

CCL: POWERGRID/TRUE UP/WR/Line bays and Reactor/

दिनांक: 29.07.2024

सचिव,

केंद्रीय विद्युत विनियामक आयोग (सी.ई.आर.सी.)

छठवाँ, सातवाँ एवं आठवाँ तल, टॉवर बी,

वर्ल्ड ट्रेड सेंटर, नौरोजी नगर, नई दिल्ली-110029

**विषय:-** Petition for truing up of Transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block for assets under "Fixed and Thyristor Controlled Series Compensation for 400 kV D/C Raipur-Rourkela transmission Line at Raipur" 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) Regulation 2024

महोदय,

उपरोक्त पारेषण प्रणाली के वर्ष 01.04.2019 से 31.03.2024 तथा 01.4.2024 से 31.3.2029 तक के पारेषण टैरिफ हेतु याचिका की 2 प्रतियां (1 मूल व 1 प्रतियां) संलग्न है। पूर्ण याचिका को पावरग्रिड की बेवसाइट पर दर्शाया गया है जिसका पता [www.powergrid.in](http://www.powergrid.in) है। माननीय आयोग द्वारा जारी सार्वजनिक सूचना दिनांक 25.08.2010 के अनुसार राशि का भुगतान वार्षिक फाईलिंग फीस के माध्यम से किया गया है। याचिका शुल्क की गणना नई फीस रेगुलेशन, 2012 के पैरा 3(2) के तहत दिये गये निर्देशों के आधार पर निम्ननुसार की गई है:-

Asset	Period	Fin. Year	Revised Tariff (T) (Rs. In Lakh)	Petition Filing fees already paid (A) (Rs.)	Revised Petition filing fees @....of Tariff (R)	Revised Petition filing fees (B)=(T)X@ (Rs.)	Rounded to nearest 100 (min. 40,000: 2009-12 and min. 1,00,000: 2012-20 (Rs.))	Net Filing fee Payable (Rs.) (B-A)
Combined Asset	2019-24	2019-20	1111.6	1,22,300.00	0.11%	122276.00	122300	0
		2020-21	1091.59	1,20,100.00	0.11%	120074.90	120100	0
		2021-22	1071.68	1,18,000.00	0.11%	117884.80	117900	-100
		2022-23	1053.18	1,16,000.00	0.11%	115849.80	115800	-200
		2023-24	1046.75	1,15,000.00	0.11%	115142.50	115100	100
	2024-25	2024-25	1013.53	1,15,000.00	0.11%	111488.30	111500	-3500
<b>Total</b>	<b>Filing fee payable</b>							<b>-3700</b>

**The instant petition is being filed under "Applicable for Waiver" head of the CERC e-filing portal. Further, the differential filing fee amount of Rs -3700/- will be adjusted in next FY (2025-26) consolidated filing fee."**

माननीय आयोग द्वारा जारी CBR, 2023 के पैरा 23(4) के तहत दिये गये निर्देशों के आधार पर याचिका की प्रति सभी प्रतिवादियों को ईमेल द्वारा भेजी गई है तथा ईमेल की प्रति संलग्न है। याचिका ई-फाइल कर दी गई है। माननीय आयोग से निवेदन है कि याचिका को स्वीकृत किया जाए। कृपया पावती भेजें।

भवदीय,

(ज़फ़रुल हसन)



महाप्रबंधक (वर्णिमज्यक)



**Form-I**

Particulars	
1. Name of the Petitioner/Applicant	POWERGRID
2. Address of the Petitioner/Applicant	"SAUDAMINI", Plot no 2, Sector 29, Gurgaon
3. Subject Matter	Petition for truing up of Transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block for assets under "Fixed and Thyristor Controlled Series Compensation for 400 kV D/C Raipur-Rourkela transmission Line at Raipur in Western region.
4. Petition No., if any	Previous petition: 386/TT/2019
5. Details of generation assets (a) generating station/units (b) Capacity in MW (c) Date of commercial operation (d) Period for which fee paid (e) Amount of fee paid (f) Surcharge, if any	N. A
6. Details of transmission assets (a) Transmission line and sub-stations  (b) Date of commercial operation  (c) Period for which fee paid / adjusted (d) Amount of fee paid (g) Surcharge, if any	Asset: <b>Asset 1- Fixed and Thyristor Controlled Series Compensation for 400 kV D/C Raipur-Rourkela transmission Line at Raipur in Western region</b>  <b>Asset-1 01.11.2004</b>  2019-24 & 2024-25 Rs. -3700/- N.A.
7. Fee paid for Adoption of tariff for (a) Generation asset (b) Transmission asset	N.A.
8. Application fee for license (a) Trading license (b) Transmission license (c) Period for which paid (d) Amount of fee paid	N.A.
9. Fees paid for Miscellaneous Application	N.A.
10. Fees paid for Interlocutory Application	N.A.
11. Fee paid for Regulatory Compliance petition	N.A.
12. Fee paid for Review Application	N.A.
13. Licence fee for inter-State Trading (a) Category (b) Period (c) Amount of fee paid (d) Surcharge, if any	N.A.
14. License fee for inter-State Transmission (a) Expected/Actual transmission charge (b) Period (c) Amount of fee calculated as a percentage transmission charge. (d) Surcharge, if any	N.A.
15. Annual Registration Charge for Power	N.A.



(c) Amount of fee calculated as a percentage transmission charge.	
(d) Surcharge, if any	
15. Annual Registration Charge for Power	
Exchange	
(a) Period	N.A.
(b) Amount of turnover	
(c) Fee paid	
(d) Surcharge, if any	
16. Details of fee remitted	Applicable for waiver of filing fee
(a) UTR No.	
(b) Date of remittance	
(c) Amount remitted	
<b>Note: While Sl. Nos. 1 to 3 and 16 are compulsory, the rest may be filled up as applicable</b>	
Signature of the authorized signatory with date	  <b>Shri. Zafrul Hasan (General Manager) Date: 29.07.2024</b>

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

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

**IN THE MATTER OF: -**

**Subject matter:** Petition for truing up of Transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block for **"Fixed and Thyristor Controlled Series Compensation for 400 kV D/C Raipur-Rourkela transmission Line at Raipur 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 Condition of Tariff Regulations) 2019 and Central Electricity Regulatory Commission (Terms and Condition of Tariff Regulations) 2024.

**Power Grid Corporation of India Ltd.**

---Petitioner Name

Registered office: B-9, Qutab Institutional Area, f12  
Katwaria Sarai, New Delhi. 110 016.

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

---Respondent Name

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

**And others**

**Place:** Gurgaon

**Date:** 29/07/2024

**Petitioner**

  
**(Zafar Hasan)**  
**General Manager (Commercial)**

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

PETITION NO.: .....

**IN THE MATTER OF:**

**Subject matter** Petition for truing up of Transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block for “Fixed and Thyristor Controlled Series Compensation for 400 kV D/C Raipur-Rourkela transmission Line at Raipur 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 Condition of Tariff Regulations) 2019 and Central Electricity Regulatory Commission (Terms and Condition 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.,

----- RESPONDENTS

Shakti Bhawan, Rampur,

Jabalpur-482008.

**And others**

**INDEX**

Sl. No.	Description	Enclosure No.	Page No.
	Cover Page	-	A
	Form-1		B
1	Index	-	01-03
2	Letter for registration	-	04-05
3	Memo of Parties	-	06-07
4	Memo of appearance		08-09
5	Petition for truing up of transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block	-	10-23



6	Supporting Affidavit		24-25
<b><u>ANNEXURES:</u></b>			
7	CERC order dated 20.05.2021 in petition no.386/TT/2019	Encl -1	26-65
8	True up tariff forms for 2019-24 block	Encl -2	66-103
9	Tariff Forms for 2024-29 block along with loan interest proof	Encl -3	104-138
10	Summary (Form-15)	Encl -4	139
11	Checklist	-	140

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

**GURGAON**

**REPRESENTED BY**

**DATED: 29.07.2024**

  
**Zafrul Hasan**  
**General Manager (Commercial)**



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

PETITION NO.: .....

**IN THE MATTER OF:**

**Subject matter:** Petition for truing up of Transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block for **“Fixed and Thyristor Controlled Series Compensation for 400 kV D/C Raipur-Rourkela transmission Line at Raipur 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 Condition of Tariff Regulations) 2019 and Central Electricity Regulatory Commission (Terms and Condition 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

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

----- RESPONDENTS

**And others**

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: 29.07.2024**

**POWER GRID CORPORATION OF INDIA LTD.**

**REPRESENTED BY**

**Zatrul Hasan**  
**General Manager (Commercial)**



05

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

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

**IN THE MATTER OF:**

**Subject matter:** Petition for truing up of Transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block for **Fixed and Thyristor Controlled Series Compensation for 400 kV D/C Raipur-Rourkela transmission Line at Raipur 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 Condition of Tariff Regulations) 2019 and Central Electricity Regulatory Commission (Terms and Condition 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.

**----- RESPONDENTS**

**And others**

**MEMO OF PARTIES**

**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).

**VERSUS**

**1. MADHYA PRADESH POWER MANAGEMENT COMPANY LTD.**

SHAKTI BHAWAN, RAMPUR

JABALPUR - 482 008

REPRESENTED BY ITS MD



2. **MADHYAPRADESH AUDYOGIK KENDRA**  
VIKAS NIGAM (INDORE) LTD.  
3/54, PRESS COMPLEX, AGRA-BOMBAY ROAD, INDORE-452 008  
REPRESENTED BY ITS MD
3. **MAHARASHTRA STATE ELECTRICITY DISTRIBUTION CO. LTD.**  
HONGKONG BANK BUILDING, 3RD FLOOR  
M.G. ROAD, FORT, MUMBAI-400 001.  
REPRESENTED BY ITS MD
4. **GUJARAT URJA VIKAS NIGAM LTD.**  
SARDAR PATEL VIDYUT BHAWAN,  
RACECOURSE ROAD, VADODARA - 390 007  
REPRESENTED BY ITS CHAIRMAN
5. **ELECTRICITY DEPARTMENT**  
GOVT. OF GOA, VIDYUT BHAWAN, PANAJI,  
NEAR MANDVI HOTEL, GOA - 403 001  
REPRESENTED BY ITS CHIEF ENGINEER (ELECTRICAL)
6. **ELECTRICITY DEPARTMENT**  
ADMINISTRATION OF DAMAN & DIU  
DAMAN - 396 210  
REPRESENTED BY ITS SECRETARY (FIN.)
7. **DNH POWER DISTRIBUTION CORPORATION LIMITED.**  
VIDYUT BHAWAN, 66KV ROAD, NEAR SECRETARIAT AMLI,  
SILVASSA - 396 230  
REPRESENTED BY ITS SECRETARY (FIN.)
8. **CHHATTISGARH STATE POWER DISTRIBUTION CO. LTD.**  
P.O. SUNDER NAGAR, DANGANIA, RAIPUR  
CHHATTISGARH-492 013  
REPRESENTED BY ITS CHAIRMAN

**GURGAON**

**DATED:** 29.07.2024

**PETITIONER**  
**POWER GRID CORPORATION OF INDIA LTD.**

**REPRESENTED BY**



**General Manager (Commercial)**

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

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

**IN THE MATTER OF: Subject matter:** Petition for truing up of Transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block for **Fixed and Thyristor Controlled Series Compensation for 400 kV D/C Raipur-Rourkela transmission Line at Raipur 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 Condition of Tariff Regulations) 2019 and Central Electricity Regulatory Commission (Terms and Condition 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 - 482 008

Represented by Its MD

**and Others**

--- 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. Srinivas, Chief GM (Comml-BCD), POWERGRID
4. V.C. Sekhar, Sr. GM (Commercial-RC), POWERGRID
5. **Shri Zafrul Hasan, GM (Comml- Petition), POWERGRID**



I, Zafrul Hasan, the Petitioner named 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 July 2024.

**PETITIONER**  
**POWER GRID CORPORATION OF INDIA LTD.**

**GURGAON**

**DATED: 29.07.2024**

**General Manager (Commercial)**



09

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

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

**IN THE MATTER OF: Subject matter:** Petition for truing up of Transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block for **Fixed and Thyristor Controlled Series Compensation for 400 kV D/C Raipur-Rourkela transmission Line at Raipur 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 Condition of Tariff Regulations) 2019 and Central Electricity Regulatory Commission (Terms and Condition 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.**

**----- RESPONDENTS**

Shakti Bhawan, Rampur  
Jabalpur - 482 008  
Represented by Its MD  
**and Others**

**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 interstate 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 Central Commission”). Tariff for the transmission system established by POWERGRID is required to be determined by this Hon’ble Central Commission in accordance with the Tariff Regulations as notified by this Hon’ble Central 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 under “Fixed and thyristor-controlled Series Comp for 400kV DC Raipur-Rourkela TL in Western region:

Asset No	Asset Name	DOCO
Asset-I	Fixed and Thyristor Controlled Series Compensation for 400 kV D/C Raipur-Rourkela transmission Line at Raipur in Western region	01.11.2004

**(iv) Summary of Claims:**

3. A. POWERGRID is seeking truing 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 vis 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.	Apportioned Approved Cost as per FR	Apportioned 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	
1	9690.00	--	12201.05	No add cap	12201.05

Rs in lakhs

Asset No.	Apportioned Approved Cost as per FR	Apportioned 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	
1	9690.00	--	12201.05	No add cap	12201.05

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

6. Details of tariff claimed are as under:

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

Rs in Lakhs

Name of the asset	Particular	2019-20	2020-21	2021-22	2022-23	2023-24
Asset-1	AFC approved	1111.63	1091.51	1072.87	1054.40	1045.50
	Revised AFC based on truing up	1111.60	1091.59	1071.68	1053.18	1046.75





Tariff claimed for 2024-29 tariff block:

Rs in Lakhs					
Name of the asset	2024-25	2025-26	2026-27	2027-28	2028-29
Asset-1	1013.53	1020.00	1026.80	1033.91	1041.48

**B. Detailed Petition:**

**MOST RESPECTFULLY SHOWETH:**

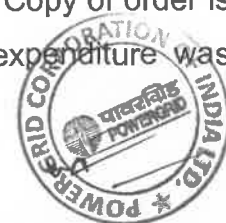
**Issue wise submission(s):**

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	DOCO	Remarks
Asset -1	Fixed and Thyristor Controlled Series Compensation for 400 kV D/C Raipur-Rourkela transmission Line at Raipur in Western region	01.11.2004	Earlier covered under petition no. 386/TT/2019 now covered under instant petition

**10. Cost detail:**

The capital cost of Rs. 12201.05 Lakhs for subject Asset has been admitted by Hon'ble commission vide order dated 19.06.2021 in petition no. 386/TT/2019. Copy of order 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 18.04.2022 in petition no. 26/TT/2021, 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

Asset		2019-20	2020-21	2021-22	2022-23	2023-24
Asset-1	AFC approved	1111.63	1091.51	1072.87	1054.40	1045.50
	Revised AFC based on truing up	1111.60	1091.59	1071.68	1053.18	1046.75

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				
Project		2024-25	2025-26	2026-27	2027-28	2028-29
Asset-1	AFC	1013.53	1020.00	1026.80	1033.91	1041.48

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

14. The asset will complete 12 yrs during the tariff block 2014-19 and thus depreciation for FY 2019-24 & 2024-29 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 tried 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 trying 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 later in another truing up petition. Further, interest rate proof documents shall be available on our website [www.powergridindia.in](http://www.powergridindia.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 through a separate petition.

