

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

Petition No. \_\_\_/TT/ \_\_\_

**IN THE MATTER OF:** - Petition for truing up of Transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block for **Combined Asset consisting of Asset-I: Ckt-III of 400 kV D/C Vindhyachal-Satna Transmission Line alongwith associated bays; Asset-II: 400/220 kV, 315 MVA ICT-II at Satna Sub-station; Asset-III: Ckt-IV of 400 kV D/C Vindhyachal-Satna line along with associated bays; Asset-IV: LILO of 400 kV SatnaBina Ckt-I & II at Bina (POWERGRID) Sub-station; Asset-V: Circuit IV of 400 kV D/C Satna-Bina Transmission Line; Asset-VI: Circuit III of 400 kV D/C Satna-Bina Transmission Line; Asset-VII: LILO of 400 kV D/C Raipur-Rourkela Transmission Line alongwith associated bays; Asset-VIII: 400/220 kV, 315 MVA ICT-II along with associated bay equipment at Raigarh Sub-station under "Vindhyachal-III Transmission System" in Western Region** under Section 62 read with Section 79 (1) (d) of Electricity Act, 2003 and under the Regulation 15 (1) (a) and Regulation 23 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2023 read with Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2019 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2024.

**Power Grid Corporation of India Ltd.**

Registered office: B-9, Qutab Institutional Area,  
Katwaria Sarai, New Delhi. 110 016.

Corporate Centre: 'SAUDAMINI', Plot No-2,  
Sector-29, Gurgaon-122 001 (Haryana).

---Petitioner Name

Madhya Pradesh Power Management Company Ltd.,  
Shakti Bhawan, Rampur,  
Jabalpur - 482008.

**And others**

Place: *Gurgaon*  
Date: *04.11.24*

---Respondent Name

Petitioner  
*(Zafarul Hasan)*  
General Manager (Commercial)



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--- PETITIONER

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Madhya Pradesh Power Management Company Ltd.,  
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Jabalpur - 482008.

----- RESPONDENTS

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**FILED BY  
POWER GRID CORPORATION OF INDIA LTD.**

**GURGAON**

**DATED: 04.11.24**

**REPRESENTED BY**

**Zafrul Hasan  
General Manager (Commercial)**



**BEFORE**  
**THE CENTRAL ELECTRICITY REGULATORY COMMISSION**  
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--- PETITIONER

Madhya Pradesh Power Management Company Ltd.,  
Shakti Bhawan, Rampur,  
Jabalpur - 482008.

----- RESPONDENTS

To  
The Secretary  
Central Electricity Regulatory Commission



New Delhi 110001

Sir,

The present tariff Petition is filed under Section 62 read with Section 79 (1) (d) of Electricity Act, 2003 and under the Regulation 15 (1) (a) and Regulation 23 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2023 read with Central Electricity Regulatory Commission (Terms and Condition of Tariff Regulations) 2019 and Central Electricity Regulatory Commission (Terms and Condition of Tariff Regulations) 2024 and same may be pleased to be registered and taken on record by the Hon'ble Commission.

**GURGAON**

**FILED BY**

**DATED: 04.11.2024**

**POWER GRID CORPORATION OF INDIA LTD.**

**REPRESENTED BY**

  
**Zafrul Hasan**

**General Manager (Commercial)**



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

**PETITION NO.: .....**

**IN THE MATTER OF:** Petition for trueing up of Transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block for **Combined Asset consisting of Asset-I: Ckt-III of 400 kV D/C Vindhyachal-Satna Transmission Line alongwith associated bays; Asset-II: 400/220 kV, 315 MVA ICT-II at Satna Sub-station; Asset-III: Ckt-IV of 400 kV D/C Vindhyachal-Satna line along with associated bays; Asset-IV: LILO of 400 kV SatnaBina Ckt-I & II at Bina (POWERGRID) Sub-station; Asset-V: Circuit IV of 400 kV D/C Satna-Bina Transmission Line; Asset-VI: Circuit III of 400 k V D/C Satna-Bina Transmission Line; Asset-VII: LILO of 400 kV D/C Raipur-Rourkela Transmission Line alongwith associated bays; Asset-VIII: 400/220 kV, 315 MVA ICT-II along with associated bay equipment at Raigarh Sub-station under “Vindhyachal-III Transmission System” in Western Region** under Section 62 read with Section 79 (1) (d) of Electricity Act, 2003 and under the Regulation 15 (1) (a) and Regulation 23 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2023 read with Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2019 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2024.

**Power Grid Corporation of India Ltd.**

**---PETITIONER**

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Sector-29, Gurgaon-122 001 (Haryana).

Madhya Pradesh Power Management Company Ltd.,  
Shakti Bhawan, Rampur,  
Jabalpur - 482008.

**----- RESPONDENTS**

**MEMO OF PARTIES**

**Power Grid Corporation of India Ltd.**

**--- PETITIONER**

VERSUS



1. Madhya Pradesh Power Management Company Ltd.,  
Shakti Bhawan, Rampur,  
Jabalpur - 482008.

2. Maharashtra State Electricity Distribution Co. Ltd.,  
Hongkong Bank Building, 3rdFloor, M.G. Road, Fort,  
Mumbai-400001.

3. Gujarat Urja Vikas Nigam Ltd.,  
Sardar Patel Vidyut Bhawan,  
Race Course Road,  
Vadodara - 390007.

4. Electricity Department,  
Government of Goa,  
Vidyut Bhawan, Panaji, Near Mandvi Hotel,  
Goa - 403001.

5. DNH and DD Power Corporation Ltd.  
1st & 2nd floor, Vidyut bhavan,  
Silvassa - 396230, DNH, India

6. Chhattisgarh State Power Distribution Co. Ltd.,  
P.O. Sunder Nagar, Dangania,  
Raipur-492 013.

--- RESPONDENTS

GURGAON

DATED: 04.11.24

PETITIONER  
POWER GRID CORPORATION OF INDIA LTD.  
REPRESENTED BY

General Manager



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

Petition No. ----/TT/----

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**Power Grid Corporation of India Ltd.**

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Madhya Pradesh Power Management Company Ltd.,  
Shakti Bhawan, Rampur,  
Jabalpur - 482008.

--- RESPONDENT

**MEMO OF APPEARANCE**





**POWER GRID CORPORATION OF INDIA LTD.**

**-- PETITIONER**

1. Shri Dilip Nagesh Rozekar, ED (Commercial & RC), POWERGRID
2. Shri Mohd. Mohsin, Chief GM (Comml- Petition), POWERGRID
3. V.C. Sekhar, Sr. GM (Commercial-RC), POWERGRID
4. **Shri Zafrul Hasan, GM (Comml- Petition), POWERGRID**
5. Shri Vishal Sagar, DGM (Comml- Petition), POWERGRID
6. Shri Arjun Malhotra, Manager (Comml- Law), POWERGRID

I, Zafrul Hasan, the Petitioner above named do hereby nominate to act, plead and appear on my behalf in the aforesaid matter.

IN WITNESS WHEREOF I have set and subscribed my hands to this writing on this .....day of November 2024.

**PETITIONER**

**POWER GRID CORPORATION OF INDIA LTD.**

**GURGAON**

**DATED: 11.11.2024**

**Zafrul Hasan**

**General Manager (Commercial)**



**BEFORE**  
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**--- PETITIONER**

Madhya Pradesh Power Management Company Ltd.,  
Shakti Bhawan, Rampur,  
Jabalpur - 482008.

Represented by its Managing Director

**----- RESPONDENTS**



**A. Executive Summary of the Petition:**

**(i) Brief Background of the Petitioner**

1. The Petitioner herein, Power Grid Corporation of India Ltd. (Hereinafter referred to as **"POWERGRID/Petitioner"**) is a Government Company within the meaning of the Companies Act, 2013. POWERGRID is deemed transmission licensee in terms of Section 14 of the Electricity Act, 2003. POWERGRID by virtue of a transmission licensee is required to inter-alia build, maintain and operate an efficient, coordinated and economical inter-state transmission system ("**ISTS**"). POWERGRID operates and functions within the regulatory control of this Hon'ble Central Electricity Regulatory Commission (hereinafter referred to as "**Hon'ble Commission**"). Tariff for the transmission system established by POWERGRID is required to be determined by this Hon'ble Commission in accordance with the Tariff Regulations as notified by this Hon'ble Commission in exercise of its powers under Section 178 of the Electricity Act, 2003.

**(ii) Brief background of the Respondent(s):**

POWERGRID has impleaded distribution licensees and Government department of the respective states which are engaged in distribution of electricity in Western Region of India. The respondents are also 'Designated Inter State Transmission Customer' (hereinafter referred to as 'DICs') in terms of the 2020 Sharing Regulations from Western region.

**(iii) Background of Transmission Assets:**

2. POWERGRID has filed the present petition for truing up of transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block for the following Assets which are implemented under "**Vindhyachal-III Transmission System**" in **Western Region**" for the following:



Asset No	Asset Name	DOCO	Remarks
Asset-I	Ckt-III of 400 kV D/C Vindhyachal-Satna Transmission Line along with associated bays	01.10.2006	True up of 2014-19 tariff block and tariff for 2019-24 block covered under petition no. 395/TT/2019. All the assets have been merged into combined asset during 2009-14 tariff block with ECOD as 01.02.2008
Asset-II	400/220 kV, 315 MVA ICT-II at Satna Sub station	01.11.2006	
Asset-III	Ckt-IV of 400 kV D/C Vindhyachal-Satna Transmission Line along with associated bays	01.12.2006	
Asset-IV	LILO of 400 kV Satna-Bina Ckt- I & II at Bina (Power Grid) Sub-station	01.04.2007	
Asset-V	Circuit IV of 400 kV D/C Satna-Bina Transmission Line	01.07.2007	
Asset-VI	Circuit III of 400 k V D/C Satna-Bina Transmission Line	01.09.2007	
Asset-VII	LILO of 400 kV D/C Raipur-Rourkela Transmission Line alongwith associated bays; and	01.01.2008	
Asset-VIII	400/220 kV, 315 MVA ICT-II along with associated bay equipment at Raigarh Sub-station*	01.02.2008	

\* the instant asset contains 1 no. 63 MVAr Bus reactor at Rajgarh. However, inadvertently, Bay for the said reactor is claimed under Satna SS as "Bus Reactor Bay at Satna - 1 Bay" in form-2 of the petition no. 395/TT/2019 and that the O&M Charges for the same has been allowed by Hon'ble Commission vide order dated 27.01.2021 in petition no. 395/TT/2019. The same bay is now claimed as "BUS REACTOR BAY AT RAJGARH" in the instant petition and Tariff for the said reactor is also claimed w.e.f. 01.04.2024 in line with Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024



**(iv) Summary of Claims:**

3. A. POWERGRID is seeking trueing up of transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block for aforesaid transmission assets on capital cost comprising of capital cost incurred/Admitted upto 31.03.2019/DOCO and additional capital expenditure during 2019-24 & 2024-29 in accordance with terms of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (“**Tariff Regulations, 2019**”) and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024 (“**Tariff Regulations, 2024**”).
4. The details of FR/RCE approved cost vis-a cis claimed capital cost as on 31.03.2019 and additional capital expenditure during 2019-24 and 2024-29 tariff block is as under:

**Rs in lakhs**

Asset No.	Approved Cost as per FR	Approved Cost as per RCE	Expenditure Up to DOCO /31.03.2019	Expenditure during 2019-24 tariff block	Actual Cost as on 31.03.2024
				2019-24	
<b>Combined Asset</b>	59647	68956	64855.85	No add cap	64855.85

**Rs in lakhs**

Asset No.	Approved Cost as per FR	Approved Cost as per RCE	Expenditure Up to 31.03.2024	Estimated expenditure during 2024-29 tariff block	Estimated completion Cost as on 31.03.2029
				2024-29	
<b>Combined Asset</b>	59647	68956	64855.85	No add cap	64855.85

5. It is prayed to hon'ble commission to reimburse expenditure of petition filing fee, license fee, newspaper publication expanses and RLDC fee & charges etc.

6. Details of tariff claimed are as under:

True up annual transmission tariff for 2019-24 tariff block:



Name of the asset	Particular	2019-20	2020-21	2021-22	2022-23	2023-24
Combined Asset	AFC approved	9402.69	6717.64	6704.6	6686.65	6667.03
	Revised AFC based on truing up	9,402.68	6,717.64	6,695.25	6,677.22	6,676.53

Tariff claimed for 2024-29 tariff block:

Rs in Lakhs					
Name of the asset	2024-25	2025-26	2026-27	2027-28	2028-29
Combined Asset	6,272.28	6,297.82	6,367.92	6,460.34	6,559.86

**B. Detailed Petition:**

**MOST RESPECTFULLY SHOWETH:**

**Issue wise submission(s):**

7. The Petitioner herein, Power Grid Corporation of India Ltd/ POWERGRID. is a Government Company within the meaning of the Companies Act, 1956. POWERGRID is a deemed transmission licensee under Section 14 of the Electricity Act 2003.
8. POWERGRID being transmission licensee is required to inter-alia build, maintain and operate an efficient, coordinated and economical interstate transmission system (ISTS). The tariff for the said transmission systems shall be determined by the Hon'ble Central Commission in accordance with the Tariff Regulations, 2019 and 2024.
9. That the subject project/petition covers approval of transmission tariff for following Asset:

Asset No	Asset Name	EDOCO	Remarks
Combined Asset	Combined Asset under Vindhychal-III Transmission System" in Western Region	01.02.2008	Earlier covered under petition no. 395/TT/2019 now covered under instant petition



**10. Cost detail:**

The capital cost of Rs. 64855.85 Lakh for subject Asset has been admitted by Hon'ble commission vide order dated 27.01.2021 in petition no. 395/TT/2019. The said order was revised vide Corrigendum dated 07.02.2022. Copy of both the orders is enclosed as **Encl-1**. In the current petition, no additional capital expenditure was incurred during the 2019-24 tariff block, and no additional capital expenditures are proposed during the 2024-29 tariff block.

**11. Transmission tariff:**

The 2019-2024 truing up exercise is to be done at the time of filing tariff petition for next block, i.e. 2024-29 period as per regulation 13 of Tariff Regulation 2019-24.

Regulation 13 of Tariff Regulation 2019-24:

**Quote**

"The Commission shall carry out truing up exercise for the period 2019-24 along with the tariff petition filed for the next tariff period, for the following:"

**Unquote**

That the Petitioner is required to adjust the yearly impact of MAT as per regulation 31 (3) of the tariff Regulation 2019-24 period dated 07.03.2019 in the truing up petition for 2019-24 tariff block.

Regulation 31 (3) of the tariff Regulation 2019-24:

**Quote**

The generating company or the transmission licensee, as the case may be, shall true up the grossed up rate of return on equity at the end of every financial year based on actual tax paid together with any additional tax demand including interest thereon, duly adjusted for any refund of tax including interest received from the income tax authorities pertaining to the tariff period 2019-24 on actual gross income of any financial year. However, penalty, if any, arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the generating company or the transmission licensee, as the case may be. Any under-recovery or over-recovery of grossed up rate on return



on equity after truing up, shall be recovered or refunded to beneficiaries or the long term customers, as the case may be, on year to year basis

### Unquote

It is submitted that the Income Tax assessment of the Petitioner has been completed and Assessment Orders has been issued by the Income Tax Department for FY 2019-20 and 2020-21; and that the Income Tax returns have been filed with the Income Tax Department for FY 2021-22 & 2022-23. Further, it is submitted that the Income Tax Return for 2023-24 will be filed in due course.

As such, basis of year wise effective tax rate and Grossed up ROE trued up accordingly for the block period 2019-24 is summarized as under.

Financial Year	Basis considered	Total Tax & Interest paid (Rs)	Assessed MAT Income under Sec 115 JB (Rs)	Effective Tax percentage	Grossed up ROE (Base rate/(1-t))
2019-20	Assessment Order	24,52,62,76,991	1,40,37,47,53,855	17.472%	18.782%
2020-21	Assessment Order	26,08,93,59,008	1,49,32,09,65,036	17.472%	18.782%
2021-22	Actual Tax paid	31,81,46,40,406	1,82,08,92,88,030	17.472%	18.782%
2022-23	Actual Tax paid	30,42,88,20,993	1,74,15,76,29,306	17.472%	18.782%
2023-24	Applicable Rate #		#	17.472%	18.782%

# Based on the applicable rate of MAT @ 15 %, Surcharge @ 12% & Cess @ 4%

The above Effective Tax percentage shall be applied by the petitioner in arriving out the Grossed up ROE rate in all cases of truing up petitions to be filed for the period 2019-24.

It is submitted that effective rate of tax considered for FY 2019-20 and 2020-21 are based





on Assessment Order issued by Income-Tax authorities, for the purpose of grossing up of ROE rate and that the effective rate of tax considered for F/Y 2021-22 and F/Y 2022-23 are based on the Income-tax returns filed, for the purpose of grossing up of ROE rate of respective years. Further, for F/Y 2023-24, pending filing of ITR, effective tax rate is calculated based the applicable MAT rate (i.e. MAT 15% + Surcharge 12.00% + Cess 4%), for the purpose of grossing up of ROE rate.

The Hon'ble Commission is requested to allow the petitioner to claim the differential tariff on account of the trued up ROE based on effective tax rate calculated on completion of Income-tax assessment/re-assessment for the F/Y 2019-20, 2020-21,2021-22,2022-23 and 2023-24 on receipt of the respective assessment orders, directly from the beneficiaries, on year to year basis as provided in the regulation.

In line with the above Regulation, the tariff for each year of the tariff period 2019-24 block has been trued up considering the above Effective Tax percentage to arrive at Grossed up ROE rate.

While filing Tariff petition for 2019-24 period, the petitioner had prayed for allowing the floating rate of Interest on loan adjustments. As per Hon'ble Commission order dated 27.01.2021 in petition no. 395/TT/2019, it has been stated that the weighted average rate of IoL has been considered on the basis of rate prevailing as on 1.4.2019 and accordingly, the floating rate of interest on actual, applicable from time to time, if any, during 2019-24 tariff shall be considered at the time of true up or next revision of tariff.

That in the present petition, truing up of transmission tariff for the tariff block 2019-24 is being carried out on account of actual additional capitalization during 2019-24 tariff block, change in MAT rate as well as floating rate of interest during 2019-24.

12. The trued up annual transmission tariff for the tariff period 2019-24 is summarized as below:

Rs in Lakh

Name of the asset	Particular	2019-20	2020-21	2021-22	2022-23	2023-24
Asset-1	AFC approved	9402.69	6717.64	6704.6	6686.65	6667.03
	Revised AFC based on truing up	9,402.68	6,717.64	6,695.25	6,677.22	6,676.53



Tariff Filing Formats along with the other relevant information and supporting documentation are attached hereto as **Encl-2**.

That in the subject petition, details are provided in various Tariff Forms with respect to Capital Cost as per books / Gross Block amount as per Books. It is submitted that the petitioner has opted for deemed cost exemption as per Para D7 AA of Ind AS 101 'First-time Adoption of Indian Accounting Standards'. Accordingly Carrying value i.e. Gross Block less Accumulated Depreciation is considered as deemed cost as on the date of transition i.e. 1st April 2015. As such, in case of assets commissioned before 01.04.2015, the accumulated depreciation as on 1st April 2015 is added back to the deemed Capital Cost as per books / Gross Block amount as per Books for arriving at the figures to be provided in various Tariff Forms.

13. The tariff for 2024-29 tariff block is summarized below:

Rs in Lakh

Name of the asset	2024-25	2025-26	2026-27	2027-28	2028-29
<b>Asset-1</b>	6,272.28	6,297.82	6,367.92	6,460.34	6,559.86

Tariff Filing Formats along with the other relevant information and supporting documentation are attached hereto as **Encl-3**.

14. The asset has completed 12 Yrs during the tariff block 2019-24 and thus depreciation till 2019-20 has been calculated based on the straight line method and at rate specified in Appendix-I as per clause 33 (5) of the CERC Tariff regulations 2019. Further, from FY 2020-21, depreciation has been calculated based on remaining depreciable value to be recovered in the balance useful life. The details have been computed and are provided in Form- 10 A.
15. That, it is submitted that the petitioner is currently liable to pay income tax at MAT rate specified in Income-tax Act,1961. Therefore, ROE has been calculated @ 18.782% after grossing up the ROE with MAT rate of 17.472% (Base Rate 15% + Surcharge 12% + Cess 4%) based on the formula given at regulation 31 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024 for 2024-



29 period. That as per clause 31 (3) of the above regulation, the grossed up rate of ROE at the end of every financial year shall be trued up based on actual tax paid together with any additional tax demand including interest thereon duly adjusted for any refund of tax including interest received from the IT authorities pertaining to the tariff period 2024-29 on actual gross income of any financial year. However, penalty, if any, arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the generating company or the transmission licensee, as the case may be. Any under-recovery or over-recovery of grossed up rate on ROE after truing up shall be recovered or refunded to beneficiaries or the long term customers, as the case may be on year to year basis. It is further submitted that adjustment due to any additional tax demand including interest duly adjusted for any refund of tax including interest received from IT authorities shall be recoverable /adjustable during the tariff period 2024-29 on year to year basis on receipt of Income Tax assessment order.

16. Under CGST Act, 2017 implemented w.e.f. 01.07.2017, the Govt. of India has exempted the charges of transmission of electricity vide notification no. 12/2017 – Central Tax (Rate) dated 28.06.2017 at serial no. 25 under the heading 9969 “Transmission or distribution of electricity by an electric transmission or distribution utility” by giving applicable GST rate as NIL. Hence, the Transmission Charges as indicated at para 12 above is exclusive of GST. Further, if GST is levied at any rate and at any point of time in future on Charges of Transmission of Electricity, the same shall be borne and additionally paid by the respondent(s) to the petitioner and the same shall be charged & billed separately by the petitioner. Further additional taxes, if any, are to be paid by the petitioner on account of demand from Govt. / Statutory authorities, the same may be allowed to be recovered from the beneficiaries.
17. In the tariff calculation for 2019-24 period, Interest on Loan has been calculated on the basis of actual rate of interest of various loans deployed for each year. In the tariff calculation for 2024-29 period, Interest on Loan has been calculated on the basis of interest rates prevailing as on 01.04.2024 for respective loans. The change in Interest rate due to floating rate of interest applicable, if any, for the project needs to be claimed / adjusted over the tariff block of 05 years directly from / with the beneficiaries.

For the purpose of the supporting documents for rate of interest, a compendium of floating rate of interest of various loans during the tariff period 2019-24 has been



submitted along with Truing up petition with Diary no. 716/2024. These documents/details are also available on our website [www.powergrid.in](http://www.powergrid.in)

18. The transmission charges at para-12 & 13 above is inclusive of O&M expenses derived for the subject asset based on the norms for O&M expenditure for Transmission System as specified under regulation 36 (3) (a) of the tariff regulations for block 2024-29.
19. That as per Regulation 36(3)(d) of CERC Tariff Regulations, 2024, the Security Expenses, Insurance and Capital Spares more than Rs. 10 Lakh for transmission system shall be allowed separately after prudence check.

**Security Expenses:**

In this regard, it is submitted that a separate petition shall be filed for truing up of security expenses from 01.04.2019 to 31.03.2024 under the Regulation 35 (3) (C) of Central Electricity Regulatory Commission (Terms and Condition of Tariff Regulations) 2019 and recovery of security expenses from 01.04.2024 to 31.03.2029 under the Regulation 36 (3) (d) of Central Electricity Regulatory Commission (Terms and Condition of Tariff Regulations) 2024.

**Insurance:**

In this regard, it is submitted that a separate petition shall be filed before Hon'ble Commission for claiming the overall Insurance Expenses and consequential Interest on Working Capital (IOWC) on the same considering actual Insurance Expense incurred by the Petitioner for the F/Y 2023-24 after escalating the same at 5.25% per annum for arriving at the Estimated Insurance Expense for the year 2024-25, 2025-26, 2026-27, 2027-28 and 2028-29.

**Capital Spare:**

With regard to Capital Spares, the Petitioner has filed a separate Petition bearing No 45/MP/2024 for claiming the capital spares under Tariff Regulations 2019. Further, as per Tariff Regulations, 2024, Capital spares consumed and consequential Interest on Working Capital (IOWC) on the same shall be claimed by the Petitioner as per actual.

Accordingly, these expenses are not claimed in the subject petition through the relevant Tariff Form and shall be claimed separately.



20. That as per Regulation 99 of CERC Tariff Regulations, 2024, the fees and charges of Central Transmission Utility of India Limited ('CTUIL') shall be allowed separately by the Commission through a separate regulation. Further, it provides that that until such regulation is issued by the Commission, the expenses of CTUIL shall be borne by POWERGRID which shall be recovered by POWERGRID as additional O&M expenses through a separate petition.

Accordingly, the expenses of CTUIL borne by POWERGRID shall be claimed through a separate petition at the end of tariff block.

21. The application filing fee, expenses incurred on publication of Notices in Newspapers and License fee may be allowed to be recovered separately from the respondents in terms of Regulation 94(1) of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024. The fees and charges to be paid by the petitioner as ISTS licensee (deemed ISTS licensee) under CERC (Fees and Charges of RLDC and other matters) Regulations as amended from time to time shall also be recoverable from the DICs as provided under clause 94 (3) of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024.
22. The Transmission Charges and other related Charges indicated at para 12 & 13 above, is exclusive of incentive, late payment surcharge, FERV, any statutory taxes, levies, duties, cess, filing fees, license fee, RLDC fees and charges, capital spares, security expenses, insurance expenses or any other kind of imposition (s) and/ or other surcharges etc. whatsoever imposed / charged by any Government (Central/State) and / or any other local bodies/authorities/regulatory authorities in relation to transmission of electricity, environmental protection, and/or in respect of any of its installation associated with the Transmission System and the same shall be borne and additionally paid by the respondent(s) to the petitioner and the same shall be charged, billed separately by the petitioner on the respondents.
23. **Sharing of Transmission Charges**

Truing up tariff for Transmission of Electricity (Annual Fixed Cost) for 2019-24 as per para 12 above shall be recovered on monthly basis in accordance with Regulation 57



of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 and shall be shared by the beneficiaries and long-term transmission customers in Central Electricity Regulatory Commission (Sharing of Inter State Transmission Charges and Losses) Regulations, 2020 or as amended from to time.

Tariff for Transmission of Electricity (Annual Fixed Cost) for 2024-29 as per para 13 above shall be recovered on monthly basis in accordance with Regulation 78 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024 and shall be shared by the beneficiaries and long-term transmission customers in Central Electricity Regulatory Commission (Sharing of Inter State Transmission Charges and Losses) Regulations, 2020 or as amended from to time.

24. In the circumstances mentioned above it will be just and proper that the transmission tariff for the asset covered under this petition be allowed to be charged from the beneficiaries on the basis set out above. **The Petitioner submits that Encl.-1 to Encl.-3 may please be treated as integral part of this petition.**

**A. PRAYER**

It is respectfully prayed that the Hon'ble Commission may be pleased to

- a) Approve the trued-up Transmission Tariff for 2019-24 block and transmission tariff for 2024-29 block for the assets covered under this petition, as per para 12 and 13 above.
- b) Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided in Tariff Regulation 2019 and Tariff regulations 2024 as per para 12 and 13 above for respective block.

Further it is submitted that deferred tax liability before 01.04.2009 shall be recoverable from the beneficiaries or long term customers / DIC as the case may be, as and when the same is materialized as per regulation 67 of 2019 and regulation 89 of 2024 tariff regulation. The petitioner may be allow to recover the deferred tax liability materialized



directly without making any application before the commission as provided in the regulations.

