effective from :	04.08.2015		
Repayment Period (Inc Moratorium) :	15 Years		
Repayment Frequency :	9 Yearly Installments		
Repayment Type :	AVG		
First Repayment Date :	31.01.2022		
Base Exchange Rate :	RUPEE		
Date of Base Exchange Rate :	N.A.		
<b>Project Code</b>	<b>Project Name</b>	<b>Amount</b>	
	BARH-II	23,00,00,000	04.08.2015
	BARH-I	45,00,00,000	04.08.2015
	BONGAIGAON	61,00,00,000	04.08.2015
	DARLIPALLI	68,00,00,000	04.08.2015
	GADARWARA	1,25,00,00,000	04.08.2015
	KOLDAM	29,00,00,000	04.08.2015
	KUDGH-I	1,13,00,00,000	04.08.2015
	LARA-I	1,65,00,00,000	04.08.2015
	MOUDA-II	84,00,00,000	04.08.2015
	NORTH KARANPURA	24,00,00,000	04.08.2015
	RAMMAM	9,00,00,000	04.08.2015
	SOLAPUR	1,11,00,00,000	04.08.2015
	TANDA-II	7,00,00,000	04.08.2015
	TAPOVAN VISHNUGARH	38,00,00,000	04.08.2015
	UNCHAHAHAR-IV	41,00,00,000	04.08.2015
	VINDHYACHAL-V	57,00,00,000	04.08.2015
<b>Total Allocated Amount</b>		<b>10,00,00,00,000.00</b>	

Statement Giving Details of Project Financed through a Combination of loan			
Form 8			
TRANCHE NO			
BP NO 5050000442		T00001	D0005
Unsecured Loan From SBI-VIII			
Source of Loan :	SBI-VIII		
Currency :	INR		
Amount of Loan :	1,00,00,00,00,000		
Total Drawn amount :	5,00,00,00,00,000		
Interest Type :	Floating		
Fixed Interest Rate :	-----		
Base Rate, If Floating Interest	D0005-9.70%		
Margin, If Floating Interest :	0.00%		
Are there any Caps/ Floor :	Y/N		
Frequency of Intt. Payment	Monthly		
If Above is yes, specify Caps/ Floor :			
Moratorium Period :	6 Years		
Moratorium effective from :	23.09.2015		
Repayment Period (Inc Moratorium) :	15 Years		
Repayment Frequency :	9 Yearly Installments		
Repayment Type :	AVG		
First Repayment Date :	31.01.2022		
Base Exchange Rate :	RUPEE		
Date of Base Exchange Rate :	N.A.		
<b>Project Code</b>	<b>Project Name</b>	<b>Amount</b>	
	BARH-I	20,00,00,000	23.09.2015
	BONGAIGAON	10,00,00,000	23.09.2015
	DARLIPALLI	55,00,00,000	23.09.2015
	GADARWARA	1,55,00,00,000	23.09.2015
	KUDGI	1,30,00,00,000	23.09.2015
	LARA	45,00,00,000	23.09.2015
	MOUDA-II	35,00,00,000	23.09.2015
	SOLAPUR	30,00,00,000	23.09.2015
	UNCHAHAAR-IV	20,00,00,000	23.09.2015
<b>Total Allocated Amount</b>		<b>5,00,00,00,000.00</b>	

Form 8			
TRANCHE NO			
BP NO 5050000442		T00001	D0007
Unsecured Loan From SBI-VIII			
Source of Loan :	SBI-VIII		
Currency :	INR		
Amount of Loan :	1,00,00,00,00,000		
Total Drawn amount :	3,50,00,00,000		
Interest Type :	Floating		
Fixed Interest Rate :	-----		
Base Rate, If Floating Interest	D0007-9.30%		
Margin, If Floating Interest :	0.00%		
Are there any Caps/ Floor :	Y/N		
Frequency of Intt. Payment	Monthly		
If Above is yes, specify Caps/ Floor :			
Moratorium Period :	6 Years		
Moratorium effective from :	15.10.2015		
Repayment Period (Inc Moratorium) :	15 Years		
Repayment Frequency :	9 Yearly Installments		
Repayment Type :	AVG		
First Repayment Date :	31.01.2022		
Base Exchange Rate :	RUPEE		
Date of Base Exchange Rate :	N.A.		
<b>Project Code</b>	<b>Project Name</b>	<b>Amount</b>	
	BARH-I	12,00,00,000	15.10.2015 9.35%
	TAPOVAN VISHNUGAD	59,00,00,000	15.10.2015 9.35%
	BONGAIGAON	11,00,00,000	15.10.2015 9.35%
	SOLAPUR	43,00,00,000	15.10.2015 9.35%
	LARA	90,00,00,000	15.10.2015 9.35%
	GADARWARA	29,00,00,000	15.10.2015 9.35%
	NORTH KARANPURA	5,00,00,000	15.10.2015 9.35%
	DARLIPALLI	27,00,00,000	15.10.2015 9.35%
	KUDGI-I	19,00,00,000	15.10.2015 9.35%
	KOLDAM	10,00,00,000	15.10.2015 9.35%
	VINDHYACHAL-V	45,00,00,000	15.10.2015 9.35%
<b>Total Allocated Amount</b>		<b>3,50,00,00,000.00</b>	

Statement Giving Details of Project Financed through a Combination of loan		
Form 8		
TRANCHE NO		
BP NO 5050000442	T00001	D0008
Unsecured Loan From SBI-VIII		
Source of Loan :	SBI-VIII	
Currency :	INR	
Amount of Loan :	1,00,00,00,00,000	
Total Drawn amount :	5,00,00,00,00,000	
Interest Type :	Floating	
Fixed Interest Rate :	-----	
Base Rate, If Floating Interest	D0008-9.30%	
Margin, If Floating Interest :	0.00%	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	6 Years	
Moratorium effective from :	21.10.2015	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	9 Yearly Installments	
Repayment Type :	AVG	
First Repayment Date :	31.01.2022	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
<b>Project Code</b>	<b>Project Name</b>	<b>Amount</b>
	BARH-I	54,00,00,000 21.10.2015
	TAPOVAN VISHNUGAD	13,00,00,000 21.10.2015
	BONGAIGAON	23,00,00,000 21.10.2015
	BARH-II	22,00,00,000 21.10.2015
	KUDGI-I	81,00,00,000 21.10.2015
	MOUDA-II	25,00,00,000 21.10.2015
	SOLAPUR	35,00,00,000 21.10.2015
	VINDHYACHAL-V	13,00,00,000 21.10.2015
	LARA-I	85,00,00,000 21.10.2015
	GADARWARA	49,00,00,000 21.10.2015
	UNCHAHAHAR-IV	10,00,00,000 21.10.2015
	NORTH KARANPURA	8,00,00,000 21.10.2015
	DARLIPALLI	34,00,00,000 21.10.2015
	TANDA-II	26,00,00,000 21.10.2015
	PAKRI BARWADIH	12,00,00,000 21.10.2015
	RIHAND-III	10,00,00,000 21.10.2015
<b>Total Allocated Amount</b>		<b>5,00,00,00,000</b>

BP NO 5050000442		TRANCHE NO T00001		D00011	
Unsecured Loan From SBI-VIII					
Source of Loan :		SBI-VIII			
Currency :		INR			
Amount of Loan :		1,00,00,00,00,000			
Total Drawn amount :		3,00,00,00,000			
Interest Type :		Floating			
Fixed Interest Rate :		-----			
Base Rate, If Floating Interest		D00011-9.30%			
Margin, If Floating Interest :		0.00%			
Are there any Caps/ Floor :		Y/N			
Frequency of Intt. Payment		Monthly			
If Above is yes, specify Caps/ Floor :					
Moratorium Period :		6 Years			
Moratorium effective from :		30.10.2015			
Repayment Period (Inc Moratorium) :		15 Years			
Repayment Frequency :		9 Yearly Installments			
Repayment Type :		AVG			
First Repayment Date :		31.01.2022			
Base Exchange Rate :		RUPEE			
Date of Base Exchange Rate :		N.A.			
Project Code		Project Name		Amount	
		BARH-I		31,00,00,000	30.10.2015
		BONGAIGOAN		30,00,00,000	30.10.2015
		DARLIPALLI		16,00,00,000	30.10.2015
		GADARWARA		72,00,00,000	30.10.2015
		KHARGONE		5,00,00,000	30.10.2015
		LARA-I		33,00,00,000	30.10.2015
		MOUDA-II		26,00,00,000	30.10.2015
		NORTH KARANPURA		8,00,00,000	30.10.2015
		TANDA-II		15,00,00,000	30.10.2015
		TAPOVAN VISHNUGARH		21,00,00,000	30.10.2015
		UNCHAHAR-IV		7,00,00,000	30.10.2015
		PAKRI BARWADIH		4,00,00,000	30.10.2015
		CHATTI BARIATU		9,00,00,000	30.10.2015
		SIMHADRI-II		12,00,00,000	30.10.2015
		RAMAGUNDAM R&M		11,00,00,000	30.10.2015
Total Allocated Amount				3,00,00,00,000	

Statement Giving Details of Project Financed through a Combination of loan				
Form 8				
TRANCHE NO				
BP NO 5050000442		T00001		D00012
Unsecured Loan From SBI-VIII				
Source of Loan :	SBI-VIII			
Currency :	INR			
Amount of Loan :	1,00,00,00,00,000			
Total Drawn amount :	4,00,00,00,00,000			
Interest Type :	Floating			
Fixed Interest Rate :	-----			
Base Rate, If Floating Interest	D00012-9.30%			
Margin, If Floating Interest :	0.00%			
Are there any Caps/ Floor :	Y/N			
Frequency of Intt. Payment	Monthly			
If Above is yes, specify Caps/ Floor :				
Moratorium Period :	6 Years			
Moratorium effective from :	12.11.2015			
Repayment Period (Inc Moratorium) :	15 Years			
Repayment Frequency :	9 Yearly Installments			
Repayment Type :	AVG			
First Repayment Date :	31.01.2022			
Base Exchange Rate :	RUPEE			
Date of Base Exchange Rate :	N.A.			
Project Code	Project Name	Amount		
	BARH-I	25,00,00,000	12.11.2015	9.30%
	BONGAIGAON	32,00,00,000	12.11.2015	9.30%
	DARLIPALLI	22,00,00,000	12.11.2015	9.30%
	GADARWARA	56,00,00,000	12.11.2015	9.30%
	KUDGI	30,00,00,000	12.11.2015	9.30%
	LARA	23,00,00,000	12.11.2015	9.30%
	MOUDA-II	44,00,00,000	12.11.2015	9.30%
	NORTH KARANPURA	17,00,00,000	12.11.2015	9.30%
	PAKRI BARWADIH	11,00,00,000	12.11.2015	9.30%
	SOLAPUR	62,00,00,000	12.11.2015	9.30%
	TANDA-II	15,00,00,000	12.11.2015	9.30%
	TAPOVAN VISHNUGAD	18,00,00,000	12.11.2015	9.30%
	UNCHAHAHAR-IV	12,00,00,000	12.11.2015	9.30%
	VINDHYACHAL-V	13,00,00,000	12.11.2015	9.30%
	MOUDA-I	20,00,00,000	12.11.2015	9.30%
Total Allocated Amount		4,00,00,00,000		

Statement Giving Details of Project Financed through a Combination of loan				
Form 8				
TRANCHE NO				
BP NO 5050000442		T00001		D00013
Unsecured Loan From SBI-VIII				
Source of Loan :	SBI-VIII			
Currency :	INR			
Amount of Loan :	1,00,00,00,00,000			
Total Drawn amount :	4,00,00,00,00,000			
Interest Type :	Floating			
Fixed Interest Rate :	-----			
Base Rate, If Floating Interest	D00013-9.30%			
Margin, If Floating Interest :	0.00%			
Are there any Caps/ Floor :	Y/N			
Frequency of Intt. Payment	Monthly			
If Above is yes, specify Caps/ Floor :				
Moratorium Period :	6 Years			
Moratorium effective from :	01.12.2015			
Repayment Period (Inc Moratorium) :	15 Years			
Repayment Frequency :	9 Yearly Installments			
Repayment Type :	AVG			
First Repayment Date :	31.01.2022			
Base Exchange Rate :	RUPEE			
Date of Base Exchange Rate :	N.A.			
<b>Project Code</b>	<b>Project Name</b>	<b>Amount</b>		
	BARH-I	18,00,00,000	01.12.2015	9.30%
	BONGAIGOAN	14,00,00,000	01.12.2015	
	DARLIPALLI	45,00,00,000	01.12.2015	
	GADARWARA	50,00,00,000	01.12.2015	
	KUDGI	45,00,00,000	01.12.2015	
	LARA	72,00,00,000	01.12.2015	
	MOUDA-II	32,00,00,000	01.12.2015	
	SOLAPUR	45,00,00,000	01.12.2015	
	UNCHAHAHAR-IV	21,00,00,000	01.12.2015	
	RAMMAM	15,00,00,000	01.12.2015	
	BARH-II	18,00,00,000	01.12.2015	
	VINDHYACHAL-IV	13,00,00,000	01.12.2015	
	MOUDA-I	12,00,00,000	01.12.2015	
<b>Total Allocated Amount</b>		<b>4,00,00,00,000</b>		

Form 8		
TRANCHE NO		
BP NO 5050000442	T00001	D00015
Unsecured Loan From SBI-VIII		
Source of Loan :	SBI-VIII	
Currency :	INR	
Amount of Loan :	1,00,00,00,00,000	
Total Drawn amount :	1,50,00,00,00,000	
Interest Type :	Floating	
Fixed Interest Rate :	-----	
Base Rate, If Floating Interest	D00015-9.30%	
Margin, If Floating Interest :	0.00%	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	6 Years	
Moratorium effective from :	29.01.2016	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	9 Yearly Installments	
Repayment Type :	AVG	
First Repayment Date :	31.01.2022	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
<b>Project Code</b>	<b>Project Name</b>	<b>Amount</b>
	BARH-I	35,00,00,000
	BONGAIGAON	20,00,00,000
	DARLIPALLI	20,00,00,000
	UNCHAHAAR-IV	20,00,00,000
	GADARWARA	20,00,00,000
	MOUDA-II	20,00,00,000
	BARH-II	15,00,00,000
<b>Total Allocated Amount</b>		<b>1,50,00,00,000</b>

Form 8  
TRANCHE NO  
T00001

Form 8		
TRANCHE NO		
T00001		
D00001		
BP NO 5050000551		
Unsecured Loan From SBI-X		
Source of Loan :	SBI- X	
Currency :	INR	
Amount of Loan :	40,00,00,00,000	
Total Drawn amount :	10,00,00,00,000	
Date of Drawal:	25.09.2017	
Interest Type :	Floating	
Fixed Interest Rate :	-----	
Base Rate, If Floating Interest	7.90%	
Margin, If Floating Interest :	0.00%	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	6 Years	
Moratorium effective from :	25.09.2017	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	9 Yearly Installments	
Repayment Type :	AVG	
First Repayment Date :	01.10.2024	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
<b>Project Code</b>	<b>Project Name</b>	<b>Amount</b>
	BARH-I	2,40,97,00,000
	TAPOVAN VISHNUGARH	55,04,00,000
	BONGAIGAON	2,11,03,00,000
	SOLAPUR	1,49,66,00,000
	LARA	48,90,00,000
	GADARWARA	76,25,00,000
	UNCHAHAH STPP IV	30,00,00,000
	NORTH KARANPURA	1,02,00,00,000
	DARLIPALLI	60,00,00,000
	TANDA-II	26,15,00,000
	<b>Total Allocated Amount</b>	<b>10,00,00,00,000.00</b>

Statement Giving Details of Project Financed through a Combination of loan			
Form 8			
TRANCHE NO			
BP NO 5050000551		T00001	D00003
Unsecured Loan From SBI-X			
Source of Loan :	SBI-X		
Currency :	INR		
Amount of Loan :	40,00,00,00,000		
Total Drawn amount :	2,00,00,00,000		
Date of Drawal:	11.12.2017		
Interest Type :	Floating		
Fixed Interest Rate :	-----		
Base Rate, If Floating Interest	7.90%		
Margin, If Floating Interest :	0.00%		
Are there any Caps/ Floor :	Y/N		
Frequency of Intt. Payment	Monthly		
If Above is yes, specify Caps/ Floor :			
Moratorium Period :	6 Years		
Moratorium effective from :	11.12.2017		
Repayment Period (Inc Moratorium) :	15 Years		
Repayment Frequency :	9 Yearly Installments		
Repayment Type :	AVG		
First Repayment Date :	01.10.2024		
Base Exchange Rate :	RUPEE		
Date of Base Exchange Rate :	N.A.		
Project Code	Project Name	Amount	
	TAPOVAN VISHNUGARH	30,00,00,000	11.12.2017
	BONGAIGAON	20,00,00,000	11.12.2017
	SOLAPUR	60,00,00,000	11.12.2017
	LARA	50,00,00,000	11.12.2017
	GADARWARA	40,00,00,000	11.12.2017
Total Allocated Amount		2,00,00,00,000.00	

Form 8		
TRANCHE NO		
BP NO 5050000551	T00001	D00007
Unsecured Loan From SBI-X		
Source of Loan :	SBI-X	
Currency :	INR	
Amount of Loan :	40,00,00,00,000	
Total Drawn amount :	10,00,00,00,000	
Date of Drawal:	12.03.2018	
Interest Type :	Floating	
Fixed Interest Rate :	-----	
Base Rate, If Floating Interest	D0001-7.9%	
Margin, If Floating Interest :	NIL	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	6 Years	
Moratorium effective from :	12.03.2018	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	9 Yearly Installments	
Repayment Type :	AVG	
First Repayment Date :	01.10.2024	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
<b>Project Code</b>	<b>Project Name</b>	<b>Amount</b>
	BARH-I	50,00,00,000 12.03.2018
	TAPOVAN VISHNUGARH	60,00,00,000 12.03.2018
	GADARWARA	60,00,00,000 12.03.2018
	NORTH KARANPURA	1,80,00,00,000 12.03.2018
	DARLIPALLI	2,20,00,00,000 12.03.2018
	TANDA-II	1,50,00,00,000 12.03.2018
	KHARGONE	1,80,00,00,000 12.03.2018
	TELANGANA	1,00,00,00,000 12.03.2018
<b>Total Allocated Amount</b>		<b>10,00,00,00,000.00</b>

Form 8		
TRANCHE NO		
BP NO 5050000661	T00001	D00001
<b>Unsecured Loan From SBI-XI</b>		
Source of Loan :	SBI-XI	
Currency :	INR	
Amount of Loan :	50,00,00,00,000	
Total Drawn amount :	5,00,00,00,000	
Date of Drawal:	11.10.2018	
Interest Type :	Floating	
Fixed Interest Rate :	-----	
Base Rate, If Floating Interest	8.30%	
Margin, If Floating Interest :	0.00%	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	3 Years	
Moratorium effective from :	11.10.2018	
Repayment Period (Inc Moratorium) :	12 Years	
Repayment Frequency :	9 Yearly Installments	
Repayment Type :	AVG	
First Repayment Date :	01.10.2022	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
<b>Project Code</b>	<b>Project Name</b>	<b>Amount</b>
	BARH-I	75,00,00,000 11.10.2018
	TAPOVAN VISHNUGARH	32,00,00,000 11.10.2018
	BONGAIGAON	22,00,00,000 11.10.2018
	SOLAPUR	22,00,00,000 11.10.2018
	LARA-I	1,20,00,00,000 11.10.2018
	GADARWARA	1,00,00,00,000 11.10.2018
	RAMMAM	10,00,00,000 11.10.2018
	CHATTI BARIATU CMB	19,00,00,000 11.10.2018
	TANDA II	1,00,00,00,000 11.10.2018
<b>Total Allocated Amount</b>		<b>5,00,00,00,000.00</b>

Form 8			
TRANCHE NO			
BP NO 5050000661		T00001	D00003
Unsecured Loan From SBI-XI			
Source of Loan :	SBI-XI		
Currency :	INR		
Amount of Loan :	50,00,00,00,000		
Total Drawn amount :	5,00,00,00,000		
Date of Drawal:	12.11.2018		
Interest Type :	Floating		
Fixed Interest Rate :	-----		
Base Rate, If Floating Interest	8.30%		
Margin, If Floating Interest :	0.00%		
Are there any Caps/ Floor :	Y/N		
Frequency of Intt. Payment	Monthly		
If Above is yes, specify Caps/ Floor :			
Moratorium Period :	3 Years		
Moratorium effective from :	12.11.2018		
Repayment Period (Inc Moratorium) :	12 Years		
Repayment Frequency :	9 Yearly Installments		
Repayment Type :	AVG		
First Repayment Date :	01.10.2022		
Base Exchange Rate :	RUPEE		
Date of Base Exchange Rate :	N.A.		
<b>Project Code</b>	<b>Project Name</b>	<b>Amount</b>	
	BARH-I	2,85,00,00,000	12.11.2018
	TAPOVAN VISHNUGARH	78,00,00,000	12.11.2018
	BONGAIGAON	27,00,00,000	12.11.2018
	SOLAPUR	99,00,00,000	12.11.2018
	LARA-I	6,00,00,000	12.11.2018
	GADARWARA	5,00,00,000	12.11.2018
<b>Total Allocated Amount</b>		<b>5,00,00,00,000.00</b>	

Statement Giving Details of Project Financed through a Combination of loan		
Form 8		
TRANCHE NO		
BP NO 5050000661	T00001	D00004
Unsecured Loan From SBI-XI		
Source of Loan :	SBI-XI	
Currency :	INR	
Amount of Loan :	50,00,00,00,000	
Total Drawn amount :	8,00,00,00,000	
Date of Drawal:	22.11.2018	
Interest Type :	Floating	
Fixed Interest Rate :	-----	
Base Rate, If Floating Interest	8.30%	
Margin, If Floating Interest :	0.00%	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	3 Years	
Moratorium effective from :	22.11.2018	
Repayment Period (Inc Moratorium) :	12 Years	
Repayment Frequency :	9 Yearly Installments	
Repayment Type :	AVG	
First Repayment Date :	01.10.2022	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
<b>Project Code</b>	<b>Project Name</b>	<b>Amount</b>
	BARH-I	40,00,00,000 22.11.2018
	TAPOVAN VISHNUGARH	11,00,00,000 22.11.2018
	BONGAIGAON	11,00,00,000 22.11.2018
	SOLAPUR	20,00,00,000 22.11.2018
	LARA-I	50,00,00,000 22.11.2018
	GADARWARA	55,00,00,000 22.11.2018
	NORTH KARANPURA	36,00,00,000 22.11.2018
	DARLIPALLI	40,00,00,000 22.11.2018
	TANDA-II	10,00,00,000 22.11.2018
	KHARGONE	75,00,00,000 22.11.2018
	TELANGANA	75,00,00,000 22.11.2018
	TALAIPALI COAL MINE	7,00,00,000 22.11.2018
	RAMAGUNDAM I & II R&M	36,00,00,000 22.11.2018
	VINDHYACHAL R&M	14,00,00,000 22.11.2018
	FARAKKA R&M	10,00,00,000 22.11.2018
	KAHALGAON R&M	10,00,00,000 22.11.2018
	KHARGONE	2,00,00,00,000 22.11.2018
	TELANGANA	1,00,00,00,000
<b>Total Allocated Amount</b>		<b>8,00,00,00,000.00</b>

Statement Giving Details of Project Financed through a Combination of loan			
Form 8			
TRANCHE NO			
BP NO 5050000661	T00001	D00005	
Unsecured Loan From SBI-XI			
Source of Loan :	SBI-XI		
Currency :	INR		
Amount of Loan :	50,00,00,00,000		
Total Drawn amount :	5,00,00,00,000		
Date of Drawal:	11.12.2018		
Interest Type :	Floating		
Fixed Interest Rate :	-----		
Base Rate, If Floating Interest	8.30%		
Margin, If Floating Interest :	0.00%		
Are there any Caps/ Floor :	Y/N		
Frequency of Intt. Payment	Monthly		
If Above is yes, specify Caps/ Floor :			
Moratorium Period :	3 Years		
Moratorium effective from :	11.12.2018		
Repayment Period (Inc Moratorium) :	12 Years		
Repayment Frequency :	9 Yearly Installments		
Repayment Type :	AVG		
First Repayment Date :	01.10.2022		
Base Exchange Rate :	RUPEE		
Date of Base Exchange Rate :	N.A.		
<b>Project Code</b>	<b>Project Name</b>	<b>Amount</b>	
	BARH-I	6,00,00,000	11.12.2018
	TAPOVAN VISHNUGARH	7,00,00,000	11.12.2018
	SOLAPUR	12,00,00,000	11.12.2018
	LARA-I	40,00,00,000	11.12.2018
	GADARWARA	75,00,00,000	11.12.2018
	NORTH KARANPURA	10,00,00,000	11.12.2018
	DARLIPALLI	60,00,00,000	11.12.2018
	TANDA-II	30,00,00,000	11.12.2018
	KHARGONE	1,00,00,00,000	11.12.2018
	TELANGANA	1,20,00,00,000	11.12.2018
	SINGRAULI R&M	20,00,00,000	11.12.2018
	RAMAGUNDAM R&M	20,00,00,000	11.12.2018
<b>Total Allocated Amount</b>		<b>5,00,00,00,000.00</b>	

Form 8			
TRANCHE NO			
BP NO 5050000741		T00001	
		D00001	
Unsecured Loan From SBI-XII			
Source of Loan :	SBI-XII		
Currency :	INR		
Amount of Loan :	50,00,00,00,000		
Total Drawn amount :	7,50,00,00,000		
Date of Drawal:	11.02.2019		
Interest Type :	Floating		
Fixed Interest Rate :	-----		
Base Rate, If Floating Interest	8.35%		
Margin, If Floating Interest :	NIL		
Are there any Caps/ Floor :	Y/N		
Frequency of Intt. Payment	Monthly		
If Above is yes, specify Caps/ Floor :			
Moratorium Period :	6 Years		
Moratorium effective from :	11.02.2019		
Repayment Period (Inc Moratorium) :	15 Years		
Repayment Frequency :	9 Yearly Installments		
Repayment Type :	AVG		
First Repayment Date :	31.03.2026		
Base Exchange Rate :	RUPEE		
Date of Base Exchange Rate :	N.A.		
<b>Project Code</b>	<b>Project Name</b>	<b>Amount</b>	
	BARH-I	1,30,00,00,000.00	11.02.2019
	TAPOVAN VISHNUGARH	15,00,00,000.00	11.02.2019
	BONGAIGAON	65,00,00,000.00	11.02.2019
	SOLAPUR	40,00,00,000.00	11.02.2019
	GADARWARA	90,00,00,000.00	11.02.2019
	DARLIPALLI	60,00,00,000.00	11.02.2019
	TANDA-II	50,00,00,000.00	11.02.2019
	KHARGONE	90,00,00,000.00	11.02.2019
	TELANGANA	70,00,00,000.00	11.02.2019
	CHATTI BARIATU	15,00,00,000.00	11.02.2019
	DULANGA	20,00,00,000.00	11.02.2019
	TALAIPALI	80,00,00,000.00	11.02.2019
	NCPS-FGD	25,00,00,000.00	11.02.2019
<b>Total Allocated Amount</b>		<b>7,50,00,00,000.00</b>	

Statement Giving Details of Project Financed through a Combination of loan		
Form 8		
TRANCHE NO		
BP NO 5050000741	T00001	D00002
<b>Unsecured Loan From SBI-XII</b>		
Source of Loan :	SBI-XII	
Currency :	INR	
Amount of Loan :	50,00,00,00,000	
Total Drawn amount :	26,35,00,00,000	
Date of Drawal:	18.02.2019	
Interest Type :	Floating	
Fixed Interest Rate :	-----	
Base Rate, If Floating Interest	8.35%	
Margin, If Floating Interest :	NIL	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	6 Years	
Moratorium effective from :	18.02.2019	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	9 Yearly Installments	
Repayment Type :	AVG	
First Repayment Date :	31.03.2026	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
<b>Project Code</b>	<b>Project Name</b>	<b>Amount</b>
	BARH-I	90,00,00,000.00 18.02.2019
	FARAKKA-III	24,50,00,000.00 18.02.2019
	GADARWARA	90,00,00,000.00 18.02.2019
	KORBA-III	25,00,00,000.00 18.02.2019
	KUDGI	5,00,00,00,000.00 18.02.2019
	LARA	1,00,00,00,000.00 18.02.2019
	MOUDA-I	21,00,00,000.00 18.02.2019
	MOUDA-II	2,25,00,00,000.00 18.02.2019
	NCTPP-II	63,50,00,000.00 18.02.2019
	NORTH KARANPURA	10,40,00,00,000.00 18.02.2019
	PAKRI BARWADIH CMB	1,20,00,00,000.00 18.02.2019
	SIMHADRI-II	21,00,00,000.00 18.02.2019
	SOLAPUR	2,40,00,00,000.00 18.02.2019
	TELANGANA	75,00,00,000.00 18.02.2019
	KUDGI	-3,00,00,00,000.00 18.02.2019
	BARH-I	50,00,00,000.00 18.02.2019
	NORTH KARANPURA	80,00,00,000.00 18.02.2019
	TAPOVAN VISHNUGARH	20,00,00,000.00 18.02.2019
	TELANGANA	1,50,00,00,000.00 18.02.2019
<b>Total Allocated Amount</b>		<b>26,35,00,00,000.00</b>

## Statement Giving Details of Project Financed through a Combination of loan

Form 8

TRANCHE NO

BP NO 5050000741

T00001

D00003

Unsecured Loan From SBI-XII		
Source of Loan :	SBI-XII	
Currency :	INR	
Amount of Loan :	50,00,00,00,000	
Total Drawn amount :	5,00,00,00,000	
Date of Drawal:	26.03.2019	
Interest Type :	Floating	
Fixed Interest Rate :	-----	
Base Rate, If Floating Interest	8.35%	
Margin, If Floating Interest :	NIL	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	Monthly	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	6 Years	
Moratorium effective from :	26.03.2019	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	9 Yearly Instalments	
Repayment Type :	AVG	
First Repayment Date :	31.03.2026	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	BARH-I	40,00,00,000.00
	UNCHAHAH STPP IV	1,20,00,00,000.00
	LARA	30,00,00,000.00
	NORTH KARANPURA	30,00,00,000.00
	GADARWARA	60,00,00,000.00
	DARLIPALLI	41,00,00,000.00
	TANDA-II	30,00,00,000.00
	KHARGONE	60,00,00,000.00
	TELANGANA	60,00,00,000.00
	CHATTI BARIATU	5,00,00,000.00
	DULANGA	10,00,00,000.00
	TALAIPALI	10,00,00,000.00
	NCPS-FGD	4,00,00,000.00
Total Allocated Amount		5,00,00,00,000.00

Form 8		
TRANCHE NO		
BP NO 5050000382	T00001	D00003
Unsecured Loan From State Bank Of Bikaner & Jaipur		
Source of Loan :	State Bank Of Bikaner & Jaipur	
Currency :	INR	
Amount of Loan :	5,00,00,00,000	
Total Drawn amount :	1,00,00,00,000	
Date of Drawal:	21.07.2014	
Interest Type :	Floating	
Fixed Interest Rate :	----	
Base Rate, If Floating Interest	D00003-10.25%	
Margin, If Floating Interest :	NIL	
Are there any Caps/ Floor :	Y/N	
Frequency of Intt. Payment	MONTHLY	
If Above is yes, specify Caps/ Floor :		
Moratorium Period :	5 Years	
Moratorium effective from :	21.07.2014	
Repayment Period (Inc Moratorium) :	15 Years	
Repayment Frequency :	10 Yearly Instalments	
Repayment Type :	AVG	
First Repayment Date :	14.03.2020	
Base Exchange Rate :	RUPEE	
Date of Base Exchange Rate :	N.A.	
Project Code	Project Name	Amount
	GADARWARA	1,00,00,00,000.00
		21.07.2014
Total Allocated Amount		1,00,00,00,000.00



	SIPAT-I FGD	5,07,00,000.00	01.09.2023
	KUDGI-FGD	4,74,00,000.00	01.09.2023
	DARLIPALLI FGD	4,50,00,000.00	01.09.2023
	LARA FGD	3,92,00,000.00	01.09.2023
	MOUDA-II FGD	3,14,00,000.00	01.09.2023
	GADARWARA FGD	3,08,00,000.00	01.09.2023
	NORTH KARANPURA FGD	2,42,00,000.00	01.09.2023
	MOUDA-I FGD	2,30,00,000.00	01.09.2023
	BARH-II FGD	2,19,00,000.00	01.09.2023
	SOLAPUR-FGD	2,17,00,000.00	01.09.2023
	TANDA II FGD	2,05,00,000.00	01.09.2023
	RAMAGUNDAM-III FGD	31,00,000.00	01.09.2023
	<b>Total Allocated Amount</b>	10,00,00,00,000.00	

Source of Loan - Bonds Series	51-C	54	57	59	60	61	62	63	64	65	66
Currency	INR	INR	INR	INR	INR	INR	INR	INR	INR	INR	INR
Amount of Loan sanctioned (In Lakh)	32,000.00	10,30,683.05	50,000.00	65,500.00	1,00,000.00	1,07,250.00	80,000.00	67,000.00	70,000.00	70,000.00	3,92,500.00
Amount of Gross Loan drawn upto COD (In Lakh)	32,000.00	10,30,683.05	50,000.00	65,500.00	1,00,000.00	1,07,250.00	80,000.00	67,000.00	70,000.00	70,000.00	3,92,500.00
Interest Type	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed
Fixed Interest Rate, if applicable	8.61%	8.49%	8.19%	8.33%	8.05%	8.10%	7.58%	7.47%	7.49%	6.72%	7.37%
Base Rate, if Floating Interest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Margin, if Floating Interest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Are there any Caps/Floor	No	No	No	No	No	No	No	No	No	No	No
If above is yes,specify caps/floor	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Moratorium Period (In Years)	20	8	10	5	10	5	10	10	15	5	15
Moratorium effective from*	04-03-2014	25-03-2015	15-12-2015	24-02-2016	05-05-2016	27-05-2016	23-08-2016	16-09-2016	07-11-2016	24-11-2016	14-12-2016
Repayment Period	Bullet Repayment	Installments Due on 25/03/2023, 25/03/2024 & 25/03/2025	Bullet Repayment	Bullet Repayment	Bullet Repayment	Installments Due on 27/05/2021, 27/05/2026 & 27/05/2031	Bullet Repayment	Bullet Repayment	Bullet Repayment	Bullet Repayment	Bullet Repayment
Repayment effective from	04-03-2034	25-03-2023	15-12-2025	24-02-2021	05-05-2026	27-05-2021	23-08-2026	16-09-2026	07-11-2031	24-11-2021	14-12-2031
Repayment Frequency	Bullet Repayment	Installments Due on 25/03/2023, 25/03/2024 & 25/03/2025	Bullet Repayment	Bullet Repayment	Bullet Repayment	Installments Due on 27/05/2021, 27/05/2026 & 27/05/2031	Bullet Repayment	Bullet Repayment	Bullet Repayment	Bullet Repayment	Bullet Repayment
Repayment Instalment (In Lakh)	32,000.00	Installments 1st - 206,136.61 2nd - 412,273.22 3rd - 412,273.22	50,000.00	65,500.00	1,00,000.00	Installments 1st - 35,750.00 2nd - 35,750.00 3rd - 35,750.00	80,000.00	67,000.00	70,000.00	70,000.00	3,92,500.00
Base Exchange Rate	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Door to Door Maturity (In Years)	20	10	10	5	10	15	10	10	15	5	15
<b>Name of the Projects</b>	<b>51-C</b>	<b>54</b>	<b>57</b>	<b>59</b>	<b>60</b>	<b>61</b>	<b>62</b>	<b>63</b>	<b>64</b>	<b>65</b>	<b>66</b>
<b>Gadarwara</b>	<b>10,000.00</b>	<b>81,000.00</b>	<b>2,000.00</b>	<b>6,300.00</b>	<b>6,500.00</b>	<b>7,500.00</b>	<b>3,200.00</b>	<b>8,600.00</b>	<b>2,500.00</b>	<b>5,300.00</b>	<b>28,100.00</b>

Source of Loan - Bonds Series	67	69	73	74
Currency	INR	INR	INR	INR
Amount of Loan sanctioned (In Lakh)	4,00,000.00	4,30,000.00	2,50,000.00	3,99,600
Amount of Gross Loan drawn upto COD (In Lakh)	4,00,000.00	4,30,000.00	2,50,000.00	3,99,600
Interest Type	Fixed	Fixed	Fixed	Fixed
Fixed Interest Rate, if applicable	8.30%	7.32%	6.43%	6.87%
Base Rate, if Floating Interest	N/A	N/A	N/A	N/A
Margin, if Floating Interest	N/A	N/A	N/A	N/A
Are there any Caps/Floor	No	No	No	No
If above is yes,specify caps/floor	N/A	N/A	N/A	N/A
Moratorium Period (In Years)	10	10	10	15 Years and 1 day
Moratorium effective from*	15-01-2019	17-07-2019	27-01-2021	20-04-2021
Repayment Period	Bullet Repayment	Bullet Repayment	Bullet Repayment	Bullet Repayment
Repayment effective from	15-01-2029	17-07-2029	27-01-2031	21-04-2036
Repayment Frequency	Bullet Repayment	Bullet Repayment	Bullet Repayment	Bullet Repayment
Repayment Instalment (In Lakh)	4,00,000.00	4,30,000.00	2,50,000.00	3,99,600
Base Exchange Rate	N/A	N/A	N/A	N/A
Door to Door Maturity (In Years)	10	10	10	15 Years and 1 day
<b>Name of the Projects</b>	<b>67</b>	<b>69</b>	<b>73</b>	<b>74</b>
<b>Gadarwara</b>	<b>25,900.00</b>	<b>47,600.00</b>	<b>19,000.00</b>	<b>7,500.00</b>

	4.375 % Euro Bonds 2024	4.25 % Euro Bonds 2026	2.75% Fixed Rate Notes due 2027	7.25% Fixed Rate Notes due 2022	JPY Equ. 350Million A	JPY Equ. 350Million B	4.5% Fixed Rate Notes due 2028	JPY Equ. 300Million A	JPY Equ. 300Million B	3.75% Euro Bonds 2024 II
Source of Loan										
Drawal										
Currency	USD	USD	EUR	INR	JPY	JPY	USD	JPY	JPY	USD
Amount of loan sanctioned	50,00,00,000	50,00,00,000	50,00,00,000	20,00,00,00,000	22,52,50,59,128	16,88,99,89,866	40,00,00,000	16,28,48,76,778	16,56,90,93,118	45,00,00,000
Amount of Gross Loan drawn upto 19.03.2024	50,00,00,000	50,00,00,000	50,00,00,000	20,00,00,00,000	22,52,50,59,128	16,88,99,89,866	40,00,00,000	16,28,48,76,778	16,56,90,93,118	45,00,00,000
Interest Type	Fixed	Fixed	Fixed	Fixed	Floating	Floating	Fixed	Floating	Floating	Fixed
Fixed Interest Rate, if applicable	4.375% *	4.25% *	2.75% *	7.25% *	-	-	4.5% *	-	-	3.750%
Base Rate, if floating interest*	-	-	-	-	6 Month JPY Libor /3 Months TONA*	6 Month JPY Libor /3 Months TONA*	-	6 Month JPY Libor /3 Months TONA*	6 Month JPY Libor /3 Months TONA*	-
Margin, if floating interest rate	-	-	-	-	0.95%	0.95%	-	1.02%	1.02%	
Are there any Caps / Floor	No	No	No	No	No	No	No	No	No	No
If above is Yes, specify Caps / Floor	-	-	-	-	-	-	-	-	-	
Moratorium Period	10 Years	10 Years	10 Years	5 Years	9 Years	9 Years	10 Years	9 Years	9 Years	5 Years
Moratorium effective from	26-Nov-2014	26-Feb-2016	01-Feb-2017	03-May-2017	12-Nov-2017	12-Nov-2017	19-Mar-2018	29-Jan-2019	29-Jan-2019	03-Apr-2019
Repayment period	Bullet payment	Bullet payment	Bullet payment	Bullet payment	1 year	1 year	Bullet payment	1 year	1 year	Bullet payment
Repayment effective from	26-Nov-2024	26-Feb-2026	01-Feb-2027	03-May-2022	12-Nov-2026	12-Nov-2026	19-Mar-2028	29-Jan-2028	29-Jan-2028	03-Apr-2024
Repayment frequency	One time	One time	One time	One time	Three Time	Three Time	One time	Three Time	Three Time	One time
Repayment installment	50,00,00,000	50,00,00,000	50,00,00,000	20,00,00,00,000	7,50,83,53,043	5,62,99,96,622	40,00,00,000	5,42,82,92,259	5,52,30,31,039	45,00,00,000
Base Exchange Rate -										
Are foreign currency loan hedged	No	No	No	No	No	No	No	No	No	No
If above is Yes, specify details		-	-	-	-	-	-	-	-	-
<b>Name of the Projects</b>			%	%	%	%	%	%	%	%
Gadarwara	7.78%	15.16%	10.41%	11.17%	8.15%	5.12%	9.24%	9.04%	9.61%	10.30%

	JPY Equ. 750Million I	JPY Equ. 750Million II	JPY Equ. 750Million III	JPY Equ. 750Million IV	JPY Equ. 750Million V	JPY Equ. 750Million VI	Euro Loan I	Euro Loan II	Euro Loan III	JBIC Green Drawl I	JBIC Green Drawl II
Source of Loan											
Drawal											
Currency	JPY	JPY	JPY	JPY	JPY	JPY	EUR	EUR	EUR	JPY	JPY
Amount of loan sanctioned	24,67,10,52,632	10,74,22,92,405	10,55,52,03,716	10,55,18,62,404	10,45,69,69,571	12,89,05,84,717	4,89,31,659	8,42,38,902	8,45,12,994	10,00,00,00,000	10,00,00,00,000
Amount of Gross Loan drawn upto 19.03.2024	24,67,10,52,632	10,74,22,92,405	10,55,52,03,716	10,55,18,62,404	10,45,69,69,571	12,89,05,84,717	4,89,31,659	8,42,38,902	8,45,12,994	10,00,00,00,000	10,00,00,00,000
Interest Type	Floating	Floating	Floating	Floating	Floating	Floating	Floating	Floating	Floating	Floating	Floating
Fixed Interest Rate, if applicable	-	-	-	-	-	-	-	-	-	-	-
Base Rate, if floating interest*	6 Month JPY Libor /3 Months TONA*	6 Month JPY Libor /3 Months TONA*	6 Month JPY Libor /3 Months TONA*	6 Month JPY Libor /3 Months TONA*	6 Month JPY Libor /3 Months TONA	6 Month JPY Libor /3 Months TONA	6 Month Euribor*	6 Month Euribor*	6 Month Euribor*	6 Month JPY Libor /6 Month Compounded TONA	6 Month JPY Libor /6 Month Compounded TONA
Margin, if floating interest rate	0.80%/1.02%	0.80%/1.02%	0.80%/1.02%	0.80%/1.02%	0.80%/1.02%	0.80%/1.02%	0.95%	0.95%	0.95%	0.92%	0.92%
Are there any Caps / Floor	No	No	No	No	No	No	No	No	No	No	No
If above is Yes, specify Caps / Floor	-	-	-	-	-	-	-	-	-	-	-
Moratorium Period	6 Years	6 Years	6 Years	6 Years	6 Years	6 Years	7	7	7	3	3
Moratorium effective from	15-May-2020	15-May-2020	15-May-2020	15-May-2020	15-May-2020	15-May-2020	07-Jun-2021	11-Aug-2021	11-Aug-2021	25-Feb-2021	25-Feb-2021
Repayment period	1 year	1 year	1 year	1 year	1 year	1 year	Bullet payment	Bullet payment	Bullet payment	Half-Yearly	Half-Yearly
Repayment effective from	15-May-2026	15-May-2026	15-May-2026	15-May-2026	15-May-2026	15-May-2026	14-Aug-2028	14-Aug-2028	14-Aug-2028	17-Sep-2023	17-Sep-2023
Repayment frequency	Six Time	Six Time	Six Time	Six Time	Six Time	Six Time	One Time	One Time	One Time	Twenty Five	Twenty Five
Repayment installment	6,16,77,63,158	2,68,55,73,101	2,63,88,00,929	2,63,79,65,601	2,61,42,42,393	3,22,26,46,179	4,89,31,659	8,42,38,902	8,45,12,994	40,00,00,000	40,00,00,000
	2,05,59,21,053	89,51,91,034	87,96,00,310	87,93,21,867	87,14,14,131	1,07,42,15,393					
Base Exchange Rate -											
Are foreign currency loan hedged	No	No	No	No	No	No	No	No	No	No	No
If above is Yes, specify details	-	-	-	-	-	-	-	-	-	-	-
<b>Name of the Projects</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>
Gadarwara	6.15%	6.00%	3.32%	5.29%	6.23%	11.76%	6.19%	4.67%	2.50%	1.10%	3.74%

	JBIC Green Drawl III	JBIC Green Drawl IV	USD 750 Million Drawl I	USD 750 Million Drawl II	USD 750 Million Drawl III	USD 750 Million Drawl IV	USD 750 Million Drawl V	USD 750 Million Drawl VI	JPY Equ. \$400 Million Drawl I	JPY Equ. \$400 Million Drawl II
Source of Loan										
Drawal										
Currency	JPY	JPY	USD	USD	USD	USD	USD	USD	JPY	JPY
Amount of loan sanctioned	15,00,00,00,000	15,00,00,00,000	10,00,00,000	10,00,00,000	25,00,00,000	10,00,00,000	10,00,00,000	10,00,00,000	13,51,55,00,000	13,89,20,00,000
Amount of Gross Loan drawn upto 19.03.2024	15,00,00,00,000	15,00,00,00,000	10,00,00,000	10,00,00,000	25,00,00,000	10,00,00,000	10,00,00,000	10,00,00,000	13,51,55,00,000	13,89,20,00,000
Interest Type	Floating	Floating	Floating	Floating	Floating	Floating	Floating	Floating	Floating	Floating
Fixed Interest Rate, if applicable	-	-	-	-	-	-	-	-	-	-
Base Rate, if floating interest*	6 Month JPY Libor /6 Month Compounded TONA	6 Month JPY Libor /6 Month Compounded TONA	6 Month Term SOFR*	6 Month Term SOFR*	6 Month Term SOFR*	6 Month Term SOFR*	6 Month Term SOFR*	6 Month Term SOFR*	6M Compounded TONA	6M Compounded TONA
Margin, if floating interest rate	0.92%	0.92%	1.16933%	1.16933%	1.16933%	1.16933%	1.16933%	1.16933%	1.20000%	1.20000%
Are there any Caps / Floor	No	No	No	No	No	No	No	No	No	No
If above is Yes, specify Caps / Floor			-	-	-	-	-	-	-	-
Moratorium Period	3	3	4	4	4	4	4	4	4	4
Moratorium effective from	25-Feb-2021	25-Feb-2021	25-Apr-2022	25-Apr-2022	25-Apr-2022	25-Apr-2022	25-Apr-2022	25-Apr-2022	31-Aug-2023	31-Aug-2023
Repayment period	Half-Yearly	Half-Yearly	Yearly	Yearly	Yearly	Yearly	Yearly	Yearly	Yearly	Yearly
Repayment effective from	17-Sep-2023	17-Sep-2023	05-Oct-2026	05-Oct-2026	05-Oct-2026	05-Oct-2026	05-Oct-2026	05-Oct-2026	31-Aug-2027	31-Aug-2027
Repayment frequency	Twenty Five	Twenty Five	Seven times	Seven times	Seven times	Seven times	Seven times	Seven times	Seven times	Seven times
Repayment installment	60,00,00,000	60,00,00,000	1,42,85,714	1,42,85,714	3,57,14,286	1,42,85,714	1,42,85,714	1,42,85,714	1,93,07,85,714	1,98,45,71,429
Base Exchange Rate -									-	-
Are foreign currency loan hedged	No	No	No	No	No	No	No	No	-	-
If above is Yes, specify details			-	-	-	-	-	-		
<b>Name of the Projects</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>
Gadarwara	3.88%	0.89%	5.12%	0.75%	0.25%	1.82%			3.63%	1.22%

	JPY Equ. \$400 Million Drawl III	JPY Equ. \$400 Million Drawl IV
Source of Loan		
Drawal		
Currency	JPY	JPY
Amount of loan sanctioned	14,77,60,00,000	14,25,65,00,000
Amount of Gross Loan drawn upto 19.03.2024	14,77,60,00,000	14,25,65,00,000
Interest Type	Floating	Floating
Fixed Interest Rate, if applicable	-	-
Base Rate, if floating interest*	6M Compounded TONA	6M Compounded TONA
Margin, if floating interest rate	1.20000%	1.20000%
Are there any Caps / Floor	No	No
If above is Yes, specify Caps / Floor	-	-
Moratorium Period	4	4
Moratorium effective from	31-Aug-2023	31-Aug-2023
Repayment period	Yearly	Yearly
Repayment effective from	31-Aug-2027	31-Aug-2027
Repayment frequency	Seven times	Seven times
Repayment installment	2,11,08,57,143	2,03,66,42,857
	-	-
Base Exchange Rate -		
Are foreign currency loan hedged	-	-
If above is Yes, specify details		
<b>Name of the Projects</b>	<b>%</b>	<b>%</b>
Gadarwara	0.60%	1.21%

Source of Loan	SBI, NEW YORK				4.375% Fixed Rate Notes due 2024	Mizuho II A	Mizuho II B	4.25% Fixed Rate Notes due 2026	2.75% Fixed Rate Notes due 2027	JPY Equ. 350Million A	JPY Equ. 350Million B	4.5% Fixed Rate Notes due 2028
Drawal	I	II	III	IV								
Currency	USD				USD	USD	USD	USD	EUR	JPY	JPY	USD
Amount of loan sanctioned	250,000,000				500000000	50000000	200000000	500000000	500000000	22525059128	16889989866	400000000
Amount of Gross Loan drawn upto 28.02.2021 / COD	50000000	50000000	50000000	100000000	500000000	50000000	200000000	500000000	500000000	22525059128	16889989866	400000000
Interest Type	Floating				Fixed	Floating	Floating	Fixed	Fixed	Floating	Floating	Fixed
Fixed Interest Rate, if applicable	-				4.375% *	-	-	4.25% *	2.75% *	-	-	4.5% *
Base Rate, if floating interest*	6 Month LIBOR *				-	6 Month USD Libor *	6 Month USD Libor *	-	-	6 Month JPY Libor *	6 Month JPY Libor *	-
Margin, if floating interest rate	0.02				-	1.25%	1.25%	-	-	-	-	-
Are there any Caps / Floor	No				No	No	No	No	No	No	No	No
If above is Yes, specify Caps / Floor	-				-	-	-	-	-	-	-	-
Moratorium Period	6 Years				10 Years	5yrs 6 mths	5yrs 6 mths	10 Years	10 Years	9 Years	9 Years	10 Years
Moratorium effective from	29-Jan-2013				26-Nov-2014	24-Oct-2014	16-Mar-2015	26-Feb-2016	01-Feb-2017	12-Nov-2017	12-Nov-2017	19-Mar-2018
Repayment period	1 Year				Bullet payment	1 year 6 mths	1 year 6 mths	Bullet payment	Bullet payment	3 Years	3 Years	Bullet payment
Repayment effective from	29-Jul-2019				26-Nov-2024	26-Mar-2020	26-Mar-2020	26-Feb-2026	01-Feb-2027	12-Nov-2026	12-Nov-2026	19-Mar-2028
Repayment frequency	Semi Annual				One time	Four time	Four time	One time	One time	Three Time	Three Time	One time
Repayment installment	2 Half Yearly Instalments				500000000	12500000	50000000	500000000	500000000	7508353043	5629996622	400000000
Base Exchange Rate (28.02.2021)	69.24				73.59	73.59	73.59	73.59	90.04	0.6992	0.6992	73.59
Are foreign currency loan hedged	No				No	No	No	No	No	No	No	No
If above is Yes, specify details	-				-	-	-	-	-	-	-	-
Gadarwara	100.00000%	8.59141%	-	-	7.78300%	1.20463%	13.74963%	15.15780%	10.40794%	8.15384%	5.11704%	9.2422%

Source of Loan	7.25 % Masala Bonds 2022	JPY Equ. 300Million A	JPY Equ. 300Million B	3.75% Fixed Rate Notes due 2024 II	JPY Equ. 750Million A	JPY Equ. 750Million B	JPY Equ. 750Million C	JPY Equ. 750Million D	JPY Equ. 750Million E	JPY Equ. 750Million F
Drawal										
Currency	INR	JPY	JPY	USD	JPY	JPY	JPY	JPY	JPY	JPY
Amount of loan sanctioned	20,00,00,00,000	16284876778	16569093118	450000000	24671052632	10742292405	10555203716	10551862404	10456969571	12890584717
Amount of Gross Loan drawn upto 28.02.2021 / COD	20,00,00,00,000	16284876778	16569093118	450000000	24671052632	10742292405	10555203716	10551862404	10456969571	12890584717
Interest Type	Fixed	Floating	Floating	Fixed	Floating	Floating	Floating	Floating	Floating	Floating
Fixed Interest Rate, if applicable	7.25%*	-	-	3.75% *	-	-	-	-	-	-
Base Rate, if floating interest*		6 Month JPY Libor *	6 Month JPY Libor *	-	6 Month JPY Libor *	6 Month JPY Libor *	6 Month JPY Libor *	6 Month JPY Libor *	6 Month JPY Libor *	6 Month JPY Libor *
Margin, if floating interest rate		1.02%	1.02%	-	0.80%/1.02%	0.80%/1.02%	0.80%/1.02%	0.80%/1.02%	0.80%/1.02%	0.80%/1.02%
Are there any Caps / Floor	NO	No	No	No	No	No	No	No	No	No
If above is Yes, specify Caps / Floor	-	-	-	-	-	-	-	-	-	-
Moratorium Period	5 Years	9 Years	9 Years	5 Years	6 Years	6 Years	6 Years	6 Years	6 Years	6 Years
Moratorium effective from	03-May-2017	29-Jan-2019	29-Jan-2019	03-Apr-2019	15-May-2020	15-May-2020	15-May-2020	15-May-2020	15-May-2020	15-May-2020
Repayment period	Bullet payment	3 Years	3 Years	Bullet payment	1 year	1 year	1 year	1 year	1 year	1 year
Repayment effective from	03-May-2022	29-Jan-2028	29-Jan-2028	03-Apr-2024	15-May-2026	15-May-2026	15-May-2026	15-May-2026	15-May-2026	15-May-2026
Repayment frequency	One time	Three Time	Three Time	One time	Six Time	Six Time	Six Time	Six Time	Six Time	Six Time
Repayment installment	20,00,00,00,000	5,427,749,430.11 (Last instalment 5,429,377,917.79)	5,522,478,736.23 (Last instalment 5,524,135,645.54)	450000000	6167763158	2685573101	2638800929	2637965601	2614242393	3222646179
Base Exchange Rate (28.02.2021)	1.00	0.6992	0.6992	73.59	0.6992	0.6992	0.6992	0.6992	0.6992	0.6992
Are foreign currency loan hedged	NO	No	No	No	No	No	No	No	No	No
If above is Yes, specify details	-	-	-	-	-	-	-	-	-	-
<b>Gadarwara</b>	<b>9.2422%</b>	<b>9.0417%</b>	<b>9.60970%</b>	<b>10.29540%</b>	<b>6.15476%</b>	<b>5.99806%</b>	<b>3.32145%</b>	<b>5.28556%</b>	<b>6.22762%</b>	<b>11.75652%</b>