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.



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 18 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 in vogue or as amended from to time.

Tariff for Transmission of Electricity (Annual Fixed Cost) for 2024-29 as per para 19 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 time 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.
- c) 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.
- d) 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.
- e) 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.

- f) 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.
- g) 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.
- h) 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.
- i) Allow the petitioner to file a separate petition before Hon'ble Commission for claiming the overall capital spares at the end of tariff block as per actual as mentioned at Para 19 above.
- j) Allow the petitioner to claim expenses of CTUIL borne by POWERGRID through a separate petition as mentioned at para 20 above.
- k) 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
- l) 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.



m) Further it is submitted that deferred tax liability before 01.04.2009 shall be recoverable from the beneficiaries or long-term customers / DIC, as and when the same materialized as per regulation 67 of 2019 and regulation 89 of 2024 tariff regulation. The petitioner may be allowed to recover the deferred tax liability materialized directly without making any application before the commission as provided in the regulations.

**GURGAON**

**DATED:--07.2024**

**FILED BY**

**POWER GRID CORPORATION OF INDIA LTD.**

**REPRESENTED BY**

**Zaffar Hasan**  
**General Manager (COMMERCIAL)**



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

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

**IN THE MATTER OF: Subject matter:** Petition for truing up of Transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block for **“Fixed and Thyristor Controlled Series Compensation for 400 kV D/C Raipur-Rourkela transmission Line at Raipur 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 Condition of Tariff Regulations) 2019 and Central Electricity Regulatory Commission (Terms and Condition 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 authorized 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 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

*[Handwritten Signature]*

**(DEPONENT)**

**VERIFICATION**

Solemnly affirmed at Gurgaon on this **29<sup>th</sup> day of July' 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.



ATTESTED

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



25

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 386/TT/2019**

**Coram:**

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

**Date of order: 19.06.2021**

**In the matter of:**

Approval under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and revision of transmission tariff of 2004-09 and 2009-14 tariff periods and truing up of transmission tariff of 2014-19 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of 2019-24 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for Fixed and Thyristor Controlled Series Compensation for 400 kV D/C Raipur-Rourkela Transmission Line at Raipur in the Western Region.

**And in the matter of:**

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

**.....Petitioner**

**Vs.**

1. Madhya Pradesh Power Management Company Ltd.,  
Shakti Bhawan, Rampur, Jabalpur – 482008.
2. Madhya Pradesh Power Transmission Company Ltd.,  
Shakti Bhawan, Rampur, Jabalpur – 482 008.
3. Madhya Pradesh Audyogik Kendra Vikas Nigam (Indore) Ltd.,  
3/54, Press Complex,  
Agra-Bombay Road, Indore – 452 008.
4. Maharashtra State Electricity Distribution Company Ltd.,  
Hongkong Bank Building, 3rd Floor,  
M.G. Road, Fort, Mumbai – 400 001.



5. Maharashtra State Electricity Transmission Company Ltd.,  
Prakashganga, 6th Floor, Plot No. C-19, E-Block,  
Bandra Kurla Complex, Bandra (East) Mumbai – 400 051.
6. Gujarat Urja Vikas Nigam Ltd.,  
Sardar Patel Vidyut Bhawan,  
Race Course Road, Vadodara – 390 007.
7. Gujarat Energy Transmission Corporation Ltd.,  
Sardar Patel Vidyut Bhawan,  
Race Course Road, Vadodara – 390 007.
8. Electricity Department,  
Govt. Of Goa, Vidyut Bhawan, Panaji,  
Near Mandvi Hotel, 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 Ltd.,  
Office of the Executive Director (C&P),  
State Load Despatch Building,  
Dangania, Chhattisgarh – 492 013.
13. Chhattisgarh State Power Distribution Company Ltd.,  
P.O. Sunder Nagar, Dangania,  
Raipur, Chhattisgarh – 492 013.

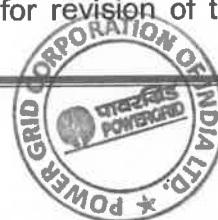
...Respondent(s)

**For Petitioner:** Shri S.S. Raju, PGCIL  
Shri B. Dash, PGCIL  
Shri V.P. Rastogi, PGCIL  
Shri A.K. Verma, PGCIL  
Shri D. K. Biswal, PGCIL

**For Respondent:** Shri Anindya Kumar Khare, MPPMCL

**ORDER**

The instant petition has been filed by the Petitioner, Power Grid Corporation of India Limited, a deemed transmission licensee, for revision of transmission tariff of



2004-09 and 2009-14 tariff periods and truing of capital expenditure of the period from 1.4.2014 to 31.3.2019 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 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as "the 2019 Tariff Regulations") for the period from 1.4.2019 to 31.3.2024 for "Fixed and Thyristor Controlled Series Compensation for 400 kV D/C Raipur-Rourkela Transmission Line at Raipur" (hereinafter referred to as "the transmission asset") in the Western Region.

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 regulations 2014 and Tariff regulation 19 as per para 9 & 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 customers /DIC as the case may be, as and when the same is materialized as per regulation 49 of 2014 and regulation 67 of 2019 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 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 respondents 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 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."

### **Background**

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

a. The Investment Approval for the transmission asset was accorded by the Board of Directors of the Petitioner Company under Memorandum dated 14.5.2002 at an estimated cost of ₹9690 lakh including IDC of ₹699 lakh. Subsequently, approval for revised cost estimates in respect of the transmission asset was accorded by the Board of Directors of the Petitioner Company vide letter dated 1.9.2005 at an estimated cost of ₹12793 lakh including IDC of ₹507 lakh based on 3<sup>rd</sup> quarter of 2004 price level. As per the investment approval, the project was to be completed within 24 months i.e. by January, 2005. The date of the commercial operation of the transmission asset is 1.11.2004.

b. The tariff from 1.11.2004 to 31.3.2009 in respect of the transmission asset was allowed vide order dated 27.10.2006 in Petition No. 11/2005. The tariff from 1.4.2005 to 31.3.2009 in respect of the transmission asset was revised due to additional capitalization incurred during the year 2005-06 vide order dated 7.8.2009 in Petition No. 73/2009 based on admitted capital cost of ₹12201.05 lakh in respect of the transmission asset as on 1.4.2006.

c. The tariff for 1.4.2009 to 31.3.2014 period was determined vide order dated 18.8.2010 in Petition No. 70/2010. The tariff for 2009-14 period was trued



up and transmission tariff for 2014-19 period was determined vide order dated 7.10.2015 in Petition No. 155/TT/2014.

d. The Petitioner has sought revision of transmission tariff approved for 2004-09 tariff period on account of change in Interest on Loan (IoL) and Interest on Working Capital (IWC) to the extent of revision in IoL and Maintenance Spares in terms of the judgement of the Appellate Tribunal for Electricity (APTEL) dated 22.1.2007 and dated 13.6.2007 in Appeal No. 81/2005 and batch matters and Appeal No. 139/2006 and batch matters respectively. The Petitioner has sought consequential revision of tariff allowed for 2009-14 tariff period; truing up of tariff of 2014-19 tariff period; and determination of tariff of 2019-24 tariff period in respect of the transmission asset.

e. APTEL in its judgment dated 22.1.2007 in Appeal No. 81 of 2005 and batch matters pertaining to generating stations of NTPC had considered 4 (four) issues. The issues considered by APTEL and its decisions are as given in the following table:

Sr. No.	Issue	APTEL's decision/direction
1	Whether APTEL can enquire into the validity of Regulations framed by the Commission	Challenge to the validity of Regulations framed by the Commission falls outside the purview of APTEL.
2	Computation of interest on loan	In view of the order of the APTEL dated 14.11.2016 in Appeal Nos. 94 and 96 of 2005 and order dated 24.1.2007 passed in Appeal Nos. 81 to 87, 89 to 93 of 2005, computation of loan has to be based on loan repayment on normative basis. Commission is required to recalculate the loan outstanding as on 31.3.2004 based on loan repayment on normative basis.
3(a)	O&M Expenses: Inadequate provision of employee costs as part of O&M Expenses due to variation in salary and wages	Commission's view upheld.
3(b)	O&M Expenses: Non-inclusion of incentives and ex-gratia payment to employees	Commission's view upheld.
4	Cost of spares for calculation of working capital	Commission's view upheld.

f. APTEL in its judgment dated 13.6.2007 in Appeal No. 139 of 2006 and batch matters pertaining to generating stations of NTPC had considered 9 (nine)



issues. The issues considered and the decisions of APTEL are given in the following table:

Sr. No.	Issue	APTEL's decision/direction
I	Computation of outstanding loan at the beginning of the tariff period i.e. 1.4.2004	The Commission is required to recalculate the loan outstanding as on 31.3.2004 based on loan repayment on normative basis.
II	Consequence of refinance of loan	Commission to consider the issue afresh.
III	Treating depreciation available as deemed repayment of loan	Commission to make a fresh computation of outstanding loan.
IV	Admissibility of depreciation up to 90%	Commission to consider the issue afresh.
V	Cost of Maintenance Spares	Commission to consider the issue afresh.
VI	Impact of de-capitalisation of the assets on cumulative repayment of Loan	The cumulative repayment of the loan proportionate to the assets decapitalized required to be reduced. Commission to act accordingly.
VII	Non-consideration of normative transit loss for coal import.	Commission to consider afresh the transit losses for coal imported from coal mines other than the dedicated ones.
VIII	Foreign Exchange Rate Variation (FERV)	FERV has been kept as pass through to ensure that any liability or gain, if any, arising on account of any variation in foreign exchange rates is passed on to the beneficiary as held in order dated 4.10.2006 in Appeal No.135 to 140 of 2005. Commission to act accordingly.
IX	Computation of interest on loan in Singrauli Station	Net loan closing at the end of a year is reflected as net loan opening on the first day of the next year. Commission shall re-compute the interest accordingly.

g. The Commission and certain beneficiaries filed Appeals against the APTEL's judgments before the Hon'ble Supreme Court 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.

h. Based on the APTEL's judgments dated 22.1.2007 and dated 13.6.2007, the Petitioner sought revision of tariff of its transmission assets for 2001-04 and 2004-09 tariff periods in Petition No. 121/2007. The Commission after taking into consideration the pending Appeals before the Hon'ble Supreme Court adjourned the said petition *sine die* and directed to revive the same after disposal of the Civil Appeals by the Hon'ble Supreme Court.



i. The Hon'ble Supreme Court vide its order dated 10.4.2018 dismissed the said Civil Appeals filed against APTEL's said judgments. Thus, the judgments of APTEL have attained finality.

j. Consequent to the Hon'ble Supreme Court's order dated 10.4.2018 in NTPC matters, Petition No. 121/2007 was listed for hearing on 8.1.2019. The Commission vide order dated 18.1.2019 in Petition No. 121/2007, directed the Petitioner to submit its claim separately for the assets at the time of filing of truing up petitions for 2014-19 tariff period in respect of concerned transmission assets.

k. The instant petition was heard on 20.4.2021 and in view of APTEL's judgments dated 22.1.2007 in Appeal No. 81/2005 and batch matters along with judgment dated 13.6.2007 in Appeal No. 139/2006 and batch matters and the order of Hon'ble Supreme Court dated 10.4.2018 in Civil Appeal No. 5622 of 2007 along with other Civil Appeals, tariff is being revised. Period-wise transmission tariff is being re-worked based on the Tariff Regulations applicable for the respective tariff periods and suitable assumptions have been made at certain places and applied, which are indicated.

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

5. The Petitioner has served the petition on the Respondents and notice of this petition has been published in newspapers in accordance with Section 64 of the Electricity Act, 2003. No comments/ objections have been received from the general public in response to the aforesaid notice published in the newspapers by the Petitioner. Madhya Pradesh Power Management Company Ltd. (MPPMCL), Respondent No. 1, has filed its reply vide affidavit dated 17.1.2020 wherein it has raised issues of revision of tariff of 2004-09 and 2009-14 periods and RoE. The Petitioner vide affidavit dated 28.7.2020 has filed rejoinder to the reply of MPPMCL.



The issues raised by MPPMCL and the clarifications given by the Petitioner are dealt in the relevant paragraphs of this order.

**Re: Interest on Loan (IoL)**

6. APTEL while dealing with the issue of computation of IoL, in judgment dated 22.1.2007, observed that IoL for the period from 1.4.1998 to 31.3.2001 shall be computed only on normative loan repayment as per its judgment dated 14.11.2006 in Appeal Nos. 94 and 96 of 2005. APTEL vide its judgment dated 14.11.2006 had set aside the Commission's methodology of computation of loan on the actual repayment basis or normative repayment whichever is higher and held that the Commission is required to adopt normative debt repayment methodology for working out IoL liability order for the period 1.4.1998 to 31.3.2001. In view of the above, the interest allowed for the 2004-09 tariff period is revised on the basis of the normative debt repayment methodology.

**Re: Additional Capital Expenditure (ACE)**

7. APTEL vide judgment dated 13.6.2007 in Appeal No. 139/2006 and others held that additional capitalisation after the date of commercial operation should also be considered for computation of maintenance spares. In view of the above, the maintenance spares to be considered for computation of working capital for 2004-09 period are also required to be revised taking into consideration the ACE after the date of commercial operation.

**Re: Depreciation**

8. As regards depreciation, APTEL in its 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. In view of the above directions of APTEL, the outstanding



loan allowed for the transmission asset for the 2004-09 tariff period is revised in the instant order.

9. The revision of transmission tariff allowed for 2004-09 tariff period necessitates the revision of tariff allowed for 2009-14 period, which is also allowed in the instant order. The implementation of the directions of APTEL in the case of the Petitioner was kept pending waiting for the outcome of the Civil Appeals filed before the Hon'ble Supreme Court. 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 2004-09 and 2009-14 tariff periods. Therefore, we direct that the Petitioner will neither claim nor pay any carrying cost from or to the beneficiaries for the difference, if any, in the tariff allowed earlier and the tariff being 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.

10. The hearing in this matter was held on 20.4.2021 through video conference and the Commission reserved order in the matter.