- c) Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 94 (1) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024, and other expenditure (if any) in relation to the filing of petition.
- d) Allow the petitioner to bill and recover Licensee fee and RLDC fees & charges, separately from the respondents in terms of Regulation 94 (3) and (4) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024.
- e) Allow the petitioner to bill and adjust impact on Interest on Loan due to change in Interest rate on account of floating rate of interest applicable during 2024-29 period, if any, from the respondents.
- f) Allow the petitioner to file a separate petition before Hon'ble Commission for claiming the overall security expenses and consequential IOWC on that security expenses as mentioned at para 19 above.
- g) Allow the petitioner to file a separate petition before Hon'ble Commission for claiming the overall insurance expenses and consequential IOWC on that insurance expenses as mentioned at para 19 above.
- h) Allow the petitioner to file a separate petition before Hon'ble Commission for claiming the overall capital spares as per actual as mentioned at Para 19 above.
- i) Allow the petitioner to claim expenses of CTUIL borne by POWERGRID through a separate petition as mentioned at para 20 above.
- j) Allow the Petitioner to bill and recover GST on Transmission Charges separately from the respondents, if GST on transmission is levied at any rate in future. Further, any taxes including GST and duties including cess etc. imposed by any statutory/Govt./municipal authorities shall be allowed to be recovered from the beneficiaries.



and pass such other relief as Hon'ble Commission deems fit and appropriate under the circumstances of the case and in the interest of justice

**GURGAON**

**DATED: 04.11.2024**

**FILED BY  
POWER GRID CORPORATION OF INDIA LTD.**

**REPRESENTED  
BY**



**Zafrul Hasan**

**General Manager (COMMERCIAL)**





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

**PETITION NO.: .....**

**IN THE MATTER OF:** Petition for truing up of Transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block for **Combined Asset consisting of Asset-I: Ckt-III of 400 kV D/C Vindhyachal-Satna Transmission Line alongwith associated bays; Asset-II: 400/220 kV, 315 MVA ICT-II at Satna Sub-station; Asset-III: Ckt-IV of 400 kV D/C Vindhyachal-Satna line along with associated bays; Asset-IV: LILO of 400 kV SatnaBina Ckt-I & II at Bina (POWERGRID) Sub-station; Asset-V: Circuit IV of 400 kV D/C Satna-Bina Transmission Line; Asset-VI: Circuit III of 400 k V D/C Satna-Bina Transmission Line; Asset-VII: LILO of 400 kV D/C Raipur-Rourkela Transmission Line alongwith associated bays; Asset-VIII: 400/220 kV, 315 MVA ICT-II along with associated bay equipment at Raigarh Sub-station under "Vindhyachal-III Transmission System" in Western Region under Section 62 read with Section 79 (1) (d) of Electricity Act, 2003 and under the Regulation 15 (1) (a) and Regulation 23 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2023 read with Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2019 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2024.**

**Power Grid Corporation of India Ltd.**

**---PETITIONER**

Registered office: B-9, Qutab Institutional Area,  
Katwaria Sarai, New Delhi. 110 016.

Corporate Centre : 'SAUDAMINI', Plot No-2,  
Sector-29, Gurgaon-122 001 (Haryana).

Madhya Pradesh Power Management Company Ltd.,  
Shakti Bhawan, Rampur,  
Jabalpur - 482008.

**--- RESPONDENT**

**And others**

**AFFIDAVIT VERIFYING THE PETITION**

I, Zafrul Hasan, S/O Late Sh Zahurul Hasan, working as General Manager (Commercial) in the Powergrid Corporation of India Ltd., having its registered Office at B-9, Institutional Area,



Katwaria Sarai, New Delhi-110 016, do hereby solemnly affirm and state as under: -

1. That the deponent is the General Manager of Petitioner and is well conversant with the facts and the circumstances of the case and therefore competent to swear this affidavit.
2. That the accompanying Petition under Section 62 of the Electricity Act, 2003, has been filed by my authorised representative/nominated counsel 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 01 to 24 of the facts as mentioned in the Petition are true and correct based on the my personal knowledge, belief and records maintained in the office and the contents of Para 01 to 24 of the Petition are believed to be true on the basis of the legal advice received.
4. That the annexures annexed to the Petition are correct and true copies of the respective originals.
5. That the Deponent has not filed any other Petition or Appeal before any other forum or court of law with respect to the subject matter of the dispute



(DEPONENT)

#### VERIFICATION

Solemnly affirmed at Gurgaon on this <sup>04<sup>th</sup></sup> day of November' 2024 that the contents of the above affidavit are true to my knowledge and belief and no part of it is false and nothing material has been concealed there from.



(DEPONENT)



ATTESTED

MAHENDER S. PUNIA  
ADVOCATE & NOTARY  
Distt. Gurugram (Haryana) India

26/04/24



Ref: CC/Commercial/2024

Date: 28.08.2024

### LETTER OF AUTHORIZATION

In reference to the POWER OF ATTORNEY dated 14.08.2024 and in supersession of letter of authorization dated 13.12.2022 I hereby authorize following executives to sign Petitions, Appeals, Vakalatnama, Affidavits, etc. and to represent POWERGRID before various forums/ courts / tribunals i.e Central Electricity Regulatory Commission, State Electricity Regulatory Commission, Appellate Tribunal for Electricity, High courts and Supreme Court etc. :

1. Sh. Mohd. Mohsin, Chief General Manager
2. Sh. V. C. Sekhar, Senior General Manager
3. Sh. Zafrul Hasan, General Manager

Further, following executives are authorised to represent cases before Central Electricity Regulatory Commission and Appellate Tribunal for Electricity

1. Sh. Angaru Naresh Kumar, Deputy General Manager
2. Smt. Suchitra Gautam, Deputy General Manager
3. Sh. Vishal Sagar, Deputy General Manager
4. Sh. G. Vijay, Deputy General Manager
5. Sh. Vivek Kumar Singh, Deputy General Manager
6. Sh. Amit Kumar Chachan, Deputy General Manager
7. Smt. Supriya Singh, Chief Manager (Law)
8. Sh. Arjun Malhotra, Manager (Law)
9. Smt. Tanushree Rao, Deputy Manager (Law)

  
Dilip Nagesh Rozekar

Executive Director (Commercial & RC)

दिलीप रोजेकर / DILIP.ROZEKAR

Executive Director (Commercial & Regulatory Cell)  
पावर ग्रिड कॉर्पोरेशन ऑफ इंडिया लिमिटेड  
Power Grid Corporation of India Ltd.  
(भारत सरकार का उद्यम) / (A Govt. of India Enterprise)  
Plot No.-2, Sector-29, Gurgaon- 122 001 (Haryana)



## CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

Petition No. 395/TT/2019

Coram:

Shri P.K. Pujari, Chairperson  
 Shri I.S. Jha, Member  
 Shri Arun Goyal, Member

Date of order: 27 .01.2021

## In the matter of:

Approval under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and revision of transmission tariff of the 2004-09 and 2009-14 tariff periods and truing up of transmission tariff of the 2014-19 period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff for the 2019-24 period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for Combined Asset consisting of **Asset-I:** Ckt-III of 400 kV D/C Vindhyachal-Satna Transmission Line alongwith associated bays; **Asset-II:** 400/220 kV, 315 MVA ICT-II at Satna Sub-station; **Asset-III:** Ckt-IV of 400 kV D/C Vindhyachal-Satna line along with associated bays; **Asset-IV:** LILO of 400 kV Satna-Bina Ckt-I & II at Bina (POWERGRID) Sub-station; **Asset-V:** Circuit IV of 400 kV D/C Satna-Bina Transmission Line; **Asset-VI:** Circuit III of 400 k V D/C Satna-Bina Transmission Line; **Asset-VII:** LILO of 400 kV D/C Raipur-Rourkela Transmission Line alongwith associated bays; **Asset-VIII:** 400/220 kV, 315 MVA ICT-II along with associated bay equipment at Raigarh Sub-station under "Vindhyachal-III Transmission System" in Western Region.

## And in the matter of:

Power Grid Corporation of India Ltd.  
 "SAUDAMINI", Plot No.2,  
 Sector-29, Gurgaon-122001  
 (Haryana).

...Petitioner

## Versus

1. Madhya Pradesh Power Management Company Ltd.,  
 Shakti Bhawan, Rampur,  
 Jabalpur-482008.
2. Madhya Pradesh Power Transmission Company Ltd.,  
 Shakti Bhawan, Rampur,  
 Jabalpur-482008.



Order in Petition No. 395/TT/2019

ATTESTED TRUE COPY  
 from Page No. - 28 - 92  
 Authorised Signatory  
 Power Grid Corporation of India Ltd.  
 Plot No.-2, Sector-29, Gurgaon-122001 (Haryana)  
 POWERGRID  
 Page 1 of 57

3. Madhya Pradesh Audyogik Kendra  
Vikas Nigam (Indore) Ltd.,  
3/54, Press Complex, Agra-Bombay Road, Indore-452008.
4. Maharashtra State Electricity Distribution Co. Ltd.,  
Hongkong Bank Building, 3<sup>rd</sup> Floor,  
M.G. Road, Fort, Mumbai-400001.
5. Maharashtra State Electricity Transmission Co. Ltd.,  
Prakashganga, 6<sup>th</sup> Floor, Plot No. C-19, E-Block,  
Bandra Kurla Complex, Bandra (East), Mumbai-400051.
6. Gujarat Urja Vikas Nigam Ltd.  
Sardar Patel Vidyut Bhawan,  
Race Course Road, Vadodara-390007.
7. Gujarat Energy Transmission Corporation Ltd.,  
Sardar Patel Vidyut Bhawan,  
Race Course Road, Vadodara-390007.
8. Electricity Department,  
Government of Goa, Vidyut Bhawan, Panaji,  
Near Mandvi Hotel, Goa-403001.
9. Electricity Department,  
Administration of Daman & Diu  
Daman-396210.
10. Electricity Department,  
Administration of Dadra Nagar Haveli,  
U.T., Silvassa-396230.
11. Chhattisgarh State Electricity Board,  
P.O. Sunder Nagar, Dangania, Raipur,  
Chhattisgarh-492013.
12. Chhattisgarh State Power Transmission Co. Ltd.,  
Office of the Executive Director (C&P),  
State Load Dispatch Building,  
Dangania, Raipur-492013.
13. Chhattisgarh State Power Distribution Co. Ltd.  
P.O. Sunder Nagar, Dangania, Raipur,  
Chhattisgarh-492 013.

**...Respondents**



**For Petitioner** : Shri S.S. Raju, PGCIL  
Shri Ved Prakash Rastogi, PGCIL

**For Respondents** : None

### ORDER

The instant petition has been filed by Power Grid Corporation of India Ltd.(hereinafter referred to as “the Petitioner”), a deemed transmission licensee, for revision of transmission tariff of the 2004-09 and 2009-14 tariff periods, truing up of transmission tariff of the 2014-19 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) and for determination of tariff from 1.4.2019 to 31.3.2024 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) in respect of following assets under “Vindhyachal Stage-III Transmission System” in Western Region (hereinafter referred to as “the transmission project”):

**Asset-I:** Ckt-III of 400 kV D/C Vindhyachal-Satna Transmission Line along with associated bays;

**Asset-II:** 400/220 kV, 315 MVA ICT-II at Satna Sub-station;

**Asset-III:** Ckt-IV of 400 kV D/C Vindhyachal-Satna Transmission Line along with associated bays;

**Asset-IV:** LILO of 400 kV Satna-Bina Ckt-I & II at Bina (POWERGRID) Sub-station;

**Asset-V:** Circuit IV of 400 kV D/C Satna-Bina Transmission Line;

**Asset-VI:** Circuit III of 400 k V D/C Satna-Bina Transmission Line;

**Asset VII:** LILO of 400 kV D/C Raipur-Rourkela Transmission Line alongwith associated bays; and

**Asset VIII:** 400/220 kV, 315 MVA ICT-II along with associated bay equipment at Raigarh Sub-station.

2. The Petitioner has made the following prayers in this petition:



- “1) Approve the revised Transmission Tariff for 2004-09 block and transmission tariff for 2009-14 block for the assets covered under this petition, as per para 8 above.
- 2) Approve the trued up Transmission Tariff for 2014-19 block and transmission tariff for 2019-24 block for the assets covered under this petition, as per para 9 and 10 above.
- 3) a) Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided in Tariff Regulation 2014 and Tariff regulations 2019 as per para 9 and 10 above for respective block.  
b) Further it is submitted that deferred tax liability before 01.04.2009 shall be recoverable from the beneficiaries or long term transmission customers /Dlc as the case may be, as and when materialized as per regulation 49 of 2014 and regulation 67 of 2019 tariff regulation. The petitioner may be allowed to recover the deferred tax liability materialised directly without making any application before the commission as provided in the regulation
- 4) Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 70 (1) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019, and other expenditure (if any) in relation to the filing of petition.
- 5) Allow the petitioner to bill and recover Licensee fee and RLDC fees and charges, separately from the beneficiaries in terms of Regulation 70 (3) and (4) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019.
- 6) Allow the petitioner to bill and adjust impact on Interest on Loan due to change in Interest rate on account of floating rate of interest applicable during 2019-24 period, if any, from the beneficiaries.
- 7) Allow the petitioner to file a separate petition before Hon'ble Commission for claiming the overall security expenses and consequential IOWC on that security expenses as mentioned at para 10.5 above.
- 8) Allow the petitioner to claim the capital spares at the end of tariff block as per actual.
- 9) Allow the Petitioner to bill and recover GST on Transmission Charges separately from the beneficiaries, if GST on transmission is levied at any rate in future. Further, any taxes including GST and duties including cess etc. imposed by any statutory/Govt./municipal authorities shall be allowed to be recovered from the beneficiaries.  
and pass such other relief as Hon'ble Commission deems fit and appropriate under the circumstances of the case and in the interest of justice”

### **Background**

3. The brief facts of the case are as under:

- a) The Investment Approval (IA) for the transmission project was accorded by Ministry of Power vide its letter dated 23.7.2004 at an estimated cost of ₹59647



lakh including IDC of ₹5289 lakh. Subsequently, the Revised Cost Estimate for the transmission project was approved by Ministry of Power *vide* its letter dated 13.11.2007 at a cost of ₹68956 lakh including IDC of ₹1319lakh.

b) The transmission tariff for the transmission assets up to 31.3.2009 was approved by the Commission in its order dated 19.6.2009 in Petition No. 48/2009, order dated 17.9.2008 in Petition No. 45/2008 and order dated 20.4.2009 in Petition No. 132/2008 and same were revised *vide* order dated 18.6.2010 in Petition No. 44/2010, after accounting for the additional capital expenditure (ACE) up to 31.3.2009.

c) The Assets-I to VIII were combined and transmission tariff or the Combined Asset from 1.4.2009 to 31.3.2014 was determined by the Commission *vide* order dated 8.2.2011 in Petition No. 243/2010 in accordance with the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as “the 2009 Tariff Regulations”).

d) The tariff for the 2009-14 period was trued up and tariff for the period from 1.4.2014 to 31.3.2019 was determined *vide* order dated 12.1.2016 in Petition No. 388/TT/2014.

e) The details of the petitions in which tariff was allowed for the transmission assets from their Date of Commercial Operation (COD) to 31.3.2009 is summarized hereunder:

<b>Asset</b>	<b>Date of commercial operation</b>	<b>Order vide which tariff for 2004-09 period was determined</b>
<b>Asset-I</b>	1.10.2006	Order dated 17.9.2008, 19.6.2009 and 18.6.2010 in Petition No. 45/2008, Petition No. 48/2009 and Petition No. 44/2010 respectively
<b>Asset-II</b>	1.11.2006	
<b>Asset-III</b>	1.12.2006	
<b>Asset-IV</b>	1.4.2007	Order dated 20.4.2009 and 18.6.2010 in Petition No. 132/2008 and Petition No. 44/2010 respectively
<b>Asset-V</b>	1.7.2007	
<b>Asset-VI</b>	1.9.2007	





Asset	Date of commercial operation	Order vide which tariff for 2004-09 period was determined
Asset-VII	1.1.2008	
Asset-VIII	1.2.2008	

f) The details of the transmission tariff allowed for the 2014-19 tariff period vide order dated 12.1.2016 in Petition No. 388/TT/2014 and the trued-up transmission tariff claimed by the Petitioner in the instant petition are as under:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Annual Fixed Charges (AFC) approved vide order dated 12.1.2016 in Petition No. 388/TT/2014	11422.58	11185.54	10950.27	10717.22	10486.31
AFC claimed by the Petitioner based on truing up in the instant Petition	11729.21	11510.33	11273.46	11040.99	10821.52

g) The Petitioner has sought revision of transmission tariff approved for the 2004-09 tariff period *w.e.f.* 1.10.2006 on account of change in Interest on Loan (IoL) and Interest on Working Capital (IWC) to the extent of revision in IoL and in maintenance spares in terms of the judgment of the Appellate Tribunal for Electricity (APTEL) dated 22.1.2007 and 13.6.2007 in Appeal No. 81/2005 and 139/2006 respectively. The Petitioner has also sought consequential revision of tariff allowed for the transmission assets for the 2009-14 tariff period and truing up of tariff of the 2014-19 tariff period and determination of tariff for the 2019-24 tariff period for the transmission assets.

h) The Petitioner had sought revision of tariff by filing Petition No. 121/2007 in terms of APTEL judgement dated 22.1.2007 in Appeal No.81/2005 and other related appeals and judgement dated 13.6.2007 in Appeal No. 139/2006 pertaining to generating stations of NTPC on the following issues:

- (a) Computation of interest on loan
- (b) Consequences of refinancing of loan
- (c) Depreciation as deemed repayment
- (d) Admissibility of depreciation up to 90% of the value of the assets
- (e) Consideration of maintenance of spares for working capital
- (f) Depreciation of assets.



i) The Commission and certain interested parties preferred Civil Appeals against APTEL's judgments before the Hon'ble Supreme Court of India in 2007. The Appeals were admitted and initially stay was granted by the Hon'ble Supreme Court. Subsequently, on an assurance by NTPC that the issues under Appeal would not be pressed for implementation during the pendency of the Appeals, the stay was vacated by the Hon'ble Supreme Court.

j) Based on APTEL's judgments dated 22.1.2007 and 13.6.2007, the Petitioner had sought re-determination of tariff of the transmission assets for the 2001-04 and 2004-09 tariff periods *vide* Petition No. 121/2007. The Commission after taking into consideration the pendency of appeals before the Hon'ble Supreme Court adjourned the said petition *sine die* and directed that the same be revived after the disposal of Civil Appeals by the Hon'ble Supreme Court.

k) The Hon'ble Supreme Court *vide* judgment and final order dated 10.4.2018, dismissed the said Civil Appeals filed by the Commission and others against APTEL's afore-mentioned judgments.

l) Consequent to the Hon'ble Supreme Court's judgment dated 10.4.2018, Petition No. 121/2007 was listed for hearing before the Commission on 8.1.2019. The Commission *vide* order dated 18.1.2019 in Petition No. 121/2007 directed the Petitioner to submit its claim at the time of filing of truing up of the petition for the 2014-19 tariff period in respect of the concerned transmission assets. Accordingly, the Petitioner has filed its claim for revision of tariff for the 2004-09 and 2009-14 period in the instant Petition.

m) In view of the APTEL's judgments and the judgement of Hon'ble Supreme Court dated 10.4.2018, the tariff is being revised. Although, period-wise tariff is being re-worked based on the Tariff Regulations applicable for the respective tariff periods, some assumptions are made at certain places for giving effect to the APTEL's judgements.

n) The transmission assets were put under commercial operation during 2004-09 tariff period. The tariff for Assets-I to VIII during 2004-09 and 2009-14 tariff period was worked out based on the admitted capital cost of the Asset-I to VIII as



on COD and ACE admitted during the 2004-09 tariff period. Accordingly, considering the admitted capital cost as on COD and ACE admitted during 2004-09 tariff period, tariff is being revised for the 2004-09 and 2009-14 tariff periods in terms of APTEL's afore-mentioned judgements. The details of admitted capital cost as on COD and ACE admitted during the 2004-09 period for Assets-I to VIII is as under:

(₹ in lakh)

Asset	Description	Admitted Capital Cost as on COD	ACE		
			2006-07	2007-08	2008-09
<b>Asset-I</b>	Ckt-III of 400 kV D/C Vindhyachal-Satna line alongwith associated bays	18327.28	689.67	230.05	266.29
<b>Asset-II</b>	400/220 kV, 315 MVA ICT-II at Satna Sub-station	1563.56	38.50	7.21	40.09
<b>Asset-III</b>	Ckt-IV of 400 kV D/C Vindhyachal-Satna line along with associated bays	6182.62	0.00	0.00	54.93
<b>Asset-IV</b>	LILO of 400 kV Satna-Bina Ckt-I & II at Bina (POWER GRID) Sub-station	2475.00	0.00	409.89	686.57
<b>Asset-V</b>	Circuit IV of 400 kV D/C Satna-Bina Transmission line	15324.52	0.00	815.01	681.33
<b>Asset-VI</b>	Circuit III of 400 k V D/C Satna-Bina Transmission line	6154.89	0.00	407.82	258.04
<b>Asset-VII</b>	LILO of 400 kV D/C Raipur-Rourkela Transmission line along with associated bays	6806.20	0.00	236.21	805.65
<b>Asset-VIII</b>	400/220 kV 315 MVA ICT-II along with associated bay equipment at Raigarh Sub-station	1111.96	0.00	38.04	106.99

4. The Respondents are distribution licensees, transmission utilities and power departments which are procuring transmission services from the Petitioner and are mainly beneficiaries of the Western Region.

5. The Petitioner has served the petition on the Respondents and notices regarding filing of this petition have been published in newspapers in accordance with Section 64 of the Electricity Act, 2003. No suggestions and objections have been received



from the general public in response to the aforesaid notices published in the newspapers. General Notice dated 14.1.2020 directing the beneficiaries/ Respondents to file reply in the matter was also posted on the Commission's website. Madhya Pradesh Power Management Company Ltd. (MPPMCL) i.e. Respondent No. 1 has filed its reply vide affidavit dated 6.2.2020 and has raised the issues like revision of tariff claimed by the Petitioner on account of change in IoL and IWC in light of the APTEL's afore-mentioned judgements and effective tax rate considered for the calculation of Return on Equity (RoE). In response to the reply filed by MPPMCL, the Petitioner has filed rejoinder vide affidavit dated 28.7.2020.

6. This order is issued considering the submissions made by the Petitioner in the Petition dated 3.9.2019, Petitioner's affidavit dated 3.8.2020, reply affidavit of MPPMCL dated 6.2.2020 and the Petitioner's rejoinder dated 28.7.2020.

7. The hearing in this matter was held on 24.8.2020 through video conference and the order was reserved.

8. Having heard the representatives of the Petitioner and having perused the material on record, we proceed to dispose of the petition.

#### **REVISION OF TRANSMISSION CHARGES FOR THE 2004-09 AND 2009-14 TARIFF PERIODS**

9. The Petitioner has sought revision of the computation of IoL, maintenance spares for the 2004-09 period based on the judgements of APTEL dated 22.1.2007 in Appeal No.81/2005 and 13.6.2007 in Appeal No.139/2006. APTEL while dealing with the issue of computation of IoL vide its judgement dated 22.1.2007 observed that IoL for the period 1.4.1998 to 31.3.2001 shall be computed only on normative loan repayment as per judgement dated 14.11.2006 in Appeal Nos.94 and 96 of 2005.



APTEL *vide* judgement dated 14.11.2006 had set aside the Commission's methodology of computation of loan on the basis of actual repayment or normative repayment whichever is higher and held that the Commission is required to adopt normative debt repayment methodology for working out the IoL liability for the period 1.4.1998 to 31.3.2001. In view of the above, the interest allowed for the 2004-09 period is being revised on the basis of the normative debt repayment methodology.

The relevant portions of the judgement dated 14.11.2006 is as follows:

*"12. We have heard the arguments of the Senior Counsel(s) of appellant and respondents. We notice that the appellant has not challenged the formula for computing the annual repayment amount as provided in Appeal No. 96 of 2005 & IA No.117 of 2006 in Appeal No. 94 of 2005 para-22 of the impugned order and has only challenged the provisions at para 23 specifying that the amount of annual repayment for calculation of interest on loan is chosen higher of the normative debt and actual debt.*

*13. As mentioned earlier the servicing of the capital (equity or debt) is financed by the recovery of interest on debt capital and through earning of return on equity capital. The actual loan repayment has been normalized to 50% of the total capital by the formula in para 22 of the impugned order given in para 11 above. Once it has been decided and agreed that the financing plan would be based on normative debt-equity ratio of 50:50 and not the actual debt-equity ratio, the same normative basis should be adopted for recovery of cost of servicing the capital.*

*14. In the instant case since the normative debt-equity ratio of 50:50 has been adopted in the financing plan, the loan repayment should be computed based on normative debt. This is to ensure that whatever normative debt has been considered, tariff should ensure the recovery of the same normative debt and interest thereon."*

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*18. In its Tariff Regulation of 2004 the Central Commission perhaps recognizing the aforesaid anomaly has dispensed with the practice of adopting higher of actual or normative repayment and has corrected the method of determination of quantum of debt repayment only on the basis of the normative debt with effect from 01.04.2004*

*19. In view of the above, the Central Commission is required to adopt normative debt repayment methodology for working out the interest on loan liability for the period 01.04.1998 to 31.03.2001."*

10. APTEL *vide* judgement dated 13.6.2007 in Appeal No.139 of 2006 held that ACE after the date of commercial operation should also be considered for computation of maintenance spares. The relevant portion of the judgement is as under:

***"Analysis and Decision***

*We are not inclined to agree with the contention of the respondents that escalation of 6% will take care of the additional capitalization. Escalation is meant to factor inflation and is allowed as per CERC Regulations whether or not additional capitalization takes*



place. Question before us is that: can the historical cost be frozen with the Commissioning of the station. It is quite normal and prudent to ensure earliest operation of the plant without necessarily 100% completion of plants and works, of course not at the cost of safety of the plant. Adding some of the plants and works after the commercial operation will reduce interest during construction. If technically it is possible to delay some of the plants or works, it is only prudent to do so. For example it is common to build redundancies in the plant at a little later stage. CERC's own regulations rightly recognized additional capitalization. It is pertinent to set out excerpts pertaining to additional capitalization from CERC (Terms & Conditions of Tariff) Regulation, 2004 Clause 18 as below:-

*"Additional capitalization (1) The following capital expenditure within the original scope of work actually incurred after the date of commercial operation and up to the cut off date may be admitted by the Commission, subject to prudence check:*

*(i) Deferred liabilities*

*(ii) Works deferred for execution*

*(iii) Procurement of initial capital spares in the original scope of work, subject to ceiling specified in regulation 17.*

*(iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court; and*

*(v) On account of change in law.*

*Provided that original scope of work along with estimates of expenditure shall be submitted along with the application for provisional tariff.*

*Provided further that a list of the deferred liabilities and works deferred for execution shall be submitted along with the application for final tariff after the date of commercial operation of the generating station."*

*It is clear from the abovementioned Clause 18 of the CERC Regulations that additional capitalization after the date of commercial operation is recognized as part of the capital expenditure. Historical cost does not literally mean that the cost on the date of the commercial operation. The term historical cost is used so as to distinguish it from 'book value' or 'the replacement cost'. The cost of maintenance spares limited to 1% of the historical cost corresponds to the plant and equipment and installations which are required to be maintained. If the cost of additional equipment is not included in the historical cost, how spares for the additional equipment be procured for maintenance of the additional equipment. In this view of the matter, the CERC needs to examine afresh in the light of the aforesaid observations."*

11. In view of the above, maintenance spares considered for computation of working capital for the 2004-09 period are also required to be revised taking into consideration the ACE after COD.

12. With regard to depreciation, APTEL in judgement dated 13.6.2007 in Appeal No.139 of 2006 observed that depreciation is an expense and it cannot be deployed



for deemed repayment of loan and accordingly directed the Commission to compute the outstanding loan afresh. The relevant portion of the judgement is as under:

**“Analysis and Decision**

*In the orders of this Tribunal dated November 14, 2006 and January 24, 2007 it has been laid down that the computation of outstanding loan will be on normative basis only (instead of normative or actual whichever is higher). In view of this there is no question of any adjustment of the depreciation amount as deemed repayment of loan.*

*It is to be understood that the depreciation is an expense and not an item allowed for repayment of loan. If a corporation does not borrow, it would not mean that the corporation will not be allowed any depreciation. Depreciation is an expense it represents a decline in the value of asset because of use, wear or obsolescence. The Accounting Principles Board of USA defines depreciation as under:-*

*“The cost of a productive facility is one of the costs of the service it renders during its useful economic life. Generally accepted accounting principles require that this cost be spread over the expected useful life of the facility in such a way as to allocate it as equitably as possible to the periods during which services are obtained from the use of the facility. This procedure is known as depreciation accounting, a system of accounting which aims to distribute the cost or other basic value of tangible capital assets, less salvage (if any), over the estimated useful life of the unit (which may be a group of assets) in a systematic and rational manner. It is a process of allocation, not of valuation”*

*It is well established that the depreciation is an expense and therefore, it cannot be deployed for deemed repayment of loan. In this view of the matter the CERC shall need to make a fresh computation of outstanding loan in the light of the aforesaid observations.”*

13. In view of the above directions of APTEL, the outstanding loan allowed for the instant transmission assets for the 2004-09 period is being revised in the instant order.