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					Gadarwara STPS (2X800 MW)				
COD					01-03-2021				
For Financial Year					2024-29 (Summary)				
							Amount in Rs Lakh		
Sl. No.	Head of Work /Equipment	ACE Claimed (Projected)					Regulations under which claimed	Justification	Admitted Cost by the Commission, if any
		2024-25	2025-26	2026-27	2027-28	2028-29			
1	2	3	4	5	6	7		8	9
<b>A. For assets eligible for normal RoE</b>									
1	Roads and drains	320.00	2110.31				Please refer respective year Form 9		
2	Township & Colony		1163.00						
3	HMI Upgradation	1099.97	1309.97						
4	Other buildings	1000.00	1494.15						
5	Electrical installations		131.73						
6	Ash Hnadling system		1743.15	400.00					
8	Upgradation of Auto synchronizer		32.00						
9	Flue gas desulpherisation plant (FGD)		60584.50						
10	Main plant civil		50.00						
11	Coal Transportation		1509.00						
12	Fire detection and protection system		460.00						
14	Upgradation of LVS to LASER LVS			140.00		60.00			
15	Upgradation of Honeywell PLC HMI (FDPS+HCSD)			39.00					
16	Upgradation of HMI for FDPS system (Schrack make)			45.00					
17	Upgradation of CCTV servers (Toshniwal)			75.00	75.00	50.00			
18	Upgradation of H2 Plant PLC HMI GE Fanuc				25.00				
19	HMI upgradation of Siemens TG control system				50.00	50.00			
	<b>Total (A)</b>	<b>2,419.97</b>	<b>70,587.81</b>	<b>699.00</b>	<b>150.00</b>	<b>160.00</b>			
<b>B. For assets eligible for RoE at One year MCLR+350 bps subject to ceiling of 14.00%</b>									
1	Drip pump additional assembly	192.00					Please refer respective year Form 9		
2	Fully automatic ash brick plant		2,500.00	2,500.00					
3	Construction of Bio-Gas plant		50.00						
4	Installation of Additional UF/RO skid for DM Plant		250.00						
5	Installation of Storm/Rain water harvesting system	30.00	50.00						
6	CCTV for FGD system		150.00	100.00					
7	Upgradation of existing RC valves of TDBFP to modulating type		100.00	100.00					
8	Upgradation of APRDS system valves		200.00	200.00					
	<b>Total (B)</b>	<b>222.00</b>	<b>3300.00</b>	<b>2900.00</b>	<b>0.00</b>	<b>0.00</b>			
<b>Total Add. Cap. Claimed (A+B)</b>		<b>2,641.97</b>	<b>73,887.81</b>	<b>3,599.00</b>	<b>150.00</b>	<b>160.00</b>			

(Petitioner)

PART-I FORM- 9								
Year wise Statement of Additional Capitalisation after COD								
Name of the Petitioner			NTPC Limited					
Name of the Generating Station			Gadarwara STPS (2X800 MW)					
COD			01-03-2021					
For Financial Year			2024-25					
Amount in Rs Lakh								
Sl. No.	Head of Work /Equipment	Accrual basis as per IGAAP	ACE Claimed (Projected) Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3	Regulations under which claimed	Justification	Admitted Cost by the Commission, if any
1	2	3	4	5= (3-4)	6	7	8	9
<b>A. For assets eligible for normal RoE</b>								
	Original works							
1	Roads and drains	320.00	-	320.00	0	24(1)(b), 25(1)(f) & Reg 102	These works pertain to original scope of works which have spilled over beyond cut off date date due to the reasons which were responsible for achieving COD for the plant. It is submitted that main thrust of the petitioner was to bring the plant under commercial operation first so that generation commences and power starts flowing to the beneficiaries. Balance leftover works are to be completed before cut off date, however, due to cascading effect which led to delay in COD of the instant station has delayed these balance leftover original works which were to be completed before cut off date. The reasons which led to the delay in COD of the main plant like COVID, agitations, sand mining ban, rainfall etc. had cascading effect on the balance leftover works as the main thrust of the petitioner was to bring plant under operation so that beneficiaries starts receiving power at the earliest. As these balance leftover works are of minor nature as compared to approved cost of the plant and only constitute less than 1% of the total 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 later stage, have protected the beneficiaries against front loading of tariff. Pertinently, such works after completion, shall be servicing the beneficiaries only for all times to come. The petitioner has already prayed in tariff petition for extension of cut off date for 02 years so that leftover works get completed. It is also submitted that beneficiaries have been saved from front loading of tariff. Since the works pertain to original scope of works, therefore, the petitioner prays to the Hon'ble CERC to allow these balance original scope of works.	
2	Other buildings	1,000.00	-	1,000.00		24(1)(b), 25(1)(f) & Reg 102		
	New works							
3	HMI Upgradation	1,099.97	-	1,099.97		25(2)(c)	It is submitted that instant expenditure pertains to HMI upgradation of MAXDNA to address the obsolescence of windows 2007 (Current MAXDNA is based on window 7) its upgradation to latest version and to also address cyber security issues in line with CEA guidelines. Since no support and maintenance is available for window 7, the current OS i.e. MAXDNA is required to be upgraded. The obsolescence certificate is attached as <b>Annexure-A</b> . The hon'ble commission is requested to allow the same	
	<b>Total (A)</b>	<b>2,419.97</b>	<b>-</b>	<b>2,419.97</b>	<b>-</b>			

B. For assets eligible for RoE at One year MCLR+350 bps subject to ceiling of 14.00%							
1	Upgradation of Drip control system for LP heaters	192.00	-	192.00		26(1)(i), 26(1)(g), 19(3)(g)	It is humbly submitted that installation of additional drip assembly is being done in LP Heaters for better control of drip levels. It is observed that during low loads, drip level maintains at higher level in LP heaters and drip flow to deareator gets reduced. Therefore drip management is required. Additional pump and line shall be installed for better maagement , this initiative shall improve system reliability and redundancy. It is to be noted that The increased penetration of renewable energy (RE) has introduced significant fluctuations in the net electricity demand from conventional coal-based generating stations throughout the day. As RE integration grows, coal-based power plants must operate at variable loads to manage RE intermittency, which is essential for grid stability. It is submitted that that Indian coal-based plants were originally designed for base-load operations, operating at variable loads poses safety and efficiency challenges. It is submitted that , the Central Electricity Authority's (CEA) Flexible Operation of Coal-Based Thermal Power Generating Units Regulations, 2023 mandates that coal-based thermal power generating units must be capable of flexible operation. The regulations further stipulate that these units should be designed or retrofitted, if necessary, to meet the flexibility requirements. Gadawara station being the new one has been chosen for flexible generation and therefore, due to low loads during RE generation, the plant run at very load which ncessaites system tuning and improvement for sustained plant operation without failures at low load. The Hon'ble Commission may please allow the same.
2	Installation of Storm/Rain water harvesting system as part of ZLD Scheme	30.00	-	30.00		26(1)(b)	To reduce the quantity of water intake from the river Narmada and to discharge lesser quantity of water outside the plant boundary for water conservation. It is Part of the ZLD initiative which is a statutory requirement as per MOEDCC notification. MP Pollution Control Board (MPPCB) in its renewal of consent to operate (CTO) ( <b>Attached as Annexure-B</b> ) of the plant has sepcifically @ para 18(5) under specific condition for sector has mandated that plant shall maintain and achieve zero liquid discharge. As per para 18(11) of the CTO, the petitioner has been mandated to reduce specific water consumption. Therefore as per the order of MPPCB, the petitioner is taking all efforts for maintaining zero liquid discharge as well as rain water harvesting to reduce its consumption of fresh water for the plant. Therefore, the Hon'ble Commission may please allow the same under <u>change in law</u> .
Total (B)		222.00	-	222.00	-		
Total Add. Cap. Claimed (A+B)		2,641.97	-	2,641.97	-		
(Petitioner)							

## Year wise Statement of Additional Capitalisation after COD

Name of the Petitioner		NTPC Limited						
Name of the Generating Station		Gadarwara STPS (2X800 MW)						
COD		01-03-2021						
For Financial Year		2025-26						
								Amount in Rs Lakh
Sl. No.	Head of Work /Equipment	Accrual basis as per IGAAP	ACE Claimed (Projected)			Regulations under which claimed	Justification	Admitted Cost by the Commission, if any
			Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3			
1	2	3	4	5= (3-4)	6	7	8	9
A.	For assets eligible for normal RoE							
	Original Works							
1	Electrical installations	131.73	-	131.73		24(1)(b), 25(1)(f) & Reg 102	These works pertain to original scope of works which have spilled over beyond cut off date date due to the reasons which were responsible for achieving COD for the plant. It is submitted that main thrust of the petitioner was to bring the plant under commercial operation first so that generation commences and power starts flowing to the beneficiaries. Balance leftover works are to be completed before cut off date, however, due to cascading effect which led to delay in COD of the instant station has delayed these balance leftover original works which were to be completed before cut off date. The reasons which led to the delay in COD of the main plant like COVID, agitations, sand mining ban, rainfall etc. had cascading effect on the balance leftover works as the main thrust of the petitioner was to bring plant under operation so that beneficiaries starts receiving power at the earliest. As these balance leftover works are of minor nature as compared to approved cost of the plant and only constitute less than 1% of the total 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 later stage, have protected the beneficiaries against front loading of tariff. Pertinently, such works after completion, shall be servicing the beneficiaries only for all times to comeThe petitioner has already prayed in tariff petition for extension of cutt off date for 02 years so that leftover works get completed. It is also submitted that beneficiaries have been saved from front loading of tariff. Since the works pertain to original scope of works, therefore, the petitioner prays to the Hon'ble CERC to allow these balance original scope of works.	
2	Township & Colony	1,163.00	-	1,163.00		24(1)(b), 25(1)(f) & Reg 102		
3	Ash Handling System	1,743.15	-	1,743.15		24(1)(b), 25(1)(f) & Reg 102		
4	Main plant civil	50.00	-	50.00		24(1)(b), 25(1)(f) & Reg 102		
5	Other buildings	1,494.15	-	1,494.15		24(1)(b), 25(1)(f) & Reg 102		
6	Roads and drains	2,110.31	-	2,110.31		24(1)(b), 25(1)(f) & Reg 102		
7	Fire detection and protection system	460.00	-	460.00		24(1)(b), 25(1)(f) & Reg 102		
8	Coal Transportation	1,509.00	-	1,509.00		24(1)(b), 25(1)(f) & Reg 102	This pertains to original scope of works being executed for smooth and faster movement of coal rakes for Gadawara plant. It is submitted that rail over rail (ROR) work near Baranjh station of Indian railway (IR) network is being done for smooth movement of coal rakes for Gadawara station. The ROR is required for smooth movement of coal rakes bypassing and crossing over the main Indian railway line. At present it takes a lot of time in movement of coal rakes due to shunting and coordinating with station authorities for movement of coal rakes meant for the station. The existing load on the Indian railway is very high and therefore the priority is given as per the requirement of IR. The petitioner has continuously faced land acquisition challenges and ownership of land is being given by the authorities. The petitioner has promptly paid/ paying compensation to the affected parties as per the order of the state authorities. Due to delay in possession of land and its handing over to the petitioner has delayed this original scope of works. However, the petitioner is in the possession of more than 90% of land and the work is in full progress. The the work is expected to be completed in 2025-26. The Hon'ble CERC is requested to please allow the expenses. The supporting document is attached as Annexures-C. The Hon'ble Commission is requested to allow the same.	
9	Flue gas desulpherisation plant (FGD)	60,584.50	-	60,584.50		24(1)(b), 25(1)(f) & Reg 102	FGD is part of original scope of works and same shall be completed and put to use in 2025-26 within the deadline of MOEFCC notification dated 5.9.22 for classification of thermal plants into categories. NTPC Gadawara thermal plant falls into category C and the deadline for Gadawara FGD is December 2026. Majority of works have already been completed and trial run is expected soon and the entire system shall be commissioned and put to use before the deadline.	
	New works							
10	Upgradation of Auto synchronizer	32.00	-	32.00		25(2)(C)	It is submitted that auto synchroniser at the instant station has been declared obsolete by the OEM (BHEL) due to obsolescence of components used in the product and hence OEM shall not be able to provide support further. The obsolescence certificate is attached as Annexure-D.	
11	HMI Upgradation	1,309.97	-	1,309.97		25(2)(C)	As per justification given in form 9. 24-25	
	Total (A)	70,587.81	-	70,587.81	-			

Year wise Statement of Additional Capitalisation after COD								
Name of the Petitioner			NTPC Limited					
Name of the Generating Station			Gadarwara STPS (2X800 MW)					
COD			01-03-2021					
For Financial Year			2025-26					
Sl. No.	Head of Work /Equipment	Accrual basis as per IGAAP	ACE Claimed (Projected) Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3	Regulations under which claimed	Justification	Amount in Rs Lakh Admitted Cost by the Commission, if any
1	2	3	4	5= (3-4)	6	7	8	9
<b>B. For assets eligible for RoE at One year MCLR+350 bps subject to ceiling of 14.00%</b>								
1	Fully automatic ash brick plant	2,500.00	-	2,500.00		26(1)(b)	MOEF&CC Notification dated 31.12.2021 mandates that every coal or lignite based thermal power plant shall be primarily responsible to ensure 100 per cent utilisation of ash and also provides that Statutory obligation of 100 per cent utilisation of ash shall be treated as a change in law. Also, as per the Consent to Operate for the instant Station, granted by the MP Pollution Control Board, the Petitioner is mandated to comply with the provisions of Fly Ash Notification 2021. A copy of the said Consent to Operate are attached herewith at <b>Annexure-B</b> . It is submitted that the Petitioner has taken substantive measures to achieve 100% ash utilization. Since the revenue from sale of ash is not enough to cover the ash utilisation expenses, the petitioner had to incur capex for ash utilisation. It is also to be noted that due to lack of industries utilising ash in the vicinity of Gadawara station, offtake of ash is not enough and the petitioner had to find ways of utilising ash. It is also to be noted that, since the ash utilization avenues such as road projects, cement industries, etc. are dynamic in nature and demand of ash is largely market driven and depends upon road projects coming up, the Petitioner has to be ready by enabling various ash utilization related infrastructure to sustain the ash utilization level of 100%. Accordingly, Petitioner is installing Fully automatic ash brick plant. The plant is capable of producing 2 lakhs bricks/day. The ash brick produced shall be utilised in construction of buildings/ pavements/road works etc. This initiative shall not only utilise the ash generated but at the same time shall help the environment by reducing the use of top soil for making the conventional bricks. In view of the above, Hon'ble Commission may be pleased to allow the said capital expenditure required to maintain 100% ash utilization mandated as per aforementioned statutory norms.	
2	Installation of Bio-Gas plant	50.00	-	50.00		26(1)(b)	It is submitted that Bio-waste poses a significant environmental threat, contributing to greenhouse gas emissions, soil pollution, and water contamination. Furthermore, the Solid Waste Management Rules, 2016, mandated by the Ministry of Environment, Forest, and Climate Change (MoEFCC) (attached as <b>Annexure-E</b> ), require all waste generators to process biodegradable waste through composting or bio-methanation on-site. To ensure compliance with these regulations, a bio gas plant is to be installed using bio degradable waste generated. The MP Pollution Control Board in its Consent to operate (CTO) ( <b>attached as Annexure-B</b> ) has also mandated as a general condition for utilising the bio degradable waste in a scientific manner so as not to produce any pollution. This facility facilitates the safe and environmentally responsible management of biodegradable waste. Therefore, the Hon'ble Commission may please allow the same under change in law.	
3	Installation of Additional UF/RO skid for DM Plant	250.00	-	250.00		26 (1) (i)	Design parameters of raw water has worsened from initial survey parameters resulting in additional load on DM Plant. It is submitted that silica in raw water has increased significantly from 11 ppm to 34 ppm. DM plant was envisaged and designed on the basis of silica level, TDS and other minerals at the time of erection and commissioning. The petitioner is facing the problem of reduced output of DM water and high cost of regeneration and reagents for maintaining the DM water throughput due to change in quality of raw water being drawn for DM plant which is beyond the control of the petitioner. The original maker of DM plant i.e. ION Exchange India Ltd has pointed this issue and asked for capacity augmentation. Since DM water is a basic input necessary for running a thermal power station, reduced output can significantly impact power generation and plant availability. This Problem is going to worsen with time and therefore it is necessary for Capacity additon in time to meet the requirement of power generation and efficient operation of the plant. The Hon'ble commission may please allow the same.	

Year wise Statement of Additional Capitalisation after COD								
Name of the Petitioner			NTPC Limited					
Name of the Generating Station			Gadarwara STPS (2X800 MW)					
COD			01-03-2021					
For Financial Year			2025-26					
Sl. No.	Head of Work /Equipment	Accrual basis as per IGAAP	ACE Claimed (Projected) Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3	Regulations under which claimed	Justification	Amount in Rs Lakh Admitted Cost by the Commission, if any
1	2	3	4	5= (3+4)	6	7	8	9
4	Installation of Storm/Rain water harvesting system as part of ZLD Scheme	50.00	-	50.00		26(1)(b)	As per Justification given in form 9_24-25	
5	CCTV for FGD system	150.00	-	150.00		26(1)(d)	For better monitoring of FGD area for safety and security of the plant, CCTV cameras are being installed for round the clock monitoring of area remotely. It is safety concern highlighted by the statutory authority/CISF. The Hon'ble Commission may please allow the same.	
6	Upgradation of existing RC valves of TDBFP to modulating type	100.00	-	100.00		26(1)(g), 19(3)(g)	The increased penetration of renewable energy (RE) has introduced significant fluctuations in the net electricity demand from conventional coal-based generating stations throughout the day. As RE integration grows, coal-based power plants must operate at variable loads to manage RE intermittency, which is essential for grid stability. It is submitted that that Indian coal-based plants were originally designed for base-load operations, operating at variable loads poses safety and efficiency challenges. It is submitted that , the Central Electricity Authority's (CEA) Flexible Operation of Coal-Based Thermal Power Generating Units Regulations, 2023 (attached as <b>Annexure-F</b> ) mandates that coal-based thermal power generating units must be capable of flexible operation. The regulations further stipulate that these units should be designed or retrofitted, if necessary, to meet the flexibility requirements. Sudden opening and closing of existing on-off type BFP recirculation valve in Gadawara causes fluctuation in feed water flow, which may lead to unstable unit operating condition like variation in boiler drum level, steam pressure and temperature and boiler tube metal temperature especially during unit load ramp up / down for flexible generation. In view of the above, it has been worked out that existing on off type recirculation valves of TDBPF at Gadawara units shall be changed to modulating type to maintain the stable condition and parameters for meeting flexible operation and technical minimum as per CEA guidelines.	
7	Upgradation of APRDS system valves	200.00	-	200.00		26(1)(g), 19(3)(g)	The increased penetration of renewable energy (RE) has introduced significant fluctuations in the net electricity demand from conventional coal-based generating stations throughout the day. As RE integration grows, coal-based power plants must operate at variable loads to manage RE intermittency, which is essential for grid stability. It is submitted that that Indian coal-based plants were originally designed for base-load operations, operating at variable loads poses safety and efficiency challenges. It is submitted that , the Central Electricity Authority's (CEA) Flexible Operation of Coal-Based Thermal Power Generating Units Regulations, 2023 ( <b>attached as annexure-F</b> ) mandates that coal-based thermal power generating units must be capable of flexible operation. The regulations further stipulate that these units should be designed or retrofitted, if necessary, to meet the flexibility requirements. It is submitted that the existing APRDS (Auxiliary pressure reducing and desuperheating system) valves are prone to leaks and leads to system losses due to frequent ramp up/ ramp down due to flexible operation and technical minimum. Therefore these valves are proposed to be replaced with efficient one. This exercise is part of the initiative to make the plant ready in view of flexible generation. The hon'ble commission is requested to please allow the instant expense.	
	Total (B)	3,300.00	-	3,300.00	-			
Total Add. Cap. Claimed (A+B)		73,887.81	-	73,887.81	-			
(Petitioner)								

PART-I								
FORM- 9								
Year wise Statement of Additional Capitalisation after COD								
Name of the Petitioner			NTPC Limited					
Name of the Generating Station			Gadarwara STPS (2X800 MW)					
COD			01-03-2021					
For Financial Year			2026-27					
								Amount in Rs Lakh
Sl. No.	Head of Work /Equipment		ACE Claimed (Projected)			Regulations under which claimed	Justification	Admitted Cost by the Commission, if any
		Accrual basis as per IGAAP	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3			
1	2	3	4	5= (3-4)	6	7	8	9
<b>A. For assets eligible for normal RoE</b>								
1	Ash Handling sytem	400.00		400.00		24(1)(b), 25(1)(f) & Reg 102	As per justification given in Form-9_2024-25	
2	Upgradation of LVS to LASER LVS	140.00		140.00		25(2)(C)	It is submitted that due to obsolescence of the existing system, no support and maintenance is available from OEM. Existing Large Video Screen used in control rooms is based on LCD system and same needs to be upgraded to laser type. Therefore OEM has recommended for system upgrade for reliable operation of the plant. The Hon'ble Commission may allow the same.	
3	Upgradation of Honeywell PLC HMI (FDPS+HCSD)	39.00		39.00		25(2)(C)	The current PLC/HMI system is based on window 7 for which no support is available from Microsoft. This shall render the PLC system vulnerable for cyber security risks in the absence of sucrity updates, hot fixes, and online technical support (end of support for windows 7 is attached as <b>Annexure-G</b> ). Therefore, the system needs upgradation based on latest window version. CEA guidelines on cyber security for power sector, 2021 also madates that necessary upgrades needs to be carried out for enhancing the cyber security preparedness in the plant. A true copy of the CEA guidelines is attached as <b>Annexure-H</b> The Hon'ble Commission may allow the same.	
4	Upgradation of HMI for FDPS system (Schrack make)	45.00		45.00		25(2)(C)		
5	Upgradation of CCTV servers	75.00		75.00		25(2)(C)		
<b>Total (A)</b>		<b>699.00</b>	<b>-</b>	<b>699.00</b>	<b>-</b>			
<b>B. For assets eligible for RoE at One year MCLR+350 bps subject to ceiling of 14.00%</b>								
1	Fully automatic ash brick plant	2,500.00		2,500.00		26(1)(b)	As per justification given in Form-9_2025-26	
2	CCTV for FGD system	100.00		100.00		26(1)(d)	As per justification given in Form-9_2025-26	
3	Upgradation of existing RC valves of TDBFP to modulating type	100.00		100.00		26(1)(i)	As per justification given in Form-9_2025-26	
4	Upgradation of APRDS system valves	200.00		200.00		26(1)(i)	As per justification given in Form-9_2025-26	
<b>Total (B)</b>		<b>2,900.00</b>	<b>-</b>	<b>2,900.00</b>	<b>-</b>			
<b>Total Add. Cap. Claimed (A+B)</b>		<b>3,599.00</b>	<b>-</b>	<b>3,599.00</b>	<b>-</b>			
(Petitioner)								

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**Year wise Statement of Additional Capitalisation after COD**

<b>Name of the Petitioner</b>				<b>NTPC Limited</b>				
<b>Name of the Generating Station</b>				<b>Gadarwara STPS (2X800 MW)</b>				
<b>COD</b>				<b>01-03-2021</b>				
<b>For Financial Year</b>				<b>2028-29</b>				
								<b>Amount in Rs Lakh</b>
Sl. No.	Head of Work /Equipment	Accrual basis as per IGAAP	ACE Claimed (Actual / Projected) Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3	Regulations under which claimed	Justification	Admitted Cost by the Commission, if any
1	2	3	4	5= (3-4)	6	7	8	9
<b>A. For assets eligible for normal RoE</b>								
1	Upgradation of LVS to LASER LVS	60.00	-	60.00		25(2)(C)	As per justifications given in form 9_2026-27	
2	Upgradation of CCTV servers	50.00		50.00		25(2)(C)	A sper Justification given in from 9_2026-27	
3	HMI upgradation of TG control system	50.00		50.00		25(2)(C)	A sper Justification given in from 9_2027-28	
	<b>Total (A)</b>	<b>160.00</b>	<b>-</b>	<b>160.00</b>	<b>-</b>			
<b>B. For assets eligible for RoE at One year MCLR+350 bps subject to ceiling of 14.00%</b>								
1								
	<b>Total (B)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>			
<b>Total Add. Cap. Claimed (A+B)</b>		<b>160.00</b>	<b>-</b>	<b>160.00</b>	<b>-</b>			
<b>(Petitioner)</b>								

**PART-I**  
**FORM- 10**

<b>Name of the Petitioner</b>	<b>NTPC Limited</b>
<b>Name of the Generating Station</b>	<b>Gadarwara STPS (2X800 MW)</b>
<b>Date of Commercial Operation</b>	<b>01-03-2021</b>

<b>Amount in Rs Lakh</b>										
Financial Year (Starting from COD)1	Actual					Admitted				
	2024-25	2025-26	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

Amount capitalised in Work/ Equipment

Financing Details	<p align="center"><b>Add cap is proposed to be financed in Debt:Equity ratio of 70:30</b></p>
Loan-1	
Loan-2	
Loan-3 and so on	
Total Loan2	
Equity	
Internal Resources	
Others (Pl. specify)	
Total	

**(Petitioner)**

**PART-I**  
**FORM- 11**

**Calculation of Depreciation**

**Name of the Company :** **NTPC Limited**

**Name of the Power Station :** **Gadarwara**

**(Amount in Rs Lakh)**

Sl.No.	Name of the Assets1	Gross Block as on 01.04.2024	Depreciation Rates as per CERC's Depreciation	Depreciation Amount
<b>1</b>	<b>2</b>			<b>22</b>
1	Land- Free Hold	3590.33	0.00%	0.00
2	Land- Lease Hold	1289.08	3.34%	43.06
3	Land- Right Of Use	21.26	3.34%	0.71
4	Plant & Machinery	760342.10	5.28%	40146.06
5	Cooling Toters & CW System.	38195.95	5.28%	2016.75
6	Air conditioning.	1740.61	5.28%	91.90
7	Chimney	8430.30	5.28%	445.12
8	Main Plant Building	75465.92	3.34%	2520.56
9	Service Building	19346.18	3.34%	646.16
10	S-Yard/Electrical Instalaltions	27970.32	5.28%	1476.83
11	Raw Water Reservoir	10292.77	5.28%	543.46
12	MGR	15414.57	5.28%	813.89
13	Residential /other Blg	15080.46	3.34%	503.69
14	Road/Bridge	4601.44	3.34%	153.69
15	Water Supply, Drainage & sewerage	3000.11	5.28%	158.41
16	Locomotive	4744.63	9.50%	450.74
17	Wagons	5794.96	5.28%	305.97
18	Spares	46709.17	5.28%	2466.24
19	Furniture & Fixtures,OFFICE EQUIP.	6716.93	6.33%	425.18
20	Communication Equip.	236.98	6.33%	15.00
21	EDP,WP&SATCOM.	1982.43	15.00%	297.36
22	Electrical Installations	99.85	5.28%	5.27
23	VEHICLES	190.66	9.50%	18.11
24	Construction equip.	874.56	5.28%	46.18
25	Temporary Constructions.	0.00	100.00%	0.00
26	Laboratory & Workshop Equipment	771.29	5.28%	40.72
27	Railway Sidings	-192.76	5.28%	-10.18
28	Hospital Equipment	55.01	5.28%	2.90
29	Software	-112.57	15.00%	-16.89
	<b>TOTAL</b>	<b>1052652.54</b>		<b>53606.92</b>
	<b>Weighted Average Rate of Depreciation (%)</b>			<b>5.093</b>

**Statement of Depreciation**

<b>Name of the Company :</b>	<b>NTPC Limited</b>
<b>Name of the Power Station :</b>	<b>Gadarwara STPS (2X800 MW)</b>

<b>(Amount in Rs Lakh)</b>							
<b>S. No.</b>	<b>Particulars</b>	<b>Existing 2023-24</b>	<b>2024-25</b>	<b>2025-26</b>	<b>2026-27</b>	<b>2027-28</b>	<b>2028-29</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
1	Opening Capital Cost	13,31,419.05	13,45,748.86	13,48,390.83	14,22,278.64	14,25,877.64	14,26,027.64
2	Closing Capital Cost	13,45,748.86	13,48,390.83	14,22,278.64	14,25,877.64	14,26,027.64	14,26,187.64
3	Average Capital Cost	13,38,583.96	13,47,069.84	13,85,334.73	14,24,078.14	14,25,952.64	14,26,107.64
1a	Cost of IT Equipments & Software included in (1) above ^^	714.22	714.22	714.22	714.22	714.22	714.22
2a	Cost of IT Equipments & Software included in (2) above ^^	714.22	714.22	714.22	714.22	714.22	714.22
3a	Average Cost of IT Equipments & Software	714.22	714.22	714.22	714.22	714.22	714.22
4	Freehold land	39,391.16	39,391.16	39,391.16	39,391.16	39,391.16	39,391.16
5	Rate of depreciation	5.0100	5.0930	5.0930	5.0930	5.0930	5.0930
6	Depreciable value	11,69,344.93	11,76,982.23	12,11,420.63	12,46,289.70	12,47,976.75	12,48,116.25
7.	Balance useful life at the beginning of the period	22.05	21.05	20.05	19.05	18.05	17.05
8	Remaining depreciable value	9,70,607.20	6,20,531.78	5,86,363.91	5,50,677.88	4,79,836.63	4,07,352.36
9	Depreciation (for the period)	67,063.06	68,606.27	70,555.10	72,528.30	72,623.77	72,631.66
10	Depreciation (annualised)	<b>67,063.06</b>	<b>68,606.27</b>	<b>70,555.10</b>	<b>72,528.30</b>	<b>72,623.77</b>	<b>72,631.66</b>
11	Cumulative depreciation at the end of the period	5,56,524.98	6,25,056.72	6,95,611.82	7,68,140.12	8,40,763.89	9,13,395.55
12	Less: Cumulative depreciation adjustment on account of un-discharged liabilities deducted as on 01.04.2009	-	-	-	-	-	-
13	Add: Cumulative depreciation adjustment on account of liability Discharge	-	-	-	-	-	-
14	Less: Cumulative depreciation adjustment on account of de-capitalisation	74.52	-	-	-	-	-
15	Net Cumulative depreciation at the end of the period after adjustments	5,56,450.45	6,25,056.72	6,95,611.82	7,68,140.12	8,40,763.89	9,13,395.55

^^ Shall be provided at the time of true up

**(Petitioner)**

Calculation of Interest on Actual Loans					
<b>Name of the Company</b> <b>Name of the Generating station</b>	<b>(Rs Lakhs)</b> <b>NTPC LTD.</b> <b>Gadarwara</b>				
	<b>Part-I</b> <b>Form-13</b>				
Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
<b>4.375% Eurobonds 2024- Bullet Repayment on 26.11.2024</b>					
Gross loan - Opening	28,637.95	28,637.95	28,637.95	28,637.95	28,637.95
Cumulative repayments of Loans upto previous period	-	28,637.95	28,637.95	28,637.95	28,637.95
Net loan - Opening	28,637.95	-	-	-	-
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	28,637.95	-	-	-	-
Repayments of Loans during the period	28,637.95	-	-	-	-
Net loan - Closing	-	-	-	-	-
Average Net Loan	14,318.98	-	-	-	-
Rate of Interest on Loan	4.6277%	4.6277%	4.6277%	4.6277%	4.6277%
Interest on Loan Annualised	662.64	-	-	-	-
<b>4.25% Eurobonds 2026- Bullet Repayment on 26.02.2026</b>					
Gross loan - Opening	55,773.13	55,773.13	55,773.13	55,773.13	55,773.13
Cumulative repayments of Loans upto previous period	-	-	55,773.13	55,773.13	55,773.13
Net loan - Opening	55,773.13	55,773.13	-	-	-
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	55,773.13	55,773.13	-	-	-
Repayments of Loans during the period	-	55,773.13	-	-	-
Net loan - Closing	55,773.13	-	-	-	-
Average Net Loan	55,773.13	27,886.56	-	-	-
Rate of Interest on Loan	4.4955%	4.4955%	4.4955%	4.4955%	4.4955%
Interest on Loan Annualised	2,507.28	1,253.64	-	-	-
<b>2.75% Eurobonds 2027- Bullet Repayment on 01.02.2027</b>					
Gross loan - Opening	46,856.54	46,856.54	46,856.54	46,856.54	46,856.54
Cumulative repayments of Loans upto previous period	-	-	-	46,856.54	46,856.54
Net loan - Opening	46,856.54	46,856.54	46,856.54	-	-
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	46,856.54	46,856.54	46,856.54	-	-
Repayments of Loans during the period	-	-	46,856.54	-	-
Net loan - Closing	46,856.54	46,856.54	-	-	-
Average Net Loan	46,856.54	46,856.54	23,428.27	-	-
Rate of Interest on Loan	2.9088%	2.9088%	2.9088%	2.9088%	2.9088%
Interest on Loan Annualised	1,362.96	1,362.96	681.48	-	-
<b>JPY Equ. 350 Million A- 3 HY Installments from 12.11.2026</b>					
Gross loan - Opening	12,841.91	12,841.91	12,841.91	12,841.91	12,841.91
Cumulative repayments of Loans upto previous period	-	-	-	4,280.64	8,561.27
Net loan - Opening	12,841.91	12,841.91	12,841.91	8,561.27	4,280.64
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	12,841.91	12,841.91	12,841.91	8,561.27	4,280.64
Repayments of Loans during the period	-	-	4,280.64	4,280.64	4,280.64
Net loan - Closing	12,841.91	12,841.91	8,561.27	4,280.64	-
Average Net Loan	12,841.91	12,841.91	10,701.59	6,420.95	2,140.32
Rate of Interest on Loan	1.0219%	1.0219%	1.0219%	1.0219%	1.0219%
Interest on Loan Annualised	131.23	131.23	109.36	65.62	21.87
<b>JPY Equ. 350 Million B- 3 HY Installments from 12.11.2026</b>					
Gross loan - Opening	6,042.96	6,042.96	6,042.96	6,042.96	6,042.96
Cumulative repayments of Loans upto previous period	-	-	-	2,014.32	4,028.64

Calculation of Interest on Actual Loans					
<b>Name of the Company</b> <b>Name of the Generating station</b>	(Rs Lakhs) NTPC LTD. Gadarwara  <b>Part-I</b> <b>Form-13</b>				
Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Net loan - Opening	6,042.96	6,042.96	6,042.96	4,028.64	2,014.32
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	6,042.96	6,042.96	6,042.96	4,028.64	2,014.32
Repayments of Loans during the period	-	-	2,014.32	2,014.32	2,014.32
Net loan - Closing	6,042.96	6,042.96	4,028.64	2,014.32	-
Average Net Loan	6,042.96	6,042.96	5,035.80	3,021.48	1,007.16
Rate of Interest on Loan	1.0219%	1.0219%	1.0219%	1.0219%	1.0219%
Interest on Loan Annualised	61.75	61.75	51.46	30.88	10.29
<b>4.50% Eurobonds 2028- Bullet Repayment on 19.03.2028</b>					
Gross loan - Opening	27,205.43	27,205.43	27,205.43	27,205.43	27,205.43
Cumulative repayments of Loans upto previous period	-	-	-	-	27,205.43
Net loan - Opening	27,205.43	27,205.43	27,205.43	27,205.43	-
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	27,205.43	27,205.43	27,205.43	27,205.43	-
Repayments of Loans during the period	-	-	-	27,205.43	-
Net loan - Closing	27,205.43	27,205.43	27,205.43	-	-
Average Net Loan	27,205.43	27,205.43	27,205.43	13,602.71	-
Rate of Interest on Loan	4.7599%	4.7599%	4.7599%	4.7599%	4.7599%
Interest on Loan Annualised	1,294.95	1,294.95	1,294.95	647.48	-
<b>JPY Equ. 300 Million A- 3Y installments starting from 29.01.2028</b>					
Gross loan - Opening	10,295.23	10,295.23	10,295.23	10,295.23	10,295.23
Cumulative repayments of Loans upto previous period	-	-	-	-	3,431.74
Net loan - Opening	10,295.23	10,295.23	10,295.23	10,295.23	6,863.49
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	10,295.23	10,295.23	10,295.23	10,295.23	6,863.49
Repayments of Loans during the period	-	-	-	3,431.74	3,431.74
Net loan - Closing	10,295.23	10,295.23	10,295.23	6,863.49	3,431.74
Average Net Loan	10,295.23	10,295.23	10,295.23	8,579.36	5,147.61
Rate of Interest on Loan	1.0995%	1.0995%	1.0995%	1.0995%	1.0995%
Interest on Loan Annualised	113.20	113.20	113.20	94.33	56.60
<b>JPY Equ. 300 Million B- 3Y installments starting from 29.01.2028</b>					
Gross loan - Opening	11,132.94	11,132.94	11,132.94	11,132.94	11,132.94
Cumulative repayments of Loans upto previous period	-	-	-	-	3,710.98
Net loan - Opening	11,132.94	11,132.94	11,132.94	11,132.94	7,421.96
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	11,132.94	11,132.94	11,132.94	11,132.94	7,421.96
Repayments of Loans during the period	-	-	-	3,710.98	3,710.98
Net loan - Closing	11,132.94	11,132.94	11,132.94	7,421.96	3,710.98
Average Net Loan	11,132.94	11,132.94	11,132.94	9,277.45	5,566.47
Rate of Interest on Loan	1.0995%	1.0995%	1.0995%	1.0995%	1.0995%
Interest on Loan Annualised	122.41	122.41	122.41	102.01	61.20
<b>3.75% Eurobonds 2024 II- Bullet repayment on 03.04.2024</b>					
Gross loan - Opening	34,093.74	34,093.74	34,093.74	34,093.74	34,093.74
Cumulative repayments of Loans upto previous period	-	34,093.74	34,093.74	34,093.74	34,093.74
Net loan - Opening	34,093.74	-	-	-	-
Increase/ Decrease due to FERV	-	-	-	-	-

Calculation of Interest on Actual Loans					
<b>Name of the Company</b> <b>Name of the Generating station</b>	(Rs Lakhs) NTPC LTD. Gadarwara  <b>Part-I</b> <b>Form-13</b>				
Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	34,093.74	-	-	-	-
Repayments of Loans during the period	34,093.74	-	-	-	-
Net loan - Closing	-	-	-	-	-
Average Net Loan	17,046.87	-	-	-	-
Rate of Interest on Loan	3.9666%	3.9666%	3.9666%	3.9666%	3.9666%
Interest on Loan Annualised	676.18	-	-	-	-
<b>JPY Equ. 750 Million I Drawl- 6 installments repayments starting from 15.05.2026 within 1 Year</b>					
Gross loan - Opening	10,617.03	10,617.03	10,617.03	10,617.03	10,617.03
Cumulative repayments of Loans upto previous period	-	-	-	2,654.26	5,308.52
Net loan - Opening	10,617.03	10,617.03	10,617.03	7,962.77	5,308.52
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	10,617.03	10,617.03	10,617.03	7,962.77	5,308.52
Repayments of Loans during the period	-	-	2,654.26	2,654.26	2,654.26
Net loan - Closing	10,617.03	10,617.03	7,962.77	5,308.52	2,654.26
Average Net Loan	10,617.03	10,617.03	9,289.90	6,635.64	3,981.39
Rate of Interest on Loan	0.9185%	0.9185%	0.9185%	0.9185%	0.9185%
Interest on Loan Annualised	97.52	97.52	85.33	60.95	36.57
<b>JPY Equ. 750 Million II Drawl- 6 installments repayments starting from 15.05.2026 within 1 Year</b>					
Gross loan - Opening	4,505.15	4,505.15	4,505.15	4,505.15	4,505.15
Cumulative repayments of Loans upto previous period	-	-	-	1,126.29	2,252.57
Net loan - Opening	4,505.15	4,505.15	4,505.15	3,378.86	2,252.57
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	4,505.15	4,505.15	4,505.15	3,378.86	2,252.57
Repayments of Loans during the period	-	-	1,126.29	1,126.29	1,126.29
Net loan - Closing	4,505.15	4,505.15	3,378.86	2,252.57	1,126.29
Average Net Loan	4,505.15	4,505.15	3,942.00	2,815.72	1,689.43
Rate of Interest on Loan	0.9185%	0.9185%	0.9185%	0.9185%	0.9185%
Interest on Loan Annualised	41.38	41.38	36.21	25.86	15.52
<b>JPY Equ. 750 Million III Drawl- 6 installments repayments starting from 15.05.2026 within 1 Year</b>					
Gross loan - Opening	2,451.29	2,451.29	2,451.29	2,451.29	2,451.29
Cumulative repayments of Loans upto previous period	-	-	-	612.82	1,225.64
Net loan - Opening	2,451.29	2,451.29	2,451.29	1,838.47	1,225.64
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	2,451.29	2,451.29	2,451.29	1,838.47	1,225.64
Repayments of Loans during the period	-	-	612.82	612.82	612.82
Net loan - Closing	2,451.29	2,451.29	1,838.47	1,225.64	612.82
Average Net Loan	2,451.29	2,451.29	2,144.88	1,532.06	919.23
Rate of Interest on Loan	0.9185%	0.9185%	0.9185%	0.9185%	0.9185%
Interest on Loan Annualised	22.52	22.52	19.70	14.07	8.44
<b>JPY Equ. 750 Million IV Drawl- 6 installments repayments starting from 15.05.2026 within 1 Year</b>					
Gross loan - Opening	3,899.61	3,899.61	3,899.61	3,899.61	3,899.61
Cumulative repayments of Loans upto previous period	-	-	-	974.90	1,949.81
Net loan - Opening	3,899.61	3,899.61	3,899.61	2,924.71	1,949.81
Increase/ Decrease due to FERV	-	-	-	-	-

Calculation of Interest on Actual Loans					
<b>Name of the Company</b> <b>Name of the Generating station</b>	(Rs Lakhs) NTPC LTD. Gadarwara  <b>Part-I</b> <b>Form-13</b>				
Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	3,899.61	3,899.61	3,899.61	2,924.71	1,949.81
Repayments of Loans during the period	-	-	974.90	974.90	974.90
Net loan - Closing	3,899.61	3,899.61	2,924.71	1,949.81	974.90
Average Net Loan	3,899.61	3,899.61	3,412.16	2,437.26	1,462.36
Rate of Interest on Loan	0.9185%	0.9185%	0.9185%	0.9185%	0.9185%
Interest on Loan Annualised	35.82	35.82	31.34	22.39	13.43
<b>JPY Equ. 750 Million V Drawl- 6 installments repayments starting from 15.05.2026 within 1 Year</b>					
Gross loan - Opening	4,255.66	4,255.66	4,255.66	4,255.66	4,255.66
Cumulative repayments of Loans upto previous period	-	-	-	1,063.91	2,127.83
Net loan - Opening	4,255.66	4,255.66	4,255.66	3,191.74	2,127.83
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	4,255.66	4,255.66	4,255.66	3,191.74	2,127.83
Repayments of Loans during the period	-	-	1,063.91	1,063.91	1,063.91
Net loan - Closing	4,255.66	4,255.66	3,191.74	2,127.83	1,063.91
Average Net Loan	4,255.66	4,255.66	3,723.70	2,659.79	1,595.87
Rate of Interest on Loan	0.8893%	0.8893%	0.8893%	0.8893%	0.8893%
Interest on Loan Annualised	37.85	37.85	33.11	23.65	14.19
<b>JPY Equ. 750 Million VI Drawl- 6 installments repayments starting from 15.05.2026 within 1 Year</b>					
Gross loan - Opening	10,596.26	10,596.26	10,596.26	10,596.26	10,596.26
Cumulative repayments of Loans upto previous period	-	-	-	2,649.07	5,298.13
Net loan - Opening	10,596.26	10,596.26	10,596.26	7,947.20	5,298.13
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	10,596.26	10,596.26	10,596.26	7,947.20	5,298.13
Repayments of Loans during the period	-	-	2,649.07	2,649.07	2,649.07
Net loan - Closing	10,596.26	10,596.26	7,947.20	5,298.13	2,649.07
Average Net Loan	10,596.26	10,596.26	9,271.73	6,622.66	3,973.60
Rate of Interest on Loan	0.8893%	0.8893%	0.8893%	0.8893%	0.8893%
Interest on Loan Annualised	94.23	94.23	82.45	58.90	35.34
<b>Euro Loan I Drawl I</b>					
Gross loan - Opening	2,700.00	2,700.00	2,700.00	2,700.00	2,700.00
Cumulative repayments of Loans upto previous period	-	-	-	-	-
Net loan - Opening	2,700.00	2,700.00	2,700.00	2,700.00	2,700.00
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	2,700.00	2,700.00	2,700.00	2,700.00	2,700.00
Repayments of Loans during the period	-	-	-	-	2,700.00
Net loan - Closing	2,700.00	2,700.00	2,700.00	2,700.00	-
Average Net Loan	2,700.00	2,700.00	2,700.00	2,700.00	1,350.00
Rate of Interest on Loan	5.0650%	5.0650%	5.0650%	5.0650%	5.0650%
Interest on Loan Annualised	136.75	136.75	136.75	136.75	68.38
<b>Euro Loan I Drawl II</b>					
Gross loan - Opening	3,435.00	3,435.00	3,435.00	3,435.00	3,435.00
Cumulative repayments of Loans upto previous period	-	-	-	-	-
Net loan - Opening	3,435.00	3,435.00	3,435.00	3,435.00	3,435.00
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	3,435.00	3,435.00	3,435.00	3,435.00	3,435.00

Calculation of Interest on Actual Loans					
<b>Name of the Company</b> <b>Name of the Generating station</b>	(Rs Lakhs) NTPC LTD. Gadarwara  <b>Part-I</b> <b>Form-13</b>				
Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Repayments of Loans during the period	-	-	-	-	3,435.00
Net loan - Closing	3,435.00	3,435.00	3,435.00	3,435.00	-
Average Net Loan	3,435.00	3,435.00	3,435.00	3,435.00	1,717.50
Rate of Interest on Loan	5.0634%	5.0634%	5.0634%	5.0634%	5.0634%
Interest on Loan Annualised	173.93	173.93	173.93	173.93	86.96
<b>Euro Loan I Drawl III</b>					
Gross loan - Opening	1,825.00	1,825.00	1,825.00	1,825.00	1,825.00
Cumulative repayments of Loans upto previous period	-	-	-	-	-
Net loan - Opening	1,825.00	1,825.00	1,825.00	1,825.00	1,825.00
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	1,825.00	1,825.00	1,825.00	1,825.00	1,825.00
Repayments of Loans during the period	-	-	-	-	1,825.00
Net loan - Closing	1,825.00	1,825.00	1,825.00	1,825.00	-
Average Net Loan	1,825.00	1,825.00	1,825.00	1,825.00	912.50
Rate of Interest on Loan	5.0634%	5.0634%	5.0634%	5.0634%	5.0634%
Interest on Loan Annualised	92.41	92.41	92.41	92.41	46.20
<b>USD 750M Drawl I</b>					
Gross loan - Opening	3,900.00	3,900.00	3,900.00	3,900.00	3,900.00
Cumulative repayments of Loans upto previous period	-	-	-	557.14	1,114.29
Net loan - Opening	3,900.00	3,900.00	3,900.00	3,342.86	2,785.71
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	3,900.00	3,900.00	3,900.00	3,342.86	2,785.71
Repayments of Loans during the period	-	-	557.14	557.14	557.14
Net loan - Closing	3,900.00	3,900.00	3,342.86	2,785.71	2,228.57
Average Net Loan	3,900.00	3,900.00	3,621.43	3,064.29	2,507.14
Rate of Interest on Loan	6.7698%	6.7698%	6.7698%	6.7698%	6.7698%
Interest on Loan Annualised	264.02	264.02	245.16	207.45	169.73
<b>USD 750M Drawl II</b>					
Gross loan - Opening	600.00	600.00	600.00	600.00	600.00
Cumulative repayments of Loans upto previous period	-	-	-	85.71	171.43
Net loan - Opening	600.00	600.00	600.00	514.29	428.57
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	600.00	600.00	600.00	514.29	428.57
Repayments of Loans during the period	-	-	85.71	85.71	85.71
Net loan - Closing	600.00	600.00	514.29	428.57	342.86
Average Net Loan	600.00	600.00	557.14	471.43	385.71
Rate of Interest on Loan	6.7698%	6.7698%	6.7698%	6.7698%	6.7698%
Interest on Loan Annualised	40.62	40.62	37.72	31.91	26.11
<b>USD 750M Drawl III</b>					
Gross loan - Opening	500.00	500.00	500.00	500.00	500.00
Cumulative repayments of Loans upto previous period	-	-	-	71.43	142.86
Net loan - Opening	500.00	500.00	500.00	428.57	357.14
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	500.00	500.00	500.00	428.57	357.14
Repayments of Loans during the period	-	-	71.43	71.43	71.43
Net loan - Closing	500.00	500.00	428.57	357.14	285.71
Average Net Loan	500.00	500.00	464.29	392.86	321.43
Rate of Interest on Loan	6.7698%	6.7698%	6.7698%	6.7698%	6.7698%

Calculation of Interest on Actual Loans					
Bame of the Company Name of the Generating station	(Rs Lakhs) NTPC LTD. Gadarwara  Part-I Form-13				
Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Interest on Loan Annualised	33.85	33.85	31.43	26.60	21.76
<b>USD 750M Drawl IV</b>					
Gross loan - Opening	1,499.98	1,499.98	1,499.98	1,499.98	1,499.98
Cumulative repayments of Loans upto previous period	-	-	-	214.28	428.57
Net loan - Opening	1,499.98	1,499.98	1,499.98	1,285.70	1,071.42
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	1,499.98	1,499.98	1,499.98	1,285.70	1,071.42
Repayments of Loans during the period	-	-	214.28	214.28	214.28
Net loan - Closing	1,499.98	1,499.98	1,285.70	1,071.42	857.13
Average Net Loan	1,499.98	1,499.98	1,392.84	1,178.56	964.28
Rate of Interest on Loan	6.7698%	6.7698%	6.7698%	6.7698%	6.7698%
Interest on Loan Annualised	101.55	101.55	94.29	79.79	65.28
<b>JPY Equ. \$400 Million Drawl I</b>					
Gross loan - Opening	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00
Cumulative repayments of Loans upto previous period	-	-	-	-	428.57
Net loan - Opening	3,000.00	3,000.00	3,000.00	3,000.00	2,571.43
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	3,000.00	3,000.00	3,000.00	3,000.00	2,571.43
Repayments of Loans during the period	-	-	-	428.57	428.57
Net loan - Closing	3,000.00	3,000.00	3,000.00	2,571.43	2,142.86
Average Net Loan	3,000.00	3,000.00	3,000.00	2,785.71	2,357.14
Rate of Interest on Loan	1.2155%	1.2155%	1.2155%	1.2155%	1.2155%
Interest on Loan Annualised	36.47	36.47	36.47	33.86	28.65
<b>JPY Equ. \$400 Million Drawl II</b>					
Gross loan - Opening	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00
Cumulative repayments of Loans upto previous period	-	-	-	-	142.86
Net loan - Opening	1,000.00	1,000.00	1,000.00	1,000.00	857.14
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	1,000.00	1,000.00	1,000.00	1,000.00	857.14
Repayments of Loans during the period	-	-	-	142.86	142.86
Net loan - Closing	1,000.00	1,000.00	1,000.00	857.14	714.29
Average Net Loan	1,000.00	1,000.00	1,000.00	928.57	785.71
Rate of Interest on Loan	1.2155%	1.2155%	1.2155%	1.2155%	1.2155%
Interest on Loan Annualised	12.16	12.16	12.16	11.29	9.55
<b>JPY Equ. \$400 Million Drawl III</b>					
Gross loan - Opening	500.00	500.00	500.00	500.00	500.00
Cumulative repayments of Loans upto previous period	-	-	-	-	71.43
Net loan - Opening	500.00	500.00	500.00	500.00	428.57
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	500.00	500.00	500.00	500.00	428.57
Repayments of Loans during the period	-	-	-	71.43	71.43
Net loan - Closing	500.00	500.00	500.00	428.57	357.14
Average Net Loan	500.00	500.00	500.00	464.29	392.86
Rate of Interest on Loan	1.2155%	1.2155%	1.2155%	1.2155%	1.2155%
Interest on Loan Annualised	6.08	6.08	6.08	5.64	4.78
<b>JPY Equ. \$400 Million Drawl IV</b>					
Gross loan - Opening	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00

Calculation of Interest on Actual Loans					
Bame of the Company Name of the Generating station	(Rs Lakhs) NTPC LTD. Gadarwara  Part-I Form-13				
Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Cumulative repayments of Loans upto previous period	-	-	-	-	142.86
Net loan - Opening	1,000.00	1,000.00	1,000.00	1,000.00	857.14
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	1,000.00	1,000.00	1,000.00	1,000.00	857.14
Repayments of Loans during the period	-	-	-	142.86	142.86
Net loan - Closing	1,000.00	1,000.00	1,000.00	857.14	714.29
Average Net Loan	1,000.00	1,000.00	1,000.00	928.57	785.71
Rate of Interest on Loan	1.2222%	1.2222%	1.2222%	1.2222%	1.2222%
Interest on Loan Annualised	12.22	12.22	12.22	11.35	9.60
<b>JBIC Green I Drawl I</b>					
Gross loan - Opening	757.99	757.99	757.99	757.99	757.99
Cumulative repayments of Loans upto previous period	60.64	121.28	181.92	242.56	303.20
Net loan - Opening	697.35	636.71	576.07	515.43	454.79
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	697.35	636.71	576.07	515.43	454.79
Repayments of Loans during the period	60.64	60.64	60.64	60.64	60.64
Net loan - Closing	636.71	576.07	515.43	454.79	394.16
Average Net Loan	667.03	606.39	545.75	485.11	424.48
Rate of Interest on Loan	1.0901%	1.0901%	1.0901%	1.0901%	1.0901%
Interest on Loan Annualised	7.27	6.61	5.95	5.29	4.63
<b>JBIC Green I Drawl II</b>					
Gross loan - Opening	2,490.00	2,490.00	2,490.00	2,490.00	2,490.00
Cumulative repayments of Loans upto previous period	199.20	398.40	597.60	796.80	996.00
Net loan - Opening	2,290.80	2,091.60	1,892.40	1,693.20	1,494.00
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	2,290.80	2,091.60	1,892.40	1,693.20	1,494.00
Repayments of Loans during the period	199.20	199.20	199.20	199.20	199.20
Net loan - Closing	2,091.60	1,892.40	1,693.20	1,494.00	1,294.80
Average Net Loan	2,191.20	1,992.00	1,792.80	1,593.60	1,394.40
Rate of Interest on Loan	1.0901%	1.0901%	1.0901%	1.0901%	1.0901%
Interest on Loan Annualised	23.89	21.71	19.54	17.37	15.20
<b>JBIC Green I Drawl III</b>					
Gross loan - Opening	3,732.24	3,732.24	3,732.24	3,732.24	3,732.24
Cumulative repayments of Loans upto previous period	298.58	597.16	895.74	1,194.32	1,492.90
Net loan - Opening	3,433.66	3,135.08	2,836.50	2,537.92	2,239.35
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	3,433.66	3,135.08	2,836.50	2,537.92	2,239.35
Repayments of Loans during the period	298.58	298.58	298.58	298.58	298.58
Net loan - Closing	3,135.08	2,836.50	2,537.92	2,239.35	1,940.77
Average Net Loan	3,284.37	2,985.79	2,687.21	2,388.64	2,090.06
Rate of Interest on Loan	1.0901%	1.0901%	1.0901%	1.0901%	1.0901%
Interest on Loan Annualised	35.80	32.55	29.29	26.04	22.78
<b>JBIC Green I Drawl IV</b>					
Gross loan - Opening	799.76	799.76	799.76	799.76	799.76
Cumulative repayments of Loans upto previous period	-	63.98	127.96	191.94	255.92
Net loan - Opening	799.76	735.78	671.80	607.82	543.84
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-