11. This order is issued considering the submissions made by the Petitioner vide affidavits dated 4.9.2019 and dated 3.8.2020, MPPMCL's reply filed vide affidavit dated 17.1.2020 and the Petitioner's rejoinder filed vide affidavit dated 28.7.2020.

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



**Revision of Transmission Charges Allowed for 2004-09 and 2009-14 Tariff Periods**

**2004-09 Period**

13. The Commission vide order dated 27.10.2006 in Petition No. 11/2005 approved the transmission charges from 1.11.2004 to 31.3.2009. The Commission vide order dated 7.8.2009 in Petition No. 73/2009 approved the following revised transmission charges in respect of the transmission asset for 1.4.2005 to 31.3.2009 period:

Particulars	(₹ in lakh)				
	2004-05 (1.11.2004 to 31.3.2005)	2005-06	2006-07	2007-08	2008-09
Depreciation	176.69	436.19	436.38	436.38	436.38
Interest on Loan	289.54	691.22	653.74	605.28	549.11
Return on Equity	177.46	441.56	441.83	441.83	441.83
Advance against Depreciation	0.00	0.00	35.67	266.08	266.08
Interest on Working Capital	17.39	42.56	43.40	47.47	47.45
O & M Expenses	46.87	117.00	121.68	126.52	131.60
<b>Total</b>	<b>707.94</b>	<b>1728.52</b>	<b>1732.70</b>	<b>1923.55</b>	<b>1872.45</b>

14. The Petitioner has claimed the following revised transmission charges in respect of the transmission asset for 2004-09 tariff period in the instant petition:

Particulars	(₹ in lakh)				
	2004-05 (1.11.2004 to 31.3.2005)	2005-06	2006-07	2007-08	2008-09
Depreciation	176.69	436.19	436.38	436.38	436.38
Interest on Loan	292.48	722.63	700.99	649.02	588.79
Return on Equity	177.46	441.56	441.83	441.83	441.83
Advance against Depreciation	0.00	0.00	69.78	316.84	316.84
Interest on Working Capital	17.60	44.34	46.13	50.50	50.50
O&M Expenses	46.87	117.00	121.68	126.52	131.60
<b>Total</b>	<b>711.10</b>	<b>1761.72</b>	<b>1816.79</b>	<b>2021.09</b>	<b>1965.94</b>

15. We have considered the Petitioner's claim. The tariff is allowed in respect of the transmission asset on the basis of the following:



a. Admitted capital cost of ₹11456.02 lakh as on 1.11.2004 vide order dated 27.10.2006 in Petition No. 11/2005 and admitted capital cost of ₹12187.84 lakh as on 1.4.2005 vide order dated 7.8.2009 in Petition No. 73/2009 in respect of the transmission asset.

b. Weighted Average Rate of Interest on actual loan adopted from order dated 27.10.2006 in Petition No. 11/2005 and order dated 7.8.2009 in Petition No. 73/2009.

c. With respect to calculation of IoL, the interest allowed for 2004-09 period is revised on the basis of the normative debt repayment methodology. However, during the year 2004-05 moratorium period was availed by the Petitioner and no actual repayment of loan was made. Therefore, depreciation provided during 2008-09 has been considered as loan repayment in accordance with Regulation 56(i)(f) of 2004 Tariff Regulations. Regulation 56(i)(f) of the 2004 Tariff Regulations provides as under:

**"56 (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;"*

d. Weighted Average Rate of Depreciation, Rate of Interest for Working Capital and O&M Expenses as per order dated 27.10.2006 in Petition No. 11/2005 and as per order dated 7.8.2009 in Petition No. 73/2009.

e. There is ACE during 2004-09 period and it is required to be revised for the purpose of maintenance spares component for calculating IWC.

16. In view of the above, revised transmission charges allowed in respect of the transmission asset for 2004-09 tariff period are as follows:

	(₹ in lakh)				
Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	176.69	436.19	436.38	436.38	436.38
Interest on Loan	289.54	708.52	687.30	636.35	577.30
Return on Equity	177.46	441.56	441.83	441.83	441.83
Advance against Depreciation	0.00	0.00	0.00	0.00	231.30
Interest on Working Capital	17.55	43.68	44.23	44.31	48.31
O&M Expenses	46.87	117.00	121.68	126.52	131.60
<b>Total</b>	<b>708.11</b>	<b>1746.95</b>	<b>1731.43</b>	<b>1685.39</b>	<b>1866.72</b>





17. AFC allowed for 2004-09 period vide orders dated 27.10.2006 in Petition No. 11/2005 that was revised vide order dated 7.8.2009 in Petition No. 73/2009, the revised AFC claimed in the instant petition and AFC allowed in the instant order is as follows:

Particulars	(₹ in lakh)				
	2004-05	2005-06	2006-07	2007-08	2008-09
AFC approved vide order dated 27.10.2006 in Petition No. 11/2005 and revised as per order dated 7.8.2009 in Petition No. 73/2009	707.94	1728.52	1732.70	1923.55	1872.45
Claimed by the Petitioner in the instant petition	711.10	1761.72	1816.79	2021.09	1965.94
AFC allowed after true-up in the instant order	708.11	1746.95	1731.43	1685.39	1866.72

#### **2009-14 Period**

18. The Commission vide order dated 18.8.2010 in Petition No. 70/2010 approved the tariff of the transmission asset for 2009-14 tariff period and vide order dated 7.10.2015 in Petition No. 155/TT/2014 trued up the tariff for 2009-14 tariff period and the same is as follows:

Particulars	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	641.13	641.13	641.13	641.13	641.13
Interest on Loan	495.38	444.09	392.78	341.46	290.10
Return on Equity	589.34	610.93	611.53	611.53	618.88
Interest on Working Capital	46.46	46.44	46.01	45.61	45.41
O&M Expenses	209.60	221.60	234.28	247.68	261.84
<b>Total</b>	<b>1981.92</b>	<b>1964.19</b>	<b>1925.74</b>	<b>1887.41</b>	<b>1857.37</b>

19. The Petitioner has claimed the following revised transmission charges in respect of the transmission asset for 2009-14 period:

Particulars	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	641.13	641.13	641.13	641.13	641.13
Interest on Loan	533.02	481.70	430.35	378.97	327.55
Return on Equity	589.34	610.93	611.53	611.53	618.88
Interest on Working Capital	47.24	47.22	46.80	46.40	46.19
O&M Expenses	209.60	221.60	234.28	247.68	261.84
<b>Total</b>	<b>2020.33</b>	<b>2002.58</b>	<b>1964.09</b>	<b>1925.71</b>	<b>1895.58</b>



20. We have considered the submissions of the Petitioner. The tariff is allowed for the transmission asset on the basis of the following:

- a) Admitted capital cost of ₹12201.05 lakh as on 1.4.2009.
- b) Weighted Average Rate of Interest on actual loan derived/ adopted from order dated 7.10.2015 in Petition No 155/TT/2014.
- c) Weighted Average Rate of Depreciation as per order dated 7.10.2015 in Petition No 155/TT/2014.

21. In view of the above, the revised transmission charges allowed in respect of the transmission asset for 2009-14 tariff period are as follows:

(₹ in lakh)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	641.13	641.13	641.13	641.13	641.13
Interest on Loan	522.12	470.81	419.47	368.11	316.70
Return on Equity	589.34	610.93	611.53	611.53	618.88
Interest on Working Capital	47.01	46.99	46.57	46.17	45.96
O & M Expenses	209.60	221.60	234.28	247.68	261.84
<b>Total</b>	<b>2009.20</b>	<b>1991.46</b>	<b>1952.98</b>	<b>1914.62</b>	<b>1884.51</b>

22. AFC allowed for 2009-14 tariff period vide order dated 7.10.2015 in Petition No 155/TT/2014, the revised AFC claimed in the instant petition and AFC allowed in the instant order are as follows:

(₹ in lakh)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
AFC approved vide order dated 7.10.2015 in Petition No. 155/TT/2014	1981.92	1964.19	1925.74	1887.41	1857.37
Claimed by the Petitioner in the instant petition	2020.33	2002.58	1964.09	1925.71	1895.58
AFC allowed in the instant order	2009.20	1991.46	1952.98	1914.62	1884.51

### **Truing up of Annual Fixed Charges for 2014-19 Tariff Period**

23. The details of the trued-up transmission charges claimed by the Petitioner in respect of the transmission asset are as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	641.13	641.13	641.13	248.19	248.19
Interest on Loan	276.04	224.35	172.20	132.66	102.28
Return on Equity	619.36	622.20	621.88	621.88	623.55
Interest on Working Capital	48.69	48.01	47.26	37.78	37.60
O&M Expenses	241.20	249.20	257.48	266.04	274.84
<b>Total</b>	<b>1826.42</b>	<b>1784.89</b>	<b>1739.95</b>	<b>1306.55</b>	<b>1286.46</b>

24. The details of the trued-up IWC claimed by the Petitioner in respect of the transmission asset are as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	20.10	20.77	21.46	22.17	22.90
Maintenance Spares	36.18	37.38	38.62	39.91	41.23
Receivables	304.40	297.48	289.99	217.76	214.41
<b>Total Working Capital</b>	<b>360.68</b>	<b>355.63</b>	<b>350.07</b>	<b>279.84</b>	<b>278.54</b>
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
<b>Interest on Working Capital</b>	<b>48.69</b>	<b>48.01</b>	<b>47.26</b>	<b>37.78</b>	<b>37.60</b>

### Capital Cost

25. The Commission vide order dated 7.10.2015 in Petition No. 155/TT/2014 approved the transmission tariff in respect of the transmission asset for 2014-19 period based on capital cost of ₹12201.05 lakh as on 1.4.2014. Therefore, the admitted capital cost of ₹12201.05 lakh as on 1.4.2014 has been considered for working out the true-up tariff for 2014-19 tariff period. The capital cost of the transmission asset has been calculated in accordance with Regulations 9(3) and 9(6) of the 2014 Tariff Regulations.

26. The petitioner has not claimed any ACE for 2014-19 period.

### Debt-Equity ratio

27. As per Regulation 19(3) of the 2014 Tariff Regulations, debt-equity ratio allowed by the Commission for determination of tariff for the period ending on



31.3.2014 is considered for the purpose of truing up of the tariff of the transmission asset for 2014-19 tariff period. The details of debt-equity ratio as on 1.4.2014 and 31.3.2019 in respect of the transmission asset is as follows:

(₹ in lakh)				
Funding	Capital Cost as on 1.4.2014	(%)	Capital Cost as on 31.3.2019	(%)
Debt	9045.10	74.13	9045.10	74.13
Equity	3155.95	25.87	3155.95	25.87
<b>Total</b>	<b>12201.05</b>	<b>100.00</b>	<b>12201.05</b>	<b>100.00</b>

### Depreciation

28. The Gross block during 2014-19 tariff period has been depreciated at Weighted Average Rate of Depreciation (WAROD). WAROD has been worked out (as placed in Annexure-I to this order) after taking into account the depreciation rates of assets as prescribed in the 2014 Tariff Regulations. The transmission asset has completed 12 years of useful life as on 31.3.2017. Therefore, the remaining depreciable value has been spread across the balance useful life in accordance with Regulation 27(5) of the 2014 Tariff Regulations. The Gross Block during 2014-19 tariff period has been depreciated accordingly and is as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
<b>Depreciation</b>					
Opening Gross Block	12201.05	12201.05	12201.05	12201.05	12201.05
Additional Capitalisation	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	12201.05	12201.05	12201.05	12201.05	12201.05
Average Gross Block	12201.05	12201.05	12201.05	12201.05	12201.05
Weighted average rate of Depreciation (WAROD) (%)	5.25	5.25	5.25	2.33	2.33
Balance useful life of the asset (Year)	16	15	14	13	12
Lapsed life at the beginning of the year (Year)	9	10	11	12	13
Depreciable Value	10980.95	10980.95	10980.95	10980.95	10980.95
<b>Depreciation during the year</b>	<b>641.13</b>	<b>641.13</b>	<b>641.13</b>	<b>284.50</b>	<b>284.50</b>
Cumulative Depreciation	6000.12	6641.25	7282.39	7566.89	7851.40
Remaining Depreciable Value	4980.83	4339.69	3698.56	3414.05	3129.55



29. Accordingly, depreciation approved vide order dated 7.10.2015 in Petition No. 155/TT/2014, depreciation claimed by the Petitioner and as trued up in the instant order is as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 7.10.2015 in Petition No. 155/TT/2014	641.13	641.13	641.13	258.62	258.62
Claimed by the Petitioner in the instant petition	641.13	641.13	641.13	248.19	248.19
Allowed after true-up in this order	641.13	641.13	641.13	284.50	284.50

### Interest on Loan (IoL)

30. The Petitioner has claimed IoL based on its actual loan portfolio and rate of interest. Accordingly, IoL has been calculated based on actual interest rate, in accordance with Regulation 26 of the 2014 Tariff Regulations. IoL allowed in respect of the transmission asset is as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
<b>Interest on Loan</b>					
Gross Normative Loan	9045.10	9045.10	9045.10	9045.10	9045.10
Cumulative Repayments up to Previous Year	5358.98	6000.12	6641.25	7282.39	7566.89
Net Loan-Opening	3686.12	3044.98	2403.85	1762.71	1478.21
Additions	0.00	0.00	0.00	0.00	0.00
Repayment during the year	641.13	641.13	641.13	284.50	284.50
Net Loan-Closing	3044.98	2403.85	1762.71	1478.21	1193.70
Average Loan	3365.55	2724.41	2083.28	1620.46	1335.95
Weighted Average Rate of Interest on Loan (%)	7.8807	7.8401	7.7551	7.4701	6.6953
<b>Interest on Loan</b>	<b>265.23</b>	<b>213.60</b>	<b>161.56</b>	<b>121.05</b>	<b>89.45</b>

31. Accordingly, IoL approved vide order dated 7.10.2015 in Petition No 155/TT/2014, IoL claimed by the Petitioner and as trued up in the instant order is as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 7.10.2015 in Petition No 155/TT/2014	238.71	187.21	135.46	96.88	69.51
Claimed by the Petitioner in the instant petition	276.04	224.35	172.20	132.66	102.28
Allowed after true-up in this order	265.23	213.60	161.56	121.05	89.45



### Return on Equity (RoE)

32. The Petitioner is entitled for RoE in respect of the transmission 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 MAT rates and has claimed the following effective tax rates for the 2014-19 tariff period:

Year	Claimed effective tax rate (in %)	Grossed up RoE [Base Rate/(1-t)] (in %)
2014-15	21.02	19.625
2015-16	21.38	19.715
2016-17	21.34	19.705
2017-18	21.34	19.705
2018-19	21.55	19.758

33. MPPMCL has submitted that the Petitioner has grossed up RoE on the basis of actual taxes paid during 2016-17 and 2017-18 and has not placed on record the assessment orders for 2016-17 and 2017-18. MPPMCL has further submitted that the Petitioner has not claimed grossed up RoE on the basis of actual taxes paid for 2018-19 Period. MPPMCL has also submitted that the Petitioner has not finalized its income tax assessment orders for 2016-17, 2017-18 and 2018-19. MPPMCL has submitted that the Petitioner has neither submitted copy of assessment orders for 2014-15 and 2015-16 periods nor audited accounts in respect of actual taxes paid for 2016-17 and 2017-18 periods. According to MPPMCL, in absence of these essential documents, it is not possible to scrutinize the claim of the Petitioner in a proper way.