14. The revision of tariff allowed for the 2004-09 tariff period necessitates the revision of tariff allowed for the 2009-14 period, which is also being done in the instant order. The implementation of the directions of APTEL in case of the Petitioner was kept pending the outcome of Civil Appeals filed before the Hon'ble Supreme Court. Hence, taking into consideration the facts of the case and keeping in view the interest of the consumers, we are of the view that the beneficiaries should not be burdened with the carrying cost for the difference in the tariff allowed earlier and allowed in the instant order for the 2004-09 and 2009-14 tariff periods. Therefore, the Petitioner will



neither claim nor pay any carrying cost from the beneficiaries for the difference, if any, in the tariff allowed earlier and that allowed in the instant order. Further, the said difference in tariff shall be recovered/ paid over a period of six months from the date of issue of this order.

### **2004-09 Period**

15. The Commission *vide* order dated 17.9.2008, 19.6.2009, 20.4.2009 and 18.6.2010 in Petition Nos. 45/2008, 48/2009, 132/2008 and 44/2010 respectively had approved the following transmission charges for the transmission assets for the 2004-09 tariff period:

(₹ in lakh)

<b>Asset-I</b>			
<b>Particulars</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	244.94	502.02	508.91
Interest on Loan	392.12	803.56	813.98
Return on Equity	46.98	97.50	101.61
Advance against Depreciation	0.00	0.00	0.00
Interest on Working Capital	549.68	1098.29	1071.21
O&M Expenses	31.41	64.01	65.13
<b>Total</b>	<b>1265.13</b>	<b>2565.38</b>	<b>2560.84</b>

(₹ in lakh)

<b>Asset-II</b>			
<b>Particulars</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	23.91	58.23	59.09
Interest on Loan	27.70	67.44	68.43
Return on Equity	50.70	126.52	131.60
Advance against Depreciation	0.00	0.00	0.00
Interest on Working Capital	38.89	91.39	87.89
O&M Expenses	3.57	8.74	8.95
<b>Total</b>	<b>144.77</b>	<b>352.32</b>	<b>355.96</b>

(₹ in lakh)

<b>Asset-III</b>			
<b>Particulars</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	56.12	168.36	169.07
Interest on Loan	86.55	259.65	260.8
Return on Equity	31.32	97.5	101.61





Advance against Depreciation	0.00	0.00	0.00
Interest on Working Capital	122.68	358.43	345.76
O&M Expenses	7.58	22.79	23.1
<b>Total</b>	<b>304.25</b>	<b>906.73</b>	<b>900.34</b>

(₹ in lakh)

Particulars	Asset-IV		Asset-V	
	2007-08	2008-09	2007-08	2008-09
Depreciation	89.25	102.60	318.37	446.37
Interest on Loan	112.56	135.58	495.56	692.17
Return on Equity	126.90	131.99	99.58	138.31
Advance against Depreciation	0.00	0.00	0.00	0.00
Interest on Working Capital	157.27	183.78	708.34	958.14
O&M Expenses	14.55	16.20	49.21	68.05
<b>Total</b>	<b>500.53</b>	<b>570.15</b>	<b>1671.06</b>	<b>2303.04</b>

(₹ in lakh)

Particulars	Asset-VI		Asset-VII		Asset-VIII	
	2007-08	2008-09	2007-08	2008-09	2007-08	2008-09
Depreciation	103.11	188.35	57.28	244.57	6.79	43.33
Interest on Loan	155.79	281.05	72.71	312.70	7.92	50.55
Return on Equity	77.45	138.31	73.50	305.83	21.09	131.60
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	226.56	396.51	100.05	453.73	11.14	73.37
O&M Expenses	17.03	30.34	9.22	39.27	1.43	9.00
<b>Total</b>	<b>579.94</b>	<b>1034.56</b>	<b>312.76</b>	<b>1356.10</b>	<b>48.37</b>	<b>307.85</b>

16. The Petitioner has claimed the following revised transmission charges for the transmission assets for the 2004-09 tariff period in the instant petition:

(₹ in lakh)

Particulars	Asset-I		
	2006-07	2007-08	2008-09
Depreciation	244.94	502.02	508.91
Interest on Loan	392.12	803.56	813.98
Return on Equity	46.98	97.50	101.61
Advance against Depreciation	0.00	0.00	0.00
Interest on Working Capital	554.84	1141.02	1157.18
O&M Expenses	31.68	66.21	68.43
<b>Total</b>	<b>1270.55</b>	<b>2610.31</b>	<b>2650.11</b>



(₹ in lakh)

<b>Asset-II</b>			
<b>Particulars</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	23.91	58.23	59.09
Interest on Loan	27.70	67.44	68.43
Return on Equity	50.70	126.52	131.60
Advance against Depreciation	0.00	0.00	0.00
Interest on Working Capital	39.33	95.87	97.40
O&M Expenses	3.59	8.92	9.25
<b>Total</b>	<b>145.23</b>	<b>356.99</b>	<b>365.77</b>

(₹ in lakh)

<b>Asset-III</b>			
<b>Particulars</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	56.12	168.36	169.07
Interest on Loan	86.55	259.65	260.80
Return on Equity	31.32	97.50	101.61
Advance against Depreciation	0.00	0.00	0.00
Interest on Working Capital	123.49	370.48	372.12
O&M Expenses	7.59	23.25	23.86
<b>Total</b>	<b>305.07</b>	<b>919.24</b>	<b>927.46</b>

(₹ in lakh)

<b>Asset-IV</b>		
<b>Particulars</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	89.25	102.60
Interest on Loan	112.56	135.58
Return on Equity	126.90	131.99
Advance against Depreciation	0.00	0.00
Interest on Working Capital	161.14	195.92
O&M Expenses	14.88	17.43
<b>Total</b>	<b>504.74</b>	<b>583.52</b>

(₹ in lakh)

<b>Asset-V</b>		
<b>Particulars</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	318.37	446.37
Interest on Loan	495.56	692.17
Return on Equity	99.58	138.31
Advance against Depreciation	0.00	0.00
Interest on Working Capital	718.56	1004.80
O&M Expenses	49.81	70.82
<b>Total</b>	<b>1681.88</b>	<b>2352.46</b>



(₹ in lakh)

<b>Asset-VI</b>		
<b>Particulars</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	103.11	188.35
Interest on Loan	155.79	281.05
Return on Equity	77.45	138.31
Advance against Depreciation	0.00	0.00
Interest on Working Capital	229.27	414.08
O&M Expenses	17.23	31.60
<b>Total</b>	<b>582.86</b>	<b>1053.39</b>

(₹ in lakh)

<b>Asset-VII</b>		
<b>Particulars</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	57.28	244.57
Interest on Loan	72.71	312.70
Return on Equity	73.50	305.83
Advance against Depreciation	0.00	0.00
Interest on Working Capital	100.70	470.09
O&M Expenses	9.27	40.81
<b>Total</b>	<b>313.46</b>	<b>1374.01</b>

(₹ in lakh)

<b>Asset-VIII</b>		
<b>Particulars</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	6.79	43.33
Interest on Loan	7.92	50.55
Return on Equity	21.09	131.60
Advance against Depreciation	0.00	0.00
Interest on Working Capital	11.19	75.90
O&M Expenses	1.43	9.24
<b>Total</b>	<b>48.42</b>	<b>310.63</b>

17. MPPMCL has submitted that the revision of tariff claimed by the Petitioner during the 2004-09 tariff period and subsequently in the 2009-14 period on account of change in IoL and IWC in light of APTEL's afore-mentioned judgements may be allowed after due prudence check by the Commission. In response, the Petitioner has submitted that in light of Commission's order dated 18.1.2019 in Petition No. 121/2007, the Petitioner has filed its claim for revision of tariff for the 2004-09 and



2009-14 tariff period in the instant petition along with truing up petition for the 2014-19 period with respect to the transmission assets.

18. We have considered the submissions of the Petitioner and MPPMCL. The transmission charges allowed for the transmission assets for the period from COD to 31.3.2009 are revised based on the following:

- a) Admitted capital as on COD cost for Assets-I to VIII;
- b) Weighted Average Rate of Interest (WAROI) on actual loan adopted from orders dated 17.9.2008, 19.6.2009, 20.4.2009 and 18.6.2010 in Petition Nos. 45/2008, 48/2009, 132/2008 and 44/2010;
- c) With respect to calculation of IoL, Regulation 27(i)(f) under Regulation 56 of the 2004 Tariff Regulations provide as under:

*"27 (i) Interest on Loan Capital*

*(f) In case any moratorium period is availed of by the transmission licensee, depreciation provided for in the tariff during the years of moratorium shall be treated as repayment during those years and interest on loan capital shall be calculated accordingly;"*

Accordingly, moratorium in repayment of loan has been considered with reference to normative loan and if the normative repayment of loan during the year is less than the depreciation during the year, the same has been considered as moratorium and depreciation during the year has been deemed as normative repayment of loan during the year.

d) Weighted Average Rate of Depreciation (WAROD), Rate of Interest on Working Capital and O&M Expenses as per orders dated 17.9.2008, 19.6.2009, 20.4.2009 and 18.6.2010 in Petition Nos. 45/2008, 48/2009, 132/2008 and 44/2010 respectively; and

e) Maintenance Spares component for calculating IWC is adjusted *w.r.t.* ACE as approved for Asset-I to VIII from COD to 31.3.2009 in orders dated 17.9.2008, 19.6.2009, 20.4.2009 and 18.6.2010 in Petition Nos. 45/2008, 48/2009, 132/2008 and 44/2010 respectively.



19. In view of the above, the revised transmission charges approved for the transmission assets for the 2004-2009 tariff period are as follows:

(₹ in lakh)

<b>Asset-I</b>			
<b>Particulars</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	244.94	502.02	508.91
Return on Equity	392.12	803.56	813.98
O&M Expenses	46.98	97.50	101.61
Advance against Depreciation	0.00	0.00	0.00
Interest on Loan	549.68	1098.29	1071.21
Interest on Working Capital	31.56	64.87	66.30
<b>Total</b>	<b>1265.28</b>	<b>2566.24</b>	<b>2562.01</b>

(₹ in lakh)

<b>Asset-II</b>			
<b>Particulars</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	23.91	58.23	59.09
Return on Equity	27.70	67.44	68.43
O&M Expenses	50.70	126.52	131.60
Advance against Depreciation	0.00	0.00	0.00
Interest on Loan	38.89	91.39	87.89
Interest on Working Capital	1.47	8.79	9.02
<b>Total</b>	<b>142.67</b>	<b>352.37</b>	<b>356.03</b>

(₹ in lakh)

<b>Asset-III</b>			
<b>Particulars</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	56.12	168.36	169.07
Return on Equity	86.55	259.65	260.80
O&M Expenses	31.32	97.50	101.61
Advance against Depreciation	0.00	0.00	0.00
Interest on Loan	122.68	358.43	345.76
Interest on Working Capital	2.48	22.79	23.13
<b>Total</b>	<b>299.15</b>	<b>906.72</b>	<b>900.37</b>

(₹ in lakh)

<b>Asset-IV</b>		
<b>Particulars</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	89.25	102.60
Return on Equity	112.56	135.58
O&M Expenses	126.90	131.99
Advance against	0.00	0.00



<b>Asset-IV</b>		
<b>Particulars</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation		
Interest on Loan	157.27	183.78
Interest on Working Capital	14.80	17.17
<b>Total</b>	<b>500.78</b>	<b>571.13</b>

(₹ in lakh)

<b>Asset-V</b>		
<b>Particulars</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	318.37	446.37
Return on Equity	495.56	692.17
O&M Expenses	99.58	138.31
Advance against Depreciation	0.00	0.00
Interest on Loan	708.34	958.14
Interest on Working Capital	37.09	69.54
<b>Total</b>	<b>1658.93</b>	<b>2304.53</b>

(₹ in lakh)

<b>Asset-VI</b>		
<b>Particulars</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	103.11	188.35
Return on Equity	155.79	281.05
O&M Expenses	77.45	138.31
Advance against Depreciation	0.00	0.00
Interest on Loan	226.56	396.51
Interest on Working Capital	9.90	31.03
<b>Total</b>	<b>572.81</b>	<b>1035.25</b>

(₹ in lakh)

<b>Asset-VII</b>		
<b>Particulars</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	57.28	244.57
Return on Equity	72.71	312.70
O&M Expenses	73.50	305.83
Advance against Depreciation	0.00	0.00
Interest on Loan	100.05	453.73
Interest on Working Capital	2.26	40.07
<b>Total</b>	<b>305.79</b>	<b>1356.90</b>

(₹ in lakh)

<b>Asset-VIII</b>		
<b>Particulars</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	6.79	43.33
Return on Equity	7.92	50.55



<b>Asset-VIII</b>		
<b>Particulars</b>	<b>2007-08</b>	<b>2008-09</b>
O&M Expenses	21.09	131.60
Advance against Depreciation	0.00	0.00
Interest on Loan	11.14	73.37
Interest on Working Capital	0.23	9.12
<b>Total</b>	<b>47.16</b>	<b>307.96</b>

### **2009-14 Period**

#### **Effective Date of Commercial Operation (E-COD)**

20. The transmission assets were combined by the Petitioner while filing the petition for tariff determination for the 2009-14 period as per the provisions of the 2009 Tariff Regulations wherein the Petitioner had claimed E-COD of the Combined Asset as 1.2.2008 and the same was approved by the Commission *vide* order dated 8.2.2011 in Petition No. 243/2010.

21. E-COD has been used to determine the lapsed life of the project, which works out as one (1) year as on 1.4.2009 (i.e. the number of completed years as on 1.4.2009 from E-COD).

#### **Weighted Average Life (WAL) of the instant transmission assets**

22. The Commission *vide* order dated 12.1.2016 in Petition No. 388/TT/2014 (wherein tariff for 2009-14 period was trued up and tariff for 2014-19 period was determined) in accordance with Regulation 17(4) of the 2009 Tariff Regulations has approved WAL with respect to Combined Asset as 32 years as on 1.4.2009.

23. WAL approved by the Commission as on 1.4.2009 *vide* order dated 12.1.2016 in Petition No. 388/TT/2014 is applicable prospectively (i.e. from 2009-2014 tariff period onwards) and no retrospective adjustment of depreciation in previous tariff period is required to be done. As discussed above, E-COD of the Combined Asset is



1.2.2008 and the lapsed life of the project as a whole works out as one (1) year on 1.4.2009 (i.e. number of completed years as on 1.4.2009 from E-COD). Accordingly, WAL has been used to determine the remaining useful life as on 31.3.2009 which works out to be 31 years.

24. The Commission *vide* order dated 8.2.2011 in Petition No.243/2010 had approved the tariff for the Assets-I to VIII under Combined Asset for the 2009-14 tariff period and in order dated 12.1.2016 in Petition No.388/TT/2014 had trued up the tariff allowed for the 2009-14 tariff period that was allowed *vide* order dated 8.2.2011 and the same is as follows:

(₹ in lakh)

<b>Combined Asset</b>					
<b>Particulars</b>	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
Depreciation	3352.25	3375.89	3388.61	3393.63	3393.88
Interest on Loan	3463.35	3204.81	2929.85	2643.70	2348.76
Return on Equity	3587.18	3745.91	3759.24	3760.21	3805.86
Interest on Working Capital	297.76	300.81	300.52	299.85	300.12
O&M Expenses	1618.13	1710.83	1808.76	1912.12	2021.26
<b>Total</b>	<b>12318.67</b>	<b>12338.24</b>	<b>12186.98</b>	<b>12009.50</b>	<b>11869.87</b>

25. The Petitioner has claimed the following revised transmission charges for the Combined Asset for the 2009-14 tariff period in this petition:

(₹ in lakh)

<b>Combined Asset</b>					
<b>Particulars</b>	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
Depreciation	3352.25	3375.89	3388.61	3393.63	3393.88
Interest on Loan	3587.18	3745.91	3759.24	3760.21	3805.86
Return on Equity	1618.13	1710.83	1808.76	1912.12	2021.26
Interest on Working Capital	3758.04	3501.74	3227.44	2939.20	2646.06
O&M Expenses	303.90	307.00	306.72	306.01	306.31
<b>Total</b>	<b>12619.50</b>	<b>12641.37</b>	<b>12490.77</b>	<b>12311.17</b>	<b>12173.38</b>

26. We have considered the Petitioner's claim and the submissions of MPPMCL. The tariff is allowed for the Combined Asset for the 2009-14 based on the following:





- a) Admitted capital cost of ₹62718.32 lakh as on 1.4.2009 for Combined Asset-I to VIII and admitted ACE of ₹1137.50 during 2009-14 period;
- b) WAROI on actual loan derived/adopted from order dated 12.1.2016 in Petition No.388/TT/2014; and
- c) WAROD as per order dated 12.1.2016 in Petition No.388/TT/2014.

27. In view of the above, the revised transmission charges allowed for the Combined Asset for the 2009-14 tariff period are as follows:

(₹ in lakh)

<b>Combined Asset</b>					
<b>Particulars</b>	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
Depreciation	3352.25	3375.89	3388.61	3393.63	3393.88
Interest on Loan	3463.35	3204.82	2929.86	2643.71	2348.77
Return on Equity	3587.19	3745.91	3759.24	3760.21	3805.86
Interest on Working Capital	297.76	300.81	300.52	299.85	300.12
O&M Expenses	1618.13	1710.83	1808.76	1912.12	2021.26
<b>Total</b>	<b>12318.67</b>	<b>12338.25</b>	<b>12186.99</b>	<b>12009.51</b>	<b>11869.89</b>

**TRUING-UP OF ANNUAL FIXED CHARGES FOR THE 2014-19 TARIFF PERIOD**

28. The Commission vide order dated 12.1.2016 in Petition No.388/TT/2014 has approved the following tariff for the Combined Asset for the 2014-19 tariff period:

(₹ in lakh)

<b>Combined Asset</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	3393.88	3393.88	3393.88	3393.88	3393.88
Interest on Loan	2053.34	1757.90	1462.41	1166.85	871.15
Return on Equity	3805.86	3805.86	3805.86	3805.86	3805.86
Interest on Working Capital	315.41	312.03	308.73	305.56	302.50
O&M Expenses	1854.09	1915.89	1979.40	2045.08	2112.93
<b>Total</b>	<b>11422.58</b>	<b>11185.56</b>	<b>10950.28</b>	<b>10717.23</b>	<b>10486.32</b>

29. The Petitioner has submitted the information as required under the 2014 Tariff Regulations for truing up of AFC for the 2014-19 period. The tariff for the 2014-19 period for the Combined Asset is trued up in the subsequent paragraphs.

30. The details of the trued up transmission charges claimed by the Petitioner in respect of the Combined Asset for the 2014-19 tariff period are as under:

(₹ in lakh)

<b>Combined Asset</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	3393.88	3393.88	3393.88	3393.88	3393.88
Interest on Loan	2350.15	2055.00	1759.89	1464.89	1170.09
Return on Equity	3808.77	3826.24	3824.30	3824.30	3834.58
Interest on Working Capital	322.31	319.33	316.00	312.84	310.04
O&M Expenses	1854.10	1915.88	1979.39	2045.08	2112.93
<b>Total</b>	<b>11729.21</b>	<b>11510.33</b>	<b>11273.46</b>	<b>11040.99</b>	<b>10821.52</b>

31. The details of the trued-up IWC claimed by the Petitioner in respect of the Combined Asset for the 2014-19 tariff period are as under:

(₹ in lakh)

<b>Combined Asset</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
O& M Expenses	154.51	159.66	164.95	170.42	176.08
Maintenance Spares	278.12	287.38	296.91	306.76	316.94
Receivables	1954.87	1918.39	1878.91	1840.17	1803.59
<b>Total</b>	<b>2387.50</b>	<b>2365.43</b>	<b>2340.77</b>	<b>2317.35</b>	<b>2296.61</b>
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
<b>Interest on Working Capital</b>	<b>322.31</b>	<b>319.33</b>	<b>316.00</b>	<b>312.84</b>	<b>310.04</b>

#### **Capital Cost as on 1.4.2014**

32. The capital cost of the Combined Asset has been calculated in accordance with Regulation 9(3) of 2014 Tariff Regulations. The Commission vide order dated 12.1.2016 in Petition No. 388/TT/2014 approved the transmission tariff for the Combined Asset for the 2014-19 period based on admitted capital cost of ₹64855.83 lakh as on 1.4.2014 for the Combined Asset. The Petitioner has not claimed any ACE during the 2014-19 tariff period. Accordingly, the capital cost of ₹64855.83 lakh has been considered for the purpose of truing up of the tariff for the 2014-19 tariff period.



### Debt-Equity Ratio

33. The debt-equity ratio has been allowed in accordance with Regulation 19(3) of the 2014 Tariff Regulations. As per Regulation 19(3) of the 2014 Tariff Regulations, the debt-equity ratio allowed by the Commission for determination of tariff for the period ending on 31.3.2014 shall be considered. Accordingly, the debt-equity ratio of 70.08:29.92 for the period ending on 31.3.2014 considered for the purpose of determination of tariff of the 2014-19 tariff period has been considered for the purpose of truing up of the tariff of the Combined Asset for the 2014-19 tariff period. The details of the debt-equity ratio as on 1.4.2014 and 31.3.2019 of the Combined Asset are as follows:

<b>Funding</b>	<b>Capital cost as on 1.4.2014 (₹ in lakh)</b>	<b>(%)</b>	<b>Total cost as on 31.3.2019 (₹ in lakh)</b>	<b>(%)</b>
Debt	45448.10	70.08	45448.10	70.08
Equity	19407.75	29.92	19407.75	29.92
<b>Total</b>	<b>64855.85</b>	<b>100.00</b>	<b>64855.85</b>	<b>100.00</b>

### Interest on Loan (IoL)

34. The Petitioner has claimed IoL based on actual interest rates for each year during the 2014-19 period. IoL has been worked out in accordance with Regulation 26 of the 2014 Tariff Regulations. The Petitioner has considered the weighted average rate of IoL on the basis of prevailing rates as on 1.4.2014 for respective loans and has prayed to consider the floating rate of interest applicable during the 2014-19 period, if any, during the truing up of tariff.

35. We have considered the submissions of the Petitioner and accordingly IoL has been considered based on the actual interest rate in accordance with Regulation 26 of the 2014 Tariff Regulations.



36. The details of the trued up IoL allowed for the Combined Asset are as follows:

(₹ in lakh)					
<b>Combined Asset</b>					
<b>Particular</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Gross Normative Loan	45448.10	45448.10	45448.10	45448.10	45448.10
Cumulative Repayments up to Previous Year	20294.91	23688.79	27082.67	30476.55	33870.43
Net Loan-Opening	25153.19	21759.31	18365.43	14971.55	11577.67
Additions due to ACE	0.00	0.00	0.00	0.00	0.00
Repayment during the year	3393.88	3393.88	3393.88	3393.88	3393.88
Net Loan-Closing	21759.31	18365.43	14971.55	11577.67	8183.80
Average Loan	23456.25	20062.37	16668.49	13274.61	9880.73
Weighted Average Rate of Interest on Loan (%)	8.75	8.76	8.77	8.79	8.82
<b>Interest on Loan</b>	<b>2053.34</b>	<b>1757.90</b>	<b>1462.41</b>	<b>1166.85</b>	<b>871.16</b>

37. Accordingly, IoL approved *vide* order dated 12.1.2016 in Petition No. 388/TT/2014, claimed by the Petitioner in the instant petition for the 2014-19 period and allowed after true up for the 2014-19 period with respect to the Combined Asset is as under:

(₹ in lakh)					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Approved earlier <i>vide</i> order dated 12.1.2016 in Petition No. 388/TT/2014	2053.34	1757.90	1462.41	1166.85	871.15
Claimed by the Petitioner in the instant petition	2350.15	2055.00	1759.89	1464.89	1170.09
Allowed after truing up this order	2053.34	1757.90	1462.41	1166.85	871.16

The IOL approved for the Combined Asset as above is lower than the claim made by the Petitioner which is a consequential impact of considering the lesser cumulative repayment considered by the petitioner as on 1.4.2014.

#### **Return on Equity (RoE)**

38. The Petitioner has claimed RoE for the Combined Asset in terms of Regulations 24 and 25 of the 2014 Tariff Regulations. The Petitioner has submitted

that it is liable to pay income tax at Minimum Alternate Tax (MAT) rates and has claimed following effective tax rates for the 2014-19 tariff period:

Year	Claimed effective tax (%)	Grossed up RoE [Base Rate/(1-t)] (%)
2014-15	21.018	19.624
2015-16	21.382	19.715
2016-17	21.338	19.704
2017-18	21.337	19.704
2018-19	21.549	19.757

39. MPPMCL in its reply has submitted that the Petitioner has claimed grossed up RoE on the basis of actual taxes paid during the years 2016-17 and 2017-18 and for the year 2018-19, RoE has been grossed up on the basis of applicable MAT rate, surcharge and cess and not on the basis of actual taxes paid for the year 2018-19. MPPMCL has further submitted that the Petitioner has neither placed on record the assessment orders for the years 2014-15, 2015-16, 2016-17 and 2017-18 nor enclosed the audited accounts in respect of actual taxes paid for 2016-17 and 2017-18.

40. In response, the Petitioner has submitted that the assessment orders for years 2014-15, 2015-16 and 2016-17 have been issued by the Income Tax Department and Income Tax returns for years 2017-18 and 2018-19 have been filed. The Petitioner has further submitted that the assessment orders for the years 2014-15 and 2015-16 was submitted in Petition No. 20/TT/2020. The Petitioner has also annexed a copy of the assessment order for the year 2016-17 along with the rejoinder.