Calculation of Interest on Actual Loans					
<b>Name of the Company</b> <b>Name of the Generating station</b>	<b>(Rs Lakhs)</b> <b>NTPC LTD.</b> <b>Gadarwara</b>  <b>Part-I</b> <b>Form-13</b>				
Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Total	799.76	735.78	671.80	607.82	543.84
Repayments of Loans during the period	63.98	63.98	63.98	63.98	63.98
Net loan - Closing	735.78	671.80	607.82	543.84	479.86
Average Net Loan	767.77	703.79	639.81	575.83	511.85
Rate of Interest on Loan	1.0901%	1.0901%	1.0901%	1.0901%	1.0901%
Interest on Loan Annualised	8.37	7.67	6.97	6.28	5.58
<b>AXIS BANK-IV (Refiancing of Axis Bank- II)</b>					
Gross loan - Opening	37,600.00	37,600.00	37,600.00	37,600.00	37,600.00
Cumulative repayments of Loans upto previous period	3,760.00	7,520.00	11,280.00	15,040.00	18,800.00
Net loan - Opening	33,840.00	30,080.00	26,320.00	22,560.00	18,800.00
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	33,840.00	30,080.00	26,320.00	22,560.00	18,800.00
Repayments of Loans during the period	3,760.00	3,760.00	3,760.00	3,760.00	3,760.00
Net loan - Closing	30,080.00	26,320.00	22,560.00	18,800.00	15,040.00
Average Net Loan	31,960.00	28,200.00	24,440.00	20,680.00	16,920.00
Rate of Interest on Loan	8.1500%	8.1500%	8.1500%	8.1500%	8.1500%
Interest on Loan Annualised	2,604.74	2,298.30	1,991.86	1,685.42	1,378.98
<b>AXIS BANK-IV (Refiancing of Axis Bank- III)</b>					
Gross loan - Opening	1,800.00	1,800.00	1,800.00	1,800.00	1,800.00
Cumulative repayments of Loans upto previous period	180.00	360.00	540.00	720.00	900.00
Net loan - Opening	1,620.00	1,440.00	1,260.00	1,080.00	900.00
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	1,620.00	1,440.00	1,260.00	1,080.00	900.00
Repayments of Loans during the period	180.00	180.00	180.00	180.00	180.00
Net loan - Closing	1,440.00	1,260.00	1,080.00	900.00	720.00
Average Net Loan	1,530.00	1,350.00	1,170.00	990.00	810.00
Rate of Interest on Loan	8.5750%	8.5750%	8.5750%	8.5750%	8.5750%
Interest on Loan Annualised	131.20	115.76	100.33	84.89	69.46
<b>AXIS BANK-IV (Refiancing of Axis Bank- III)</b>					
Gross loan - Opening	9,000.00	9,000.00	9,000.00	9,000.00	9,000.00
Cumulative repayments of Loans upto previous period	900.00	1,800.00	2,700.00	3,600.00	4,500.00
Net loan - Opening	8,100.00	7,200.00	6,300.00	5,400.00	4,500.00
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	8,100.00	7,200.00	6,300.00	5,400.00	4,500.00
Repayments of Loans during the period	900.00	900.00	900.00	900.00	900.00
Net loan - Closing	7,200.00	6,300.00	5,400.00	4,500.00	3,600.00
Average Net Loan	7,650.00	6,750.00	5,850.00	4,950.00	4,050.00
Rate of Interest on Loan	8.6000%	8.6000%	8.6000%	8.6000%	8.6000%
Interest on Loan Annualised	657.90	580.50	503.10	425.70	348.30
<b>Bank of India-IV (Refinancing of Bank of India- II &amp; III)</b>					
Gross loan - Opening	14,600.00	14,600.00	14,600.00	14,600.00	14,600.00
Cumulative repayments of Loans upto previous period	-	1,216.67	2,433.33	3,650.00	4,866.67
Net loan - Opening	14,600.00	13,383.33	12,166.67	10,950.00	9,733.33
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	14,600.00	13,383.33	12,166.67	10,950.00	9,733.33
Repayments of Loans during the period	1,216.67	1,216.67	1,216.67	1,216.67	1,216.67
Net loan - Closing	13,383.33	12,166.67	10,950.00	9,733.33	8,516.67

Calculation of Interest on Actual Loans					
<b>Name of the Company</b> <b>Name of the Generating station</b>	(Rs Lakhs) <b>NTPC LTD.</b> <b>Gadarwara</b>  <b>Part-I</b> <b>Form-13</b>				
Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Average Net Loan	13,991.67	12,775.00	11,558.33	10,341.67	9,125.00
Rate of Interest on Loan	8.3500%	8.3500%	8.3500%	8.3500%	8.3500%
Interest on Loan Annualised	1,168.30	1,066.71	965.12	863.53	761.94
<b>Central Bank of India V</b>					
Gross loan - Opening	2,000.00	2,000.00	2,000.00	2,000.00	2,000.00
Cumulative repayments of Loans upto previous period	1,000.00	1,200.00	1,400.00	1,600.00	1,800.00
Net loan - Opening	1,000.00	800.00	600.00	400.00	200.00
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	1,000.00	800.00	600.00	400.00	200.00
Repayments of Loans during the period	200.00	200.00	200.00	200.00	200.00
Net loan - Closing	800.00	600.00	400.00	200.00	-
Average Net Loan	900.00	700.00	500.00	300.00	100.00
Rate of Interest on Loan	8.0500%	8.0500%	8.0500%	8.0500%	8.0500%
Interest on Loan Annualised	72.45	56.35	40.25	24.15	8.05
<b>HDFC Bank Limited-III</b>					
Gross loan - Opening	18000.00	18000.00	18000.00	18000.00	18000.00
Cumulative repayments of Loans upto previous period	6000.00	8000.00	10000.00	12000.00	14000.00
Net loan - Opening	12000.00	10000.00	8000.00	6000.00	4000.00
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	12000.00	10000.00	8000.00	6000.00	4000.00
Repayments of Loans during the period	2000.00	2000.00	2000.00	2000.00	2000.00
Net loan - Closing	10000.00	8000.00	6000.00	4000.00	2000.00
Average Net Loan	11000.00	9000.00	7000.00	5000.00	3000.00
Rate of Interest on Loan	7.9500%	7.9500%	7.9500%	7.9500%	7.9500%
Interest on Loan Annualised	874.50	715.50	556.50	397.50	238.50
<b>HDFC Bank Limited-V</b>					
Gross loan - Opening	13100.00	13100.00	13100.00	13100.00	13100.00
Cumulative repayments of Loans upto previous period	0.00	1455.56	2911.11	4366.67	5822.22
Net loan - Opening	13100.00	11644.44	10188.89	8733.33	7277.78
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	13100.00	11644.44	10188.89	8733.33	7277.78
Repayments of Loans during the period	1455.56	1455.56	1455.56	1455.56	1455.56
Net loan - Closing	11644.44	10188.89	8733.33	7277.78	5822.22
Average Net Loan	12372.22	10916.67	9461.11	8005.56	6550.00
Rate of Interest on Loan	7.9500%	7.9500%	7.9500%	7.9500%	7.9500%
Interest on Loan Annualised	983.59	867.88	752.16	636.44	520.73
<b>HDFC Bank Limited-VI</b>					
Gross loan - Opening	21800.00	21800.00	21800.00	21800.00	21800.00
Cumulative repayments of Loans upto previous period	0.00	0.00	2422.22	4844.44	7266.67
Net loan - Opening	21800.00	21800.00	19377.78	16955.56	14533.33
Increase/ Decrease due to FERV	0.00	0.00	0.00	0.00	0.00
Increase/ Decrease due to ACE/Drawl during the period	0.00	0.00	0.00	0.00	0.00
Total	21800.00	21800.00	19377.78	16955.56	14533.33
Repayments of Loans during the period	0.00	2422.22	2422.22	2422.22	2422.22
Net loan - Closing	21800.00	19377.78	16955.56	14533.33	12111.11
Average Net Loan	21800.00	20588.89	18166.67	15744.44	13322.22
Rate of Interest on Loan	7.9500%	7.9500%	7.9500%	7.9500%	7.9500%
Interest on Loan Annualised	1733.10	1636.82	1444.25	1251.68	1059.12

Calculation of Interest on Actual Loans					
Bame of the Company Name of the Generating station	(Rs Lakhs) NTPC LTD. Gadarwara  Part-I Form-13				
Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
<b>HDFC Bank Limited-VII</b>					
Gross loan - Opening	29500.00	29500.00	29500.00	29500.00	29500.00
Cumulative repayments of Loans upto previous period	0.00	0.00	0.00	3277.78	6555.56
Net loan - Opening	29500.00	29500.00	29500.00	26222.22	22944.44
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	29500.00	29500.00	29500.00	26222.22	22944.44
Repayments of Loans during the period	0.00	0.00	3277.78	3277.78	3277.78
Net loan - Closing	29500.00	29500.00	26222.22	22944.44	19666.67
Average Net Loan	29500.00	29500.00	27861.11	24583.33	21305.56
Rate of Interest on Loan	7.9500%	7.9500%	7.9500%	7.9500%	7.9500%
Interest on Loan Annualised	2345.25	2345.25	2214.96	1954.38	1693.79
<b>HDFC Bank Limited-IX</b>					
Gross loan - Opening	19525.00	19525.00	19525.00	19525.00	19525.00
Cumulative repayments of Loans upto previous period	0.00	1627.08	3254.17	4881.25	6508.33
Net loan - Opening	19525.00	17897.92	16270.83	14643.75	13016.67
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	19525.00	17897.92	16270.83	14643.75	13016.67
Repayments of Loans during the period	1627.08	1627.08	1627.08	1627.08	1627.08
Net loan - Closing	17897.92	16270.83	14643.75	13016.67	11389.58
Average Net Loan	18711.46	17084.38	15457.29	13830.21	12203.13
Rate of Interest on Loan	7.9500%	7.9500%	7.9500%	7.9500%	7.9500%
Interest on Loan Annualised	1487.56	1358.21	1228.85	1099.50	970.15
<b>PNB-IV</b>					
Gross loan - Opening	22,772.00	22,772.00	22,772.00	22,772.00	22,772.00
Cumulative repayments of Loans upto previous period	5,060.44	7,590.67	10,120.89	12,651.11	15,181.33
Net loan - Opening	17,711.56	15,181.33	12,651.11	10,120.89	7,590.67
Increase/ Decrease due to FERV					
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	17,711.56	15,181.33	12,651.11	10,120.89	7,590.67
Repayments of Loans during the period	2,530.22	2,530.22	2,530.22	2,530.22	2,530.22
Net loan - Closing	15,181.33	12,651.11	10,120.89	7,590.67	5,060.44
Average Net Loan	16,446.44	13,916.22	11,386.00	8,855.78	6,325.56
Rate of Interest on Loan	7.9000%	7.9000%	7.9000%	7.9000%	7.9000%
Interest on Loan Annualised	1,299.27	1,099.38	899.49	699.61	499.72
<b>Jammu and Kashmir Bank III</b>					
Gross loan - Opening	10000.00	10000.00	10000.00	10000.00	10000.00
Cumulative repayments of Loans upto previous period	6000.00	7000.00	8000.00	9000.00	10000.00
Net loan - Opening	4000.00	3000.00	2000.00	1000.00	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	4000.00	3000.00	2000.00	1000.00	0.00
Repayments of Loans during the period	1000.00	1000.00	1000.00	1000.00	0.00
Net loan - Closing	3000.00	2000.00	1000.00	0.00	0.00
Average Net Loan	3500.00	2500.00	1500.00	500.00	0.00
Rate of Interest on Loan	7.9800%	7.9800%	7.9800%	7.9800%	0.0000%
Interest on Loan Annualised	279.30	199.50	119.70	39.90	0.00
<b>State Bank of India-VIII</b>					
Gross loan - Opening	110600.00	110600.00	110600.00	110600.00	110600.00
Cumulative repayments of Loans upto previous period	36866.67	49155.56	61444.44	73733.33	86022.22
Net loan - Opening	73733.33	61444.44	49155.56	36866.67	24577.78

Calculation of Interest on Actual Loans					
<b>Name of the Company</b> <b>Name of the Generating station</b>	<b>(Rs Lakhs)</b> <b>NTPC LTD.</b> <b>Gadarwara</b>  <b>Part-I</b> <b>Form-13</b>				
Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
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	73733.33	61444.44	49155.56	36866.67	24577.78
Repayments of Loans during the period	12288.89	12288.89	12288.89	12288.89	12288.89
Net loan - Closing	61444.44	49155.56	36866.67	24577.78	12288.89
Average Net Loan	67588.89	55300.00	43011.11	30722.22	18433.33
Rate of Interest on Loan	8.2000%	8.2000%	8.2000%	8.2000%	8.2000%
Interest on Loan Annualised	5542.29	4534.60	3526.91	2519.22	1511.53
<b>State Bank of India-IX</b>					
Gross loan - Opening	31000.00	31000.00	31000.00	31000.00	31000.00
Cumulative repayments of Loans upto previous period	10333.33	17222.22	20666.67	24111.11	27555.56
Net loan - Opening	20666.67	13777.78	10333.33	6888.89	3444.44
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	20666.67	13777.78	10333.33	6888.89	3444.44
Repayments of Loans during the period	6888.89	3444.44	3444.44	3444.44	3444.44
Net loan - Closing	13777.78	10333.33	6888.89	3444.44	0.00
Average Net Loan	17222.22	12055.56	8611.11	5166.67	1722.22
Rate of Interest on Loan	8.2000%	8.2000%	8.2000%	8.2000%	8.2000%
Interest on Loan Annualised	1412.22	988.56	706.11	423.67	141.22
<b>State Bank of India-X</b>					
Gross loan - Opening	17625.00	17625.00	17625.00	17625.00	17625.00
Cumulative repayments of Loans upto previous period	0.00	1958.33	3916.67	5875.00	7833.33
Net loan - Opening	17625.00	15666.67	13708.33	11750.00	9791.67
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	17625.00	15666.67	13708.33	11750.00	9791.67
Repayments of Loans during the period	1958.33	1958.33	1958.33	1958.33	1958.33
Net loan - Closing	15666.67	13708.33	11750.00	9791.67	7833.33
Average Net Loan	16645.83	14687.50	12729.17	10770.83	8812.50
Rate of Interest on Loan	8.2000%	8.2000%	8.2000%	8.2000%	8.2000%
Interest on Loan Annualised	1364.96	1204.38	1043.79	883.21	722.63
<b>State Bank of India-XI</b>					
Gross loan - Opening	23500.00	23500.00	23500.00	23500.00	23500.00
Cumulative repayments of Loans upto previous period	5222.22	7833.33	10444.44	13055.56	15666.67
Net loan - Opening	18277.78	15666.67	13055.56	10444.44	7833.33
Increase/ Decrease due to FERV	0.00	0.00	0.00	0.00	0.00
Increase/ Decrease due to ACE/Drawl during the period	0.00	0.00	0.00	0.00	0.00
Total	18277.78	15666.67	13055.56	10444.44	7833.33
Repayments of Loans during the period	2611.11	2611.11	2611.11	2611.11	2611.11
Net loan - Closing	15666.67	13055.56	10444.44	7833.33	5222.22
Average Net Loan	16972.22	14361.11	11750.00	9138.89	6527.78
Rate of Interest on Loan	8.2000%	8.2000%	8.2000%	8.2000%	8.2000%
Interest on Loan Annualised	1391.72	1177.61	963.50	749.39	535.28
<b>State Bank of India-XII</b>					
Gross loan - Opening	24000.00	24000.00	24000.00	24000.00	24000.00
Cumulative repayments of Loans upto previous period	0.00	0.00	2666.67	5333.33	8000.00
Net loan - Opening	24000.00	24000.00	21333.33	18666.67	16000.00
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	24000.00	24000.00	21333.33	18666.67	16000.00
Repayments of Loans during the period	0.00	2666.67	2666.67	2666.67	2666.67

Calculation of Interest on Actual Loans					
<b>Name of the Company</b> <b>Name of the Generating station</b>	<b>(Rs Lakhs)</b> <b>NTPC LTD.</b> <b>Gadarwara</b>  <b>Part-I</b> <b>Form-13</b>				
Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Net loan - Closing	24000.00	21333.33	18666.67	16000.00	13333.33
Average Net Loan	24000.00	22666.67	20000.00	17333.33	14666.67
Rate of Interest on Loan	8.2000%	8.2000%	8.2000%	8.2000%	8.2000%
Interest on Loan Annualised	1968.00	1858.67	1640.00	1421.33	1202.67
<b>State Bank of Bikaner &amp; Jaipur/ State Bank of India</b>					
Gross loan - Opening	10,000.00	10,000.00	10,000.00	10,000.00	10,000.00
Cumulative repayments of Loans upto previous period	5,000.00	6,000.00	7,000.00	8,000.00	9,000.00
Net loan - Opening	5,000.00	4,000.00	3,000.00	2,000.00	1,000.00
Increase/ Decrease due to FERV					
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	5,000.00	4,000.00	3,000.00	2,000.00	1,000.00
Repayments of Loans during the period	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00
Net loan - Closing	4,000.00	3,000.00	2,000.00	1,000.00	-
Average Net Loan	4,500.00	3,500.00	2,500.00	1,500.00	500.00
Rate of Interest on Loan	8.2000%	8.2000%	8.2000%	8.2000%	8.2000%
Interest on Loan Annualised	369.00	287.00	205.00	123.00	41.00
<b>UCO Bank-V</b>					
Gross loan - Opening	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00
Cumulative repayments of Loans upto previous period	-	-	250.00	500.00	750.00
Net loan - Opening	3,000.00	3,000.00	2,750.00	2,500.00	2,250.00
Increase/ Decrease due to FERV					
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	3,000.00	3,000.00	2,750.00	2,500.00	2,250.00
Repayments of Loans during the period	-	250.00	250.00	250.00	250.00
Net loan - Closing	3,000.00	2,750.00	2,500.00	2,250.00	2,000.00
Average Net Loan	3,000.00	2,875.00	2,625.00	2,375.00	2,125.00
Rate of Interest on Loan	8.1000%	8.1000%	8.1000%	8.1000%	8.1000%
Interest on Loan Annualised	243.00	232.88	212.63	192.38	172.13
<b>HDFC-X</b>					
Gross loan - Opening	8,500.00	8,500.00	8,500.00	8,500.00	8,500.00
Cumulative repayments of Loans upto previous period	-	-	708.33	1,416.67	2,125.00
Net loan - Opening	8,500.00	8,500.00	7,791.67	7,083.33	6,375.00
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	8,500.00	8,500.00	7,791.67	7,083.33	6,375.00
Repayments of Loans during the period	-	708.33	708.33	708.33	708.33
Net loan - Closing	8,500.00	7,791.67	7,083.33	6,375.00	5,666.67
Average Net Loan	8,500.00	8,145.83	7,437.50	6,729.17	6,020.83
Rate of Interest on Loan	7.9500%	7.9500%	7.9500%	7.9500%	7.9500%
Interest on Loan Annualised	675.75	647.59	591.28	534.97	478.66
<b>HDFC-XI</b>					
Gross loan - Opening	308.00	308.00	308.00	308.00	308.00
Cumulative repayments of Loans upto previous period	-	-	-	-	25.67
Net loan - Opening	308.00	308.00	308.00	308.00	282.33
Increase/ Decrease due to FERV					
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	308.00	308.00	308.00	308.00	282.33
Repayments of Loans during the period	-	-	-	25.67	25.67
Net loan - Closing	308.00	308.00	308.00	282.33	256.67
Average Net Loan	308.00	308.00	308.00	295.17	269.50
Rate of Interest on Loan	7.8400%	7.8400%	7.8400%	7.8400%	7.8400%

Calculation of Interest on Actual Loans					
<b>Name of the Company</b> <b>Name of the Generating station</b>	(Rs Lakhs) NTPC LTD. Gadarwara  <b>Part-I</b> <b>Form-13</b>				
Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Interest on Loan Annualised	24.15	24.15	24.15	23.14	21.13
<b>HDFC-XII</b>					
Gross loan - Opening	6,900.00	6,900.00	6,900.00	6,900.00	6,900.00
Cumulative repayments of Loans upto previous period	-	-	-	-	575.00
Net loan - Opening	6,900.00	6,900.00	6,900.00	6,900.00	6,325.00
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	6,900.00	6,900.00	6,900.00	6,900.00	6,325.00
Repayments of Loans during the period	-	-	-	575.00	575.00
Net loan - Closing	6,900.00	6,900.00	6,900.00	6,325.00	5,750.00
Average Net Loan	6,900.00	6,900.00	6,900.00	6,612.50	6,037.50
Rate of Interest on Loan	7.6000%	7.6000%	7.6000%	7.6000%	7.6000%
Interest on Loan Annualised	524.40	524.40	524.40	502.55	458.85
<b>Bond 51-C- Bullet Repayment on 04.03.2034</b>					
Gross loan - Opening	10,000.00	10,000.00	10,000.00	10,000.00	10,000.00
Cumulative repayments of Loans upto previous period	-	-	-	-	-
Net loan - Opening	10,000.00	10,000.00	10,000.00	10,000.00	10,000.00
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	10,000.00	10,000.00	10,000.00	10,000.00	10,000.00
Repayments of Loans during the period	-	-	-	-	-
Net loan - Closing	10,000.00	10,000.00	10,000.00	10,000.00	10,000.00
Average Net Loan	10,000.00	10,000.00	10,000.00	10,000.00	10,000.00
Rate of Interest on Loan	8.6400%	8.6400%	8.6400%	8.6400%	8.6400%
Interest on Loan Annualised	864.00	864.00	864.00	864.00	864.00
<b>Bond 54- Yearly Installments payment starting 25.03.2023- 3Y</b>					
Gross loan - Opening	81,000.00	81,000.00	81,000.00	81,000.00	81,000.00
Cumulative repayments of Loans upto previous period	48,600.00	81,000.00	81,000.00	81,000.00	81,000.00
Net loan - Opening	32,400.00	-	-	-	-
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	32,400.00	-	-	-	-
Repayments of Loans during the period	32,400.00	-	-	-	-
Net loan - Closing	-	-	-	-	-
Average Net Loan	16,200.00	-	-	-	-
Rate of Interest on Loan	8.5200%	8.5200%	8.5200%	8.5200%	8.5200%
Interest on Loan Annualised	1,380.24	-	-	-	-
<b>Bond 57- Bullet Repayment on 15.12.2025</b>					
Gross loan - Opening	2,000.00	2,000.00	2,000.00	2,000.00	2,000.00
Cumulative repayments of Loans upto previous period	-	-	2,000.00	2,000.00	2,000.00
Net loan - Opening	2,000.00	2,000.00	-	-	-
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	2,000.00	2,000.00	-	-	-
Repayments of Loans during the period	-	2,000.00	-	-	-
Net loan - Closing	2,000.00	-	-	-	-
Average Net Loan	2,000.00	1,000.00	-	-	-
Rate of Interest on Loan	8.2200%	8.2200%	8.2200%	8.2200%	8.2200%
Interest on Loan Annualised	164.40	82.20	-	-	-
<b>Bond 60- Bullet Repayment on 05.05.2026</b>					

Calculation of Interest on Actual Loans					
<b>Name of the Company</b> <b>Name of the Generating station</b>	(Rs Lakhs) NTPC LTD. Gadarwara  <b>Part-I</b> <b>Form-13</b>				
Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Gross loan - Opening	6,500.00	6,500.00	6,500.00	6,500.00	6,500.00
Cumulative repayments of Loans upto previous period	-	-	-	6,500.00	6,500.00
Net loan - Opening	6,500.00	6,500.00	6,500.00	-	-
Increase/ Decrease due to FERV					
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	6,500.00	6,500.00	6,500.00	-	-
Repayments of Loans during the period	-	-	6,500.00	-	-
Net loan - Closing	6,500.00	6,500.00	-	-	-
Average Net Loan	6,500.00	6,500.00	3,250.00	-	-
Rate of Interest on Loan	8.0800%	8.0800%	8.0800%	8.0800%	8.0800%
Interest on Loan Annualised	525.20	525.20	262.60	-	-
<b>Bond 61- Three 5 yearly installments starting from 27.05.2021</b>					
Gross loan - Opening	7,500.00	7,500.00	7,500.00	7,500.00	7,500.00
Cumulative repayments of Loans upto previous period	2,500.00	2,500.00	2,500.00	5,000.00	5,000.00
Net loan - Opening	5,000.00	5,000.00	5,000.00	2,500.00	2,500.00
Increase/ Decrease due to FERV					
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	5,000.00	5,000.00	5,000.00	2,500.00	2,500.00
Repayments of Loans during the period	-	-	2,500.00	-	-
Net loan - Closing	5,000.00	5,000.00	2,500.00	2,500.00	2,500.00
Average Net Loan	5,000.00	5,000.00	3,750.00	2,500.00	2,500.00
Rate of Interest on Loan	8.1300%	8.1300%	8.1300%	8.1300%	8.1300%
Interest on Loan Annualised	406.50	406.50	304.88	203.25	203.25
<b>Bond 62- Bullet Repayment on 23.08.2026</b>					
Gross loan - Opening	3,200.00	3,200.00	3,200.00	3,200.00	3,200.00
Cumulative repayments of Loans upto previous period	-	-	-	3,200.00	3,200.00
Net loan - Opening	3,200.00	3,200.00	3,200.00	-	-
Increase/ Decrease due to FERV					
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	3,200.00	3,200.00	3,200.00	-	-
Repayments of Loans during the period	-	-	3,200.00	-	-
Net loan - Closing	3,200.00	3,200.00	-	-	-
Average Net Loan	3,200.00	3,200.00	1,600.00	-	-
Rate of Interest on Loan	7.6100%	7.6100%	7.6100%	7.6100%	7.6100%
Interest on Loan Annualised	243.52	243.52	121.76	-	-
<b>Bond 63- Bullet Repayment on 16.09.2026</b>					
Gross loan - Opening	8,600.00	8,600.00	8,600.00	8,600.00	8,600.00
Cumulative repayments of Loans upto previous period	-	-	-	8,600.00	8,600.00
Net loan - Opening	8,600.00	8,600.00	8,600.00	-	-
Increase/ Decrease due to FERV					
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	8,600.00	8,600.00	8,600.00	-	-
Repayments of Loans during the period	-	-	8,600.00	-	-
Net loan - Closing	8,600.00	8,600.00	-	-	-
Average Net Loan	8,600.00	8,600.00	4,300.00	-	-
Rate of Interest on Loan	7.5000%	7.5000%	7.5000%	7.5000%	7.5000%
Interest on Loan Annualised	645.00	645.00	322.50	-	-
<b>Bond 64- Bullet Repayment on 07.11.2031</b>					
Gross loan - Opening	2,500.00	2,500.00	2,500.00	2,500.00	2,500.00
Cumulative repayments of Loans upto previous period	-	-	-	-	-
Net loan - Opening	2,500.00	2,500.00	2,500.00	2,500.00	2,500.00
Increase/ Decrease due to FERV					

Calculation of Interest on Actual Loans					
<b>Name of the Company</b> <b>Name of the Generating station</b>	(Rs Lakhs) <b>NTPC LTD.</b> <b>Gadarwara</b>  <b>Part-I</b> <b>Form-13</b>				
Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	2,500.00	2,500.00	2,500.00	2,500.00	2,500.00
Repayments of Loans during the period	-	-	-	-	-
Net loan - Closing	2,500.00	2,500.00	2,500.00	2,500.00	2,500.00
Average Net Loan	2,500.00	2,500.00	2,500.00	2,500.00	2,500.00
Rate of Interest on Loan	7.5200%	7.5200%	7.5200%	7.5200%	7.5200%
Interest on Loan Annualised	188.00	188.00	188.00	188.00	188.00
<b>Bond 66- Bullet Repayment on 14.12.2031</b>					
Gross loan - Opening	28,100.00	28,100.00	28,100.00	28,100.00	28,100.00
Cumulative repayments of Loans upto previous period	-	-	-	-	-
Net loan - Opening	28,100.00	28,100.00	28,100.00	28,100.00	28,100.00
Increase/ Decrease due to FERV					
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	28,100.00	28,100.00	28,100.00	28,100.00	28,100.00
Repayments of Loans during the period	-	-	-	-	-
Net loan - Closing	28,100.00	28,100.00	28,100.00	28,100.00	28,100.00
Average Net Loan	28,100.00	28,100.00	28,100.00	28,100.00	28,100.00
Rate of Interest on Loan	7.4000%	7.4000%	7.4000%	7.4000%	7.4000%
Interest on Loan Annualised	2,079.40	2,079.40	2,079.40	2,079.40	2,079.40
<b>Bond 67- Bullet Repayment on 15.01.2029</b>					
Gross loan - Opening	25,900.00	25,900.00	25,900.00	25,900.00	25,900.00
Cumulative repayments of Loans upto previous period	-	-	-	-	-
Net loan - Opening	25,900.00	25,900.00	25,900.00	25,900.00	25,900.00
Increase/ Decrease due to FERV					
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	25,900.00	25,900.00	25,900.00	25,900.00	25,900.00
Repayments of Loans during the period	-	-	-	-	25,900.00
Net loan - Closing	25,900.00	25,900.00	25,900.00	25,900.00	-
Average Net Loan	25,900.00	25,900.00	25,900.00	25,900.00	12,950.00
Rate of Interest on Loan	8.3300%	8.3300%	8.3300%	8.3300%	8.3300%
Interest on Loan Annualised	2,157.47	2,157.47	2,157.47	2,157.47	1,078.74
<b>Bond 69- Bullet Repayment on 17.07.2029</b>					
Gross loan - Opening	47,600.00	47,600.00	47,600.00	47,600.00	47,600.00
Cumulative repayments of Loans upto previous period	-	-	-	-	-
Net loan - Opening	47,600.00	47,600.00	47,600.00	47,600.00	47,600.00
Increase/ Decrease due to FERV					
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	47,600.00	47,600.00	47,600.00	47,600.00	47,600.00
Repayments of Loans during the period	-	-	-	-	-
Net loan - Closing	47,600.00	47,600.00	47,600.00	47,600.00	47,600.00
Average Net Loan	47,600.00	47,600.00	47,600.00	47,600.00	47,600.00
Rate of Interest on Loan	7.3500%	7.3500%	7.3500%	7.3500%	7.3500%
Interest on Loan Annualised	3,498.60	3,498.60	3,498.60	3,498.60	3,498.60
<b>Bond 73- Bullet Repayment on 27.01.2031</b>					
Gross loan - Opening	19,000.00	19,000.00	19,000.00	19,000.00	19,000.00
Cumulative repayments of Loans upto previous period	-	-	-	-	-
Net loan - Opening	19,000.00	19,000.00	19,000.00	19,000.00	19,000.00
Increase/ Decrease due to FERV					
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	19,000.00	19,000.00	19,000.00	19,000.00	19,000.00
Repayments of Loans during the period	-	-	-	-	-

Calculation of Interest on Actual Loans					
<b>Name of the Company</b> <b>Name of the Generating station</b>	(Rs Lakhs) NTPC LTD. Gadarwara  <b>Part-I</b> <b>Form-13</b>				
Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Net loan - Closing	19,000.00	19,000.00	19,000.00	19,000.00	19,000.00
Average Net Loan	19,000.00	19,000.00	19,000.00	19,000.00	19,000.00
Rate of Interest on Loan	6.4600%	6.4600%	6.4600%	6.4600%	6.4600%
Interest on Loan Annualised	1,227.40	1,227.40	1,227.40	1,227.40	1,227.40
<b>Bond 74- Bullet Repayment on 21.04.2036</b>					
Gross loan - Opening	7,500.00	7,500.00	7,500.00	7,500.00	7,500.00
Cumulative repayments of Loans upto previous period	-	-	-	-	-
Net loan - Opening	7,500.00	7,500.00	7,500.00	7,500.00	7,500.00
Increase/ Decrease due to FERV					
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	7,500.00	7,500.00	7,500.00	7,500.00	7,500.00
Repayments of Loans during the period	-	-	-	-	-
Net loan - Closing	7,500.00	7,500.00	7,500.00	7,500.00	7,500.00
Average Net Loan	7,500.00	7,500.00	7,500.00	7,500.00	7,500.00
Rate of Interest on Loan	6.9000%	6.9000%	6.9000%	6.9000%	6.9000%
Interest on Loan Annualised	517.50	517.50	517.50	517.50	517.50
<b>Total</b>					
Gross loan - Opening	9,81,475	9,81,475	9,81,475	9,81,475	9,81,475
Cumulative repayments of Loans upto previous period	1,31,981	2,67,352	3,67,967	4,98,048	5,96,207
Net loan - Opening	8,49,494	7,14,123	6,13,508	4,83,427	3,85,268
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	8,49,494	7,14,123	6,13,508	4,83,427	3,85,268
Repayments of Loans during the period	1,35,371	1,00,615	1,30,081	98,159	1,03,814
Net loan - Closing	7,14,123	6,13,508	4,83,427	3,85,268	2,81,454
Average Net Loan	7,81,808	6,63,815	5,48,467	4,34,347	3,33,361
Rate of Interest on Loan	6.3055%	6.3124%	6.4543%	6.7419%	7.0042%
Interest on Loan Annualised	49,297	41,903	35,400	29,283	23,349
<b>HDFC Bank Limited-III - D2- Repayment start from 04.12.2021 - 9Y</b>					
Gross loan - Opening	14,400.00	14,400.00	14,400.00	14,400.00	14,400.00
Cumulative repayments of Loans upto previous period	4,800.00	6,400.00	8,000.00	9,600.00	11,200.00
Net loan - Opening	9,600.00	8,000.00	6,400.00	4,800.00	3,200.00
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	9,600.00	8,000.00	6,400.00	4,800.00	3,200.00
Repayments of Loans during the period	1,600.00	1,600.00	1,600.00	1,600.00	1,600.00
Net loan - Closing	8,000.00	6,400.00	4,800.00	3,200.00	1,600.00
Average Net Loan	8,800.00	7,200.00	5,600.00	4,000.00	2,400.00
Rate of Interest on Loan	7.9500%	7.9500%	7.9500%	7.9500%	7.9500%
Interest on Loan Annualised	699.60	572.40	445.20	318.00	190.80
<b>HDFC Bank Limited-III - D5- Repayment start from 04.12.2021 - 9Y</b>					
Gross loan - Opening	3,600.00	3,600.00	3,600.00	3,600.00	3,600.00
Cumulative repayments of Loans upto previous period	1,200.00	1,600.00	2,000.00	2,400.00	2,800.00
Net loan - Opening	2,400.00	2,000.00	1,600.00	1,200.00	800.00
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	2,400.00	2,000.00	1,600.00	1,200.00	800.00

Calculation of Interest on Actual Loans					
<b>Name of the Company</b> <b>Name of the Generating station</b>	(Rs Lakhs) NTPC LTD. Gadarwara  <b>Part-I</b> <b>Form-13</b>				
Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Repayments of Loans during the period	400.00	400.00	400.00	400.00	400.00
Net loan - Closing	2,000.00	1,600.00	1,200.00	800.00	400.00
Average Net Loan	2,200.00	1,800.00	1,400.00	1,000.00	600.00
Rate of Interest on Loan	7.9500%	7.9500%	7.9500%	7.9500%	7.9500%
Interest on Loan Annualised	174.90	143.10	111.30	79.50	47.70
<b>HDFC Bank Limited-III - Repayment start from 04.12.2021 - 9Y- Total</b>					
Gross loan - Opening	18,000.00	18,000.00	18,000.00	18,000.00	18,000.00
Cumulative repayments of Loans upto previous period	6,000.00	8,000.00	10,000.00	12,000.00	14,000.00
Net loan - Opening	12,000.00	10,000.00	8,000.00	6,000.00	4,000.00
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	12,000.00	10,000.00	8,000.00	6,000.00	4,000.00
Repayments of Loans during the period	2,000.00	2,000.00	2,000.00	2,000.00	2,000.00
Net loan - Closing	10,000.00	8,000.00	6,000.00	4,000.00	2,000.00
Average Net Loan	11,000.00	9,000.00	7,000.00	5,000.00	3,000.00
Rate of Interest on Loan	7.9500%	7.9500%	7.9500%	7.9500%	7.9500%
Interest on Loan Annualised	874.50	715.50	556.50	397.50	238.50
<b>HDFC Bank Limited-V - D2- Repayment start from 25.09.2024 - 9Y</b>					
Gross loan - Opening	4,000.00	4,000.00	4,000.00	4,000.00	4,000.00
Cumulative repayments of Loans upto previous period	-	444.44	888.89	1,333.33	1,777.78
Net loan - Opening	4,000.00	3,555.56	3,111.11	2,666.67	2,222.22
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	4,000.00	3,555.56	3,111.11	2,666.67	2,222.22
Repayments of Loans during the period	444.44	444.44	444.44	444.44	444.44
Net loan - Closing	3,555.56	3,111.11	2,666.67	2,222.22	1,777.78
Average Net Loan	3,777.78	3,333.33	2,888.89	2,444.44	2,000.00
Rate of Interest on Loan	7.9500%	7.9500%	7.9500%	7.9500%	7.9500%
Interest on Loan Annualised	300.33	265.00	229.67	194.33	159.00
<b>HDFC Bank Limited-V - D8- Repayment start from 25.09.2024 - 9Y</b>					
Gross loan - Opening	600.00	600.00	600.00	600.00	600.00
Cumulative repayments of Loans upto previous period	-	66.67	133.33	200.00	266.67
Net loan - Opening	600.00	533.33	466.67	400.00	333.33
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	600.00	533.33	466.67	400.00	333.33
Repayments of Loans during the period	66.67	66.67	66.67	66.67	66.67
Net loan - Closing	533.33	466.67	400.00	333.33	266.67
Average Net Loan	566.67	500.00	433.33	366.67	300.00
Rate of Interest on Loan	7.9500%	7.9500%	7.9500%	7.9500%	7.9500%
Interest on Loan Annualised	45.05	39.75	34.45	29.15	23.85
<b>HDFC Bank Limited-V - D10- Repayment start from 25.09.2024 - 9Y</b>					
Gross loan - Opening	8,500.00	8,500.00	8,500.00	8,500.00	8,500.00
Cumulative repayments of Loans upto previous period	-	944.44	1,888.89	2,833.33	3,777.78
Net loan - Opening	8,500.00	7,555.56	6,611.11	5,666.67	4,722.22
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	8,500.00	7,555.56	6,611.11	5,666.67	4,722.22
Repayments of Loans during the period	944.44	944.44	944.44	944.44	944.44
Net loan - Closing	7,555.56	6,611.11	5,666.67	4,722.22	3,777.78
Average Net Loan	8,027.78	7,083.33	6,138.89	5,194.44	4,250.00

Calculation of Interest on Actual Loans					
<b>Name of the Company</b> <b>Name of the Generating station</b>	(Rs Lakhs) NTPC LTD. Gadarwara  <b>Part-I</b> <b>Form-13</b>				
Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Rate of Interest on Loan	7.9500%	7.9500%	7.9500%	7.9500%	7.9500%
Interest on Loan Annualised	638.21	563.13	488.04	412.96	337.88
<b>HDFC Bank Limited-V - Repayment start from 25.09.2024 - 9Y- Total</b>					
Gross loan - Opening	13,100.00	13,100.00	13,100.00	13,100.00	13,100.00
Cumulative repayments of Loans upto previous period	-	1,455.56	2,911.11	4,366.67	5,822.22
Net loan - Opening	13,100.00	11,644.44	10,188.89	8,733.33	7,277.78
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	13,100.00	11,644.44	10,188.89	8,733.33	7,277.78
Repayments of Loans during the period	1,455.56	1,455.56	1,455.56	1,455.56	1,455.56
Net loan - Closing	11,644.44	10,188.89	8,733.33	7,277.78	5,822.22
Average Net Loan	12,372.22	10,916.67	9,461.11	8,005.56	6,550.00
Rate of Interest on Loan	7.9500%	7.9500%	7.9500%	7.9500%	7.9500%
Interest on Loan Annualised	983.59	867.88	752.16	636.44	520.73
<b>HDFC Bank Limited-VI - D2- Repayment start from 26.09.2025 - 9Y</b>					
Gross loan - Opening	6,800.00	6,800.00	6,800.00	6,800.00	6,800.00
Cumulative repayments of Loans upto previous period	-	-	755.56	1,511.11	2,266.67
Net loan - Opening	6,800.00	6,800.00	6,044.44	5,288.89	4,533.33
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	6,800.00	6,800.00	6,044.44	5,288.89	4,533.33
Repayments of Loans during the period	-	755.56	755.56	755.56	755.56
Net loan - Closing	6,800.00	6,044.44	5,288.89	4,533.33	3,777.78
Average Net Loan	6,800.00	6,422.22	5,666.67	4,911.11	4,155.56
Rate of Interest on Loan	7.9500%	7.9500%	7.9500%	7.9500%	7.9500%
Interest on Loan Annualised	540.60	510.57	450.50	390.43	330.37
<b>HDFC Bank Limited-VI - D3- Repayment start from 26.09.2025 - 9Y</b>					
Gross loan - Opening	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00
Cumulative repayments of Loans upto previous period	-	-	1,666.67	3,333.33	5,000.00
Net loan - Opening	15,000.00	15,000.00	13,333.33	11,666.67	10,000.00
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	15,000.00	15,000.00	13,333.33	11,666.67	10,000.00
Repayments of Loans during the period	-	1,666.67	1,666.67	1,666.67	1,666.67
Net loan - Closing	15,000.00	13,333.33	11,666.67	10,000.00	8,333.33
Average Net Loan	15,000.00	14,166.67	12,500.00	10,833.33	9,166.67
Rate of Interest on Loan	7.9500%	7.9500%	7.9500%	7.9500%	7.9500%
Interest on Loan Annualised	1,192.50	1,126.25	993.75	861.25	728.75
<b>HDFC Bank Limited-VI - Repayment start from 26.09.2025 - 9Y- Total</b>					
Gross loan - Opening	21,800.00	21,800.00	21,800.00	21,800.00	21,800.00
Cumulative repayments of Loans upto previous period	-	-	2,422.22	4,844.44	7,266.67
Net loan - Opening	21,800.00	21,800.00	19,377.78	16,955.56	14,533.33
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	21,800.00	21,800.00	19,377.78	16,955.56	14,533.33
Repayments of Loans during the period	-	2,422.22	2,422.22	2,422.22	2,422.22
Net loan - Closing	21,800.00	19,377.78	16,955.56	14,533.33	12,111.11
Average Net Loan	21,800.00	20,588.89	18,166.67	15,744.44	13,322.22
Rate of Interest on Loan	7.9500%	7.9500%	7.9500%	7.9500%	7.9500%
Interest on Loan Annualised	1,733.10	1,636.82	1,444.25	1,251.68	1,059.12

Calculation of Interest on Actual Loans					
<b>Name of the Company</b> <b>Name of the Generating station</b>	(Rs Lakhs) NTPC LTD. Gadarwara  <b>Part-I</b> <b>Form-13</b>				
Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
<b>HDFC Bank Limited-VII - D1- Repayment start from 11.06.2026 - 9Y</b>					
Gross loan - Opening	2,000.00	2,000.00	2,000.00	2,000.00	2,000.00
Cumulative repayments of Loans upto previous period	-	-	-	222.22	444.44
Net loan - Opening	2,000.00	2,000.00	2,000.00	1,777.78	1,555.56
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	2,000.00	2,000.00	2,000.00	1,777.78	1,555.56
Repayments of Loans during the period	-	-	222.22	222.22	222.22
Net loan - Closing	2,000.00	2,000.00	1,777.78	1,555.56	1,333.33
Average Net Loan	2,000.00	2,000.00	1,888.89	1,666.67	1,444.44
Rate of Interest on Loan	7.9500%	7.9500%	7.9500%	7.9500%	7.9500%
Interest on Loan Annualised	159.00	159.00	150.17	132.50	114.83
<b>HDFC Bank Limited-VII - D2- Repayment start from 11.06.2026 - 9Y</b>					
Gross loan - Opening	4,000.00	4,000.00	4,000.00	4,000.00	4,000.00
Cumulative repayments of Loans upto previous period	-	-	-	444.44	888.89
Net loan - Opening	4,000.00	4,000.00	4,000.00	3,555.56	3,111.11
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	4,000.00	4,000.00	4,000.00	3,555.56	3,111.11
Repayments of Loans during the period	-	-	444.44	444.44	444.44
Net loan - Closing	4,000.00	4,000.00	3,555.56	3,111.11	2,666.67
Average Net Loan	4,000.00	4,000.00	3,777.78	3,333.33	2,888.89
Rate of Interest on Loan	7.9500%	7.9500%	7.9500%	7.9500%	7.9500%
Interest on Loan Annualised	318.00	318.00	300.33	265.00	229.67
<b>HDFC Bank Limited-VII - D4- Repayment start from 11.06.2026 - 9Y</b>					
Gross loan - Opening	19,000.00	19,000.00	19,000.00	19,000.00	19,000.00
Cumulative repayments of Loans upto previous period	-	-	-	2,111.11	4,222.22
Net loan - Opening	19,000.00	19,000.00	19,000.00	16,888.89	14,777.78
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	19,000.00	19,000.00	19,000.00	16,888.89	14,777.78
Repayments of Loans during the period	-	-	2,111.11	2,111.11	2,111.11
Net loan - Closing	19,000.00	19,000.00	16,888.89	14,777.78	12,666.67
Average Net Loan	19,000.00	19,000.00	17,944.44	15,833.33	13,722.22
Rate of Interest on Loan	7.9500%	7.9500%	7.9500%	7.9500%	7.9500%
Interest on Loan Annualised	1,510.50	1,510.50	1,426.58	1,258.75	1,090.92
<b>HDFC Bank Limited-VII - D7- Repayment start from 11.06.2026 - 9Y</b>					
Gross loan - Opening	4,500.00	4,500.00	4,500.00	4,500.00	4,500.00
Cumulative repayments of Loans upto previous period	-	-	-	500.00	1,000.00
Net loan - Opening	4,500.00	4,500.00	4,500.00	4,000.00	3,500.00
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	4,500.00	4,500.00	4,500.00	4,000.00	3,500.00
Repayments of Loans during the period	-	-	500.00	500.00	500.00
Net loan - Closing	4,500.00	4,500.00	4,000.00	3,500.00	3,000.00
Average Net Loan	4,500.00	4,500.00	4,250.00	3,750.00	3,250.00
Rate of Interest on Loan	7.9500%	7.9500%	7.9500%	7.9500%	7.9500%
Interest on Loan Annualised	357.75	357.75	337.88	298.13	258.38
<b>HDFC Bank Limited-VII - Repayment start from 11.06.2026 - 9Y- Total</b>					
Gross loan - Opening	29,500.00	29,500.00	29,500.00	29,500.00	29,500.00
Cumulative repayments of Loans upto previous period	-	-	-	3,277.78	6,555.56

Calculation of Interest on Actual Loans					
<b>Name of the Company</b> <b>Name of the Generating station</b>	(Rs Lakhs) NTPC LTD. Gadarwara  <b>Part-I</b> <b>Form-13</b>				
Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Net loan - Opening	29,500.00	29,500.00	29,500.00	26,222.22	22,944.44
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	29,500.00	29,500.00	29,500.00	26,222.22	22,944.44
Repayments of Loans during the period	-	-	3,277.78	3,277.78	3,277.78
Net loan - Closing	29,500.00	29,500.00	26,222.22	22,944.44	19,666.67
Average Net Loan	29,500.00	29,500.00	27,861.11	24,583.33	21,305.56
Rate of Interest on Loan	7.9500%	7.9500%	7.9500%	7.9500%	7.9500%
Interest on Loan Annualised	2,345.25	2,345.25	2,214.96	1,954.38	1,693.79
<b>HDFC Bank Limited-IX - D1- Repayment start from 30.06.2024 - 12Y</b>					
Gross loan - Opening	2,025.00	2,025.00	2,025.00	2,025.00	2,025.00
Cumulative repayments of Loans upto previous period	-	168.75	337.50	506.25	675.00
Net loan - Opening	2,025.00	1,856.25	1,687.50	1,518.75	1,350.00
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	2,025.00	1,856.25	1,687.50	1,518.75	1,350.00
Repayments of Loans during the period	168.75	168.75	168.75	168.75	168.75
Net loan - Closing	1,856.25	1,687.50	1,518.75	1,350.00	1,181.25
Average Net Loan	1,940.63	1,771.88	1,603.13	1,434.38	1,265.63
Rate of Interest on Loan	7.9500%	7.9500%	7.9500%	7.9500%	7.9500%
Interest on Loan Annualised	154.28	140.86	127.45	114.03	100.62
<b>HDFC Bank Limited-IX - D3- Repayment start from 30.06.2024 - 12Y</b>					
Gross loan - Opening	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00
Cumulative repayments of Loans upto previous period	-	416.67	833.33	1,250.00	1,666.67
Net loan - Opening	5,000.00	4,583.33	4,166.67	3,750.00	3,333.33
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	5,000.00	4,583.33	4,166.67	3,750.00	3,333.33
Repayments of Loans during the period	416.67	416.67	416.67	416.67	416.67
Net loan - Closing	4,583.33	4,166.67	3,750.00	3,333.33	2,916.67
Average Net Loan	4,791.67	4,375.00	3,958.33	3,541.67	3,125.00
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
<b>HDFC Bank Limited-IX - D7- Repayment start from 30.06.2024 - 12Y</b>					
Gross loan - Opening	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00
Cumulative repayments of Loans upto previous period	-	416.67	833.33	1,250.00	1,666.67
Net loan - Opening	5,000.00	4,583.33	4,166.67	3,750.00	3,333.33
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	5,000.00	4,583.33	4,166.67	3,750.00	3,333.33
Repayments of Loans during the period	416.67	416.67	416.67	416.67	416.67
Net loan - Closing	4,583.33	4,166.67	3,750.00	3,333.33	2,916.67
Average Net Loan	4,791.67	4,375.00	3,958.33	3,541.67	3,125.00
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
<b>HDFC Bank Limited-IX - D9- Repayment start from 30.06.2024 - 12Y</b>					
Gross loan - Opening	2,500.00	2,500.00	2,500.00	2,500.00	2,500.00
Cumulative repayments of Loans upto previous period	-	208.33	416.67	625.00	833.33
Net loan - Opening	2,500.00	2,291.67	2,083.33	1,875.00	1,666.67
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-

Calculation of Interest on Actual Loans					
<b>Name of the Company</b> <b>Name of the Generating station</b>	(Rs Lakhs) <b>NTPC LTD.</b> <b>Gadarwara</b>  <b>Part-I</b> <b>Form-13</b>				
Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Total	2,500.00	2,291.67	2,083.33	1,875.00	1,666.67
Repayments of Loans during the period	208.33	208.33	208.33	208.33	208.33
Net loan - Closing	2,291.67	2,083.33	1,875.00	1,666.67	1,458.33
Average Net Loan	2,395.83	2,187.50	1,979.17	1,770.83	1,562.50
Rate of Interest on Loan	7.9500%	7.9500%	7.9500%	7.9500%	7.9500%
Interest on Loan Annualised	190.47	173.91	157.34	140.78	124.22
<b>HDFC Bank Limited-IX - D10- Repayment start from 30.06.2024 - 12Y</b>					
Gross loan - Opening	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00
Cumulative repayments of Loans upto previous period	-	416.67	833.33	1,250.00	1,666.67
Net loan - Opening	5,000.00	4,583.33	4,166.67	3,750.00	3,333.33
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	5,000.00	4,583.33	4,166.67	3,750.00	3,333.33
Repayments of Loans during the period	416.67	416.67	416.67	416.67	416.67
Net loan - Closing	4,583.33	4,166.67	3,750.00	3,333.33	2,916.67
Average Net Loan	4,791.67	4,375.00	3,958.33	3,541.67	3,125.00
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
<b>HDFC Bank Limited-IX - Repayment start from 30.06.2024 - 12Y- Total</b>					
Gross loan - Opening	19,525.00	19,525.00	19,525.00	19,525.00	19,525.00
Cumulative repayments of Loans upto previous period	-	1,627.08	3,254.17	4,881.25	6,508.33
Net loan - Opening	19,525.00	17,897.92	16,270.83	14,643.75	13,016.67
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	19,525.00	17,897.92	16,270.83	14,643.75	13,016.67
Repayments of Loans during the period	1,627.08	1,627.08	1,627.08	1,627.08	1,627.08
Net loan - Closing	17,897.92	16,270.83	14,643.75	13,016.67	11,389.58
Average Net Loan	18,711.46	17,084.38	15,457.29	13,830.21	12,203.13
Rate of Interest on Loan	7.9500%	7.9500%	7.9500%	7.9500%	7.9500%
Interest on Loan Annualised	1,487.56	1,358.21	1,228.85	1,099.50	970.15
<b>Jammu and Kashmir Bank III - D2- Repayment start from 18.12.2018 - 10Y</b>					
Gross loan - Opening	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00
Cumulative repayments of Loans upto previous period	3,000.00	3,500.00	4,000.00	4,500.00	5,000.00
Net loan - Opening	2,000.00	1,500.00	1,000.00	500.00	-
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	2,000.00	1,500.00	1,000.00	500.00	-
Repayments of Loans during the period	500.00	500.00	500.00	500.00	-
Net loan - Closing	1,500.00	1,000.00	500.00	-	-
Average Net Loan	1,750.00	1,250.00	750.00	250.00	-
Rate of Interest on Loan	7.9800%	7.9800%	7.9800%	7.9800%	7.9800%
Interest on Loan Annualised	139.65	99.75	59.85	19.95	-
<b>Jammu and Kashmir Bank III - D4- Repayment start from 18.12.2018 - 10Y</b>					
Gross loan - Opening	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00
Cumulative repayments of Loans upto previous period	3,000.00	3,500.00	4,000.00	4,500.00	5,000.00
Net loan - Opening	2,000.00	1,500.00	1,000.00	500.00	-
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	2,000.00	1,500.00	1,000.00	500.00	-
Repayments of Loans during the period	500.00	500.00	500.00	500.00	-

