

**BEFORE THE HON'BLE CENTRAL ELECTRICITY REGULATORY COMMISSION,
NEW DELHI**

Petition No. ____ /TT/ ____

IN THE MATTER OF: Petition for truing up of Transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block for Combined Assets under **"Kolhapur- Mapusa Transmission System in Western Region"** under Section 62 read with Section 79 (1) (d) of Electricity Act, 2003 and under the Regulation 15 (1) (a) and Regulation 23 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2023 read with Central Electricity Regulatory Commission (Terms and 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

Place: Gurugram

FILED BY

DATED:25.04.2025

POWER GRID CORPORATION OF INDIA LTD.

REPRESENTED BY


Mohd Mohsin

Chief General Manager (Commercial/RC)



**BEFORE THE HON'BLE CENTRAL ELECTRICITY REGULATORY COMMISSION,
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--- **PETITIONER**

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Represented by Its MD

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.

Place: Gurugram

FILED BY

DATED:25.04.2025

POWER GRID CORPORATION OF INDIA LTD.

REPRESENTED BY


Mohd Mohsin

Chief General Manager (Commercial/RC)



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and Others

MEMO OF PARTIES

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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

EMAIL-ANURAG.NAIK@MPPMCL.COM&COMML.DEPTT@MPPMCL.COM

CONTACT NO- 9425805876



REPRESENTED BY ITS MD

2. **MAHARASHTRA STATE ELECTRICITY DISTRIBUTION CO. LTD.**

PRAKASHGAD, PLOT NO G-9, A K MARG, BANDRA (EAST), MUMBAI-400 051

EMAIL- CEPPMSEDCL@GMAIL.COM

CONTACT NO- 9833387967

REPRESENTED BY ITS MD

3. **GUJARAT URJA VIKAS NIGAM LTD.**

SARDAR PATEL VIDYUT BHAWAN, RACE COURSE ROAD, VADODARA - 390 007

EMAIL- DECSP.GUVNL@GEBMAIL.COM

CONTACT NO- 7069009628

REPRESENTED BY ITS MD

4. **ELECTRICITY DEPARTMENT**

VIDYUT BHAWAN, GOVT. OF GOA, PANAJI, GOA - 403 001

EMAIL- CEE-ELEC.GOA@NIC.IN

CONTACT NO- 7350644000

REPRESENTED BY ITS CHIEF ENGINEER (ELECTRICAL)

5. **DNHDD POWER DISTRIBUTION CORPORATION LIMITED**

VIDYUT BHAWAN, 66KV ROAD, NEAR SECRETARIAT, AMLI, SILVASSA - 396 230

EMAIL- BHAVIKSHAH@TORRENTPOWER.COM

CONTACT NO- 9227758405

REPRESENTED BY ITS SECRETARY (FIN.)

6. **CHHATTISGARH STATE POWER DISTRIBUTION COMPANY LIMITED**

P.O. SUNDER NAGAR, DANGANIA, RAIPUR, CHHATTISGARH-492 013

EMAIL- CECOMCSEB@REDIFFMAIL.COM

CONTACT NO- 982618253

REPRESENTED BY ITS CHAIRMAN

PLACE: Gurugram

DATE: 25.04.2025

FILED BY
POWER GRID CORPORATION OF INDIA LTD

REPRESENTED BY:



Mohd Mohsin

Chief General Manager (Commercial/RC)

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MEMO OF APPEARANCE

POWER GRID CORPORATION OF INDIA LTD.

-- PETITIONER

1. Shri Dilip Nagesh Rozekar, Executive Director (Commercial & RC), POWERGRID
2. **Shri Mohd. Mohsin, Chief General Manager, POWERGRID**
3. V.C. Sekhar, Senior General Manager, POWERGRID
4. Shri Zafrul Hasan, General Manager, POWERGRID
5. Shri Vishal Sagar, Deputy General Manager, POWERGRID
6. Shri Arjun Malhotra, Manager (Law), POWERGRID



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

IN WITNESS WHEREOF I have set and subscribed my hands to this writing on this 25th day of April 2025.