41. We have considered the submissions of MPPMCL and the Petitioner. As regards MPPMCL's contentions that grossed up rate of RoE for 2016-17 and 2017-18 is not based on MAT rates, it is observed that effective rate of tax considered for the



periods 2014-15, 2015-16 and 2016-17 are based on assessment orders issued by Income Tax Authorities and the effective rate of tax has been considered for the periods 2017-18 and 2018-19 are based on the Income Tax returns filed for the purpose of grossing up RoE rate of respective years. In view of the clarification given by the Petitioner, we are of the view that there is no merit in MPPMCL's contention. The Commission in order dated 27.4.2020 in Petition No. 274/TT/2019 has arrived at the effective tax rate for the Petitioner based on the notified MAT rates. The relevant portion of the order dated 27.4.2020 is as under:

*"26. We are conscious that the entities covered under MAT regime are paying Income Tax as per MAT rate notified for respective financial year under IT Act, 1961, which is levied on the book profit of the entity computed as per the Section 115JB of the IT Act, 1961. The Section 115JB(2) defines book profit as net profit in the statement of Profit & Loss prepared in accordance with Schedule-III of the Companies Act, 2013, subject to some additions and deductions as mentioned in the IT Act, 1961. Since the Petitioner has been paying income tax on income computed under Section 115JB of the IT Act, 1961 as per the MAT rates of the respective financial year, the notified MAT rate for respective financial year shall be considered as effective tax rate for the purpose of grossing up of RoE for truing-up of the tariff of the 2014-19 tariff period in terms of the provisions of the 2014 Tariff Regulations. Interest imposed on any additional income tax demand as per the Assessment Order of the Income Tax authorities shall be considered on actual payment. However, penalty (for default on the part of the Assessee) if any imposed shall not be taken into account for the purpose of grossing up of rate of return on equity. Any under-recovery or over-recovery of grossed up rate on return on equity after truing-up, shall be recovered or refunded to beneficiaries or the long term transmission customers/ DICs as the case may be on year to year basis.*

*27. Accordingly, following effective tax rates based on notified MAT rates are considered for the purpose of grossing up of rate of return on equity:*

<b>Year</b>	<b>Notified MAT rates (inclusive of surcharge &amp; cess)</b>	<b>Effective tax (in %)</b>
2014-15	20.961	20.961
2015-16	21.342	21.342
2016-17	21.342	21.342
2017-18	21.342	21.342
2018-19	21.549	21.549

42. The MAT rates considered in the order dated 27.4.2020 in Petition No. 274/TT/2019 are considered for the purpose of grossing up of rate of RoE for truing up of the tariff of the 2014-19 period in terms of the provisions of the 2014 Tariff Regulations and same is as follows:



Year	Notified MAT rates (inclusive of surcharge & cess) (in %)	Base rate of RoE (in %)	Grossed up ROE (Base Rate/1-t)(in %)
2014-15	20.961	15.50	19.610
2015-16	21.342	15.50	19.705
2016-17	21.342	15.50	19.705
2017-18	21.342	15.50	19.705
2018-19	21.549	15.50	19.758

43. Accordingly, the trued-up RoE allowed for the Combined Asset for the 2014-19 tariff period is as follows:

(₹ in lakh)

Combined Asset					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	19407.75	19407.75	19407.75	19407.75	19407.75
Addition due to ACE	0.00	0.00	0.00	0.00	0.00
Closing Equity	19407.75	19407.75	19407.75	19407.75	19407.75
Average Equity	19407.75	19407.75	19407.75	19407.75	19407.75
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50
Tax Rate applicable (%)	20.961	21.342	21.342	21.342	21.549
Rate of Return on Equity (Pre-tax)	19.610	19.705	19.705	19.705	19.758
<b>Return on Equity (Pre-tax)</b>	<b>3805.86</b>	<b>3824.30</b>	<b>3824.30</b>	<b>3824.30</b>	<b>3834.58</b>

44. Accordingly, RoE approved *vide* order dated 12.1.2016 in Petition No. 388/TT/2014, claimed in the instant petition for the 2014-19 period and allowed after true up of the 2014-19 period with respect to the Combined Asset is as follows:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Approved earlier <i>vide</i> order dated 12.1.2016 in Petition No. 388/TT/2014	3805.86	3805.86	3805.86	3805.86	3805.86
Claimed by the Petitioner in the instant Petition	3808.77	3826.24	3824.30	3824.30	3834.58
Allowed after truing up in this order	3805.86	3824.30	3824.30	3824.30	3834.58



## Depreciation

45. The depreciation has been allowed out as per the methodology provided in Regulation 27 of the 2014 Tariff Regulations. Depreciation has been allowed considering capital expenditure as on 1.4.2014 and approved ACE during the 2014-19 tariff period. The Gross Block during the 2014-19 tariff period with regard to the Combined Asset has been depreciated at WAROD and working of WAROD is attached as Annexure-1 to this order. WAROD has been worked out after taking into account the depreciation rates of assets as prescribed in the 2014 Tariff Regulations and depreciation allowed during the 2014-19 period for the Combined Asset is as under:

(₹ in lakh)

Combined Asset					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	64855.85	64855.85	64855.85	64855.85	64855.85
ACE	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	64855.85	64855.85	64855.85	64855.85	64855.85
Average Gross Block	64855.85	64855.85	64855.85	64855.85	64855.85
WAROD (%)	5.23	5.23	5.23	5.23	5.23
Balance useful life of the asset at the beginning of the year	26.00	25.00	24.00	23.00	22.00
Aggregated Depreciable Value	58336.01	58336.01	58336.01	58336.01	58336.01
Remaining Depreciable value at the end of the year	34647.22	31253.34	27859.46	24465.59	21071.71
<b>Depreciation during the year</b>	<b>3393.88</b>	<b>3393.88</b>	<b>3393.88</b>	<b>3393.88</b>	<b>3393.88</b>

46. Accordingly, depreciation approved *vide* order dated 12.1.2016 in Petition No. 388/TT/2014, claimed in the instant petition for the 2014-19 period and allowed after true up of the 2014-19 period with respect of the Combined Asset is as under:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Approved earlier <i>vide</i> order dated 12.1.2016 in Petition No.	3393.88	3393.88	3393.88	3393.88	3393.88





Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
388/TT/2014					
Claimed by the Petitioner in the instant Petition	3393.88	3393.88	3393.88	3393.88	3393.88
Allowed after tried-up in this order.	3393.88	3393.88	3393.88	3393.88	3393.88

### **Operation & Maintenance Expenses (O&M Expenses)**

47. The O&M Expenses claimed by the Petitioner and allowed as per Regulation 29(4)(a) of the 2014 Tariff Regulations for the purpose of computation of tariff are the same and are as under:

(₹ in lakh)

Combined Asset-1
<p><b>O&amp;M Expenses claimed for:</b></p> <p><b><u>Transmission Line</u></b></p> <ul style="list-style-type: none"> <li>• Vindhyachal-Satna Ckt-III &amp; IV Double Circuit Transmission Line - 258.310 km</li> <li>• LILO of Satna-Bina Ckt-I&amp;II at Bina Sub-station Double Circuit Transmission Line - 0.742 km</li> <li>• Satna-Bina Ckt-III &amp; IV Double Circuit Transmission Line - 272.586 km</li> <li>• LILO of Raipur-Rourkela with associated Bays Double Circuit Transmission Line - 18.296 km</li> </ul> <p><b><u>400 kV AIS Sub-station Bays</u></b></p> <ul style="list-style-type: none"> <li>• Satna:Vindhyachal Bay-III At Satna - 1 Bay</li> <li>• Satna:ICT-II at Satna - 1 Bay</li> <li>• Satna:Vindhyachal Bay-IV at Satna - 1 Bay</li> <li>• Satna:Bina-IV at Satna - 1 Bay</li> <li>• Satna:Bina-III at Satna- 1 Bay</li> <li>• Bina:Satna-I at Bina- 1 Bay</li> <li>• Bina:Satna-II at Bina- 1 Bay</li> <li>• Satna:Bina-I at Satna- 1 Bay</li> <li>• Satna:Bina-II at Satna- 1 Bay</li> <li>• Bina:Satna-IV at Bina- 1 Bay</li> <li>• Bina:Satna-III at Bina- 1 Bay</li> <li>• Raigarh:Raipur-I Bay at Raigarh- 1 Bay</li> <li>• Raigarh:Raipur-II Bay at Raigarh - 1 Bay</li> <li>• Raigarh:Rourkela-I Bay at Raigarh - 1 Bay</li> <li>• Raigarh:Rourkela-II Bay at Raigarh - 1 Bay</li> <li>• Raigarh:ICT-I Bay at Raigarh - 1 Bay</li> <li>• Satna:Bus Reactor Bay at Satna - 1 Bay</li> <li>• Raigarh:ICT-II Bay at Raigarh - 1 Bay</li> </ul>



**220 kV AIS Sub-station Bays**

- Satna:ICT-II Bay at Satna - 1 Bay
- Satna:Satna II Bay at Satna - 1 Bay
- Satna:Katni II Bay at Satna - 1 Bay
- Raigarh:Raigarh (CSEB)-1 at Raigarh - 1 Bay
- Raigarh:Raigarh (CSEB)-2 at Raigarh - 1 Bay
- Raigarh:ICT-I Bay at Raigarh - 1 Bay
- Raigarh:Korba (CSEB) at Raigarh - 1 Bay
- Raigarh:Budhipadar (GRIDCO) at Raigarh - 1 Bay
- Raigarh:ICT-2 Bay at Raigarh - 1 Bay

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
<b>Norm (₹ lakh/bay)</b>					
400 kV Bay (AIS)	60.30	62.30	64.37	66.51	68.71
<b>Number of bays</b>					
400 kV Bay (AIS)	18.00	18.00	18.00	18.00	18.00
<b>Norm (₹ lakh/bay)</b>					
220 kV Bay (AIS)	42.21	43.61	45.06	46.55	48.10
<b>Number of bays</b>					
220 kV Bay (AIS)	9.00	9.00	9.00	9.00	9.00
<b>O&amp;M for HV and DC Lines (₹ lakh/km)</b>					
Double Circuit (Twin Conductor) Transmission Line	0.707	0.731	0.755	0.780	0.806
<b>Line Length in km</b>					
Vindhyachal-Satna Ckt-III & IV Double Circuit Transmission Line - 258.310 km	258.310	258.310	258.310	258.310	258.310
LILO of Satna-Bina Ckt-I&II at Bina Sub-station Double Circuit Transmission Line - 0.742 km	0.742	0.742	0.742	0.742	0.742
Satna-Bina Ckt-III & IV Double Circuit Transmission Line - 272.586 km	272.586	272.586	272.586	272.586	272.586
LILO of Raipur-Rourkela with associated Bays Double Circuit Transmission Line - 18.296 km	18.296	18.296	18.296	18.296	18.296
<b>Total O&amp;M Expenses</b>	<b>1854.10</b>	<b>1915.88</b>	<b>1979.39</b>	<b>2045.08</b>	<b>2112.93</b>



<b>(Claimed)</b>					
<b>Total O&amp;M Expenses (Approved)</b>	<b>1854.09</b>	<b>1915.89</b>	<b>1979.40</b>	<b>2045.08</b>	<b>2112.93</b>

48. There is no deviation in the O&M Expenses approved *vide* order dated 12.1.2016 in Petition No. 388/TT/2014, claimed in the instant petition and trued up in this order.

**Interest on Working Capital (IWC)**

49. The Petitioner has claimed IWC as per Regulation 28(1)(c) of the 2014 Tariff Regulations. The components of the working capital and the Petitioner's entitlement to interest thereon are discussed hereunder:

**(i) Maintenance Spares:**

Maintenance Spares have been worked out based on 15% of O&M Expenses specified in Regulation 28.

**(ii) O&M Expenses:**

O&M Expenses have been considered for one month of the allowed O&M Expenses.

**(iii) Receivables:**

The receivables have been worked out on the basis of 2 months of annual transmission charges as worked out above.

**(iv) Rate of interest on working capital**

Rate of interest on working capital is considered on normative basis in accordance with clause (3) of Regulation 28 of the 2014 Tariff Regulations.

50. The trued-up IWC has been worked out for the Combined Asset as per the methodology provided in Regulation 28 of the 2014 Tariff Regulations and is allowed as under:

(₹ in lakh)

<b>Combined Asset</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
O&M Expenses	154.51	159.66	164.95	170.42	176.08
Maintenance Spares	278.11	287.38	296.91	306.76	316.94
Receivables	1903.76	1867.40	1828.19	1789.35	1752.62



<b>Combined Asset</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>Total Working Capital</b>	<b>2336.39</b>	<b>2314.44</b>	<b>2290.05</b>	<b>2266.53</b>	<b>2245.63</b>
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
<b>Interest of working Capital</b>	<b>315.41</b>	<b>312.45</b>	<b>309.16</b>	<b>305.98</b>	<b>303.16</b>

51. Accordingly, IWC approved *vide* order dated 12.1.2016 in Petition No. 388/TT/2014, claimed in the instant petition for the 2014-19 period and allowed after true up of the 2014-19 period with respect to the Combined Asset is as under:

<b>Particulars</b>	<b>(₹ in lakh)</b>				
	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Approved earlier <i>vide</i> order dated 12.1.2016 in Petition No. 388/TT/2014	315.41	312.03	308.73	305.56	302.50
Claimed by the Petitioner in the instant Petition	322.31	319.33	316.00	312.84	310.04
Allowed after truing up in this order	315.41	312.45	309.16	305.98	303.16

#### **Approved Annual Fixed Charges for the 2014-19 Tariff Period**

52. The trued-up AFC for the Combined Asset for the 2014-19 tariff period are summarised below:

<b>Combined Asset</b>					
<b>Particulars</b>	<b>(₹ in lakh)</b>				
	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	3393.88	3393.88	3393.88	3393.88	3393.88
Interest on Loan	2053.34	1757.90	1462.41	1166.85	871.16
Return on Equity	3805.86	3824.30	3824.30	3824.30	3834.58
Interest on Working Capital	315.41	312.45	309.16	305.98	303.16
O& M Expenses	1854.09	1915.89	1979.40	2045.08	2112.93
<b>Total</b>	<b>11422.59</b>	<b>11204.42</b>	<b>10969.15</b>	<b>10736.09</b>	<b>10515.71</b>

53. The annual transmission charges allowed *vide* order dated 12.1.2016 in Petition No. 388/TT/2014, claimed in the instant petition for the 2014-19 period and allowed after true up of the 2014-19 period with respect to the Combined Asset are as under:

<b>Particulars</b>	<b>(₹ in lakh)</b>				
	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Approved earlier vide order dated 12.1.2016 in Petition No. 388/TT/2014	11422.58	11185.56	10950.28	10717.23	10486.32
Claimed by the Petitioner in the instant Petition	11729.21	11510.33	11273.46	11040.99	10821.52
Allowed after truing up in this order	11422.59	11204.42	10969.15	10736.09	10515.71

#### **DETERMINATION OF ANNUAL FIXED CHARGES FOR THE 2019-24 TARIFF PERIOD**

54. The transmission tariff claimed by the Petitioner for the Combined Asset for the 2019-24 tariff period is as follows:

(₹ in lakh)

Combined Asset					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	3393.88	883.89	883.89	883.89	883.89
Interest on Loan	875.77	695.80	629.70	551.24	468.12
Return on Equity	3834.58	3834.58	3834.58	3834.58	3834.58
Interest on Working Capital	192.30	154.62	156.16	157.63	158.76
O&M Expenses	1616.04	1672.84	1731.14	1791.87	1853.27
<b>Total</b>	<b>9912.57</b>	<b>7241.73</b>	<b>7235.47</b>	<b>7219.21</b>	<b>7198.62</b>

55. The details of IWC claimed by the Petitioner for the Combined Asset for the 2019-24 tariff period is as under:

(₹ in lakh)

Combined Asset					
Particular	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	6.55	6.77	7.01	7.25	7.51
Maintenance Spares	11.79	12.19	12.63	13.05	13.51
Receivables	31.47	31.55	31.58	31.61	31.56
<b>Total</b>	<b>49.81</b>	<b>50.51</b>	<b>51.22</b>	<b>51.91</b>	<b>52.58</b>
Rate of Interest (%)	12.05	12.05	12.05	12.05	12.05
<b>Interest on Working Capital</b>	<b>6.00</b>	<b>6.09</b>	<b>6.17</b>	<b>6.26</b>	<b>6.34</b>

#### **Capital Cost**

56. Regulation 19 of the 2019 Tariff Regulations provides as follows:

*"(1) The Capital cost of the generating station or the transmission system, as the case may be, as determined by the Commission after prudence check in accordance with these regulations shall form the basis for determination of tariff for existing and new projects.*



(2) *The Capital Cost of a new project shall include the following:*

- (a) *The expenditure incurred or projected to be incurred up to the date of commercial operation of the project;*
- (b) *Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;*
- (c) *Any gain or loss on account of foreign exchange risk variation pertaining to the loan amount availed during the construction period;*
- (d) *Interest during construction and incidental expenditure during construction as computed in accordance with these regulations;*
- (e) *Capitalised initial spares subject to the ceiling rates in accordance with these regulations;*
- (f) *Expenditure on account of additional capitalization and de-capitalisation determined in accordance with these regulations;*
- (g) *Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the date of commercial operation as specified under Regulation 7 of these regulations;*
- (h) *Adjustment of revenue earned by the transmission licensee by using the assets before the date of commercial operation;*
- (i) *Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*
- (j) *Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of the generating station but does not include the transportation cost and any other appurtenant cost paid to the railway;*
- (k) *Capital expenditure on account of biomass handling equipment and facilities, for co-firing;*
- (l) *Capital expenditure on account of emission control system necessary to meet the revised emission standards and sewage treatment plant;*
- (m) *Expenditure on account of fulfilment of any conditions for obtaining environment clearance for the project;*
- (n) *Expenditure on account of change in law and force majeure events; and*
- (o) *Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.*

(3) *The Capital cost of an existing project shall include the following:*

- (a) *Capital cost admitted by the Commission prior to 1.4.2019 duly trued up by excluding liability, if any, as on 1.4.2019;*
- (b) *Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;*
- (c) *Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*
- (d) *Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*
- (e) *Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal up to the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and*
- (f) *Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries."*



*(4) The capital cost in case of existing or new hydro generating station shall also include:*

*(a) cost of approved rehabilitation and resettlement (R&R) plan of the project in conformity with National R&R Policy and R&R package as approved; and*

*(b) cost of the developer's 10% contribution towards Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) and Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) project in the affected area.*

*(5) The following shall be excluded from the capital cost of the existing and new projects:*

*(a) The assets forming part of the project, but not in use, as declared in the tariff petition;*

*(b) De-capitalised Assets after the date of commercial operation on account of replacement or removal on account of obsolescence or shifting from one project to another project:*

*Provided that in case replacement of transmission asset is recommended by Regional Power Committee, such asset shall be decapitalised only after its redeployment;*

*Provided further that unless shifting of an asset from one project to another is of permanent nature, there shall be no de-capitalization of the concerned assets.*

*(c) In case of hydro generating stations, any expenditure incurred or committed to be incurred by a project developer for getting the project site allotted by the State Government by following a transparent process;*

*(d) Proportionate cost of land of the existing project which is being used for generating power from generating station based on renewable energy; and*

*(e) Any grant received from the Central or State Government or any statutory body or authority for the execution of the project which does not carry any liability of repayment."*

57. The capital cost of ₹64855.85 lakh has been considered for the Combined Asset as on 31.3.2019. The Petitioner has not claimed any ACE during the 2019-24 period. Therefore, the capital cost of ₹64855.85 lakh as on 31.3.2019 has been considered for the purpose of determination of transmission tariff for the 2019-24 period in accordance with Regulation 19 of the 2019 Tariff Regulations.



## Debt-Equity Ratio

58. Regulation 18 of the 2019 Tariff Regulations provides as under:

**“18. Debt-Equity Ratio:** (1) For new projects, the debt:equity ratio of 70:30 as on date of commercial operation shall be considered. If the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:

*Provided that:*

- i. where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of tariff:
- ii. the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:
- iii. any grant obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt: equity ratio.

**Explanation-**The premium, if any, raised by the generating company or the transmission licensee, as the case may be, while issuing share capital and investment of internal resources created out of its free reserve, for the funding of the project, shall be reckoned as paid up capital for the purpose of computing return on equity, only if such premium amount and internal resources are actually utilised for meeting the capital expenditure of the generating station or the transmission system.

(2) The generating company or the transmission licensee, as the case may be, shall submit the resolution of the Board of the company or approval of the competent authority in other cases regarding infusion of funds from internal resources in support of the utilization made or proposed to be made to meet the capital expenditure of the generating station or the transmission system including communication system, as the case may be.

(3) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2019, debt: equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2019 shall be considered:

*Provided that in case of a generating station or a transmission system including communication system which has completed its useful life as on or after 1.4.2019, if the equity actually deployed as on 1.4.2019 is more than 30% of the capital cost, equity in excess of 30% shall not be taken into account for tariff computation;*

*Provided further that in case of projects owned by Damodar Valley Corporation, the debt: equity ratio shall be governed as per sub-clause (ii) of clause (2) of Regulation 72 of these regulations.*





(4) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2019, but where debt: equity ratio has not been determined by the Commission for determination of tariff for the period ending 31.3.2019, the Commission shall approve the debt: equity ratio in accordance with clause (1) of this Regulation.

(5) Any expenditure incurred or projected to be incurred on or after 1.4.2019 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this Regulation.”

59. The details of the debt and equity considered for the purpose computation of tariff for the 2019-24 tariff period for the Combined Asset is as under:

Particulars	Capital cost as on 1.4.2019 (₹ in lakh)	(%)	Capital cost as on 31.3.2024 (₹ in lakh)	(%)
Debt	45448.10	70.08	45448.10	70.08
Equity	19407.75	29.92	19407.75	29.92
<b>Total</b>	<b>64855.85</b>	<b>100.00</b>	<b>64855.85</b>	<b>100.00</b>

### Return on Equity (RoE)

60. Regulations 30 and 31 of the 2019 Tariff Regulations provide as under:

“30. **Return on Equity:** (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with Regulation 18 of these regulations.

(2) Return on equity shall be computed at the base rate of 15.50% for thermal generating station, transmission system including communication system and run-of river hydro generating station, and at the base rate of 16.50% for the storage type hydro generating stations including pumped storage hydro generating stations and run-of river generating station with pondage:

Provided that return on equity in respect of additional capitalization after cut-off date beyond the original scope excluding additional capitalization due to Change in Law, shall be computed at the weighted average rate of interest on actual loan portfolio of the generating station or the transmission system;

Provided further that:

i. In case of a new project, the rate of return on equity shall be reduced by 1.00% for such period as may be decided by the Commission, if the generating station or transmission system is found to be declared under commercial operation without commissioning of any of the Restricted Governor Mode Operation (RGMO) or Free Governor Mode Operation (FGMO), data telemetry, communication system up to load dispatch centre or protection system based on the report submitted by the respective;



ii. in case of existing generating station, as and when any of the requirements under (i) above of this Regulation are found lacking based on the report submitted by the concerned RLDC, rate of return on equity shall be reduced by 1.00% for the period for which the deficiency continues;

iii. in case of a thermal generating station, with effect from 1.4.2020:

a) rate of return on equity shall be reduced by 0.25% in case of failure to achieve the ramp rate of 1% per minute;

b) an additional rate of return on equity of 0.25% shall be allowed for every incremental ramp rate of 1% per minute achieved over and above the ramp rate of 1% per minute, subject to ceiling of additional rate of return on equity of 1.00%:

Provided that the detailed guidelines in this regard shall be issued by National Load Dispatch Centre by 30.6.2019.”

**“31. Tax on Return on Equity:**(1) The base rate of return on equity as allowed by the Commission under Regulation 30 of these regulations shall be grossed up with the effective tax rate of the respective financial year. For this purpose, the effective tax rate shall be considered on the basis of actual tax paid in respect of the financial year in line with the provisions of the relevant Finance Acts by the concerned generating company or the transmission licensee, as the case may be. The actual tax paid on income from other businesses including deferred tax liability (i.e. income from business other than business of generation or transmission, as the case may be) shall be excluded for the calculation of effective tax rate.

(2) Rate of return on equity shall be rounded off to three decimal places and shall be computed as per the formula given below:

$$\text{Rate of pre-tax return on equity} = \text{Base rate} / (1-t)$$

Where “t” is the effective tax rate in accordance with clause (1) of this Regulation and shall be calculated at the beginning of every financial year based on the estimated profit and tax to be paid estimated in line with the provisions of the relevant Finance Act applicable for that financial year to the company on pro-rata basis by excluding the income of non-generation or non-transmission business, as the case may be, and the corresponding tax thereon. In case of generating company or transmission licensee paying Minimum Alternate Tax (MAT), “t” shall be considered as MAT rate including surcharge and cess.

*Illustration-*

(i) In case of a generating company or a transmission licensee paying Minimum Alternate Tax (MAT) @ 21.55% including surcharge and cess:

$$\text{Rate of return on equity} = 15.50/(1-0.2155) = 19.758\%$$

(ii) In case of a generating company or a transmission licensee paying normal corporate tax including surcharge and cess:

(a) Estimated Gross Income from generation or transmission business for FY 2019-20 is Rs 1,000 crore;

(b) Estimated Advance Tax for the year on above is Rs 240 crore;



(c) Effective Tax Rate for the year 2019-20 = Rs 240 Crore/Rs 1000 Crore = 24%;

(d) Rate of return on equity =  $15.50 / (1 - 0.24) = 20.395\%$ .

(3) The generating company or the transmission licensee, as the case may be, shall true up the grossed up rate of return on equity at the end of every financial year based on actual tax paid together with any additional tax demand including interest thereon, duly adjusted for any refund of tax including interest received from the income tax authorities pertaining to the tariff period 2019-24 on actual gross income of any financial year. However, penalty, if any, arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the generating company or the transmission licensee. Any under-recovery or over-recovery of grossed up rate on return on equity after truing up, shall be recovered or refunded to beneficiaries or the long-term customers, as the case may be, on year to year basis."

61. The Petitioner has submitted that MAT rate is applicable to the Petitioner's company. Accordingly, MAT rate applicable in 2019-20 has been considered for the purpose of RoE, which shall be trued up with actual tax rate in accordance with Regulation 31(3) of the 2019 Tariff Regulations. RoE approved for the Combined Asset is as under:

(₹ in lakh)

<b>Combined Asset</b>					
<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Opening Equity	19407.75	19407.75	19407.75	19407.75	19407.75
Addition due to ACE	0.00	0.00	0.00	0.00	0.00
Closing Equity	19407.75	19407.75	19407.75	19407.75	19407.75
Average Equity	19407.75	19407.75	19407.75	19407.75	19407.75
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
Tax Rate applicable (%)	17.472	17.472	17.472	17.472	17.472
Rate of Return on Equity (Pre-tax)	18.782	18.782	18.782	18.782	18.782
<b>Return on Equity (Pre-tax)</b>	<b>3645.16</b>	<b>3645.16</b>	<b>3645.16</b>	<b>3645.16</b>	<b>3645.16</b>

#### Interest on Loan (IoL)

62. Regulation 32 of the 2019 Tariff Regulations provides as under:

"32. **Interest on loan capital:** (1) The loans arrived at in the manner indicated in Regulation 18 of these regulations shall be considered as gross normative loan for calculation of interest on loan.



(2) The normative loan outstanding as on 1.4.2019 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2019 from the gross normative loan.

(3) The repayment for each of the year of the tariff period 2019-24 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of de-capitalization of assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered up to the date of de-capitalisation of such asset.

(4) Notwithstanding any moratorium period availed by the generating company or the transmission licensee, as the case may be, the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the depreciation allowed for the year or part of the year.

(5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio after providing appropriate accounting adjustment for interest capitalized:

Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered;

Provided further that if the generating station or the transmission project, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the transmission licensee as a whole shall be considered.

(6) The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.

(7) The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing”.

63. The Petitioner has prayed that the change in interest rate due to floating rate of interest applicable, if any, will be adjusted at the time of true-up for 2019-24 tariff period. Accordingly, the weighted average rate of IoL has been considered for calculation of IOL on the basis of projected rate of interest as submitted by the Petitioner. In accordance with Regulation 32 of the 2019 Tariff Regulations for the Combined Asset, IOL has been allowed as follows:

(₹ in lakh)

Particulars	Combined Asset				
	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	45448.10	45448.10	45448.10	45448.10	45448.10
Cumulative Repayments up to Previous Year	37264.30	40658.18	41542.08	42425.97	43309.86
Net Loan-Opening	8183.80	4789.92	3906.02	3022.13	2138.24
Addition due to Additional	0.00	0.00	0.00	0.00	0.00

Capitalization					
Repayment during the year	3393.88	883.89	883.89	883.89	883.89
Net Loan-Closing	4789.92	3906.02	3022.13	2138.24	1254.35
Average Loan	6486.86	4347.97	3464.08	2580.19	1696.30
Weighted Average Rate of Interest on Loan (%)	8.87	8.99	9.19	9.23	9.20
<b>Interest on Loan</b>	<b>575.14</b>	<b>390.94</b>	<b>318.22</b>	<b>238.21</b>	<b>156.10</b>

IOL approved for the Combined Asset as above for the 2019-24 is lower than the claim made by the Petitioner which is a consequential impact of considering the lesser cumulative repayment considered by the Petitioner as on 1.4.2014.

### **Depreciation**

64. Regulation 33 of the 2019 Tariff Regulations provides as follows:

*“33. **Depreciation:** (1) Depreciation shall be computed from the date of commercial operation of a generating station or unit thereof or a transmission system or element thereof including communication system. In case of the tariff of all the units of a generating station or all elements of a transmission system including communication system for which a single tariff needs to be determined, the depreciation shall be computed from the effective date of commercial operation of the generating station or the transmission system taking into consideration the depreciation of individual units:*

*Provided that effective date of commercial operation shall be worked out by considering the actual date of commercial operation and installed capacity of all the units of the generating station or capital cost of all elements of the transmission system, for which single tariff needs to be determined.*

*(2) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission. In case of multiple units of a generating station or multiple elements of a transmission system, weighted average life for the generating station of the transmission system shall be applied. Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis.*

*(3) The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset:*

*Provided that the salvage value for IT equipment and software shall be considered as NIL and 100% value of the assets shall be considered depreciable;*

*Provided further that in case of hydro generating stations, the salvage value shall be as provided in the agreement, if any, signed by the developers with the State Government for development of the generating station:*

*Provided also that the capital cost of the assets of the hydro generating station for the purpose of computation of depreciated value shall correspond to the percentage of sale of electricity under long-term power purchase agreement at regulated tariff:*



Provided also that any depreciation disallowed on account of lower availability of the generating station or unit or transmission system as the case may be, shall not be allowed to be recovered at a later stage during the useful life or the extended life.

(4) Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.

(5) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix-I to these regulations for the assets of the generating station and transmission system:

Provided that the remaining depreciable value as on 31<sup>st</sup> March of the year closing after a period of 12 years from the effective date of commercial operation of the station shall be spread over the balance useful life of the assets.

(6) In case of the existing projects, the balance depreciable value as on 1.4.2019 shall be worked out by deducting the cumulative depreciation as admitted by the Commission up to 31.3.2019 from the gross depreciable value of the assets.

(7) The generating company or the transmission licensee, as the case may be, shall submit the details of proposed capital expenditure five years before the completion of useful life of the project along with justification and proposed life extension. The Commission based on prudence check of such submissions shall approve the depreciation on capital expenditure.

In case of de-capitalization of assets in respect of generating station or unit thereof or transmission system or element thereof, the cumulative depreciation shall be adjusted by taking into account the depreciation recovered in tariff by the de-capitalized asset during its useful services."