Calculation of Interest on Actual Loans					
<b>Name of the Company</b> <b>Name of the Generating station</b>	<b>(Rs Lakhs)</b> <b>NTPC LTD.</b> <b>Gadarwara</b>  <b>Part-I</b> <b>Form-13</b>				
Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Net loan - Closing	1,500.00	1,000.00	500.00	-	-
Average Net Loan	1,750.00	1,250.00	750.00	250.00	-
Rate of Interest on Loan	7.9800%	7.9800%	7.9800%	7.9800%	7.9800%
Interest on Loan Annualised	139.65	99.75	59.85	19.95	-
<b>Jammu and Kashmir Bank III - Repayment start from 18.12.2018 - 10Y- Total</b>					
Gross loan - Opening	10,000.00	10,000.00	10,000.00	10,000.00	10,000.00
Cumulative repayments of Loans upto previous period	6,000.00	7,000.00	8,000.00	9,000.00	10,000.00
Net loan - Opening	4,000.00	3,000.00	2,000.00	1,000.00	-
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	4,000.00	3,000.00	2,000.00	1,000.00	-
Repayments of Loans during the period	1,000.00	1,000.00	1,000.00	1,000.00	-
Net loan - Closing	3,000.00	2,000.00	1,000.00	-	-
Average Net Loan	3,500.00	2,500.00	1,500.00	500.00	-
Rate of Interest on Loan	7.9800%	7.9800%	7.9800%	7.9800%	0.0000%
Interest on Loan Annualised	279.30	199.50	119.70	39.90	-
<b>State Bank of India-VIII -D2- Repayment start from 31.01.2022 - 9Y</b>					
Gross loan - Opening	10,000.00	10,000.00	10,000.00	10,000.00	10,000.00
Cumulative repayments of Loans upto previous period	3,333.33	4,444.44	5,555.56	6,666.67	7,777.78
Net loan - Opening	6,666.67	5,555.56	4,444.44	3,333.33	2,222.22
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	6,666.67	5,555.56	4,444.44	3,333.33	2,222.22
Repayments of Loans during the period	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11
Net loan - Closing	5,555.56	4,444.44	3,333.33	2,222.22	1,111.11
Average Net Loan	6,111.11	5,000.00	3,888.89	2,777.78	1,666.67
Rate of Interest on Loan	8.2000%	8.2000%	8.2000%	8.2000%	8.2000%
Interest on Loan Annualised	501.11	410.00	318.89	227.78	136.67
<b>State Bank of India-VIII -D3- Repayment start from 31.01.2022 - 9Y</b>					
Gross loan - Opening	20,000.00	20,000.00	20,000.00	20,000.00	20,000.00
Cumulative repayments of Loans upto previous period	6,666.67	8,888.89	11,111.11	13,333.33	15,555.56
Net loan - Opening	13,333.33	11,111.11	8,888.89	6,666.67	4,444.44
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	13,333.33	11,111.11	8,888.89	6,666.67	4,444.44
Repayments of Loans during the period	2,222.22	2,222.22	2,222.22	2,222.22	2,222.22
Net loan - Closing	11,111.11	8,888.89	6,666.67	4,444.44	2,222.22
Average Net Loan	12,222.22	10,000.00	7,777.78	5,555.56	3,333.33
Rate of Interest on Loan	8.2000%	8.2000%	8.2000%	8.2000%	8.2000%
Interest on Loan Annualised	1,002.22	820.00	637.78	455.56	273.33
<b>State Bank of India-VIII -D4- Repayment start from 31.01.2022 - 9Y</b>					
Gross loan - Opening	12,500.00	12,500.00	12,500.00	12,500.00	12,500.00
Cumulative repayments of Loans upto previous period	4,166.67	5,555.56	6,944.44	8,333.33	9,722.22
Net loan - Opening	8,333.33	6,944.44	5,555.56	4,166.67	2,777.78
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	8,333.33	6,944.44	5,555.56	4,166.67	2,777.78
Repayments of Loans during the period	1,388.89	1,388.89	1,388.89	1,388.89	1,388.89
Net loan - Closing	6,944.44	5,555.56	4,166.67	2,777.78	1,388.89
Average Net Loan	7,638.89	6,250.00	4,861.11	3,472.22	2,083.33
Rate of Interest on Loan	8.2000%	8.2000%	8.2000%	8.2000%	8.2000%

Calculation of Interest on Actual Loans					
<b>Name of the Company</b> <b>Name of the Generating station</b>	(Rs Lakhs) <b>NTPC LTD.</b> <b>Gadarwara</b>  <b>Part-I</b> <b>Form-13</b>				
Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Interest on Loan Annualised	626.39	512.50	398.61	284.72	170.83
<b>State Bank of India-VIII -D5- Repayment start from 31.01.2022 - 9Y</b>					
Gross loan - Opening	15,500.00	15,500.00	15,500.00	15,500.00	15,500.00
Cumulative repayments of Loans upto previous period	5,166.67	6,888.89	8,611.11	10,333.33	12,055.56
Net loan - Opening	10,333.33	8,611.11	6,888.89	5,166.67	3,444.44
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	10,333.33	8,611.11	6,888.89	5,166.67	3,444.44
Repayments of Loans during the period	1,722.22	1,722.22	1,722.22	1,722.22	1,722.22
Net loan - Closing	8,611.11	6,888.89	5,166.67	3,444.44	1,722.22
Average Net Loan	9,472.22	7,750.00	6,027.78	4,305.56	2,583.33
Rate of Interest on Loan	8.2000%	8.2000%	8.2000%	8.2000%	8.2000%
Interest on Loan Annualised	776.72	635.50	494.28	353.06	211.83
<b>State Bank of India-VIII -D7- Repayment start from 31.01.2022 - 9Y</b>					
Gross loan - Opening	2,900.00	2,900.00	2,900.00	2,900.00	2,900.00
Cumulative repayments of Loans upto previous period	966.67	1,288.89	1,611.11	1,933.33	2,255.56
Net loan - Opening	1,933.33	1,611.11	1,288.89	966.67	644.44
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	1,933.33	1,611.11	1,288.89	966.67	644.44
Repayments of Loans during the period	322.22	322.22	322.22	322.22	322.22
Net loan - Closing	1,611.11	1,288.89	966.67	644.44	322.22
Average Net Loan	1,772.22	1,450.00	1,127.78	805.56	483.33
Rate of Interest on Loan	8.2000%	8.2000%	8.2000%	8.2000%	8.2000%
Interest on Loan Annualised	145.32	118.90	92.48	66.06	39.63
<b>State Bank of India-VIII -D8- Repayment start from 31.01.2022 - 9Y</b>					
Gross loan - Opening	4,900.00	4,900.00	4,900.00	4,900.00	4,900.00
Cumulative repayments of Loans upto previous period	1,633.33	2,177.78	2,722.22	3,266.67	3,811.11
Net loan - Opening	3,266.67	2,722.22	2,177.78	1,633.33	1,088.89
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	3,266.67	2,722.22	2,177.78	1,633.33	1,088.89
Repayments of Loans during the period	544.44	544.44	544.44	544.44	544.44
Net loan - Closing	2,722.22	2,177.78	1,633.33	1,088.89	544.44
Average Net Loan	2,994.44	2,450.00	1,905.56	1,361.11	816.67
Rate of Interest on Loan	8.2000%	8.2000%	8.2000%	8.2000%	8.2000%
Interest on Loan Annualised	245.54	200.90	156.26	111.61	66.97
<b>State Bank of India-VIII -D11- Repayment start from 31.01.2022 - 9Y</b>					
Gross loan - Opening	7,200.00	7,200.00	7,200.00	7,200.00	7,200.00
Cumulative repayments of Loans upto previous period	2,400.00	3,200.00	4,000.00	4,800.00	5,600.00
Net loan - Opening	4,800.00	4,000.00	3,200.00	2,400.00	1,600.00
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	4,800.00	4,000.00	3,200.00	2,400.00	1,600.00
Repayments of Loans during the period	800.00	800.00	800.00	800.00	800.00
Net loan - Closing	4,000.00	3,200.00	2,400.00	1,600.00	800.00
Average Net Loan	4,400.00	3,600.00	2,800.00	2,000.00	1,200.00
Rate of Interest on Loan	8.2000%	8.2000%	8.2000%	8.2000%	8.2000%
Interest on Loan Annualised	360.80	295.20	229.60	164.00	98.40
<b>State Bank of India-VIII -D12- Repayment start from 31.01.2022 - 9Y</b>					
Gross loan - Opening	5,600.00	5,600.00	5,600.00	5,600.00	5,600.00

Calculation of Interest on Actual Loans					
<b>Name of the Company</b> <b>Name of the Generating station</b>	(Rs Lakhs) NTPC LTD. Gadarwara  <b>Part-I</b> <b>Form-13</b>				
Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Cumulative repayments of Loans upto previous period	1,866.67	2,488.89	3,111.11	3,733.33	4,355.56
Net loan - Opening	3,733.33	3,111.11	2,488.89	1,866.67	1,244.44
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	3,733.33	3,111.11	2,488.89	1,866.67	1,244.44
Repayments of Loans during the period	622.22	622.22	622.22	622.22	622.22
Net loan - Closing	3,111.11	2,488.89	1,866.67	1,244.44	622.22
Average Net Loan	3,422.22	2,800.00	2,177.78	1,555.56	933.33
Rate of Interest on Loan	8.2000%	8.2000%	8.2000%	8.2000%	8.2000%
Interest on Loan Annualised	280.62	229.60	178.58	127.56	76.53
<b>State Bank of India-VIII -D13- Repayment start from 31.01.2022 - 9Y</b>					
Gross loan - Opening	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00
Cumulative repayments of Loans upto previous period	1,666.67	2,222.22	2,777.78	3,333.33	3,888.89
Net loan - Opening	3,333.33	2,777.78	2,222.22	1,666.67	1,111.11
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	3,333.33	2,777.78	2,222.22	1,666.67	1,111.11
Repayments of Loans during the period	555.56	555.56	555.56	555.56	555.56
Net loan - Closing	2,777.78	2,222.22	1,666.67	1,111.11	555.56
Average Net Loan	3,055.56	2,500.00	1,944.44	1,388.89	833.33
Rate of Interest on Loan	8.2000%	8.2000%	8.2000%	8.2000%	8.2000%
Interest on Loan Annualised	250.56	205.00	159.44	113.89	68.33
<b>State Bank of India-VIII -D15- Repayment start from 31.01.2022 - 9Y</b>					
Gross loan - Opening	2,000.00	2,000.00	2,000.00	2,000.00	2,000.00
Cumulative repayments of Loans upto previous period	666.67	888.89	1,111.11	1,333.33	1,555.56
Net loan - Opening	1,333.33	1,111.11	888.89	666.67	444.44
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	1,333.33	1,111.11	888.89	666.67	444.44
Repayments of Loans during the period	222.22	222.22	222.22	222.22	222.22
Net loan - Closing	1,111.11	888.89	666.67	444.44	222.22
Average Net Loan	1,222.22	1,000.00	777.78	555.56	333.33
Rate of Interest on Loan	8.2000%	8.2000%	8.2000%	8.2000%	8.2000%
Interest on Loan Annualised	100.22	82.00	63.78	45.56	27.33
<b>State Bank of India-VIII -D24- Repayment start from 31.01.2022 - 9Y</b>					
Gross loan - Opening	25,000.00	25,000.00	25,000.00	25,000.00	25,000.00
Cumulative repayments of Loans upto previous period	8,333.33	11,111.11	13,888.89	16,666.67	19,444.44
Net loan - Opening	16,666.67	13,888.89	11,111.11	8,333.33	5,555.56
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	16,666.67	13,888.89	11,111.11	8,333.33	5,555.56
Repayments of Loans during the period	2,777.78	2,777.78	2,777.78	2,777.78	2,777.78
Net loan - Closing	13,888.89	11,111.11	8,333.33	5,555.56	2,777.78
Average Net Loan	15,277.78	12,500.00	9,722.22	6,944.44	4,166.67
Rate of Interest on Loan	8.2000%	8.2000%	8.2000%	8.2000%	8.2000%
Interest on Loan Annualised	1,252.78	1,025.00	797.22	569.44	341.67
<b>State Bank of India-VIII - Repayment start from 31.01.2022 - 9Y- Total</b>					
Gross loan - Opening	1,10,600.00	1,10,600.00	1,10,600.00	1,10,600.00	1,10,600.00
Cumulative repayments of Loans upto previous period	36,866.67	49,155.56	61,444.44	73,733.33	86,022.22
Net loan - Opening	73,733.33	61,444.44	49,155.56	36,866.67	24,577.78
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-

Calculation of Interest on Actual Loans					
<b>Name of the Company</b> <b>Name of the Generating station</b>	<b>(Rs Lakhs)</b> <b>NTPC LTD.</b> <b>Gadarwara</b>  <b>Part-I</b> <b>Form-13</b>				
Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Total	73,733.33	61,444.44	49,155.56	36,866.67	24,577.78
Repayments of Loans during the period	12,288.89	12,288.89	12,288.89	12,288.89	12,288.89
Net loan - Closing	61,444.44	49,155.56	36,866.67	24,577.78	12,288.89
Average Net Loan	67,588.89	55,300.00	43,011.11	30,722.22	18,433.33
Rate of Interest on Loan	8.2000%	8.2000%	8.2000%	8.2000%	8.2000%
Interest on Loan Annualised	5,542.29	4,534.60	3,526.91	2,519.22	1,511.53
<b>State Bank of India-IX -D1- Repayment start from 31.03.2021 - 9Y</b>					
Gross loan - Opening	5,800.00	5,800.00	5,800.00	5,800.00	5,800.00
Cumulative repayments of Loans upto previous period	1,933.33	3,222.22	3,866.67	4,511.11	5,155.56
Net loan - Opening	3,866.67	2,577.78	1,933.33	1,288.89	644.44
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	3,866.67	2,577.78	1,933.33	1,288.89	644.44
Repayments of Loans during the period	1,288.89	644.44	644.44	644.44	644.44
Net loan - Closing	2,577.78	1,933.33	1,288.89	644.44	-
Average Net Loan	3,222.22	2,255.56	1,611.11	966.67	322.22
Rate of Interest on Loan	8.2000%	8.2000%	8.2000%	8.2000%	8.2000%
Interest on Loan Annualised	264.22	184.96	132.11	79.27	26.42
<b>State Bank of India-IX -D2- Repayment start from 31.03.2021 - 9Y</b>					
Gross loan - Opening	1,200.00	1,200.00	1,200.00	1,200.00	1,200.00
Cumulative repayments of Loans upto previous period	400.00	666.67	800.00	933.33	1,066.67
Net loan - Opening	800.00	533.33	400.00	266.67	133.33
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	800.00	533.33	400.00	266.67	133.33
Repayments of Loans during the period	266.67	133.33	133.33	133.33	133.33
Net loan - Closing	533.33	400.00	266.67	133.33	-
Average Net Loan	666.67	466.67	333.33	200.00	66.67
Rate of Interest on Loan	8.2000%	8.2000%	8.2000%	8.2000%	8.2000%
Interest on Loan Annualised	54.67	38.27	27.33	16.40	5.47
<b>State Bank of India-IX -D7- Repayment start from 31.03.2021 - 9Y</b>					
Gross loan - Opening	14,000.00	14,000.00	14,000.00	14,000.00	14,000.00
Cumulative repayments of Loans upto previous period	4,666.67	7,777.78	9,333.33	10,888.89	12,444.44
Net loan - Opening	9,333.33	6,222.22	4,666.67	3,111.11	1,555.56
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	9,333.33	6,222.22	4,666.67	3,111.11	1,555.56
Repayments of Loans during the period	3,111.11	1,555.56	1,555.56	1,555.56	1,555.56
Net loan - Closing	6,222.22	4,666.67	3,111.11	1,555.56	-
Average Net Loan	7,777.78	5,444.44	3,888.89	2,333.33	777.78
Rate of Interest on Loan	8.2000%	8.2000%	8.2000%	8.2000%	8.2000%
Interest on Loan Annualised	637.78	446.44	318.89	191.33	63.78
<b>State Bank of India-IX -D10- Repayment start from 31.03.2021 - 9Y</b>					
Gross loan - Opening	10,000.00	10,000.00	10,000.00	10,000.00	10,000.00
Cumulative repayments of Loans upto previous period	3,333.33	5,555.56	6,666.67	7,777.78	8,888.89
Net loan - Opening	6,666.67	4,444.44	3,333.33	2,222.22	1,111.11
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	6,666.67	4,444.44	3,333.33	2,222.22	1,111.11
Repayments of Loans during the period	2,222.22	1,111.11	1,111.11	1,111.11	1,111.11
Net loan - Closing	4,444.44	3,333.33	2,222.22	1,111.11	-

Calculation of Interest on Actual Loans					
<b>Name of the Company</b> <b>Name of the Generating station</b>	(Rs Lakhs) NTPC LTD. Gadarwara  <b>Part-I</b> <b>Form-13</b>				
Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Average Net Loan	5,555.56	3,888.89	2,777.78	1,666.67	555.56
Rate of Interest on Loan	8.2000%	8.2000%	8.2000%	8.2000%	8.2000%
Interest on Loan Annualised	455.56	318.89	227.78	136.67	45.56
<b>State Bank of India-IX - Repayment start from 31.03.2021 - 9Y- Total</b>					
Gross loan - Opening	31,000.00	31,000.00	31,000.00	31,000.00	31,000.00
Cumulative repayments of Loans upto previous period	10,333.33	17,222.22	20,666.67	24,111.11	27,555.56
Net loan - Opening	20,666.67	13,777.78	10,333.33	6,888.89	3,444.44
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	20,666.67	13,777.78	10,333.33	6,888.89	3,444.44
Repayments of Loans during the period	6,888.89	3,444.44	3,444.44	3,444.44	3,444.44
Net loan - Closing	13,777.78	10,333.33	6,888.89	3,444.44	-
Average Net Loan	17,222.22	12,055.56	8,611.11	5,166.67	1,722.22
Rate of Interest on Loan	8.2000%	8.2000%	8.2000%	8.2000%	8.2000%
Interest on Loan Annualised	1,412.22	988.56	706.11	423.67	141.22
<b>State Bank of India-X -D1- Repayment start from 01.10.2024 - 9Y</b>					
Gross loan - Opening	7,625.00	7,625.00	7,625.00	7,625.00	7,625.00
Cumulative repayments of Loans upto previous period	-	847.22	1,694.44	2,541.67	3,388.89
Net loan - Opening	7,625.00	6,777.78	5,930.56	5,083.33	4,236.11
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	7,625.00	6,777.78	5,930.56	5,083.33	4,236.11
Repayments of Loans during the period	847.22	847.22	847.22	847.22	847.22
Net loan - Closing	6,777.78	5,930.56	5,083.33	4,236.11	3,388.89
Average Net Loan	7,201.39	6,354.17	5,506.94	4,659.72	3,812.50
Rate of Interest on Loan	8.2000%	8.2000%	8.2000%	8.2000%	8.2000%
Interest on Loan Annualised	590.51	521.04	451.57	382.10	312.63
<b>State Bank of India-X -D3- Repayment start from 01.10.2024 - 9Y</b>					
Gross loan - Opening	4,000.00	4,000.00	4,000.00	4,000.00	4,000.00
Cumulative repayments of Loans upto previous period	-	444.44	888.89	1,333.33	1,777.78
Net loan - Opening	4,000.00	3,555.56	3,111.11	2,666.67	2,222.22
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	4,000.00	3,555.56	3,111.11	2,666.67	2,222.22
Repayments of Loans during the period	444.44	444.44	444.44	444.44	444.44
Net loan - Closing	3,555.56	3,111.11	2,666.67	2,222.22	1,777.78
Average Net Loan	3,777.78	3,333.33	2,888.89	2,444.44	2,000.00
Rate of Interest on Loan	8.2000%	8.2000%	8.2000%	8.2000%	8.2000%
Interest on Loan Annualised	309.78	273.33	236.89	200.44	164.00
<b>State Bank of India-X -D7- Repayment start from 01.10.2024 - 9Y</b>					
Gross loan - Opening	6,000.00	6,000.00	6,000.00	6,000.00	6,000.00
Cumulative repayments of Loans upto previous period	-	666.67	1,333.33	2,000.00	2,666.67
Net loan - Opening	6,000.00	5,333.33	4,666.67	4,000.00	3,333.33
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	6,000.00	5,333.33	4,666.67	4,000.00	3,333.33
Repayments of Loans during the period	666.67	666.67	666.67	666.67	666.67
Net loan - Closing	5,333.33	4,666.67	4,000.00	3,333.33	2,666.67
Average Net Loan	5,666.67	5,000.00	4,333.33	3,666.67	3,000.00
Rate of Interest on Loan	8.2000%	8.2000%	8.2000%	8.2000%	8.2000%
Interest on Loan Annualised	464.67	410.00	355.33	300.67	246.00

Calculation of Interest on Actual Loans					
Bame of the Company Name of the Generating station	(Rs Lakhs) NTPC LTD. Gadarwara				
	Part-I Form-13				
Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
<b>State Bank of India-X - Repayment start from 01.10.2024 - 9Y</b>					
Gross loan - Opening	17,625.00	17,625.00	17,625.00	17,625.00	17,625.00
Cumulative repayments of Loans upto previous period	-	1,958.33	3,916.67	5,875.00	7,833.33
Net loan - Opening	17,625.00	15,666.67	13,708.33	11,750.00	9,791.67
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	17,625.00	15,666.67	13,708.33	11,750.00	9,791.67
Repayments of Loans during the period	1,958.33	1,958.33	1,958.33	1,958.33	1,958.33
Net loan - Closing	15,666.67	13,708.33	11,750.00	9,791.67	7,833.33
Average Net Loan	16,645.83	14,687.50	12,729.17	10,770.83	8,812.50
Rate of Interest on Loan	8.2000%	8.2000%	8.2000%	8.2000%	8.2000%
Interest on Loan Annualised	1,364.96	1,204.38	1,043.79	883.21	722.63
<b>State Bank of India-XI -D1- Repayment start from 01.10.2022 - 9Y</b>					
Gross loan - Opening	10,000.00	10,000.00	10,000.00	10,000.00	10,000.00
Cumulative repayments of Loans upto previous period	2,222.22	3,333.33	4,444.44	5,555.56	6,666.67
Net loan - Opening	7,777.78	6,666.67	5,555.56	4,444.44	3,333.33
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	7,777.78	6,666.67	5,555.56	4,444.44	3,333.33
Repayments of Loans during the period	1,111.11	1,111.11	1,111.11	1,111.11	1,111.11
Net loan - Closing	6,666.67	5,555.56	4,444.44	3,333.33	2,222.22
Average Net Loan	7,222.22	6,111.11	5,000.00	3,888.89	2,777.78
Rate of Interest on Loan	8.2000%	8.2000%	8.2000%	8.2000%	8.2000%
Interest on Loan Annualised	592.22	501.11	410.00	318.89	227.78
<b>State Bank of India-XI -D3- Repayment start from 01.10.2022 - 9Y</b>					
Gross loan - Opening	500.00	500.00	500.00	500.00	500.00
Cumulative repayments of Loans upto previous period	111.11	166.67	222.22	277.78	333.33
Net loan - Opening	388.89	333.33	277.78	222.22	166.67
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	388.89	333.33	277.78	222.22	166.67
Repayments of Loans during the period	55.56	55.56	55.56	55.56	55.56
Net loan - Closing	333.33	277.78	222.22	166.67	111.11
Average Net Loan	361.11	305.56	250.00	194.44	138.89
Rate of Interest on Loan	8.2000%	8.2000%	8.2000%	8.2000%	8.2000%
Interest on Loan Annualised	29.61	25.06	20.50	15.94	11.39
<b>State Bank of India-XI -D4- Repayment start from 01.10.2022 - 9Y</b>					
Gross loan - Opening	5,500.00	5,500.00	5,500.00	5,500.00	5,500.00
Cumulative repayments of Loans upto previous period	1,222.22	1,833.33	2,444.44	3,055.56	3,666.67
Net loan - Opening	4,277.78	3,666.67	3,055.56	2,444.44	1,833.33
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	4,277.78	3,666.67	3,055.56	2,444.44	1,833.33
Repayments of Loans during the period	611.11	611.11	611.11	611.11	611.11
Net loan - Closing	3,666.67	3,055.56	2,444.44	1,833.33	1,222.22
Average Net Loan	3,972.22	3,361.11	2,750.00	2,138.89	1,527.78
Rate of Interest on Loan	8.2000%	8.2000%	8.2000%	8.2000%	8.2000%
Interest on Loan Annualised	325.72	275.61	225.50	175.39	125.28
<b>State Bank of India-XI -D5- Repayment start from 01.10.2022 - 9Y</b>					
Gross loan - Opening	7,500.00	7,500.00	7,500.00	7,500.00	7,500.00

Calculation of Interest on Actual Loans					
<b>Name of the Company</b> <b>Name of the Generating station</b>	(Rs Lakhs) NTPC LTD. Gadarwara  <b>Part-I</b> <b>Form-13</b>				
Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Cumulative repayments of Loans upto previous period	1,666.67	2,500.00	3,333.33	4,166.67	5,000.00
Net loan - Opening	5,833.33	5,000.00	4,166.67	3,333.33	2,500.00
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	5,833.33	5,000.00	4,166.67	3,333.33	2,500.00
Repayments of Loans during the period	833.33	833.33	833.33	833.33	833.33
Net loan - Closing	5,000.00	4,166.67	3,333.33	2,500.00	1,666.67
Average Net Loan	5,416.67	4,583.33	3,750.00	2,916.67	2,083.33
Rate of Interest on Loan	8.2000%	8.2000%	8.2000%	8.2000%	8.2000%
Interest on Loan Annualised	444.17	375.83	307.50	239.17	170.83
<b>State Bank of India-XI - Repayment start from 01.10.2022 - 9Y- Total</b>					
Gross loan - Opening	23,500.00	23,500.00	23,500.00	23,500.00	23,500.00
Cumulative repayments of Loans upto previous period	5,222.22	7,833.33	10,444.44	13,055.56	15,666.67
Net loan - Opening	18,277.78	15,666.67	13,055.56	10,444.44	7,833.33
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	18,277.78	15,666.67	13,055.56	10,444.44	7,833.33
Repayments of Loans during the period	2,611.11	2,611.11	2,611.11	2,611.11	2,611.11
Net loan - Closing	15,666.67	13,055.56	10,444.44	7,833.33	5,222.22
Average Net Loan	16,972.22	14,361.11	11,750.00	9,138.89	6,527.78
Rate of Interest on Loan	8.2000%	8.2000%	8.2000%	8.2000%	8.2000%
Interest on Loan Annualised	1,391.72	1,177.61	963.50	749.39	535.28
<b>State Bank of India-XII -D1- Repayment start from 31.03.2026 - 9Y</b>					
Gross loan - Opening	9,000.00	9,000.00	9,000.00	9,000.00	9,000.00
Cumulative repayments of Loans upto previous period	-	-	1,000.00	2,000.00	3,000.00
Net loan - Opening	9,000.00	9,000.00	8,000.00	7,000.00	6,000.00
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	9,000.00	9,000.00	8,000.00	7,000.00	6,000.00
Repayments of Loans during the period	-	1,000.00	1,000.00	1,000.00	1,000.00
Net loan - Closing	9,000.00	8,000.00	7,000.00	6,000.00	5,000.00
Average Net Loan	9,000.00	8,500.00	7,500.00	6,500.00	5,500.00
Rate of Interest on Loan	8.2000%	8.2000%	8.2000%	8.2000%	8.2000%
Interest on Loan Annualised	738.00	697.00	615.00	533.00	451.00
<b>State Bank of India-XII -D2- Repayment start from 31.03.2026 - 9Y</b>					
Gross loan - Opening	9,000.00	9,000.00	9,000.00	9,000.00	9,000.00
Cumulative repayments of Loans upto previous period	-	-	1,000.00	2,000.00	3,000.00
Net loan - Opening	9,000.00	9,000.00	8,000.00	7,000.00	6,000.00
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	9,000.00	9,000.00	8,000.00	7,000.00	6,000.00
Repayments of Loans during the period	-	1,000.00	1,000.00	1,000.00	1,000.00
Net loan - Closing	9,000.00	8,000.00	7,000.00	6,000.00	5,000.00
Average Net Loan	9,000.00	8,500.00	7,500.00	6,500.00	5,500.00
Rate of Interest on Loan	8.2000%	8.2000%	8.2000%	8.2000%	8.2000%
Interest on Loan Annualised	738.00	697.00	615.00	533.00	451.00
<b>State Bank of India-XII -D3- Repayment start from 31.03.2026 - 9Y</b>					
Gross loan - Opening	6,000.00	6,000.00	6,000.00	6,000.00	6,000.00
Cumulative repayments of Loans upto previous period	-	-	666.67	1,333.33	2,000.00
Net loan - Opening	6,000.00	6,000.00	5,333.33	4,666.67	4,000.00
Increase/ Decrease due to FERV	-	-	-	-	-

Calculation of Interest on Actual Loans					
<b>Name of the Company</b> <b>Name of the Generating station</b>	(Rs Lakhs) <b>NTPC LTD.</b> <b>Gadarwara</b>  <b>Part-I</b> <b>Form-13</b>				
Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	6,000.00	6,000.00	5,333.33	4,666.67	4,000.00
Repayments of Loans during the period	-	666.67	666.67	666.67	666.67
Net loan - Closing	6,000.00	5,333.33	4,666.67	4,000.00	3,333.33
Average Net Loan	6,000.00	5,666.67	5,000.00	4,333.33	3,666.67
Rate of Interest on Loan	8.2000%	8.2000%	8.2000%	8.2000%	8.2000%
Interest on Loan Annualised	492.00	464.67	410.00	355.33	300.67
<b>State Bank of India-XII - Repayment start from 31.03.2026 - 9Y- Total</b>					
Gross loan - Opening	24,000.00	24,000.00	24,000.00	24,000.00	24,000.00
Cumulative repayments of Loans upto previous period	-	-	2,666.67	5,333.33	8,000.00
Net loan - Opening	24,000.00	24,000.00	21,333.33	18,666.67	16,000.00
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	24,000.00	24,000.00	21,333.33	18,666.67	16,000.00
Repayments of Loans during the period	-	2,666.67	2,666.67	2,666.67	2,666.67
Net loan - Closing	24,000.00	21,333.33	18,666.67	16,000.00	13,333.33
Average Net Loan	24,000.00	22,666.67	20,000.00	17,333.33	14,666.67
Rate of Interest on Loan	8.2000%	8.2000%	8.2000%	8.2000%	8.2000%
Interest on Loan Annualised	1,968.00	1,858.67	1,640.00	1,421.33	1,202.67
<b>HDFC-X D2</b>					
Gross loan - Opening	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00
Cumulative repayments of Loans upto previous period	-	-	416.67	833.33	1,250.00
Net loan - Opening	5,000.00	5,000.00	4,583.33	4,166.67	3,750.00
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	5,000.00	5,000.00	4,583.33	4,166.67	3,750.00
Repayments of Loans during the period	-	416.67	416.67	416.67	416.67
Net loan - Closing	5,000.00	4,583.33	4,166.67	3,750.00	3,333.33
Average Net Loan	5,000.00	4,791.67	4,375.00	3,958.33	3,541.67
Rate of Interest on Loan	7.9500%	7.9500%	7.9500%	7.9500%	7.9500%
Interest on Loan Annualised	397.50	380.94	347.81	314.69	281.56
<b>HDFC-X D3</b>					
Gross loan - Opening	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00
Cumulative repayments of Loans upto previous period	-	-	125.00	250.00	375.00
Net loan - Opening	1,500.00	1,500.00	1,375.00	1,250.00	1,125.00
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	1,500.00	1,500.00	1,375.00	1,250.00	1,125.00
Repayments of Loans during the period	-	125.00	125.00	125.00	125.00
Net loan - Closing	1,500.00	1,375.00	1,250.00	1,125.00	1,000.00
Average Net Loan	1,500.00	1,437.50	1,312.50	1,187.50	1,062.50
Rate of Interest on Loan	7.9500%	7.9500%	7.9500%	7.9500%	7.9500%
Interest on Loan Annualised	119.25	114.28	104.34	94.41	84.47
<b>HDFC-X D5</b>					
Gross loan - Opening	2,000.00	2,000.00	2,000.00	2,000.00	2,000.00
Cumulative repayments of Loans upto previous period	-	-	166.67	333.33	500.00
Net loan - Opening	2,000.00	2,000.00	1,833.33	1,666.67	1,500.00
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	2,000.00	2,000.00	1,833.33	1,666.67	1,500.00
Repayments of Loans during the period	-	166.67	166.67	166.67	166.67
Net loan - Closing	2,000.00	1,833.33	1,666.67	1,500.00	1,333.33

Calculation of Interest on Actual Loans					
<b>Name of the Company</b> <b>Name of the Generating station</b>	(Rs Lakhs) NTPC LTD. Gadarwara  <b>Part-I</b> <b>Form-13</b>				
Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Average Net Loan	2,000.00	1,916.67	1,750.00	1,583.33	1,416.67
Rate of Interest on Loan	7.9500%	7.9500%	7.9500%	7.9500%	7.9500%
Interest on Loan Annualised	159.00	152.38	139.13	125.88	112.63
<b>HDFC-X Total</b>					
Gross loan - Opening	8,500.00	8,500.00	8,500.00	8,500.00	8,500.00
Cumulative repayments of Loans upto previous period	-	-	708.33	1,416.67	2,125.00
Net loan - Opening	8,500.00	8,500.00	7,791.67	7,083.33	6,375.00
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	8,500.00	8,500.00	7,791.67	7,083.33	6,375.00
Repayments of Loans during the period	-	708.33	708.33	708.33	708.33
Net loan - Closing	8,500.00	7,791.67	7,083.33	6,375.00	5,666.67
Average Net Loan	8,500.00	8,145.83	7,437.50	6,729.17	6,020.83
Rate of Interest on Loan	7.9500%	7.9500%	7.9500%	7.9500%	7.9500%
Interest on Loan Annualised	675.75	647.59	591.28	534.97	478.66
<b>HDFC-XII D1</b>					
Gross loan - Opening	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00
Cumulative repayments of Loans upto previous period	-	-	-	-	83.33
Net loan - Opening	1,000.00	1,000.00	1,000.00	1,000.00	916.67
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	1,000.00	1,000.00	1,000.00	1,000.00	916.67
Repayments of Loans during the period	-	-	-	83.33	83.33
Net loan - Closing	1,000.00	1,000.00	1,000.00	916.67	833.33
Average Net Loan	1,000.00	1,000.00	1,000.00	958.33	875.00
Rate of Interest on Loan	7.6000%	7.6000%	7.6000%	7.6000%	7.6000%
Interest on Loan Annualised	76.00	76.00	76.00	72.83	66.50
<b>HDFC-XII D3</b>					
Gross loan - Opening	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00
Cumulative repayments of Loans upto previous period	-	-	-	-	250.00
Net loan - Opening	3,000.00	3,000.00	3,000.00	3,000.00	2,750.00
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	3,000.00	3,000.00	3,000.00	3,000.00	2,750.00
Repayments of Loans during the period	-	-	-	250.00	250.00
Net loan - Closing	3,000.00	3,000.00	3,000.00	2,750.00	2,500.00
Average Net Loan	3,000.00	3,000.00	3,000.00	2,875.00	2,625.00
Rate of Interest on Loan	7.6000%	7.6000%	7.6000%	7.6000%	7.6000%
Interest on Loan Annualised	228.00	228.00	228.00	218.50	199.50
<b>HDFC-XII D4</b>					
Gross loan - Opening	900.00	900.00	900.00	900.00	900.00
Cumulative repayments of Loans upto previous period	-	-	-	-	75.00
Net loan - Opening	900.00	900.00	900.00	900.00	825.00
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	900.00	900.00	900.00	900.00	825.00
Repayments of Loans during the period	-	-	-	75.00	75.00
Net loan - Closing	900.00	900.00	900.00	825.00	750.00
Average Net Loan	900.00	900.00	900.00	862.50	787.50
Rate of Interest on Loan	7.6000%	7.6000%	7.6000%	7.6000%	7.6000%
Interest on Loan Annualised	68.40	68.40	68.40	65.55	59.85

Calculation of Interest on Actual Loans					
Name of the Company Name of the Generating station	(Rs Lakhs) NTPC LTD. Gadarwara				
	Part-I Form-13				
Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
<b>HDFC-XII D6</b>					
Gross loan - Opening	2,000.00	2,000.00	2,000.00	2,000.00	2,000.00
Cumulative repayments of Loans upto previous period	-	-	-	-	166.67
Net loan - Opening	2,000.00	2,000.00	2,000.00	2,000.00	1,833.33
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	2,000.00	2,000.00	2,000.00	2,000.00	1,833.33
Repayments of Loans during the period	-	-	-	166.67	166.67
Net loan - Closing	2,000.00	2,000.00	2,000.00	1,833.33	1,666.67
Average Net Loan	2,000.00	2,000.00	2,000.00	1,916.67	1,750.00
Rate of Interest on Loan	7.6000%	7.6000%	7.6000%	7.6000%	7.6000%
Interest on Loan Annualised	152.00	152.00	152.00	145.67	133.00
<b>HDFC-XII Total</b>					
Gross loan - Opening	6,900.00	6,900.00	6,900.00	6,900.00	6,900.00
Cumulative repayments of Loans upto previous period	-	-	-	-	575.00
Net loan - Opening	6,900.00	6,900.00	6,900.00	6,900.00	6,325.00
Increase/ Decrease due to FERV	-	-	-	-	-
Increase/ Decrease due to ACE/Drawl during the period	-	-	-	-	-
Total	6,900.00	6,900.00	6,900.00	6,900.00	6,325.00
Repayments of Loans during the period	-	-	-	575.00	575.00
Net loan - Closing	6,900.00	6,900.00	6,900.00	6,325.00	5,750.00
Average Net Loan	6,900.00	6,900.00	6,900.00	6,612.50	6,037.50
Rate of Interest on Loan	7.6000%	7.6000%	7.6000%	7.6000%	7.6000%
Interest on Loan Annualised	524.40	524.40	524.40	502.55	458.85

Info:

(i) Floating rate, interest basis and withholding tax rates are as per mail received from IF on 10.10.2024

										From To	31-03-2024 31-032024		
Name of the Loan	From	To	Floating Rate of interest	Withholding Tax (WHT)	Applicability of Withholding Tax	Interest Basis	Financial year	Interest rate (incl WHT)	Loan Proportion	No of days	Product	WAVG rate	
JPY Equ. 350Million A	12-01-2024	31-03-2024	0.96342%	5.46000%	100.00000%	Act/365	2023-24	1.019061%	100%	1	0.0102185		
JPY Equ. 350Million A Weighted Average rate												1.02190%	
JPY Equ. 350Million B	12-01-2024	31-03-2024	0.96342%	5.46000%	100.00000%	Act/365	2023-24	1.019061%	100%	1	0.0102185		
JPY Equ. 350Million B Weighted Average rate												1.02190%	
JPY Equ. 300Million A	15-01-2024	31-03-2024	1.03665%	5.46000%	100.00000%	Act/365	2023-24	1.096520%	100%	1	0.0109952		
JPY Equ. 300Million A Weighted Average rate												1.09950%	
JPY Equ. 300Million B	15-01-2024	31-03-2024	1.03665%	5.46000%	100.00000%	Act/365	2023-24	1.096520%	100%	1	0.0109952		
JPY Equ. 300Million B Weighted Average rate												1.09950%	
JPY Equ. 750M Drawl (I to IV)	31-01-2024	31-03-2024	0.83190%	5.46000%	58.73020%	Act/365	2023-24	0.860117%	75%	1	0.0064686		
JPY Equ. 750M Drawl (I to IV)	31-01-2024	31-03-2024	1.05190%	5.46000%	52.38100%	Act/365	2023-24	1.083722%	25%	1	0.0027167		
JPY Equ. 750M Drawl (I to IV) Weighted Average rate												0.91850%	
JPY Equ. 750M Drawl (V-VI)	31-01-2024	31-03-2024	0.83190%	5.46000%	0.00000%	Act/365	2023-24	0.831900%	75%	1	0.0062563		
JPY Equ. 750M Drawl (V-VI)	31-01-2024	31-03-2024	1.05190%	5.46000%	0.00000%	Act/365	2023-24	1.051900%	25%	1	0.002637		
JPY Equ. 750M Drawl (V-VI) Weighted Average rate												0.88930%	
Euro Loan I Drawl I	06-12-2023	31-03-2024	4.89500%	1.77703%		Act/360	2023-24	4.981985%	100%	1	0.0506502		
Euro Loan I Drawl I Weighted Average rate												5.06500%	
Euro Loan I Drawl II	06-12-2023	31-03-2024	4.89500%	1.743516%		Act/360	2023-24	4.980345%	100%	1	0.0506335		
Euro Loan I Drawl II Weighted Average rate												5.06340%	
Euro Loan I Drawl III	06-12-2023	31-03-2024	4.89500%	1.743516%		Act/360	2023-24	4.980345%	100%	1	0.0506335		
Euro Loan I Drawl III Weighted Average rate												5.06340%	
USD 750 Million Drawl I	25-10-2023	31-03-2024	6.61909%	0		Act/360	2023-24	6.619090%	87%	1	0.0583216		
USD 750 Million Drawl I	25-10-2023	31-03-2024	6.53909%	5.46000%	100.00000%	Act/360	2023-24	6.916744%	13%	1	0.0093761		
USD 750 Million Drawl I Weighted Average rate												6.76980%	
USD 750 Million Drawl II	25-10-2023	31-03-2024	6.61909%	0		Act/360	2023-24	6.619090%	87%	1	0.0583216		
USD 750 Million Drawl II	25-10-2023	31-03-2024	6.53909%	5.46000%	100.00000%	Act/360	2023-24	6.916744%	13%	1	0.0093761		
USD 750 Million Drawl II Weighted Average rate												6.76980%	
USD 750 Million Drawl III	25-10-2023	31-03-2024	6.61909%	0		Act/360	2023-24	6.619090%	87%	1	0.0583216		
USD 750 Million Drawl III	25-10-2023	31-03-2024	6.53909%	5.46000%	100.00000%	Act/360	2023-24	6.916744%	13%	1	0.0093761		
USD 750 Million Drawl III Weighted Average rate												6.76980%	
USD 750 Million Drawl IV	25-10-2023	31-03-2024	6.61909%	0		Act/360	2023-24	6.619090%	87%	1	0.0583216		
USD 750 Million Drawl IV	25-10-2023	31-03-2024	6.53909%	5.46000%	100.00000%	Act/360	2023-24	6.916744%	13%	1	0.0093761		
USD 750 Million Drawl IV Weighted Average rate												6.76980%	
USD 750 Million Drawl V	23-12-2022	31-03-2023	5.71764%	0		Act/360	2022-23	5.717640%	87%	0	0		

**Info:**

(i) Floating rate, interest basis and withholding tax rates are as per mail received from IF on 10.10.2024

										From	31-03-2024		
										To	31-032024		
Name of the Loan	From	To	Floating Rate of interest	Withholding Tax (WHT)	Applicability of Withholding Tax	Interest Basis	Financial year	Interest rate (incl WHT)	Loan Proportion	No of days	Product	WAVG rate	
USD 750 Million Drawl V	01-04-2023	24-04-2023	5.71764%	0		Act/360	2023-24	5.717640%	87%	0	0		
USD 750 Million Drawl V	25-04-2023	24-10-2023	6.26834%	0		Act/360	2023-24	6.268340%	87%	0	0		
USD 750 Million Drawl V	25-10-2023	31-03-2024	6.61909%	0		Act/360	2023-24	6.619090%	87%	1	0.0583216		
USD 750 Million Drawl V	23-12-2022	31-03-2023	5.63764%	5.46000%	100.00000%	Act/360	2022-23	5.963232%	13%	0	0		
USD 750 Million Drawl V	01-04-2023	24-04-2023	5.63764%	5.46000%	100.00000%	Act/360	2023-24	5.963232%	13%	0	0		
USD 750 Million Drawl V	25-04-2023	24-10-2023	6.26834%	5.46000%	100.00000%	Act/360	2023-24	6.630358%	13%	0	0		
USD 750 Million Drawl V	25-10-2023	31-03-2024	6.53909%	5.46000%	100.00000%	Act/360	2023-24	6.916744%	13%	1	0.0093761		
USD 750 Million Drawl V Weighted Average rate												6.76980%	
USD 750 Million Drawl VI Weighted Average rate												6.76980%	
JPY Equ. \$400 Million Drawl I	15-11-2023	31-03-2024	1.21218%	0		Act/365	2023-24	1.212180%	100%	1	0.012155		
JPY Equ. \$400 Million Drawl I Weighted Average rate												1.21550%	
JPY Equ. \$400 Million Drawl II	15-11-2023	31-03-2024	1.21218%	0		Act/365	2023-24	1.212180%	100%	1	0.012155		
JPY Equ. \$400 Million Drawl II Weighted Average rate												1.21550%	
JPY Equ. \$400 Million Drawl III	25-09-2023	14-11-2023	1.20000%	0		Act/365	2023-24	1.200000%	100%	0	0		
JPY Equ. \$400 Million Drawl III	15-11-2023	31-03-2024	1.21218%	0		Act/365	2023-24	1.212180%	100%	1	0.012155		
JPY Equ. \$400 Million Drawl III Weighted Average rate												1.21550%	
JPY Equ. \$400 Million Drawl IV	22-12-2023	31-03-2024	1.21886%	0		Act/365	2023-24	1.218860%	100%	1	0.012222		
JPY Equ. \$400 Million Drawl IV Weighted Average rate												1.22220%	
JBIC Green I Drawl I	18-03-2024	31-03-2024	1.07223%	0.00000%		Act/360	2023-24	1.072230%	100%	1	0.010901		
JBIC Green I Drawl I Weighted Average rate												1.09010%	
JBIC Green I Drawl II	18-03-2024	31-03-2024	1.07223%	0.00000%		Act/360	2023-24	1.072230%	100%	1	0.010901		
JBIC Green I Drawl II Weighted Average rate												1.09010%	
JBIC Green I Drawl III	18-03-2024	31-03-2024	1.07223%	0.00000%		Act/360	2023-24	1.072230%	100%	1	0.010901		
JBIC Green I Drawl III Weighted Average rate												1.09010%	
JBIC Green I Drawl IV	18-03-2024	31-03-2024	1.07223%	0.00000%		Act/360	2023-24	1.072230%	100%	1	0.010901		
JBIC Green I Drawl IV Weighted Average rate												1.09010%	

Sr. No.	Bank	ROI on prepayment date	Date of Prepayment	Replaced with Bank	ROI of replaced Loan	Prepayment Amount	Benefit(%)	Benefit(%) retained with NTPC
<b>Prepayment of Loans in 2020-21</b>								
1	Syndicate Bank-III	7.20%	24-Aug-20	Axis Bank-III	6.30%	500000000	0.90%	0.45%
2	Syndicate Bank-IV	7.20%	24-Aug-20	Axis Bank-III	6.30%	400000000	0.90%	0.45%
3	Vijaya Bank-VI	7.15%	24-Aug-20	Axis Bank-III	6.30%	180000000	0.85%	0.43%
4	Bank of India-II	6.70%	7-Dec-20	Bank of India-IV	6.00%	960000000	0.70%	0.35%
5	Bank of India-III	6.70%	7-Dec-20	Bank of India-IV	6.00%	500000000	0.70%	0.35%
						<b>2540000000</b>		
<b>Prepayment of Loans during 2022-23</b>								
1	Axis Bank-II	8.30%	29-Mar-23	Axis bank-IV	8.00%	3760000000	0.30%	0.15%
2	Axis Bank-III	8.30%	29-Mar-23	Axis bank-IV	8.00%	1080000000	0.30%	0.15%
						<b>4840000000.00</b>		

**Calcualtion of Weighted Average Rate of Interest for Gadawara**

Name of the Bank	Interest Details					
	Period		No. of Days	ROI		Effective ROI
	From	To				
<b>AXIS BANK-II D1</b>						
	11-Jul-19	10-Aug-19	31	8.300%	2.573	
	11-Aug-19	10-Sep-19	31	8.2500%	2.5575	
	11-Sep-19	10-Oct-19	30	8.2000%	2.46	
	11-Oct-19	10-Nov-19	31	8.1000%	2.511	
	11-Nov-19	10-Dec-19	30	8.0000%	2.4	
	11-Dec-19	10-Jan-20	31	7.9000%	2.449	
	11-Jan-20	29-Jan-20	19	7.8000%	1.482	
	30-Jan-20	25-Feb-20	27	7.6000%	2.052	
	26-Feb-20	31-Mar-20	35	7.4500%	2.6075	7.96%
	01-Apr-20	25-Apr-20	25	7.4500%	1.8625	
	26-Apr-20	25-May-20	30	6.7000%	2.01	
	26-May-20	28-Feb-21	279	6.3000%	17.577	6.42%
	01-Mar-21	31-Mar-21	31	6.3000%		6.30%
	01-Apr-21	31-Mar-22	365	6.30%	22.995	6.30%
	01-Apr-22	27-May-22	57	6.30%	3.591	
	28-May-22	27-Jun-22	31	6.70%	2.077	
	28-Jun-22	27-Aug-22	61	7.20%	4.392	
	28-Aug-22	27-Oct-22	61	7.70%	4.697	
	28-Oct-22	31-Oct-22	4	8.20%	0.328	
	01-Nov-22	31-Dec-22	61	7.70%	4.697	
	01-Jan-23	28-Feb-23	59	8.05%	4.7495	
	01-Mar-23	28-Mar-23	28	8.30%	2.324	7.42%
<b>AXIS BANK-II D4</b>	24-Mar-20	31-Mar-20	8	7.4500%		7.4500%
	01-Apr-20	25-Apr-20	25	7.4500%	1.8625	
	26-Apr-20	25-May-20	30	6.7000%	2.01	
	26-May-20	28-Feb-21	279	6.3000%	17.577	6.42%
	01-Mar-21	31-Mar-21	31	6.3000%		6.30%

**Calcualtion of Weighted Average Rate of Interest for Gadawara**

Name of the Bank	Interest Details					
	Period		No. of Days	ROI		Effective ROI
	From	To				
	01-Apr-21	31-Mar-22	365	6.30%	22.995	6.30%
	01-Apr-22	27-May-22	57	6.30%	3.591	
	28-May-22	27-Jun-22	31	6.70%	2.077	
	28-Jun-22	27-Aug-22	61	7.20%	4.392	
	28-Aug-22	27-Oct-22	61	7.70%	4.697	
	28-Oct-22	31-Oct-22	4	8.20%	0.328	
	01-Nov-22	31-Dec-22	61	7.70%	4.697	
	01-Jan-23	28-Feb-23	59	8.05%	4.7495	
	01-Mar-23	28-Mar-23	28	8.30%	2.324	7.42%
<b>AXIS BANK-II D6</b>	08-Apr-20	25-Apr-20	18	7.4500%	1.341	
	26-Apr-20	25-May-20	30	6.7000%	2.01	
	26-May-20	28-Feb-21	279	6.3000%	17.577	6.40%
	01-Mar-21	31-Mar-21	31	6.3000%		6.30%
	01-Apr-21	31-Mar-22	365	6.30%	22.995	6.30%
	01-Apr-22	27-May-22	57	6.30%	3.591	
	28-May-22	27-Jun-22	31	6.70%	2.077	
	28-Jun-22	27-Aug-22	61	7.20%	4.392	
	28-Aug-22	27-Oct-22	61	7.70%	4.697	
	28-Oct-22	31-Oct-22	4	8.20%	0.328	
	01-Nov-22	31-Dec-22	61	7.70%	4.697	
	01-Jan-23	28-Feb-23	59	8.05%	4.7495	
	01-Mar-23	28-Mar-23	28	8.30%	2.324	7.42%
<b>AXIS BANK-III D1</b>	24-Aug-20	28-Feb-21	189	6.3000%		6.30%
	01-Mar-21	31-Mar-21	31	6.3000%		6.30%
	01-Apr-21	31-Mar-22	365	6.30%	22.995	6.30%

**Calcualtion of Weighted Average Rate of Interest for Gadawara**

Name of the Bank	Interest Details					
	Period		No. of Days	ROI		Effective ROI
	From	To				
	01-Apr-22	23-May-22	53	6.30%	3.339	
	24-May-22	23-Jun-22	31	6.70%	2.077	
	24-Jun-22	23-Aug-22	61	7.20%	4.392	
	24-Aug-22	23-Oct-22	61	7.70%	4.697	
	24-Oct-22	31-Oct-22	8	8.20%	0.656	
	01-Nov-22	31-Dec-22	61	7.70%	4.697	
	01-Jan-23	28-Feb-23	59	8.05%	4.7495	
	01-Mar-23	28-Mar-23	28	8.30%	2.324	7.44%
<b>Axis Bank-IV</b>	29-Mar-23	31-Mar-23	3	8.00%	0.24	8.00%
	01-Apr-23	31-Mar-24	366	8.00%	29.28	8.00%
<b>Bank of India-II D2 &amp; D7</b>	01-Jun-19	19-Jun-19	19	8.30%	1.577	
	20-Jun-19	19-Aug-19	61	8.350%	5.0935	
	20-Aug-19	08-Dec-19	111	8.200%	9.102	
	09-Dec-19	09-Dec-19	1	7.950%	0.0795	
	10-Dec-19	09-Feb-20	62	7.750%	4.805	
	10-Feb-20	09-Mar-20	29	7.650%	2.2185	
	10-Mar-20	31-Mar-20	22	7.400%	1.628	8.0339%
	01-Apr-20	31-May-20	61	7.250%	4.4225	
	01-Jun-20	30-Jun-20	30	7.000%	2.1	
	01-Jul-20	31-Jul-20	31	6.900%	2.139	
	01-Aug-20	31-Aug-20	31	6.800%	2.108	
	01-Sep-20	30-Sep-20	30	6.750%	2.025	
	01-Oct-20	06-Dec-20	67	6.7000%	4.489	6.9134%
<b>Bank of India-III D1</b>	18-Jun-20	30-Jun-20	13	7.0000%	0.91	
	01-Jul-20	31-Jul-20	31	6.9000%	2.139	
	01-Aug-20	31-Aug-20	31	6.8000%	2.108	
	01-Sep-20	30-Sep-20	30	6.7500%	2.025	
	01-Oct-20	06-Dec-20	67	6.7000%	4.489	6.7855%

**Calcualtion of Weighted Average Rate of Interest for Gadawara**

Name of the Bank	Interest Details					
	Period		No. of Days	ROI		Effective ROI
	From	To				
Bank of India-IV D1	07-Dec-20	28-Feb-21	84	6.0000%		6.00%
	01-Mar-21	31-Mar-21	31	6.0000%		6.00%
	01-Apr-21	31-Mar-22	365	6.00%	21.9	6.00%
	01-Apr-22	03-May-22	33	6.00%	1.98	
	04-May-22	07-Jun-22	35	6.40%	2.24	
	08-Jun-22	04-Aug-22	58	6.90%	4.002	
	05-Aug-22	29-Sep-22	56	7.40%	4.144	
	30-Sep-22	23-Nov-22	55	7.90%	4.345	
	24-Nov-22	06-Dec-22	13	7.55%	0.9815	
	07-Dec-22	07-Feb-23	63	7.90%	4.977	
	08-Feb-23	31-Mar-23	52	8.15%	4.238	7.37%
	01-Apr-23	31-Mar-24	366	8.00%	29.28	8.00%
Central Bank of India V D1	01-Jun-19	30-Jun-19	30	8.2000%	2.46	
	01-Jul-19	31-Aug-19	62	8.1500%	5.053	
	01-Sep-19	30-Sep-19	30	7.9500%	2.385	
	01-Oct-19	31-Oct-19	31	7.9000%	2.449	
	01-Nov-19	31-Dec-19	61	7.8500%	4.7885	
	01-Jan-20	31-Jan-20	31	7.8000%	2.418	
	01-Feb-20	29-Feb-20	29	7.5500%	2.1895	
	01-Mar-20	31-Mar-20	31	7.5000%	2.325	7.89%
	01-Apr-20	30-Apr-20	30	7.4500%	2.235	
	01-May-20	31-May-20	31	7.0500%	2.1855	
	01-Jun-20	30-Jun-20	30	7.0000%	2.1	
	01-Jul-20	31-Jul-20	31	6.7500%	2.0925	
	01-Aug-20	31-Aug-20	31	6.6500%	2.0615	
	01-Sep-20	30-Sep-20	30	6.6000%	1.98	