FILED BY
POWER GRID CORPORATION OF INDIA LTD.

Place: Gurugram

DATED: 25.04.2025


Mohd Mohsin

Chief General Manager (Commercial/RC)



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and Others

A. Executive Summary of the Petition:

(i) Brief Background of the Petitioner

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:

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

New Asset No.	Asset Name	DOCO/ E-COD	Remark
Combined Asset	400 kV Kolhapur-Mapusa Transmission Line Ckt.-II, ICT-II, Bus Reactor and associated bays	01.12.2002	Earlier covered under Petition No: 211/TT/2020 for True up of 2014-19 and determination of 2024-29 tariff block.
	400 kV Kolhapur-Mapusa Transmission Line Ckt.-I, ICT-I and associated bays	01.01.2003	



(iv) Summary of Claims:

a. POWERGRID is seeking true 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**").

b. The details of FR/RCE approved cost vis-à-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.	Expenditure Up to 31.03.2019/ COD	Particulars	Expenditure during 2019-24 tariff block					Capital Cost as on 31.03.2024
			2019-20	2020-21	2021-22	2022-23	2023-24	
Combined Asset	12337.72	Add-Cap	--	--	--	2837.27	375.37	14989.35
		De-Cap	--	--	--	(280.49)	(280.52)	
		Net Add Cap	--	--	--	2556.78	94.85	

Rs in lakhs

Asset No.	Expenditure Up to 31.03.2024	Particulars	Estimated expenditure during 2024-29 tariff block					Estimated completion Cost as on 31.03.2029
			2024-25	2025-26	2026-27	2027-28	2028-29	
Combined Asset	14989.35	Add-Cap	120.96	346.97	217.73	138.55	--	15773.97
		De-Cap	--	(3.96)	(21.77)	(13.86)	--	
		Net Add Cap	120.96	343.01	195.96	124.69	--	

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

d. 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
Combined Asset -I	AFC approved	1802.47	1809.27	1816.73	1828.43	1840.11
Combined Asset -I (A) (Original Asset)	Revised AFC based on truing up	1796.70	1788.38	1798.03	1848.18	1845.95
Combined Asset -I (B) (New Equipments)	Revised AFC based on truing up	0.00	0.00	0.00	259.18	558.16
Total Combined Asset -I (A+B)	Revised AFC based on truing up	1796.70	1788.38	1798.03	2107.36	2404.11

Tariff claimed for 2024-29 tariff block:

Rs in Lakhs

Name of the asset	Particular	2024-25	2025-26	2026-27	2027-28	2028-29
Combined Asset -I (A) (Original Asset)	AFC	1585.94	1607.08	1629.36	1652.30	1679.10
Combined Asset -I (B) (New Equipments)	AFC	589.43	618.30	658.94	676.93	669.03
Total Combined Asset -I (A+B)	AFC	2175.37	2225.38	2288.30	2329.23	2348.13

B. Detailed Petition:

MOST RESPECTFULLY SHOWETH:

1. Background of Assets:

- a) The petitioner had installed Kolhapur (MSETCL)- Mapusa 400 kV D/C line in the year 2002 /2003 under the scheme titled "400 kV D/C Kolhapur- Mapusa transmission line (Ckt. I and Ckt. II) scheme". The true up for the said asset for tariff block 2014-19 and determination of tariff for 2019-24 was filed vide petition no. 211/TT/2020. The order for the said petition was notified by Hon'ble commission on 23.12.2021