65. The depreciation has been worked out considering the admitted capital expenditure as on 31.3.2019 and accumulated depreciation up to 31.3.2019 and WAROD. WAROD has been worked out and is given in Annexure-2 to this order after taking into account the depreciation rates specified in the 2019 Tariff Regulations. The depreciation allowed for the Combined Asset for the 2019-24 tariff period is as under:

(₹ in lakh)

Combined Asset-1					
Particular	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	64855.85	64855.85	64855.85	64855.85	64855.85
Addition during the year 2019-24 due to projected Additional Capitalisation	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	64855.85	64855.85	64855.85	64855.85	64855.85



<b>Combined Asset-1</b>					
<b>Particular</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Average Gross Block	64855.85	64855.85	64855.85	64855.85	64855.85
WAROD(%)	5.23	Spread	Spread	Spread	Spread
Balance useful life at the beginning of the year	21.00	20.00	19.00	18.00	17.00
Aggregated Depreciable Value	58336.01	58336.01	58336.01	58336.01	58336.01
Remaining Aggregate Depreciable Value at the end of the year	17677.83	16793.94	15910.04	15026.15	14142.26
<b>Combined Depreciation during the year</b>	<b>3393.88</b>	<b>883.89</b>	<b>883.89</b>	<b>883.89</b>	<b>883.89</b>
Aggregate Cumulative Depreciation	40658.18	41542.08	42425.97	43309.86	44193.75

### **Operation & Maintenance Expenses (O&M Expenses)**

66. Regulations 35(3)(a) and (4) of the 2019 Tariff Regulations provide as under:

*“(3) Transmission system: (a) The following normative operation and maintenance expenses shall be admissible for the transmission system:*

<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
<i>Norms for sub-station Bays (₹ Lakh per bay)</i>					
765 kV	45.01	46.60	48.23	49.93	51.68
400 kV	32.15	33.28	34.45	35.66	36.91
220 kV	22.51	23.30	24.12	24.96	25.84
132 kV and below	16.08	16.64	17.23	17.83	18.46
<i>Norms for Transformers (₹ Lakh per MVA)</i>					
765 kV	0.491	0.508	0.526	0.545	0.564
400 kV	0.358	0.371	0.384	0.398	0.411
220 kV	0.245	0.254	0.263	0.272	0.282
132 kV and below	0.245	0.254	0.263	0.272	0.282
<i>Norms for AC and HVDC lines (₹ Lakh per km)</i>					
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.881	0.912	0.944	0.977	1.011
Single Circuit (Bundled conductor with four sub-conductors)	0.755	0.781	0.809	0.837	0.867
Single Circuit (Twin & Triple Conductor)	0.503	0.521	0.539	0.558	0.578
Single Circuit (Single Conductor)	0.252	0.260	0.270	0.279	0.289
Double Circuit (Bundled conductor with four or more sub-conductors)	1.322	1.368	1.416	1.466	1.517
Double Circuit (Twin & Triple Conductor)	0.881	0.912	0.944	0.977	1.011
Double Circuit (Single Conductor)	0.377	0.391	0.404	0.419	0.433
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.319	2.401	2.485	2.572	2.662
Multi Circuit (Twin & Triple Conductor)	1.544	1.598	1.654	1.713	1.773
<i>Norms for HVDC stations</i>					



<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
<i>HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)</i>	834	864	894	925	958
<i>Gazuwaka HVDC Back-to-Back station (₹ Lakh per 500 MW)</i>	1,666	1,725	1,785	1,848	1,913
<i>500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)</i>	2,252	2,331	2,413	2,498	2,586
<i>±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)</i>	2,468	2,555	2,645	2,738	2,834
<i>±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)</i>	1,696	1,756	1,817	1,881	1,947
<i>±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW)</i>	2,563	2,653	2,746	2,842	2,942

*Provided that the O&M expenses for the GIS bays shall be allowed as worked out by multiplying 0.70 of the O&M expenses of the normative O&M expenses for bays;*

*Provided further that:*

- i. the operation and maintenance expenses for new HVDC bi-pole schemes commissioned after 1.4.2019 for a particular year shall be allowed pro-rata on the basis of normative rate of operation and maintenance expenses of similar HVDC bi-pole scheme for the corresponding year of the tariff period;*
- ii. the O&M expenses norms for HVDC bi-pole line shall be considered as Double Circuit quad AC line;*
- iii. the O&M expenses of ±500 kV Mundra-Mohindergarh HVDC bipole scheme (2000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±500 kV Talchar-Kolar HVDC bi-pole scheme (2000 MW);*
- iv. the O&M expenses of ±800 kV Champa-Kurukshetra HVDC bi-pole scheme (3000 MW) shall be on the basis of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme;*
- v. the O&M expenses of ±800 kV, Alipurduar-Agra HVDC bi-pole scheme (3000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme; and*
- vi. the O&M expenses of Static Synchronous Compensator and Static Var Compensator shall be worked at 1.5% of original project cost as on commercial operation which shall be escalated at the rate of 3.51% to work out the O&M expenses during the tariff period. The O&M expenses of Static Synchronous Compensator and Static Var Compensator, if required, may be reviewed after three years.*

*(b) The total allowable operation and maintenance expenses for the transmission system shall be calculated by multiplying the number of sub-station bays, transformer capacity of the transformer (in MVA) and km of line length with the applicable norms for*





*the operation and maintenance expenses per bay, per MVA and per km respectively.*

*(c) The Security Expenses and Capital Spares for transmission system shall be allowed separately after prudence check:*

*Provided that the transmission licensee shall submit the assessment of the security requirement and estimated security expenses, the details of year-wise actual capital spares consumed at the time of truing up with appropriate justification.*

*(4) Communication system: The operation and maintenance expenses for the communication system shall be worked out at 2.0% of the original project cost related to such communication system. The transmission licensee shall submit the actual operation and maintenance expenses for truing up."*

67. The O&M Expenses claimed by the Petitioner for the Combined Asset for the 2019-24 period are as under:

**I. Transmission Line**

- (1) Vindhyachal-Satna Ckt-III & IV Double Circuit Transmission Line - 258.310 km.
- (2) LILO of Satna-Bina Ckt-I & II at Bina Sub-station Double Circuit Transmission Line - 0.742 km.
- (3) Satna-Bina Ckt-III & IV Double Circuit Transmission Line - 272.586 km.
- (4) LILO of Raipur-Rourkela with associated Bays Double Circuit Transmission Line - 18.296 km.

**II. 400 kV AIS Sub-stations:**

- (1) Satna:Vindhyachal Bay-III At Satna - 1 Bay
- (2) Satna:ICT-II at Satna - 1 Bay
- (3) Satna:Vindhyachal Bay-IV at Satna - 1 Bay
- (4) Satna:Bina-IV at Satna - 1 Bay
- (5) Satna:Bina-III at Satna - 1 Bay
- (6) Bina:Satna-I at Bina - 1 Bay
- (7) Bina:Satna-II at Bina - 1 Bay
- (8) Satna:Bina-I at Satna - 1 Bay
- (9) Satna:Bina-II at Satna - 1 Bay
- (10) Bina:Satna-IV at Bina - 1 Bay
- (11) Bina:Satna-III at Bina - 1 Bay
- (12) Raigarh:Raipur-I Bay at Raigarh - 1 Bay
- (13) Raigarh:Raipur-II Bay at Raigarh - 1 Bay
- (14) Raigarh:Rourkela-I Bay at Raigarh - 1 Bay
- (15) Raigarh:Rourkela-II Bay at Raigarh - 1 Bay
- (16) Raigarh:ICT-I Bay at Raigarh - 1 Bay
- (17) Satna:Bus Reactor Bay at Satna - 1 Bay
- (18) Raigarh:ICT-II Bay at Raigarh - 1 Bay

**III. 220 kV AIS Sub-stations:**



- (1) Satna:ICT-II Bay at Satna - 1 Bay
- (2) Satna:Satna II Bay at Satna - 1 Bay
- (3) Satna:Katni II Bay at Satna - 1 Bay
- (4) Raigarh:Raigarh (CSEB)-1 at Raigarh - 1 Bay
- (5) Raigarh:Raigarh (CSEB)-2 at Raigarh - 1 Bay
- (6) Raigarh:ICT-I Bay at Raigarh - 1 Bay
- (7) Raigarh:Korba (CSEB) at Raigarh - 1 Bay
- (8) Raigarh:Budhipadar (GRIDCO) at Raigarh - 1 Bay
- (9) Raigarh:ICT-2 Bay at Raigarh - 1 Bay

**IV. 400 kV Sub-station ICT:**

- (1) Satna:ICT-II at Satna400 kV 315 MVA - 1 Transformer
- (2) Raigarh:ICT-I and II at Raigarh400 kV 315 MVA - 2 Transformers

**V. Communication System:**

- (1) PLCC

68. O&M Expenses claimed by the Petitioner for the Combined Asset for the 2019-24 tariff period are as under:

**HV and DC Lines**

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>O&amp;M for HV and DC Lines (as per norms)</b>					
i. Vindhyachal-SatnaCkt-III & IV Double Circuit Transmission Line - 258.310 km					
ii. LILO of Satna-Bina Ckt-I & II at Bina Sub-station Double Circuit Transmission Line - 0.742 km	484.49	501.55	519.13	537.29	555.98
iii. Satna-Bina Ckt-III & IV Double Circuit Transmission Line - 272.586 km					
iv. LILO of Raipur-Rourkela with associated Bays Double Circuit Transmission Line - 18.296 km					
<b>Total O&amp;M Expenses</b>	<b>484.49</b>	<b>501.55</b>	<b>519.13</b>	<b>537.29</b>	<b>555.98</b>

**Sub-station Bays**

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>O&amp;M for Sub-station bays (as per norms)</b>					
400 kV AIS	578.70	599.04	620.10	641.88	664.38



220 kV AIS	202.59	209.70	217.08	224.64	232.56
<b>Total O&amp;M Expenses</b>	<b>781.29</b>	<b>808.74</b>	<b>837.18</b>	<b>866.52</b>	<b>896.94</b>

**Transformer** (₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>O&amp;M Expenses for Transformer (as per norms)</b>					
400 kV	338.31	350.60	362.88	376.11	388.40
<b>Total O&amp;M Expenses</b>	<b>338.31</b>	<b>350.60</b>	<b>362.88</b>	<b>376.11</b>	<b>388.40</b>

**PLCC** (₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>O&amp;M for PLCC (as per norms)</b>					
PLCC	11.95	11.95	11.95	11.95	11.95
<b>Total O&amp;M Expenses</b>	<b>11.95</b>	<b>11.95</b>	<b>11.95</b>	<b>11.95</b>	<b>11.95</b>

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Total O&amp;M Expenses claimed</b>	<b>1616.04</b>	<b>1672.84</b>	<b>1731.14</b>	<b>1791.87</b>	<b>1853.27</b>

69. The Petitioner has claimed O&M Expenses separately for the Power Line Carrier Communication (PLCC) under Regulation 35(4) of the 2019 Tariff Regulations @2% of its original project cost in the instant petition. The Petitioner has made similar claim in other petitions as well. Though PLCC is a communication system, it has been considered as part of the sub-station in the 2014 Tariff Regulations and the 2019 Tariff Regulations and the norms for sub-station have been specified accordingly. Accordingly, the Commission vide order dated 24.1.2021 in Petition No.126/TT/2020 has already concluded that no separate O&M Expenses can be allowed for PLCC under Regulation 35(4) of the 2019 Tariff Regulations even though PLCC is a communication system. Therefore, the Petitioner's claim for separate O&M Expenses for PLCC @2% is not allowed. The relevant portions of the order dated 24.1.2021 in Petition No.126/TT/2020 are extracted hereunder.

*"103. Thus, although PLCC equipment is a communication system, it has been considered as a part of sub-station, as it is used both for protection and communication.*



Therefore, we are of the considered view that rightly, it was not considered for separate O&M Expenses while framing norms of O&M for 2019-24 tariff period. While specifying norms for bays and transformers, O&M Expenses for PLCC have been included within norms for O&M Expenses for sub-station. Norms of O&M Expenses @2% of the capital cost in terms of Regulation 35(4) of the 2019 Tariff Regulations have been specified for communication system such as PMU, RMU, OPGW etc. and not for PLCC equipment.”

“105. In our view, granting of O&M Expenses for PLCC equipment @2% of its capital cost under Regulation 35(4) of the 2014 Tariff Regulations under the communication system head would tantamount to granting O&M Expenses twice for PLCC equipment as PLCC equipment has already been considered as part of the sub-station. Therefore, the Petitioner’s prayer for grant of O&M Expenses for the PLCC equipment @2% of its capital cost under Regulation 35(4) of the 2014 Tariff Regulations is rejected.

106. The principle adopted in this petition that PLCC is part of sub-station and accordingly no separate O&M Expenses is admissible for PLCC equipment in the 2019-24 tariff period under Regulation 35(4) of the 2019 Tariff Regulations shall be applicable in case of all petitions where similar claim is made by the Petitioner. As already mentioned, the Commission, however, on the basis of the claim made by the Petitioner has inadvertently allowed O&M Expenses for PLCC equipment @2% of its original project cost, which is applicable for other “communication system”, for 2019-24 period in 31 petitions given in Annexure-3 of this order. Therefore, the decision in this order shall also be applicable to all the petitions given in Annexure-3. Therefore, PGCIL is directed to bring this decision to the notice of all the stakeholders in the 31 petitions given in Annexure-3 and also make revised claim of O&M Expenses for PLCC as part of the sub-station at the time of truing up of the tariff allowed for 2019-24 period in respective petitions.”

Therefore, the Petitioner’s claim for separate O&M Expenses for PLCC @2% is not allowed.

70. Accordingly, the O&M Expenses are allowed as per the norms specified in the 2019 Tariff Regulations and they are as under:

**AC and HVDC Lines**

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Norm (₹ lakh/km)</b>					
D/C Twin Conductor	0.881	0.912	0.944	0.977	1.011
<b>Line Length in km</b>					
Vindhyachal-Satna Ckt-III & IV Double Circuit Transmission Line - 258.310 km	258.310	258.310	258.310	258.310	258.310
LILO of Satna-Bina Ckt-I & II at Bina Sub-	0.742	0.742	0.742	0.742	0.742



Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
station Double Circuit Transmission Line - 0.742 km					
Satna-Bina Ckt-III & IV Double Circuit Transmission Line - 272.586 km	272.586	272.586	272.586	272.586	272.586
LILO of Raipur-Rourkela with associated Bays Double Circuit Transmission Line - 18.296 km	18.296	18.296	18.296	18.296	18.296
<b>Total Line Length</b>	<b>549.934</b>	<b>549.934</b>	<b>549.934</b>	<b>549.934</b>	<b>549.934</b>
<b>Total O&amp;M Expenses</b>	<b>484.49</b>	<b>501.54</b>	<b>519.14</b>	<b>537.29</b>	<b>555.98</b>

#### Sub-station Bays

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Norm (₹ lakh/bay)</b>					
400 kV AIS	32.150	33.280	34.450	35.660	36.910
220 kV AIS	22.51	23.30	24.12	24.96	25.84
<b>Number of bays</b>					
400 kV AIS	18	18	18	18	18
400 kV AIS	9	9	9	9	9
O&M Expenses for 400 kV AIS	578.70	599.04	620.10	641.88	664.38
O&M Expenses for 220 kV AIS	202.59	209.70	217.08	224.64	232.56
<b>Total O&amp;M Expenses</b>	<b>781.29</b>	<b>808.74</b>	<b>837.18</b>	<b>866.52</b>	<b>896.94</b>

#### Transformer

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Norm (₹ lakh/MVA)</b>					
400 kV Transformer	0.358	0.371	0.384	0.398	0.411
<b>MVA Rating</b>	<b>315</b>	<b>315</b>	<b>315</b>	<b>315</b>	<b>315</b>
<b>No. of Transformers</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>
O&M Expenses for 400 kV Transformer	338.31	350.60	362.88	376.11	388.40
<b>Total O&amp;M Expenses</b>	<b>338.31</b>	<b>350.60</b>	<b>362.88</b>	<b>376.11</b>	<b>388.40</b>

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Total O&amp;M Expenses allowed</b>	<b>1604.09</b>	<b>1660.87</b>	<b>1719.20</b>	<b>1779.92</b>	<b>1841.32</b>



## **Interest on Working Capital (IWC)**

71. Regulations 34(1)(c), 34(3), 34(4) and 3(7) of the 2019 Tariff Regulations provide as follows:

### ***“34. Interest on Working Capital***

*(1)...*

*(c) For Hydro Generating Station (including Pumped Storage Hydro Generating Station) and Transmission System:*

- i. Receivables equivalent to 45 days of fixed cost;*
- ii. Maintenance spares @ 15% of operation and maintenance expenses including security expenses; and*
- iii. Operation and maintenance expenses, including security expenses for one month”*

*“(3)Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2019 or as on 1st April of the year during the tariff period 2019-24 in which the generating station or a unit thereof or the transmission system including communication system or element thereof, as the case may be, is declared under commercial operation, whichever is later:*

*Provided that in case of truing-up, the rate of interest on working capital shall be considered at bank rate as on 1st April of each of the financial year during the tariff period 2019-24.*

*(4) Interest on working capital shall be payable on normative basis notwithstanding that the generating company or the transmission licensee has not taken loan for working capital from any outside agency.”*

### ***“3.Definitions...***

*(7) ‘Bank Rate’ means the one year marginal cost of lending rate (MCLR) of the State Bank of India issued from time to time plus 350 basis points;”*

72. The Petitioner has submitted that it has computed IWC for the 2019-24 period considering the SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of interest on working capital as 12.05%.

73. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The rate of IWC considered is 12.05% (SBI 1 year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for 2019-20, whereas, rate of interest for



2020-21 onwards has been considered as 11.25% (SBI 1 year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points). The components of the working capital and the interest allowed thereon for the Combined Asset for the 2019-24 tariff period is as under:

(₹ in lakh)

<b>Combined Asset</b>					
<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
O&M Expenses	133.67	138.41	143.27	148.33	153.44
Maintenance Spares	240.61	249.13	257.88	266.99	276.20
Receivables	1156.07	828.20	826.59	824.38	819.72
<b>Total Working Capital</b>	<b>1530.36</b>	<b>1215.74</b>	<b>1227.74</b>	<b>1239.69</b>	<b>1249.36</b>
Rate of Interest (%)	12.05	11.25	11.25	11.25	11.25
<b>Interest on Working Capital</b>	<b>184.41</b>	<b>136.77</b>	<b>138.12</b>	<b>139.47</b>	<b>140.55</b>

#### **Annual Fixed Charges of the 2019-24 Tariff Period**

74. The transmission charges allowed for the Combined Asset for the 2019-24 tariff period are as under:

(₹ in lakh)

<b>Combined Asset</b>					
<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Depreciation	3393.88	883.89	883.89	883.89	883.89
Interest on Loan	575.14	390.94	318.22	238.21	156.10
Return on Equity	3645.16	3645.16	3645.16	3645.16	3645.16
Interest on Working Capital	184.41	136.77	138.12	139.47	140.55
O =&M Expenses	1604.09	1660.87	1719.20	1779.92	1841.32
<b>Total</b>	<b>9402.69</b>	<b>6717.64</b>	<b>6704.60</b>	<b>6686.65</b>	<b>6667.03</b>

#### **Filing Fee and Publication Expenses**

75. The Petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses. The Petitioner shall be entitled for reimbursement of the filing fees and publication expenses in connection with the present petition, directly from the beneficiaries on *pro-rata* basis in accordance with Regulation 70(1) of the 2019 Tariff Regulations.



### **Licence Fee & RLDC Fees and Charges**

76. The Petitioner has requested to allow it to bill and recover license fee and RLDC fees and charges, separately from the Respondents. The Petitioner shall be entitled for reimbursement of licence fee in accordance with Regulation 70(4) of the 2019 Tariff Regulations for the 2019-24 tariff period. The Petitioner shall also be entitled for recovery of RLDC fee and charges in accordance with Regulations 70(3) of the 2019 Tariff Regulations for the 2019-24 tariff period.

### **Goods and Services Tax**

77. The Petitioner has submitted that, if GST is levied at any point of time in future on charges of transmission of electricity, the same shall be borne and additionally paid by the Respondent(s) and the same shall be charged and billed separately by the Petitioner. Further, additional taxes, if any, are to be paid by the Petitioner on account of demand from Government/Statutory authorities, the same may be allowed to be recovered from the beneficiaries.

78. We have considered the submission of the Petitioner. GST is not levied on transmission service at present and hence we are of the view that Petitioner's prayer is premature.

### **Security Expenses**

79. The Petitioner has submitted that security expenses for the instant assets are not claimed in the instant petition and it would file a separate petition for claiming the overall security expenses and the consequential Interest on Working Capital. The Petitioner has requested to consider the actual security expenses incurred during 2018-19 for claiming estimated security expenses for 2019-20 which shall be subject to true up at the end of the year based on the actuals. The Petitioner has submitted





that similar petition for security expenses for 2020-21, 2021-22, 2022-23 and 2023-24 shall be filed on a yearly basis based on the actual expenses of previous year subject to true up at the end of the year on actual expenses. The Petitioner has submitted that the difference, if any, between the estimated security expenses and actual security expenses as per the audited accounts may be allowed to be recovered from the beneficiaries on a yearly basis.

80. We have considered the submissions of the Petitioner. We are of the view that the Petitioner should claim security expenses for all the transmission assets in one petition. It is observed that the Petitioner has already filed the Petition No. 260/MP/2020 claiming consolidated security expenses on projected basis for the 2019-24 tariff period based on actual security expenses incurred in 2018-19. Therefore, security expenses will be dealt with in Petition No. 260/MP/2020 in accordance with the applicable provisions of the 2019 Tariff Regulations

#### **Capital Spares**

81. The Petitioner has sought reimbursement of capital spares at the end of tariff period. The Petitioner's claim, if any, shall be dealt with in accordance with the provisions of the 2019 Tariff Regulations.

#### **Sharing of Transmission Charges**

82. The billing, collection and disbursement of the transmission charges approved shall be governed by the provisions of the Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010 or the Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2020, as applicable, as provided in Regulation 43



of the 2014 Tariff Regulations for the 2014-19 tariff period and Regulation 57 of the 2019 Tariff Regulations for the 2019-24 tariff period.

83. To summarise, the trued-up AFC allowed for the Combined Asset for the 2014-19 tariff period are as under:

(₹ in lakh)

<b>Combined Asset</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Annual Fixed Charges	11422.59	11204.42	10969.15	10736.09	10515.71

84. The AFC allowed for the Combined Asset for the 2019-24 tariff period in the instant order are as under:

(₹ in lakh)

<b>Combined Asset</b>					
<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
AFC	9402.69	6717.64	6704.60	6686.65	6667.03

85. This order disposes of Petition No. 395/TT/2019

**Sd/  
(Arun Goyal)  
Member**

**Sd/  
(I.S. Jha)  
Member**

**Sd/  
(P.K. Pujari)  
Chairperson**



Petition No.:	395-TT-2019
Period	2014-19 True up

Annexure-1

2014-19 Capital Expenditure as on 1.4.2014	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations				
				2014-15 (₹ in lakh)	2015-16 (₹ in lakh)	2016-17 (₹ in lakh)	2017-18 (₹ in lakh)	2018-19 (₹ in lakh)
Land	38.06	38.06	0.00%	0.00	0.00	0.00	0.00	0.00
Building	1792.52	1792.52	3.34%	59.87	59.87	59.87	59.87	59.87
Transmission Line	46746.48	46746.48	5.28%	2468.21	2468.21	2468.21	2468.21	2468.21
Sub Station	15681.16	15681.16	5.28%	827.97	827.97	827.97	827.97	827.97
PLCC	597.62	597.62	6.33%	37.83	37.83	37.83	37.83	37.83
<b>TOTAL</b>	<b>64855.85</b>	<b>64855.85</b>		<b>3393.88</b>	<b>3393.88</b>	<b>3393.88</b>	<b>3393.88</b>	<b>3393.88</b>
<b>Average Gross Block (₹ in lakh)</b>				<b>64855.85</b>	<b>64855.85</b>	<b>64855.85</b>	<b>64855.85</b>	<b>64855.85</b>
<b>Weighted Average Rate of Depreciation (₹ in lakh)</b>				<b>5.23%</b>	<b>5.23%</b>	<b>5.23%</b>	<b>5.23%</b>	<b>5.23%</b>



Petition No.:	395-TT-2019
Period	2019-24 Tariff

Annexure-2

2019-24 Capital Expenditure as on 1.4.2019	Combined Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations				
				2019-20 (₹ in lakh)	2020-21 (₹ in lakh)	2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)
Land	38.06	38.06	Same as Annexure-1	0.00				
Building	1792.52	1792.52	till 2019-20	59.87				
Transmission Line	46746.48	46746.48		2468.21				
Sub Station	15681.16	15681.16	Spread beyond 2019-20	827.97				
PLCC	597.62	597.62		37.83				
<b>TOTAL</b>	<b>64855.85</b>	<b>64855.85</b>		<b>3393.88</b>	<b>883.89</b>	<b>883.89</b>	<b>883.89</b>	<b>883.89</b>
<b>Average Gross Block (₹ in lakh)</b>				<b>64855.85</b>	<b>64855.85</b>	<b>64855.85</b>	<b>64855.85</b>	<b>64855.85</b>
<b>Weighted Average Rate of Depreciation (₹ in lakh)</b>				<b>5.23%</b>	<b>Spread</b>	<b>Spread</b>	<b>Spread</b>	<b>Spread</b>

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 395/TT/2019**

**Coram:**

**Shri P.K. Pujari, Chairperson  
Shri I. S. Jha, Member  
Shri Arun Goyal, Member**

**Date of Order: 07.02.2022**

**In the matter of:**

**Corrigendum to the order dated 27.1.2021 in Petition No. 395/TT/2019**

Approval under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations 1999 and revision of transmission tariff of the 2004-09 and 2009-14 tariff periods and truing up of transmission tariff of the 2014-19 period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff for the 2019-24 period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for Combined Asset consisting of **Asset-I:** Ckt-III of 400 kV D/C Vindhyachal-Satna transmission line along with associated bays, **Asset-II:** 400/220 kV, 315 MVA ICT-II at Satna Sub-station, **Asset-III:** Ckt-IV of 400 kV D/C Vindhyachal-Satna line along with associated bays, **Asset-IV:** LILO of 400 kV Satna-Bina Ckt-I & II at Bina (Power Grid) Sub-station, **Asset-V:** Circuit IV of 400 kV D/C Satna-Bina transmission line, **Asset-VI:** Circuit III of 400 k V D/C Satna-Bina transmission line, **Asset-VII:** LILO of 400 kV D/C Raipur-Rourkela transmission line alongwith associated bays, **Asset-VIII:** 400/220 kV 315, MVA ICT-II along with associated bays equipment at Raigarh Sub-station under "Vindhyachal Stage-III Transmission System" in the Western Region.

**And in the matter of:**

Power Grid Corporation of India Limited,  
"Saudamini", Plot No.2,  
Sector-29,  
Gurgaon-122001, (Haryana).

**.....Petitioner**

**Versus**

1. Madhya Pradesh Power Management Company Limited,  
Shakti Bhawan, Rampur,  
Jabalpur – 482 008.
2. Madhya Pradesh Power Transmission Company Limited,  
Shakti Bhawan, Rampur,  
Jabalpur – 482 008.