**Calcualtion of Weighted Average Rate of Interest for Gadarwara**

Name of the Bank	Interest Details					
	Period		No. of Days	ROI		Effective ROI
	From	To				
	01-Oct-20	28-Feb-21	151	6.5500%	9.8905	6.75%
	01-Mar-21	31-Mar-21	31	6.5500%		6.55%
	01-Apr-21	31-Mar-22	365	6.55%	23.9075	6.55%
	01-Apr-22	30-Jun-22	91	6.60%	6.006	
	01-Jul-22	31-Jul-22	31	6.75%	2.0925	
	01-Aug-22	31-Aug-22	31	6.80%	2.108	
	01-Sep-22	30-Sep-22	30	6.85%	2.055	
	01-Oct-22	31-Oct-22	31	6.90%	2.139	
	01-Nov-22	30-Nov-22	30	6.95%	2.085	
	01-Dec-22	31-Dec-22	31	7.00%	2.17	
	01-Jan-23	31-Jan-23	31	7.25%	2.2475	
	01-Feb-23	31-Mar-23	59	7.50%	4.425	6.94%
	01-Apr-23	30-Jun-23	91	7.80%	7.098	
	01-Jul-23	31-Oct-23	123	7.90%	9.717	
	01-Nov-23	30-Nov-23	30	7.95%	2.385	
	01-Dec-23	29-Feb-24	91	8.00%	7.28	
	01-Mar-24	31-Mar-24	31	8.05%	2.4955	7.92%
<b>HDFC Bank Limited-III D2 &amp; D5</b>	01-Jun-19	30-Jun-19	30	8.45%	2.535	
	01-Jul-19	28-Jul-19	28	8.40%	2.352	
	29-Jul-19	28-Aug-19	31	8.30%	2.573	
	29-Aug-19	28-Sep-19	31	8.20%	2.542	
	29-Sep-19	28-Oct-19	30	8.10%	2.43	
	29-Oct-19	30-Nov-19	33	8.00%	2.64	
	01-Dec-19	29-Feb-20	91	7.650%	6.9615	
	01-Mar-20	31-Mar-20	31	7.450%	2.3095	7.98%
	01-Apr-20	31-May-20	61	7.450%	4.5445	
	01-Jun-20	23-Dec-20	206	6.300%	12.978	
	24-Dec-20	28-Feb-21	67	5.950%	3.9865	6.44%

**Calcualtion of Weighted Average Rate of Interest for Gadawara**

Calculation of Weighted Average Rate of Interest for each bank						
Name of the Bank	Interest Details					
	Period		No. of Days	ROI		Effective ROI
	From	To				
	01-Mar-21	31-Mar-21	31	5.950%		5.95%
	01-Apr-21	31-Mar-22	365	5.95%	21.7175	5.95%
	01-Apr-22	23-May-22	53	5.95%	3.1535	
	24-May-22	23-Jun-22	31	6.35%	1.9685	
	24-Jun-22	23-Aug-22	61	6.85%	4.1785	
	24-Aug-22	23-Oct-22	61	7.35%	4.4835	
	24-Oct-22	23-Dec-22	61	7.85%	4.7885	
	24-Dec-22	31-Dec-22	8	8.20%	0.656	
	01-Jan-23	28-Feb-23	59	7.95%	4.6905	
	01-Mar-23	31-Mar-23	31	8.01%	2.4831	7.23%
	01-Apr-23	31-May-23	61	8.01%	4.8861	
	01-Jun-23	31-Mar-24	305	7.95%	24.2475	7.96%
HDFC Bank Limited-V D2, D8, D10	01-Jun-19	24-Jun-19	24	8.45%	2.028	
	25-Jun-19	28-Jul-19	34	8.40%	2.856	
	29-Jul-19	28-Aug-19	31	8.30%	2.573	
	29-Aug-19	28-Sep-19	31	8.20%	2.542	
	29-Sep-19	28-Oct-19	30	8.10%	2.43	
	29-Oct-19	30-Nov-19	33	8.00%	2.64	
	01-Dec-19	29-Feb-20	91	7.650%	6.9615	
	01-Mar-20	31-Mar-20	31	7.450%	2.3095	7.98%
	01-Apr-20	31-May-20	61	7.450%	4.5445	
	01-Jun-20	23-Dec-20	206	6.300%	12.978	
	24-Dec-20	28-Feb-21	67	5.950%	3.9865	6.44%
	01-Mar-21	31-Mar-21	31	5.950%		5.95%
	01-Apr-21	31-Mar-22	365	5.95%	21.7175	5.95%
	01-Apr-22	23-May-22	53	5.95%	3.1535	
	24-May-22	23-Jun-22	31	6.35%	1.9685	

**Calcualtion of Weighted Average Rate of Interest for Gadawara**

Calculation of Weighted Average Rate of Interest for each bank						
Name of the Bank	Interest Details					
	Period		No. of Days	ROI		Effective ROI
	From	To				
	24-Jun-22	23-Aug-22	61	6.85%	4.1785	
	24-Aug-22	23-Oct-22	61	7.35%	4.4835	
	24-Oct-22	23-Dec-22	61	7.85%	4.7885	
	24-Dec-22	31-Dec-22	8	8.20%	0.656	
	01-Jan-23	28-Feb-23	59	7.95%	4.6905	
	01-Mar-23	31-Mar-23	31	8.01%	2.4831	7.23%
	01-Apr-23	31-May-23	61	8.01%	4.8861	
	01-Jun-23	31-Mar-24	305	7.95%	24.2475	7.96%
HDFC Bank Limited-VI D2, D3	01-Jun-19	25-Jun-19	25	8.45%	2.1125	
	26-Jun-19	28-Jul-19	33	8.40%	2.772	
	29-Jul-19	28-Aug-19	31	8.30%	2.573	
	29-Aug-19	28-Sep-19	31	8.20%	2.542	
	29-Sep-19	28-Oct-19	30	8.10%	2.43	
	29-Oct-19	30-Nov-19	33	8.00%	2.64	
	01-Dec-19	29-Feb-20	91	7.650%	6.9615	
	01-Mar-20	31-Mar-20	31	7.450%	2.3095	7.98%
	01-Apr-20	31-May-20	61	7.450%	4.5445	
	01-Jun-20	23-Dec-20	206	6.300%	12.978	
	24-Dec-20	28-Feb-21	67	5.950%	3.9865	6.44%
	01-Mar-21	31-Mar-21	31	5.950%		5.950%
	01-Apr-21	31-Mar-22	365	5.95%	21.7175	5.950%
	01-Apr-22	23-May-22	53	5.95%	3.1535	
	24-May-22	23-Jun-22	31	6.35%	1.9685	
	24-Jun-22	23-Aug-22	61	6.85%	4.1785	
	24-Aug-22	23-Oct-22	61	7.35%	4.4835	
	24-Oct-22	23-Dec-22	61	7.85%	4.7885	
	24-Dec-22	31-Dec-22	8	8.20%	0.656	
	01-Jan-23	28-Feb-23	59	7.95%	4.6905	
	01-Mar-23	31-Mar-23	31	8.01%	2.4831	7.233%

**Calcualtion of Weighted Average Rate of Interest for Gadarwara**

Name of the Bank	Interest Details					
	Period		No. of Days	ROI		Effective ROI
	From	To				
	01-Apr-23	31-May-23	61	8.01%	4.8861	
	01-Jun-23	31-Mar-24	305	7.95%	24.2475	7.960%
<b>HDFC Bank Limited-VII D1</b>	11-Jun-19	28-Jul-19	48	8.40%	4.032	
	29-Jul-19	28-Aug-19	31	8.30%	2.573	
	29-Aug-19	28-Sep-19	31	8.20%	2.542	
	29-Sep-19	28-Oct-19	30	8.10%	2.43	
	29-Oct-19	30-Nov-19	33	8.00%	2.64	
	01-Dec-19	10-Feb-20	72	7.650%	5.508	
	11-Feb-20	29-Feb-20	19	7.500%	1.425	
	01-Mar-20	31-Mar-20	31	7.450%	2.3095	7.952%
	01-Apr-20	31-May-20	61	7.45%	4.5445	
	01-Jun-20	23-Dec-20	206	6.30%	12.978	
	24-Dec-20	28-Feb-21	67	5.95%	3.9865	6.44%
	01-Mar-21	31-Mar-21	31	5.950%		5.950%
	01-Apr-21	31-Mar-22	365	5.95%	21.7175	5.950%
	01-Apr-22	23-May-22	53	5.95%	3.1535	
	24-May-22	23-Jun-22	31	6.35%	1.9685	
	24-Jun-22	23-Aug-22	61	6.85%	4.1785	
	24-Aug-22	23-Oct-22	61	7.35%	4.4835	
	24-Oct-22	23-Dec-22	61	7.85%	4.7885	
	24-Dec-22	31-Dec-22	8	8.20%	0.656	
	01-Jan-23	28-Feb-23	59	7.95%	4.6905	
	01-Mar-23	31-Mar-23	31	8.01%	2.4831	7.233%
	01-Apr-23	31-May-23	61	8.01%	4.8861	
	01-Jun-23	31-Mar-24	305	7.95%	24.2475	7.960%
<b>HDFC Bank Limited-VII D2</b>	21-Jun-19	28-Jul-19	38	8.40%	3.192	
	29-Jul-19	28-Aug-19	31	8.30%	2.573	

**Calcualtion of Weighted Average Rate of Interest for Gadawara**

Name of the Bank	Interest Details					
	Period		No. of Days	ROI		Effective ROI
	From	To				
	29-Aug-19	28-Sep-19	31	8.20%	2.542	
	29-Sep-19	28-Oct-19	30	8.10%	2.43	
	29-Oct-19	30-Nov-19	33	8.00%	2.64	
	01-Dec-19	10-Feb-20	72	7.650%	5.508	
	11-Feb-20	01-Mar-20	20	7.500%	1.5	
	01-Mar-20	31-Mar-20	31	7.450%	2.3095	7.935%
	01-Apr-20	31-May-20	61	7.45%	4.5445	
	01-Jun-20	23-Dec-20	206	6.30%	12.978	
	24-Dec-20	28-Feb-21	67	5.95%	3.9865	6.44%
	01-Mar-21	31-Mar-21	31	5.950%		5.950%
	01-Apr-21	31-Mar-22	365	5.95%	21.7175	5.950%
	01-Apr-22	23-May-22	53	5.95%	3.1535	
	24-May-22	23-Jun-22	31	6.35%	1.9685	
	24-Jun-22	23-Aug-22	61	6.85%	4.1785	
	24-Aug-22	23-Oct-22	61	7.35%	4.4835	
	24-Oct-22	23-Dec-22	61	7.85%	4.7885	
	24-Dec-22	31-Dec-22	8	8.20%	0.656	
	01-Jan-23	28-Feb-23	59	7.95%	4.6905	
	01-Mar-23	31-Mar-23	31	8.01%	2.4831	7.233%
	01-Apr-23	31-May-23	61	8.01%	4.8861	
	01-Jun-23	31-Mar-24	305	7.95%	24.2475	7.960%
<b>HDFC Bank Limited-VII D4</b>	10-Jan-20	10-Feb-20	32	7.650%	2.448	
	11-Feb-20	01-Mar-20	20	7.500%	1.5	
	01-Mar-20	31-Mar-20	31	7.450%	2.3095	7.539%
	01-Apr-20	31-May-20	61	7.45%	4.5445	
	01-Jun-20	23-Dec-20	206	6.30%	12.978	
	24-Dec-20	28-Feb-21	67	5.95%	3.9865	6.44%

**Calcualtion of Weighted Average Rate of Interest for Gadawara**

Name of the Bank	Interest Details					
	Period	No. of Days	ROI		Effective ROI	
	From	To				
	01-Mar-21	31-Mar-21	31	5.950%		5.950%
	01-Apr-21	31-Mar-22	365	5.95%	21.7175	5.950%
	01-Apr-22	23-May-22	53	5.95%	3.1535	
	24-May-22	23-Jun-22	31	6.35%	1.9685	
	24-Jun-22	23-Aug-22	61	6.85%	4.1785	
	24-Aug-22	23-Oct-22	61	7.35%	4.4835	
	24-Oct-22	23-Dec-22	61	7.85%	4.7885	
	24-Dec-22	31-Dec-22	8	8.20%	0.656	
	01-Jan-23	28-Feb-23	59	7.95%	4.6905	
	01-Mar-23	31-Mar-23	31	8.01%	2.4831	7.233%
	01-Apr-23	31-May-23	61	8.01%	4.8861	
	01-Jun-23	31-Mar-24	305	7.95%	24.2475	7.960%
<b>HDFC Bank Limited-VII D7</b>	28-May-20	31-May-20	4	7.45%	0.298	
	01-Jun-20	23-Dec-20	206	6.30%	12.978	
	24-Dec-20	28-Feb-21	67	5.95%	3.9865	6.23%
	01-Mar-21	31-Mar-21	31	5.950%		5.950%
	01-Apr-21	31-Mar-22	365	5.95%	21.7175	5.950%
	01-Apr-22	23-May-22	53	5.95%	3.1535	
	24-May-22	23-Jun-22	31	6.35%	1.9685	
	24-Jun-22	23-Aug-22	61	6.85%	4.1785	
	24-Aug-22	23-Oct-22	61	7.35%	4.4835	
	24-Oct-22	23-Dec-22	61	7.85%	4.7885	
	24-Dec-22	31-Dec-22	8	8.20%	0.656	
	01-Jan-23	28-Feb-23	59	7.95%	4.6905	
	01-Mar-23	31-Mar-23	31	8.01%	2.4831	7.233%
	01-Apr-23	31-May-23	61	8.01%	4.8861	

**Calcualtion of Weighted Average Rate of Interest for Gadawara**

Name of the Bank	Interest Details					
	Period	No. of Days	ROI		Effective ROI	
	From	To				
	01-Jun-23	31-Mar-24	305	7.95%	24.2475	7.960%
<b>HDFC Bank Limited-IX D1</b>	30-Jun-20	23-Dec-20	177	6.3000%	11.151	
	24-Dec-20	28-Feb-21	67	5.9500%	3.9865	6.20%
	01-Mar-21	31-Mar-21	31	5.950%		5.950%
	01-Apr-21	31-Mar-22	365	5.95%	21.7175	5.950%
	01-Apr-22	23-May-22	53	5.95%	3.1535	
	24-May-22	23-Jun-22	31	6.35%	1.9685	
	24-Jun-22	23-Aug-22	61	6.85%	4.1785	
	24-Aug-22	23-Oct-22	61	7.35%	4.4835	
	24-Oct-22	23-Dec-22	61	7.85%	4.7885	
	24-Dec-22	31-Dec-22	8	8.20%	0.656	
	01-Jan-23	28-Feb-23	59	7.95%	4.6905	
	01-Mar-23	31-Mar-23	31	8.01%	2.4831	7.233%
	01-Apr-23	31-May-23	61	8.01%	4.8861	
	01-Jun-23	31-Mar-24	305	7.95%	24.2475	7.960%
<b>HDFC Bank Limited-IX D3</b>	13-Aug-20	23-Dec-20	133	6.3000%	8.379	
	24-Dec-20	28-Feb-21	67	5.9500%	3.9865	6.18%
	01-Mar-21	31-Mar-21	31	5.950%		5.950%
	01-Apr-21	31-Mar-22	365	5.95%	21.7175	5.950%
	01-Apr-22	23-May-22	53	5.95%	3.1535	
	24-May-22	23-Jun-22	31	6.35%	1.9685	
	24-Jun-22	23-Aug-22	61	6.85%	4.1785	
	24-Aug-22	23-Oct-22	61	7.35%	4.4835	
	24-Oct-22	23-Dec-22	61	7.85%	4.7885	
	24-Dec-22	31-Dec-22	8	8.20%	0.656	

**Calcualtion of Weighted Average Rate of Interest for Gadawara**

Name of the Bank	Interest Details					
	Period		No. of Days	ROI		Effective ROI
	From	To				
	01-Jan-23	28-Feb-23	59	7.95%	4.6905	
	01-Mar-23	31-Mar-23	31	8.01%	2.4831	7.233%
	01-Apr-23	31-May-23	61	8.01%	4.8861	
	01-Jun-23	31-Mar-24	305	7.95%	24.2475	7.960%
<b>HDFC Bank Limited-IX D7</b>	04-Nov-20	23-Dec-20	50	6.3000%	3.15	
	24-Dec-20	28-Feb-21	67	5.9500%	3.9865	6.10%
	01-Mar-21	31-Mar-21	31	5.950%		5.950%
	01-Apr-21	31-Mar-22	365	5.95%	21.7175	5.950%
	01-Apr-22	23-May-22	53	5.95%	3.1535	
	24-May-22	23-Jun-22	31	6.35%	1.9685	
	24-Jun-22	23-Aug-22	61	6.85%	4.1785	
	24-Aug-22	23-Oct-22	61	7.35%	4.4835	
	24-Oct-22	23-Dec-22	61	7.85%	4.7885	
	24-Dec-22	31-Dec-22	8	8.20%	0.656	
	01-Jan-23	28-Feb-23	59	7.95%	4.6905	
	01-Mar-23	31-Mar-23	31	8.01%	2.4831	7.233%
	01-Apr-23	31-May-23	61	8.01%	4.8861	
	01-Jun-23	31-Mar-24	305	7.95%	24.2475	7.960%
<b>HDFC Bank Limited-IX D9</b>	07-Dec-20	23-Dec-20	17	6.3000%	1.071	6.021%
	24-Dec-20	28-Feb-21	67	5.9500%	3.9865	
	01-Mar-21	31-Mar-21	31	5.950%		5.950%
	01-Apr-21	31-Mar-22	365	5.95%	21.7175	5.950%
	01-Apr-22	23-May-22	53	5.95%	3.1535	
	24-May-22	23-Jun-22	31	6.35%	1.9685	
	24-Jun-22	23-Aug-22	61	6.85%	4.1785	

**Calcualtion of Weighted Average Rate of Interest for Gadawara**

Name of the Bank	Interest Details					
	Period	No. of Days	ROI		Effective ROI	
	From	To				
	24-Aug-22	23-Oct-22	61	7.35%	4.4835	
	24-Oct-22	23-Dec-22	61	7.85%	4.7885	
	24-Dec-22	31-Dec-22	8	8.20%	0.656	
	01-Jan-23	28-Feb-23	59	7.95%	4.6905	
	01-Mar-23	31-Mar-23	31	8.01%	2.4831	7.233%
	01-Apr-23	31-May-23	61	8.01%	4.8861	
	01-Jun-23	31-Mar-24	305	7.95%	24.2475	7.960%
<b>HDFC Bank Limited-IX D10</b>	24-Dec-20	28-Feb-21	67	5.950%		5.950%
	01-Mar-21	31-Mar-21	31	5.950%		5.950%
	01-Apr-21	31-Mar-22	365	5.95%	21.7175	5.950%
	01-Apr-22	23-May-22	53	5.95%	3.1535	
	24-May-22	23-Jun-22	31	6.35%	1.9685	
	24-Jun-22	23-Aug-22	61	6.85%	4.1785	
	24-Aug-22	23-Oct-22	61	7.35%	4.4835	
	24-Oct-22	23-Dec-22	61	7.85%	4.7885	
	24-Dec-22	31-Dec-22	8	8.20%	0.656	
	01-Jan-23	28-Feb-23	59	7.95%	4.6905	
	01-Mar-23	31-Mar-23	31	8.01%	2.4831	7.233%
	01-Apr-23	31-May-23	61	8.01%	4.8861	
	01-Jun-23	31-Mar-24	305	7.95%	24.2475	7.960%
<b>ICICI-IV D2, D3, D4, D5, D6, D10</b>	01-Jun-19	31-Mar-20	305	8.600%		8.600%
	01-Apr-20	28-Feb-21	334	8.600%		8.600%
	01-Mar-21	31-Mar-21	31	8.600%		8.600%
<b>ICICI-VI D1, D5, D7, D9</b>	01-Jun-19	31-Mar-20	305	8.600%		8.600%

**Calcualtion of Weighted Average Rate of Interest for Gadarwara**

Name of the Bank	Interest Details					
	Period		No. of Days	ROI		Effective ROI
	From	To				
	01-Apr-20	28-Feb-21	334	8.600%		8.600%
	01-Mar-21	31-Mar-21	31	8.600%		8.600%
<b>PNB-IV D1</b>	01-Jun-19	03-Aug-19	64	8.200%	5.248	
	04-Aug-19	03-Nov-19	92	8.050%	7.406	
	04-Nov-19	03-Feb-20	92	7.900%	7.268	
	04-Feb-20	31-Mar-20	57	7.650%	4.3605	7.96%
	01-Apr-20	03-May-20	33	7.650%	2.5245	
	04-May-20	03-Jun-20	31	7.200%	2.232	
	04-Jun-20	03-Aug-20	61	7.050%	4.3005	
	04-Aug-20	03-Nov-20	92	6.800%	6.256	
	04-Nov-20	20-Dec-20	47	6.700%	3.149	
	21-Dec-20	28-Feb-21	70	6.50%	4.55	6.89%
	01-Mar-21	31-Mar-21	31	6.50%		6.50%
	01-Apr-21	20-Sep-21	173	6.20%	10.726	
	21-Sep-21	31-Mar-22	192	5.80%	11.136	5.99%
	01-Apr-22	20-Jun-22	81	5.80%	4.698	
	21-Jun-22	31-Aug-22	72	6.70%	4.824	
	01-Sep-22	30-Sep-22	30	7.20%	2.16	
	01-Oct-22	31-Dec-22	92	7.70%	7.084	
	01-Jan-23	28-Feb-23	59	8.05%	4.7495	
	01-Mar-23	31-Mar-23	31	8.30%	2.573	7.15%
	01-Apr-23	31-Mar-24	366	7.90%	28.914	7.90%
<b>IDFC-III D3</b>	01-Jun-19	31-Mar-20	305	8.6500%		8.6500%
	01-Apr-20	28-Feb-21	334	8.6500%		8.6500%

**Calcualtion of Weighted Average Rate of Interest for Gadarwara**

Name of the Bank	Interest Details					
	Period		No. of Days	ROI		Effective ROI
	From	To				
	01-Mar-21	31-Mar-21	31	8.6500%		8.6500%
<b>IDFC-IV D1 &amp; D2</b>	01-Jun-19	31-Mar-20	305	8.60%		8.6000%
	01-Apr-20	28-Feb-21	334	8.60%		8.6000%
	01-Mar-21	31-Mar-21	31	8.60%		8.6000%
<b>Jammu and Kashmir Bank III D2, D4</b>	01-Jun-19	12-Jun-19	12	8.25%	0.99	
	13-Jun-19	12-Aug-19	61	8.2000%	5.002	
	13-Aug-19	12-Sep-19	31	8.0000%	2.48	
	13-Sep-19	12-Oct-19	30	7.9500%	2.385	
	13-Oct-19	12-Nov-19	31	7.9000%	2.449	
	13-Nov-19	12-Dec-19	30	7.8000%	2.34	
	13-Dec-19	12-Jan-20	31	7.7000%	2.387	
	13-Jan-20	12-Mar-20	60	7.6500%	4.59	
	13-Mar-20	31-Mar-20	19	7.6000%	1.444	7.89%
	01-Apr-20	12-Apr-20	12	7.6000%	0.912	
	13-Apr-20	12-May-20	30	7.2500%	2.175	
	13-May-20	12-Jun-20	31	7.2000%	2.232	
	13-Jun-20	12-Jul-20	30	7.1500%	2.145	
	13-Jul-20	12-Aug-20	31	7.0000%	2.17	
	13-Aug-20	26-Nov-20	106	6.8500%	7.261	
	27-Nov-20	28-Feb-21	94	5.8800%	5.5272	6.71%
	01-Mar-21	31-Mar-21	31	5.8800%		5.8800%
	01-Apr-21	31-Mar-22	365	5.88%	21.462	5.8800%
	01-Apr-22	26-May-22	56	5.88%	3.2928	
	27-May-22	26-Jul-22	61	6.28%	3.8308	
	27-Jul-22	26-Sep-22	62	6.78%	4.2036	
	27-Sep-22	26-Nov-22	61	7.28%	4.4408	
	27-Nov-22	30-Dec-22	34	7.78%	2.6452	

**Calcualtion of Weighted Average Rate of Interest for Gadarwara**

Name of the Bank	Interest Details					
	Period		No. of Days	ROI		Effective ROI
	From	To				
	31-Dec-22	26-Feb-23	58	7.73%	4.4834	
	27-Feb-23	31-Mar-23	33	7.98%	2.6334	6.9945%
	01-Apr-23	31-Mar-24	366	7.98%	29.2068	7.9800%
<b>Oriental Bank of Commerce-III</b>	01-Jun-19	31-Mar-20	8.60%	8.60%		8.6000%
	01-Apr-20	28-Feb-21	334	8.60%		8.6000%
	01-Mar-21	31-Mar-21	31	8.60%		8.6000%
<b>State Bank of India-VIII D2, D3, D4, D5, D7, D8, D11, D12, D13, D15, D24</b>						
	01-Jun-19	13-Aug-19	74	8.15%	6.031	
	14-Aug-19	13-Nov-19	92	7.95%	7.314	
	14-Nov-19	13-Feb-20	92	7.70%	7.084	
	14-Feb-20	31-Mar-20	47	7.65%	3.5955	7.88%
	01-Apr-20	13-May-20	43	7.6500%	3.2895	
	14-May-20	13-Aug-20	92	7.0000%	6.44	
	14-Aug-20	28-Feb-21	199	6.6500%	13.2335	6.88%
	01-Mar-21	31-Mar-21	31	6.6500%	2.0615	6.65%
	01-Apr-21	31-Mar-22	365	6.65%	24.2725	6.65%
	01-Apr-22	13-May-22	43	6.65%	2.8595	
	14-May-22	13-Aug-22	92	6.75%	6.21	
	14-Aug-22	13-Nov-22	92	7.15%	6.578	
	14-Nov-22	13-Feb-23	92	7.60%	6.992	
	14-Feb-23	31-Mar-23	46	8.00%	3.68	7.21%
	01-Apr-23	13-May-23	43	8.00%	3.44	
	14-May-23	13-Aug-23	92	8.10%	7.452	
	14-Aug-23	13-Feb-24	184	8.15%	14.996	

**Calcualtion of Weighted Average Rate of Interest for Gadawara**

Name of the Bank	Interest Details					
	Period		No. of Days	ROI		Effective ROI
	From	To				
	14-Feb-24	31-Mar-24	47	8.20%	3.854	8.13%
<b>State Bank of India-IX D1, D2, D7, D10</b>	01-Jun-19	13-Aug-19	74	8.15%	6.031	
	14-Aug-19	13-Nov-19	92	7.95%	7.314	
	14-Nov-19	13-Feb-20	92	7.70%	7.084	
	14-Feb-20	31-Mar-20	47	7.65%	3.5955	7.88%
	01-Apr-20	13-May-20	43	7.6500%	3.2895	
	14-May-20	13-Aug-20	92	7.0000%	6.44	
	14-Aug-20	28-Feb-21	199	6.6500%	13.2335	6.88%
	01-Mar-21	31-Mar-21	31	6.6500%		6.65%
	01-Apr-21	31-Mar-22	365	6.65%	24.2725	6.65%
	01-Apr-22	13-May-22	43	6.65%	2.8595	
	14-May-22	13-Aug-22	92	6.75%	6.21	
	14-Aug-22	13-Nov-22	92	7.15%	6.578	
	14-Nov-22	13-Feb-23	92	7.60%	6.992	
	14-Feb-23	31-Mar-23	46	8.00%	3.68	7.21%
	01-Apr-23	13-May-23	43	8.00%	3.44	
	14-May-23	13-Aug-23	92	8.10%	7.452	
	14-Aug-23	13-Feb-24	184	8.15%	14.996	
	14-Feb-24	31-Mar-24	47	8.20%	3.854	8.13%
<b>State Bank of India-X D1, D2, D3</b>	01-Jun-19	24-Jun-19	24	8.2500%	1.98	
	25-Jun-19	24-Sep-19	92	8.15%	7.498	
	25-Sep-19	24-Dec-19	91	7.85%	7.1435	
	25-Dec-19	24-Mar-20	91	7.70%	7.007	
	25-Mar-20	31-Mar-20	7	7.50%	0.525	7.92%
	01-Apr-20	24-Jun-20	85	7.5000%	6.375	
	25-Jun-20	24-Sep-20	92	6.7500%	6.21	

**Calcualtion of Weighted Average Rate of Interest for Gadarwara**

Calculation of Weighted Average Rate of Interest for each bank						
Name of the Bank	Interest Details					
	Period		No. of Days	ROI		Effective ROI
	From	To				
	25-Sep-20	28-Feb-21	157	6.6500%	10.4405	6.89%
	01-Mar-21	31-Mar-21	31	6.6500%		6.6500%
	01-Apr-21	31-Mar-22	365	6.65%	24.2725	6.6500%
	01-Apr-22	24-Jun-22	85	6.65%	5.6525	
	25-Jun-22	24-Sep-22	92	7.05%	6.486	
	25-Sep-22	24-Dec-22	91	7.35%	6.6885	
	25-Dec-22	24-Mar-23	90	8.00%	7.2	
	25-Mar-23	31-Mar-23	7	8.10%	0.567	7.2860%
	01-Apr-23	24-Sep-23	177	8.10%	14.337	
	25-Sep-23	24-Dec-23	91	8.15%	7.4165	
	25-Dec-23	31-Mar-24	98	8.20%	8.036	8.1392%
State Bank of India-XI D1, D3, D4, D5	01-Jun-19	10-Jul-19	40	8.3000%	3.32	
	11-Jul-19	10-Oct-19	92	8.2000%	7.544	
	11-Oct-19	10-Jan-20	92	7.8500%	7.222	
	11-Jan-20	31-Jan-20	21	7.7500%	1.6275	
	01-Feb-20	31-Mar-20	60	7.7000%	4.62	7.98%
	01-Apr-20	10-Apr-20	10	7.7000%	0.77	
	11-Apr-20	10-Jul-20	91	7.1500%	6.5065	
	11-Jul-20	28-Feb-21	233	6.6500%	15.4945	6.82%
	01-Mar-21	31-Mar-21	31	6.6500%		6.6500%
	01-Apr-21	31-Mar-22	365	6.65%	24.2725	6.6500%
	01-Apr-22	10-Jul-22	101	6.65%	6.7165	
	11-Jul-22	30-Sep-22	82	7.05%	5.781	
	01-Oct-22	10-Oct-22	10	7.05%	0.705	
	11-Oct-22	13-Feb-23	126	7.35%	9.261	
	14-Feb-23	31-Mar-23	46	8.00%	3.68	7.1626%

**Calcualtion of Weighted Average Rate of Interest for Gadarwara**

Name of the Bank	Interest Details					
	Period		No. of Days	ROI		Effective ROI
	From	To				
	01-Apr-23	10-Apr-23	10	8.00%	0.8	
	11-Apr-23	10-Oct-23	183	8.10%	14.823	
	11-Oct-23	10-Jan-24	92	8.15%	7.498	
	11-Jan-24	31-Mar-24	81	8.20%	6.642	8.1320%
<b>State Bank of India-XII D1, D2, D3</b>	01-Jun-19	10-Aug-19	71	8.2500%	5.8575	
	11-Aug-19	10-Nov-19	92	8.0500%	7.406	
	11-Nov-19	10-Jan-20	61	7.8000%	4.758	
	11-Jan-20	31-Jan-20	21	7.7500%	1.6275	
	01-Feb-20	31-Mar-20	60	7.7000%	4.62	7.96%
	01-Apr-20	10-Apr-20	10	7.7000%	0.77	
	11-Apr-20	10-Jul-20	91	7.1500%	6.5065	
	11-Jul-20	28-Feb-21	233	6.6500%	15.4945	6.82%
	01-Mar-21	31-Mar-21	31	6.6500%		6.65%
	01-Apr-21	31-Mar-22	365	6.65%	24.2725	6.65%
	01-Apr-22	10-Jul-22	101	6.65%	6.7165	
	11-Jul-22	10-Oct-22	92	7.05%	6.486	
	11-Oct-22	10-Jan-23	92	7.35%	6.762	
	11-Jan-23	31-Mar-23	80	8.00%	6.4	7.22%
	01-Apr-23	10-Apr-23	10	8.00%	0.8	
	11-Apr-23	10-Oct-23	183	8.10%	14.823	
	11-Oct-23	10-Jan-24	92	8.15%	7.498	
	11-Jan-24	31-Mar-24	81	8.20%	6.642	8.13%
<b>Syndicate-III D5</b>	01-Jun-19	16-Jun-19	16	8.4500%	1.352	
	17-Jun-19	05-Aug-19	50	8.5000%	4.25	
	06-Aug-19	05-Sep-19	31	8.2500%	2.5575	
	06-Sep-19	05-Jan-20	122	8.0000%	9.76	
	06-Jan-20	05-Feb-20	31	7.8000%	2.418	

**Calcualtion of Weighted Average Rate of Interest for Gadawara**

Name of the Bank	Interest Details					
	Period		No. of Days	ROI		Effective ROI
	From	To				
	06-Feb-20	05-Mar-20	29	7.6000%	2.204	
	06-Mar-20	31-Mar-20	26	7.5500%	1.963	8.03%
	01-Apr-20	05-Apr-20	5	7.5500%	0.3775	
	06-Apr-20	05-May-20	30	7.6500%	2.295	
	06-May-20	05-Jul-20	61	7.5000%	4.575	
	06-Jul-20	05-Aug-20	31	7.3000%	2.263	
	06-Aug-20	23-Aug-20	18	7.2000%	1.296	7.45%
	01-Mar-21	31-Mar-21	31	7.2000%		7.20%
<b>Syndicate-IV D3</b>	24-Jan-20	05-Feb-20	13	7.8000%	1.014	
	06-Feb-20	05-03-2020	29	7.6000%	2.204	
	06-Mar-20	31-Mar-20	26	7.5500%	1.963	7.62%
	01-Apr-20	05-Apr-20	5	7.5500%	0.3775	
	06-Apr-20	05-May-20	30	7.6500%	2.295	
	06-May-20	05-Jul-20	61	7.5000%	4.575	
	06-Jul-20	05-Aug-20	31	7.3000%	2.263	
	06-Aug-20	23-Aug-20	18	7.2000%	1.296	7.45%
	01-Mar-21	31-Mar-21	31	7.2000%		7.20%
<b>State Bank of Mysore II D1, D2</b>	01-Jun-19	31-Mar-20	305	9.50%		9.50%
	01-Apr-20	28-Feb-21	334	9.50%		9.50%
	01-Mar-21	31-Mar-21	31	9.50%		9.50%
<b>State Bank of Bikaner &amp; Jaipur/ State Bank of India - D3</b>	01-Jun-19	13-Aug-19	74	8.15%	6.031	
	14-Aug-19	13-Nov-19	92	7.9500%	7.314	
	14-Nov-19	13-Feb-20	92	7.7000%	7.084	
	14-Feb-20	31-Mar-20	47	7.6500%	3.5955	7.88%

**Calcualtion of Weighted Average Rate of Interest for Gadawara**

Name of the Bank	Interest Details					
	Period		No. of Days	ROI		Effective ROI
	From	To				
	01-Apr-20	13-May-20	43	7.6500%	3.2895	
	14-May-20	13-Aug-20	92	7.0000%	6.44	
	14-Aug-20	28-Feb-21	199	6.6500%	13.2335	6.88%
	01-Mar-21	31-Mar-21	31	6.6500%		6.6500%
	01-Apr-21	31-Mar-22	365	6.65%	24.2725	6.6500%
	01-Apr-22	13-May-22	43	6.65%	2.8595	
	14-May-22	13-Aug-22	92	6.75%	6.21	
	14-Aug-22	13-Nov-22	92	7.15%	6.578	
	14-Nov-22	13-Feb-23	92	7.60%	6.992	
	14-Feb-23	31-Mar-23	46	8.00%	3.68	7.2108%
	01-Apr-23	13-May-23	43	8.00%	3.44	
	14-May-23	13-Aug-23	92	8.10%	7.452	
	14-Aug-23	13-Feb-24	184	8.15%	14.996	
	14-Feb-24	31-Mar-24	47	8.20%	3.854	8.1262%
<b>Vijaya Bank-VI- D4</b>	01-Jun-19	12-Jul-19	42	8.3500%	3.507	
	13-Jul-19	12-Aug-19	31	8.3000%	2.573	
	13-Aug-19	12-Sep-19	31	8.1500%	2.5265	
	13-Sep-19	12-Oct-19	30	8.1000%	2.43	
	13-Oct-19	12-Nov-19	31	8.0500%	2.4955	
	13-Nov-19	12-Dec-19	30	7.8500%	2.355	
	13-Dec-19	12-Jan-20	31	7.6500%	2.3715	
	13-Jan-20	12-Feb-20	31	7.6000%	2.356	
	13-Feb-20	31-Mar-20	48	7.5500%	3.624	7.95%
	01-Apr-20	12-Apr-20	12	7.5500%	0.906	
	13-Apr-20	12-May-20	30	7.4000%	2.22	
	13-May-20	12-Jun-20	31	7.3500%	2.2785	
	13-Jun-20	12-Jul-20	30	7.2000%	2.16	
	13-Jul-20	23-Aug-20	42	7.1500%	3.003	7.29%

**Calcualtion of Weighted Average Rate of Interest for Gadawara**

Name of the Bank	Interest Details					
	Period		No. of Days	ROI		Effective ROI
	From	To				
<b>UCO Bank-V</b>	12-Sep-23	09-Dec-23	89	7.95%	7.0755	
	10-Dec-23	09-Mar-24	91	8.00%	7.28	
	10-Mar-24	31-Mar-24	22	8.10%	1.782	7.99%
<b>HDFC-X D2</b>	12-Mar-22	31-Mar-22	20	5.83%	1.166	5.83%
	01-Apr-22	23-May-22	53	5.83%	3.0899	
	24-May-22	23-Aug-22	92	6.23%	5.7316	
	24-Aug-22	31-Dec-22	130	7.23%	9.399	
	01-Jan-23	23-Feb-23	54	7.73%	4.1742	
	24-Feb-23	28-Feb-23	5	8.20%	0.41	
	01-Mar-23	31-Mar-23	31	8.01%	2.4831	6.93%
	01-Apr-23	31-May-23	61	8.01%	4.8861	
	01-Jun-23	31-Mar-24	305	7.95%	24.2475	7.96%
<b>HDFC-X D3</b>	02-May-22	23-May-22	22	5.83%	1.2826	
	24-May-22	23-Aug-22	92	6.23%	5.7316	
	24-Aug-22	31-Dec-22	130	7.23%	9.399	
	01-Jan-23	23-Feb-23	54	7.73%	4.1742	
	24-Feb-23	28-Feb-23	5	8.20%	0.41	
	01-Mar-23	31-Mar-23	31	8.01%	2.4831	7.03%
	01-Apr-23	31-May-23	61	8.01%	4.8861	
	01-Jun-23	31-Mar-24	305	7.95%	24.2475	7.96%
<b>HDFC-X D5</b>	01-Jun-22	23-Aug-22	84	6.23%	5.2332	
	24-Aug-22	31-Dec-22	130	7.23%	9.399	
	01-Jan-23	23-Feb-23	54	7.73%	4.1742	
	24-Feb-23	28-Feb-23	5	8.20%	0.41	
	01-Mar-23	31-Mar-23	31	8.01%	2.4831	7.14%
	01-Apr-23	31-May-23	61	8.01%	4.8861	

**Calcualtion of Weighted Average Rate of Interest for Gadawara**

Name of the Bank	Interest Details					
	Period		No. of Days	ROI		Effective ROI
	From	To				
	01-Jun-23	31-Mar-24	305	7.95%	24.2475	7.96%
<b>HDFC-XI D3</b>	01-Sep-23	10-Sep-23	10	7.74%	0.774	
	11-Sep-23	10-Oct-23	30	7.80%	2.34	
	11-Oct-23	10-Nov-23	31	7.77%	2.4087	
	11-Nov-23	10-Dec-23	30	7.92%	2.376	
	11-Dec-23	10-Jan-24	31	7.97%	2.4707	
	11-Jan-24	10-Feb-24	31	7.89%	2.4459	
	11-Feb-24	10-Mar-24	29	7.67%	2.2243	
	11-Mar-24	31-Mar-24	21	7.84%	1.6464	7.83%
<b>HDFC-XII D1</b>	13-Oct-23	12-Nov-23	31	7.57%	2.3467	
	13-Nov-23	12-Dec-23	30	7.71%	2.313	
	13-Dec-23	12-Jan-24	31	7.78%	2.4118	
	13-Jan-24	12-Feb-24	31	7.70%	2.387	
	13-Feb-24	12-Mar-24	29	7.65%	2.2185	
	13-Mar-24	31-Mar-24	19	7.60%	1.444	7.67%
<b>HDFC-XII D3</b>	01-Dec-23	12-Dec-23	12	7.71%	0.9252	
	13-Dec-23	12-Jan-24	31	7.78%	2.4118	
	13-Jan-24	12-Feb-24	31	7.70%	2.387	
	13-Feb-24	12-Mar-24	29	7.65%	2.2185	
	13-Mar-24	31-Mar-24	19	7.60%	1.444	7.69%
<b>HDFC-XII D4</b>	01-Jan-24	12-Jan-24	12	7.78%	0.9336	
	13-Jan-24	12-Feb-24	31	7.70%	2.387	
	13-Feb-24	12-Mar-24	29	7.65%	2.2185	
	13-Mar-24	31-Mar-24	19	7.60%	1.444	7.67%
<b>HDFC-XII D6</b>	01-Mar-24	12-Mar-24	12	7.65%	0.918	
	13-Mar-24	31-Mar-24	19	7.60%	1.444	7.62%

		2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Loan	Euro Bond -I	7.0690%	7.0690%	7.0791%	7.0791%	7.1350%										
		6.9722%	6.9722%	6.9631%	6.9631%	7.0180%										
Loan	Euro Bond -II	7.5510%	7.5510%	7.5618%	7.5618%	7.6214%	7.6214%	7.6214%								
		7.4476%	7.4476%	7.4378%	7.4378%	7.4965%	7.4965%	7.4965%								
2021	Euro Bond -III				7.12	7.177491	7.177491	7.1775%	7.1775%	7.1775%	7.1968%	7.1968%	7.1968%	7.1968%		
2022	Euro Bond -IV				5.01%	5.02%	5.02%	5.0215%	5.0215%	5.0215%	5.0243%	5.0243%	5.0243%	5.0243%	5.0243%	
	K Exim				4.78	4.792765	4.792765	4.8059%	4.7928%	4.7928%	4.7928%	4.7928%	4.7928%	4.7928%	4.7928%	
2024	Euro Bond -V							4.6251%	4.6251%	4.6251%	4.6277%	4.6277%	4.6277%	4.6277%	4.6277%	4.6277%
2026	Euro Bond- 2026									4.4930%	4.4955%	4.4955%	4.4955%	4.4955%	4.4955%	4.4955%
2027	Euro Bond-2027									2.9072%	2.9088%	2.9088%	2.9088%	2.9088%	2.9088%	2.9088%
2028	Euro Bond-2028										4.7599%	4.7599%	4.7599%	4.7599%	4.7599%	4.7599%
	3.75% Euro Bonds 2024 II												3.9666%	3.9666%	3.9666%	3.9666%

Part 1							
Details of Sourcewise fuel for computation of Energy Charges							
FORM -15							
Company			NTPC				
Name of the generating Station			GADARWARA STAGE I				
Month			April 23				
SL	Particulars	Unit	Domestic Coal-Special arrangement	Domestic Coal Others	Domestic Coal (NTPC Mines)	Imported coal	Bio Mass
A)	OPENING QUANTITY						
	1 Opening Stock of coal	(MT)	1,44,793.37	74,735.95	0.00	1,23,796.27	0.00
	2 Value of Stock	Rs	61,09,00,390.53	43,76,49,183.01	0.00	1,78,22,81,388.39	0.00
B)	QUANTITY						
	3 Quantity of Coal /Lignite supplied by Coal / Lignite Company	(MT)	1,96,228.00	72,785.72	30,115.00	1,72,310.40	541.26
	4 Adjustment (+/-) in quantity supplied made by Coal / Lignite Company	(MT)	0.00	0.00		0.00	0.00
	5 Coal supplied by Coal/Lignite Company (3+4)	(MT)	1,96,228.00	72,785.72	29,212.86	1,72,310.40	541.26
	6 Normative transit & Handling losses (for Coal /Lignite based projects)	(MT)	1,569.82	582.29	233.70	344.62	0.00
	7 Net Coal / Lignite supplied (5 - 6)	(MT)	1,94,658.18	72,203.43	28,979.16	1,71,965.78	541.26
C)	PRICE						
	8 Amount charged by the Coal / Lignite Company	Rs	40,09,84,331.35	29,15,00,486.94	7,09,72,724.15	2,51,83,88,217.75	40,63,509.45
	9 Adjustment (+ / -) in amount charged by coal / Lignite Company	Rs					
	10 Handling, Sampling and such other Similar charges	Rs	8,54,394.77	10,27,642.29	55,67,178.60	-18,98,58,511.89	
	11 Total Amount charged (8 +9+10)	Rs	40,18,38,726.12	29,25,28,129.23	7,65,39,902.75	2,32,85,29,705.86	40,63,509.45
D)	TRANSPORTATION	Rs					
	12 Transportation charges by Rail / Ship / Road Transport						
	By Rail	Rs	24,69,38,202.00	11,35,85,647.89	6,07,83,090.00	0.00	12,78,726.84
	By Road	Rs					
	By Ship	Rs					
	13 Adjustment (+/-) in amount charged by railways / transport company	Rs					
	14 Demurrage charges, if any	Rs		10,37,359.00			
	15 Cost of fuel in transporting Coal through MGR system, if applicable	Rs					
	16 Total transportation charges ( 12+/- 13 - 14 + 15 )	Rs	24,69,38,202.00	11,25,48,288.89	6,07,83,090.00	0.00	12,78,726.84
	Total amount charged for Coal / Lignite supplied including transportation (11 + 16)	Rs	64,87,76,928.12	40,50,76,418.12	13,73,22,992.75	2,32,85,29,705.86	53,42,236.29
E)	TOTAL COST						
	18 Landed Cost of Coal/Lignite ( 2+17) / (1+7)	Rs/MT	3,710.92	5,735.19	4,738.68	13,899.05	9,870.00
	19 Blending Ratio		0.468803	0.280000	0.050000	0.200000	0.001197
	20 Weighted average cost of Coal /Lignite ( Including biomass)	Rs/MT	6,374.10				
F)	QUALITY						
	21 GCV of Domestic coal of the opening coal stock as per bill of coal company	(Kcal/Kg)	4,476	4,002	0		3,513
	22 GCV of Domestic coal supplied as per bill of coal company	(Kcal/Kg)	4,683	4,420	4,624		3713
	23 GCV of Imported coal of the opening coal stock as per bill of coal company	(Kcal/Kg)				5,002	
	24 GCV of Imported coal supplied as per bill of coal company	(Kcal/Kg)				5,017	
	25 Weighted average GCV of Coal /Lignite as billed (Including biomass)	(Kcal/Kg)	4,570				
	26 GCV of Domestic coal of the Opening stock as received at station	(Kcal/Kg)	3323	3062	0		3513
	27 GCV of Domestic coal/biomass supplied as received at station	(Kcal/Kg)	3525	3272	3312		3713
	28 GCV of Imported coal of the Opening stock as received at station	(Kcal/Kg)				5002	
	29 GCV of Imported coal supplied as received at station	(Kcal/Kg)				5,017	
30	Weighted average GCV of coal/ Lignite as Received (Including biomass)	(Kcal/Kg)	3,670				

Details of Sourcewise fuel for computation of Energy Charges				Part 1 FORM -15			
Company				NTPC			
Name of the generating Station				GADARWARA STAGE I			
Month				may 23			
SL	Particulars	Unit	Domestic Coal- Special arrangement	Domestic Coal Others	Domestic Coal (NTPC Mines)	Imported coal	Bio Mass
A)	OPENING QUANTITY						
	1 Opening Stock of coal	(MT)	1,27,437.20	20,310.51	5,949.21	2,05,312.85	0.00
	2 Value of Stock	Rs	47,29,09,169.64	11,64,84,695.24	2,91,62,044.27	2,85,36,53,388.91	0.00
B)	QUANTITY						
	3 Quantity of Coal /Lignite supplied by Coal / Lignite Company	(MT)	2,32,079.32	36,417.62	0.00	24,347.20	319.34
	4 Adjustment (+/-) in quantity supplied made by Coal / Lignite Company	(MT)	0.00	0.00		0.00	0.00
	5 Coal supplied by Coal/Lignite Company (3+4)	(MT)	2,32,079.32	36,417.62	0.00	24,347.20	319.34
	6 Normative transit & Handling losses (for Coal /Lignite based projects)	(MT)	1,856.63	291.34	0.00	48.69	0.00
	7 Net Coal / Lignite supplied (5 - 6)	(MT)	2,30,222.69	36,126.28	0.00	24,298.51	319.34
C)	PRICE						
	8 Amount charged by the Coal / Lignite Company	Rs	46,39,30,067.65	17,01,29,600.06		35,23,51,603.35	23,97,445.05
	9 Adjustment (+ / -) in amount charged by coal / Lignite Company	Rs					
	10 Handling, Sampling and such other Similar charges	Rs	-0.91	-0.10	0.00	0.00	3,854.80
	11 Total Amount charged (8 +9+10)	Rs	46,39,30,066.74	17,01,29,599.96	0.00	35,23,51,603.35	24,01,299.85
D)	TRANSPORTATION	Rs					
	12 Transportation charges by Rail / Ship / Road Transport						
	By Rail	Rs	29,42,77,889.00	5,45,32,396.11			3,45,556.15
	By Road	Rs					
	By Ship	Rs					
	13 Adjustment (+/-) in amount charged 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	29,42,77,889.00	5,45,32,396.11	0.00	0.00	3,45,556.15
	Total amount charged for Coal / Lignite supplied including transportation (11 + 16)	Rs	75,82,07,955.74	22,46,61,996.07	0.00	35,23,51,603.35	27,46,856.00
E)	TOTAL COST						
	18 Landed Cost of Coal/Lignite ( 2+17) / (1+7)	Rs/MT	3,442.14	6,044.76	4,901.84	13,962.75	8,601.67
	19 Blending Ratio		0.608924	0.170000	0.020000	0.200000	0.001076
	20 Weighted average cost of Coal /Lignite ( Including biomass)	Rs/MT	6,023.45				
F)	QUALITY						
	21 GCV of Domestic coal of the opening coal stock as per bill of coal company	(Kcal/Kg)	4,595	4,207	4,624		3,713
	22 GCV of Domestic coal supplied as per bill of coal company	(Kcal/Kg)	4,242	3,988	0		3728
	23 GCV of Imported coal of the opening coal stock as per bill of coal company	(Kcal/Kg)				5,011	
	24 GCV of Imported coal supplied as per bill of coal company	(Kcal/Kg)				5,034	
	25 Weighted average GCV of Coal /Lignite as billed (Including biomass)	(Kcal/Kg)	4,450				
	26 GCV of Domestic coal of the Opening stock as received at station	(Kcal/Kg)	3439	3165	3312		3713
	27 GCV of Domestic coal/biomass supplied as received at station	(Kcal/Kg)	3369	3103	0		3728
	28 GCV of Imported coal of the Opening stock as received at station	(Kcal/Kg)				5011	
	29 GCV of Imported coal supplied as received at station	(Kcal/Kg)				5,035	
	30 Weighted average GCV of coal/ Lignite as Received (Including biomass)	(Kcal/Kg)	3,671				

Part 1 FORM -15							
Details of Sourcewise fuel for computation of Energy Charges							
	Company			NTPC			
	Name of the generating Station			GADARWARA STAGE I			
	Month			June 23			
SL	Particulars	Unit	Domestic Coal-Special arrangement	Domestic Coal Others	Domestic Coal (NTPC Mines)	Imported coal	Bio Mass
A)	OPENING QUANTITY						
	1 Opening Stock of coal	(MT)	1,76,945.52	5,984.77	13.68	1,70,256.05	0.00
	2 Value of Stock	Rs	60,90,72,091.63	3,61,76,492.21	67,043.01	2,37,72,41,904.29	0.00
B)	QUANTITY						
	3 Quantity of Coal /Lignite supplied by Coal / Lignite Company	(MT)	2,07,020.38	1,03,984.57	77,781.13	12,526.80	753.50
	4 Adjustment (+/-) in quantity supplied made by Coal / Lignite Company	(MT)	0.00	0.00		0.00	0.00
	5 Coal supplied by Coal/Lignite Company (3+4)	(MT)	2,07,020.38	1,03,984.57	77,781.13	12,526.80	753.50
	6 Normative transit & Handling losses (for Coal /Lignite based projects)	(MT)	1,656.16	831.88	622.25	25.05	0.00
	7 Net Coal / Lignite supplied (5 - 6)	(MT)	2,05,364.22	1,03,152.69	77,158.88	12,501.75	753.50
C)	PRICE						
	8 Amount charged by the Coal / Lignite Company	Rs	42,86,59,825.00	45,26,06,486.00	19,58,58,069.47	18,28,52,732.00	56,56,901.25
	9 Adjustment (+ / -) in amount charged by coal / Lignite Company	Rs					
	10 Handling, Sampling and such other Similar charges	Rs	12,20,94,129.55	2,95,94,039.04	99,94,549.38	-76,10,752.81	-3,854.80
	11 Total Amount charged (8 +9+10)	Rs	55,07,53,954.55	48,22,00,525.04	20,58,52,618.85	17,52,41,979.19	56,53,046.45
D)	TRANSPORTATION	Rs					
	12 Transportation charges by Rail / Ship / Road Transport						
	By Rail	Rs	26,08,69,814.95	15,73,60,881.00	15,75,17,357.00		11,67,860.36
	By Road	Rs					
	By Ship	Rs					
	13 Adjustment (+/-) in amount charged by railways / transport company	Rs					
	14 Demurrage charges, if any	Rs	8,36,832.95				
	15 Cost of fuel in transporting Coal through MGR system, if applicable	Rs					
	16 Total transportation charges ( 12+/- 13 - 14 + 15 )	Rs	26,00,32,982.00	15,73,60,881.00	15,75,17,357.00	0.00	11,67,860.36
	Total amount charged for Coal / Lignite supplied including transportation (11 + 16)	Rs	81,07,86,936.55	63,95,61,406.04	36,33,69,975.85	17,52,41,979.19	68,20,906.81
E)	TOTAL COST						
	18 Landed Cost of Coal/Lignite ( 2+17) / (1+7)	Rs/MT	3,713.90	6,191.62	4,709.41	13,966.48	9,052.30
	19 Blending Ratio		0.508430	0.150000	0.160000	0.180000	0.001570
	20 Weighted average cost of Coal /Lignite ( Including biomass)	Rs/MT			6,098.68		
F)	QUALITY						
	21 GCV of Domestic coal of the opening coal stock as per bill of coal company	(Kcal/Kg)	4,368	4,067	4,624		3,728
	22 GCV of Domestic coal supplied as per bill of coal company	(Kcal/Kg)	4,337	4,126	4,750		3611
	23 GCV of Imported coal of the opening coal stock as per bill of coal company	(Kcal/Kg)				5,013	
	24 GCV of Imported coal supplied as per bill of coal company	(Kcal/Kg)				5,089	
	25 Weighted average GCV of Coal /Lignite as billed (Including biomass)	(Kcal/Kg)			4,500		
	26 GCV of Domestic coal of the Opening stock as received at station	(Kcal/Kg)	3394	3125	3312		3728
	27 GCV of Domestic coal/biomass supplied as received at station	(Kcal/Kg)	3410	3506	3406		3611
	28 GCV of Imported coal of the Opening stock as received at station	(Kcal/Kg)				5013	
	29 GCV of Imported coal supplied as received at station	(Kcal/Kg)				5,089	
	30 Weighted average GCV of coal/ Lignite as Received (Including biomass)	(Kcal/Kg)			3,707		