- b) The abovementioned Kolhapur (MSETCL)- Mapusa line was LILOed at Kolhapur (PG) under the scheme SRSS-XVII thereby dividing the Kolhapur (MSETCL)- Mapusa line into two sections viz. Kolhapur (PG)- Mapusa and Kolhapur (PG)- Kolhapur (MSETCL). The said assets were commissioned in 2015. The true up for the tariff block 2014-19 and determination for tariff block 2019-24 was carried out vide petition no. 208/TT/2020. The order for which was notified by the Hon'ble commission on 27.09.2021.
- c) In the third meeting of WRPC held on 14.06.2021, the Kolhapur (MSETCL)- Kolhapur (PG) section was approved for Reconductoring by replacing the old conductors with HTLS conductor. On completion of the said assets in March / Sept -2023, the petition had approached the Hon'ble commission for determination of the tariff for the Reconductoring works vide petition no. 94/TT/2024. Final order in the said petition was notified on 25.10.2024 and Corrigendum notified on , wherein the Hon'ble commission had held that reconductoring does not form new assets. Instead, it is a technical upgradation. Thus, directed the Petitioner to claim the capital cost incurred towards the Reconductoring of Kolhapur (PG) – Kolhapur 400 kV D/c line under Additional Capital Expenditure (ACE) while filing true-up tariff for 2019-24 and determination of tariff for 2024-29 period of original project.
2. 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.
3. 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.
4. That the subject project/petition covers approval of transmission tariff for following Asset:



Asset No.	Asset Name	COD / E-COD	Remark
Combined Asset	Combined Assets under Kolhapur-Mapusa Transmission System in Western Region	01.01.2003	Earlier covered under Petition No: 211/TT/2020

5. Cost detail:

The details of admitted cost for the assets covered in the instant petition as per Hon'ble Commission order dated 23.12.2021 in petition no. 211/TT/2020 **(Encl-1)** for 2019-24 tariff block, and claimed cost now is given hereunder:

Cost allowed as per order in petition no. 211/TT/2020 (A)							
Capital cost as on 31.03.2019	Particular	Expenditure during 2019-24 tariff block					Capital cost as on 31.03.2024
		2019-20	2020-21	2021-22	2022-23	2023-24	
12337.72	Add-Cap	--	--	--	--	--	12337.72
	De-Cap	--	--	--	--	--	
	Net Add-Cap	--	--	--	--	--	
Cost claimed in the instant petition (B)							
12337.72	Add-Cap	--	--	--	2837.27*	375.37 *	14989.35
	De-Cap	--	--	--	(280.49) @	(280.52) @	
	Net Add Cap	--	--	--	2556.78	94.85	
Variation (B-A)					2556.78	94.85	2651.63

* The add-cap of ₹3212.64 Lakhs incurred during 2019-24 is on account of reconductoring of Kolhapur (PG) -Kolhapur (MSETCL) 400 kV D/C line from Kolhapur (MSETCL) to LILO point of Kolhapur (MSETCL) -Mapusa 400 kV D/C line.

@ The De-cap of ₹ 561.01 Lakhs incurred during 2019-24 is on account of removal of old Conductor.



5.1 Capital cost details for 2024-29 tariff block:

(₹ in Lakhs)

Asset No.	Expenditure Up to 31.03.2024	Particulars	Estimated expenditure during 2024-29 tariff block					Estimated completion Cost as on 31.03.2029
			2024-25	2025-26	2026-27	2027-28	2028-29	
Combined Asset	14989.35	Add-Cap	120.96 ^	346.97 ^\$	217.73 \$	138.55 \$	--	15773.97
		De-Cap	--	(3.96) &	(21.77) &	(13.86) &	--	
		Net Add Cap	120.96	343.01	195.96	124.69	--	

^ The add-cap of ₹428.34 Lakhs (₹120.96 lakhs in FY 2024-25 + ₹307.38 lakhs in FY 2025-26) is on account of reconductoring of Kolhapur (PG) -Kolhapur (MSETCL) 400 kV D/C line from Kolhapur (MSETCL) to LILO point of Kolhapur (MSETCL) -Mapusa 400 kV D/C line.