3. Madhya Pradesh Audyogik Kendra,  
Vikas Nigam (Indore) Limited,  
3/54, Press Complex, Agra-Bombay Road,  
Indore – 452 008.
4. Maharashtra State Electricity Distribution Company Limited,  
Hongkong Bank Building, 3rd Floor,  
M.G. Road, Fort,  
Mumbai – 400 001.
5. Maharashtra State Electricity Transmission Company Limited,  
Prakashganga, 6th Floor, Plot No. C-19, E-Block,  
Bandra Kurla Complex, Bandra (East),  
Mumbai – 400 051.
6. Gujarat Urja Vikas Nigam Limited,  
Sardar Patel Vidyut Bhawan,  
Race Course Road,  
Vadodara – 390 007.
7. Gujarat Energy Transmission Corporation Limited,  
Sardar Patel Vidyut Bhawan,  
Race Course Road,  
Vadodara – 390 007.
8. Electricity Department,  
Government of Goa,  
Vidyut Bhawan, Near Mandvi Hotel,  
Panaji, Goa – 403 001.
9. Electricity Department,  
Administration of Daman & Diu,  
Daman – 396 210.
10. Electricity Department,  
Administration of Dadra Nagar Haveli  
U.T., Silvassa – 396 230.
11. Chhattisgarh State Electricity Board,  
P.O. Sunder Nagar, Dangania,  
Raipur, Chhattisgarh – 492 013.
12. Chhattisgarh State Power Transmission Company Limited,  
Office of the Executive Director (C&P),  
State Load Dispatch Building, Dangania,  
Raipur – 492 013.
13. Chhattisgarh State Power Distribution Company Limited,  
P.O. Sunder Nagar, Dangania,



### **CORRIGENDUM**

The Commission vide order dated 27.1.2021 in Petition No.395/TT/2019 had revised the transmission tariff of 2004-09 and 2009-14 tariff periods, trued up the transmission tariff of the 2014-19 tariff period and determined transmission tariff for the period from 1.4.2019 to 31.3.2024 in respect of the following assets under “Vindhyachal Stage-III Transmission System” in Western Region (hereinafter referred to as “the Transmission Project”):

**Asset-I:** Ckt-III of 400 kV D/C Vindhyachal-Satna transmission line along with associated bays.

**Asset-II:** 400/220 kV, 315 MVA ICT-II at Satna Sub-station.

**Asset-III:** Ckt-IV of 400 kV D/C Vindhyachal-Satna line along with associated bays.

**Asset-IV:** LILO of 400 kV Satna-Bina Ckt-I & II at Bina (Power Grid) Sub-station.

**Asset-V:** Circuit IV of 400 kV D/C Satna-Bina transmission line.

**Asset-VI:** Circuit III of 400 kV D/C Satna-Bina transmission line.

**Asset VII:** LILO of 400 kV D/C Raipur-Rourkela transmission line along with associated bays; and

**Asset VIII:** 400/220 kV 315 MVA ICT-II along with associated bays equipment at Raigarh Sub-station.

In order to rectify certain inadvertent errors that have crept in the said order dated 27.1.2021 in Petition No. 395/TT/2019, this corrigendum order is being passed.

2. Certain inadvertent errors have been observed in the order dated 27.1.2021 in paragraph 15 pertaining to the tariff allowed for the transmission assets in earlier orders and in paragraph 16 which gives the details of the transmission tariff claimed by the Petitioner.



3. These inadvertent errors are being rectified in the present corrigendum order in exercise of powers under Regulation 103A of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999.

4. Accordingly, the following changes are being made to the order dated 27.1.2021.

i) Tables under paragraph 15 are revised as follows:

(₹ in lakh)

<b>Asset-I</b>			
<b>Particulars</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	244.94	502.02	508.91
Interest on Loan	549.68	1098.29	1071.21
Return on Equity	392.12	803.56	813.98
Advance against Depreciation	0.00	0.00	0.00
Interest on Working Capital	31.41	64.01	65.13
O&M Expenses	46.98	97.50	101.61
<b>Total</b>	<b>1265.13</b>	<b>2565.38</b>	<b>2560.84</b>

(₹ in lakh)

<b>Asset-II</b>			
<b>Particulars</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	23.91	58.23	59.09
Interest on Loan	38.89	91.39	87.89
Return on Equity	27.70	67.44	68.43
Advance against Depreciation	0.00	0.00	0.00
Interest on Working Capital	3.57	8.74	8.95
O&M Expenses	50.70	126.52	131.60
<b>Total</b>	<b>144.78</b>	<b>352.32</b>	<b>355.96</b>

(₹ in lakh)

<b>Asset-III</b>			
<b>Particulars</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	56.12	168.36	169.07
Interest on Loan	122.68	358.43	345.76
Return on Equity	86.55	259.65	260.80
Advance against Depreciation	0.00	0.00	0.00
Interest on Working Capital	7.58	22.79	23.10
O&M Expenses	31.32	97.50	101.61
<b>Total</b>	<b>304.25</b>	<b>906.73</b>	<b>900.34</b>





(₹ in lakh)

<b>Asset-IV</b>		
<b>Particulars</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	89.25	102.60
Interest on Loan	157.27	183.78
Return on Equity	112.56	135.58
Advance against Depreciation	0.00	0.00
Interest on Working Capital	14.55	16.20
O&M Expenses	126.90	131.99
<b>Total</b>	<b>500.53</b>	<b>570.16</b>

(₹ in lakh)

<b>Asset-V</b>		
<b>Particulars</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	318.37	446.37
Interest on Loan	708.34	958.14
Return on Equity	495.56	692.17
Advance against Depreciation	0.00	0.00
Interest on Working Capital	49.21	68.05
O&M Expenses	99.58	138.31
<b>Total</b>	<b>1671.06</b>	<b>2303.04</b>

(₹ in lakh)

<b>Asset-VI</b>		
<b>Particulars</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	103.11	188.35
Interest on Loan	226.56	396.51
Return on Equity	155.79	281.05
Advance against Depreciation	0.00	0.00
Interest on Working Capital	17.03	30.34
O&M Expenses	77.45	138.31
<b>Total</b>	<b>579.94</b>	<b>1034.56</b>

(₹ in lakh)

<b>Asset-VII</b>		
<b>Particulars</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	57.28	244.57
Interest on Loan	100.05	453.73
Return on Equity	72.71	312.70
Advance against Depreciation	0.00	0.00
Interest on Working Capital	9.22	39.27
O&M Expenses	73.50	305.83
<b>Total</b>	<b>312.76</b>	<b>1356.10</b>

(₹ in lakh)

<b>Asset-VIII</b>		
<b>Particulars</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	6.79	43.33

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Interest on Loan	11.14	73.37
Return on Equity	7.92	50.55
Advance against Depreciation	0.00	0.00
Interest on Working Capital	1.43	9.00
O&M Expenses	21.09	131.60
<b>Total</b>	<b>48.37</b>	<b>307.85</b>

ii) Tables under paragraph 16 are revised as follows:

(₹ in lakh)

<b>Asset-I</b>			
<b>Particulars</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	244.94	502.02	508.91
Interest on Loan	554.84	1141.02	1157.18
Return on Equity	392.12	803.56	813.98
Advance against Depreciation	0.00	0.00	0.00
Interest on Working Capital	31.68	66.21	68.43
O&M Expenses	46.98	97.50	101.61
<b>Total</b>	<b>1270.55</b>	<b>2610.31</b>	<b>2650.11</b>

(₹ in lakh)

<b>Asset-II</b>			
<b>Particulars</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	23.91	58.23	59.09
Interest on Loan	39.33	95.87	97.40
Return on Equity	27.70	67.44	68.43
Advance against Depreciation	0.00	0.00	0.00
Interest on Working Capital	3.59	8.92	9.25
O&M Expenses	50.70	126.52	131.60
<b>Total</b>	<b>145.23</b>	<b>356.99</b>	<b>365.77</b>

(₹ in lakh)

<b>Asset-III</b>			
<b>Particulars</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	56.12	168.36	169.07
Interest on Loan	123.49	370.48	372.12
Return on Equity	86.55	259.65	260.80
Advance against Depreciation	0.00	0.00	0.00
Interest on Working Capital	7.59	23.25	23.86
O&M Expenses	31.32	97.50	101.61
<b>Total</b>	<b>305.07</b>	<b>919.24</b>	<b>927.46</b>



(₹ in lakh)

<b>Asset-IV</b>		
<b>Particulars</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	89.25	102.60
Interest on Loan	161.14	195.92
Return on Equity	112.56	135.58
Advance against Depreciation	0.00	0.00
Interest on Working Capital	14.88	17.43
O&M Expenses	126.90	131.99
<b>Total</b>	<b>504.74</b>	<b>583.52</b>

(₹ in lakh)

<b>Asset-V</b>		
<b>Particulars</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	318.37	446.37
Interest on Loan	718.56	1004.80
Return on Equity	495.56	692.17
Advance against Depreciation	0.00	0.00
Interest on Working Capital	49.81	70.82
O&M Expenses	99.58	138.31
<b>Total</b>	<b>1681.88</b>	<b>2352.46</b>

(₹ in lakh)

<b>Asset-VI</b>		
<b>Particulars</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	103.11	188.35
Interest on Loan	229.27	414.08
Return on Equity	155.79	281.05
Advance against Depreciation	0.00	0.00
Interest on Working Capital	17.23	31.60
O&M Expenses	77.45	138.31
<b>Total</b>	<b>582.86</b>	<b>1053.39</b>

(₹ in lakh)

<b>Asset-VII</b>		
<b>Particulars</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	57.28	244.57
Interest on Loan	100.70	470.09
Return on Equity	72.71	312.70
Advance against Depreciation	0.00	0.00
Interest on Working Capital	9.27	40.81
O&M Expenses	73.50	305.83
<b>Total</b>	<b>313.46</b>	<b>1374.01</b>



(₹ in lakh)

<b>Asset-VIII</b>		
<b>Particulars</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	6.79	43.33
Interest on Loan	11.19	75.90
Return on Equity	7.92	50.55
Advance against Depreciation	0.00	0.00
Interest on Working Capital	1.43	9.24
O&M Expenses	21.09	131.60
<b>Total</b>	<b>48.42</b>	<b>310.63</b>

5. Except for the above, all other terms contained in the order dated 27.1.2021 in Petition No.395/TT/2019 remain unchanged.

sd/-  
(Arun Goyal)  
Member

sd/-  
(I.S. Jha)  
Member

sd/-  
(P. K. Pujari)  
Chairperson



**Summary of Tariff**

Form No. - 1

Name of the Transmission Licensee:	Power Grid Corporation of India Limited		
Project	VINDHYACHAL III		
Element Description	Combined assets of Vindhyachal stage -III (notional DOCO:		
Region	Western Region	DOCO Date	Feb 1, 2008

(Amount in Rs. Lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Year Days	366.00	365.00	365.00	365.00	366.00
Tariff Days	366.00	365.00	365.00	365.00	366.00
Depreciation-Form No. 10A	3,393.88	883.88	883.88	883.88	883.88
Interest on Loan-Form No. 9E	575.14	390.94	318.23	238.21	156.11
Return on Equity-Form No. 8	3,645.16	3,645.16	3,645.16	3,645.16	3,645.16
Int. on Working capital-Form No.11	184.41	136.77	128.79	130.05	150.06
Op. and maintenance-Form No.2	1,604.09	1,660.89	1,719.19	1,779.92	1,841.32
Total AFC	9,402.68	6,717.64	6,695.25	6,677.22	6,676.53

(Petitioner)



Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	VINDHYACHAL III		
Element Description	Combined assets of Vindhyachal stage -III (notional DOCO):		
Region	Western Region	DOCO Date	Feb 1, 2008

**1. Transmission Lines**

(Amount in Rs. Lakh)

Name of Line	Type of Line AC/HVDC	S/C or D/C	No of Sub-Conductors	Voltage Level KV	Line Bays	Line Reactor (Including Switchable Reactor)	Line Length Km	Date of Commercial operation	Covered in the present petition	
									Yes/No	If No, Petition No.
VINDHYACHAL-SATNA CKT-III AND IV	AC	DC	2	400 KV	0.000	1.000	258.310	Feb 1, 2008	Y	
LILO OF SATNA-BINA CKT-I&II AT BINA S/S	AC	DC	2	400 KV	0.000	0.000	0.742	Feb 1, 2008	Y	
SATNA-BINA CKT-III AND IV	AC	DC	2	400 KV	0.000	1.000	272.586	Feb 1, 2008	Y	
LILO OF RAIPUR-ROURKELA WITH ASSC. BAYS	AC	DC	2	400 KV	0.000	0.000	18.296	Feb 1, 2008	Y	

Summary:



O&M Expenses For the Transmission Lines Covered in the instant petition	2019-20	2020-21	2021-22	2022-23	2023-24
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**DOUBLE CIRCUIT (TWIN CONDUCTOR)**

Normative Rate of O&M as per Regulation	0.881	0.912	0.944	0.977	1.011
No. of Units - ( Length in KM )	549.934	549.934	549.934	549.934	549.934
O&M Claimed	484.49	501.55	519.13	537.29	555.98

*WS*



2. Sub Station

Name of Sub-station	Type of Substation	Voltage Level KV	No. of Transformers/ Reactors/ SVC etc. (with capacity)	No. of Bays				MVA/MVAR Capacity				Date of Comm. operation	Covered in the present petition
				765 KV	400 KV	220 KV	132 KV	765 KV	400 KV	220 KV	132 KV		
Satna:VINDHYACHAL BAY-III AT SATNA	Conventional	400 KV		1.000								Feb 1, 2008	Y
Satna:ICT-II AT SATNA	Conventional	400 KV		1.000								Feb 1, 2008	Y
Satna:ICT-II BAY AT SATNA	Conventional	220 KV			1.000							Feb 1, 2008	Y
Satna:SATNA II BAY AT SATNA	Conventional	220 KV			1.000							Feb 1, 2008	Y
Satna:KATNI III BAY AT SATNA	Conventional	220 KV			1.000							Feb 1, 2008	Y
Satna:VINDHYACHAL BAY-IV AT SATNA	Conventional	400 KV		1.000								Feb 1, 2008	Y
Satna:BINA-IV AT SATNA	Conventional	400 KV		1.000								Feb 1, 2008	Y
Satna:BINA-III AT SATNA	Conventional	400 KV		1.000								Feb 1, 2008	Y
Bina: SATNA I AT BINA	Conventional	400 KV		1.000								Feb 1, 2008	Y



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Raigarh:RAIGARH(CSEB)-2 AT RAIGARH	Conventio nal	220 KV							1.000						Feb 1, 2008	Y
Raigarh:ICT-I BAY AT RAIGARH	Conventio nal	220 KV							1.000						Feb 1, 2008	Y
Raigarh:ICT-II BAY AT RAIGARH	Conventio nal	400 KV						1.000							Feb 1, 2008	Y
Raigarh:KORBA(CSEB)AT RAIGARH	Conventio nal	220 KV							1.000						Feb 1, 2008	Y
Raigarh:BUDHIPADAR(GRIDCO)AT RAIGARH	Conventio nal	220 KV							1.000						Feb 1, 2008	Y
Raigarh:ICT-2 BAY AT RAIGARH	Conventio nal	220 KV							1.000						Feb 1, 2008	Y
Satna:ICT-II AT SATNA		400 KV								1.000				315.00	Feb 1, 2008	Y
Raigarh:ICT-I&II AT RAIGARH		400 KV								2.000				315.00	Feb 1, 2008	Y
Bina:50 MVAR LR AT BINA FOR SATNA BINA CKT 3		400 KV								1.000				50.000	Feb 1, 2008	Y
Bina:50 MVAR LR AT BINA FOR SATNA BINA CKT 4		400 KV								1.000				50.000	Feb 1, 2008	Y
Satna:50 MVAR LR AT SATNA FOR SATNA BINA CKT 3		400 KV								1.000				50.000	Feb 1, 2008	Y
Satna:50 MVAR LR AT SATNA FOR SATNA BINA CKT 4		400 KV								1.000				50.000	Feb 1, 2008	Y



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Satna:50MVAR LR AT SATNA FOR VINDHYACHAL-SATNA CKT 3	400 KV	1.000							50.000		Feb 1, 2008	Y
Satna:50 MVAR LR AT SATNA FOR VINDHYACHAL-SATNA CKT 4	400 KV	1.000							50.000		Feb 1, 2008	Y
Rajgarh:63 MBAR BUS REACTOR AT RAJGARH	400 KV	1.000							63.000		Feb 1, 2008	Y

**Summary:**

O&M Expenses For Substations Covered in the instant petition		2019-20	2020-21	2021-22	2022-23	2023-24
<b>400KV SUB-STATION</b>						
Normative Rate of O&M as per Regulation		32.15	33.28	34.45	35.66	36.91
No. of Units		18.00	18.00	18.00	18.00	18.00
O&M Claimed		578.70	599.04	620.10	641.88	664.38
<b>220KV SUB-STATION</b>						
Normative Rate of O&M as per Regulation		22.51	23.30	24.12	24.96	25.84
No. of Units		9.00	9.00	9.00	9.00	9.00
O&M Claimed		202.59	209.70	217.08	224.64	232.56
<b>400KV Sub-station Reactor</b>						
Normative Rate of O&M as per Regulation		0.00	0.00	0.00	0.00	0.00
No. of Units		0.00	0.00	0.00	0.00	0.00
O&M Claimed		0.00	0.00	0.00	0.00	0.00



*WA*

**400KV SUB-STATION ICT**

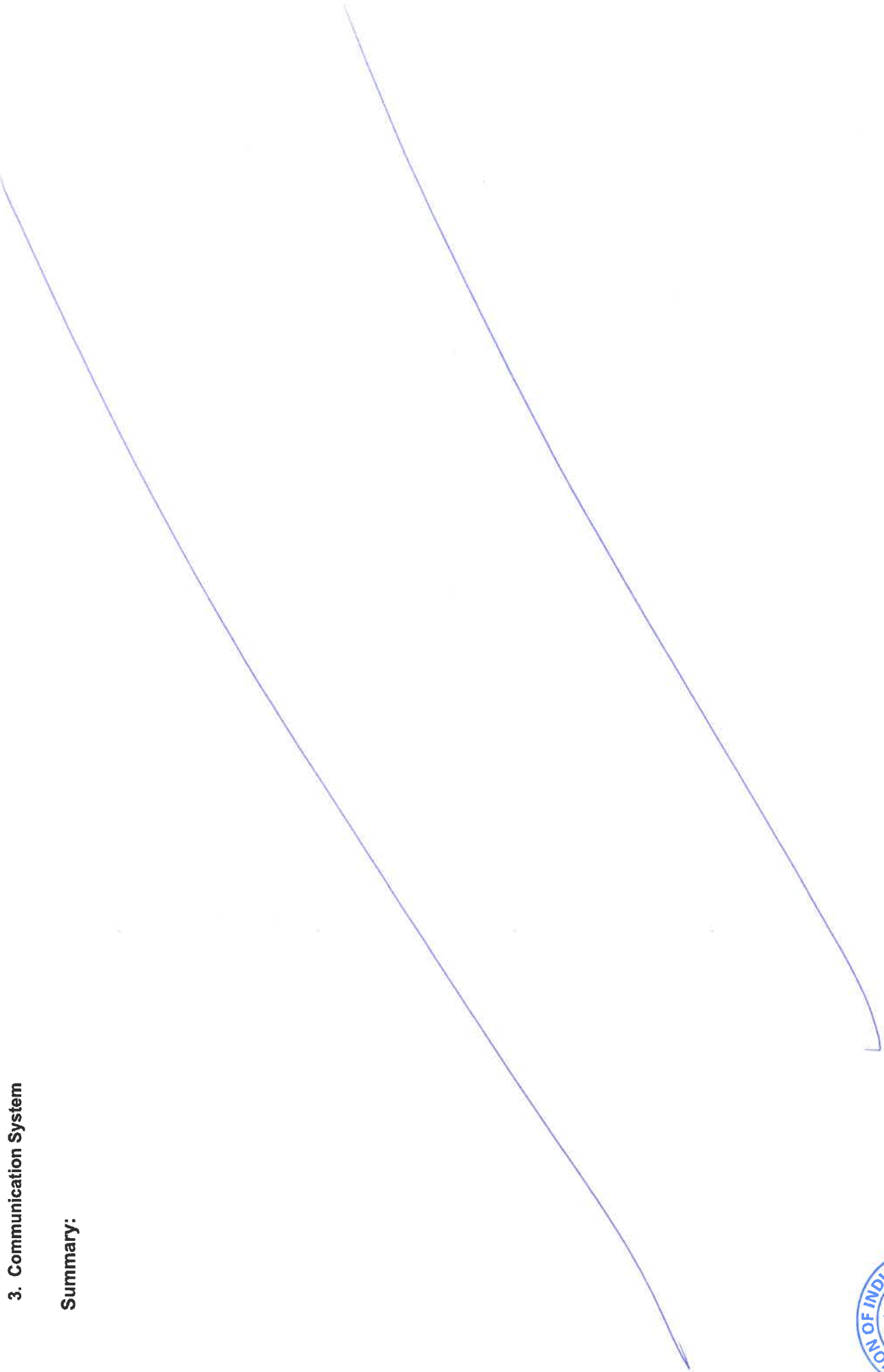
Normative Rate of O&M as per Regulation	0.358	0.371	0.384	0.398	0.411
No. of Units	3.00	3.00	3.00	3.00	3.00
O&M Claimed	338.31	350.60	362.88	376.11	388.40

WA



### 3. Communication System

#### Summary:



Summary of O&M Expenses claim

(Amount in Rs. Lakh)

Particular	2019-20	2020-21	2021-22	2022-23	2023-24
<b>A) Normative O&amp;M</b>					
Transmission Line	484.49	501.55	519.13	537.29	555.98
Substation	1,119.60	1,159.34	1,200.06	1,242.63	1,285.34
Communication System	0.00	0.00	0.00	0.00	0.00
<b>Total Normative O&amp;M</b>	<b>1,604.09</b>	<b>1,660.89</b>	<b>1,719.19</b>	<b>1,779.92</b>	<b>1,841.32</b>
<b>B) O&amp;M Claimed under Regulation 35 (3)(C) (* The same is not being claimed and will be claimed through separate Petition )</b>					
*Security Expenses	0.00	0.00	0.00	0.00	0.00
*Actual Capital Spare consumed	0.00	0.00	0.00	0.00	0.00
*Insurance Premium Paid	0.00	0.00	0.00	0.00	0.00
<b>Total O&amp;M</b>	<b>1,604.09</b>	<b>1,660.89</b>	<b>1,719.19</b>	<b>1,779.92</b>	<b>1,841.32</b>

*Wd*  
(Petitioner)



**Normative parameters considered for tariff computations**

Form No. - 3

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	VINDHYACHAL III		
Element Description	Combined assets of Vindhyachal stage -III (notional DOCO:		
Region	Western Region	DOCO Date	Feb 1, 2008

(Amount in Rs. Lakh)

Particulars	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Base Rate of Return of Equity (in %)</b>						
Tax Rate (in %)	21.55	17.472	17.472	17.472	17.472	17.472
<b>Effective tax rate (in %)</b>						
Grossed up Rate of ROE (in %)	19.758	18.782	18.782	18.782	18.782	18.782
Target availability - AC System (in %)	98.00	98.00	98.00	98.00	98.00	98.00
Target availability - HVDC System (in %)	96.00	96.00	96.00	96.00	96.00	96.00
<b>Norms for sub-station Bays (Rs Lakh per bay)</b>						
765 kV	96.20	45.01	46.60	48.23	49.93	51.68
400 kV	68.71	32.15	33.28	34.45	35.66	36.91
220 kV	48.10	22.51	23.30	24.12	24.96	25.84
132 kV and below	34.36	16.08	16.64	17.23	17.83	18.46
<b>Norms for Transformers (Rs Lakh per MVA)</b>						
765 kV	0.00	0.491	0.508	0.526	0.545	0.564
400 kV	0.00	0.358	0.371	0.384	0.398	0.411
220 kV	0.00	0.245	0.254	0.263	0.272	0.282
132 kV and below	0.00	0.245	0.254	0.263	0.272	0.282
<b>Norms for AC and HVDC lines (Rs Lakh per km)</b>						
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.806	0.881	0.912	0.944	0.977	1.011
Single Circuit (Bundled conductor with four sub-conductors)	0.691	0.755	0.781	0.809	0.837	0.867
Single Circuit (Twin & Triple Conductor)	0.461	0.503	0.521	0.539	0.558	0.578



Single Circuit (Single Conductor)	0.23	0.252	0.26	0.27	0.279	0.289
Double Circuit (Bundled conductor with four or more sub-conductors)	1.21	1.322	1.368	1.416	1.466	1.517
Double Circuit (Twin & Triple Conductor)	0.806	0.881	0.912	0.944	0.977	1.011
Double Circuit (Single Conductor)	0.346	0.377	0.391	0.404	0.419	0.433
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.123	2.319	2.401	2.485	2.572	2.662
Multi Circuit (Twin & Triple Conductor)	1.413	1.544	1.598	1.654	1.713	1.773
<b>Norms for HVDC stations</b>						
HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)	0.00	834.00	864.00	894.00	925.00	958.00
Gazuwaka HVDC Back-to-Back station (Rs. Lakh per 500 MW)	0.00	1,666.00	1,725.00	1,785.00	1,848.00	1,913.00
500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)	0.00	2,252.00	2,331.00	2,413.00	2,498.00	2,586.00
±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)	0.00	2,468.00	2,555.00	2,645.00	2,738.00	2,834.00
±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)	0.00	1,696.00	1,756.00	1,817.00	1,881.00	1,947.00
±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW)	0.00	2,563.00	2,653.00	2,746.00	2,842.00	2,942.00

*WA*  
(Petitioner)





**Calculation of ROE**

Form No. - 8

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	VINDHYACHAL III		
Element Description	Combined assets of Vindhyachal stage -III (notional DOCO:		
Region	Western Region	DOCO Date	Feb 1, 2008

(Amount in Rs. Lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
No. of Days in the year	366.00	365.00	365.00	365.00	366.00
No. of days for which tariff claimed	366.00	365.00	365.00	365.00	366.00
Opening Normative Equity	19,407.74	19,407.74	19,407.74	19,407.74	19,407.74
Less: Adjustment in Equity*	0.00	0.00	0.00	0.00	0.00
Adjustment during the year	0.00	0.00	0.00	0.00	0.00
Net opening equity (Normal)	19,407.74	19,407.74	19,407.74	19,407.74	19,407.74
Add: Increase in Equity due to addition during the year / period	0.00	0.00	0.00	0.00	0.00
Less: Decrease due to de-capitalisation during the year / period	0.00	0.00	0.00	0.00	0.00
Add: Increase due to discharge during the year / period	0.00	0.00	0.00	0.00	0.00
Closing Normative Equity	19,407.74	19,407.74	19,407.74	19,407.74	19,407.74
Average Normative Equity	19,407.74	19,407.74	19,407.74	19,407.74	19,407.74
Rate of return on Equity (%)	18.782	18.782	18.782	18.782	18.782
Reduced rate of 1% decided by commission under Regulation 30(2) (if any)	0.00	0.00	0.00	0.00	0.00
Effective rate of ROE	15.50	15.50	15.50	15.50	15.50
MAT/Corporate Rate	17.472	17.472	17.472	17.472	17.472
Grossed up rate of ROE	18.782	18.782	18.782	18.782	18.782
Return on Equity	3,645.16	3,645.16	3,645.16	3,645.16	3,645.16
Pro rata return on Equity	3,645.16	3,645.16	3,645.16	3,645.16	3,645.16



**Calculation of WAR of interest on actual loan**

Form No. - 9C

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	VINDHYACHAL III		
Element Description	Combined assets of Vindhyachal stage -III (notional DOCO):		
Region	Western Region	DOCO Date	Feb 1, 2008

(Amount in Rs. Lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>BOND XVIII -DOCO</b>					
Gross Loan- Opening	19,117.00	19,117.00	19,117.00	19,117.00	19,117.00
Cumulative repayments of Loans upto previous year	15,930.83	17,523.92	19,117.00	19,117.00	19,117.00
Net loan-Opening	3,186.17	1,593.08	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	1,593.08	1,593.08	0.00	0.00	0.00
Net Loan-Closing	1,593.09	0.00	0.00	0.00	0.00
Average Net Loan	2,389.63	796.54	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	8.15	8.15	8.15	8.15	8.15
Interest on loan	194.7548	64.918	0.00	0.00	0.00

<b>BOND XX -DOCO</b>					
Gross Loan- Opening	12,039.00	12,039.00	12,039.00	12,039.00	12,039.00
Cumulative repayments of Loans upto previous year	9,029.25	10,032.50	11,035.75	12,039.00	12,039.00
Net loan-Opening	3,009.75	2,006.50	1,003.25	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	1,003.25	1,003.25	1,003.25	0.00	0.00
Net Loan-Closing	2,006.50	1,003.25	0.00	0.00	0.00



Average Net Loan	2,508.13	1,504.88	501.63	0.00	0.00
Rate of Interest on Loan on Annual Basis	8.93	8.93	8.93	8.93	8.93
Interest on loan	223.976	134.3858	44.7956	0.00	0.00

<b>BOND XXI -DOCO</b>					
Gross Loan- Opening	520.00	520.00	520.00	520.00	520.00
Cumulative repayments of Loans upto previous year	390.00	433.33	476.67	520.00	520.00
Net loan-Opening	130.00	86.67	43.33	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	43.33	43.33	43.33	0.00	0.00
Net Loan-Closing	86.67	43.34	0.00	0.00	0.00
Average Net Loan	108.34	65.01	21.67	0.00	0.00
Rate of Interest on Loan on Annual Basis	8.73	8.73	8.73	8.73	8.73
Interest on loan	9.4581	5.6754	1.8918	0.00	0.00