34. In response, the Petitioner has submitted that Income Tax assessment of the Petitioner has been completed and assessment orders have been issued by the Income Tax Department for 2014-15, 2015-16 and 2016-17 and Income Tax Returns have been filed with the Income Tax Department for 2017-18 and 2018-19. The Petitioner has further submitted that basis of year-wise effective tax rate and grossed up RoE tried up accordingly for 2014-19 tariff period has already been mentioned in



the instant petition. The Petitioner has further submitted that the assessment orders for the 2014-15 and 2015-16 have already been submitted in reply to Technical Validation (TV) letter in Petition No. 20/TT/2020 and a copy of the assessment order for year 2016-17 has also been filed. The Petitioner has further 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 2014-15, 2015-16, 2016-17, 2017-18 and 2018-19 on receipt of the respective assessment orders, directly from the beneficiaries, on yearly basis as per the 2014 Tariff Regulations.

35. We have considered the submissions of the Petitioner and MPPMCL. As regards MPPMCL's submission that the grossed up rate of RoE for the periods 2016-17 and 2017-18 is not based on MAT rates approved by the Income Tax Authorities, it is observed that effective rate of tax considered for 2014-15, 2015-16 and 2016-17 is based on assessment orders issued by Income Tax Authorities and the effective rate of tax considered for 2017-18 and 2018-19 is based on the Income Tax Returns filed for the purpose of grossing up of 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 the submissions of MPPMCL. Accordingly, we reject the above submissions of MPPMCL.

36. The Commission vide order dated 27.4.2020 in Petition No. 274/TT/2019 arrived at the effective tax rate for the Petitioner based on the notified MAT rates and the same is given in the table below:

<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



37. The MAT rates as considered in order dated 27.4.2020 for the purpose of grossing up of rate of RoE for trueing up of the tariff of 2014-19 period, in terms of the provisions of the 2014 Tariff Regulations is considered in the instant case which is as follows:

Year	Notified MAT rates (in %) (inclusive of surcharge and cess)	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

38. The Petitioner has claimed RoE for 2014-19 period after grossing up RoE of 15.50% with effective tax rates (based on MAT rates) each year as per the above said Regulation. RoE is trueed up on the basis of the MAT rate applicable in the respective years and is allowed in respect of the transmission asset as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
<b>Return on Equity</b>					
Opening Equity	3155.95	3155.95	3155.95	3155.95	3155.95
Additions due to ACE	0.00	0.00	0.00	0.00	0.00
Closing Equity	3155.95	3155.95	3155.95	3155.95	3155.95
Average Equity	3155.95	3155.95	3155.95	3155.95	3155.95
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	20.961	21.342	21.342	21.342	21.549
Rate of Return on Equity (%)	19.610	19.705	19.705	19.705	19.758
<b>Return on Equity</b>	<b>618.88</b>	<b>621.88</b>	<b>621.88</b>	<b>621.88</b>	<b>623.55</b>

39. Accordingly, RoE approved vide order dated 7.10.2015 in Petition No. 155/TT/2014, RoE claimed by the Petitioner and as trueed up in the instant order is as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 7.10.2015 in Petition No. 155/TT/2014	618.88	618.88	618.88	618.88	618.88
Claimed by the Petitioner in the instant petition	619.36	622.20	621.88	621.88	623.55
Allowed after true-up in this order	618.88	621.88	621.88	621.88	623.55





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

40. The O&M Expenses claimed by the Petitioner in respect of the transmission asset are as follows:

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
<b>O&amp;M Expenses</b>					
<b>Sub-station (Raipur bays)</b>					
400 kV					
Number of bays	4	4	4	4	4
Norms ((₹ lakh/bay)	60.30	62.30	64.37	66.51	68.71
<b>Total O&amp;M Expense (₹ in lakh)</b>	<b>241.20</b>	<b>249.20</b>	<b>257.48</b>	<b>266.04</b>	<b>274.84</b>

41. O & M Expenses have been considered and allowed as per Regulation 29(3) of the 2014 Tariff Regulations.

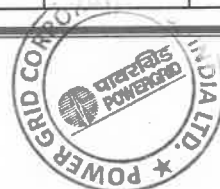
42. Accordingly, O&M Expenses approved vide order dated 7.10.2015 in Petition No. 155/TT/2014, as claimed by the Petitioner and tried up in the instant order are as follows:

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 7.10.2015 in Petition No. 155/TT/2014	241.20	249.20	257.48	266.04	274.84
Claimed by the Petitioner in the instant petition	241.20	249.20	257.48	266.04	274.84
Allowed after true-up in this order	241.20	249.20	257.48	266.04	274.84

### Interest on Working Capital (IWC)

43. IWC has been worked out as per the methodology provided in Regulation 28 of the 2014 Tariff Regulations and is allowed in respect of the transmission assets as follows:

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
<b>Interest on Working Capital</b>					
O&M Expenses (O&M expenses for 1 month)	20.10	20.77	21.46	22.17	22.90
Maintenance Spares (Maintenance spares @ 15% of	36.18	37.38	38.62	39.91	41.23



O&M expenses)					
Receivables (Receivables equivalent to 2 months of fixed cost)	302.48	295.59	288.18	221.97	218.41
<b>Total Working Capital</b>	<b>358.76</b>	<b>353.74</b>	<b>348.26</b>	<b>284.05</b>	<b>282.54</b>
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
<b>Interest of working capital</b>	<b>48.43</b>	<b>47.76</b>	<b>47.01</b>	<b>38.35</b>	<b>38.14</b>

44. Accordingly, IWC approved vide order dated 7.10.2015 in Petition No. 155/TT/2014, IWC claimed by the Petitioner and as trued up in the instant order is as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 7.10.2015 in Petition No. 155/TT/2014	47.82	47.08	46.34	37.12	36.98
Claimed by the Petitioner in the instant petition	48.69	48.01	47.26	37.78	37.60
Allowed after true-up in this order	48.43	47.76	47.01	38.35	38.14

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

45. The trued up annual fixed charges approved in respect of the transmission asset for 2014-19 tariff period are as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	641.13	641.13	641.13	284.50	284.50
Interest on Loan	265.23	213.60	161.56	121.05	89.45
Return on Equity	618.88	621.88	621.88	621.88	623.55
Interest on Working Capital	48.43	47.76	47.01	38.35	38.14
O&M Expenses	241.20	249.20	257.48	266.04	274.84
<b>Total</b>	<b>1814.88</b>	<b>1773.57</b>	<b>1729.07</b>	<b>1331.82</b>	<b>1310.49</b>

46. Accordingly, Annual Transmission Charges as approved vide order dated 7.10.2015 in Petition No. 155/TT/2014, as claimed by the Petitioner and as approved after truing up in the instant order are as follows:



(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 7.10.2015 in Petition No. 155/TT/2014	1787.75	1743.51	1699.30	1277.54	1258.83
Claimed by the Petitioner in the instant petition	1826.42	1784.89	1739.95	1306.55	1286.46
Allowed after true-up in this order	1814.88	1773.57	1729.07	1331.82	1310.49

### Determination of Annual Fixed Charges for 2019-24 Tariff Period

47. The Petitioner has claimed the following transmission charges for 2019-24 tariff period:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	248.19	248.19	248.19	248.19	248.18
Interest on Loan	104.23	84.15	63.90	43.65	23.39
Return on Equity	623.55	623.55	623.55	623.55	623.55
Interest on Working Capital	20.28	20.22	20.12	20.03	19.89
O&M Expenses	128.60	133.12	137.80	142.64	147.64
<b>Total</b>	<b>1124.85</b>	<b>1109.23</b>	<b>1093.56</b>	<b>1078.06</b>	<b>1062.65</b>

48. The details of IWC claimed by the Petitioner for 2019-24 period is as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	10.72	11.09	11.48	11.89	12.30
Maintenance Spares	19.29	19.97	20.67	21.40	22.15
Receivables	138.30	136.75	134.82	132.91	130.65
Total Working Capital	168.31	167.81	166.97	166.20	165.10
Rate of Interest (%)	12.05	12.05	12.05	12.05	12.05
<b>Interest on Working Capital</b>	<b>20.28</b>	<b>20.22</b>	<b>20.12</b>	<b>20.03</b>	<b>19.89</b>

### Capital Cost

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

**"19 Capital Cost:** (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 tried 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.”*

50. The Petitioner has claimed capital cost of ₹12201.05 lakh as on 31.3.2019 in respect of the transmission asset. The same capital cost has been admitted by the Commission as on 31.3.2019. Therefore, opening capital cost as on 1.4.2019 of ₹12201.05 lakh has been considered for determination of tariff in accordance with Regulation 19 of the 2019 Tariff Regulations.

51. The Petitioner has not projected any ACE during 2019-24 tariff period in respect of the transmission asset.

## Debt-Equity ratio

52. Regulation 18 of the 2019 Tariff Regulations provides as follows:

**“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.”

53. The debt-equity ratio considered for the purpose of computation of tariff for the 2019-24 tariff period is as follows:

Particulars	(₹ in lakh)			
	Capital Cost as on 1.4.2019	%	Capital Cost as on 31.3.2024	%
Debt	9045.10	74.13	9045.10	74.13
Equity	3155.95	25.87	3155.95	25.87
<b>Total</b>	<b>12201.05</b>	<b>100.00</b>	<b>12201.05</b>	<b>100.00</b>

### Depreciation

54. Regulations 33(1), 33(2) and 33(5) 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 there of 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"

"(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 31st 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.”

55. The transmission asset has already completed 12 years of life as on 31.3.2017. The remaining depreciable value has been spread across the balance useful life in accordance with Regulation 33(5) of the 2019 Tariff Regulations. The depreciation allowed is as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	12201.05	12201.05	12201.05	12201.05	12201.05
Additional Capitalisation	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	12201.05	12201.05	12201.05	12201.05	12201.05
Average Gross Block	12201.05	12201.05	12201.05	12201.05	12201.05
Weighted average rate of Depreciation (WAROD) (%)	2.33	2.33	2.33	2.33	2.33
Balance useful life of the asset (Year)	11	10	9	8	7
Lapsed life at the beginning of the year (Year)	14	15	16	17	18
Depreciable Value	10980.95	10980.95	10980.95	10980.95	10980.95
<b>Depreciation during the year</b>	<b>284.50</b>	<b>284.50</b>	<b>284.50</b>	<b>284.50</b>	<b>284.50</b>
Cumulative Depreciation at the end of the year	8135.90	8420.41	8704.91	8989.41	9273.92
Remaining Depreciable Value at the end of the year	2845.04	2560.54	2276.03	1991.53	1707.03

### Interest on Loan (IoL)

56. Regulation 32 of the 2019 Tariff Regulations provides as follows:

**“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 upto 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 system, 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."

57. Weighted Average Rate of Rate of Interest has been considered on the basis of rate prevailing as on 1.4.2019. The Petitioner has prayed that the change in interest rate due to floating rate of interest applicable, if any, during 2019-24 tariff period will be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of true up. IoL has been allowed in accordance with Regulation 32 of the 2019 Tariff Regulations. IoL allowed is as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	9045.10	9045.10	9045.10	9045.10	9045.10
Cumulative Repayments up to Previous Year	7851.40	8135.90	8420.41	8704.91	8989.41
Net Loan-Opening	1193.70	909.20	624.69	340.19	55.69
Additions due to ACE	0.00	0.00	0.00	0.00	0.00
Repayment during the year	284.50	284.50	284.50	284.50	55.69
Net Loan-Closing	909.20	624.69	340.19	55.69	0.00
Average Loan	1051.45	766.95	482.44	197.94	27.84
Weighted Average Rate of Interest on Loan (%)	8.1500	8.1500	8.1500	8.1500	8.1500
<b>Interest on Loan</b>	<b>85.69</b>	<b>62.51</b>	<b>39.32</b>	<b>16.13</b>	<b>2.27</b>



## Return on Equity (RoE)

58. Regulations 30 and 31 of the 2019 Tariff Regulations provide as follows:

**“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 RLDC;

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, 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."