\$ The add-cap of ₹395.87 Lakhs (₹39.59 lakhs in FY 2025-26 + ₹217.73 lakhs in FY 2026-27 + ₹138.55 lakhs in FY 2027-28) is on account of Replacement of Bushing of ICT and Reactor at Mapusa Substation.

& The De-cap of ₹ 39.59 Lakhs incurred during 2024-29 is on account of removal of Bushing from ICT and Reactor at Mapusa Substation.

5.2 Details of the cost claimed in the instant petition w.r.t. Auditor Certificate is as shown below:

Combined Asset								
Expenditure	Land-Free Hold	Land-Lease hold	Building & civil work	Trans. Lines	Sub-Station	Comm. Sys. excluding Fiber Optic	I.T Equipment including software	Total
Capital cost as admitted by CERC vide order dated 23.12.2021 in 211/TT/2020	42.16	0.00	1209.44	7134.53	3796.96	154.63	0.00	12337.72
Expenditure from 01.04.2022 to 31.03.2023	0.00	0.00	0.00	2658.39	178.88	0.00	0.00	2837.27
De Capitalization from 01.04.2022 to 31.03.2023	0.00	0.00	0.00	-217.25	-63.23	0.00	0.00	-280.49
Expenditure from 01.04.2023 to 31.03.2024	0.00	0.00	0.00	309.02	66.35	0.00	0.00	375.37

Combined Asset								
Expenditure	Land-Free Hold	Land-Lease hold	Building & civil work	Trans. Lines	Sub-Station	Comm. Sys. excluding Fiber Optic	I.T Equipment including software	Total
De Capitalization from 01.04.2023 to 31.03.2024	0.00	0.00	0.00	-217.28	-63.23	0.00	0.00	-280.52
Estimated Expenditure from 01.04.2024 to 31.03.2025	0.00	0.00	0.00	91.03	29.92	0.00	0.00	120.96
Estimated Expenditure from 01.04.2025 to 31.03.2026	0.00	0.00	0.00	229.34	117.63	0.00	0.00	346.97
Estimated De-Capitalization from 01.04.2025 to 31.03.2026	0.00	0.00	0.00	0.00	-3.96	0.00	0.00	-3.96
Estimated Expenditure from 01.04.2026 to 31.03.2027	0.00	0.00	0.00	0.00	217.73	0.00	0.00	217.73
Estimated De-Capitalization from 01.04.2026 to 31.03.2027	0.00	0.00	0.00	0.00	-21.77	0.00	0.00	-21.77
Estimated Expenditure from 01.04.2027 to 31.03.2028	0.00	0.00	0.00	0.00	138.55	0.00	0.00	138.55
Estimated De-Capitalization from 01.04.2027 to 31.03.2028	0.00	0.00	0.00	0.00	-13.86	0.00	0.00	-13.86
Total estimated completion cost	42.16	0.00	1209.44	9987.77	4379.97	154.63	0.00	15773.97

The copy of the auditor certificate w.r.t. claimed cost in the instant petition is enclosed as
Encl-2.



6. ADD CAP Details:

6.1 Add cap for 2019-24 block: -

Petitioner had filed the Petition No. 94/TT/2024 for determination of transmission tariff under Tariff Regulations, 2019 for below mentioned assets implemented under "Transmission system strengthening beyond Kolhapur for export of power from Solar & Wind energy zones in Southern Region - Re-conductoring of Kolhapur (PG) - Kolhapur 400 kV D/c line".

Asset-1: Reconductoring of 400kV Kolhapur (PG) – Kolhapur (MSETCL) TL - Ckt 1 along with upgradation of 400kV bays at Kolhapur (MSETCL) substation

Asset-2: Reconductoring of 400kV Kolhapur (PG) – Kolhapur (MSETCL) TL - Ckt 2 along with upgradation of 400kV bays at Kolhapur (MSETCL) substations.