<b>BOND XXII -DOCO</b>					
Gross Loan- Opening	1,204.00	1,204.00	1,204.00	1,204.00	1,204.00
Cumulative repayments of Loans upto previous year	903.00	1,003.33	1,103.67	1,204.00	1,204.00
Net loan-Opening	301.00	200.67	100.33	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	100.33	100.33	100.33	0.00	0.00
Net Loan-Closing	200.67	100.34	0.00	0.00	0.00
Average Net Loan	250.84	150.51	50.17	0.00	0.00
Rate of Interest on Loan on Annual Basis	8.68	8.68	8.68	8.68	8.68
Interest on loan	21.7729	13.0643	4.3548	0.00	0.00



<b>BOND XXIII -DOCO</b>					
Gross Loan- Opening	1,617.00	1,617.00	1,617.00	1,617.00	1,617.00
Cumulative repayments of Loans upto previous year	1,212.75	1,347.50	1,482.25	1,617.00	1,617.00
Net loan-Opening	404.25	269.50	134.75	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	134.75	134.75	134.75	0.00	0.00
Net Loan-Closing	269.50	134.75	0.00	0.00	0.00
Average Net Loan	336.88	202.13	67.38	0.00	0.00
Rate of Interest on Loan on Annual Basis	9.25	9.25	9.25	9.25	9.25
Interest on loan	31.1614	18.697	6.2327	0.00	0.00

<b>BOND XXIV -DOCO</b>					
Gross Loan- Opening	2,675.00	2,675.00	2,675.00	2,675.00	2,675.00
Cumulative repayments of Loans upto previous year	2,006.25	2,229.17	2,452.08	2,675.00	2,675.00
Net loan-Opening	668.75	445.83	222.92	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	222.92	222.92	222.92	0.00	0.00
Net Loan-Closing	445.83	222.91	0.00	0.00	0.00
Average Net Loan	557.29	334.37	111.46	0.00	0.00
Rate of Interest on Loan on Annual Basis	9.95	9.95	9.95	9.95	9.95
Interest on loan	55.4504	33.2698	11.0903	0.00	0.00

<b>BOND XXVI -DOCO</b>					
Gross Loan- Opening	3,953.00	3,953.00	3,953.00	3,953.00	3,953.00
Cumulative repayments of Loans upto previous year	2,635.33	2,964.75	3,294.17	3,623.58	3,953.00
Net loan-Opening	1,317.67	988.25	658.83	329.42	0.00



Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	329.42	329.42	329.42	329.42	0.00
Net Loan-Closing	988.25	658.83	329.41	0.00	0.00
Average Net Loan	1,152.96	823.54	494.12	164.71	0.00
Rate of Interest on Loan on Annual Basis	9.30	9.30	9.30	9.30	9.30
Interest on loan	107.2253	76.5892	45.9532	15.318	0.00

#### BOND XXVIII -AddCap2008-09Loan1

Gross Loan- Opening	1,124.00	1,124.00	1,124.00	1,124.00	1,124.00
Cumulative repayments of Loans upto previous year	655.67	749.33	843.00	936.67	1,030.33
Net loan-Opening	468.33	374.67	281.00	187.33	93.67
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	93.67	93.67	93.67	93.67	93.67
Net Loan-Closing	374.66	281.00	187.33	93.66	0.00
Average Net Loan	421.50	327.84	234.17	140.50	46.84
Rate of Interest on Loan on Annual Basis	9.33	9.33	9.33	9.33	9.33
Interest on loan	39.326	30.5875	21.8481	13.1087	4.3702

#### BOND XXIX -ADDCAP FOR 2009-2010

Gross Loan- Opening	52.00	52.00	52.00	52.00	52.00
Cumulative repayments of Loans upto previous year	30.33	34.67	39.00	43.33	47.67
Net loan-Opening	21.67	17.33	13.00	8.67	4.33
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	4.33	4.33	4.33	4.33	4.33
Net Loan-Closing	17.34	13.00	8.67	4.34	0.00
Average Net Loan	19.51	15.17	10.84	6.91	2.17



Rate of Interest on Loan on Annual Basis	9.20	9.20	9.20	9.20	9.20
Interest on loan	1.7949	1.3956	0.9973	0.5989	0.1996

<b>BOND XXIX -AddCap2008-09Loan2</b>					
Gross Loan- Opening	932.00	932.00	932.00	932.00	932.00
Cumulative repayments of Loans upto previous year	543.67	621.33	699.00	776.67	854.33
Net loan-Opening	388.33	310.67	233.00	155.33	77.67
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	77.67	77.67	77.67	77.67	77.67
Net Loan-Closing	310.66	233.00	155.33	77.66	0.00
Average Net Loan	349.50	271.84	194.17	116.50	38.84
Rate of Interest on Loan on Annual Basis	9.20	9.20	9.20	9.20	9.20
Interest on loan	32.154	25.0093	17.8636	10.718	3.5733

<b>BOND XXX -ADDCAP FOR 2009-2010</b>					
Gross Loan- Opening	85.00	85.00	85.00	85.00	85.00
Cumulative repayments of Loans upto previous year	42.50	49.58	56.67	63.75	70.83
Net loan-Opening	42.50	35.42	28.33	21.25	14.17
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	7.08	7.08	7.08	7.08	7.08
Net Loan-Closing	35.42	28.34	21.25	14.17	7.09
Average Net Loan	38.96	31.88	24.79	17.71	10.63
Rate of Interest on Loan on Annual Basis	8.80	8.80	8.80	8.80	8.80
Interest on loan	3.4285	2.8054	2.1815	1.5585	0.9354

**BOND XXXI -ADDCAP FOR 2009-2010**



Gross Loan- Opening	127.00	127.00	127.00	127.00	127.00
Cumulative repayments of Loans upto previous year	63.50	74.08	84.67	95.25	105.83
Net loan-Opening	63.50	52.92	42.33	31.75	21.17
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	10.58	10.58	10.58	10.58	10.58
Net Loan-Closing	52.92	42.34	31.75	21.17	10.59
Average Net Loan	58.21	47.63	37.04	26.46	15.88
Rate of Interest on Loan on Annual Basis	8.90	8.90	8.90	8.90	8.90
Interest on loan	5.1807	4.2391	3.2966	2.3549	1.4133

#### BOND XXXIII -ADDCAP FOR 2010-2011

Gross Loan- Opening	44.00	44.00	44.00	44.00	44.00
Cumulative repayments of Loans upto previous year	18.33	22.00	25.67	29.33	33.00
Net loan-Opening	25.67	22.00	18.33	14.67	11.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	3.67	3.67	3.67	3.67	3.67
Net Loan-Closing	22.00	18.33	14.66	11.00	7.33
Average Net Loan	23.84	20.17	16.50	12.84	9.17
Rate of Interest on Loan on Annual Basis	8.64	8.64	8.64	8.64	8.64
Interest on loan	2.0598	1.7427	1.4256	1.1094	0.7923

#### BOND XXXVIII -ADDCAP FOR 2011-2012

Gross Loan- Opening	127.04	127.04	127.04	127.04	127.04
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.00	0.00
Net loan-Opening	127.04	127.04	127.04	127.04	127.04
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00



Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	127.04	127.04	127.04	127.04	127.04
Average Net Loan	127.04	127.04	127.04	127.04	127.04
Rate of Interest on Loan on Annual Basis	9.25	9.25	9.25	9.25	9.25
Interest on loan	11.7512	11.7512	11.7512	11.7512	11.7512

### BOND XXXVIII -ADDCAP FOR 2011-2012

Gross Loan- Opening	48.96	48.96	48.96	48.96	48.96
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.00	0.00
Net loan-Opening	48.96	48.96	48.96	48.96	48.96
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	48.96	48.96	48.96	48.96	48.96
Average Net Loan	48.96	48.96	48.96	48.96	48.96
Rate of Interest on Loan on Annual Basis	9.25	9.25	9.25	9.25	9.25
Interest on loan	4.5288	4.5288	4.5288	4.5288	4.5288

### Summary

Gross Loan- Opening	43,665.00	43,665.00	43,665.00	43,665.00	43,665.00
Cumulative repayments of Loans upto previous year	33,461.41	37,085.49	40,709.60	42,740.58	43,266.99
Net loan-Opening	10,203.59	6,579.51	2,955.40	924.42	398.01
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	3,624.08	3,624.08	2,031.00	526.42	197.00
Net Loan-Closing	6,579.51	2,955.43	924.40	398.00	201.01
Average Net Loan	8,391.59	4,767.51	1,939.94	661.23	269.53





Rate of Interest on Loan on Annual Basis	8.8663	8.9913	9.1864	9.2322	9.2025
Interest on loan	744.0228	428.6591	178.2111	61.0464	27.5641

  
(Petitioner)



**Calculation of interest on Normative loan**

Form No. - 9E

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	VINDHYACHAL III		
Element Description	Combined assets of Vindhyachal stage -III (notional DOCO:		
Region	Western Region	DOCO Date	Feb 1, 2008

(Amount in Rs. Lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
No. of Days in the Year	366.00	365.00	365.00	365.00	366.00
No. of days for which Tariff claimed	366.00	365.00	365.00	365.00	366.00
Gross normative loan-Opening	45,448.10	45,448.10	45,448.10	45,448.10	45,448.10
Cumulative repayments of Normative loan upto previous year	37,264.30	40,658.18	41,542.06	42,425.94	43,309.82
Net normative loan-Opening	8,183.80	4,789.92	3,906.04	3,022.16	2,138.28
Addition in normative loan towards the ACE	0.00	0.00	0.00	0.00	0.00
Adjustment of normative gross loan pertaining to the decapitalised asset	0.00	0.00	0.00	0.00	0.00
Normative repayments of normative loan during the year	3,393.88	883.88	883.88	883.88	883.88
Adjustment of cumulative repayment pertaining to the decapitalised asset	0.00	0.00	0.00	0.00	0.00
Net normative loan - closing	4,789.92	3,906.04	3,022.16	2,138.28	1,254.40
Average normative loan	6,486.86	4,347.98	3,464.10	2,580.22	1,696.34
Weighted Average Rate of interest on actual loan	8.8663	8.9913	9.1864	9.2322	9.2025
Interest on normative loan	575.14	390.94	318.23	238.21	156.11
Pro rata interest on normative loan	575.14	390.94	318.23	238.21	156.11

(Petitioner)



**Calculation of Depreciation Rate on Original Project Cost**

Form No. - 10

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	VINDHYACHAL III		
Element Description	Combined assets of Vindhyachal stage -III (notional DOCO:		
Region	Western Region	DOCO Date	Feb 1, 2008

(Amount in Rs. Lakh)

Name of Assets	Gross block at the beginning of the year	Add Cap during the year	Gross block at the end of the year	Average Gross Block	Depreciation Rate as per CERC's Depreciation Rate Schedule	Depreciation Amount for each year upto 31.03.2024
<b>2019-20</b>						
Land(Freehold)	38.06	0.00	38.06	38.06	0.00	0.00
Civil & Building	1,792.52	0.00	1,792.52	1,792.52	3.34	59.87
Transmission Line	46,746.48	0.00	46,746.48	46,746.48	5.28	2,468.21
Sub Station	15,681.16	0.00	15,681.16	15,681.16	5.28	827.97
Comm. Sys. excluding Fiber Optic	597.62	0.00	597.62	597.62	6.33	37.83
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDSM/SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	0.00	0.00	0.00	5.28	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
<b>TOTAL</b>	<b>64,855.84</b>	<b>0.00</b>	<b>64,855.84</b>	<b>64,855.84</b>	<b>0.00</b>	<b>3,393.88</b>
<b>Weighted Average Rate of Depreciation(%)</b>					<b>5.23296</b>	

<b>2020-21</b>						
Land(Freehold)	38.06	0.00	38.06	38.06	0.00	



Civil & Building	1,792.52	0.00	1,792.52	1,792.52	3.34	44.80
Transmission Line	46,746.48	0.00	46,746.48	46,746.48	5.28	625.15
Sub Station	15,681.16	0.00	15,681.16	15,681.16	5.28	209.70
Comm. Sys. excluding Fiber Optic	597.62	0.00	597.62	597.62	6.33	4.23
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDSM/SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	0.00	0.00	0.00	5.28	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
<b>TOTAL</b>	<b>64,855.84</b>	<b>0.00</b>	<b>64,855.84</b>	<b>64,855.84</b>	<b>0.00</b>	<b>883.88</b>
<b>Weighted Average Rate of Depreciation(%)</b>					<b>1.362838</b>	

<b>2021-22</b>						
Land(Freehold)	38.06	0.00	38.06	38.06	0.00	0.00
Civil & Building	1,792.52	0.00	1,792.52	1,792.52	3.34	44.80
Transmission Line	46,746.48	0.00	46,746.48	46,746.48	5.28	625.15
Sub Station	15,681.16	0.00	15,681.16	15,681.16	5.28	209.70
Comm. Sys. excluding Fiber Optic	597.62	0.00	597.62	597.62	6.33	4.23
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDSM/SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	0.00	0.00	0.00	5.28	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
<b>TOTAL</b>	<b>64,855.84</b>	<b>0.00</b>	<b>64,855.84</b>	<b>64,855.84</b>	<b>0.00</b>	<b>883.88</b>
<b>Weighted Average Rate of Depreciation(%)</b>					<b>1.362838</b>	



2022-23						
Land(Freehold)	38.06	0.00	38.06	38.06	0.00	0.00
Civil & Building	1,792.52	0.00	1,792.52	1,792.52	3.34	44.80
Transmission Line	46,746.48	0.00	46,746.48	46,746.48	5.28	625.15
Sub Station	15,681.16	0.00	15,681.16	15,681.16	5.28	209.70
Comm. Sys. excluding Fiber Optic	597.62	0.00	597.62	597.62	6.33	4.23
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDSM/SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	0.00	0.00	0.00	5.28	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
<b>TOTAL</b>	<b>64,855.84</b>	<b>0.00</b>	<b>64,855.84</b>	<b>64,855.84</b>	<b>0.00</b>	<b>883.88</b>
<b>Weighted Average Rate of Depreciation(%)</b>					1.362838	

2023-24						
Land(Freehold)	38.06	0.00	38.06	38.06	0.00	0.00
Civil & Building	1,792.52	0.00	1,792.52	1,792.52	3.34	44.80
Transmission Line	46,746.48	0.00	46,746.48	46,746.48	5.28	625.15
Sub Station	15,681.16	0.00	15,681.16	15,681.16	5.28	209.70
Comm. Sys. excluding Fiber Optic	597.62	0.00	597.62	597.62	6.33	4.23
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDSM/SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	0.00	0.00	0.00	5.28	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
<b>TOTAL</b>	<b>64,855.84</b>	<b>0.00</b>	<b>64,855.84</b>	<b>64,855.84</b>	<b>0.00</b>	<b>883.88</b>



<b>Weighted Average Rate of Depreciation(%)</b>					1.362838	
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(Petitioner)



### Statement of Depreciation

Form No. - 10A

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	VINDHYACHAL III		
Element Description	Combined assets of Vindhyachal stage -III (notional DOCO:		
Region	Western Region	DOCO Date	Feb 1, 2008

(Amount in Rs. Lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
No of Days in the year	366.00	365.00	365.00	365.00	366.00
No of days for which tariff claimed	366.00	365.00	365.00	365.00	366.00
<b>Life at the beginning of the year</b>					
1.1 Weighted Average useful life of the Asset/ Project	32.00	32.00	32.00	32.00	32.00
1.2 Lapsed Weighted Average useful life of the Asset/Project(in completed no. of year)	11.00	12.00	13.00	14.00	15.00
1.3 Balance Weighted Average useful life of the Asset/Project(in completed no. of year)	21.00	20.00	19.00	18.00	17.00
<b>Capital Base</b>					
1.4 Opening capital cost	64,855.84	64,855.84	64,855.84	64,855.84	64,855.84
1.5 Additional Capital Expenditure dr. the year	0.00	0.00	0.00	0.00	0.00
1.6 De-Capitalisation During the year	0.00	0.00	0.00	0.00	0.00
1.7 Closing capital cost	64,855.84	64,855.84	64,855.84	64,855.84	64,855.84
1.8 Average capital cost	64,855.84	64,855.84	64,855.84	64,855.84	64,855.84
1.9 Freehold land included in 1.8	38.06	38.06	38.06	38.06	38.06
1.10 Asset having NIL salvage value included in 1.8	0.00	0.00	0.00	0.00	0.00
1.11 Asset having 10% salvage value included in 1.8	64,817.78	64,817.78	64,817.78	64,817.78	64,817.78
1.12 Depreciable Value(1.10+90% of 1.11)	58,336.00	58,336.00	58,336.00	58,336.00	58,336.00
<b>Depreciation for the period and Cum. Depreciation</b>					
1.13 Weighted Average Rate of depreciation	5.23296	1.362838	1.362838	1.362838	1.362838



1.14 Depreciation(for the period)	3,393.88	883.88	883.88	883.88	883.88
1.15 Depreciation(Annualised)	3,393.88	883.88	883.88	883.88	883.88
Unrecovered Depreciation for DECAP	0.00	0.00	0.00	0.00	0.00
1.16 Cumulative depreciation at the beginning of the period	37,264.32	40,658.20	41,542.08	42,425.96	43,309.84
1.17 Less:Adj of Cum. Dep pertaining to decapitalised Asset	0.00	0.00	0.00	0.00	0.00
1.18 Cumulative depreciation at the end of the period	40,658.20	41,542.08	42,425.96	43,309.84	44,193.72

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(Petitioner)





**Calculation of interest on working Capital**

Form No. - 11

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	VINDHYACHAL III		
Element Description	Combined assets of Vindhyachal stage -III (notional DOCO:		
Region	Western Region	DOCO Date	Feb 1, 2008

(Amount in Rs. Lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
No of Days in the year	366.00	365.00	365.00	365.00	366.00
No of days for which tariff claimed	366.00	365.00	365.00	365.00	366.00
O&M Expenses-one month	133.67	138.41	143.27	148.33	153.44
Maintenance spares 15% of O&M Expenses	240.61	249.13	257.88	266.99	276.20
Receivables equivalent to 45 days of AFC	1,156.07	828.20	825.44	823.22	820.89
Total Working capital	1,530.35	1,215.74	1,226.59	1,238.54	1,250.53
Bank Rate as on 01.04.2019 or as on 01st April of the COD year, whichever is later.	12.05	11.25	10.50	10.50	12.00
Interest on working capital	184.41	136.77	128.79	130.05	150.06
Pro rata interest on working capital	184.41	136.77	128.79	130.05	150.06

  
(Petitioner)

**Summary of Tariff**

Form No. - 1

Name of the Transmission Licensee:	Power Grid Corporation of India Limited		
Project	VINDHYACHAL III		
Element Description	Combined assets of Vindhyachal stage -III (notional DOCO:		
Region	Western Region	DOCO Date	Feb 1, 2008

(Amount in Rs. Lakh)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Year Days	365.00	365.00	365.00	366.00	365.00
Tariff Days	365.00	365.00	365.00	366.00	365.00
Depreciation-Form No. 10A	883.89	883.88	883.89	883.88	883.90
Interest on Loan-Form No. 9E	74.86	17.12	0.00	0.00	0.00
Return on Equity-Form No. 8	3,645.16	3,645.16	3,645.16	3,645.16	3,645.16
Int. on Working capital-Form No.11	134.61	137.22	140.58	144.14	148.51
Op. and maintenance-Form No.2	1,533.76	1,614.44	1,698.29	1,787.16	1,882.29
Total AFC	6,272.28	6,297.82	6,367.92	6,460.34	6,559.86

  
(Petitioner)


Name of the Transmission Licensee	Power Grid Corporation of India Limited	
Project	VINDHYACHAL III	
Element Description	Combined assets of Vindhyachal stage -III (notional DOCO:	
Region	Western Region	DOCO Date   Feb 1, 2008

**1. Transmission Lines**

(Amount in Rs. Lakh)

Name of Line	Type of Line AC/HVDC	S/C or D/C	No of Sub-Conductors	Voltage Level KV	Line Bays	Line Reactor (Including Switchable Reactor)	Line Length Km	Date of Commercial operation	Covered in the present petition	
									Yes/No	If No, Petition No.
VINDHYACHAL-SATNA CKT-III AND IV	AC	DC	2	400 KV	0.000	1.000	258.310	Feb 1, 2008	Y	
LILO OF SATNA-BINA CKT-I&II AT BINA S/S	AC	DC	2	400 KV	0.000	0.000	0.742	Feb 1, 2008	Y	
SATNA-BINA CKT-III AND IV	AC	DC	2	400 KV	0.000	1.000	272.586	Feb 1, 2008	Y	
LILO OF RAIPUR-ROURKELA WITH ASSC. BAYS	AC	DC	2	400 KV	0.000	0.000	18.296	Feb 1, 2008	Y	



<b>O&amp;M Expenses For the Transmission Lines Covered in the instant petition</b>	<b>2024-25</b>	<b>2025-26</b>	<b>2026-27</b>	<b>2027-28</b>	<b>2028-29</b>
<b>DOUBLE CIRCUIT (TWIN CONDUCTOR)</b>					

Normative Rate of O&M as per Regulation	0.861	0.906	0.953	1.003	1.056
No. of Units - ( Length in KM )	549.934	549.934	549.934	549.934	549.934
O&M Claimed	473.49	498.24	524.09	551.57	580.73

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2. Sub Station

Name of Sub-station	Type of Substation	Voltage Level KV	No. of Transformers/ Reactor/ SVC etc. (with capacity)	No. of Bays				MVA/MVAR Capacity				Date of Comm. operation	Covered in the present petition
				765 KV	400 KV	220 KV	132 KV	765 KV	400 KV	220 KV	132 KV		
Satna:VINDHYACHAL BAY-III AT SATNA	Conventional	400 KV		1.000								Feb 1, 2008	Y
Satna:ICT-II AT SATNA	Conventional	400 KV		1.000								Feb 1, 2008	Y
Satna:ICT-II BAY AT SATNA	Conventional	220 KV			1.000							Feb 1, 2008	Y
Satna:SATNA II BAY AT SATNA	Conventional	220 KV			1.000							Feb 1, 2008	Y
Satna:KATNI II BAY AT SATNA	Conventional	220 KV			1.000							Feb 1, 2008	Y
Satna:VINDHYACHAL BAY-IV AT SATNA	Conventional	400 KV		1.000								Feb 1, 2008	Y
Satna:BINA-IV AT SATNA	Conventional	400 KV		1.000								Feb 1, 2008	Y
Satna:BINA-III AT SATNA	Conventional	400 KV		1.000								Feb 1, 2008	Y
Satna:SATNA -I AT BINA	Conventional	400 KV		1.000								Feb 1, 2008	Y



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Bina:SATNA-II AT BINA	Conventio nal	400 KV																	Feb 1, 2008	Y	
Satna:BINA-I AT SATNA	Conventio nal	400 KV																	Feb 1, 2008	Y	
Satna:BINA-II AT SATNA	Conventio nal	400 KV																	Feb 1, 2008	Y	
Bina:SATNA-IV AT BINA	Conventio nal	400 KV																	Feb 1, 2008	Y	
Bina:SATNA-III AT BINA	Conventio nal	400 KV																	Feb 1, 2008	Y	
Raigarh:RAIPUR-I BAY AT RAIGARH	Conventio nal	400 KV																	Feb 1, 2008	Y	
Raigarh:RAIPUR-II BAY AT RAIGARH	Conventio nal	400 KV																	Feb 1, 2008	Y	
Raigarh:ROURKELA-I BAY AT RAIGARH	Conventio nal	400 KV																	Feb 1, 2008	Y	
Raigarh:ROURKELA-II BAY AT RAIGARH	Conventio nal	400 KV																	Feb 1, 2008	Y	
Raigarh:ICT-I BAY AT RAIGARH	Conventio nal	400 KV																	Feb 1, 2008	Y	
Raigarh:BUS REACTION BAY AT RAJGARH	Conventio nal	400 KV																	Feb 1, 2008	Y	
Raigarh:RAIGARH(CSEB)-1 AT RAIGARH	Conventio nal	220 KV																	Feb 1, 2008	Y	1.000



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Raigarh:RAIGARH(CSEB)-2 AT RAIGARH	Conventio nal	220 KV							1.000							Feb 1, 2008	Y	
Raigarh:ICT-I BAY AT RAIGARH	Conventio nal	220 KV							1.000							Feb 1, 2008	Y	
Raigarh:ICT-II BAY AT RAIGARH	Conventio nal	400 KV						1.000								Feb 1, 2008	Y	
Raigarh:KORBA(CSEB)AT RAIGARH	Conventio nal	220 KV							1.000							Feb 1, 2008	Y	
Raigarh:BUDHIPADAR(GRIDCO)AT RAIGARH	Conventio nal	220 KV							1.000							Feb 1, 2008	Y	
Raigarh:ICT-2 BAY AT RAIGARH	Conventio nal	220 KV							1.000							Feb 1, 2008	Y	
Satna:ICT-II AT SATNA		400 KV	1.000											315.00		Feb 1, 2008	Y	
Raigarh:ICT-I&II AT RAIGARH		400 KV	2.000											315.00		Feb 1, 2008	Y	
Bina:50 MVAR LR AT BINA FOR SATNA BINA CKT 3		400 KV	1.000											50.000		Feb 1, 2008	Y	
Bina:50 MVAR LR AT BINA FOR SATNA BINA CKT 4		400 KV	1.000											50.000		Feb 1, 2008	Y	
Satna:50MVAR LR AT SATNA FOR SATNA BINA CKT 3		400 KV	1.000											50.000		Feb 1, 2008	Y	
Satna:50 MVAR LR AT SATNA FOR SATNA BINA CKT 4		400 KV	1.000											50.000		Feb 1, 2008	Y	



*WZ*

Satna:50MVAR LR AT SATNA FOR VINDHYACHAL-SATNA CKT 3	400 KV	1.000						50.000		Feb 1, 2008	Y
Satna:50 MVAR LR AT SATNA FOR VINDHYACHAL-SATNA CKT 4	400 KV	1.000						50.000		Feb 1, 2008	Y
Rajgarh:63 MVAR BUS REACTOR AT RAJGARH	400 KV	1.000						63.000		Feb 1, 2008	Y

**Summary:**

O&M Expenses For Substations Covered in the instant petition		2024-25	2025-26	2026-27	2027-28	2028-29
<b>400KV SUB-STATION</b>						
Normative Rate of O&M as per Regulation		29.53	31.08	32.71	34.43	36.23
No. of Units		18.00	18.00	18.00	18.00	18.00
O&M Claimed		531.54	559.44	588.78	619.74	652.14
<b>220KV SUB-STATION</b>						
Normative Rate of O&M as per Regulation		20.67	21.75	22.90	24.10	25.36
No. of Units		9.00	9.00	9.00	9.00	9.00
O&M Claimed		186.03	195.75	206.10	216.90	228.24
<b>400KV Sub-station Reactor</b>						
Normative Rate of O&M as per Regulation		0.262	0.276	0.29	0.305	0.322
No. of Units		7.00	7.00	7.00	7.00	7.00
O&M Claimed		95.11	100.19	105.27	110.72	116.89



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**400KV SUB-STATION ICT**

Normative Rate of O&M as per Regulation	0.262	0.276	0.29	0.305	0.322
No. of Units	3.00	3.00	3.00	3.00	3.00
O&M Claimed	247.59	260.82	274.05	288.23	304.29

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### 3. Communication System

#### Summary:



Summary of O&M Expenses claim

(Amount in Rs. Lakh)

Particular	2024-25	2025-26	2026-27	2027-28	2028-29
<b>A) Normative O&amp;M</b>					
Transmission Line	473.49	498.24	524.09	551.57	580.73
Substation	1,060.27	1,116.20	1,174.20	1,235.59	1,301.56
Communication System	0.00	0.00	0.00	0.00	0.00
<b>Total Normative O&amp;M</b>	<b>1,533.76</b>	<b>1,614.44</b>	<b>1,698.29</b>	<b>1,787.16</b>	<b>1,882.29</b>
<b>B) O&amp;M Claimed under Regulation 35 (3)(C) (* The same is not being claimed and will be claimed through separate Petition )</b>					
*Security Expenses	0.00	0.00	0.00	0.00	0.00
*Actual Capital Spare consumed	0.00	0.00	0.00	0.00	0.00
*Insurance Premium Paid	0.00	0.00	0.00	0.00	0.00
<b>Total O&amp;M</b>	<b>1,533.76</b>	<b>1,614.44</b>	<b>1,698.29</b>	<b>1,787.16</b>	<b>1,882.29</b>

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(Petitioner)



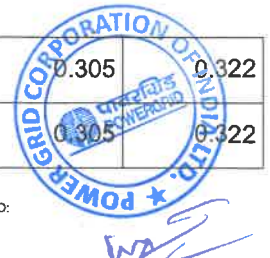
**Normative parameters considered for tariff computations**