Part 1 FORM -15							
Details of Sourcewise fuel for computation of Energy Charges							
Company				NTPC			
Name of the generating Station				GADARWARA STAGE I			
Month				July 23 revised			
SL	Particulars	Unit	Domestic Coal-Special arrangement	Domestic Coal Others	Domestic Coal (NTPC Mines)	Imported coal	Bio Mass
A)	OPENING QUANTITY						
	1 Opening Stock of coal	(MT)	1,38,298.73	37,147.91	383.70	96,370.33	0.00
	2 Value of Stock	Rs	513627269.81	230005777.07	1806990.59	1345954648.47	0.00
B)	QUANTITY						
	3 Quantity of Coal /Lignite supplied by Coal / Lignite Company	(MT)	2,05,470.45	1,13,425.35	98,849.00		0.00
	4 Adjustment (+/-) in quantity supplied made by Coal / Lignite Company	(MT)	0.00	0.00		0.00	0.00
	5 Coal supplied by Coal/Lignite Company (3+4)	(MT)	2,05,470.45	1,13,425.35	98,849.00	0.00	0.00
	6 Normative transit & Handling losses (for Coal /Lignite based projects)	(MT)	1,643.764	907.40	790.79	0.00	0.00
	7 Net Coal / Lignite supplied (5 - 6)	(MT)	2,03,826.686	1,12,517.95	98,058.21	0.00	0.00
C)	PRICE						
	8 Amount charged by the Coal / Lignite Company	Rs	35,74,95,364.19	37,57,54,216.74	21,15,45,184.30		
	9 Adjustment (+ / -) in amount charged by coal / Lignite Company	Rs					
	10 Handling,Sampling and such other Similar charges	Rs				0.00	0.00
	11 Total Amount charged (8 +9+10)	Rs	35,74,95,364.19	37,57,54,216.74	21,15,45,184.30	0.00	0.00
D)	TRANSPORTATION	Rs					
	12 Transportation charges by Rail / Ship / Road Transport						
	By Rail	Rs	26,54,07,902.27	16,73,68,080.09	19,98,47,304.64	0.00	0.00
	By Road	Rs				0.00	0.00
	By Ship	Rs					
	13 Adjustment (+/-) in amount charged by railways / transport company	Rs					
	14 Demurrage charges, if any	Rs	4,93,341.27	3,96,227.09	2,38,319.64		
	15 Cost of fuel in transporting Coal through MGR system, if applicable	Rs					
	16 Total transportation charges ( 12+/- 13 - 14 + 15 )	Rs	26,49,14,561.00	16,69,71,853.00	19,96,08,985.00	0.00	0.00
	Total amount charged for Coal / Lignite supplied including transportation (11 + 16)	Rs	62,24,09,925.19	54,27,26,069.74	41,11,54,169.30	0.00	0.00
E)	TOTAL COST						
	18 Landed Cost of Coal/Lignite ( 2+17) / (1+7)	Rs/MT	3,320.53	5,163.05	4,194.97	13,966.48	0.00
	19 Blending Ratio		0.550000	0.150000	0.150000	0.150000	0.000000
F)	20 Weighted average cost of Coal /Lignite ( Including biomass)	Rs/MT	5,324.97				
	QUALITY						
	21 GCV of Domestic coal of the opening coal stock as per bill of coal company	(Kcal/Kg)	4,351	4,123	4,750		3,611
	22 GCV of Domestic coal supplied as per bill of coal company	(Kcal/Kg)	4,309	4,240	4,750		0
	23 GCV of Imported coal of the opening coal stock as per bill of coal company	(Kcal/Kg)				5,018	
	24 GCV of Imported coal supplied as per bill of coal company	(Kcal/Kg)				0	
	25 Weighted average GCV of Coal /Lignite as billed (Including biomass)	(Kcal/Kg)	4,476				
	26 GCV of Domestic coal of the Opening stock as received at station	(Kcal/Kg)	3403	3485	3406		3,611
	27 GCV of Domestic coal/biomass supplied as received at station	(Kcal/Kg)	3527	3289	3130		0
	28 GCV of Imported coal of the Opening stock as received at station	(Kcal/Kg)				5018	
	29 GCV of Imported coal supplied as received at station	(Kcal/Kg)				0	
	30 Weighted average GCV of coal/ Lignite as Received (Including biomass)	(Kcal/Kg)	3,635				

Details of Sourcewise fuel for computation of Energy Charges				Part 1 FORM -15			
Company				NTPC			
Name of the generating Station				GADARWARA STAGE I			
Month				Aug 23 revised			
SL	Particulars	Unit	Domestic Coal- Special arrangement	Domestic Coal Others	Domestic Coal (NTPC Mines)	Imported coal	Bio Mass
A)	OPENING QUANTITY						
	1 Opening Stock of coal	(MT)	78,922.46	77,883.24	26,659.30	24,587.72	0.00
	2 Value of Stock	Rs	26,20,64,272.55	40,21,14,850.24	11,18,35,033.16	34,34,03,959.93	0.00
B)	QUANTITY						
	3 Quantity of Coal /Lignite supplied by Coal / Lignite Company	(MT)	3,20,904.44	1,45,504.55	1,17,832.12		28.20
	4 Adjustment (+/-) in quantity supplied made by Coal / Lignite Company	(MT)	0.00	0.00		0.00	0.00
	5 Coal supplied by Coal/Lignite Company (3+4)	(MT)	3,20,904.44	1,45,504.55	1,17,832.12	0.00	28.20
	6 Normative transit & Handling losses (for Coal /Lignite based projects)	(MT)	2,567.24	1,164.04	942.66	0.00	0.00
	7 Net Coal / Lignite supplied (5 - 6)	(MT)	3,18,337.20	1,44,340.51	1,16,889.46	0.00	28.20
C)	PRICE						
	8 Amount charged by the Coal / Lignite Company	Rs	71,44,87,185.00	55,32,27,452.42	28,27,42,218.65		2,67,748.43
	9 Adjustment (+ / -) in amount charged by coal / Lignite Company	Rs					
	10 Handling,Sampling and such other Similar charges	Rs	6,39,18,696.37	2,89,82,053.03	48,57,338.40	0.00	0.00
	11 Total Amount charged (8 +9+10)	Rs	77,84,05,881.37	58,22,09,505.45	28,75,99,557.05	0.00	2,67,748.43
D)	TRANSPORTATION	Rs					
	12 Transportation charges by Rail / Ship / Road Transport						
	By Rail	Rs	40,18,05,391.40	17,48,71,624.35	22,58,16,844.00	0.00	0.00
	By Road	Rs					
	By Ship	Rs					
	13 Adjustment (+/-) in amount charged 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	40,18,05,391.40	17,48,71,624.35	22,58,16,844.00	0.00	0.00
	Total amount charged for Coal / Lignite supplied including transportation						
	17 (11 + 16)	Rs	1,18,02,11,272.77	75,70,81,129.80	51,34,16,401.05	0.00	2,67,748.43
E)	TOTAL COST						
	18 Landed Cost of Coal/Lignite ( 2+17) / (1+7)	Rs/MT	3,630.56	5,216.35	4,355.67	13,966.48	9,494.63
	19 Blending Ratio		0.427314	0.330000	0.205000	0.037643	0.000043
	20 Weighted average cost of Coal /Lignite ( Including biomass)	Rs/MT	4,691.85				
F)	QUALITY						
	21 GCV of Domestic coal of the opening coal stock as per bill of coal company	(Kcal/Kg)	4,326	4,211	4,750		0
	22 GCV of Domestic coal supplied as per bill of coal company	(Kcal/Kg)	4,417	4,272	4,750		3732
	GCV of Imported coal of the opening coal stock as per bill of coal company	(Kcal/Kg)				5,018	
	23 company	(Kcal/Kg)					
	24 GCV of Imported coal supplied as per bill of coal company	(Kcal/Kg)				0	
	25 Weighted average GCV of Coal /Lignite as billed (Including biomass)	(Kcal/Kg)	4,445				
	26 GCV of Domestic coal of the Opening stock as received at station	(Kcal/Kg)	3477	3338	3131		0
	27 GCV of Domestic coal/biomass supplied as received at station	(Kcal/Kg)	3559	3363	3305		3732
	28 GCV of Imported coal of the Opening stock as received at station	(Kcal/Kg)				5018	
	29 GCV of Imported coal supplied as received at station	(Kcal/Kg)				0	
	30 Weighted average GCV of coal/ Lignite as Received (Including biomass)	(Kcal/Kg)	3,481				

Details of Sourcewise fuel for computation of Energy Charges				Part 1 FORM -15			
Company				NTPC			
Name of the generating Station				GADARWARA STAGE I			
Month				Sep 23			
SL	Particulars	Unit	Domestic Coal- Special arrangement	Domestic Coal Others	Domestic Coal (NTPC Mines)	Imported coal	Bio Mass
A)	OPENING QUANTITY						
1	Opening Stock of coal	(MT)	1,18,009.07	6,567.84	9,580.70	-12.30	0.00
2	Value of Stock	Rs	42,84,39,171.09	3,42,60,105.65	4,17,30,391.14	0.00	0.00
B)	QUANTITY						
3	Quantity of Coal /Lignite supplied by Coal / Lignite Company	(MT)	350300.37	1,16,166.96	1,65,683.59	3,984.20	1,100.30
4	Adjustment (+/-) in quantity supplied made by Coal / Lignite Company	(MT)	0.00	0.00		0.00	0.00
5	Coal supplied by Coal/Lignite Company (3+4)	(MT)	3,50,300.37	1,16,166.96	1,65,683.59	3,984.20	1,100.30
6	Normative transit & Handling losses (for Coal /Lignite based projects)	(MT)	2,802.40	929.34	1,325.47	7.97	0.00
7	Net Coal / Lignite supplied (5 - 6)	(MT)	3,47,497.97	1,15,237.62	1,64,358.12	3,976.23	1,100.30
C)	PRICE						
8	Amount charged by the Coal / Lignite Company	Rs	94,92,36,048.29	35,23,71,495.14	44,07,47,452.06	4,94,59,336.90	82,60,502.25
9	Adjustment (+ / -) in amount charged by coal / Lignite Company	Rs					
10	Handling,Sampling and such other Similar charges	Rs				36,03,449.47	
11	Total Amount charged (8 +9+10)	Rs	94,92,36,048.29	35,23,71,495.14	44,07,47,452.06	5,30,62,786.37	82,60,502.25
D)	TRANSPORTATION						
12	Transportation charges by Rail / Ship / Road Transport						
	By Rail	Rs	43,72,07,088.63	17,55,22,976.21	34,00,89,177.88	3,01,494.47	18,02,518.95
	By Road	Rs					
	By Ship	Rs					
13	Adjustment (+/-) in amount charged by railways / transport company	Rs					
14	Demurrage charges, if any	Rs	22,68,671.09	7,52,203.56	11,22,699.88	3,01,494.47	
15	Cost of fuel in transporting Coal through MGR system, if applicable	Rs					
16	Total transportation charges ( 12+/- 13 - 14 + 15 )	Rs	43,49,38,417.54	17,47,70,772.65	33,89,66,478.00	0.00	18,02,518.95
17	Total amount charged for Coal / Lignite supplied including transportation (11 + 16)	Rs	1,38,41,74,465.83	52,71,42,267.79	77,97,13,930.06	5,30,62,786.37	1,00,63,021.20
E)	TOTAL COST						
18	Landed Cost of Coal/Lignite ( 2+17) / (1+7)	Rs/MT	3,893.85	4,609.01	4,722.60	13,386.41	9,145.71
19	Blending Ratio		0.542434	0.180000	0.275000	0.000802	0.001764
20	Weighted average cost of Coal /Lignite ( Including biomass)	Rs/MT	4,267.36				
F)	QUALITY						
21	GCV of Domestic coal of the opening coal stock as per bill of coal company	(Kcal/Kg)	4,399	4,251	4,750		3,732
22	GCV of Domestic coal supplied as per bill of coal company	(Kcal/Kg)	4,511	4,350	4,750		3574
	GCV of Imported coal of the opening coal stock as per bill of coal company	(Kcal/Kg)					
23	GCV of Imported coal supplied as per bill of coal company	(Kcal/Kg)				5,018	
24	GCV of Imported coal supplied as per bill of coal company	(Kcal/Kg)				5,050	
25	Weighted average GCV of Coal /Lignite as billed (Including biomass)	(Kcal/Kg)	4,530				
26	GCV of Domestic coal of the Opening stock as received at station	(Kcal/Kg)	3543	3354	3273		3732
27	GCV of Domestic coal/biomass supplied as received at station	(Kcal/Kg)	3583	3651	3687		3571
28	GCV of Imported coal of the Opening stock as received at station	(Kcal/Kg)				5018	
29	GCV of Imported coal supplied as received at station	(Kcal/Kg)				4,868	
30	Weighted average GCV of coal/ Lignite as Received (Including biomass)	(Kcal/Kg)	3,610				

Part 1 FORM -15							
Details of Sourcewise fuel for computation of Energy Charges							
Company			NTPC				
Name of the generating Station			GADARWARA STAGE I				
Month			OCT 23				
SL	Particulars	Unit	Domestic Coal-Special arrangement	Domestic Coal Others	Domestic Coal (NTPC Mines)	Imported coal	Bio Mass
A)	OPENING QUANTITY						
	1 Opening Stock of coal	(MT)	1,27,206.12	9,544.50	2,429.03	3,463.93	0.00
	2 Value of Stock	Rs	49,53,21,292.36	4,39,90,681.89	1,14,71,350.81	4,63,69,581.29	0.00
B)	QUANTITY						
	3 Quantity of Coal /Lignite supplied by Coal / Lignite Company	(MT)	200499.8	1,75,683.13	27,310.16	64,143.40	156.18
	4 Adjustment (+/-) in quantity supplied made by Coal / Lignite Company	(MT)	0.00	0.00		0.00	0.00
	5 Coal supplied by Coal/Lignite Company (3+4)	(MT)	2,00,499.80	1,75,683.13	27,310.16	64,143.40	156.18
	6 Normative transit & Handling losses (for Coal /Lignite based projects)	(MT)	1,604.00	1,405.47	218.48	128.29	0.00
	7 Net Coal / Lignite supplied (5 - 6)	(MT)	1,98,895.80	1,74,277.66	27,091.68	64,015.11	156.18
C)	PRICE						
	8 Amount charged by the Coal / Lignite Company	Rs	44,04,77,666.78	47,80,87,638.00	6,66,96,521.75	81,40,70,885.26	11,72,521.35
	9 Adjustment (+ / -) in amount charged by coal / Lignite Company	Rs			-53,83,209.52		
	10 Handling, Sampling and such other Similar charges	Rs	2,16,98,893.08	13287721.47	1,02,51,697.39	-1,99,64,368.80	
	11 Total Amount charged (8 +9+10)	Rs	46,21,76,559.86	49,13,75,359.47	7,15,65,009.62	79,41,06,516.46	11,72,521.35
D)	TRANSPORTATION	Rs					
	12 Transportation charges by Rail / Ship / Road Transport						
	By Rail	Rs	25,22,08,417.06	24,48,75,795.00	5,44,86,758.00		29,647.45
	By Road	Rs					
	By Ship	Rs					
	13 Adjustment (+/-) in amount charged by railways / transport company	Rs					
	14 Demurrage charges, if any	Rs	0.00	0.00	0.00	0.00	0.00
	15 Cost of fuel in transporting Coal through MGR system, if applicable	Rs					
	16 Total transportation charges ( 12+/- 13 - 14 + 15 )	Rs	25,22,08,417.06	24,48,75,795.00	5,44,86,758.00	0.00	29,647.45
	Total amount charged for Coal / Lignite supplied including transportation (11 + 16)	Rs	71,43,84,976.92	73,62,51,154.47	12,60,51,767.62	79,41,06,516.46	12,02,168.80
E)	TOTAL COST						
	18 Landed Cost of Coal/Lignite ( 2+17) / (1+7)	Rs/MT	3,709.60	4,244.55	4,658.53	12,455.36	7,697.33
	19 Blending Ratio		0.479670	0.350000	0.050000	0.120000	0.000330
	20 Weighted average cost of Coal /Lignite ( Including biomass)	Rs/MT	4,995.08				
F)	QUALITY						
	21 GCV of Domestic coal of the opening coal stock as per bill of coal company	(Kcal/Kg)	4,483	4,345	4,750		3,574
	22 GCV of Domestic coal supplied as per bill of coal company	(Kcal/Kg)	4,420	4,210	4,750		3199
	23 GCV of Imported coal of the opening coal stock as per bill of coal company	(Kcal/Kg)				5,050	
	24 GCV of Imported coal supplied as per bill of coal company	(Kcal/Kg)				5,060	
	25 Weighted average GCV of Coal /Lignite as billed (Including biomass)	(Kcal/Kg)	4,454				
	26 GCV of Domestic coal of the Opening stock as received at station	(Kcal/Kg)	3573	3635	3664		3571
	27 GCV of Domestic coal/biomass supplied as received at station	(Kcal/Kg)	3599	3467	4031		3199
	28 GCV of Imported coal of the Opening stock as received at station	(Kcal/Kg)				4868	
	29 GCV of Imported coal supplied as received at station	(Kcal/Kg)				5,062	
	30 Weighted average GCV of coal/ Lignite as Received (Including biomass)	(Kcal/Kg)	3,745				

Details of Sourcewise fuel for computation of Energy Charges				Part 1 FORM -15			
Company				NTPC			
Name of the generating Station				GADARWARA STAGE I			
Month				Nov 23			
SL	Particulars	Unit	Domestic Coal- Special arrangement	Domestic Coal Others	Domestic Coal (NTPC Mines)	Imported coal	Bio Mass
A)	OPENING QUANTITY						
1	Opening Stock of coal	(MT)	99,266.67	18,307.54	5,875.75	10,731.18	0.00
2	Value of Stock	Rs	36,82,39,214.64	7,77,07,196.48	2,73,72,355.41	13,36,60,796.20	0.00
B)	QUANTITY						
3	Quantity of Coal /Lignite supplied by Coal / Lignite Company	(MT)	299411.6	1,75,959.69	1,10,304.37	43,769.80	516.30
4	Adjustment (+/-) in quantity supplied made by Coal / Lignite Company	(MT)	0.00	0.00		0.00	0.00
5	Coal supplied by Coal/Lignite Company (3+4)	(MT)	2,99,411.60	1,75,959.69	1,10,304.37	43,769.80	516.30
6	Normative transit & Handling losses (for Coal /Lignite based projects)	(MT)	2,395.29	1,407.68	882.43	87.54	0.00
7	Net Coal / Lignite supplied (5 - 6)	(MT)	2,97,016.31	1,74,552.01	1,09,421.94	43,682.26	516.30
C)	PRICE						
8	Amount charged by the Coal / Lignite Company	Rs	71,92,09,926.29	49,57,29,517.00	27,72,07,850.41	56,77,37,415.62	38,76,122.25
9	Adjustment (+ / -) in amount charged by coal / Lignite Company	Rs		4,14,28,562.00	-1,03,10,727.00		
10	Handling,Sampling and such other Similar charges	Rs	4,73,86,303.35	-13580344.75	2,77,68,021.32	-1,83,51,439.96	0.00
11	Total Amount charged (8 +9+10)	Rs	76,65,96,229.64	52,35,77,734.25	29,46,65,144.73	54,93,85,975.66	38,76,122.25
D)	TRANSPORTATION	Rs					
12	Transportation charges by Rail / Ship / Road Transport						
	By Rail	Rs	33,78,07,897.00	22,78,07,705.94	22,79,82,506.96		6,92,778.35
	By Road	Rs					
	By Ship	Rs					
13	Adjustment (+/-) in amount charged by railways / transport company	Rs					
14	Demurrage charges, if any	Rs	0.00	0.00	4,51,454.96	0.00	0.00
15	Cost of fuel in transporting Coal through MGR system, if applicable	Rs					
16	Total transportation charges ( 12+/- 13 - 14 + 15 )	Rs	33,78,07,897.00	22,78,07,705.94	22,75,31,052.00	0.00	6,92,778.35
17	Total amount charged for Coal / Lignite supplied including transportation (11 + 16)	Rs	1,10,44,04,126.64	75,13,85,440.19	52,21,96,196.73	54,93,85,975.66	45,68,900.60
E)	TOTAL COST						
18	Landed Cost of Coal/Lignite ( 2+17) / (1+7)	Rs/MT	3,716.14	4,298.95	4,766.52	12,552.90	8,849.31
19	Blending Ratio		0.231071	0.400000	0.250000	0.117809	0.001120
20	Weighted average cost of Coal /Lignite ( Including biomass)	Rs/MT	5,258.66				
F)	QUALITY						
21	GCV of Domestic coal of the opening coal stock as per bill of coal company	(Kcal/Kg)	4,445	4,217	4,750		3,199
22	GCV of Domestic coal supplied as per bill of coal company	(Kcal/Kg)	4,577	4,411	4,750		3174
23	GCV of Imported coal of the opening coal stock as per bill of coal company	(Kcal/Kg)				5,059	
24	GCV of Imported coal supplied as per bill of coal company	(Kcal/Kg)				5,050	
25	Weighted average GCV of Coal /Lignite as billed (Including biomass)	(Kcal/Kg)	4,593				
26	GCV of Domestic coal of the Opening stock as received at station	(Kcal/Kg)	3589	3476	4001		3199
27	GCV of Domestic coal/biomass supplied as received at station	(Kcal/Kg)	3767	3748	3873		3201
28	GCV of Imported coal of the Opening stock as received at station	(Kcal/Kg)				5052	
29	GCV of Imported coal supplied as received at station	(Kcal/Kg)				4,979	
30	Weighted average GCV of coal/ Lignite as Received (Including biomass)	(Kcal/Kg)	3,911				

Details of Sourcewise fuel for computation of Energy Charges			Part 1 FORM -15				
SL	Particulars	Unit	Domestic Coal- Special arrangement	Domestic Coal Others	Domestic Coal (NTPC Mines)	Imported coal	Bio Mass
Company			NTPC				
Name of the generating Station			GADARWARA STAGE I				
Month			Dec23 final				
A)	OPENING QUANTITY						
	1 Opening Stock of coal	(MT)	2,89,727.89	8,405.46	13.88	87.50	0.00
	2 Value of Stock	Rs	1,07,66,69,625.76	3,61,34,607.99	66,136.21	10,98,418.34	0.00
B)	QUANTITY						
	3 Quantity of Coal /Lignite supplied by Coal / Lignite Company	(MT)	226753.5	2,44,753.75	1,22,457.19	52,735.20	719.38
	4 Adjustment (+/-) in quantity supplied made by Coal / Lignite Company	(MT)	0.00	0.00		0.00	0.00
	5 Coal supplied by Coal/Lignite Company (3+4)	(MT)	2,26,753.50	2,44,753.75	1,22,457.19	52,735.20	719.38
	6 Normative transit & Handling losses (for Coal /Lignite based projects)	(MT)	1,814.03	1,958.03	979.66	105.47	0.00
	7 Net Coal / Lignite supplied (5 - 6)	(MT)	2,24,939.47	2,42,795.72	1,21,477.53	52,629.73	719.38
C)	PRICE						
	8 Amount charged by the Coal / Lignite Company	Rs	50,05,26,180.00	72,22,49,329.00	30,38,06,110.86	69,42,87,554.92	54,00,745.35
	9 Adjustment (+ / -) in amount charged by coal / Lignite Company	Rs	15,12,57,042.00	2,32,17,109.00			
	10 Handling,Sampling and such other Similar charges	Rs	-5,83,61,155.43	53373606.37	3,39,62,401.14	-0.13	
	11 Total Amount charged (8 +9+10)	Rs	59,34,22,066.57	79,88,40,044.37	33,77,68,512.00	69,42,87,554.79	54,00,745.35
D)	TRANSPORTATION	Rs					
	12 Transportation charges by Rail / Ship / Road Transport						
	By Rail	Rs	28,17,76,088.10	33,94,29,998.16	25,33,00,318.73		9,05,041.85
	By Road	Rs					
	By Ship	Rs					
	13 Adjustment (+/-) in amount charged by railways / transport company	Rs					
	14 Demurrage charges, if any	Rs	17,31,952.10	14,21,467.16	6,19,861.73	0.00	0.00
	15 Cost of fuel in transporting Coal through MGR system, if applicable	Rs					
	16 Total transportation charges ( 12+/- 13 - 14 + 15 )	Rs	28,00,44,136.00	33,80,08,531.00	25,26,80,457.00	0.00	9,05,041.85
	Total amount charged for Coal / Lignite supplied including transportation (11 + 16)	Rs	87,34,66,202.57	1,13,68,48,575.37	59,04,48,969.00	69,42,87,554.79	63,05,787.20
E)	TOTAL COST						
	18 Landed Cost of Coal/Lignite ( 2+17) / (1+7)	Rs/MT	3,789.12	4,669.50	4,860.55	13,190.87	8,765.59
	19 Blending Ratio		0.388674	0.400000	0.120000	0.090000	0.001326
F)	20 Weighted average cost of Coal /Lignite ( Including biomass)	Rs/MT			5,122.60		
	QUALITY						
	21 GCV of Domestic coal of the opening coal stock as per bill of coal company	(Kcal/Kg)	4,544	4,393	4,750		3,174
	22 GCV of Domestic coal supplied as per bill of coal company	(Kcal/Kg)	4,308	4,459	4,750		3179
	23 GCV of Imported coal of the opening coal stock as per bill of coal company	(Kcal/Kg)				5,052	
	24 GCV of Imported coal supplied as per bill of coal company	(Kcal/Kg)				4,953	
	25 Weighted average GCV of Coal /Lignite as billed (Including biomass)	(Kcal/Kg)			4,531		
	26 GCV of Domestic coal of the Opening stock as received at station	(Kcal/Kg)	3722	3722	3880		3201
	27 GCV of Domestic coal/biomass supplied as received at station	(Kcal/Kg)	4085	4017	4263		3179
	28 GCV of Imported coal of the Opening stock as received at station	(Kcal/Kg)				4993	
	29 GCV of Imported coal supplied as received at station	(Kcal/Kg)				4,956	
	30 Weighted average GCV of coal/ Lignite as Received (Including biomass)	(Kcal/Kg)			4,073		

Part 1 FORM -15							
Details of Sourcewise fuel for computation of Energy Charges							
Company				NTPC			
Name of the generating Station				GADARWARA STAGE I			
Month				Jan24			
SL	Particulars	Unit	Domestic Coal-Special arrangement	Domestic Coal Others	Domestic Coal (NTPC Mines)	Imported coal	Bio Mass
A)	OPENING QUANTITY						
	1 Opening Stock of coal	(MT)	3,03,878.570000	34,269.759	56,412.010	3,907.660	0.000
	2 Value of Stock	Rs	1,15,14,32,039.460	16,00,22,541.160	27,41,93,404.070	5,15,45,456.830	0.040
B)	QUANTITY						
	3 Quantity of Coal /Lignite supplied by Coal / Lignite Company	(MT)	1,41,162.930	2,38,113.030	27,960.270	1,13,794.000	1,698.440
	4 Adjustment (+/-) in quantity supplied made by Coal / Lignite Company	(MT)			-585.980		
	5 Coal supplied by Coal/Lignite Company (3+4)	(MT)	1,41,162.930	2,38,113.030	27,374.290	1,13,794.000	1,698.440
	6 Normative transit & Handling losses (for Coal /Lignite based projects)	(MT)	1,129.303	1,904.904	218.994	227.588	0.000
	7 Net Coal / Lignite supplied (5 - 6)	(MT)	1,40,033.627000	2,36,208.126	27,155.296	1,13,566.412	1,698.440
C)	PRICE						
	8 Amount charged by the Coal / Lignite Company	Rs	33,88,99,708.000	94,66,81,932.890	8,22,25,231.220	1,51,60,94,911.390	1,27,51,038.300
	9 Adjustment (+ / -) in amount charged by coal / Lignite Company	Rs			-14,70,124.320		
	10 Handling,Sampling and such other Similar charges	Rs	1,07,33,292.480	1,72,31,518.060	1,45,60,828.220	1,85,16,775.170	
	11 Total Amount charged (8 +9+10)	Rs	34,96,33,000.480	96,39,13,450.950	9,53,15,935.120	1,53,46,11,686.560	1,27,51,038.300
D)	TRANSPORTATION	Rs					
	12 Transportation charges by Rail / Ship / Road Transport						
	By Rail	Rs	16,18,90,502.000	29,09,20,941.770	3,20,47,423.000		30,66,147.700
	By Road	Rs					
	By Ship	Rs					
	13 Adjustment (+/-) in amount charged by railways / transport company	Rs					
	14 Demurrage charges, if any	Rs				0.000	0.000
	15 Cost of fuel in transporting Coal through MGR system, if applicable	Rs					
	16 Total transportation charges ( 12+/- 13 - 14 + 15 )	Rs	16,18,90,502.000	29,09,20,941.770	3,20,47,423.000	0.000	30,66,147.700
	Total amount charged for Coal / Lignite supplied including transportation (11 + 16)	Rs	51,15,23,502.480	1,25,48,34,392.720	12,73,63,358.120	1,53,46,11,686.560	1,58,17,186.000
E)	TOTAL COST						
	18 Landed Cost of Coal/Lignite ( 2+17) / (1+7)	Rs/MT	3,746.136	5,230.952	4,805.190	13,502.189	9,312.773
	19 Blending Ratio		0.376957	0.350000	0.120000	0.150000	0.003043
	20 Weighted average cost of Coal /Lignite ( Including biomass)	Rs/MT	5,873.25				
F)	QUALITY						
	21 GCV of Domestic coal of the opening coal stock as per bill of coal company	(Kcal/Kg)	4,441	4,457	4,750		3,179
	22 GCV of Domestic coal supplied as per bill of coal company	(Kcal/Kg)	4,397	4,557	4,750		3723
	23 GCV of Imported coal of the opening coal stock as per bill of coal company	(Kcal/Kg)				4,953	
	24 GCV of Imported coal supplied as per bill of coal company	(Kcal/Kg)				5,033	
	25 Weighted average GCV of Coal /Lignite as billed (Including biomass)	(Kcal/Kg)	4,598				
	26 GCV of Domestic coal of the Opening stock as received at station	(Kcal/Kg)	3881	4007	4263		3179
	27 GCV of Domestic coal/biomass supplied as received at station	(Kcal/Kg)	3778	3758	3782		3723
	28 GCV of Imported coal of the Opening stock as received at station	(Kcal/Kg)				4956	
	29 GCV of Imported coal supplied as received at station	(Kcal/Kg)				5,036	
	30 Weighted average GCV of coal/ Lignite as Received (Including biomass)	(Kcal/Kg)	4,036				

Part 1 FORM -15							
Details of Sourcewise fuel for computation of Energy Charges							
Company				NTPC			
Name of the generating Station				GADARWARA STAGE I			
Month				Feb 24			
SL	Particulars	Unit	Domestic Coal-Special arrangement	Domestic Coal Others	Domestic Coal (NTPC Mines)	Imported coal	Bio Mass
A)	OPENING QUANTITY						
	1 Opening Stock of coal	(MT)	2,33,505.197	75,117.646	16,586.646	33,748.262	0.000
	2 Value of Stock	Rs	87,47,42,304.590	39,29,36,895.730	7,97,01,964.570	45,56,75,432.590	0.000
B)	QUANTITY						
	3 Quantity of Coal /Lignite supplied by Coal / Lignite Company	(MT)	63823.520	332825.100	75667.190	150327.800	2108.060
	4 Adjustment (+/-) in quantity supplied made by Coal / Lignite Company	(MT)			-1,978.72		
	5 Coal supplied by Coal/Lignite Company (3+4)	(MT)	63,823.520	3,32,825.100	73,688.470	1,50,327.800	2,108.060
	6 Normative transit & Handling losses (for Coal /Lignite based projects)	(MT)	510.588	2,662.601	589.508	300.656	0.000
	7 Net Coal / Lignite supplied (5 - 6)	(MT)	63,312.932	3,30,162.499	73,098.962	1,50,027.144	2,108.060
C)	PRICE						
	8 Amount charged by the Coal / Lignite Company	Rs	16,10,79,855.400	1,34,57,06,774.180	18,65,32,241.090	1,99,36,41,347.140	1,58,26,260.450
	9 Adjustment (+ / - ) in amount charged by coal / Lignite Company	Rs			-48,20,608.91		
	10 Handling, Sampling and such other Similar charges	Rs	39,21,677.080	2,04,50,651.970	94,70,027.990	-3,30,28,209.000	
	11 Total Amount charged (8 +9+10)	Rs	16,50,01,532.480	1,36,61,57,426.150	19,11,81,660.170	1,96,06,13,138.140	1,58,26,260.450
D)	TRANSPORTATION	Rs					
	12 Transportation charges by Rail / Ship / Road Transport						
	By Rail	Rs	5,69,74,183.390	39,19,28,466.580	15,13,38,358.760	0.000	31,55,446.750
	By Road	Rs					
	By Ship	Rs					
	13 Adjustment (+/-) in amount charged by railways / transport company	Rs					
	14 Demurrage charges, if any	Rs	46,588.390	2,42,947.850	55,233.760	0.000	0.000
	15 Cost of fuel in transporting Coal through MGR system, if applicable	Rs					
	16 Total transportation charges ( 12+/- 13 - 14 + 15 )	Rs	5,69,27,595.000	39,16,85,518.730	15,12,83,125.000	0.000	31,55,446.750
	Total amount charged for Coal / Lignite supplied including transportation (11 + 16)	Rs	22,19,29,127.480	1,75,78,42,944.880	34,24,64,785.170	1,96,06,13,138.140	1,89,81,707.200
E)	TOTAL COST						
	18 Landed Cost of Coal/Lignite ( 2+17) / (1+7)	Rs/MT	3,694.759	5,306.897	4,707.185	13,148.052	9,004.349
	19 Blending Ratio		0.145701	0.550000	0.150000	0.150000	0.004299
	20 Weighted average cost of Coal /Lignite ( Including biomass)	Rs/MT	6,174.12				
F)	QUALITY						
	21 GCV of Domestic coal of the opening coal stock as per bill of coal company	(Kcal/Kg)	4,418	4,544	4,750		3,723
	22 GCV of Domestic coal supplied as per bill of coal company	(Kcal/Kg)	4,371	4,394	4,750		3642
	23 GCV of Imported coal of the opening coal stock as per bill of coal company	(Kcal/Kg)				5,030	
	24 GCV of Imported coal supplied as per bill of coal company	(Kcal/Kg)				5,055	
	25 Weighted average GCV of Coal /Lignite as billed (Including biomass)	(Kcal/Kg)	4,564				
25a	Weighted average GCV of Coal /Lignite as billed (Excluding biomass)	(Kcal/Kg)	4,564				
	26 GCV of Domestic coal of the Opening stock as received at station	(Kcal/Kg)	3848	3790	4107		3723
	27 GCV of Domestic coal/biomass supplied as received at station	(Kcal/Kg)	3554	3479	3541		3642
	28 GCV of Imported coal of the Opening stock as received at station	(Kcal/Kg)				5033	
	29 GCV of Imported coal supplied as received at station	(Kcal/Kg)				5,049	
30	Weighted average GCV of coal/ Lignite as Received (Including biomass)	(Kcal/Kg)	3,817				

Part 1 FORM -15							
Details of Sourcewise fuel for computation of Energy Charges							
Company			NTPC				
Name of the generating Station			GADARWARA STAGE I				
Month			Mar 24				
SL	Particulars	Unit	Domestic Coal-Special arrangement	Domestic Coal Others	Domestic Coal (NTPC Mines)	Imported coal	Bio Mass
A)	OPENING QUANTITY						
	1 Opening Stock of coal	(MT)	2,25,378.409	1,35,604.835	16,137.798	1,10,227.596	0.000
	2 Value of Stock	Rs	83,27,18,883.640	71,96,40,747.000	7,59,63,601.730	1,44,92,78,140.360	0.000
B)	QUANTITY						
	3 Quantity of Coal /Lignite supplied by Coal / Lignite Company	(MT)	90,933.290	4,64,984.040	74,862.870	92,787.600	
	4 Adjustment (+/-) in quantity supplied made by Coal / Lignite Company	(MT)			-3,375.900		
	5 Coal supplied by Coal/Lignite Company (3+4)	(MT)	90,933.290	4,64,984.040	71,486.970	92,787.600	0.000
	6 Normative transit & Handling losses (for Coal /Lignite based projects)	(MT)	727.466	3,719.872	571.896	185.575	0.000
	7 Net Coal / Lignite supplied (5 - 6)	(MT)	90,205.824	4,61,264.168	70,915.074	92,602.025	0.000
C)	PRICE						
	8 Amount charged by the Coal / Lignite Company	Rs	9,61,21,095.600	1,42,03,13,972.630	19,36,86,872.500	1,23,02,07,404.230	
	9 Adjustment (+ / -) in amount charged by coal / Lignite Company	Rs			-84,99,450.570		
	10 Handling, Sampling and such other Similar charges	Rs	8,32,52,468.530	23,66,30,913.970	-76,11,071.620	1,44,45,062.740	
	11 Total Amount charged (8 +9+10)	Rs	17,93,73,564.130	1,65,69,44,886.600	17,75,76,350.310	1,24,46,52,466.970	0.000
D)	TRANSPORTATION	Rs					
	12 Transportation charges by Rail / Ship / Road Transport						
	By Rail	Rs	11,66,84,253.270	61,42,18,195.670	14,29,11,503.570	0.000	0.000
	By Road	Rs					
	By Ship	Rs					
	13 Adjustment (+/-) in amount charged by railways / transport company	Rs					
	14 Demurrage charges, if any	Rs	12,17,048.270	62,68,604.150	11,63,863.570	0.000	0.000
	15 Cost of fuel in transporting Coal through MGR system, if applicable	Rs					0.000
	16 Total transportation charges ( 12+/- 13 - 14 + 15 )	Rs	11,54,67,205.000	60,79,49,591.520	14,17,47,640.000	0.000	0.000
	Total amount charged for Coal / Lignite supplied including transportation (11 + 16)	Rs	29,48,40,769.130	2,26,48,94,478.120	31,93,23,990.310	1,24,46,52,466.970	0.000
E)	TOTAL COST						
	18 Landed Cost of Coal/Lignite ( 2+17) / (1+7)	Rs/MT	3,572.928	5,000.319	4,540.776	13,281.742	0.000
	19 Blending Ratio		0.020000	0.780000	0.085000	0.115000	0.000000
	20 Weighted average cost of Coal /Lignite ( Including biomass)	Rs/MT	5,885.07				
F)	QUALITY						
	21 GCV of Domestic coal of the opening coal stock as per bill of coal company	(Kcal/Kg)	4,408	4,422	4,750		
	22 GCV of Domestic coal supplied as per bill of coal company	(Kcal/Kg)	4,396	4,317	4,750		
	23 GCV of Imported coal of the opening coal stock as per bill of coal company	(Kcal/Kg)				5,050	
	24 GCV of Imported coal supplied as per bill of coal company	(Kcal/Kg)				5,033	
	25 Weighted average GCV of Coal /Lignite as billed (Including biomass)	(Kcal/Kg)					
	25a Weighted average GCV of Coal /Lignite as billed (Excluding biomass)	(Kcal/Kg)					
	26 GCV of Domestic coal of the Opening stock as received at station	(Kcal/Kg)	3785	3537	3646		
	27 GCV of Domestic coal/biomass supplied as received at station	(Kcal/Kg)	3542	3412	3660		
	28 GCV of Imported coal of the Opening stock as received at station	(Kcal/Kg)				5046	
	29 GCV of Imported coal supplied as received at station	(Kcal/Kg)				5,011	
30	Weighted average GCV of coal/ Lignite as Received (Including biomass)	(Kcal/Kg)	3,647				

## Details of Secondary Fuel for Computation of Energy Charges

	Name of the company	NTPC Limited					
	Name of the power station	Gadarwara					
			LDO	LDO	LDO	LDO	LDO
S.No	Particulars	Unit	Apr-23	May-23	Jun-23	July-23	Aug-23
A	OPENING QUANTITY						
1	Opening stock of Secondary oil	KL	3,298.60	3,181.80	2,681.71	3,166.40	2,620.73
2	Value of opening stock	Rs	29,19,61,768.75	28,16,27,120.86	23,39,56,858.85	26,35,61,414	21,81,41,518
B	Quantity						
3	Quantity of oil supplied by oil company	KL	0.00	256.00	736.00	0.00	0
4	Adjustment(+/-) in qty supplied by Oil company	KL	0.00	0.00	0.00	0.00	0.00
5	Oil supplied by oil company (3+4)	KL	0.00	256.00	736.00	0.00	0.00
6	Normative transit & handling losses	KL	0.00	0.00	0.00	0.00	0.00
7	Net oil supplied (5-6)	KL	0.00	256.00	736.00	0.00	0.00
C	PRICE						
8	Amount charged by Oil company	Rs	0.00	1,82,95,716.48	5,19,01,928.00	0.00	0
9	Adjustment (+/-) in amount charged by Oil company	Rs	0.00	0.00	0.00	0.00	0.00
10	Handling, sampling and such other similar charges	Rs	0.00	0.00	0.00	0.00	0.00
11	Total amount charged (8+9+10)	Rs	0.00	1,82,95,716.48	5,19,01,928.00	0.00	0.00
D	TRANSPORTATION						
12	Transportation charges by rail/ship/road transport	Rs					
	by rail	Rs	0.00	0.00	0.00	0.00	0.00
	by road	Rs	0.00	0.00	0.00	0.00	0.00
	by ship	Rs	0.00	0.00	0.00	0.00	0.00
	Adjustment(+/-) in amount charged by railways/transport company	Rs	0.00	0.00	0.00	0.00	0.00
13	Demurrage charges (if any)	Rs	0.00	0.00	0.00	0.00	0.00
	Cost of diesel in transporting oil through MGR system, if applicable	Rs	0.00	0.00	0.00	0.00	0.00
16	Total transportation charges (12+/- 13-14+15)	Rs	0.00	0.00	0.00	0.00	0.00
17	Total amount charged for oil supplied incl transportation (11+16)	Rs	0.00	1,82,95,716.48	5,19,01,928.00	0.00	0.00
E	Total Cost						
18	Landed cost of oil (HFO/LDO) (2+17)/(1+7)	Rs/KL	88,510.81	87,242.67	83,640.45	83,236.93	83,236.93
19	Blending ratio	%	NA	NA	NA	NA	NA
20	Weighted average cost of oil	Rs/KL	88,510.81	87,242.67	83,640.45	83,236.93	83,236.93
F	QUALITY						
21	GCV of oil of the opening stock as per bill of oil company	Kcal/litre					
22	GCV of oil supplied as per bill of oil company	Kcal/litre					
23	Weighted average GCV of oil as billed	Kcal/litre					
24	GCV of oil of the opening stock as received at station	Kcal/litre	9,394.00	9,394.00	9,394.00	9,402.00	9,402.00
25	GCV of oil supplied (HFO/LDO) as received at station	Kcal/litre		9,397.00	9,431.48		
26	Weighted average GCV of Oil (HFO/LDO)	Kcal/litre	9,394.00	9,394.22	9,402.07	9,402.00	9,402.00
Wt avg Price of oil			85,149.32				
Wt avg GCV of oil			9,357.99				

## Details of Secondary Fuel for Computatior

	Name of the company	NTPC Limited							
	Name of the power station	Gadarwara	2023-24						
			LDO	LDO	LDO	LDO	LDO	LDO	LDO
S.No	Particulars	Unit	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24
<b>A</b>	<b>OPENING QUANTITY</b>								
1	Opening stock of Secondary oil	KL	2,620.73	2,359.29	1,574.86	1,021.64	4,085.34	3712.172	2894.264
2	Value of opening stock	Rs	21,81,41,518	19,63,79,806	13,10,86,261	8,50,38,343	34,75,82,487	315832883.3	246244987
<b>B</b>	<b>Quantity</b>								
3	Quantity of oil supplied by oil caompany	KL	0	0	384	2907.29	0	0	0
4	Adjustment(+/-) in qty supplied by Oil company	KL	0	0	0	0	0	0	0
5	Oil supplied by oil company (3+4)	KL	0.00	0.00	384.00	2,907.29	0.00	0.00	0.00
6	Normative transit & handling losses	KL	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	<b>Net oil supplied (5-6)</b>	KL	0.00	0.00	384.00	2,907.29	0.00	0.00	0.00
<b>C</b>	<b>PRICE</b>								
8	Amount charged by Oil company	Rs	0	0	4,60,47,917.96	24,41,35,859.87	0	0	0
9	Adjustment (+/-) in amount charged by Oil company	Rs	0	0	0	0	0	0	0
10	Handling, sampling and such other similar charges	Rs	0	0	0	0	0	0	0
11	<b>Total amount charged (8+9+10)</b>	Rs	0.00	0.00	4,60,47,917.96	24,41,35,859.87	0.00	0.00	0.00
<b>D</b>	<b>TRANSPORTATION</b>								
12	Transportation charges by rail/ship/road transport	Rs							
	by rail	Rs	0	0	0	0	0	0	0
	by road	Rs	0	0	0	0	0	0	0
	by ship	Rs	0	0	0	0	0	0	0
	Adjustment(+/-) in amount charged by railways/transport company	Rs	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	Demurrage charges (if any)	Rs	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Cost of diesel in transporting oil through MGR system,if applicable	Rs	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	<b>Total transportation charges (12+/- 13-14+15)</b>	Rs	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	<b>Total amount charged for oil supplied incl transportation (11+16)</b>	Rs	0.00	0.00	4,60,47,917.96	24,41,35,859.87	0.00	0.00	0.00
<b>E</b>	<b>Total Cost</b>								
18	Landed cost of oil (HFO/LDO) (2+17)/(1+7)	Rs/KL	83,236.93	83,236.82	90,427.18	83,782.11	85,080.35	85,080.35	85,080.35
19	Blending ratio	%	NA	NA	NA	NA	NA	NA	NA
20	Weighted average cost of oil	Rs/KL	83,236.93	83,236.82	90,427.18	83,782.11	85,080.35	85,080.35	85,080.35
<b>F</b>	<b>QUALITY</b>								
21	GCV of oil of the opening stock as per bill of oil company	Kcal/litre							
22	GCV of oil supplied as per bill of oil company	Kcal/litre							
23	Weighted average GCV of oil as billed	Kcal/litre							
24	GCV of oil of the opening stock as received at station	Kcal/litre	9,402.00	9,402.00	9,402.00	9,353.00	9,286.00	9,286.00	9,286.00
25	GCV of oil supplied (HFO/LDO) as received at station	Kcal/litre			9,153.15	9,263.00			
26	<b>Weighted average GCV of Oil (HFO/LDO)</b>	Kcal/litre	9,402.00	9,402.00	9,353.22	9,286.40	9,286.00	9,286.00	9,286.00

**Statement of Capital cost**

**Amount in Rs Lakh**

<b>Name of the Petitioner</b>	<b>NTPC Ltd</b>
<b>Name of the Generating Station</b>	<b>Sipat-I</b>
<b>COD</b>	<b>01.08.2012</b>

Sl. No.	Particulars	As on 01.04.2024		
		Accrual Basis	Un-discharged Liabilities	Cash Basis
A	a) Opening Gross Block Amount as per books	10,52,616.46	11,990.52	10,40,625.93
	b) Amount of IDC in A(a) above	1,69,905.74	-	1,69,905.74
	c) Amount of FC in A(a) above		-	-
	d) Amount of FERV in A(a) above	85,794.07	-	85,794.07
	e) Amount of Hedging Cost in A(a) above		-	-
	f) Amount of IEDC in A(a) above	43,385.50	-	43,385.50
B	a) Addition in Gross Block Amount during the period (Direct purchases)	Shall be provided at thr time of true up		
	b) Amount of IDC in B(a) above			
	c) Amount of FC in B(a) above			
	d) Amount of FERV in B(a) above			
	e) Amount of Hedging Cost in B(a) above			
	f) Amount of IEDC in B(a) above			
C	a) Addition in Gross Block Amount during the period (Transferred from CWIP)			
	b) Amount of IDC in C(a) above			
	c) Amount of FC in C(a) above			
	d) Amount of FERV in C(a) above			
	e) Amount of Hedging Cost in C(a) above			
	f) Amount of IEDC in C(a) above			
D	a) Deletion in Gross Block Amount during the period			
	b) Amount of IDC in D(a) above			
	c) Amount of FC in D(a) above			
	d) Amount of FERV in D(a) above			
	e) Amount of Hedging Cost in D(a) above			
	f) Amount of IEDC in D(a) above			
E	a) Closing Gross Block Amount as per books			
	b) Amount of IDC in E(a) above			
	c) Amount of FC in E(a) above			
	d) Amount of FERV in E(a) above			
	e) Amount of Hedging Cost in E(a) above			
	f) Amount of IEDC in E(a) above			

Petitioner

**PART-I**  
**FORM- M**

**Statement of Capital Works in Progress**

**Amount in Rs Lakh**

<b>Name of the Petitioner</b>		NTPC Ltd		
<b>Name of the Generating Station</b>		SIPAT-I		
<b>COD</b>		01.08.2012		
<b>Sl. No.</b>	<b>Particulars</b>	<b>Accrual Basis</b>	<b>Un-discharged Liabilities</b>	<b>Cash Basis</b>
A	a) Opening CWIP as per books	9712.12874	1707.359962	8004.769
	b) Amount of IDC in A(a) above	98.1249817	0	98.12498
	c) Amount of FC in A(a) above			0
	d) Amount of FERV in A(a) above			0
	e) Amount of Hedging Cost in A(a) above			0
	f) Amount of IEDC in A(a) above			0
B	a) Addition in CWIP during the period			
	b) Amount of IDC in B(a) above			
	c) Amount of FC in B(a) above			
	d) Amount of FERV in B(a) above			
	e) Amount of Hedging Cost in B(a) above			
	f) Amount of IEDC in B(a) above			
C	a) Transferred to Gross Block Amount during the period			
	b) Amount of IDC in C(a) above			
	c) Amount of FC in C(a) above			
	d) Amount of FERV in C(a) above			
	e) Amount of Hedging Cost in C(a) above			
	f) Amount of IEDC in C(a) above			
D	a) Deletion in CWIP during the period			
	b) Amount of IDC in D(a) above			
	c) Amount of FC in D(a) above			
	d) Amount of FERV in D(a) above			
	e) Amount of Hedging Cost in D(a) above			
	f) Amount of IEDC in D(a) above			
E	a) Closing CWIP as per books			
	b) Amount of IDC in E(a) above			
	c) Amount of FC in E(a) above			
	d) Amount of FERV in E(a) above			
	e) Amount of Hedging Cost in E(a) above			
	f) Amount of IEDC in E(a) above			
		Shall be provided at the time of true up		
Petitioner				

PART 1 FORM-T																																																																		
Summary of issue involved in the petition																																																																		
Name of the Company :		NTPC Limited																																																																
Name of the Power Station :		Gadarwara STPS (2X800 MW)																																																																
1	Petitioner:	NTPC Limited																																																																
2	Subject	Approval of tariff of Gadarwara STPS (2x800 MW) for the period from 01.04.2024 to 31.03.2029																																																																
3	<b>Prayer:</b> i) Approve tariff of Gadarwara Super Thermal Power Station (1600 MW) for the tariff period 01.04.2019 to 31.03.2024. ii) Allow the station heat rate as per actual tyrbine cycle heat rate and boiler efficiency. iii) Allow the recovery of filing fees as & when paid to the Hon'ble Commission and publication expenses from the beneficiaries. iv) Allow reimbursement of Ash Transportation Charges directly from the beneficiaries on monthly basis. v) Allow the recovery of pay/wage revision as additional O&M over and above the normative O&M. vi) Pass any other order as it may deem fit in the circumstances mentioned above.																																																																	
4	<b>Respondents:</b> Six (6) no. respondents <b>Name of Respondents</b> <table border="1"> <tr> <td>MSEDCL</td> <td></td> <td>Electricity Deptt, Goa</td> </tr> <tr> <td>GUVNL</td> <td></td> <td>DNHDDPDCL</td> </tr> <tr> <td>MPPMCL</td> <td></td> <td>CSPDCL</td> </tr> </table>						MSEDCL		Electricity Deptt, Goa	GUVNL		DNHDDPDCL	MPPMCL		CSPDCL																																																			
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**ಭಾರತ್ ಹೆವಿ ಎಲೆಕ್ಟ್ರಿಕಲ್ಸ್ ಲಿಮಿಟೆಡ್**  
**भारत हेवी इलेक्ट्रिकल्स लिमिटेड**  
**Bharat Heavy Electricals Limited**

(A Government of India Undertaking)  
 ELECTRONICS DIVISION

P.B.No 2606, Mysore Road, Bangalore - 560 026

PHONE : 080-26998281

MOBILE : 9845696568

E-MAIL : prakashdevadas@bhel.in

Ref: GM-NTPC/404/CE-HMI-02

Dated 21/09/2022

Sub: Recommendation for HMI Upgrade

The Windows XP/ Windows 7 based workstation hardware and Microsoft Operating System available at sites (projects listed in annexure-1) is out of mainstream support from OEM and Microsoft respectively. Also the support for Symantec Antivirus version 10.0 has been withdrawn by the OEM and no more security updates / virus definitions are available for that version. Hence the HMIs-maxStations are prone to vulnerabilities which can tamper the operation of plant.

HMI Upgrade for the projects mentioned in Annexure-1 is proposed due to various obsolescence in the DCS components as detailed below.

DCS Component		Existing version / model / Specification	Obsolescence
Workstation / Engineering server / Historian server	Hardware	<b>Workstation:</b> Intel Core 2 Duo processor, 1GB RAM, 146 GB SAS disk, 10 Mbps Ethernet port. <b>Server:</b> Intel Xeon dual core processor, 2 GB RAM, 3x76GB HDD, 10 Mbps Ethernet port.	Lower Processor cores and speed, lower HDD capacity and RAM requirements incompatible for latest software requirements; Lower network bandwidth of 10Mbps restricting communication speed capability of latest DCS components and attributing to latency.
	Operating System	Windows 7 SP1 / Windows XP / Windows Server 2008 R2	Operating Systems were declared End of Support by the OEM- Microsoft as mentioned below: Windows XP - April' 2014 Windows 7 - Jan' 2020 Windows Server 2008 R2 - Jan' 2020
	maxDNA software	maxDNA 4.2.1 / 4.5 / 4.5.1 / 6.0.x	These versions are not compatible with latest Operating Systems; more improved version of maxDNA- release 7.x is available suiting the latest OS.
	Antivirus Software	Symantec 10.x / Symantec 11.x / Symantec 12.x	Declared obsolete by the OEM- Broadcom and no longer updates or virus definitions are available.



ಭಾರತ್ ಹೆವಿ ಎಲೆಕ್ಟ್ರಿಕಲ್ಸ್ ಲಿಮಿಟೆಡ್  
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Network	Switch	10 Mbps backbone	Lower network bandwidth of 10Mbps restricting communication speed capability of latest DCS components.
	Network Hardening settings	No validated Network hardening settings	Not suitable for latest network requirements with hardening features.