This Hon'ble Commission, in its order dated 25.10.2024, held that reconductoring does not form new assets. Instead, it is a technical upgradation. Thus, directed the Petitioner to claim the capital cost incurred towards the Reconductoring of Kolhapur (PG) – Kolhapur 400 kV D/c line under Additional Capital Expenditure (ACE) while filing true-up tariff for 2019-24 and determination of tariff for 2024-29 Period of original project.

In line with the Commission's directions, the Petitioner respectfully requests the Hon'ble Commission to allow the add-cap incurred on account of reconductoring of Kolhapur (PG) -Kolhapur (MSETCL) 400 kV D/C line from Kolhapur (MSETCL) to LILO point of Kolhapur (MSETCL) -Mapusa 400 kV D/C line during 2019-24 tariff block.

Asset	Add cap detail (Rs. Lakhs)									
	2019-20		2020-21		2021-22		2022-23		2023-24	
	Add cap	De cap	Add cap	De cap	Add cap	De cap	Add cap	De cap	Add cap	De cap
Combined Asset	-	-	-	-	-	-	2837.27	-280.49	375.37	-280.52
Claimed under 2019 Tariff Regulations	-		-				Claimed as directed by the Hon'ble Commission in 94/TT/2024 and covered under regulation 25(2) of the 2019 Tariff Regulations.		Claimed as directed by the Hon'ble Commission in 94/TT/2024 and covered under regulation 25(2) of the 2019 Tariff Regulations	



6.2 Add cap for 2024-29 block:

Further to this, Replacement of Old bushings in ICT and Bus Reactors at Mapusa Substation is also claimed under the present petition and same is in accordance with the clause 25(2) of Tariff regulations, 2024.

Quote:

"Additional Capitalization within the original scope and after the cut-off date:

(2) In case of replacement of assets deployed under the original scope of the existing project after cut-off date, the additional capitalization may be admitted by the Commission, after making necessary adjustments in the gross fixed assets and the Cumulative depreciation, subject to prudence check on the following grounds:

- (a) Assets whose useful life is not commensurate with the useful life of the project and such assets have been fully depreciated in accordance with the provisions of these regulations.*
- (b) The replacement of the asset or equipment is necessary on account of a change in law or Force Majeure conditions.*
- (c) The replacement of such asset or equipment is necessary on account of obsolescence of technology; and*
- (d) The replacement of such asset or equipment has otherwise been allowed by the Commission.*
- (e) The additional expenditure, excluding recurring expenses covered in O&M expenses, involved in relation to the renewal of lease of lease hold land on case-to-case basis.*

Provided that any claim of additional capitalisation with respect to the replacement of assets under the original scope and on account of obsolescence of technology, less than Rs. 20 lakhs shall not be considered as part of Capital cost and shall be met through normative O&M expenses."

Unquote:



Asset	Particulars	Add cap detail (Rs. Lakhs)				
		2024-25	2025-26	2026-27	2027-28	2028-29
Combined Asset	Add-Cap	120.96	346.97	217.73	138.55	--
	De-Cap	--	(3.96)	(21.77)	(13.86)	--
	Net Add Cap	120.96	343.01	195.96	124.69	--
Claimed under 2024 Tariff Regulations		Claimed as directed by the Hon'ble Commission in 94/TT/2024 and covered under regulation 25(2) of the 2024 Tariff Regulations.	Claimed as directed by the Hon'ble Commission in 94/TT/2024 and covered under regulation 25(2) of the 2024 Tariff Regulations.	25(2)	25(2)	25(2)

7. Justification for the ACE proposed to be incurred during 2024-29 tariff block:

7.1 Reconductoring of Kolhapur (PG) -Kolhapur (MSETCL) 400 kV D/C line from Kolhapur (MSETCL) to LILO point of Kolhapur (MSETCL) -Mapusa 400 kV D/C line:

Petitioner has filed the Petition No. 94/TT/2024 for determination of transmission tariff under Tariff Regulations, 2019 for below mentioned assets implemented under "Transmission system strengthening beyond Kolhapur for export of power from Solar & Wind energy zones in Southern Region - Re-conductoring of Kolhapur (PG) - Kolhapur 400 kV D/c line".