59. The Petitioner has submitted that MAT rate is applicable to the Petitioner's Company. We have considered the submissions of the Petitioner. The 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. The RoE allowed in respect of the transmission asset is as follows:



(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	3155.95	3155.95	3155.95	3155.95	3155.95
Additions due to ACE	0.00	0.00	0.00	0.00	0.00
Closing Equity	3155.95	3155.95	3155.95	3155.95	3155.95
Average Equity	3155.95	3155.95	3155.95	3155.95	3155.95
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50
MAT Rate for respective year (%)	17.472	17.472	17.472	17.472	17.472
Rate of Return on Equity (%)	18.782	18.782	18.782	18.782	18.782
<b>Return on Equity</b>	<b>592.75</b>	<b>592.75</b>	<b>592.75</b>	<b>592.75</b>	<b>592.75</b>

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

60. The O&M expenses claimed by the Petitioner in respect of the transmission asset for 2019-24 tariff period are as follows:

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>O&amp;M Expenses</b>					
<b>Sub-station (Raipur bays)</b>					
Number of bays	4	4	4	4	4
<b>Total O&amp;M Expenses</b>	<b>128.60</b>	<b>133.12</b>	<b>137.80</b>	<b>142.64</b>	<b>147.64</b>

61. The norms specified under Regulation 35(3)(a) of the 2019 Tariff Regulations provides as follows:

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

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Norms for sub-station Bays (₹ Lakh per bay)</b>					
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
<b>Norms for Transformers (₹ Lakh per MVA)</b>					
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
<b>Norms for AC and HVDC lines (₹ Lakh per km)</b>					
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.881	0.912	0.944	0.977	1.011



<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
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
<b>Norms for HVDC stations</b>					
HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)	834	864	894	925	958
Gazuwaka HVDC Back-to-Back station (₹ Lakh per 500 MW)	1,666	1,725	1,785	1,848	1,913
500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)	2,252	2,331	2,413	2,498	2,586
±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)	2,468	2,555	2,645	2,738	2,834
±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)	1,696	1,756	1,817	1,881	1,947
±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW)	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  $\pm 500$  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  $\pm 500$  kV Talchar-Kolar HVDC bi-pole scheme (2000 MW);*
- iv. the O&M expenses of  $\pm 800$  kV Champa-Kurukshetra HVDC bi-pole scheme (3000 MW) shall be on the basis of the normative O&M expenses for  $\pm 800$  kV, Bishwanath-Agra HVDC bi-pole scheme;*
- v. the O&M expenses of  $\pm 800$  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  $\pm 800$  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 year*

*(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."*

62. The O&M Expenses allowed as per the norms specified in the 2019 Tariff Regulations are as follows:

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
4 Numbers of 400 kV Sub-station bays at Raipur	128.60	133.12	137.80	142.64	147.64
<b>Total</b>	<b>128.60</b>	<b>133.12</b>	<b>137.80</b>	<b>142.64</b>	<b>147.64</b>

**Interest on Working Capital (IWC)**

63. Regulation 34(1)(c), Regulation 34(3), Regulation 34(4) and Regulation 3(7) of the 2019 Tariff Regulations specifies 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;"*

64. 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 IWC as 12.05%. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The ROI 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, ROI 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 interest allowed thereon is as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O & M Expenses (O&M Expenses for 1 month)	10.72	11.09	11.48	11.89	12.30
Maintenance Spares (Maintenance spares @ 15% of O&M expenses)	19.29	19.97	20.67	21.40	22.15
Receivables (Receivables equivalent to 2 months of fixed cost)	136.68	134.57	132.27	129.99	128.55
<b>Total Working Capital</b>	<b>166.68</b>	<b>165.63</b>	<b>164.43</b>	<b>163.28</b>	<b>162.99</b>
Rate of Interest (%)	12.05	11.25	11.25	11.25	11.25
<b>Interest of working capital</b>	<b>20.09</b>	<b>18.63</b>	<b>18.50</b>	<b>18.37</b>	<b>18.34</b>

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

65. The transmission charges allowed in respect of the transmission asset for 2019-24 tariff period are as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	284.50	284.50	284.50	284.50	284.50
Interest on Loan	85.69	62.51	39.32	16.13	2.27
Return on Equity	592.75	592.75	592.75	592.75	592.75
Interest on Working Capital	20.09	18.63	18.50	18.37	18.34
O & M Expenses	128.60	133.12	137.80	142.64	147.64
<b>Total</b>	<b>1111.63</b>	<b>1091.51</b>	<b>1072.87</b>	<b>1054.40</b>	<b>1045.50</b>

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

66. 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**

67. The Petitioner shall be entitled for reimbursement of licence fee in accordance with Regulation 70(4) of the 2019 Tariff Regulations for 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 2019-24 tariff period.

### **Goods and Services Tax**

68. The Petitioner has submitted that 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 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.

69. We have considered the submissions of the Petitioner. Since GST is not levied on transmission service at present, we are of the view that the Petitioner's prayer is premature.

### **Security Expenses**

70. The Petitioner has submitted that security expenses for the transmission assets are not claimed in the instant petition and it would file a separate petition for claiming the overall security expenses and the consequential IWC. 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 on the basis of the actual expenses of previous year subject to



true-up at the end of the year on actual expenses. The Petitioner has submitted that 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.

71. 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. The Commission observes that the Petitioner has already filed the Petition No. 260/MP/2020 claiming consolidated security expenses on projected basis for 2019-24 tariff period on the basis of 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**

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

### **Sharing of Transmission Charges**

73. During the tariff periods 2004-09 and 2009-14 (up to 30.6.2011), the transmission charges for inter-State transmission systems were being shared in accordance with the tariff regulations for the respective tariff periods. With effect from 1.7.2011, sharing of transmission charges for inter-State transmission system was governed by the Central Electricity Regulatory Commission (Sharing of Transmission Charges and Losses) Regulations, 2010. With effect from 1.11.2020, sharing of transmission charges is governed by the Central Electricity Regulatory Commission (Sharing of Transmission Charges and Losses) Regulations, 2020 (in short, 'the 2020



Sharing Regulations'). Accordingly, the liabilities of DICs for arrears of transmission charges determined through this order shall be computed DIC-wise in accordance with the provisions of respective Tariff Regulations and shall be recovered from the concerned DICs through Bill 2 under Regulation 15(2)(b) of the 2020 Sharing Regulations. For subsequent period, the billing, collection and disbursement of the transmission charges approved in this order shall be governed by the provisions of the 2020 Sharing Regulations as provided in Regulation 57 of the 2019 Tariff Regulations.

**74. To summarise:**

(a) The revised Annual Fixed Charges allowed in respect of the transmission asset for 2004-09 tariff period as per the APTEL's judgements are:

Particulars	(₹ in lakh)				
	2004-05 (1.11.2004 to 31.3.2005)	2005-06	2006-07	2007-08	2008-09
Annual Fixed Charges	708.11	1746.95	1731.43	1685.39	1866.72

(b) The consequential revision of Annual Fixed Charges allowed in respect of the transmission asset for 2009-14 tariff period are:

Particulars	(₹ in lakh)				
	2009-10	2010-11	2012-13	2013-14	2014-15
Annual Fixed Charges	2009.20	1991.46	1952.98	1914.62	1884.51

(c) The trued-up Annual Fixed Charges allowed in respect of the transmission asset for 2014-19 tariff period are:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Annual Fixed Charges	1814.88	1773.57	1729.07	1331.82	1310.49

(d) The Annual Fixed Charges allowed in this order in respect of the transmission asset for 2019-24 tariff period are:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Annual Fixed Charges	1111.63	1091.51	1072.87	1054.40	1045.50



75. Annexure-1 given hereinafter forms part of the instant order.

76. This order disposes of Petition No. 386/TT/2019 in terms of the above discussions and findings.

sd/-  
**(Pravas Kumar Singh)**  
Member

sd/-  
**(Arun Goyal)**  
Member

sd/-  
**(I. S. Jha)**  
Member

sd/-  
**(P. K. Pujari)**  
Chairperson



**ANNEXURE-1**

2014-19 Capital Expenditure	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 (₹ in lakh)				
				2014-15	2015-16	2016-17	2017-18	2018-19
Building Civil Works & Colony	158.80	158.80	3.34	5.30	5.30	5.30		
Sub Station	12042.25	12042.25	5.28	635.83	635.83	635.83		
<b>Total</b>	<b>12201.05</b>	<b>12201.05</b>	<b>Total</b>	<b>641.13</b>	<b>641.13</b>	<b>641.13</b>		
<b>Average Gross Block (₹ in lakh)</b>				<b>12201.05</b>	<b>12201.05</b>	<b>12201.05</b>	<b>12201.05</b>	<b>12201.05</b>
<b>Weighted Average Rate of Depreciation</b>				<b>5.25%</b>	<b>5.25%</b>	<b>5.25%</b>	<b>2.33%</b>	<b>2.33%</b>



**Summary of Tariff**

Form No. - 1

Name of the Transmission Licensee:	Power Grid Corporation of India Limited		
Project	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Element Description	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Region	Western Region	DOCO Date	Nov 1, 2004

(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	284.51	284.51	284.51	284.51	284.51
Interest on Loan-Form No. 9E	85.66	62.58	39.37	16.15	2.27
Return on Equity-Form No. 8	592.75	592.75	592.75	592.75	592.75
Int. on Working capital-Form No.11	20.08	18.63	17.25	17.13	19.58
Op. and maintenance-Form No.2	128.60	133.12	137.80	142.64	147.64
Total AFC	1,111.60	1,091.59	1,071.68	1,053.18	1,046.75



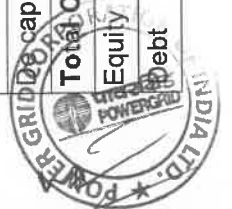
**Summary of Asset Level Cost**

Name of the Transmission Licensee	Power Grid Corporation of India Limited	
Project	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line	
Element Description	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line	
Region	Western Region	DOC Date   Nov 1, 2004

(Amount in Rs. Lakh)

## A) Summary of Capital Cost, Means of Finance of the Asset

Particular	i) Apportioned Approved Cost			ii) Summary of Actual / Projected Capital Expenditure incurred						
	As Per IA	As per RCE	As on COD / 01.04.2019	2019-20	2020-21	2021-22	2022-23	2023-24	As on 31.03.2024	
Land (Freehold Land)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Building & Civil Works	0.00	0.00	158.80	0.00	0.00	0.00	0.00	0.00	158.80	
Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Substations	0.00	0.00	12,042.25	0.00	0.00	0.00	0.00	0.00	12,042.25	
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Land (Leasehold)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
IT/Software/UNMS/JURTDSM/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
<b>Total Capital Cost as per Books</b>	<b>0.00</b>	<b>0.00</b>	<b>12,201.05</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>12,201.05</b>	
Less: Liability	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Add: discharge of liability	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Cap During Year As per Books	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
<b>Total Capital incurred</b>	<b>0.00</b>	<b>0.00</b>	<b>12,201.05</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>12,201.05</b>	
Equity	0.00	0.00	3,155.95	0.00	0.00	0.00	0.00	0.00	3,155.95	
Debt	0.00	0.00	9,045.10	0.00	0.00	0.00	0.00	0.00	9,045.10	



67

**Details of Transmission Lines and Substations, Communication System covered in the project scope  
and O&M for instant asset**

Form No. - 2

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Element Description	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Region	Western Region	DOC Date	Nov 1, 2004

**1. Transmission Lines**

(Amount in Rs. Lakh)



**Summary:**



2. Sub Station

Name of Sub-station	Type of Substation	Voltage Level KV	No. of Transfor ms/ 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		
Raipur:BAYS	Conventio nal	400 KV		4.000								Nov 1, 2004	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	4.00	4.00	4.00	4.00	4.00
O&M Claimed	128.60	133.12	137.80	142.64	147.64



### 3. Communication System

Summary:

70



**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	0.00	0.00	0.00	0.00	0.00
Substation	128.60	133.12	137.80	142.64	147.64
Communication System	0.00	0.00	0.00	0.00	0.00
<b>Total Normative O&amp;M</b>	<b>128.60</b>	<b>133.12</b>	<b>137.80</b>	<b>142.64</b>	<b>147.64</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>128.60</b>	<b>133.12</b>	<b>137.80</b>	<b>142.64</b>	<b>147.64</b>



**Normative parameters considered for tariff computations**

Form No. - 3

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Element Description	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Region	Western Region	DOCOC Date	Nov 1, 2004

(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



**Abstract of existing transmission assets/elements under Project. Determination of Effective COD and weighted Average life for single AFC for the project as whole**

Form No. - 4

Name of the Transmission Licensee	Power Grid Corporation of India Limited	
Project	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line	
Element Description	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line	
Region	Western Region	DOC Date   Nov 1, 2004

**A) Details of All the Asset Covered under the Scope of the Project**

Asset Name	Actual COD of the asset	COD considered for tariff purpose	Effective COD for the project as whole ( Refer C)	Weighted Average useful life of the project (Refer D)	Lapsed useful Life of the project as on 01.04.2019 (Refer E)	(Amount in Rs. Lakh)
						Balance useful Life of the project as on 01.04.2019 ( Refer E)
					14	11

**B) Details as on 01.04.2019 for determination of Single Tariff for the Project Commissioned prior to 01.04.2019**

**C) Computation of Effective COD for determining lapsed useful life of the project as whole**

**D) Weighted Average useful Life of the Project as whole**

**E) Lapsed Weighted average useful life of the project & Balance weighted average Useful life**  
 This refers to the No. of completed years from the effective COD till the last day of the previous tariff period ( i.e. 31.03.2019 )

1) Effective COD	
2) Last date of the previous tariff control period	Mar 31, 2019
3) No. of Completed years lapsed as on 01.04.2019 (2) - (1)	14



4) Remaining useful life ( in year ) (WAL-lapsed year)

11



**Statement of Capital cost**

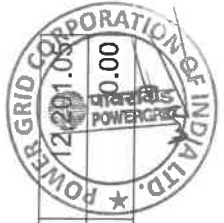
Form No. - 4A

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Element Description	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Region	Western Region	DOCO Date	Nov 1, 2004

**A) Capital Cost**

(Amount in Rs. Lakh)

Particular	Accrual Basis	Un-discharged Liabilities	Cash Basis
<b>As on relevant date :2019-20</b>			
a) Opening Gross Block Amount as per books	12,201.05	0.00	12,201.05
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in A(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in A(a) above	0.00	0.00	0.00
<b>As on relevant date :2020-21</b>			
a) Addition in Gross Block Amount during the period	0.00	0.00	0.00
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in B(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in B(a) above	0.00	0.00	0.00
d) De-cap in gross block amount during the year	0.00	0.00	0.00
a) Closing Gross Block Amount as per books	12,201.05	0.00	12,201.05
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in C(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in C(a) above	0.00	0.00	0.00
<b>As on relevant date :2020-21</b>			
a) Opening Gross Block Amount as per books	12,201.05	0.00	12,201.05
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in A(a) above	0.00	0.00	0.00





c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in A(a) above	0.00	0.00	0.00
a) Addition in Gross Block Amount during the period			
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in B(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in B(a) above	0.00	0.00	0.00
d) De-cap in gross block amount during the year	0.00	0.00	0.00

a) Closing Gross Block Amount as per books	12,201.05	0.00	12,201.05
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in C(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in C(a) above	0.00	0.00	0.00

**As on relevant date :2021-22**

a) Opening Gross Block Amount as per books	12,201.05	0.00	12,201.05
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in A(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in A(a) above	0.00	0.00	0.00

a) Addition in Gross Block Amount during the period	0.00	0.00	0.00
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in B(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in B(a) above	0.00	0.00	0.00
d) De-cap in gross block amount during the year	0.00	0.00	0.00

a) Closing Gross Block Amount as per books	12,201.05	0.00	12,201.05
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in C(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in C(a) above	0.00	0.00	0.00

**As on relevant date :2022-23**

a) Opening Gross Block Amount as per books	12,201.05	0.00	12,201.05
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in A(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in A(a) above	0.00	0.00	0.00



a) Addition in Gross Block Amount during the period	0.00	0.00	0.00
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in B(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in B(a) above	0.00	0.00	0.00
d) De-cap in gross block amount during the year	0.00	0.00	0.00

a) Closing Gross Block Amount as per books	12,201.05	0.00	12,201.05
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in C(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in C(a) above	0.00	0.00	0.00

**As on relevant date :2023-24**

a) Opening Gross Block Amount as per books	12,201.05	0.00	12,201.05
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in A(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in A(a) above	0.00	0.00	0.00

a) Addition in Gross Block Amount during the period	0.00	0.00	0.00
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in B(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in B(a) above	0.00	0.00	0.00
d) De-cap in gross block amount during the year	0.00	0.00	0.00

a) Closing Gross Block Amount as per books	12,201.05	0.00	12,201.05
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in C(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in C(a) above	0.00	0.00	0.00