Prakash D  
AGM (CE-Engg-I)

Annexure-1 List of upgrade projects	
Sl No	Project Name
1	Barauni_Stage-2
2	Bongaigaon_Stage-1
3	Dadri-Thermal_Stage-1
4	Dadri-Thermal_Stage-2
5	Darlipalli_Stage-1
6	Farakka_Stage-2
7	Farakka_Stage-3
8	Gadarwara_Stage-1
9	KoldamHydro
10	Korba_Stage-1
11	Korba_Stage-3
12	Mauda_Stage-1
13	Mauda_Stage-2
14	NorthKaranpura_Stage-1
15	Rihand_Stage-2
16	Rihand_Stage-3
17	Simhadri_Stage-2
18	TANDA_Stage-1
19	TANDA_Stage-2
20	Unchahar_Stage-4
21	Vindhyachal_Stage-4
22	Vindhyachal_Stage-5
23	BRBCL Stage-I
24	Jhajjar Stage-I
25	KBUNL Stage-I
26	KBUNL Stage-II
27	NPGCL Stage-I
28	NSPCL Bhilai Stage-I
29	NTECL Stage-I

**Consent Order**

RED-LARGE

CCA-Renewal

PCB ID: 29600

Outward No:-120948,22/07/2024

Consent No:AW-60741

To, The Occupier,

M/s. NTPC Ltd.

NTPC Gadawara Super Thermal Power Project),

Kudari, Gangai, Dongargaon, Chorberheta, Tal : Gadawara,

Dist : Narsinghpur (M.P.)-487770

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

**Ref:** Your Application Receipt No. 1371613 Dt. 05/06/2024 and last communication received on Dt.04/06/2024

With reference to your above application for renewal of consent to operate has been considered under the aforesaid Acts and existing rules therein. The M. P. Pollution Control Board has agreed to grant consent up to **30/09/2026**, subject to the fulfillment of the terms & conditions, enclosed with this letter and-

**SUBJECT TO THE FOLLOWING CONDITIONS :-**

- a. Location: Kudari, Gangai, Dongargaon, Chorberheta, Tal : Gadawara, Dist : Narsinghpur (M.P.)-487770  
Latitude : 22.8604 Longitude : 78.8637
- b. The capital investment: Rs. 12,865.92 Crs
- c. Product & Production Capacity:

Product	Qty / year
Generation of Electricity	2x 800=1600 MWH (One Thousand Six Hundred Mega Watt Hour)

Note:-

- For any change in above industry shall obtain fresh consent from the board.
- This renewal of consent to operate is being considered with condition that the TPP shall have to abide by the timelines for the achievement of new emission norms as per the MoEF & CC notification G.S.R. 243(E) dated 31- 03- 21 according to the categorization of the TPP done by the task force, as provided in the said notification.
- TPP shall install PTZ Cameras at various strategic points to monitor above covering system in transporting vehicles.
- Industry shall have to use the Tarpaulin cover with minimum 400 GSM thicknesses. The automatic mechanical covering system shall be used in ash transporting vehicles.

The Validity of the consent is up to **30/09/2026** and has to be renewed before expiry of consent validity. Online application through XGN with annual license fees in this regard shall be submitted to this office 6 months before expiry of the consent/Authorization. Board reserves the right to amend/cancel / revoke the above condition in part or whole as and when required.

Enclosures:-

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

By the order of Chairman, MPPCB

Validity unknown

Digitally Signed by: A. A  
Mishra, Member Secretary  
Date: 22/07/2024 05:57:46 PM

ACHYUT ANAND MISHRA  
Member Secretary



(Organic Authentication on AADHAR from UIDAI Server)  
TPAV # 273NPKW861

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

1. The daily quantity of trade effluent of the unit shall not exceed **1,00,000.0 KL/day**, and the daily quantity of sewage of the unit shall not exceed **1200.0 KL/day**.

**2. Trade Effluent Treatment:-**

The applicant shall operate and maintain effluent treatment system properly to achieve following standards-

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

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

**3. Sewage Treatment :-**

The applicant shall operate and maintain Sewage Treatment System properly to achieve following standards-

pH	Between	6.5 – 9.0
Suspended Solids	Not exceed	100 mg/l.
BOD <sub>5</sub> Days 27 °C	Not exceed	30 mg/l.
COD	Not exceed	250 mg/l.
Oil and grease	Not exceed	10 mg/l.
fecal coliform	Not exceed	1000 MPN/100 ml

\* The operator of the STP shall comply with the standards notified vide G.S.R. 1265(E) under sections 6 and 25 of the Environment (Protection) Act, 1986 by the Ministry of Environment, Forest and Climate Change New Delhi dated 13th October, 2017.

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

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

Sr	Water Code (Qty in KLD)	WC : 127400.0	WWG : 101200.0	Water Source	Remark
1	Domestic Purpose	2400.0	1200.0	Local Body	To be re used after treatment for plantation/ gardening/ ash disposal etc
2	Manufacturing Process	125000.0	100000.0	River	Waste water generated to be reused in process after proper treatment

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

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

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

**9. Compilation of Monitoring data-**

i. Samples and measurements taken to meet the monitoring requirements specified above shall be representative of the volume and nature of monitored discharge. ii. Following promulgation of guidelines establishing test procedures for the analysis of pollutants, all sampling and analytical methods used to meet the monitoring requirements specified above shall conform to such guidelines unless otherwise specified sampling and analytical methods shall conform to the latest edition of the Indian Standard specifications and where it is not specified the guidelines as per standard methods for the examination of Water and Waste latest edition of the American Public Health Association, New York U.S.A. shall be used.

**10. Recording of Monitoring Activities & Results-**

i. The applicant shall make and maintain online records of all information resulting from monitoring activities by this Consent.  
ii. The applicant shall record for each measurement of samples taken pursuant to the requirements of this Consent as follows:

- The date, exact place and time of sampling
- The dates on which analysis were performed
- Who performed the analysis?
- The analytical techniques or methods used and

(v) The result of all required analysis

- iii. If the applicant monitors any Pollutant more frequently as is by this Consent he shall include the results of such monitoring in the calculation and reporting of values required in the discharge monitoring reports which may be prescribed by the Board. Such increased frequency shall be indicated on the Discharge Monitoring Report Form.
- iv. The applicant shall retain for a minimum of 3 years all records of monitoring activities including all records of Calibration and maintenance of instrumentation and original strip chart regarding continuous monitoring instrumentation. The period of retention shall be extended during the course of any unresolved litigation regarding the discharge of pollutants by the applicant or when requested by Central or State Board or the court.

#### **11. Reporting of Monitoring Results:-**

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

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

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

#### **13. Limitation of visible floating solids and foam:-**

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

#### **14. Disposal of Collected Solid waste/sludge-**

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

#### **15. Provision for Electric Power Failure-**

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

#### **16. Prohibition of By pass system of treatment facilities-**

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

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

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

18. In case of any discharge found outside of unit premises the unit may be liable to pay environmental compensation as per NGT orders O.A. no 593/2017 dated 22.02.2021 and the industry shall be punishable or court case may be filed by the Board under provisions of the Water (Prevention & Control of Pollution) Act, 1974.

#### **Sector Specific Water condition:-**

1. All the recommendations made in the Charter on Corporate Responsibilities for Environment Protection (CREP) for the thermal power sector shall be strictly implemented.
2. Industry shall comply with the parameters notified in Consent No: AW-52466 the Environment (Protection) Rules, 1986 notified by G.S.R. 3305(E) 7/12/15 & further amendments for Thermal Power Plants.
3. No ground water shall be extracted from the ground water sources even in lean season.
4. Regular monitoring of the underground and surface water sources in and around the plant shall be conducted and report shall be submitted to the Board from time to time. No surface water body or natural drainage system of the area shall be disturbed.
5. The effluent will be treated in ETP and be used in ash slurry preparation, dust suppression and plantation. The domestic effluent of plant and colony will be treated through sewage treatment plant and will be used within factory premises. Zero discharge condition shall be maintained.
6. Industry shall maintain closed cycle system with cooling tower. All the cooling tower blow down shall be reused in fire fighting, service water, coal handling plant and ash handling.
7. Regular reports for proximate and ultimate analysis of the coal for all parameters including mercury shall be submitted to the Board.
8. The industry shall operate & maintain Ash Water Recirculation System (AWRS) to ensure 100% recirculation of overflow of the ash dyke. Industry shall make arrangement for transportation of fly ash to ash pond in the form of medium slurry mode system having 38% ash and 62% water as per MoEF directives.
9. All possible efforts including rain water harvesting to recharge ground water shall be taken up for the ground water enrichment in consultation with the Central Ground Water Authority.
10. Fly ash shall be collected in dry form and all un-utilized fly ash shall be disposed off in the ash pond in the form of medium concentration slurry disposal. Industry shall also monitor mercury and other heavy metals (As, Hg, Cr, Pb

Consent No:AW-60741

etc.) in the bottom ash as also in the effluents from the ash pond. For disposal of ash in low lying area/mine for void filling prior permission from the Board be obtained.

11. As per the MoEF & CC Notification dated 7 December 2015, the unit shall have to achieve specific water consumption up to maximum of 3.0 m<sup>3</sup>/MWh.
12. Ash pond shall maintain with the HDPE/LDPE lining or any other suitable impermeable media such that no leachate takes place at any point of time. Ash pond water shall be re-circulated and utilized in the process or other beneficial purposes in the plant.
13. Regular monitoring of ground water level shall be carried out by establishing a network of existing wells and constructing new peizometers in the vicinity of ash pond site.
14. Industry shall regenerate the village ponds/surface water bodies located within 5 km radius of the project site as a part of its social welfare activities.

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

1. The applicant shall operate and maintain air pollution control system to achieve the level of pollutants to the following standards:-

Name of section	Capacity	Stack height (m)	Fuel	Control equipment	P.M, SO <sub>x</sub> , NO <sub>x</sub> , Hg (mg/NM <sup>3</sup> )
Boiler	2 X 800 MW	275 x 2	COAL 8 MTPA	Bag Filter, Dust Suppressor, E.S.P, Low NO <sub>x</sub> Burner, Green Belt, Water Sprinkler, FGD (To be installed),	30,100,100, 0.03 (to be achieved as per the notification G.S.R. 243(E) dated 31-03-2021)
Material Handling, Loading-unloading, Haul road, Transportation, CHP, etc	Fugitive Emissions	NA	-	Dust Suppressor, Green Belt, HoodCover, Water Sprinkler	SPM/RSPM (AnnualAverage) (µg/Nm <sup>3</sup> ) 430/ 215

2. The Ambient air quality norms are prescribed in MoEF gazette notification no. GSR/826(E), dated: 16/11/09. Some of the parameters are as follows:

- a. Particulate Matter (less than 10 micron) - 100 µg/m<sup>3</sup> (PM10 µg/m<sup>3</sup> 24 hrs. basis)
- b. Particulate Matter (less than 2.5 micron) - 60 µg/m<sup>3</sup> (PM2.5 µg/m<sup>3</sup> 24 hrs. basis)
- c. Sulphur Dioxide [SO<sub>2</sub>] (24 hrs. Basis) - 80 µg/m<sup>3</sup>
- d. Nitrogen Oxides [NO<sub>x</sub>] (24 hrs. Basis) - 80 µg/m<sup>3</sup>
- e. Carbon Monoxide [CO] (8 hrs. Basis) - 2000 µg/m<sup>3</sup>

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

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

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

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

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

8. Industry shall take effective steps for extensive tree plantation preferably of the local tree species within or around the industry/unit premises for general improvement of environmental conditions.

9. In case of emission found exceeding prescribed standards, the unit may be liable to pay environmental compensation as per NGT orders O.A. no 593/2017dated 22.02.2021 and the industry shall be punishable or court case may be filed by the Board under provisions of the Air (Prevention & Control of Pollution) Act, 1981.

**Sector Specific Air condition:-**

1. The Industry shall operate and maintain Outdoor HD Industrial grade IP (Internet Protocol) Cameras with pan-Tilt-Zoom(PTZ) feature, minimum focal length 20X with night vision facility and temper proof mechanism to display all emission sources / stacks, coal yards coal conveyors / crushers and effluent discharge point and shall remain connected with the Environment Surveillance Centre, MP Pollution control board Bhopal and CPCB.
2. Industry shall maintain the installed CAAQMS stations at suitable locations properly so as to monitor ambient air quality and stack emission. The management shall provide and ensure uninterrupted connectivity of CAAQMS with Environment Surveillance Centre at the HQ of M.P. Pollution Control Board for monitoring and data transmission purpose.
3. Industry shall have to maintain properly, the installed pollution control arrangements at all points and non point sources and operate them regularly. Suitable air pollution control equipments shall be installed for the control of fugitive

emission during the handling/transportation of raw material and fly ash etc.

4. Massive plantation shall be undertaken under the guidance of forest Department/Horticulture expert. Local Species shall be planted in the ash pond area should be Covered with plantation all around the periphery.
5. Ash and sulphur contents in the coal shall not exceed 34% and 0.5% respectively at any given time.
6. Continuous automatic monitoring system and opacity meter shall be installed for monitoring of emission level of particulate matter, oxides of sulphur and nitrogen both in the ambient air and in the stack. Permanent ambient air monitoring stations, in all the directions shall be provided.
7. Management of fly ash shall be done as per the directions of MoEF, notified in Gazette of India dated: 14/09/99 (amended in 2003, 2009 & 2016) and regular progress shall be submitted to MoEF / CPCB and MPPCB.
8. Regular monitoring of ground level concentration of SO<sub>2</sub>, NO<sub>x</sub>, PM<sub>2.5</sub> and PM<sub>10</sub> and Hg shall be carried out in the impact zone and records shall be maintained. If at any stage these levels are found to exceed the prescribed limits, necessary control measures shall be taken immediately.
9. Coal transportation to the plant site shall be undertaken by rail and road transportation shall be terminated immediately. The entire internal roads should be made pucca and good housekeeping practices shall be adopted.
10. Fly ash shall be collected in dry form and the storage facility (silo) of fly ash should be at least for one day. 100% utilization of the fly ash shall be insured as per the Fly Ash Notification, 2021 and as per the orders of the Hon'ble NGT from time to time or else environmental compensation shall be levied on the industry. Industry shall also monitor mercury and other heavy metals (As, Hg, Cr, Pb etc.) in the bottom ash as also in the effluents from the ash pond. For disposal of ash in low lying area/mine for void filling prior permission from the Board be obtained, and conditions stipulated therein shall be followed.
11. Industry shall make continuous efforts to obtain abandoned mines for disposal of fly ash, if required, as per notification. Other alternatives like setting up of clinker grinding unit, encouragement of ancillary units for ensuring use of fly ash for other building products.

#### **GENERAL CONDITIONS:**

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

Solid Waste	Qty/Year	Dis Mode
Fly Ash	192000.0 MT	As per the EC conditions and Fly ash notification, 2021
Bottom Ash	48000.0 MT	
Domestic Solid waste from Township & Plant	60.0 MT	As per SWM Rules. 2016
Industrial solid waste	75.0MT	List of the wastes to be provided with quality analysis to ensure hazardous nature

2. The applicant shall allow the staff of Madhya Pradesh Pollution Control Board and/or their authorized representative, upon the representation of credentials:
  - a. To inspect raw material stock, manufacturing processes, reactors, premises etc to perform the functions of the Board.
  - b. To enter upon the applicant's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this Consent.
  - c. To have access at reasonable times to any records required to be kept under the terms and conditions of this Consent.
  - d. To inspect at reasonable times any monitoring equipment or monitoring method required in this Consent: or,
  - e. To sample at reasonable times any discharge or pollutants.
3. This consent is transferable in nature, in case of any change in ownership / management, the new owner / partner / directors / proprietor shall immediately apply for the consent with new requisite information.
4. The issuance of this Consent does not convey any property rights in either real or personal property or any exclusive privileges, nor does it authorize any invasion of personal rights, nor any infringement of Central, State or local laws or regulations.
5. Industry shall install separate electric metering arrangement for running of pollution control devices and this arrangement shall be made in such fashion that any non functioning of pollution control devices shall immediately stop electric supply to the production and shall remain tripped till such time unless the pollution control device/devices are made functional.
6. This consent is granted in respect of Water pollution control Act 1974 or Air Pollution Control act, 1981 only and does not relate to any other Department/Agencies. License required from other Department/Agencies have to be obtained by the unit separately and have to comply separately as per there Act / Rules.
7. Balance consent fee, if any shall be recoverable by the Board even at a later date.
8. The applicant shall submit such information, forms and fees as required by the board not later than 180 day prior to the date of expiration of this consent.

9. The industry/unit shall establish a separate environmental cell, headed by senior officer of the unit for reporting the environmental compliances. The industry/ Unit shall submit environmental statement for the previous year ending 31st March on or before 30th September every year to the Board.

10. Industry shall obtain membership of Emergency Response Center of the Board if needed.

11. Knowingly making any false statement for obtaining consent or compliance of consent conditions shall result in the imposition of criminal penalties as provided under the section 42(g) of the Water Act or section 38 (g) of the Air Act.

12. After notice and opportunity for the hearing, this consent may be modified, suspended or revoked by the Board in whole or in part during its term for cause including, but not limited to, the following :

- (a) Violation of any terms and conditions of this Consent.
- (b) Obtaining this Consent by misrepresentation of failure to disclose fully all relevant facts.
- (c) A change in any condition that requires temporary or permanent reduction or elimination of the authorized discharge.

13. On violation of any of the above-mentioned conditions the consent granted will automatically be taken as canceled and necessary action will be initiated against the industry.

14. The industry/unit shall also monitor the treated wastewater flow and report the same online through monthly patrak/statements.

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

16. Ambient air quality at the boundary of the industry/unit premises shall be monitored and reported to the Board regularly on quarterly basis

17. The record of electricity consumption for running of pollution control equipment shall be maintained and submitted to the Board every month.

**Additional condition:-**

1. The unit management shall ensure all the compliances regarding disposal and utilization of fly ash from its TPP as stipulated in MOEF&CC notifications no. dated 31.12.2021 and its amendments.
2. The unit management shall procure/make provision of the Bulklers/closed transport vehicles under its control to ensure fast and quick delivery of fly ash for ensuring free delivery of fly ash within the radius up to 300 km radius to the prospective users as per provision of Fly ash Notification.
3. The unit management shall keep / maintain and update the record of all the prospective users of fly ash within the radius of 100 km, keep constant liaison with them, provide fly ash to them in a timely manner and will submit 3 monthly compliance report to the Board.
4. A Industry shall ensure 100% utilization of fly ash in compliance of fly ash notification as amended up to date. Other alternatives like setting up of clinker grinding unit, encouragement of ancillary units for ensuring use of fly ash for other building products
5. Dry fly ash collection system shall be installed for regular disposal of generated fly ash in dry form. The filling of low lying area inside the premises shall be undertaken strictly in accordance with the prior permission granted by the MPPCB.
6. The TPP management shall adhere to the office memorandum (OM) of MoEF&CC dated 28-08-19 and the conditions stipulated therein pertaining to the use of fly ash as mentioned in the para 7 of the OM. TPP shall have to follow the same and the guidelines of the CPCB entitled "Guidelines for disposal/utilization of Fly ash for reclamation of Low Lying Areas and in stowing of abandoned mines /Quarries" for the disposal of fly ash.
7. The industry shall not raise any ash dyke without permission from Board.
8. Freeboard shall be maintained in all the ash dykes as stipulated/directed and shall keep additional freeboard for accommodating the peak rainfall of last 50 years. A bench mark level bearing report and marking in the dykes shall be submitted to the Board within one month from date of issue of this letter.
9. The unit shall develop facility for disposal of fly ash through railway within the premises.
10. The TPP Management shall submit Ash Dyke Stability Report done by the institute of National Repute every year.

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

By the order of Chairman, MPPCB,  
For and on behalf of

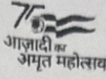
M.P

Achyut Anand Mishra

ACHYUT ANAND MISHRA  
Member Secretary



(Organic Authentication on AADHAR from UIDAI Server)  
TPAV # 273NPKW861



# कार्यालय कलेक्टर (भू-अर्जन) नरसिंहपुर

क्रं. /भू-अर्जन/2023/नरसिंहपुर

दिनांक: / /2023

प्रति,

तहसीलदार  
तहसील गाडरवारा

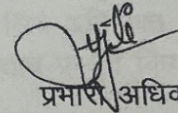
विषय : राजस्व अभिलेख अद्यतन करने बावत्।

—00—

विषयांतर्गत राजस्व मामला क्रं. 01/अ-82/वर्ष 2021-22 में ग्राम बोहानी प.ह.नं. 16 की 0.364 हे. भूमि एनटीपीसी लिमिटेड गाडरवारा सुपर थर्मल पावर परियोजना में कोल परिवहन हेतु निर्माण की जा रही रिटर्न रेल लाइन के लिए अतिरिक्त भूमि के अर्जन हेतु दिनांक 08.09.2023 को अवार्ड पारित किया गया। पारित अधिनिर्णय के अनुसार हितग्राहियों को मुआवजा राशि का भुगतान कर कब्जा विभाग को सौंपा जाना है।

अतः पारित अधिनिर्णय के अनुसार राजस्व अभिलेख में संशोधन कर खसरे एवं नक्शे की अद्यतन प्रतिलिपि 3 दिवस के भीतर उपलब्ध करावें।

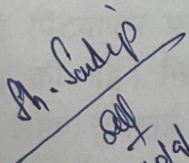
सहपत्र - अधिनिर्णय की छायाप्रति

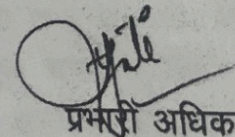
  
प्रभारी अधिकारी  
भू अर्जन शाखा  
नरसिंहपुर

पृ. क्रं. 300 /भू-अर्जन 2023/नरसिंहपुर

दिनांक: 14/09/2023

प्रतिलिपि 1 मुख्य महाप्रबंधक एनटीपीसी लिमिटेड गाडरवारा की ओर कृपया अधीनस्थ अधिकारी/कर्मचारी को तहसीलदार गाडरवारा से संपर्क स्थापित कर अद्यतन खसरे नक्शे की नकल इस कार्यालय में प्रस्तुत करने हेतु निर्देशित करें ताकि प्रकरण में अग्रिम कार्यवाही की जा सकें एवं शेष अधिनिर्णित राशि 378521 (तीन लाख अठ्हत्तर हजार पांच सौ इक्कीस रुपये) शीघ्र जमा करें।

  
20/9/23

  
प्रभारी अधिकारी  
भू अर्जन शाखा  
नरसिंहपुर

NTPC/Gadarwara/Rly Sdg/2024/1542

Date: - 06.04.2024

To,  
Chief Engineer/C-I  
West Central Railway  
Jabalpur  
Pin: 482001

Ref:- WCR letter ref. no. WCR/H.Q./CE/C-1/Baranjh dated 19.03.2024 received on 29.03.2024

Sub: **Regarding completion of ROR line at Baranjh.**

Dear Sir,

We acknowledge the receipt of your letter regarding completion of balance works of ROR line at Baranjh.

0.428 Ha of land acquired for construction work at Manakwara village was handed over to WCR on 04.04.2024 for completion of works by WCR. Further, balance works of ROR line under KRCL scope are expeditiously monitored by NTPC for earliest completion. KRCL has committed to complete the balance works by 30.04.2024. Completion program and progress has already been shared with you.

We assure you that we are fully committed to completing the ROR line at Baranjh at the earliest by the revised target of Apr'2024. Our team is working diligently to ensure that all necessary measures are in place for earliest completion of balance works of ROR line.

Thank you for your understanding and cooperation.

Thanking You.

Yours Sincerely

*M K Thakur*  
06/04/2024  
माधव कुमार ठाकुर Madhav Kumar Thakur  
अपर महाप्रबंधक (सिविल निर्माण)  
Addl. General Manager (Civil Const.)  
एनटीपीसी लि. / NTPC LTD.  
गाडरवारा व.ता.वि.प. GADARWARA STPP  
M K Thakur  
AGM(Civil)

गाडरवारा सुपर थर्मल पावर परियोजना / GADARWARA SUPER THERMAL POWER PROJECT

गांव : डोंगरगाँव, पो : गांगई, थाना : डोंगरगाँव, तहसील : गाडरवारा, जिला : नरसिंहपुर (म प्र) - 487770  
Village : Dongargaon, PO : Gangai, Thana : Dongargaon, Tehsil : Gadarwara, Distt : Narsinghpur (MP) - 487770

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

Registered Office : NTPC Bhavan, 7 - Institutional Area, SCOPE Complex, New Delhi - 110003

Corporate Identification No. L4010DL1975GOI007966

Tel : 07790 - 220008, Fax : 07790 - 220013, Website Address : www.ntpc.co.in



## Bharat Heavy Electricals Limited

( A Government of India Undertaking )

ELECTRONICS DIVISION

PB No. 2606, Mysore Road, Bangalore - 560 026

Fax : 080-26741953

26740137

☎ : 080-26998259

26745150

E-Mail:= samit@bhel.in

REF: CE: PMC: Gad:SS:01

June 14<sup>th</sup> 2024

To,  
AGM O&M-C&I  
NTPC Gadarwara STPP

Dear Sir,

**SUB: Alternate material code against PO- 4000271988 DTD 26.02.2022 and other NTPC O&M orders**

Please refer PO no- 4000271988 Line no-10, material code -ED7470400125 –Autosynchroniser (Make-BHEL EDN), is already declared as "**OBSOLETE** " due to obsolescence of components used in the product. Hence we will be unable to provide support for this material code.

However EDN is providing an alternate material code- HC0522070019 (Woodward make Auto Synchronizers) which is completely compatible and interchangeable with old Auto Synchronizer (Material code- ED7470400125) with respect to functionality and mounting. We have already provided one-to-one termination details to NTPC for BHEL make Old Synchroniser and Woodward make New synchroniser for smooth replacement. Also this item is being supplied for all latest supercritical projects.

Also BHEL assures you to provide support during commissioning of Woodward make Auto synchroniser in case of any issues. Request you to kindly accept the Woodward make Auto synchroniser for subject mentioned PO. Also request NTPC CC-EOC to accept this proposal for all other O&M orders of NTPC.

With Regards

For BHARAT HEAVY ELECTRICAL Ltd.

  
SAMIT SRIVASTAVA

SDGM/ CE-PMC

ಸಮಿತ ಶ್ರೀವಾಸ್ತವ್, ಹಿರಿಯ ಉಪ ಪ್ರಧಾನ ವ್ಯವಸ್ಥಾಪಕರು/ನಿ.ಉ.-ವಿ.ಎಂ.ಸಿ.

समित श्रीवास्तव, वरिष्ठ उप महाप्रबंधक/सी.ई.-पी.एम.सी.

SAMIT SRIVASTAVA, SR. DEPUTY GENERAL MANAGER/CE-PMC

BHEL-EDN, MYSURU ROAD, BENGALURU-560026

**Copy to:**

Additional General Manager (SE)  
CC-EOC, NTPC Raipur

51. **“transfer station”** means a facility created to receive solid waste from collection areas and transport in bulk in covered vehicles or containers to waste processing and, or, disposal facilities;
52. **“transportation”** means conveyance of solid waste, either treated, partly treated or untreated from a location to another location in an environmentally sound manner through specially designed and covered transport system so as to prevent the foul odour, littering and unsightly conditions;
53. **“treatment”** means the method, technique or process designed to modify physical, chemical or biological characteristics or composition of any waste so as to reduce its volume and potential to cause harm;
54. **“user fee”** means a fee imposed by the local body and any entity mentioned in rule 2 on the waste generator to cover full or part cost of providing solid waste collection, transportation, processing and disposal services.
55. **“vermi composting”** means the process of conversion of bio-degradable waste into compost using earth worms;
56. **“waste generator”** means and includes every person or group of persons, every residential premises and non residential establishments including Indian Railways, defense establishments, which generate solid waste;
57. **“waste hierarchy”** means the priority order in which the solid waste is to should be managed by giving emphasis to prevention, reduction, reuse, recycling, recovery and disposal, with prevention being the most preferred option and the disposal at the landfill being the least;
58. **“waste picker”** means a person or groups of persons informally engaged in collection and recovery of reusable and recyclable solid waste from the source of waste generation the streets, bins, material recovery facilities, processing and waste disposal facilities for sale to recyclers directly or through intermediaries to earn their livelihood.

(2) Words and expressions used herein but not defined, but defined in the Environment (Protection) Act, 1986, the Water (Prevention and Control of Pollution) Act, 1974, Water (Prevention and Control of Pollution) Cess Act, 1977 and the Air (prevention and Control of Pollution) Act, 1981 shall have the same meaning as assigned to them in the respective Acts.

**4. Duties of waste generators. -** (1) Every waste generator shall, -

- (a) segregate and store the waste generated by them in three separate streams namely bio-degradable, non bio-degradable and domestic hazardous wastes in suitable bins and handover segregated wastes to authorised waste pickers or waste collectors as per the direction or notification by the local authorities from time to time;
- (b) wrap securely the used sanitary waste like diapers, sanitary pads etc., in the pouches provided by the manufacturers or brand owners of these products or in a suitable wrapping material as instructed by the local authorities and shall place the same in the bin meant for dry waste or non- bio-degradable waste;
- (c) store separately construction and demolition waste, as and when generated, in his own premises and shall dispose off as per the Construction and Demolition Waste Management Rules, 2016; and
- (d) store horticulture waste and garden waste generated from his premises separately in his own premises and dispose of as per the directions of the local body from time to time.

(2) No waste generator shall throw, burn or bury the solid waste generated by him, on streets, open public spaces outside his premises or in the drain or water bodies.

(3) All waste generators shall pay such user fee for solid waste management, as specified

in the bye-laws of the local bodies.

(4) No person shall organise an event or gathering of more than one hundred persons at any unlicensed place without intimating the local body, at least three working days in advance and such person or the organiser of such event shall ensure segregation of waste at source and handing over of segregated waste to waste collector or agency as specified by the local body.

(5) Every street vendor shall keep suitable containers for storage of waste generated during the course of his activity such as food waste, disposable plates, cups, cans, wrappers, coconut shells, leftover food, vegetables, fruits, etc., and shall deposit such waste at waste storage depot or container or vehicle as notified by the local body.

(6) All resident welfare and market associations shall, within one year from the date of notification of these rules and in partnership with the local body ensure segregation of waste at source by the generators as prescribed in these rules, facilitate collection of segregated waste in separate streams, handover recyclable material to either the authorised waste pickers or the authorised recyclers. The bio-degradable waste shall be processed, treated and disposed off through composting or bio-methanation within the premises as far as possible. The residual waste shall be given to the waste collectors or agency as directed by the local body.

(7) All gated communities and institutions with more than 5,000 sqm area shall, within one year from the date of notification of these rules and in partnership with the local body, ensure segregation of waste at source by the generators as prescribed in these rules, facilitate collection of segregated waste in separate streams, handover recyclable material to either the authorised waste pickers or the authorised recyclers. The bio-degradable waste shall be processed, treated and disposed off through composting or bio-methanation within the premises as far as possible. The residual waste shall be given to the waste collectors or agency as directed by the local body.

(8) All hotels and restaurants shall, within one year from the date of notification of these rules and in partnership with the local body ensure segregation of waste at source as prescribed in these rules, facilitate collection of segregated waste in separate streams, handover recyclable material to either the authorised waste pickers or the authorised recyclers. The bio-degradable waste shall be processed, treated and disposed off through composting or bio-methanation within the premises as far as possible. The residual waste shall be given to the waste collectors or agency as directed by the local body.

**5. Duties of Ministry of Environment, Forest and Climate Change.** - (1) The Ministry of Environment, Forest and Climate Change shall be responsible for over all monitoring the implementation of these rules in the country. It shall constitute a Central Monitoring Committee under the Chairmanship of Secretary, Ministry of Environment, Forest and Climate Change comprising officer not below the rank of Joint Secretary or Advisor from the following namely, -

- 1) Ministry of Housing and Urban Affairs
- 2) Ministry of Rural Development
- 3) Ministry of Chemicals and Fertilizers
- 4) Ministry of Agriculture
- 5) Central Pollution Control Board
- 6) Three State Pollution Control Boards or Pollution Control Committees by rotation
- 7) Urban Development Departments of three State Governments by rotation
- 8) Rural Development Departments from two State Governments by rotation
- 9) Three Urban Local bodies by rotation
- 10) Two census towns by rotation
- 11) FICCI, CII

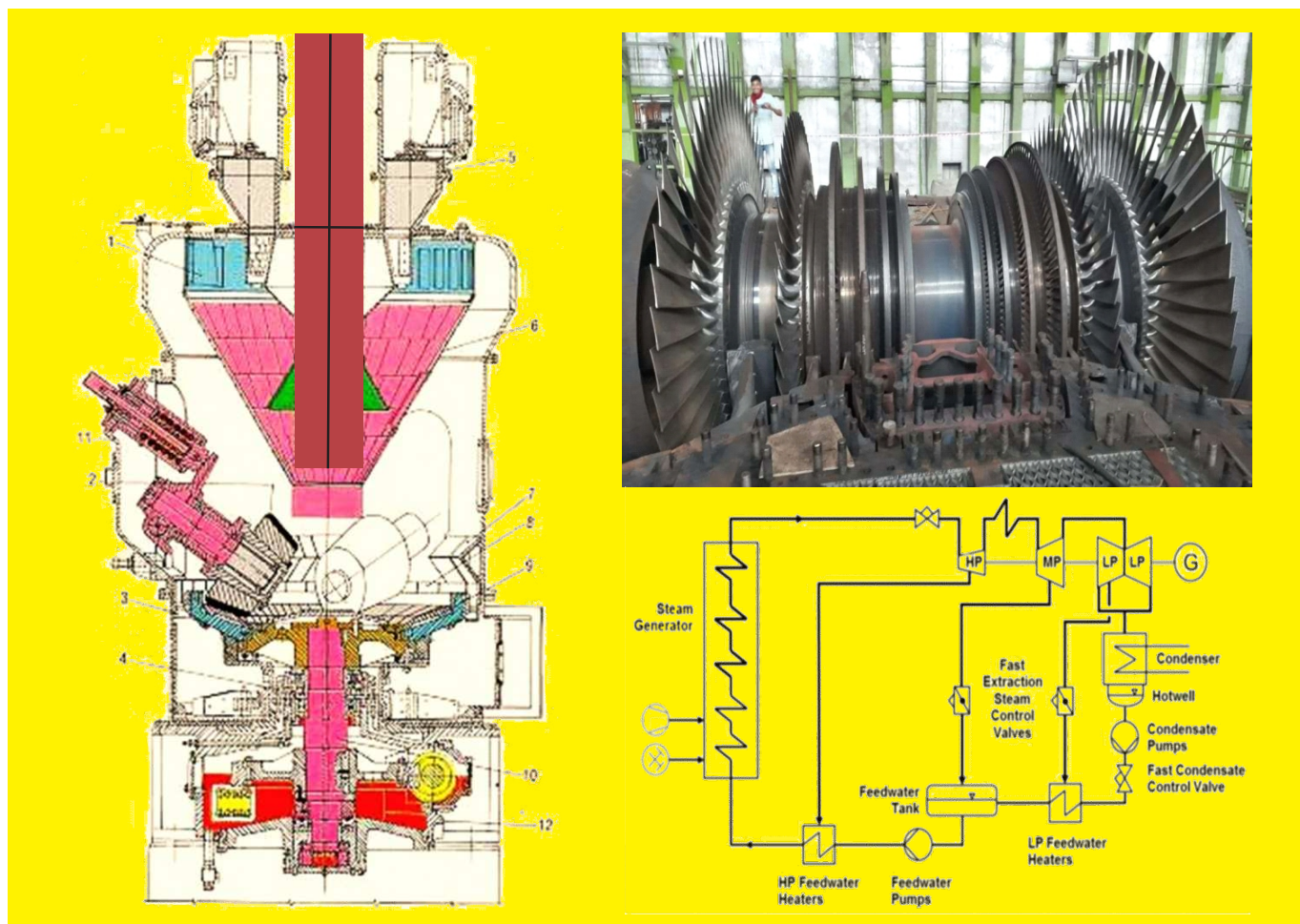


सत्यमेव जयते

Government of India  
Ministry of Power  
Central Electricity Authority



## FLEXIBILISATION OF COAL FIRED POWER PLANT



**A Roadmap for Achieving 40% Technical Minimum Load**

**February, 2023**

Sewa Bhawan, Sector 1, R K Puram, New Delhi – 110066

घनश्याम प्रसाद  
अध्यक्ष तथा पदेन सचिव भारत सरकार  
**GHANSHYAM PRASAD**  
Chairperson & Ex-officio Secretary  
To the Government Of India



केन्द्रीय विद्युत प्राधिकरण  
भारत सरकार  
विद्युत मंत्रालय  
सेवा भवन, आर.के. पुरम  
नई दिल्ली-110066  
**Central Electricity Authority**  
Ministry of Power  
Sewa Bhawan, R. K. Puram  
New Delhi-110066



## FOREWORD

India has great potential for renewables which has been recognized and a goal for attaining 500GW has been set by year 2030. To achieve the goal of integration of such high level of renewables there are both technical and financial challenges. The thermal units so far has been operated as base load plants which require overhauling. I am happy that TPRM Division, CEA has brought out a comprehensive report on flexible operation of base load thermal plants including operating procedure, challenges, retrofit and roadmap for achieving 40% load operation. The committee which was headed by B.C. Mallick, Chief Engineer, TPRM Division with members from various organizations have put in their valuable efforts and time to bring out an comprehensive reports covering important topics which shall be useful for the thermal utilities. It has also touched the cost aspects for achieving the flexibility of thermal units considering the requirement of retrofits and heat rate deterioration, etc. The pilot tests conducted under the support of CEA at various thermal units have added to the knowledge base of utilities/OEMs and highlighted the issues involved in our thermal units. The guideline has also deliberated on the issues as how these need to be tackled in effective manner.

It needs to be highlighted that flexible thermal units are one of the cheapest source of flexible power presently in the country. Hence, it will be crucial to ready the existing thermal units for the new operating regime enforced by the renewables. It shall help to optimize the operation of thermal units and reduce the emission burden of power generation.

I commend the efforts of Shri B. C. Mallick, Chief Engineer TPRM and Chairman of the committee for formulation of the entire report which shall lay the foundation of the flexibilisation of thermal power in the country.

  
(Ghanshyam Prasad)



दूरभाष (का०)  
TELEPHONE (O)  
TELEFAX (O)

सदस्य  
तथा पदेन अपर सचिव भारत सरकार  
केन्द्रीय विद्युत प्राधिकरण  
सेवा भवन, रामाकृष्णा पुरम्

MEMBER  
& EX-OFFICIO ADDL. SECRETARY TO THE GOVERNMENT OF INDIA  
CENTRAL ELECTRICITY AUTHORITY  
SEWA BHAWAN, R. K. PURAM

नई दिल्ली - 110066

NEW DELHI-110066




## Preface

Flexibilisation of coal fired plants has become inevitable for integration of power generated from renewable energy sources into the grid. The report "Flexibilisation of Coal-fired Power plants - A Roadmap for Achieving 40% Technical Minimum Load" prepared under the Chairmanship of Shri B. C. Mallick, Chief Engineer (TPRM), CEA shall guide the thermal power utilities, regulators and professionals for better understanding of the issues linked to flexibilisation and help them in formulating their future course of action.

I have gone through the report and found it to be very useful. The report is very exhaustive covering important topics like details of the various pilot tests conducted under the direction of CEA, procedure for flexible tests, the control modifications required, impact on the tariff and the future roadmap. In addition report is suggesting to explore the future possibility of two shift operation of thermal units based on the grid requirement.

I congratulate Shri B. C. Mallick, Chief Engineer & Chairman of the committee and other committee members for their valuable efforts in preparing the report.

  
(A. Balan)  
Member (Thermal)



**Bikash Chandra Mallick**  
Chief Engineer



भारत सरकार  
GOVERNMENT OF INDIA  
केन्द्रीय विद्युत प्राधिकरण  
CENTRAL ELECTRICITY AUTHORITY  
विद्युत मंत्रालय  
MINISTRY OF POWER  
सेवा भवन, रामाकृष्ण पुरम्  
SEWA BHAWAN, RAMAKRISHNA PURAM



नई दिल्ली-110066, दिनांक :

NEW DELHI-110066, Dated : 14 July 2022

### ACKNOWLEDGEMENT

The power sector is going through transformational changes due to the environmental concerns. There shall be increased share of renewables in the grid in future which shall impose new operational requirement on the large existing thermal fleet. Thermal power utilities are going to find themselves at the receiving end in future, hence thermal units would have to modernize to remain in the business of power generation. The present report shall help thermal utilities in understanding the issues/ up gradations required in the plants and in the skills of the operators. The contents of the report are very comprehensive, incorporates the learnings from the low load tests conducted at various thermal units.

The flexible power is available from Hydro Power Plants, Pump Storage System, Thermal Power Plant and Battery Storage System. The cheapest flexible power may be available from hydro plants/ pump storage system, costlier from thermal power plants and costliest power from Battery storage system. Therefore our first preference to utilize or develop flexible power shall be from hydro/pump storage, second from thermal power plants and lastly from battery storage system.

The committee has considered heat balance study report of BHEL, SIEMENS, GE and actual test report of Dadri TPS, Maithon RBTPS, DSTPS, Sagardighi TPS, WBPDL, Ukai TPS, GESCL, Mouda TPS of NTPC. Accordingly suggested a Road Map for preparing thermal power plants flexible including operating procedure, identification of measure and cost of flexible power.

I would like to thank all the committee members from NTPC, BHEL, POSOCO, Tata Power, Siemens, GE, GESCL, independent consultants, and divisions of thermal wing who have contributed in preparing the report. I am thankful to Chairperson, CEA, Member (Thermal), CEA for their valuable guidance. Finally, I appreciate the efforts of TPRM Div. for their support.

(B.C. Mallick)  
Chief Engineer (TPRM) &  
Chairman of the Committee



## *Flexiblisation of Coal-Fired Power Plants*



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## *Flexiblisation of Coal-Fired Power Plants*

## EXECUTIVE SUMMARY

GOI has set an ambitious target of 500 GW renewable generation by 2029-30 and 175GW by end 2022. There is a delay in capacity addition of 175GW RES due to covid-19 pandemic and the same may be achieved by end 2023. In near future thermal power plants fleet is expected to operate at an average minimum load of 40%. It shall drastically impact the schedule of most of the conventional generating plants and shall lead to operating thermal power plants at part load. Hence, thermal generating units shall have to be tuned such that they can meet the new load demands in a very effective and efficient manner. And if any gaps are found, the same needs to be fixed.

A committee was constituted under the chairmanship of Sh. B. C. Mallick, Chief Engineer, TPRM Division, CEA with the members from various organizations. The committee would guide the central, state & private utilities in selecting thermal generating units and conducting low load test. The committee would also prepare a guideline for low load operation of TTPs, on the basis of experience gained from the pilot test, to help generating utilities in achieving flexibility in their units.

A comprehensive report has been prepared with the contribution of committee members from various organizations, consultants which are at the forefront for steering this new demand. The report comprises of eleven chapters which tries to covers the various important issues in details. The chapter-1 **“Need for Flexibilisation”**, which gives the back ground for the new requirement which has arisen and the challenge faced by the thermal power sector. Chapert-2 **“Key Requirement of Flexibilisation”** elaborates the new regime of operation of power plants, i.e. minimum load, ramp rates requirement. For implementation of flexibilisation, the tests/studies are required to be conducted, the chapter-3, **“Studies Conducted”** describes the tests conducted so far and their major findings. The operation of thermal power plant in flexibilisation mode has lot of impact on the plant life, operation and maintenance, efficiency which has been briefly discussed in the chapter-4 **“Challenges of Flexibilisation”**. The paradigm of operation of the plant changes due to the flexibilisation, hence new operating procedure which require changes and training of personnel is required to be upgraded (operating procedures). Based on the tests/ studies, there will be a clear picture obtained of the existing capabilities of the plant which shall require to be upgraded. The chapter-5 **“Procedures for low load tests”** describes the procedures in details for attaining the 40% low load operation without oil support and various parameters to be observed carefully during the test to find the measures to be implemented in the generating unit. The chapter-6 **“Modification Required”** discusses in details the various options available for modification for the performance improvement. The flexibilisation has impact on the fixed and operating cost of the thermal power plant. The committee members have compiled costs for adopting measures for the improvement of flexible performance of thermal power plant as discussed in the chapter-7 **“Cost of Flexible power”**. However, the capital costs for retrofit,



given in the report, are only indicative in nature actual costs need to be ascertained by conducting a detailed feasibility study as the modifications are plant specific. Further, increased O&M cost form part of fixed tariff and efficiency degradation & increased oil consumption due to EFOR forms part of variable tariff. It has been found that impact of 40% low load operation on tariff (fixed + variable) is maximum about 7 to 8% which may increase to some extent for old units. **“Two-shift operation”** of thermal power plants has been discussed in the chapter-8. The comparison of flexible power from the various sources is elaborated in the chapter -9 **“Flexible Power from Different Sources”**. To refurbish the fleet of thermal units for flexibilisation, the time required for making them equipped for cycling has been presented in the chapter-10 **“Roadmap”**. Finally, in the last chapter-11 **“Conclusion and Way Forward”** the findings of the report have been summarized and steps for implementation have been recommended.

Looking at the addition of renewables in future, the thermal power utilities will be required to play a very important role. The report prepared by the committee shall be beneficial for the utilities for understanding the need and implication of flexible operation of coal fired units.

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Annexure-G

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Windows 8.1

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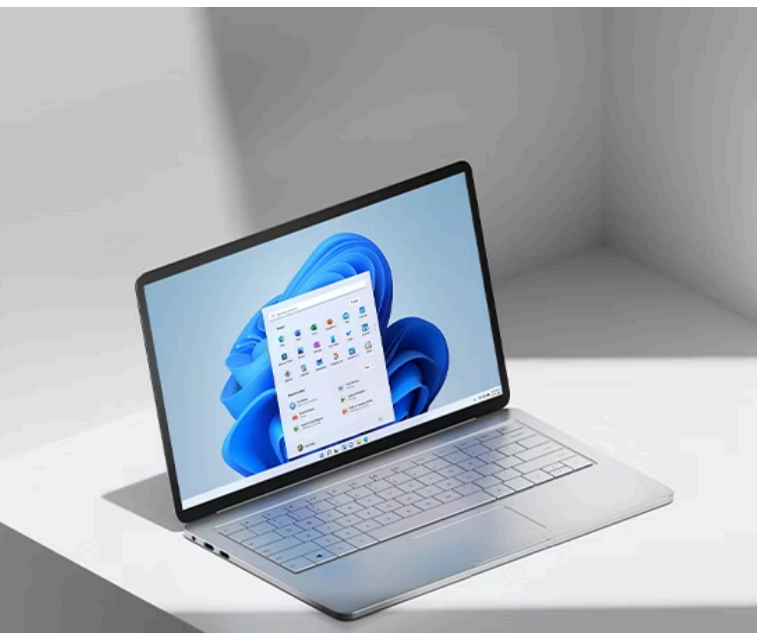
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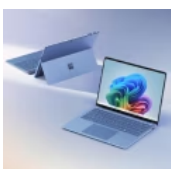
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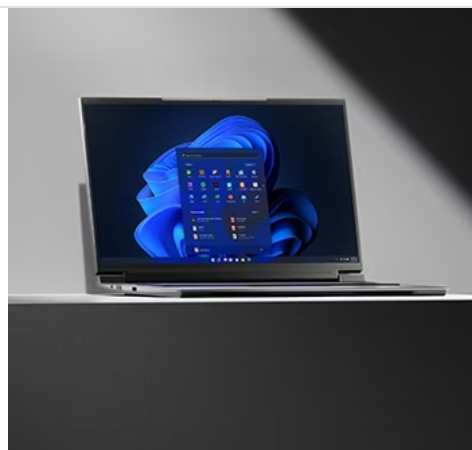
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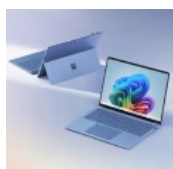
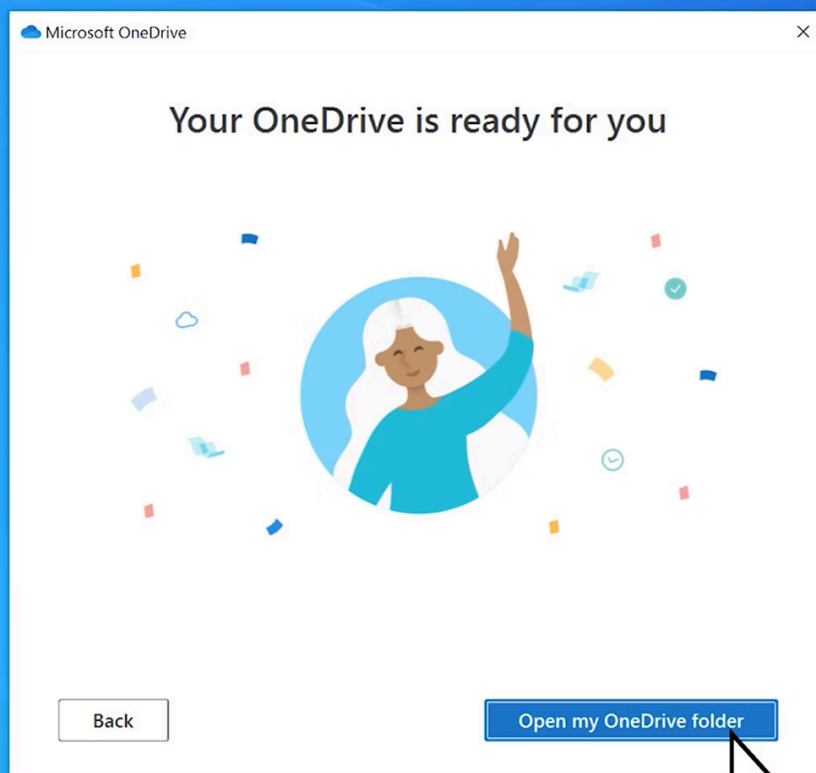
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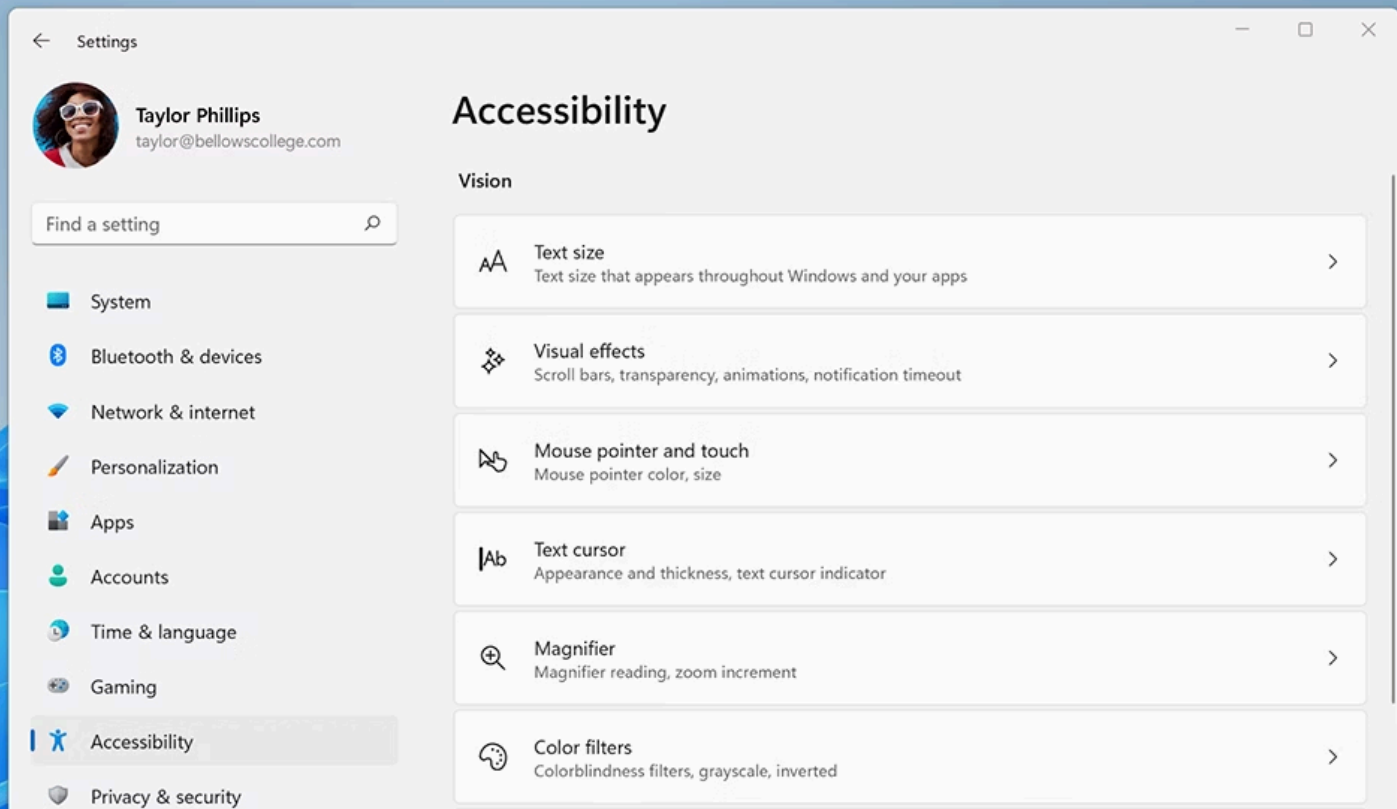
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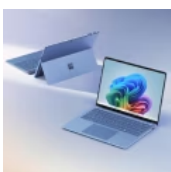
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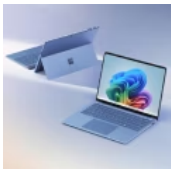
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**Information Technology & Cyber Security Division**  
\*\*\*\*\*

**विषय : CEA (Cyber Security in Power Sector) Guidelines, 2021.**

CEA is mandated to prepare 'Guidelines on Cyber Security' in Power Sector under the provision of regulation (10) of the Central Electricity Authority (Technical Standards for Connectivity to the Grid) (Amendment) Regulations, 2019. Guidelines on Cyber Security in Power Sector incorporating the cardinal principles has been prepared by CEA. In compliance to the provision of the above regulation, **CEA (Cyber Security in Power Sector) Guidelines, 2021** are issued for compliance by all entities listed in the clause 2.3 (Applicability of the Guidelines) of the guidelines.