Asset-1: Reconductoring of 400kV Kolhapur (PG) – Kolhapur (MSETCL) TL - Ckt 1 along with upgradation of 400kV bays at Kolhapur (MSETCL) substation

Asset-2: Reconductoring of 400kV Kolhapur (PG) – Kolhapur (MSETCL) TL - Ckt 2 along with upgradation of 400kV bays at Kolhapur (MSETCL) substations.

This Hon'ble Commission, in its order dated 25.10.2024, held that reconductoring does not form new assets. Instead, it is a technical upgradation.

Thus, directed the Petitioner to claim the capital cost incurred towards the Reconductoring of Kolhapur (PG) – Kolhapur 400 kV D/c line under Additional Capital

Expenditure (ACE) while filing true-up tariff for 2019-24 and determination of tariff for 2024-29 Period of original project.

In line with the Commission's directions, the Petitioner respectfully requests the Hon'ble Commission to allow the claim for the Estimated capital expenditure incurred/projected to incur on account of reconductoring of Kolhapur (PG) -Kolhapur (MSETCL) 400 kV D/C line from Kolhapur (MSETCL) to LILO point of Kolhapur (MSETCL) -Mapusa 400 kV D/C line during 2024-29 tariff block.

7.2 Replacement of Old bushings in ICT and Bus Reactors at Mapusa SS (24 Nos):

POWERGRID operates and maintains more than 3800 transformers and reactors. Many of these transformers/ reactors have been in service for more than 25 years. One of the important failure modes in Transformer/Reactor is the failure of Bushings. The following are the major inputs gathered from various CIGRE Technical Brochures (Extracts attached as Annexure-I) as well as industry practices:

- a) As per CIGRE TB642, global Bushing failure is the third most common reason for failure of transformer after Winding & OLTC failure. In Indian scenario failure due to Bushing is even more prominent due to manufacturing issues observed in certain make bushings.
- b) CIGRE TB 887 (Life extension of oil filled transformers and shunt reactors) recommends strategic replacement of bushings which can have a positive impact on transformer reliability thus potentially increasing life of transformers. It also gives a rule of thumb that bushings need to be replaced once during the life of a transformer.
- c) CIGRE TB 755 (Transformer Bushing Reliability) mentions that incipient bushing fault can quickly (1ms) or slowly (10 years) develop into failure and no diagnostic method exists, on-line or off-line, which can prevent such fast-developing incipient failures.
- d) From 2015 onwards Resin Impregnated Paper/ Synthetic (RIP/RIS) bushings are being specified in POWERGRID instead of Oil Impregnated Paper (OIP) bushings. CEA has also mandated use of RIP/ RIS bushings (HV & IV) for 400kV Transformers & Reactors and OIP/RIP/RIS bushings for LV. This has been done due to lower consequential damage in the event of failure of RIP/ RIS bushings. Domestic

manufacturing of RIP/RIS bushings has recently been started under Make in India initiative.

In view of the above, it may be mentioned that older bushings which are in service for more than 25 years of life and are already approaching the end of useful life are a potential hazard to the transformer/ reactor. Besides, these bushings are all OIP type bushing which can cause failure of transformer/ reactor. In the past also failure of bushings occurred at many substations of POWERGRID led to failure of Transformers. Therefore, it is advisable to take pre-emptive action for the replacement of such bushings. Hence, in view of above it is proposed to replace 24 nos. bushings of ICTs and Bus Reactor at Mapusa SS which are going to complete 25 years of useful life during tariff block 2024-29.

That the said ACE is claimed under Regulation 25 (2) of 2024 Tariff regulation. Hon'ble Commission is requested to kindly allow the ACE as claimed in the instant petition.