**B) Flow of liability for the Asset**

Particular	(Amount in Rs. Lakh)		
Opening balance of liability	0.00	0.00	0.00
Add: Liability from ACE	0.00	0.00	0.00



Discharge of liability by payment and claimed as ACE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Reversal/cancelation (to be entered)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Closing Balance of Admitted liability	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00



(Petitioner)

**Details of all the assets covered in the project**

Form No. - 5B

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Element Description	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Region	Western Region	DOCO Date	Nov 1, 2004
			SCOD

(Amount in Rupees)



80

**Financial Package upto COD**

Form No. - 6

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Element Description	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Region	Western Region	DOC Date	Nov 1, 2004

(Amount in Rs. Lakh)

Particulars	Financial Package as Approved		Financial Package as on COD 01/04/2019		As Admitted on COD 01/04/2019	
	Currency	Amount	Currency	Amount	Currency	Amount
Loans		0.00		0.00		0.00
Loan-Domestic		0.00		0.00		0.00
Loan-Foreign		0.00		0.00		0.00
Total Loans	INR	0.00		0.00	INR	9,045.10
Equity		0.00		0.00		0.00
Foreign		0.00		0.00		0.00
Domestic	INR	0.00		0.00	INR	3,155.95
Total Equity	INR	0.00		0.00	INR	3,155.95
Debt Equity Ratio					74:26	
Total Cost	INR	0.00		0.00	INR	12,201.05

Particulars	Debt	Equity	Total
Addcap for 2019 - 2020			0.00
Addcap for 2020 - 2021			0.00
Addcap for 2021 - 2022			0.00
Addcap for 2022 - 2023			0.00



Addcap for 2023 - 2024			0.00	
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Particulars	Actual	Normative		
<b>Addcap for 2019 - 2020</b>				
Equity		0.00		
Debt		0.00		
Total		0.00		
<b>Addcap for 2020 - 2021</b>				
Equity		0.00		
Debt		0.00		
Total		0.00		
<b>Addcap for 2021 - 2022</b>				
Equity		0.00		
Debt		0.00		
Total		0.00		
<b>Addcap for 2022 - 2023</b>				
Equity		0.00		
Debt		0.00		
Total		0.00		
<b>Addcap for 2023 - 2024</b>				
Equity		0.00		
Debt		0.00		
Total		0.00		
<b>Total Capital cost with Addcap</b>		12,201.05		



**Statement of Additional Capitalisation after COD**

Form No. - 7

Name of the Transmission Licensee		Power Grid Corporation of India Limited	
Project	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Element Description	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Region	Western Region	DOCO Date	Nov 1, 2004

(Amount in Rs. Lakh)

Particulars	Addition into Gross Block as per books of Account during the year (2)	De-Cap into Gross Block as per books of Account during the year	Less: Deductions dr. the year towards				Add: Discharge of earlier admitted liability	ACE on cash basis for tariff purpose	Admitted Cost in final tariff (Rs Lakh)
			Grants Received (if any) (3)	Asset pertaining to other businesses (if any) (4)	Other Deduction (if any) (5)	Less: Undischarged liability included in (2-4-5)			
<b>ACE for the year :2019-20 (Actual/Projected)</b>									
Land (Freehold Land)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building & Civil Works	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Substations	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Land (Leasehold)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IT/Software/UNMS/URTDMS/SCADA,etc	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>ACE for the year :2020-21 (Actual/Projected)</b>									



Land (Freehold Land)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building & Civil Works	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Substations	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Land (Leasehold)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IT/Software/UNMS/URTDISM/ SCADA,etc	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>ACE for the year :2021-22 (Actual/Projected)</b>									
Land (Freehold Land)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building & Civil Works	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Substations	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Land (Leasehold)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IT/Software/UNMS/URTDISM/ SCADA,etc	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>ACE for the year :2022-23 (Actual/Projected)</b>									
Land (Freehold Land)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building & Civil Works	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00





Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Substations	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Land (Leasehold)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IT/Software/UNMS/URTDISM/ SCADA,etc	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>ACE for the year :2023-24 (Actual/Projected)</b>									
Land (Freehold Land)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building & Civil Works	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Substations	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Land (Leasehold)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IT/Software/UNMS/URTDISM/ SCADA,etc	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00



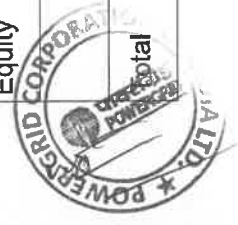
**Financing of Additional Capitalisation**

Form No. - 7A

Name of the Transmission Licensee	Power Grid Corporation of India Limited	
Project	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line	
Element Description	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line	
Region	Western Region	DOC Date   Nov 1, 2004

(Amount in Rs. Lakh)

Financial Year ( Starting of COD)	Actual/Projected					Admitted				
	2019-20	2020-21	2021-22	2022-23	2023-24	2019-20	2020-21	2021-22	2022-23	2023-24
Amount capitalized in Work/ Equipment										
Financing Details										
Total Loan	0.00	0.00	0.00	0.00	0.00					
Equity	0.00	0.00	0.00	0.00	0.00					
	0.00	0.00	0.00	0.00	0.00					



(Petitioner)

**Calculation of ROE**

Form No. - 8

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Element Description	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Region	Western Region	DOCO Date	Nov 1, 2004

(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	3,155.95	3,155.95	3,155.95	3,155.95	3,155.95
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)	3,155.95	3,155.95	3,155.95	3,155.95	3,155.95
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	3,155.95	3,155.95	3,155.95	3,155.95	3,155.95
Average Normative Equity	3,155.95	3,155.95	3,155.95	3,155.95	3,155.95
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	592.75	592.75	592.75	592.75	592.75
Pro rata return on Equity	592.75	592.75	592.75	592.75	592.75



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

Form No. - 9C

Name of the Transmission Licensee		Power Grid Corporation of India Limited			
Project	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line				
Element Description	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line				
Region	Western Region	DOC Date	Nov 1, 2004		

(Amount in Rs. Lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>BOND XII -DOC O</b>					
Gross Loan- Opening	39.00	39.00	39.00	39.00	39.00
Cumulative repayments of Loans upto previous year	39.00	39.00	39.00	39.00	39.00
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	9.70	9.70	9.70	9.70	9.70
Interest on loan	0.00	0.00	0.00	0.00	0.00

<b>BOND - XIII - OPTION - I -DOC O</b>					
Gross Loan- Opening	5,800.00	5,800.00	5,800.00	5,800.00	5,800.00
Cumulative repayments of Loans upto previous year	5,800.00	5,800.00	5,800.00	5,800.00	5,800.00
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	8.63	8.63	8.63	8.63	8.63
Interest on loan	0.00	0.00	0.00	0.00	0.00

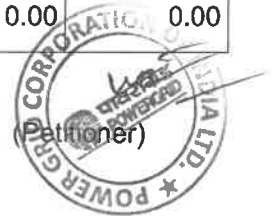
<b>BOND XV -DOCO</b>					
Gross Loan- Opening	2,850.00	2,850.00	2,850.00	2,850.00	2,850.00
Cumulative repayments of Loans upto previous year	2,850.00	2,850.00	2,850.00	2,850.00	2,850.00
Net loan-Opening	0.00	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) 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	6.68	6.68	6.68	6.68	6.68
Interest on loan	0.00	0.00	0.00	0.00	0.00

<b>BOND XVIII -ADDCAP FOR 2005-2006</b>					
Gross Loan- Opening	6.00	6.00	6.00	6.00	6.00
Cumulative repayments of Loans upto previous year	5.00	5.50	6.00	6.00	6.00
Net loan-Opening	1.00	0.50	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	0.50	0.50	0.00	0.00	0.00
Net Loan-Closing	0.50	0.00	0.00	0.00	0.00
Average Net Loan	0.75	0.25	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	0.0611	0.0204	0.00	0.00	0.00



**Summary**

Gross Loan- Opening	8,695.00	8,695.00	8,695.00	8,695.00	8,695.00
Cumulative repayments of Loans upto previous year	8,694.00	8,694.50	8,695.00	8,695.00	8,695.00
Net loan-Opening	1.00	0.50	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	0.50	0.50	0.00	0.00	0.00
Net Loan-Closing	0.50	0.00	0.00	0.00	0.00
Average Net Loan	0.75	0.25	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	8.1467	8.16	8.16	8.16	8.16
Interest on loan	0.0611	0.0204	0.00	0.00	0.00



**Loans in Foreign Currency**

Form No. - 9D

Name of the Transmission Licensee		Power Grid Corporation of India Limited	
Project	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Element Description	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Region	Western Region	DOCO Date	Nov 1, 2004



**Calculation of interest on Normative loan**

Form No. - 9E

Name of the Transmission Licensee		Power Grid Corporation of India Limited	
Project	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Element Description	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Region	Western Region	DOCO Date	Nov 1, 2004

(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	9,045.10	9,045.10	9,045.10	9,045.10	9,045.10
Cumulative repayments of Normative loan upto previous year	7,851.40	8,135.91	8,420.42	8,704.93	8,989.44
Net normative loan-Opening	1,193.70	909.19	624.68	340.17	55.66
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	284.51	284.51	284.51	284.51	55.66
Adjustment of cumulative repayment pertaining to the decapitalised asset	0.00	0.00	0.00	0.00	0.00
Net normative loan - closing	909.19	624.68	340.17	55.66	0.00
Average normative loan	1,051.45	766.94	482.43	197.92	27.83
Weighted Average Rate of interest on actual loan	8.1467	8.16	8.16	8.16	8.16
Interest on normative loan	85.66	62.58	39.37	16.15	2.27
Pro rata interest on normative loan	85.66	62.58	39.37	16.15	2.27





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

Form No. - 10

Name of the Transmission Licensee		Power Grid Corporation of India Limited	
Project	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Element Description	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Region	Western Region	DOCO Date	Nov 1, 2004

(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)	0.00	0.00	0.00	0.00	0.00	0.00
Civil & Building	158.80	0.00	158.80	158.80	3.34	6.01
Transmission Line	0.00	0.00	0.00	0.00	5.28	0.00
Sub Station	12,042.25	0.00	12,042.25	12,042.25	5.28	278.50
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	6.33	0.00
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDMS/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>12,201.05</b>	<b>0.00</b>	<b>12,201.05</b>	<b>12,201.05</b>	<b>0.00</b>	<b>284.51</b>
<b>Weighted Average Rate of Depreciation(%)</b>					<b>2.331848</b>	

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



Civil & Building	158.80	0.00	158.80	158.80	3.34	6.01
Transmission Line	0.00	0.00	0.00	0.00	5.28	0.00
Sub Station	12,042.25	0.00	12,042.25	12,042.25	5.28	278.50
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	6.33	0.00
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDISM/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>12,201.05</b>	<b>0.00</b>	<b>12,201.05</b>	<b>12,201.05</b>	<b>0.00</b>	<b>284.51</b>
<b>Weighted Average Rate of Depreciation(%)</b>					<b>2.331848</b>	

<b>2021-22</b>						
Transmission Line	0.00	0.00	0.00	0.00	5.28	0.00
Land(Freehold)	0.00	0.00	0.00	0.00	0.00	0.00
Civil & Building	158.80	0.00	158.80	158.80	3.34	6.01
Sub Station	12,042.25	0.00	12,042.25	12,042.25	5.28	278.50
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	6.33	0.00
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDISM/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>12,201.05</b>	<b>0.00</b>	<b>12,201.05</b>	<b>12,201.05</b>	<b>0.00</b>	<b>284.51</b>
<b>Weighted Average Rate of Depreciation(%)</b>					<b>2.331848</b>	



<b>2022-23</b>						
Land(Freehold)	0.00	0.00	0.00	0.00	0.00	0.00
Civil & Building	158.80	0.00	158.80	158.80	3.34	6.01
Transmission Line	0.00	0.00	0.00	0.00	5.28	0.00
Sub Station	12,042.25	0.00	12,042.25	12,042.25	5.28	278.50
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	6.33	0.00
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDISM/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>12,201.05</b>	<b>0.00</b>	<b>12,201.05</b>	<b>12,201.05</b>	<b>0.00</b>	<b>284.51</b>
<b>Weighted Average Rate of Depreciation(%)</b>					<b>2.331848</b>	

<b>2023-24</b>						
Land(Freehold)	0.00	0.00	0.00	0.00	0.00	0.00
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	6.33	0.00
Civil & Building	158.80	0.00	158.80	158.80	3.34	6.01
Transmission Line	0.00	0.00	0.00	0.00	5.28	0.00
Sub Station	12,042.25	0.00	12,042.25	12,042.25	5.28	278.50
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDISM/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>12,201.05</b>	<b>0.00</b>	<b>12,201.05</b>	<b>12,201.05</b>	<b>0.00</b>	<b>284.51</b>



Weighted Average Rate of Depreciation(%)					2.331848	
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## Statement of Depreciation

Form No. - 10A

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Element Description	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Region	Western Region	DOC Date	Nov 1, 2004

(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	25.00	25.00	25.00	25.00	25.00
1.2 Lapsed Weighted Average useful life of the Asset/Project(in completed no. of year)	14.00	15.00	16.00	17.00	18.00
1.3 Balance Weighted Average useful life of the Asset/Project(in completed no. of year)	11.00	10.00	9.00	8.00	7.00
<b>Capital Base</b>					
1.4 Opening capital cost	12,201.05	12,201.05	12,201.05	12,201.05	12,201.05
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	12,201.05	12,201.05	12,201.05	12,201.05	12,201.05
1.8 Average capital cost	12,201.05	12,201.05	12,201.05	12,201.05	12,201.05
1.9 Freehold land included in 1.8	0.00	0.00	0.00	0.00	0.00
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	12,201.05	12,201.05	12,201.05	12,201.05	12,201.05
1.12 Depreciable Value(1.10+90% of 1.11)	10,980.95	10,980.95	10,980.95	10,980.95	10,980.95
<b>Depreciation for the period and Cum. Depreciation</b>					
1.13 Weighted Average Rate of depreciation	2.331848	2.331848	2.331848	2.331848	2.331848



1.14 Depreciation(for the period)	284.51	284.51	284.51	284.51	284.51
1.15 Depreciation(Annualised)	284.51	284.51	284.51	284.51	284.51
1.16 Cumulative depreciation at the beginning of the period	7,851.38	8,135.89	8,420.40	8,704.91	8,989.42
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	8,135.89	8,420.40	8,704.91	8,989.42	9,273.93
Unrecovered Depreciation for DECAP	0.00	0.00	0.00	0.00	0.00



**Calculation of interest on working Capital**

Form No. - 11

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Element Description	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Region	Western Region	DOC Date	Nov 1, 2004