**Encl:** Guidelines on Cyber Security

  
07/10/21  
(V.K. Mishra)  
Secretary CEA

## **CEA (Cyber Security in Power Sector) Guidelines, 2021**

### **1.0 Background**

- 1.1 Cyber intrusion attempts and Cyber-attacks in any critical sector are carried out with a malicious intent. In Power Sector it's either to compromise the Power Supply System or to render the grid operation in-secure. Any such compromise, may result in mal-operations of equipments, equipment damages or even in a cascading grid brownout/blackout. The much hyped air gap myth between IT and OT Systems now stands shattered. The artificial air gap created by deploying firewalls between any IT and OT System can be jumped by any insider or an outsider through social engineering. Cyber-attacks are staged through tactics & techniques of Initial Access, Execution, Persistence, Privilege Escalation, Defence Evasion, Command and Control, Exfiltration. After gaining the entry inside the system through privilege escalation, the control of IT network and operations of OT systems can be taken over even remotely by any cyber adversary. The gain of sensitive operational data through such intrusions may help the Nation/State sponsored or non-sponsored adversaries and cyber attackers to design more sinister and advanced cyber-attacks.
- 1.2 Government of India has set up the Indian Computer Emergency Response Team (CERT-In) for Early Warning and Response to cyber security incidents and to have collaboration at National and International level for information sharing on mitigation of cyber threats. CERT-In regularly issues advisories on safeguarding computer systems and publishes Security Guidelines which are widely circulated for compliances. All Central Government Ministries/ Departments and State/Union Territory Governments have been advised to conduct cyber security audit of their entire Cyber Infrastructure including websites at regular interval through CERT-In empanelled Auditors so as to identify gaps and appropriate corrective actions to be taken in cyber security practices. CERT-In extends supports to enable Responsible Entity in conducting cyber security mock drills and in assessment of their preparation to withstand cyber-attacks. The Responsible Entity must submit Reports of Cyber Audit of cyber security controls, architecture, vulnerability management, network security and periodic cyber security drills to sectoral CERT as well as CERT-In. Team of experts shall review these reports and shortcomings if any in the compliances shall be flagged by them. CERT-In on regular basis also conducts workshops and training programs to enhance Cyber awareness of all Stakeholders.
- 1.3 Ministry of Power has created 6(six) sectoral CERTs namely Thermal, Hydro, Transmission, Grid Operation, RE and Distribution for ensuring cyber security in Indian Power Sector. Each Sectoral CERT has prepared their sub-sector specific model Cyber Crisis Management Plan(C-CMP) for countering cyber-attacks and cyber terrorism. Each Sectoral CERT has circulated their model C-CMPs for preparation and implementation of organization specific C-CMP by each of their Constituent Utility.
- 1.4 All Responsible Entities, Service Providers, Equipment Suppliers/Vendors and Consultants engaged in Power Sector are equally responsible for ensuring cyber security of the Indian Power Supply System. They are to act timely upon each threat intelligence,

advisories and other inputs received from authenticated sources, for continuous improvement in their cyber security posture.

- 1.5 In the current Indian scenario though many cyber security directives and guidelines exists, but none of them are power sector specific. Ministry of Power has directed CEA to prepare Regulation on Cyber Security in Power Sector. And as an interim measures CEA has been directed to issue Guideline on Cyber Security in Power Sector, under the provision of Regulation 10 on Cyber Security in the “Central Electricity Authority (Technical Standards for Connectivity to the Grid) (Amendment) Regulations, 2019”.
- 1.6 The Guidelines on Cyber Security, in the form of Articles written below, requires mandatory Compliance by all Responsible Entities. The Guidelines shall come into effect from the date of issue by Central Electricity Authority, New Delhi.
- 2.0 Hereby the Guidelines on Cyber Security are drawn in the form of Articles for compliance by the Requester as well as User under the following provision of Regulation 10 on Cyber Security, in the “Central Electricity Authority (Technical Standards for Connectivity to the Grid) (Amendment) Regulations, 2019”.

***“The requester and the user shall comply with cyber security guidelines issued by the Central Government, from time to time, and the technical standards for communication system in Power Sector laid down by the Authority.”***

- 2.1 **Objective of issuing Guideline:**
  - a) Creating cyber security awareness
  - b) Creating a secure cyber ecosystem,
  - c) Creating a cyber-assurance framework,
  - d) Strengthening the regulatory framework,
  - e) Creating mechanisms for security threat early warning, vulnerability management and response to security threats,
  - f) Securing remote operations and services,
  - g) Protection and resilience of critical information infrastructure,
  - h) Reducing cyber supply chain risks,
  - i) Encouraging use of open standards,
  - j) Promotion of research and development in cyber security,
  - k) Human resource development in the domain of Cyber Security,
  - l) Developing effective public private partnerships,
  - m) Information sharing and cooperation
  - n) Operationalization of the National Cyber Security Policy
- 2.2 Within the text of these Articles, ‘**Responsible Entity**’ shall mean all:
  - a) Transmission Utilities as well as Transmission Licensees,
  - b) Load despatch centres (State, Regional and National),
  - c) Generation utilities (Hydro, Thermal, Nuclear, RE),
  - d) Distribution Utilities
  - e) Generation Aggregators,
  - f) Trading Exchanges,
  - g) Regional Power Committees, and
  - h) Regulatory Commissions.

### 2.3 Applicability:

All Responsible Entities as well as System Integrators, Equipment Manufacturers, Suppliers/Vendors, Service Providers, IT Hardware and Software OEMs engaged in the Indian Power Supply System.

### 2.4 Scope:

#### 2.4.1 Control Systems for System Operation and Operation Management.

- a) Grid Control and Management Systems,
- b) Power Plant Control Systems,
- c) Central Systems used to monitor and control of distributed generation and loads e.g. virtual power plants, storage management, central control rooms for hydroelectric plants, photovoltaic/wind power installations,
- d) Systems for fault management and work force management,
- e) Metering and measurement management systems,
- f) Data archiving systems,
- g) Parameterisation, configuration and programming systems,
- h) Supporting systems required for operation of the above mentioned systems,

#### 2.4.2 Communication System.

- a) Routers switches and firewalls,
- b) Communication technology-related network components,
- c) Wireless digital systems.
- d) Control Centre to Control Centre Communications for data exchange on ICCP.  
(IEC 61850/60850-5/TASE.2/)

#### 2.4.3 Secondary, Automation and Tele control technologies

- a) Control and Automation components,
- b) Control and field devices,
- c) Tele control devices,
- d) Programmable logic controllers / Remote Terminal Units, including digital sensor and actuators elements,
- e) Protection devices,
- f) Safety components,
- g) Digital measurement and metering installations,
- h) Synchronisation devices,
- i) Excitation Systems,

### 3.0 Definition of Terms:

1. **Access Management:** shall mean set of policies and procedures of the Responsible Entity for allowing Personnel, devices and IoT to securely perform a broad range of operational, maintenance, and asset management tasks either on site or remotely as laid down in Clause 5.2.5 of IS 16335.
2. **Accreditation:** shall mean the process of verifying that an organisation is capable of conducting the tests and assessments against a product/process that are required to be certified.

3. **Accreditation Body:** shall mean an organisation that has been accredited to verify the credentials and capabilities of the organisations that wish to become a certification body.
4. **Act:** shall mean the Information Technology Act, 2000 (21 of 2000)
5. **Asset:** shall mean anything that has value to the organization.
6. **Certification:** shall mean the process of verifying that a product has been manufactured in conformance with a set of predefined standards and/or regulations by an organisation, that is accredited to conduct the certification process
7. **Certification Body:** shall mean an organisation that has been accredited by an accreditation body to certify products / process against a certification scheme.
8. **Certification Scheme:** shall mean the processes, paperwork, tools, and documentation that define how a product or manufacturer is certified
9. **Chief Information Security Officer:** shall mean the designated employee of Senior management level directly reporting to Managing Director/Chief Executive Officer/Secretary of the Responsible Entity, having knowledge of Information Security and related issues, responsible for cyber security efforts and initiatives including planning, developing, maintaining, reviewing and implementation of Information Security Policies
10. **Critical Assets:** shall mean the facilities, systems and equipment which, if destroyed, degraded or otherwise declared unavailable, would affect the reliability or operability of the Power Supply System.
11. **Critical System:** shall mean cyber assets essential to the reliable operation of critical asset. Critical System consists of those cyber assets that have at least one of the following characteristics:
  - a) The cyber asset uses a routable protocol to communicate outside the electronic security perimeter.
  - b) The cyber asset uses a routable protocol within a control centre.
  - c) The cyber asset is dial-up accessible.
12. **Critical Information Infrastructure:** shall mean Critical Information Infrastructure as defined in explanation of sub-section (1) of Section 70 of the Act.
13. **Cyber Assets:** shall mean the programmable electronic devices, including the hardware, software and data in those devices that are connected over a network, such as LAN, WAN and HAN.
14. **Cyber Crisis Management Plan:** shall mean a framework for dealing with cyber related incidents for a coordinated, multi-disciplinary and broad-based approach for rapid identification, information exchange, swift response and remedial actions to mitigate and recover from malicious cyber related incidents impacting critical processes.
15. **Cyber Security Breach:** shall mean any cyber incident or cyber security violation that results in unauthorized or illegitimate access or use by a person as well as an entity, of data, applications, services, networks and/or devices through bypass of the underlying cyber security protocols, policies and mechanisms resulting in the compromise of the confidentiality, integrity or availability of data/information maintained in a computer resource or cyber asset.
16. **Cyber Security Incident:** shall mean any real or suspected adverse cyber security event that violates, explicitly or implicitly, cyber security policy of Responsible Entity resulting in unauthorized access, denial of service or disruption, unauthorized use of computer resource for processing or storage of information or changes to data or information

without authorization, leading to harm to the power grid or its critical sub-sectoral elements Generation, Transmission and Distribution.

17. **Cyber Security Policy:** shall mean documented set of business rules and processes for protecting information, computer resources, networks, devices, Industrial Control Systems and other OT resources.
18. **Electronic Security Perimeter:** shall mean the logical border surrounding a network to which the Cyber Systems of Power Supply System are connected using a routable protocol.
19. **Information Security Division:** shall mean a division accountable for cyber security and protection of the Critical System of the Responsible Entity.
20. **Protected System:** shall mean any computer, computer system or computer network of the Responsible Entity notified under section 70 of the Act, in the official gazette by appropriate Government.
21. **Security Architecture:** shall mean a framework and guidance to implement and operate a system using the appropriate security controls with the goal to maintain the system's quality attributes like confidentiality, integrity, availability, accountability and assurance.
22. **Vulnerability:** shall mean intrinsic properties of something resulting in susceptibility to a risk source that can lead to an event with a consequence
23. **Vulnerability Assessment:** shall mean a process of identifying and quantifying vulnerabilities

#### 4.0 Standards

Reference	Description
ISO/IEC 15408	Common Criteria Certification Standard
ISO/IEC 17011	General requirements for accreditation bodies accrediting conformity assessment bodies
ISO/IEC 17025	General requirements for the competence of testing and calibration laboratories
ISO/IEC 21827	Systems Security Engineering - Capability Maturity Model (SSE-CMM)
ISO/IEC 24748-1	Systems and software engineering — Life cycle management — Part 1: Guidelines for life cycle management.
ISO 27001/2	Information Security Management
ISO/ IEC 27019	Information technology — Security techniques — Information Security controls for the energy utility industry
ISO/IEC 61508	Functional Safety of Electrical / Electronic / Programmable Electronic Safety-related Systems
IEC 61850	Communication networks and systems for power utility automation
IEC 62351	Standards for Securing Power System Communications
IEC 62443	Cyber Security for Industrial Control Systems
IS 16335	Power Control Systems – Security Requirements.

#### 5.0 Abbreviations

Abbreviations	Description
a) BES	Bulk Electric System

b)	CDAC	Centre for Development of Advanced Computing
c)	CEA	Central Electricity Authority
d)	CERC	Central Electricity Regulatory Commission
e)	CERT	Computer Emergency Response Team
f)	CERT-In	Indian Computer Emergency Response Team
g)	CII	Critical Information Infrastructure
h)	CISO	Chief Information Security Officer
i)	CSK	Cyber Swachhta Kendra
j)	COTS	Commercial off-the Shelf
k)	ESP	Electronic Security perimeter
l)	ICS	Industrial Control Systems
m)	ICT	Information and Communications Technology
n)	IEC	International Electro Technical Commission
o)	ISAC	Information Sharing and Analysis Centre
p)	ISD	Information Security Division
q)	ISO	International Organization for Standardization
r)	ISMS	Information Security Management System
s)	IT	Information Technology
t)	FAT	Factory Acceptance Test
u)	NABL	National Accreditation Board for Testing and Calibration Laboratories
v)	NCIIPC	National Critical Information Infrastructure Protection Centre
w)	NLDC	National Load Dispatch Centre
x)	NPTI	National Power Training Institute
y)	NSCS	National Security Council Secretariat
z)	OEM	Original Equipment Manufacturer
aa)	OT	Operational Technology
bb)	RLDC	Regional Load Dispatch Centres
cc)	SAT	Site Acceptance Test
dd)	SERC	State Electricity Regulatory Commission
ee)	SCADA	Supervisory Control and Data Acquisition Systems
ff)	SIEM	Security Information and Event Management
gg)	SLA	Service Level Agreement
hh)	SLDC	State Load Dispatch Centre
ii)	QCI	Quality Council of India

## **CEA (Cyber Security in Power Sector) Guidelines, 2021**

### **Article 1. Cyber Security Policy.**

#### **a. Cardinal Principles: The Responsible entity will strictly adhere to following cardinal principles while framing cyber security policy:**

- i. There is hard isolation of their OT Systems from any internet facing IT system.
  - ii. May keep only one of their IT systems with internet facing at any of their site/location if required which is isolated from all OT zones and kept in a separate room under the security and control of CISO.
  - iii. Downloading/Uploading of any data/information from their internet facing IT system is done only through an identifiable whitelisted device followed by scanning of both for any vulnerability/malware as per the SOP laid down and for all such activities digital logs are maintained and retained under the custody of CISO for at least 6 months. The log shall be readily to carry out the forensic analysis if asked by investigation agency.
  - iv. List of whitelisted IP addresses for each firewall is maintained by CISO and each firewall is configured for allowing communication with the whitelisted IP addresses only.
  - v. Communication between OT equipment/systems is done through the secure channel preferably of POWERTEL through the fibre optic cable. Security configuration of the communication channel is also to be ensured.
  - vi. All ICT based equipment/system deployed in infrastructure/system mandatorily CII are sourced from the list of the “Trusted Sources” as and when drawn by MoP/CEA.
- b. The Responsible Entity shall be ISO/IEC 27001 certified (including sector specific controls as per ISO/IEC 27019).
  - c. The Responsible Entity shall have a Cyber Security Policy drawn upon the guidelines issued by NCIIPC.
  - d. The Responsible Entity shall ensure annual review of their Cyber Security Policy by subject matter expert and changes shall be made therein only after obtaining the due approval from Board of Directors.
  - e. The process of Access Management for all Cyber Assets owned or under control of the Responsible Entity shall be detailed in the Cyber Security Policy.
  - f. The Cyber Security Policy shall leverage state-of-art cyber security technologies and relevant processes at multiple layers to mitigate the cyber security risks.
  - g. The Responsible Entity shall be solely responsible to get Cyber Security Policy implemented through its Information Security Division (ISD).
  - h. The CISO shall record the reason(s) for exemption required, if any, in case, unable to comply with any of the provision(s) of the Cyber Security Policy. Any exception shall be allowed only after an approval of provisions of compensatory control(s) to mitigate residual cyber security risks.

- i. The CISO shall record the exemptions sought in statement of applicability controls, while getting the ISO 27001 certified. All exemptions and its justification need to be in conformance with Cyber Security Policy of the Responsible Entity.
- j. The Responsible Entity shall allocate sufficient Annual budget for enhancing cyber security posture, enhanced year over year.
- k. The Responsible Entity shall work in collaboration with other Industry Stakeholders as well as Academia to promote R&D activity in the domain of cyber security.
- l. The Responsible Entity shall ensure that cyber security issues are taken up as agenda items in their Board meetings once in every three months.

## **Article 2 Appointment of CISO.**

- a) The Responsible Entity shall mandatorily appoint a CISO and shall confirm to qualification, if any, **laid** by Quality Council of India (QCI). In absence, the work of CISO shall be looked upon by Alternate CISO. In case qualification for appointment of Alternate CISO has been relaxed for reasons recorded thereof, Alternate CISO has to mandatorily acquire the minimum required cyber security skill sets within six months from the date of his appointment.
- b) The Responsible Entity shall regularly update details of CISO and Alternate CISO, with the Sectoral CERT, as well as on ISAC-Power Portal.
- c) Roles and Responsibility of CISOs shall be as laid by CERT-In and ring-fenced to ensure cyber security of the Cyber Assets of the Responsible Entity.

## **Article 3: Identification of Critical Information Infrastructure (CII).**

- a) The Responsible Entity shall submit to NCIIPC through Sectoral CERT, details of Cyber Assets which uses a routable protocol to communicate outside the Electronic Security Perimeter drawn by the Responsible Entity or a routable protocol within a control centre and dial-up accessible Cyber Assets, within 30 days from the date of their commissioning in the System.
- b) The Responsible Entity shall submit details of Critical Business Processes and underlying information infrastructure along with mapped impact and Risk Profile to NCIIPC and shall get their CIIs identified in consultation with NCIIPC. The process of the notification/declaration by Appropriate Government shall follow thereafter.
- c) The Responsible Entity shall review their declared/notified CIIs at least once a year to examine changes if any in the functional dependencies, protocols and technologies or upon any change in security architecture. The Responsible Entity shall review their declared/notified CIIs once in every 6 months, in case if NCIIPC has directed them to constitute an Information Security Steering Committee.
- d) The Responsible Entity shall ensure that all cyber assets of their identified/notified CIIs are recorded in the asset register and considered for risk assessment as well as for finalization of controls in statement of applicability.

## **Article 4. Electronic Security Perimeter**

- a) The Responsible Entity shall identify and document the Electronic Security Perimeter(s) and all Access Points to the perimeter(s).

- b) The Responsible Entity shall follow procedure of identifying “Electronic Security Perimeter” in case of distributed and/or hybrid information infrastructure, as per IEC 62443 / IS16335 (as amended from time to time).
- c) The Responsible Entity shall ensure that every Critical System resides within an Electronic Security Perimeter.
- d) The Responsible Entity shall perform a cyber-Vulnerability Assessment of each electronic Access Points to the Electronic Security Perimeter(s) at least once in every 6 (six) months and/or after any change in Security Architecture.
- e) The Responsible Entity shall ensure that all critical, high and medium vulnerabilities identified as a result of cyber Vulnerability Assessment shall be closed and verified for the effective closure.

## **Article 5. Cyber Security Requirements**

- a) The Responsible Entity shall have an Information Security Division (ISD), headed by CISO.
- b) The Responsible Entity shall ensure that the ISD must be functional on 24x7x365 basis and is manned by sufficient numbers of Engineers having valid certificate of successful completion of course on cyber security of Power Sector from the Training Institutes designated by CEA.
- c) The Responsible Entity shall ensure that ISD
  - 1) has on-boarded Cyber Swachhta Kendra(CSK) of CERT-In, if they have public IPs.
  - 2) has timely acted upon the advisories, guidelines and directive of NCIIPC, CSK, CERT-In and Sectoral CERTs,
  - 3) has deployed an Intrusion Detection System and Intrusion Prevention System capable of identifying behavioural anomaly in both IT as well as OT Systems.
  - 4) shares reports on incident response and targeted malware samples with CERT-In,
  - 5) updates the firmware/software with the digitally signed OEM validated patches only.
  - 6) enables only those ports and services that are required for normal operations. In case of any emergency the procedure as laid in Access management be followed.
  - 7) maintains firewall logs for the last 6 months duration. Firewall logs shall be analysed and all critical and high severity comments shall be addressed for effective closure.
  - 8) retains document of FAT, SAT test results and report/ certificate of cyber tests carried out for compliance of Government Orders and Cyber Security Audit.\*
  - 9) maintains all cyber logs and cyber forensic records of any incident for at least\*\* 90 days.

\* FAT, SAT must include comprehensive cyber security tests of the component/equipment/system to be delivered/delivered at site.

\*\* 90 days from date of the commissioning of the system/recovery from any incident, whichever is later.

- d) The Responsible Entity shall routinely audit and test security properties of the Critical System and must act upon, in case if any new vulnerabilities is identified through testing or by the equipment manufacturer.

- e) The Responsible Entity shall design a secure architecture for control system appropriate for their process control environment\*.
- f) All State Load Dispatch Centres(SLDCs) shall comply with the directions issued by the National Load Dispatch Centre(NLDC) as well as Regional Load Dispatch Centres(RLDCs) U/s 29 (1) of the Electricity Act, 2003 to ensure stability and cyber security of grid operation and achieve efficiency in the grid operation. In case of any non-compliance, the Head of SLDC shall be responsible and shall be liable for Penalty as per the provision of CERC/SERC.

\*There are so many different types of systems in existence and so many possible solutions, it is important that the selection process ensures that the level of protection is commensurate with the business risk and the Responsible Entity shall not rely on one single security measure for its defence. *(Reference IEC/TR62351-10 Edition1.0 2012-10 Power systems management and associated information exchange –Data and communications security – Part 10: Security architecture guidelines).*

## **Article 6 Cyber Risk Assessment and Mitigation Plan**

- a) The Responsible Entity shall document in their Cyber Security Policy a Cyber Risk Assessment and Mitigation Plans drawn upon the best practises being followed in the Power Sector, and the same shall be approved by Board of Directors.
- b) The Cyber Risk Assessment and Mitigation Plans shall clearly define the matrix for assessing the cyber risk of both IT and OT environment and risk acceptance criteria.
- c) The Cyber Risk Assessment Plan shall be capable to demonstrate that repeated cyber security risk assessment delivers consistent, valid and comparable results.
- d) The review of cyber risk assessment shall be carried out at least once in a Quarter. The actionable of risk treatment and mitigation shall be tracked in this review for their effectiveness.
- e) The CISO shall be responsible for implementation and regular review, on the basis of internal and external feedbacks, of the Cyber Risk Assessment and Mitigation Plans.

## **Article 7 Phasing out of Legacy System**

- a) As the life cycle of the Power System Equipment/System is longer than that of IT Systems deployed therein, the Responsible Entity shall ensure that all IT technologies in the Power System Equipment/System should have the ability to be upgraded.
- b) The Responsible Entity shall ensure that the Information Security Division shall draw the list of all communicable equipments/systems nearing end life or are left without support from OEM. Thereafter CISO shall identify equipment/systems to be phased out from the list drawn, firm up their replacement plan and put up the replacement plan for approval before the Board of Directors.
- c) The CISO shall ensure that till equipments/systems nearing end life or left without support from OEM are not replaced, their cyber security is hardened and ensured through additional controls provisioned in consultation with the OEM or alternate Supplier(s)\*.  
\*e.g. Use of CDAC developed AppSamvid and whitelisting of applications installed may be explored across all legacy systems.
- d) The Responsible Entity shall document in their Cyber Security Policy a Standard Operating Procedure for safe and secure disposal of outlived or legacy devices.

## **Article 8. Cyber Security Training.**

- a) The Responsible Entity shall establish, document, implement, and maintain an annual cyber security training program for personnel having authorized cyber or authorized physical access (unescorted or escorted) to their Critical Systems.
- b) The Responsible Entity shall review annually their cyber security training program and shall update it whenever necessary. Annual Review shall record evaluation of the effectiveness of the trainings held.
- c) The Responsible Entity shall ensure that Cyber Security training program designed for their IT as well as OT O&M Personnel must include following topics and as per their functional requirements and security concerns additional topics shall be added:
  - 1) User authentication and authorization.
  - 2) Cyber Security and Protection mechanisms of IT/OT/ICS Systems.
  - 3) Introduction to various standards i.e. ISO/IEC:15408, ISO/IEC:24748-1, ISO: 27001, ISO: 27002, ISO 27019, IS 16335, IEC/ISO:62443.
  - 4) Training on implementation of ISO/IEC 27001 and awareness on IEC 62443.
  - 5) Vulnerability Assessment in the Critical System.
  - 6) Monitoring and preserving of electronic logs of access of Critical Assets.
  - 7) Detecting cyber-attacks on SCADA and ICS systems
  - 8) The handling of Critical System during cyber crisis.
  - 9) Action plans and procedures to recover or re-establish normal functioning of Critical Assets and access thereto following a Cyber Security Incident.
  - 10) Hands on SCADA operation at any of the Regional Load Dispatch Centre.
  - 11) Handling of risks involved in the procurement of COTS Products.
- d) All Personnel engaged in O&M of IT & OT Systems shall mandatorily undergo courses on cyber security of Power Sector from any of the training institute designated by CEA, immediately within 90 days from the notification of CEA Guidelines on Cyber Security in Power Sector.
- e) The Responsible Entity shall ensure that none of their newly hired or the current Personnel have access to the Critical System, prior to the satisfactory completion of cyber security training programme from the Training Institutes designated in India, except in specified circumstances such as cyber crisis or an emergency.
- f) NPTI in consultation with CEA shall identify and design domain specific courses on Cyber Security for different target groups. The “Governing Board for PSO Training and Certification” shall approve the content, duration etc of these courses and shall review it Annually. NPTI shall conduct these courses at all of their branches on regular basis and shall maintain the list of the Participants successfully completing the course.

## **Article 9 Cyber Supply Chain Risk Management**

- a) The Responsible Entity shall ensure that, as and when Ministry of Power, Government of India notifies the Model Contractual Clauses on cyber security, these clauses are included in their every Bid invited for procurement of any ICT based components/equipments/System to be used for Power System.
- b) The Responsible Entity shall ensure that all the Communicable Intelligent Equipments and the Service Level Agreements (SLAs) for their Critical Systems shall be sourced from the list of the “Trusted Sources” as and when drawn by MoP/CEA.

- c) The Responsible Entity shall ensure that, in case, for the any Communicable Intelligent Devices, if no Trusted Source has been identified, then the successful bidder in compliance with the provisions made in MoP order dated 2.7.2020 and any other relevant MoP order has got the product cyber tested for any kind of embedded malware/Trojan/cyber threat and for adherence to Indian Standards at the designated lab.
- d) The Responsible Entity shall ensure that the essential cyber security tests are carried out successfully during FAT, SAT as detailed in **Annexure A**. The equipment/System besides for functionality shall also be tested in the factory for vulnerabilities, design flaws, parts being counterfeit or tainted, so as to minimize problems during on-site-testing and installation. Cyber Security Conformance Testing are to be carried out in the designated Lab as listed in **Annexure-I of MoP Order No. 12/13/2020-T&R dt. 8<sup>th</sup> June, 2021(Order at Annexure-B)**.
- e) The Responsible Entity shall ensure that the Equipment/System supplied by the successful bidder shall accompany with a certificate<sup>\$, #</sup> obtained by OEM from a certification body accredited to assess devices and process for conformance to IEC 62443-4 standards during design and manufacture. The Responsible Entity shall accept the certificate submitted along with the supplied Equipment/System only if it's in line with the Testing Protocol as notified by Ministry of Power, Government of India, from time to time.
- f) The Responsible Entity in compliance to the requirement of Article 9(e) shall also accept, till the setting up of an adequate certification facility in the India, a digitally signed self-declaration of conformance to the IEC 62443-4 standards during design and manufacture of the equipment/system, if submitted by the OEM.
- g) The Responsible Entity shall dispose all unserviceable or obsolete Communicable Intelligent Devices as per the procedure laid in their Cyber Risk Assessment and Mitigation Plans which shall be in line with the prevailing best practices.

\$ The National & International certification may be specified in the tender for critical systems/sub-systems being procured by the Responsible Entity.

# Certification Schemes:

**Embedded Device Security Assurance Certification** is for an individual product,  
**System Security Assurance Certification** is for a set of products in a system (possibly from different vendors)

**Security Development Lifecycle Assurance Certification** is for the development processes that a manufacturer uses for developing products.

## **Article 10 Cyber Security Incident Report and Response Plan**

- a) The CISO of the Responsible Entity shall report in the formats prescribed by CERT-In, all Cyber Security Incidents, classified as reportable events.
- b) Root cause analysis for all reportable events shall be carried out and corrective action taken, so as to ensure that any re-occurrence of such event can be managed with ease.
- c) The Responsible Entity shall mandatorily define in their Cyber Security Policy, criteria(s) identified on the basis of impact analysis, for declaring the occurrence of

Cyber Security Incident(s) as a Cyber Crisis in the System owned or controlled by them.

- d) The Responsible Entity shall mandatorily designate an Officer along with his/her standby by name and designation and empower them to declare an occurrence of the incident(s) as “Cyber Crisis”. The contact details of these Officers shall be updated in the C-CMP within 15 days of changes if any due to transfer or superannuation etc.
- e) The CISO shall ensure that during any Cyber Security Incident, ISD monitors and minutely records every details of cyber security events and incidents in both IT as well as the OT System owned or controlled by the Responsible Entity.
- f) The CISO shall ensure that each cyber incident is handled strictly as per Cyber Security Incident Response Plan detailed in the latest C-CMP approved by the Board of Directors.
- g) The Responsible Entity shall ensure that the efficacy of the Cyber Security Incident Response Plan is tested annually through mock drill(s) carried out, if feasible, as simulation exercise(s) or as table top exercise(s) with wider participation of their employees, in consultation with CERT-In and sectoral CERT. In case if any shortcoming is observed in the Cyber Security Incident Response Plan suitable changes shall be made in it.
- h) The Responsible Entity shall ensure that the CISO compiles details of incident detection, incident handling, learnings from each incident and damage claims made if any and shall report to CERT-In as well as upload information on ISAC-Power Portal.

#### **Article 11 Cyber Crisis Management Plan(C-CMP)**

- a) The Responsible Entity shall prepare a Cyber Crisis Management Plan and submit to their sectoral-CERT for review with intimation to Ministry of Power/CISO-MoP. Responsible Entity shall update their C-CMP on the basis of comments made by sectoral-CERT and then submit for vetting to CERT-In. The C-CMP shall be updated once again to include the observations made by CERT-In before seeking approval of Board of Directors for implementation of C-CMP.
- b) The Responsible Entity shall ensure that the C-CMP is reviewed at least annually. The CISO shall ensure that all changes are made in C-CMP only with the due approval of Board of Directors and the changes made in C-CMP have been communicated through a verifiable means to all the concerned Personnel of the Responsible Entity.
- c) The CISOs shall be the custodian of all the cyber security related documents including Cyber Crisis Management Plan, Risk Treatment Plan, Statement of Applicability of controls, and compliance to regulator’s requirement.
- d) The CISO shall be accountable for ensuring enforcement of C-CMP by Information Security Division of the Responsible Entity, during a cyber-crisis, as and when declared by the designated Officer. (refer Article 10(d))

#### **Article 12: Sabotage Reporting%**

- a) The Responsible Entity shall incorporate procedure for identifying and reporting of sabotage in their Cyber Security Policy within 30 days from issue of the Guidelines, or grant of licence under the appropriate legal provisions to the Responsible Entity.
- b) The CISO shall be held liable for non-reporting of identified sabotage(s) as per procedure laid for identifying and reporting of sabotage in the Cyber Security Policy of the Responsible Entity.

- c) The CISO shall prepare a detailed report on disturbances or unusual occurrences, identified, suspected or determined to be caused by sabotage in the Critical System of the Responsible Entity, and shall submit the report to the Sectoral CERT as well as to CERT-In within 24 hours of its occurrence.
- d) The CISO shall submit to NCIIPC within 24 hours of occurrence the report on every sabotage classified as cyber incidents(s) on "Protected System".
- e) The CISO upon occurrence on every sabotage shall take custody of all log records as well as digital forensic records of affected Cyber Assets, Intrusion Detection System, Intrusion Protection System, SIEM and shall preserve them for at least 90 days and shall make them available as and when called upon for investigation by the concerned Agencies.

*%Disturbances or unusual occurrences, suspected or determined to be caused by sabotage.*

*Sabotage e.g. can be a forced intrusion in un-manned/manned facility and taking control of operation of Critical System through a communicating device.*

### **Article 13 Security and Testing of Cyber Assets**

- a) The Responsible Entity shall ensure security of all in-service phase as well as standby Cyber Assets through regular firmware/Software updates and patching, Vulnerability management, Penetration testing (of combined installations), securing configuration, supplementing security controls. CISO shall maintain details of update version of each firmware and software and their certification if received from OEMs.
- b) The Responsible Entity shall carry out regularly Vulnerability Assessment of all Cyber Assets owned or under their control. If a Cyber Asset is found vulnerable to any exploits or upon any patch updates or major configuration changes, then further Penetration Testing may be carried out offline or in a suitably configured laboratory test-bed to determine other vulnerabilities that may have not been identified so far.
- c) The Responsible Entity shall specify security requirement and evaluation criteria during each phase of their procurement Process.
- d) The Responsible Entity shall ensure that all Cyber Assets being procured shall conform to the type tests as mentioned in the specification for type testing listed in the bid document. Type test reports of tests conducted in NABL accredited Labs or internationally accredited labs (within last 5 years from the date of bid opening) shall be mandated to be submitted along with bid. In case, the submitted Type Test reports are not as per specification, the re-tests shall be conducted without any cost implication to the Responsible Entity.
- e) The Responsible Entity shall ensure that all Communicable devices are tested for communication protocol as per the ISO/IEC/IS standards listed in **MoP Order No. 12/13/2020-T&R dated 8<sup>th</sup> June, 2021(Annexure-B).**
- f) The Responsible Entity shall ensure that all Critical Systems designed with Open Source Software are adequately cyber secured.
- g) The Responsible Entity as a best practise upon any incidence of Cyber Security Breach shall carry out cyber security tests at any lab designated for cyber testing by Ministry of Power. These tests shall be similar to Pre Commissioning Security Test and those essential for carrying out Post Incident Forensics Analysis.

### **Article 14 Cyber Security Audit**

- a) The Responsible Entity shall implement Information Security Management System (ISMS) covering all its Critical Systems.
- b) The Responsible Entity shall through a CERT-In Empanelled Cyber Security OT Auditor shall get their IT as well as OT System audited at least once in every 6 (six) months and shall close all critical and high vulnerabilities within a period of one month and medium as well as low non-conformity before the next audit. Effective closure of all non-conformities shall be verified during the next audit.
- c) The Cyber Security Audit shall be as per ISO/IEC 27001 along with sector specific standard ISO/IEC 27019, IS 16335 and other guidelines issued by appropriate Authority if any. These mentioned standards shall be current with all amendments if any and in case if any standard is superseded, the new standard shall be applicable. CISO shall ensure immediate closure of non-conformance, based on the criticality and by means all non-conformances are to be closed before the next audit.
- d) The Responsible Entity shall ensure that CISO has all the required systems and documents in place, as mandated by NSCS for base line cyber security audit.

## **FAT & SAT**

1. During FAT stage, the customer has to verify all types test reports / certificates including Communication protocol and security conformance tests of the devices offered for FAT.
2. FAT of SCADA involves testing as a whole system in the integrated scale down set up. For SCADA, Indian standard IS 15953: 2011 “SCADA System for Power System Applications” provides definition and guidelines for the specification, performance analysis and application of SCADA systems for use in electrical utilities (for transmission & Distribution) including guidance on Tests and inspections.
3. The SAT will be done at customer site as per the SAT document mutually agreed by buyer and supplier. For SAT also, guidance from IS 15953: 2011 need to be applied.
4. IEC 61850-10-3 Communication Networks and Systems For Power Utility Automation- Functional testing of IEC 61850 systems (in draft stage - CDTR) covers testing of applications within substations covering
  - a. A methodical approach to the verification and validation of a substation solution
  - b. The use of IEC 61850 resources for testing in Edition 2.1
  - c. Recommended testing practices for different use cases
  - d. Definition of the process for testing of IEC 61850 based devices and systems using communications instead of hard wired system interfaces (ex. GOOSE and SV instead of hardwired interfaces)
  - e. Use cases related to protection and control functions verification and testing.

This standard may be used as a guidelines for FAT & SAT for Substation Automation System (SAS) based on IEC 61850.

**Annexure - B****Annexure – 1****List of designated laboratories for cyber security conformance testing****Table -A. Field Equipment /Operational Technology (OT)**

<b>Sl. No.</b>	<b>Equipment</b>	<b>Communication Protocol Conformance Standards</b>	<b>Protocol Security Conformance Standards</b>	<b>Designated Laboratories</b>
1	Remote Terminal Units (RTUs) & PLCs with IEC communications protocols	IEC 60870-5 -101 / IEC 60870-5 -104 (Test Details Annexure 2)	IEC 60870-5- 7 Security extension & IEC 62351 series (specifically IEC 62351-100 parts 1 & 3) ( Test Details Annexure-2	Central Power Research Institute (CPRI), Prof Sir C V Raman Road, Sadashivanagar P O, Bengaluru – 560080, Karnataka
2	Intelligent Electronic Equipment / Numerical Protection Relays / Bay Control Units / Bay Protection Units, Gateways, Transformer Tap controller/ changer, etc. with IEC 61850 communication protocol	IEC 61850 – 5 to IEC 61850 – 10  ( Test Details Annexure 2)		CPRI
3	Smart meters with IEC 62056 communication protocols	IEC 62056 series / DLMS & IS 15959 series and IS 16444 series ( Test details Annexure 2)	IEC 62056 series / DLMS & IS 15959 series and IS 16444 series (Test Details Annexure 2)	1. CPRI 2. Electrical Research and Development Association (ERDA), ERDA Road, GIDC, Makarpura, Vadodara - 390 010 Gujarat 3. Yadav Measurements Pvt. Ltd. (YMPL) 373-375, RIICO Bhamashah Industrial Area Kaladwas 313003 Udaipur – Rajasthan

**Information Technology (IT) Equipment (Main / Backup / Disaster recovery (DR) Control Centre / Substation control centre IT equipment)**

All IT products procured /supplied shall have a valid Certificate of Common Criteria as per ISO/IEC 15408 issued by signatories of the Common Criteria Recognition Agreement (CCRA) ( [www.commoncriteriaportal.org](http://www.commoncriteriaportal.org)).

Import/procurement/supplied from vendors sourcing from prior reference countries, the Certificate for Common Criteria shall be from Government Laboratories in India according to the IC3S scheme operated by Ministry of Electronics and Information Technology, which is a signatory to CCRA.

<https://www.commoncriteria-india.gov.in/>

## Details of tests for various identified products

### Remote Terminal Units (RTUs) (Sl. No. 1 of Table – A of Annexure – 1)

#### Test protocol:

Utilities / manufacturers will submit the sample along with all the required technical documentation for taking up testing to the designated laboratory.

#### Reference standards

- 1) IEC 60870-5-101 & IEC 60870-5-104 as applicable
- 2) IEC 60870-5-7 Telecontrol equipment and systems - Part 5-7: Transmission protocols - Security extensions to IEC 60870-5-101 and IEC 60870-5-104 protocols (applying IEC 62351)
- 3) IEC 62351-100-1 & IEC 62351-100-3 and other cross referenced standards.

#### Test cases

##### Extract from standard (IEC 62351-100-1)

The conformance test cases are divided into four clauses:

- Clause 5: Verification of configuration parameters. This clause contains the configuration parameters affecting the message contents and/or the protocol behaviour.
- Clause 6: Verification of communication. The goal of this clause is to verify that Device Under Test (DUT) is able to implement the security extension messages as described in IEC TS 60870-5-7.
- Clause 7: Verification of procedures. The goal of this clause is to verify that DUT is able to execute the security extension procedures as described in IEC TS 62351-5.
- Clause 8: Test result chart. This clause contains the results of the test cases listed in Clauses 6 and 7 for each supported value of the configuration parameters listed in Clause 5.

The test cases are organized in tables. They are numbered; their numbering syntax is: Subclause number (where the Table is located) + test case number.

In the column ‘reference’ each test case has a direct reference to IEC TS 62351-5 or IEC TS 60870-5-7 where the clause under test is defined.

Test cases are mandatory depending on the description in the column ‘Required’. The following situations are possible:

M= Mandatory test case. The test is referencing a clause that is mandatory in IEC TS 62351-5 or IEC TS 60870-5-7.

Protocol Information Conformance Statement (PICS) x, x = Mandatory test case if the functionality is enabled in the PICS (by marking the applicable check box), with a reference to the section number of the PICS (x.x).

## Conformance testing of security extension procedures

The security extension procedures can be summarized as follows:

- User management
- Update key maintenance
- Session key maintenance
- Challenge/Reply authentication
- Aggressive Mode authentication

## Extract from standard (IEC 62351-100-3)

IEC 62351-3 defines the requirements related to the authentication/encryption protocol, procedures and methods to be implemented at TCP/IP (transport) level.

The conformance test cases are divided into three clauses:

- Clause 5: Verification of configuration parameters. This clause contains the parameters specified by the standards referencing IEC 62351-3 (see IEC 62351-3:2014/AMD1:2018, Clause 7) and affecting the protocol behaviour.
- Clause 6: Verification of IEC 62351-3 requirements. The goal of this clause is to verify that DUT is conformant to the requirements of the IEC 62351-3.
- Clause 7: Test result chart. This clause contains the results of the test cases listed in Clause 6 for each supported value of the configuration parameters listed in Clause 5.

The test cases are organized in tables. They are numbered, their numbering syntax is: Subclause number (where the table is located) + test case number.

In the column 'Reference' each test case has a direct reference to IEC 62351-3 where the clause under test is defined. PICS or Protocol Implementation eXtra Information for Testing (PIXIT) could be found in the "Reference" column for some test cases whenever the execution of the test case shall take into account specific parameter values declared in the PICS or PIXIT of the DUT.

Test cases are mandatory depending on the description in the column 'Required'. The following situations are possible:

M = Mandatory test case. The test is referencing to a clause that is mandatory in IEC 62351-3.

PICS

or

PIXIT = Mandatory test case if the functionality is enabled in the PICS or PIXIT by marking the applicable check box or declaring the applicable value.

### **Intelligent Electronic Devices (IEDs) (Sl. No. 2 of Table – A of Annexure – 1)**

Utilities / manufacturers will submit the sample along with all the required technical documentation for taking up testing to the designated laboratory.

#### **Reference standards**

IEC 61850 series

Specifically IEC 61850-5, IEC 61850-6, IEC 61850-7, IEC 61850-8, IEC 61850-9 and IEC 61850-10

#### **Test cases**

Communication protocol conformance as per IEC 61850 -10. This part of standard defines methods and abstract test cases for conformance testing of client, server and sampled values devices used in power utility automation systems, the methods and abstract test cases for conformance testing of engineering tools used in power utility automation systems, and the metrics to be measured within devices according to the requirements defined in IEC 61850-5. Further this part of standard specifies standard techniques for testing of conformance of client, server and sampled value devices and engineering tools, as well as specific measurement techniques to be applied when declaring performance parameters. The use of these techniques will enhance the ability of the system integrator to integrate IEDs easily, operate IEDs correctly, and support the applications as intended.

### **Smart Meters (Sl. No. 3 of Table – A of Annexure – 1)**

Utilities / manufacturers will submit the sample along with all the required technical documentation for taking up testing to the designated laboratory.

IEC 62056 series of standards (Electricity metering data exchange – The DLMS/COSEM suite) specifies details of communication protocol requirements, conformance testing and security requirements. The Part 5-3 (DLMS/COSEM application layer) specifies the DLMS/COSEM application layer in terms of structure, services and protocols for DLMS/COSEM clients and servers, and defines rules to specify the DLMS/COSEM communication profiles. It defines services for establishing and releasing application associations, and data communication services for accessing the methods and attributes of COSEM interface objects, defined in IEC 62056-6-2 using either logical name (LN) or short name (SN) referencing.

Clause 5 and sub clauses specifies security requirements. It cover security concepts, Identification and authentication, Cryptographic algorithms, Cryptographic keys – overview, Key used with symmetric key algorithms, Keys used with public key algorithms and Applying cryptographic protection.

**Note:** All above referred standards shall be latest with amendments if any at the time of submission of sample(s) for testing.

## **Testing Criteria**

### **1) Supply from Trusted Sources**

The sample size shall be as specified by CEA as per the approved criteria for Trusted Vendors

### **2) Supply from other than trusted vendors**

The sample size shall be 5% of the supply lot / ordered quantity (minimum one). The manufacturer shall submit request to the Nodal agency along with vendor's / manufacturer's certifications for supply chain management system practices and secure product development process implementations based on any one or more of standards ISO / IEC 27036, ISO / IEC 20243, IEC 62443 for verification.

After scrutiny of vendor's / manufacturer's certifications the supplier / utilities shall be asked to submit product to the designated laboratory for communication and cyber security conformance testing.

The supply lot shall stand rejected on failure to comply with the test requirements.

### **3) Supply from prior reference countries**

The utility shall obtain prior permission from the Government of India for importing the product / system from prior reference countries.

The sample size shall be 10 % of the supply lot / ordered quantity (minimum one). The manufacturer shall submit request to the Nodal agency along with vendor's / manufacturer's certifications for supply chain management system practices and secure product development process implementations based on any one or more of standards ISO / IEC 27036, ISO / IEC 20243, IEC 62443 for verification.

After scrutiny of vendor's / manufacturer's certifications the supplier / utilities shall be asked to submit product to the designated Government / Government controlled Autonomous laboratory for type tests (Annexure – 4) and communication & cyber security conformance testing.

The supply lot shall stand rejected on failure to comply with the test requirements.

## **Type Tests**

Products imported from prior reference countries shall also undergo type testing as per following standards in addition to communication protocol and security conformance testing at the designated Government / Government controlled Autonomous laboratory:

### **Type test standards for RTUs**

1. IEC 60870-1-2:1989 Telecontrol equipment and systems. Part 1: General considerations. Section Two: Guide for specifications.
2. IEC 60870-2-1:1995 Telecontrol equipment and systems - Part 2: Operating conditions - Section 1: Power supply and electromagnetic compatibility.
3. IEC 60870-2-2:1996 Telecontrol equipment and systems - Part 2: Operating conditions -Section 2: Environmental conditions (climatic, mechanical and other non-electrical influences).
4. IEC 60870-3:1989 Telecontrol equipment and systems. Part 3: Interfaces (electrical characteristics)

### **Type test standard for IEDs / Numerical Protection Relays / Bay controls units**

1. IEC 61850-3: 2013, Ed. 2 Communication networks and systems for power utility automation – Part 3: General requirements.

### **Type test standards for Smart meters**

1. IS 16444: 2015 AC static direct connected watthour smart meter class 1 and 2 – Specification.
2. IS 16444 Part 2: 2017 AC static transformer operated watthour and var - Hour smart meters, class 0.2 S, 0.5 S and 1.0 S: Part 2 specification transformer operated smart meters.

### **Note:**

1. All above referred standards shall be latest with amendments if any at the time of submission of sample(s) for testing.
2. Type tests generally covers functionality, environmental, mechanical, EMI/ EMC and electrical safety related tests.

**Details of Source wise Fuel for Computation of  
Energy Charges<sup>1</sup>**

Name of the Petitioner

Name of the Generating Station

S. No.	Month	Unit	For preceding 3rd Month (from COD or from 1.4.2019 as the case may be )			For preceding 2nd Month (from COD or from 1.4.2019 as the case may be )		For preceding 1st Month (from COD or from 1.4.2019 as the case may be )	
			Domestic Source (1)	Domestic Source (2)	Imported	Domestic	Imported	Domestic	Imported
<b>A)</b>	<b>OPENING QUANTITY</b>								
1	Opening Quantity of Coal/Lignite	(MMT)							
2	Value of Stock								
<b>B)</b>	<b>QUANTITY</b>								
3	Quantity of Coal/Lignite supplied by Coal/Lignite Company	(MMT)							
4	Adjustment (+/-) in quantity supplied made by Coal/Lignite Company	(MMT)							
5	Coal supplied by Coal/Lignite Company (3+4)	(MMT)							
6	Normative Transit & Handling Losses (For	(MMT)							

S. No.	Month	Unit	For preceding 3rd Month (from COD or from 1.4.2019 as the case may be )			For preceding 2nd Month (from COD or from 1.4.2019 as the case may be )		For preceding 1st Month (from COD or from 1.4.2019 as the case may be )	
	coal/Lignite based Projects)								
7	Net coal / Lignite Supplied (3-4)	(MMT)							
<b>C)</b>	<b>PRICE</b>								
8	Amount charged by the Coal /Lignite Company	(Rs.)							
9	Adjustment (+/-) in amount charged made by Coal/Lignite Company	(Rs.)							
10	Handling, Sampling and such other similar charges								
11	Total amount Charged (8+9+10)	(Rs.)							
<b>D)</b>	<b>TRANSPORATION</b>								
12	Transportation charges by rail/ship/road transport	(Rs.)							
	By Rail								
	By Road								
	By Ship								
	.....								
13	Adjustment (+/-) in amount charged made by	(Rs.)							

S. No.	Month	Unit	For preceding 3rd Month (from COD or from 1.4.2019 as the case may be )			For preceding 2nd Month (from COD or from 1.4.2019 as the case may be )		For preceding 1st Month (from COD or from 1.4.2019 as the case may be )	
	Railways/Transport Company								
14	Demurrage Charges, if any	( Rs.)							
15	Cost of diesel in transporting coal through MGR system, if applicable	( Rs.)							
16	Total Transportation Charges (12+13+14+15)	( Rs.)							
17	Total amount Charged for coal/lignite supplied including Transportation (11+16)	( Rs.)							
<b>E)</b>	<b>TOTAL COST</b>								
18	Landed cost of coal/ Lignite (2+17)/(1+7)	Rs./MT							
19	Blending Ratio (Domestic/Imported)								
20	Weighted average cost of coal/ Lignite for preceding three months	Rs./MT							
<b>F)</b>	<b>QUALITY</b>								
21	GCV of Domestic Coal of the opening coal stock as per bill of Coal Company	(kCal/Kg)							
22	GCV of Domestic Coal supplied as per bill of Coal Company	(kCal/Kg)							

S. No.	Month	Unit	For preceding 3rd Month (from COD or from 1.4.2019 as the case may be )			For preceding 2nd Month (from COD or from 1.4.2019 as the case may be )		For preceding 1st Month (from COD or from 1.4.2019 as the case may be )	
23	GCV of Imported Coal of the opening stock as per bill Coal Company	(kCal/Kg)							
24	GCV of Imported Coal supplied as per bill Coal Company	(kCal/Kg)							
25	Weighted average GCV of coal/ Lignite as Billed	(kCal/Kg)							
26	GCV of Domestic Coal of the opening stock as received at Station	(kCal/Kg)							
27	GCV of Domestic Coal supplied as received at Station	(kCal/Kg)							
28	GCV of Imported Coal of opening stock as received at Station	(kCal/Kg)							
29	GCV of Imported Coal of opening stock as received at Station	(kCal/Kg)							
30	Weighted average GCV of coal/ Lignite as Received	(kCal/Kg)							

**Note:**

1. Similar details to be furnished for natural gas/liquid fuel for CCGT station and secondary fuel oil for coal/lignite based thermal plants with appropriate units.
2. As billed and as received GCV, quantity of coal, and price should be submitted as certified by statutory auditor.
3. Details to be provided for each source separately. In case of more than one source, add additional column.
4. Break up of the amount charged by the Coal Company is to be provided separately.

**(Petitioner)**

**Details of Source wise Fuel for Computation of  
Energy Charges<sup>1</sup>**

Name of the Petitioner

Name of the Generating Station

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Sr. No.	Month-wise	Unit	For Existing Plants Year wise and Month-wise details for the period 2024-29 ( For preceding 12 months )							
			Domestic Source (1)	.....	Domestic Source (n)	Integrated Mine (Basket)	Integrated Mine (Captive)	E-Auction	Imported	Others (specify)
<b>A)</b>	<b>OPENING QUANTITY</b>									
1	Opening Quantity of Coal/Lignite	(MMT)								
2	Value of Stock									
<b>B)</b>	<b>QUANTITY</b>									
3	Quantity of Coal/Lignite supplied by Coal/Lignite Company for the particular month giving complete details of mode of transportation used for transportation along with quantity.	(MMT)								
	By Rail									
	By Road									
	By Ship									

Sr. No.	Month-wise	Unit	For Existing Plants Year wise and Month-wise details for the period 2024-29 ( For preceding 12 months )							
			Domestic Source (1)	.....	Domestic Source (n)	Integrated Mine (Basket)	Integrated Mine (Captive)	E-Auction	Imported	Others (specify)
	By MGR									
	By any other mode (specify)									
4	Adjustment (+/-) in quantity supplied made by Coal/Lignite Company *	(MMT)								
5	Coal supplied by Coal/Lignite Company (3+4)	(MMT)								
6	Actual Transit & Handling Losses (For coal/Lignite based Projects) specify the source	(MMT)								
7	Actual coal / Lignite received	(MMT)								
C)	<b>PRICE</b>									
8	Amount charged by the Coal /Lignite Company	(Rs.)								
9	Adjustment (+/-) in amount charged made by Coal/Lignite Company *	(Rs.)								
10	Unloading, Handling and Sampling charges.									
	Unloading charges									
	Handling charges									
	Sampling charges									

Sr. No.	Month-wise	Unit	For Existing Plants Year wise and Month-wise details for the period 2024-29 ( For preceding 12 months )							
			Domestic Source (1)	.....	Domestic Source (n)	Integrated Mine (Basket)	Integrated Mine (Captive)	E-Auction	Imported	Others (specify)
11	Total amount Charged (8+9+10)	(Rs.)								
<b>D)</b>	<b>TRANSPORATION</b>									
12	Transportation charges by rail/ship/road transport	(Rs.)								
	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.)								
17	Total amount Charged for coal/lignite supplied including Transportation (11+16)	( Rs.)								
<b>E)</b>	<b>TOTAL COST</b>									
18	Landed cost of coal/ Lignite (2+17)/(1+7)	Rs./MT								

Sr. No.	Month-wise	Unit	For Existing Plants Year wise and Month-wise details for the period 2024-29 ( For preceding 12 months )							
			Domestic Source (1)	.....	Domestic Source (n)	Integrated Mine (Basket)	Integrated Mine (Captive)	E-Auction	Imported	Others (specify)
19	Blending Ratio (Domestic/Imported)									
20	Weighted average cost of coal/ Lignite for preceding twelve months	Rs./MT								
<b>F)</b>	<b>QUALITY</b>									
21	GCV of Domestic Coal of the opening coal stock as per bill of Coal Company	(kCal/Kg)								
22	GCV of Domestic Coal supplied as per bill of Coal Company	(kCal/Kg)								
23	GCV of Imported Coal of the opening stock as per bill Coal Company	(kCal/Kg)								
24	GCV of Imported Coal supplied as per bill Coal Company	(kCal/Kg)								
25	Weighted average GCV of coal/ Lignite as Billed	(kCal/Kg)								
26	GCV of Domestic Coal of the opening stock as received at Station	(kCal/Kg)								
27	GCV of Domestic Coal supplied as received at Station	(kCal/Kg)								

Sr. No.	Month-wise	Unit	For Existing Plants Year wise and Month-wise details for the period 2024-29 ( For preceding 12 months )							
			Domestic Source (1)	.....	Domestic Source (n)	Integrated Mine (Basket)	Integrated Mine (Captive)	E-Auction	Imported	Others (specify)
28	GCV of Imported Coal of opening stock as received at Station	(kCal/Kg)								
29	GCV of Imported Coal supplied as received at Station	(kCal/Kg)								
30	Weighted average GCV of coal/ Lignite as Received	(kCal/Kg)								

(\*specifying the period of adjustment along with reason and support document for the adjustment)

**Note:**

1. Similar details to be furnished for natural gas/liquid fuel for CCGT station and secondary fuel oil for coal/lignite based thermal plants with appropriate units.
2. As billed and as received GCV, quantity of coal, and price should be submitted as certified by statutory auditor.
3. The action taken to address the difference in GCV between as billed and as received should be submitted along with the petition.
4. The details of source wise fuel for computation of energy charges should be provided on year wise in above format along with month wise calculation as may be required by the Commission.
5. Details to be provided for each source separately. In case of more than one source, add additional column.
6. Break-up of the amount charged by the Coal Company is to be provided separately.
7. Distance of Integrated Mines from Generating Station, if applicable, is to be provided separately.

**(Petitioner)**