The Debt: Equity ratio of the instant project was 74.19: 25.81 as on 01.04.2014. The details are included in Form-10B and the same is enclosed hereto as **Encl-3**.

Rs. in lakhs

Financial Year	Head	De-cap amount	Debt	Equity	Cumulative repayment	Cumulative Depreciation	Unrecovered Depreciation
2022-23	Trans. Lines	217.25	161.18	56.07	140.13	157.25	38.28
2022-23	Substation	63.23	46.91	16.32	44.14	49.53	7.38
2023-24	Trans. Lines	217.28	161.20	56.08	142.85	159.66	35.90
2023-24	Substation	63.23	46.91	16.32	45.42	50.76	6.15
2025-26	Substation	3.96	2.94	1.02	2.94	3.33	0.23
2026-27	Substation	21.77	16.15	5.62	16.15	18.75	0.84
2027-28	Substation	13.86	10.28	3.58	10.28	12.21	0.27

It is submitted that in CERC (Terms & Conditions of Tariff) Regulations 2019, no specific clause was available for the timeline within which the depreciation for the Add-cap of existing assets to be recovered. However, in CERC (Terms & Conditions of Tariff) Regulations, 2024, recovery timeline of depreciation for the Add-cap of existing assets is stipulated in Regulation 33 (8) and the same is given here below:



Quote

The generating company or the transmission licensee, as the case may be, shall submit the details of capital expenditure proposed to be incurred five years before the completion of useful life along with proper justification and proposed life extension. The Commission, based on prudence check of such submissions, shall approve the depreciation by equally spreading the depreciable value over the balance Operational Life of the generating station or unit thereof or fifteen years, whichever is lower, and in case of the transmission system shall equally spread the depreciable value over the balance useful life of the Asset or 10 years whichever is higher.

Unquote

In the subject project, additional capital expenditure (Add-Cap) has been incurred in 2022-23 and 2023-24 during 2019-24 tariff block and 2024-25, 2025-26, 2026-27, 2027-28 during 2024-29 tariff block towards Reconductoring works and Replacement of ICT and Reactor Bushings at Mapusa Substation. The balance weighted average useful life of the asset/project is 15 years as on 01.04.2019. Accordingly, as per above said Regulation 33(8), proposed additional capital expenditure (Add-Cap) during 2024-29 tariff block, in the instant project, is being recovered equally spread, in 10 years from the first year of add-cap of 2024-29 tariff block i.e. FY 2024-25.

It is further submitted that in the instant project, the tariff has been computed in two parts, first for the existing asset and second for the actual/proposed Add-Cap during 2019-24 & 2024-29 tariff block. The de-cap corresponding to Add-cap of 2019-24 & 2024-29 is being done in existing asset.

8. Claims regarding Unrecovered Depreciation: -

8.1 Unrecovered Depreciation due to Re-conductoring works

It is respectfully submitted that the Re-conductoring of Kolhapur (PG) – Mapusa 400 kV D/c line was as per the decision of the RPC, approved in the 3rd meeting of the Western Regional Power Committee (WRPC) held on 14.06.2021. Furthermore, the scheme was recommended for implementation through the Regulated Tariff Mechanism (RTM) route in the 5th meeting of the National Committee on Transmission (NCT) held on 25.08.2021 and 02.09.2021. Subsequently, the Ministry of Power, Government of India, vide Office Memorandum (OM) dated 01.12.2021, awarded the subject scheme for implementation under the regulated tariff mechanism

mode by POWERGRID, which is the designated implementing agency. Relevant extracts of the minutes of the meetings are enclosed herewith as **Encl. -6**.

Considering the decisions made by the above statutory planning forums, the old conductors of the transmission line were replaced with High Temperature Low Sag (HTLS) conductors from Kolhapur (MSETCL) to LILO point of Kolhapur (MSETCL) - Mapusa 400 kV D/C line under Kolhapur Mapusa Transmission system. As a result, the Petitioner has decapitalized the cost of the old reconductors, which were removed from the gross block of the tariff block for the period 2019-2024. Detailed information regarding the decapitalization of the capital cost is provided in Para E.2.