(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	10.72	11.09	11.48	11.89	12.30
Maintenance spares 15% of O&M Expenses	19.29	19.97	20.67	21.40	22.15
Receivables equivalent to 45 days of AFC	136.67	134.58	132.12	129.84	128.70
Total Working capital	166.68	165.64	164.27	163.13	163.15
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	20.08	18.63	17.25	17.13	19.58
Pro rata interest on working capital	20.08	18.63	17.25	17.13	19.58

**99**

**Drawdown schedule Calculation of IDC & Financing Charges**

Form No. - 12B

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Element Description	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Region	Western Region	DOCOC Date	Nov 1, 2004

Particulars	Quarter 1				Quarter 2				Quarter n (COD)			
	Quantum in FC	Ex. Rate on Drawn Date	Amount in Indian Rupee	Quantum in FC	Ex. Rate on Drawn Date	Amount in Indian Rupee	Quantum in FC	Ex. Rate on Drawn Date	Amount in Indian Rupee	Quantum in FC	Ex. Rate on Drawn Date	Amount in Indian Rupee
<b>Loans</b>												
<b>Foreign Loans</b>												
<b>Total of Foreign Loans</b>												
<b>Indian Loans</b>												
<b>BOND XII -DOCOC</b>												
Draw Down Account												39.00
<b>Financing Charges</b>												
<b>BOND - XIII - OPTION - I -DOCOC</b>												

(Amount in Rs. Lakh)

100





Draw Down Account											5,800.00
IDC											
Financing Charges											
<b>BOND XV -DOCO</b>											
Draw Down Account											2,850.00
IDC											
Financing Charges											
<b>Total of Indian Loans</b>											8,689.00
<b>Total of Loan Drawn</b>											8,689.00



**Details of Initial Spares**

Name of the Transmission Licensee	Power Grid Corporation of India Limited	
Project	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line	
Element Description	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line	
Region	Western Region	DOCO Date   Nov 1, 2004

**A) Determination of Excess initials spare and its adjustment from Capital cost** (Amount in Rs. Lakh)

Particular	Plant and machinery cost as on cut-off Date	Initial Spare Capitalised as per Books of Account up to Cut-off Date						Total as on Cut off Date	Ceiling limit as mentioned in Regulations 23	Entitled Initial Spare as per Regulations	Excess of capitalised Initial Spare to be reduced from Capital cost	Adjustment of Excess Initial Spare from Capital cost of Plant and machinery		
		As on COD	As ACE dr. Y1	As ACE dr. Y2	As ACE dr. Y3	As ACE dr. Y4	COD					ACE for Y1	ACE for Y2	ACE for Y3
Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0	0				
Substation Green field	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.00	0	0				
Substation Brown field	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.00	0	0				
Series Com. devices and HVDC station	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.00	0	0				
GIS/S- Green field	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	0	0				
GIS/S- Brown field	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.00	0	0				
Communication System	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.50	0	0				



Static Synchronous Compensator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.00	0	0		
IT Equip. & S/w	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0		
Initial spare as per Books of Account	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0		
Un-Discharge Liabilities including	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0		
Discharge of Liabilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0		
Total Capitalized initial spare	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0		



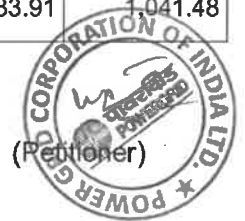
**Summary of Tariff**

Form No. - 1

Name of the Transmission Licensee:	Power Grid Corporation of India Limited		
Project	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Element Description	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Region	Western Region	DOCO Date	Nov 1, 2004

(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	284.51	284.51	284.51	284.49	284.51
Interest on Loan-Form No. 9E	0.00	0.00	0.00	0.00	0.00
Return on Equity-Form No. 8	592.75	592.75	592.75	592.75	592.75
Int. on Working capital-Form No.11	18.15	18.42	18.70	18.95	19.30
Op. and maintenance-Form No.2	118.12	124.32	130.84	137.72	144.92
Total AFC	1,013.53	1,020.00	1,026.80	1,033.91	1,041.48



**Summary of Asset Level Cost**

Form No. - 1A

Name of the Transmission Licensee	Power Grid Corporation of India Limited	
Project	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line	
Element Description	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line	
Region	Western Region	DOC Date   Nov 1, 2004

**A) Summary of Capital Cost, Means of Finance of the Asset**

(Amount in Rs. Lakh)

Particular	i) Apportioned Approved Cost		ii) Summary of Actual / Projected Capital Expenditure Incurred						
	As Per IA	As per RCE	As on COD / 01.04.2024	2024-25	2025-26	2026-27	2027-28	2028-29	As on 31.03.2029
Land (Freehold Land)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building & Civil Works	0.00	0.00	158.80	0.00	0.00	0.00	0.00	0.00	158.80
Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Substations	0.00	0.00	12,042.25	0.00	0.00	0.00	0.00	0.00	12,042.25
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Land (Leasehold)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IT/Software/UNMS/URTDSM/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total Capital Cost as per Books</b>	<b>0.00</b>	<b>0.00</b>	<b>12,201.05</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>12,201.05</b>
Less: Liability	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Add: discharge of liability	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
De-cap During Year As per Books	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total Capital incurred</b>	<b>0.00</b>	<b>0.00</b>	<b>12,201.05</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>12,201.05</b>
Net Equity	0.00	0.00	3,155.95	0.00	0.00	0.00	0.00	0.00	3,155.95
Debt	0.00	0.00	9,045.10	0.00	0.00	0.00	0.00	0.00	9,045.10

101



Name of the Transmission Licensee		Power Grid Corporation of India Limited	
Project	Fixed and Thyrister Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Element Description	Fixed and Thyrister Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Region	Western Region	DOCO Date	Nov 1, 2004

**1. Transmission Lines**

**Summary:**



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			
Rajpur:BAYS	Conventional	400 KV		4.000									Nov 1, 2004	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	4.00	4.00	4.00	4.00	4.00
O&M Claimed	118.12	124.32	130.84	137.72	144.92



**3. Communication System**

**Summary:**

107





**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	0.00	0.00	0.00	0.00	0.00
Substation	118.12	124.32	130.84	137.72	144.92
Communication System	0.00	0.00	0.00	0.00	0.00
<b>Total Normative O&amp;M</b>	<b>118.12</b>	<b>124.32</b>	<b>130.84</b>	<b>137.72</b>	<b>144.92</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>118.12</b>	<b>124.32</b>	<b>130.84</b>	<b>137.72</b>	<b>144.92</b>

108



**Normative parameters considered for tariff computations**

Form No. - 3

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Element Description	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Region	Western Region	DOCOC Date	Nov 1, 2004

(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



**Abstract of existing transmission assets/elements under Project, Determination of Effective COD and weighted Average life for single AFC for the project as whole** Form No. - 4

Name of the Transmission Licensee	Power Grid Corporation of India Limited	
Project	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line	
Element Description	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line	
Region	Western Region	DOCO Date   Nov 1, 2004

**A) Details of All the Asset Covered under the Scope of the Project**

Asset Name	Actual COD of the asset	COD considered for tariff purpose	Effective COD for the project as whole ( Refer C)	Weighted Average useful life of the project (Refer D)	Lapsed useful Life of the project as on 01.04.2024 (Refer E)	(Amount in Rs. Lakh)
						Balance useful Life of the project as on 01.04.2024 ( Refer E)
					19	6

**B) Details as on 01.04.2024 for determination of Single Tariff for the Project Commissioned prior to 01.04.2024**

**C) Computation of Effective COD for determining lapsed useful life of the project as whole**

**D) Weighted Average useful Life of the Project as whole**

**E) Lapsed Weighted average useful life of the project & Balance weighted average Useful life**  
 This refers to the No. of completed years from the effective COD till the last day of the previous tariff period ( i.e. 31.03.2024 )

1) Effective COD	
2) Last date of the previous tariff control period	Mar 31, 2024
3) No. of Completed years lapsed as on 01.04.2024 (2) - (1)	19



4) Remaining useful life ( in year ) (WAL-lapsed year)

6



**Statement of Capital cost**

Form No. -4A

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Element Description	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Region	Western Region	DOC Date	Nov 1, 2004

**A) Capital Cost**

(Amount in Rs. Lakh)

Particular	Accrual Basis	Un-discharged Liabilities	Cash Basis
<b>As on relevant date :2024-25</b>			
a) Opening Gross Block Amount as per books	12,201.05	0.00	12,201.05
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in A(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in A(a) above	0.00	0.00	0.00
<b>As on relevant date :2025-26</b>			
a) Addition in Gross Block Amount during the period	0.00	0.00	0.00
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in B(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in B(a) above	0.00	0.00	0.00
d) De-cap in gross block amount during the year	0.00	0.00	0.00
a) Closing Gross Block Amount as per books	12,201.05	0.00	12,201.05
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in C(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in C(a) above	0.00	0.00	0.00
<b>As on relevant date :2025-26</b>			
a) Opening Gross Block Amount as per books	12,201.05	0.00	0.00
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in A(a) above	0.00	0.00	0.00



c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in A(a) above	0.00	0.00	0.00
a) Addition in Gross Block Amount during the period			
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in B(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in B(a) above	0.00	0.00	0.00
d) De-cap in gross block amount during the year	0.00	0.00	0.00
a) Closing Gross Block Amount as per books			
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in C(a) above	12,201.05	0.00	12,201.05
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in C(a) above	0.00	0.00	0.00
<b>As on relevant date :2026-27</b>			
a) Opening Gross Block Amount as per books			
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in A(a) above	12,201.05	0.00	12,201.05
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in A(a) above	0.00	0.00	0.00
a) Addition in Gross Block Amount during the period			
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in B(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in B(a) above	0.00	0.00	0.00
d) De-cap in gross block amount during the year	0.00	0.00	0.00
a) Closing Gross Block Amount as per books			
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in C(a) above	12,201.05	0.00	12,201.05
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in C(a) above	0.00	0.00	0.00

<b>As on relevant date :2027-28</b>			
a) Opening Gross Block Amount as per books			
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in A(a) above	12,201.05	0.00	12,201.05
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in A(a) above	0.00	0.00	0.00



a) Addition in Gross Block Amount during the period	0.00	0.00	0.00
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in B(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in B(a) above	0.00	0.00	0.00
d) De-cap in gross block amount during the year	0.00	0.00	0.00

a) Closing Gross Block Amount as per books	12,201.05	0.00	12,201.05
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in C(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in C(a) above	0.00	0.00	0.00

**As on relevant date :2028-29**

a) Opening Gross Block Amount as per books	12,201.05	0.00	12,201.05
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in A(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in A(a) above	0.00	0.00	0.00

a) Addition in Gross Block Amount during the period	0.00	0.00	0.00
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in B(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in B(a) above	0.00	0.00	0.00
d) De-cap in gross block amount during the year	0.00	0.00	0.00

a) Closing Gross Block Amount as per books	12,201.05	0.00	12,201.05
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in C(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in C(a) above	0.00	0.00	0.00

**B) Flow of liability for the Asset**

(Amount in Rs. Lakh)

Particular					
Opening balance of liability	0.00	0.00	0.00	0.00	0.00
Add: Liability from ACE	0.00	0.00	0.00	0.00	0.00





Discharge of liability by payment and claimed as ACE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Reversal/cancelation (to be entered)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Closing Balance of Admitted liability	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00



**Details of all the assets covered in the project**

Form No. - 5B

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Rajpur-Rourkela Line		
Element Description	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Rajpur-Rourkela Line		
Region	Western Region	DOCO Date	Nov 1, 2004
		SCOD	

(Amount in Rs. Lakh)



117

**Financial Package upto COD**

Form No. - 6

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Element Description	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Region	Western Region	DOC Date	Nov 1, 2004

(Amount in Rs. Lakh)

Particulars	Financial Package as Approved		Financial Package as on COD 01/04/2024		As Admitted on COD 01/04/2024	
	Currency	Amount	Currency	Amount	Currency	Amount
Loans		0.00		0.00		0.00
Loan-Domestic		0.00		0.00		0.00
Loan-Foreign		0.00		0.00		0.00
Total Loans	INR	0.00		0.00	INR	9,045.10
Equity		0.00		0.00		0.00
Foreign		0.00		0.00		0.00
Domestic	INR	0.00		0.00	INR	3,155.95
Total Equity	INR	0.00		0.00	INR	3,155.95
Debt Equity Ratio					74:26	
Total Cost	INR	0.00		0.00	INR	12,201.05

Particulars	Debt	Equity	Total
Addcap for 2024 - 2025			0.00
Addcap for 2025 - 2026			0.00
Addcap for 2026 - 2027			0.00
Addcap for 2027 - 2028			0.00



Addcap for 2028 - 2029			0.00	
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Particulars	Actual	Normative	
<b>Addcap for 2024 - 2025</b>			
Equity		0.00	
Debt		0.00	
Total		0.00	
<b>Addcap for 2025 - 2026</b>			
Equity		0.00	
Debt		0.00	
Total		0.00	
<b>Addcap for 2026 - 2027</b>			
Equity		0.00	
Debt		0.00	
Total		0.00	
<b>Addcap for 2027 - 2028</b>			
Equity		0.00	
Debt		0.00	
Total		0.00	
<b>Addcap for 2028 - 2029</b>			
Equity		0.00	
Debt		0.00	
Total		0.00	
<b>Total Capital cost with Addcap</b>		12,201.05	



**Statement of Additional Capitalisation after COD**

Form No. - 7

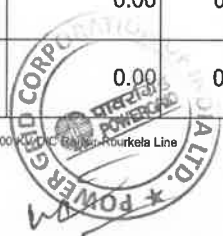
Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Element Description	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Region	Western Region	DOC Date	Nov 1, 2004

(Amount in Rs. Lakh)

Particulars	Addition into Gross Block as per books of Account during the year (2)	De-Cap into Gross Block as per books of Account during the year	Less: Deductions dr. the year towards				Add: Discharge of earlier admitted liability	ACE on cash basis for tariff purpose	Admitted Cost in final tariff (Rs Lakh)
			Grants Received (if any) (3)	Asset pertaining to other businesses (if any) (4)	Other Deduction (if any) (5)	Less: Un-discharged liability included in (2-4-5)			
<b>ACE for the year :2024-25 (Actual/Projected)</b>									
Land (Freehold Land)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building & Civil Works	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Substations	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Land (Leasehold)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IT/Software/UNMS/URTDISM/SCADA,etc	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>ACE for the year :2025-26 (Actual/Projected)</b>									



Land (Freehold Land)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building & Civil Works	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Substations	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Land (Leasehold)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IT/Software/UNMS/URTDSM/SCADA,etc	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>ACE for the year :2026-27 (Actual/Projected)</b>									
Land (Freehold Land)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building & Civil Works	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Substations	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Land (Leasehold)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IT/Software/UNMS/URTDSM/SCADA,etc	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>ACE for the year :2027-28 (Actual/Projected)</b>									
Land (Freehold Land)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building & Civil Works	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00



Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Substations	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Land (Leasehold)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IT/Software/UNMS/URTDSM/ SCADA,etc	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>ACE for the year :2028-29 (Actual/Projected)</b>									
Land (Freehold Land)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building & Civil Works	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Substations	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Land (Leasehold)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IT/Software/UNMS/URTDSM/ SCADA,etc	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00



**Financing of Additional Capitalisation**

Form No. - 7A

Name of the Transmission Licensee		Power Grid Corporation of India Limited	
Project	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Element Description	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Region	Western Region	DOCO Date	Nov 1, 2004

(Amount in Rs. Lakh)

	Actual/Projected						Admitted						
	2024-25	2025-26	2026-27	2027-28	2028-29	2024-25	2025-26	2026-27	2027-28	2028-29			
<b>Financial Year ( Starting of COD)</b>													
<b>Amount capitalized in Work/ Equipment</b>													
<b>Financing Details</b>													
Total Loan	0.00	0.00	0.00	0.00	0.00	0.00							
Equity	0.00	0.00	0.00	0.00	0.00	0.00							
Total	0.00	0.00	0.00	0.00	0.00	0.00							

123





**Calculation of ROE**

Form No. - 8

Name of the Transmission Licensee		Power Grid Corporation of India Limited	
Project	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Element Description	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Region	Western Region	DOCO Date	Nov 1, 2004

(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	3,155.95	3,155.95	3,155.95	3,155.95	3,155.95
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)	3,155.95	3,155.95	3,155.95	3,155.95	3,155.95
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	3,155.95	3,155.95	3,155.95	3,155.95	3,155.95
Average Normative Equity	3,155.95	3,155.95	3,155.95	3,155.95	3,155.95
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
Pro rata return on Equity	592.75	592.75	592.75	592.75	592.75
Return on Equity	592.75	592.75	592.75	592.75	592.75



(Petitioner)

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

Form No. - 9C

Name of the Transmission Licensee		Power Grid Corporation of India Limited	
Project	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Element Description	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Region	Western Region	DOCO Date	Nov 1, 2004

(Amount in Rs. Lakh)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
<b>BOND XII -DOCO</b>					
Gross Loan- Opening	39.00	39.00	39.00	39.00	39.00
Cumulative repayments of Loans upto previous year	39.00	39.00	39.00	39.00	39.00
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	9.70	9.70	9.70	9.70	9.70
Interest on loan	0.00	0.00	0.00	0.00	0.00

<b>BOND - XIII - OPTION - I -DOCO</b>					
Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Gross Loan- Opening	5,800.00	5,800.00	5,800.00	5,800.00	5,800.00
Cumulative repayments of Loans upto previous year	5,800.00	5,800.00	5,800.00	5,800.00	5,800.00
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	8.63	8.63	8.63	8.63	8.63
Interest on loan	0.00	0.00	0.00	0.00	0.00

<b>BOND XV -DOCO</b>					
Gross Loan- Opening	2,850.00	2,850.00	2,850.00	2,850.00	2,850.00
Cumulative repayments of Loans upto previous year	2,850.00	2,850.00	2,850.00	2,850.00	2,850.00
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	6.68	6.68	6.68	6.68	6.68
Interest on loan	0.00	0.00	0.00	0.00	0.00

<b>BOND XVIII -ADDCAP FOR 2005-2006</b>					
Gross Loan- Opening	6.00	6.00	6.00	6.00	6.00
Cumulative repayments of Loans upto previous year	6.00	6.00	6.00	6.00	6.00
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



**Summary**

Gross Loan- Opening	8,695.00	8,695.00	8,695.00	8,695.00	8,695.00
Cumulative repayments of Loans upto previous year	8,695.00	8,695.00	8,695.00	8,695.00	8,695.00
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	8.16	8.16	8.16	8.16	8.16
Interest on loan	0.00	0.00	0.00	0.00	0.00

(Petitioner)



**Loans in Foreign Currency**

Form No. - 9D

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Element Description	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Region	Western Region	DOCO Date	Nov 1, 2004



**128**

**Calculation of interest on Normative loan**

Form No. - 9E

Name of the Transmission Licensee		Power Grid Corporation of India Limited	
Project	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Element Description	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Region	Western Region	DOCO Date	Nov 1, 2004

(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	9,045.10	9,045.10	9,045.10	9,045.10	9,045.10
Cumulative repayments of Normative loan upto previous year	9,045.10	9,045.10	9,045.10	9,045.10	9,045.10
Net normative loan-Opening	0.00	0.00	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	0.00	0.00	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	0.00	0.00	0.00	0.00	0.00
Average normative loan	0.00	0.00	0.00	0.00	0.00
Weighted Average Rate of interest on actual loan	8.16	8.16	8.16	8.16	8.16
Interest on normative loan	0.00	0.00	0.00	0.00	0.00
Pro rata interest on normative loan	0.00	0.00	0.00	0.00	0.00



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

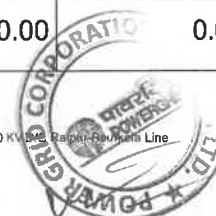
Form No. - 10

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Element Description	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Region	Western Region	DOC Date	Nov 1, 2004

(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)	0.00	0.00	0.00	0.00	0.00	0.00
Civil & Building	158.80	0.00	158.80	158.80	3.34	6.01
Transmission Line	0.00	0.00	0.00	0.00	5.28	0.00
Sub Station	12,042.25	0.00	12,042.25	12,042.25	5.28	278.50
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	15.00	0.00
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDMS/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>12,201.05</b>	<b>0.00</b>	<b>12,201.05</b>	<b>12,201.05</b>	<b>0.00</b>	<b>284.51</b>
<b>Weighted Average Rate of Depreciation(%)</b>					<b>2.331848</b>	

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



Civil & Building	158.80	0.00	158.80	158.80	3.34	6.01
Transmission Line	0.00	0.00	0.00	0.00	5.28	0.00
Sub Station	12,042.25	0.00	12,042.25	12,042.25	5.28	278.50
Batteries	0.00	0.00	0.00	0.00	9.50	0.00
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	15.00	0.00
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDISM/SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
<b>TOTAL</b>	<b>12,201.05</b>	<b>0.00</b>	<b>12,201.05</b>	<b>12,201.05</b>	<b>0.00</b>	<b>284.51</b>
<b>Weighted Average Rate of Depreciation(%)</b>					<b>2.331848</b>	

<b>2026-27</b>						
Land(Freehold)	0.00	0.00	0.00	0.00	0.00	0.00
Civil & Building	158.80	0.00	158.80	158.80	3.34	6.01
Transmission Line	0.00	0.00	0.00	0.00	5.28	0.00
IT/Software/UNMS/URTDISM/SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Sub Station	12,042.25	0.00	12,042.25	12,042.25	5.28	278.50
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	15.00	0.00
Leasehold Land	0.00	0.00	0.00	0.00	3.34	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>12,201.05</b>	<b>0.00</b>	<b>12,201.05</b>	<b>12,201.05</b>	<b>0.00</b>	<b>284.51</b>
<b>Weighted Average Rate of Depreciation(%)</b>					<b>2.331848</b>	





2027-28						
Land(Freehold)	0.00	0.00	0.00	0.00	0.00	0.00
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	15.00	0.00
Civil & Building	158.80	0.00	158.80	158.80	3.34	6.00
Transmission Line	0.00	0.00	0.00	0.00	5.28	0.00
Sub Station	12,042.25	0.00	12,042.25	12,042.25	5.28	278.49
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDISM/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>12,201.05</b>	<b>0.00</b>	<b>12,201.05</b>	<b>12,201.05</b>	<b>0.00</b>	<b>284.49</b>
<b>Weighted Average Rate of Depreciation(%)</b>					<b>2.331685</b>	

2028-29						
Land(Freehold)	0.00	0.00	0.00	0.00	0.00	0.00
Civil & Building	158.80	0.00	158.80	158.80	3.34	6.01
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
Transmission Line	0.00	0.00	0.00	0.00	5.28	0.00
Sub Station	12,042.25	0.00	12,042.25	12,042.25	5.28	278.50
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	15.00	0.00
IT/Software/UNMS/URTDISM/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>12,201.05</b>	<b>0.00</b>	<b>12,201.05</b>	<b>12,201.05</b>	<b>0.00</b>	<b>284.51</b>



Weighted Average Rate of Depreciation(%)					2.331848	
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**Statement of Depreciation**

Form No. - 10A

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Element Description	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Region	Western Region	DOC Date	Nov 1, 2004

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
<b>Life at the beginning of the year</b>					
1.1 Weighted Average useful life of the Asset/ Project	25.00	25.00	25.00	25.00	25.00
1.2 Lapsed Weighted Average useful life of the Asset/Project(in completed no. of year)	19.00	20.00	21.00	22.00	23.00
1.3 Balance Weighted Average useful life of the Asset/Project(in completed no. of year)	6.00	5.00	4.00	3.00	2.00
<b>Capital Base</b>					
1.4 Opening capital cost	12,201.05	12,201.05	12,201.05	12,201.05	12,201.05
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	12,201.05	12,201.05	12,201.05	12,201.05	12,201.05
1.8 Average capital cost	12,201.05	12,201.05	12,201.05	12,201.05	12,201.05
1.9 Freehold land included in 1.8	0.00	0.00	0.00	0.00	0.00
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	12,201.05	12,201.05	12,201.05	12,201.05	12,201.05
1.12 Depreciable Value(1.10+90% of 1.11)	10,980.95	10,980.95	10,980.95	10,980.95	10,980.95
<b>Depreciation for the period and Cum. Depreciation</b>					
1.13 Weighted Average Rate of depreciation	2.331848	2.331848	2.331848	2.331685	2.331848



1.14 Depreciation(for the period)	284.51	284.51	284.51	284.49	284.51
1.15 Depreciation(Annualised)	284.51	284.51	284.51	284.49	284.51
Unrecovered Depreciation for DECAP	0.00	0.00	0.00	0.00	0.00
1.16 Cumulative depreciation at the beginning of the period	9,273.93	9,558.44	9,842.95	10,127.46	10,411.95
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	9,558.44	9,842.95	10,127.46	10,411.95	10,696.46



**Calculation of interest on working Capital**

Form No. - 11

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Element Description	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line		
Region	Western Region	DOCO Date	Nov 1, 2004

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	9.84	10.36	10.90	11.48	12.08
Maintenance spares 15% of O&M Expenses	17.72	18.65	19.63	20.66	21.74
Receivables equivalent to 45 days of AFC	124.96	125.75	126.59	127.12	128.40
Total Working capital	152.52	154.76	157.12	159.26	162.22
Bank Rate as on 01.04.2019 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	18.15	18.42	18.70	18.95	19.30
Pro rata interest on working capital	18.15	18.42	18.70	18.95	19.30



**136**

**Drawdown schedule Calculation of IDC & Financing Charges**

Form No. - 12B

Name of the Transmission Licensee	Power Grid Corporation of India Limited	
Project	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line	
Element Description	Fixed and Thyristor Controlled Series Compensation for 400 KV D/C Raipur-Rourkela Line	
Region	Western Region	DOCO Date   Nov 1, 2004

Particulars	Quarter 1		Quarter 2		Quarter n (COD)	
	Quantum In FC	Ex. Rate on Drawn Down Date Amount in Indian Rupee	Quantum In FC	Ex. Rate on Drawn Down Date Amount in Indian Rupee	Quantum in FC	Ex. Rate on Drawn Down Date Amount in Indian Rupee
Loans						
Foreign Loans						
Total of Foreign Loans						
Indian Loans						
BOND XII -DOCO						
Draw Down Account						39.00
Financing Charges						
BOND - XIII - OPTION - I -DOCO						

137





Summary of Capital Cost & Annual Fixed Cost (AFC) Claimed for ALL the assets covered in the present petition.												
Name of the Petitioner Power Grid Corporation of India Ltd												
Tariff Period 2019-24 & 2024-29												
Name of the Transmission Project "Fixed and Thyristor Controlled Series Compensation for 400 kV D/C Raipur-Rourkela transmission Line at Raipur in Western region"												
Rupees in lakh												
A) Summary of Capital Cost as on COD and Additional Capital Expenditure claimed for all the assets Covered in the instant petition.												
i) Apportioned Approved Cost												
S. No.	Asset No.	COD	As per Investment approval	As per RCE	ii) Summary of Actual / Projected Capital Cost							Capital Cost as on 31.03.2026
					As on COD / 31.03.2019	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	
1	Asset 1	01.11.2004	3	4	5	6	7	8	9	10	12=(5+6+7+8+9)	
---	TOTAL		9690		12201.05	0	0	0	0	0	12201.05	
Total Capital Cost Claimed		12201.05										
B) Summary of Annual Fixed Cost (AFC) claimed for all the assets covered in the instant petition (2019-24)												
Rupees in lakh												
S. No.	Asset No.	Asset Name and its location										
1	Asset 1	Fixed and Thyristor Controlled Series Compensation for 400 kV D/C Raipur-Rourkela transmission Line at Raipur in Western region										
C) Summary of Annual Fixed Cost (AFC) claimed for all the assets covered in the instant petition (2024-29)												
Rupees in lakh												
S. No.	Asset No.	Asset Name and its location										
1	Asset 1	Fixed and Thyristor Controlled Series Compensation for 400 kV D/C Raipur-Rourkela transmission Line at Raipur in Western region										





**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	✓
FORM-2	Details of Transmission Lines and Substations and Communication	✓
FORM-3	Normative parameters considered for tariff computations	✓
FORM- 4	Abstract of existing transmission assets/elements under project,	N.A.
FORM- 4A	Statement of Capital cost	✓
FORM- 4B	Statement of Capital Works in Progress	N.A.
FORM- 4C	Abstract of Capital Cost Estimates and Schedule of Commissioning for	N.A.
FORM-5	Element wise Break-up of Project/ Asset/ Element Cost for	N.A.
FORM-5A	Break-up of Construction/Supply/Service packages	N.A.
FORM-5B	Details of all the assets covered in the project	✓
FORM- 6	Actual Cash Expenditure and Financial Package up to COD	✓
FORM- 7	Statement of Additional Capitalisation after COD	✓
FORM- 7A	Financing of Additional Capitalisation	✓
FORM- 7B	Statement of Additional Capitalisation during five year before the end	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	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	N.A.
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	<b>Details of time over run</b>	N.A.
FORM-12A	Incidental Expenditure during Construction	N.A.
FORM-12B	Calculation of IDC & Financing Charges	✓
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 the assets covered in the present petition.	✓
<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.	NA
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	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	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>		