Form No. - 3

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	VINDHYACHAL III		
Element Description	Combined assets of Vindhyachal stage -III (notional DOCO:		
Region	Western Region	DOCO Date	Feb 1, 2008

(Amount in Rs. Lakh)

Particulars	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
<b>Base Rate of Return of Equity (in %)</b>						
Tax Rate (in %)	17.472	17.472	17.472	17.472	17.472	17.472
<b>Effective tax rate (in %)</b>						
Grossed up Rate for ROE of 15.5% (in %)	18.782	18.782	18.782	18.782	18.782	18.782
Grossed up Rate for ROE of 15.0% (in %)	18.176	18.176	18.176	18.176	18.176	18.176
Target availability - AC System (in %)	98.00	98.00	98.00	98.00	98.00	98.00
Target availability - HVDC System (in %)	96.00	96.00	96.00	96.00	96.00	96.00
<b>Norms for sub-station Bays (Rs Lakh per bay)</b>						
765 kV	51.68	41.34	43.51	45.79	48.20	50.73
400 kV	36.91	29.53	31.08	32.71	34.43	36.23
220 kV	25.84	20.67	21.75	22.90	24.10	25.36
132 kV and below	18.46	15.78	16.61	17.48	18.40	19.35
<b>Norms for Transformers (Rs Lakh per MVA)</b>						
765 kV	0.564	0.262	0.276	0.29	0.305	0.322
400 kV	0.411	0.262	0.276	0.29	0.305	0.322
220 kV	0.282	0.262	0.276	0.29	0.305	0.322
132 kV and below	0.282	0.262	0.276	0.29	0.305	0.322
<b>Norms for Reactor (Rs Lakh per MVAR)</b>						
765 kV	0.00	0.262	0.276	0.29	0.305	0.322
400 kV	0.00	0.262	0.276	0.29	0.305	0.322



220 kV	0.00	0.262	0.276	0.29	0.305	0.322
132 kV and below	0.00	0.262	0.276	0.29	0.305	0.322
<b>Norms for AC and HVDC lines (Rs Lakh per km)</b>						
Single Circuit (Bundled Conductor with six or more sub-conductors)	1.011	0.861	0.906	0.953	1.003	1.056
Single Circuit (Bundled conductor with four sub-conductors)	0.867	0.738	0.776	0.817	0.86	0.905
Single Circuit (Twin & Triple Conductor)	0.578	0.492	0.518	0.545	0.573	0.603
Single Circuit (Single Conductor)	0.289	0.246	0.259	0.272	0.287	0.302
Double Circuit (Bundled conductor with four or more sub-conductors)	1.517	1.291	1.359	1.43	1.506	1.585
Double Circuit (Twin & Triple Conductor)	1.011	0.861	0.906	0.953	1.003	1.056
Double Circuit (Single Conductor)	0.433	0.369	0.388	0.409	0.43	0.453
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.662	2.266	2.385	2.51	2.642	2.781
Multi Circuit (Twin & Triple Conductor)	1.773	1.509	1.588	1.671	1.759	1.851
<b>Norms for HVDC stations (Rs Lakh/MW)</b>						
HVDC bipole scheme (Rs Lakh/MW)	0.00	1.04	1.10	1.16	1.22	1.28
HVDC Back-to-Back stations (Rs Lakh/MW) (Except Gazuwaka BTB)	0.00	2.07	2.18	2.30	2.42	2.55
Gazuwaka HVDC Back-to-Back station (Rs Lakh/MW)	0.00	1.83	1.92	2.03	2.13	2.24



(Petitioner)



### Calculation of ROE

Form No. - 8

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	VINDHYACHAL III		
Element Description	Combined assets of Vindhyachal stage -III (notional DOCO:		
Region	Western Region	DOCO Date	Feb 1, 2008

(Amount in Rs. Lakh)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
No. of Days in the year	365.00	365.00	365.00	366.00	365.00
No. of days for which tariff claimed	365.00	365.00	365.00	366.00	365.00
Opening Normative Equity	19,407.74	19,407.74	19,407.74	19,407.74	19,407.74
Less: Adjustment in Equity*	0.00	0.00	0.00	0.00	0.00
Adjustment during the year	0.00	0.00	0.00	0.00	0.00
Net opening equity (Normal)	19,407.74	19,407.74	19,407.74	19,407.74	19,407.74
Add: Increase in Equity due to addition during the year / period	0.00	0.00	0.00	0.00	0.00
Less: Decrease due to de-capitalisation during the year / period	0.00	0.00	0.00	0.00	0.00
Add: Increase due to discharge during the year / period	0.00	0.00	0.00	0.00	0.00
Closing Normative Equity	19,407.74	19,407.74	19,407.74	19,407.74	19,407.74
Average Normative Equity	19,407.74	19,407.74	19,407.74	19,407.74	19,407.74
Rate of return on Equity (%)	18.782	18.782	18.782	18.782	18.782
Reduced rate of 1% decided by commission under Regulation 30(2) (if any)	0.00	0.00	0.00	0.00	0.00
Effective rate of ROE	15.50	15.50	15.50	15.50	15.50
MAT/Corporate Rate	17.472	17.472	17.472	17.472	17.472
Grossed up rate of ROE	18.782	18.782	18.782	18.782	18.782
Return on Equity	3,645.16	3,645.16	3,645.16	3,645.16	3,645.16
Pro rata return on Equity	3,645.16	3,645.16	3,645.16	3,645.16	3,645.16



**Calculation of WAR of interest on actual loan**

Form No. - 9C

Name of the Transmission Licensee	Power Grid Corporation of India Limited				
Project	VINDHYACHAL III				
Element Description	Combined assets of Vindhyachal stage -III (notional DOCO:				
Region	Western Region	DOCO Date	Feb 1, 2008		

(Amount in Rs. Lakh)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
<b>BOND XVIII -DOCO</b>					
Gross Loan- Opening	19,117.00	19,117.00	19,117.00	19,117.00	19,117.00
Cumulative repayments of Loans upto previous year	19,117.00	19,117.00	19,117.00	19,117.00	19,117.00
Net loan-Opening	0.00	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Net Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	8.15	8.15	8.15	8.15	8.15
Interest on loan	0.00	0.00	0.00	0.00	0.00

<b>BOND XX -DOCO</b>					
Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Gross Loan- Opening	12,039.00	12,039.00	12,039.00	12,039.00	12,039.00
Cumulative repayments of Loans upto previous year	12,039.00	12,039.00	12,039.00	12,039.00	12,039.00
Net loan-Opening	0.00	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00



Average Net Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	8.93	8.93	8.93	8.93	8.93
Interest on loan	0.00	0.00	0.00	0.00	0.00

<b>BOND XXI -DOCO</b>					
Gross Loan- Opening	520.00	520.00	520.00	520.00	520.00
Cumulative repayments of Loans upto previous year	520.00	520.00	520.00	520.00	520.00
Net loan-Opening	0.00	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Net Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	8.73	8.73	8.73	8.73	8.73
Interest on loan	0.00	0.00	0.00	0.00	0.00

<b>BOND XXII -DOCO</b>					
Gross Loan- Opening	1,204.00	1,204.00	1,204.00	1,204.00	1,204.00
Cumulative repayments of Loans upto previous year	1,204.00	1,204.00	1,204.00	1,204.00	1,204.00
Net loan-Opening	0.00	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Net Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	8.68	8.68	8.68	8.68	8.68
Interest on loan	0.00	0.00	0.00	0.00	0.00





<b>BOND XXIII -DOCO</b>					
Gross Loan- Opening	1,617.00	1,617.00	1,617.00	1,617.00	1,617.00
Cumulative repayments of Loans upto previous year	1,617.00	1,617.00	1,617.00	1,617.00	1,617.00
Net loan-Opening	0.00	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Net Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	9.25	9.25	9.25	9.25	9.25
Interest on loan	0.00	0.00	0.00	0.00	0.00

<b>BOND XXIV -DOCO</b>					
Gross Loan- Opening	2,675.00	2,675.00	2,675.00	2,675.00	2,675.00
Cumulative repayments of Loans upto previous year	2,675.00	2,675.00	2,675.00	2,675.00	2,675.00
Net loan-Opening	0.00	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Net Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	9.95	9.95	9.95	9.95	9.95
Interest on loan	0.00	0.00	0.00	0.00	0.00

<b>BOND XXVI -DOCO</b>					
Gross Loan- Opening	3,953.00	3,953.00	3,953.00	3,953.00	3,953.00
Cumulative repayments of Loans upto previous year	3,953.00	3,953.00	3,953.00	3,953.00	3,953.00
Net loan-Opening	0.00	0.00	0.00	0.00	0.00



Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Net Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	9.30	9.30	9.30	9.30	9.30
Interest on loan	0.00	0.00	0.00	0.00	0.00

**BOND XXVIII -AddCap2008-09Loan1**

Gross Loan- Opening	1,124.00	1,124.00	1,124.00	1,124.00	1,124.00
Cumulative repayments of Loans upto previous year	1,124.00	1,124.00	1,124.00	1,124.00	1,124.00
Net loan-Opening	0.00	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Net Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	9.33	9.33	9.33	9.33	9.33
Interest on loan	0.00	0.00	0.00	0.00	0.00

**BOND XXIX -ADDCAP FOR 2009-2010**

Gross Loan- Opening	52.00	52.00	52.00	52.00	52.00
Cumulative repayments of Loans upto previous year	52.00	52.00	52.00	52.00	52.00
Net loan-Opening	0.00	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Net Loan	0.00	0.00	0.00	0.00	0.00



Rate of Interest on Loan on Annual Basis	9.20	9.20	9.20	9.20	9.20
Interest on loan	0.00	0.00	0.00	0.00	0.00

#### BOND XXIX -AddCap2008-09Loan2

Gross Loan- Opening	932.00	932.00	932.00	932.00	932.00
Cumulative repayments of Loans upto previous year	932.00	932.00	932.00	932.00	932.00
Net loan-Opening	0.00	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Net Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	9.20	9.20	9.20	9.20	9.20
Interest on loan	0.00	0.00	0.00	0.00	0.00

#### BOND XXX -ADDCAP FOR 2009-2010

Gross Loan- Opening	85.00	85.00	85.00	85.00	85.00
Cumulative repayments of Loans upto previous year	77.92	85.00	85.00	85.00	85.00
Net loan-Opening	7.08	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	7.08	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Net Loan	3.54	0.00	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	8.80	8.80	8.80	8.80	8.80
Interest on loan	0.3115	0.00	0.00	0.00	0.00

#### BOND XXXI -ADDCAP FOR 2009-2010



Gross Loan- Opening	127.00	127.00	127.00	127.00	127.00
Cumulative repayments of Loans upto previous year	116.42	127.00	127.00	127.00	127.00
Net loan-Opening	10.58	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	10.58	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Net Loan	5.29	0.00	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	8.90	8.90	8.90	8.90	8.90
Interest on loan	0.4708	0.00	0.00	0.00	0.00

**BOND XXXIII -ADDCAP FOR 2010-2011**

Gross Loan- Opening	44.00	44.00	44.00	44.00	44.00
Cumulative repayments of Loans upto previous year	36.67	40.33	44.00	44.00	44.00
Net loan-Opening	7.33	3.67	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	3.67	3.67	0.00	0.00	0.00
Net Loan-Closing	3.66	0.00	0.00	0.00	0.00
Average Net Loan	5.50	1.84	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	8.64	8.64	8.64	8.64	8.64
Interest on loan	0.4752	0.159	0.00	0.00	0.00

**BOND XXXVIII -ADDCAP FOR 2011-2012**

Gross Loan- Opening	127.04	127.04	127.04	127.04	127.04
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	127.04	127.04
Net loan-Opening	127.04	127.04	127.04	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00



Less: Repayment(s) of loan during the year	0.00	0.00	127.04	0.00	0.00
Net Loan-Closing	127.04	127.04	0.00	0.00	0.00
Average Net Loan	127.04	127.04	63.52	0.00	0.00
Rate of Interest on Loan on Annual Basis	9.25	9.25	9.25	9.25	9.25
Interest on loan	11.7512	11.7512	5.8756	0.00	0.00

#### BOND XXXVIII -ADDCAP FOR 2011-2012

Gross Loan- Opening	48.96	48.96	48.96	48.96	48.96
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	48.96	48.96
Net loan-Opening	48.96	48.96	48.96	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	48.96	0.00	0.00
Net Loan-Closing	48.96	48.96	0.00	0.00	0.00
Average Net Loan	48.96	48.96	24.48	0.00	0.00
Rate of Interest on Loan on Annual Basis	9.25	9.25	9.25	9.25	9.25
Interest on loan	4.5288	4.5288	2.2644	0.00	0.00

#### Summary

Gross Loan- Opening	43,665.00	43,665.00	43,665.00	43,665.00	43,665.00
Cumulative repayments of Loans upto previous year	43,464.01	43,485.33	43,489.00	43,665.00	43,665.00
Net loan-Opening	200.99	179.67	176.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	21.33	3.67	176.00	0.00	0.00
Net Loan-Closing	179.66	176.00	0.00	0.00	0.00
Average Net Loan	190.33	177.84	88.00	0.00	0.00



Rate of Interest on Loan on Annual Basis	9.2143	9.2437	9.25	9.25	9.25
Interest on loan	17.5375	16.439	8.14	0.00	0.00

  
(Petitioner)



**Calculation of interest on Normative loan**

Form No. - 9E

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	VINDHYACHAL III		
Element Description	Combined assets of Vindhyachal stage -III (notional DOCO:		
Region	Western Region	DOCO Date	Feb 1, 2008

(Amount in Rs. Lakh)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
No. of Days in the Year	365.00	365.00	365.00	366.00	365.00
No. of days for which Tariff claimed	365.00	365.00	365.00	366.00	365.00
Gross normative loan-Opening	45,448.10	45,448.10	45,448.10	45,448.10	45,448.10
Cumulative repayments of Normative loan upto previous year	44,193.70	45,077.59	45,448.10	45,448.10	45,448.10
Net normative loan-Opening	1,254.40	370.51	0.00	0.00	0.00
Addition in normative loan towards the ACE	0.00	0.00	0.00	0.00	0.00
Adjustment of normative gross loan pertaining to the decapitalised asset	0.00	0.00	0.00	0.00	0.00
Normative repayments of normative loan during the year	883.89	370.51	0.00	0.00	0.00
Adjustment of cumulative repayment pertaining to the decapitalised asset	0.00	0.00	0.00	0.00	0.00
Net normative loan - closing	370.51	0.00	0.00	0.00	0.00
Average normative loan	812.46	185.26	0.00	0.00	0.00
Weighted Average Rate of interest on actual loan	9.2143	9.2437	9.25	9.25	9.25
Interest on normative loan	74.86	17.12	0.00	0.00	0.00
Pro rata interest on normative loan	74.86	17.12	0.00	0.00	0.00

(Petitioner)



**Calculation of Depreciation Rate on Original Project Cost**

Form No. - 10

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	VINDHYACHAL III		
Element Description	Combined assets of Vindhyachal stage -III (notional DOCO:		
Region	Western Region	DOCO Date	Feb 1, 2008

(Amount in Rs. Lakh)

Name of Assets	Gross block at the beginning of the year	Add Cap during the year	Gross block at the end of the year	Average Gross Block	Depreciation Rate as per CERC's Depreciation Rate Schedule	Depreciation Amount for each year upto 31.03.2029
<b>2024-25</b>						
Land(Freehold)	38.06	0.00	38.06	38.06	0.00	0.00
Civil & Building	1,792.52	0.00	1,792.52	1,792.52	3.34	44.80
Transmission Line	46,746.48	0.00	46,746.48	46,746.48	5.28	625.15
Sub Station	15,681.16	0.00	15,681.16	15,681.16	5.28	209.71
Comm. Sys. excluding Fiber Optic	597.62	0.00	597.62	597.62	15.00	4.23
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDSM/SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	0.00	0.00	0.00	9.50	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
<b>TOTAL</b>	<b>64,855.84</b>	<b>0.00</b>	<b>64,855.84</b>	<b>64,855.84</b>	<b>0.00</b>	<b>883.89</b>
<b>Weighted Average Rate of Depreciation(%)</b>					<b>1.362853</b>	

<b>2025-26</b>						
Land(Freehold)	38.06	0.00	38.06	38.06	0.00	0.00





Civil & Building	1,792.52	0.00	1,792.52	1,792.52	3.34	44.80
Transmission Line	46,746.48	0.00	46,746.48	46,746.48	5.28	625.15
Sub Station	15,681.16	0.00	15,681.16	15,681.16	5.28	209.70
Comm. Sys. excluding Fiber Optic	597.62	0.00	597.62	597.62	15.00	4.23
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDSM/SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	0.00	0.00	0.00	9.50	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
<b>TOTAL</b>	<b>64,855.84</b>	<b>0.00</b>	<b>64,855.84</b>	<b>64,855.84</b>	<b>0.00</b>	<b>883.88</b>
<b>Weighted Average Rate of Depreciation(%)</b>					<b>1.362838</b>	

<b>2026-27</b>						
Land(Freehold)	38.06	0.00	38.06	38.06	0.00	0.00
Civil & Building	1,792.52	0.00	1,792.52	1,792.52	3.34	44.80
Transmission Line	46,746.48	0.00	46,746.48	46,746.48	5.28	625.15
Sub Station	15,681.16	0.00	15,681.16	15,681.16	5.28	209.71
Comm. Sys. excluding Fiber Optic	597.62	0.00	597.62	597.62	15.00	4.23
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDSM/SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	0.00	0.00	0.00	9.50	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
<b>TOTAL</b>	<b>64,855.84</b>	<b>0.00</b>	<b>64,855.84</b>	<b>64,855.84</b>	<b>0.00</b>	<b>883.89</b>
<b>Weighted Average Rate of Depreciation(%)</b>					<b>1.362853</b>	



2027-28						
Land(Freehold)	38.06	0.00	38.06	38.06	0.00	0.00
Civil & Building	1,792.52	0.00	1,792.52	1,792.52	3.34	44.80
Transmission Line	46,746.48	0.00	46,746.48	46,746.48	5.28	625.15
Sub Station	15,681.16	0.00	15,681.16	15,681.16	5.28	209.70
Comm. Sys. excluding Fiber Optic	597.62	0.00	597.62	597.62	15.00	4.23
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDSM/SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	0.00	0.00	0.00	9.50	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
<b>TOTAL</b>	<b>64,855.84</b>	<b>0.00</b>	<b>64,855.84</b>	<b>64,855.84</b>	<b>0.00</b>	<b>883.88</b>
<b>Weighted Average Rate of Depreciation(%)</b>					<b>1.362838</b>	

2028-29						
Land(Freehold)	38.06	0.00	38.06	38.06	0.00	0.00
Civil & Building	1,792.52	0.00	1,792.52	1,792.52	3.34	44.80
Transmission Line	46,746.48	0.00	46,746.48	46,746.48	5.28	625.15
Sub Station	15,681.16	0.00	15,681.16	15,681.16	5.28	209.71
Comm. Sys. excluding Fiber Optic	597.62	0.00	597.62	597.62	15.00	4.24
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDSM/SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	0.00	0.00	0.00	9.50	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
<b>TOTAL</b>	<b>64,855.84</b>	<b>0.00</b>	<b>64,855.84</b>	<b>64,855.84</b>	<b>0.00</b>	<b>883.90</b>



<b>Weighted Average Rate of Depreciation(%)</b>					1.362869	
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*W.A.D.*

(Petitioner)



**Statement of Depreciation**

Form No. - 10A

Name of the Transmission Licensee		Power Grid Corporation of India Limited			
Project	VINDHYACHAL III				
Element Description	Combined assets of Vindhyachal stage -III (notional DOCO:				
Region	Western Region	DOCO Date	Feb 1, 2008		

(Amount in Rs. Lakh)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
No of Days in the year	365.00	365.00	365.00	366.00	365.00
No of days for which tariff claimed	365.00	365.00	365.00	366.00	365.00
<b>Life at the beginning of the year</b>					
1.1 Weighted Average useful life of the Asset/ Project	32.00	32.00	32.00	32.00	32.00
1.2 Lapsed Weighted Average useful life of the Asset/Project(in completed no. of year)	16.00	17.00	18.00	19.00	20.00
1.3 Balance Weighted Average useful life of the Asset/Project(in completed no. of year)	16.00	15.00	14.00	13.00	12.00
<b>Capital Base</b>					
1.4 Opening capital cost	64,855.84	64,855.84	64,855.84	64,855.84	64,855.84
1.5 Additional Capital Expenditure dr. the year	0.00	0.00	0.00	0.00	0.00
1.6 De-Capitalisation During the year	0.00	0.00	0.00	0.00	0.00
1.7 Closing capital cost	64,855.84	64,855.84	64,855.84	64,855.84	64,855.84
1.8 Average capital cost	64,855.84	64,855.84	64,855.84	64,855.84	64,855.84
1.9 Freehold land included in 1.8	38.06	38.06	38.06	38.06	38.06
1.10 Asset having NIL salvage value included in 1.8	0.00	0.00	0.00	0.00	0.00
1.11 Asset having 10% salvage value included in 1.8	64,817.78	64,817.78	64,817.78	64,817.78	64,817.78
1.12 Depreciable Value(1.10+90% of 1.11)	58,336.00	58,336.00	58,336.00	58,336.00	58,336.00
<b>Depreciation for the period and Cum. Depreciation</b>					
1.13 Weighted Average Rate of depreciation	1.362853	1.362838	1.362853	1.362838	1.362869



1.14 Depreciation(for the period)	883.89	883.88	883.89	883.88	883.90
1.15 Depreciation(Annualised)	883.89	883.88	883.89	883.88	883.90
Unrecovered Depreciation for DECAP	0.00	0.00	0.00	0.00	0.00
1.16 Cumulative depreciation at the beginning of the period	44,193.72	45,077.61	45,961.49	46,845.38	47,729.26
1.17 Less:Adj of Cum. Dep pertaining to decapitalised Asset	0.00	0.00	0.00	0.00	0.00
1.18 Cumulative depreciation at the end of the period	45,077.61	45,961.49	46,845.38	47,729.26	48,613.16

*WA*

(Petitioner)



**Calculation of interest on working Capital**

Form No. - 11.

Name of the Transmission Licensee	Power Grid Corporation of India Limited				
Project	VINDHYACHAL III				
Element Description	Combined assets of Vindhyachal stage -III (notional DOCO:				
Region	Western Region	DOCOC Date	Feb 1, 2008		

Particulars	(Amount in Rs. Lakh)				
	2024-25	2025-26	2026-27	2027-28	2028-29
No of Days in the year	365.00	365.00	365.00	366.00	365.00
No of days for which tariff claimed	365.00	365.00	365.00	366.00	365.00
O&M Expenses-one month	127.81	134.54	141.52	148.93	156.86
Maintenance spares 15% of O&M Expenses	230.06	242.17	254.74	268.07	282.34
Receivables equivalent to 45 days of AFC	773.29	776.44	785.09	794.30	808.75
Total Working capital	1,131.16	1,153.15	1,181.35	1,211.30	1,247.95
Bank Rate as on 01.04.2024 or as on 01st April of the COD year, whichever is later.	11.90	11.90	11.90	11.90	11.90
Interest on working capital	134.61	137.22	140.58	144.14	148.51
Pro rata interest on working capital	134.61	137.22	140.58	144.14	148.51

  
(Petitioner)



**Summary of issue involved  
in the petition**

**PART-III  
FORM- 15**

1. Name of the Petitioner	Power Grid Corporation of India Limited		
2. Petition Category	Transmission		
3. Tariff Period	2019-24 and 2024-29		
4. Name of the Project	Vindhyachal-III Transmission System		
5. Investment Approval date	-		
6. SCOD of the Project	-		
7. Actual COD of the project	-		
8. Whether entire scope is covered in the present petition.	Yes		
9. No. of Assets covered in instant petition	1		
10. No. of Assets having time over run	-		
11. Estimated Project Cost as per IA	59647		
12. Is there any RCE? if so, provide the date	Yes		
13. Revised Estimated Project Cost (if any)	68956		
14. Completion cost for all the assets covered in the instant petition.	64855.85		
15. No. of Assets covered in instant petition and having cost overrun.	-		
16	<b>Prayer in brief</b>		
17	<b>Key details and any Specific issue involved</b>		
18	<b>Respondents</b>		
	<b>Name of Respondents</b>		
1	MADHYA PRADESH POWER MANAGEMENT COMPANY LTD		
2	CHHATTISGARH STATE POWER DISTRIBUTION CO. LTD		
3	MAHARASHTRA STATE ELECTRICITY DISTRIBUTION CO. LTD.		
4	GUJARAT URJA VIKAS NIGAM LTD.		
5	ELECTRICITY DEPARTMENT, GOA		
6	DNH and DD Power Corporation Ltd		

(Petitioner)



**INDEX**  
**Checklist of Forms and other information/ documents for tariff filing for**  
**Transmission System & Communication System**

**PART-III**  
**Check List**

Form No.	Title of Tariff Filing Forms (Transmission & Communication System)	Tick
FORM- 1	Summary of Tariff	✓
FORM- 1A	Summary of Asset level cost	N.A.
FORM- 2	Details of Transmission Lines and Substations and Communication System covered in the project scope and O&M for instant asset	✓
FORM- 3	Normative parameters considered for tariff computations	✓
FORM- 4	Abstract of existing transmission assets/elements under project, Determination of Effective COD and Weighted Average Life for single AFC for the project as whole.	N.A.
FORM- 4A	Statement of Capital cost	N.A.
FORM- 4B	Statement of Capital Works in Progress	N.A.
FORM- 4C	Abstract of Capital Cost Estimates and Schedule of Commissioning for the New Project/Element	N.A.
FORM- 5	Element wise Break-up of Project/ Asset/Element Cost for Transmission System or Communication System	N.A.
FORM- 5A	Break-up of Construction/Supply/Service packages	N.A.
FORM- 5B	Details of all the assets covered in the project	N.A.
FORM- 6	Actual Cash Expenditure and Financial Package up to COD	N.A.
FORM- 7	Statement of Additional Capitalisation after COD	N.A.
FORM- 7A	Financing of Additional Capitalisation	N.A.
FORM- 7B	Statement of Additional Capitalisation during five year before the end of the useful life of the project.	N.A.
FORM- 8	Calculation of Return on Equity	✓
FORM- 8A	Details of Foreign Equity	N.A.
FORM- 9	Details of Allocation of corporate loans to various transmission elements	N.A.
FORM- 9A	Details of Project Specific Loans	N.A.
FORM- 9B	Details of Foreign loans	N.A.
FORM- 9C	Calculation of Weighted Average Rate of Interest on Actual Loans	✓
FORM- 9D	Loans in Foreign Currency	N.A.
FORM- 9E	Calculation of Interest on Normative Loan	✓
FORM- 10	Calculation of Depreciation Rate on original project cost	✓
FORM- 10A	Statement of Depreciation	✓
FORM- 10B	Statement of De-capitalisation	N.A.
FORM- 11	Calculation of Interest on Working Capital	✓
FORM- 12	Details of time over run	N.A.
FORM- 12A	Incidental Expenditure during Construction	N.A.
FORM- 12B	Calculation of IDC & Financing Charges	N.A.
FORM- 13	Details of Initial spares	N.A.
FORM- 14	Non-Tariff Income	N.A.
FORM- 15	Summary of issue involved in the petition	✓
FORM A	Summary of Capital Cost & Annual Fixed Cost (AFC) Claimed for ALL	N.A.
<b>Other Information/ Documents</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 Project(s) setup by a company making tariff application for the first time to CERC)	N.A.
2	Region wise and Corporate audited Balance Sheet and Profit & Loss Accounts with all the Schedules & Annexure for the new Transmission System & Communication System for the relevant years.	N.A.
3	Copies of relevant loan Agreements	N.A.
4	Copies of the approval of Competent Authority for the Capital Cost and Financial package.	Yes
5	Copies of the Equity participation agreements and necessary approval for the foreign equity.	N.A.
6	Copies of the BPTA/TSA/PPA with the beneficiaries, if any	N.A.
7	Detailed note giving reasons of cost and time over run, if applicable. List of supporting documents to be submitted: a. Detailed Project Report b. CPM Analysis c. PERT Chart and Bar Chart d. Justification for cost and time Overrun	N.A.
8	Transmission Licensee shall submit copy of Cost Audit Report along with cost accounting records, cost details, statements, schedules etc. for the transmission system 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.	N.A.
9.	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 formats suitably as per available information to them for submission of required information for tariff purpose.	N.A.
10.	Any other relevant information, (Please specify)	N.A.
<p><b>Note 1:</b> 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.</p>		