Since the Petitioner was required to replace the conductors with HTLS as part of the system upgradation, the Petitioner respectfully prayed that this Hon'ble Commission allow the one-time recovery of the below mentioned unrecovered depreciation.

₹ in lakhs			
Financial Year	Head	De-cap amount	Unrecovered Depreciation
2022-23	Trans. Lines	217.25	38.28
2022-23	Substation	63.23	7.38
2023-24	Trans. Lines	217.28	35.90
2023-24	Substation	63.23	6.15

This Hon'ble Commission may be pleased to appreciate that:

- Depreciation, as an element of tariff, is allowed at the applicable rate over the useful life of the asset, covering up to 90% of the asset's value (excluding land). Depreciation is a crucial tariff element that serves to recover the cost of investment. The servicing of 70% of the investment through interest on loan covers only the payment to the lenders in a deferred manner for the debt borrowed and does not account for the principal amount of the loan. Similarly, the 30% equity investment is serviced only through the return on equity. Upon decapitalization of the asset, the depreciation associated with that asset ceases. Thus, the unrecovered depreciation for the remainder useful life of the asset is the sole means to recoup the value of the investment.
- The reconductoring of the subject transmission line was not due to any deficiency, default, or failure attributable to the Petitioner. The replacement was necessitated by system upgradation requirements which were approved in statutory planning forum as detailed above. The Petitioner, as a transmission licensee, is merely mandated to



implement the upgradation and replacement schemes as planned and approved by these forums. Therefore, the Petitioner should not be deprived of its legitimate right to recover the capital investment already made in form of unrecovered depreciation in accordance with the principles established under the Electricity Act, 2003 and Tariff Regulations framed under it.

- c. In view of the above, the Petitioner respectfully requests that this Hon'ble Commission remedy the present situation by allowing for the one-time recovery of depreciation. The Hon'ble Commission may exercise its regulatory powers, including the power to relax and/or remove difficulties, considering the unique facts and circumstances of this case.

8.2 Unrecovered Depreciation due to Replacement of Old bushings in ICT and Bus Reactors at Mapusa SS

The Petitioner was required to replace the Old bushings in ICT and Bus Reactors at Mapusa SS as part of the system upgradation to increase the life of transformer and reactor, the Petitioner respectfully prayed that this Hon'ble Commission allow the one-time recovery of the below mentioned unrecovered depreciation as per Regulation 35 of Tariff Regulations, 2024.

Quote

"Regulation 35. De-Commissioning

(1) In case a generating station or unit thereof, or a transmission system including communication systems or element thereof after it is certified by CEA or CTU or any other statutory authority, that any asset cannot be operated or needs to be replaced on account of environmental concerns or safety issues or system upgradation or a combination of these factors not attributable to generating company or a transmission licensee, the unrecovered depreciable value may be allowed to be recovered on a case-to-case basis after duly adjusting the salvage value or realisation value, whichever is higher, post disposal of such project.

Provided that the manner of recovery, including a number of instalments in which such unrecovered depreciation will be allowed, shall be specified by the Commission on a case-to-case basis.

Provided further that no carrying cost shall be allowed on any delay associated with such recovery.."

Unquote



The amount of decapitalization on the above account and the unrecovered depreciation are as mentioned below:

₹ in lakhs			
Financial Year	Head	De-cap amount	Unrecovered Depreciation
2025-26	Substation	3.96	0.23
2026-27	Substation	21.77	0.84
2027-28	Substation	13.86	0.27

9. Transmission tariff:

As per Regulation 13 of Tariff Regulations, 2019 quoted below for ready reference, the truing up exercise for the period 2019-2024 is to be done at the time of filing tariff petition for next block, i.e. 2024-29 period

Regulation 13 of Tariff Regulations, 2019:

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 Regulations, 2019 dated 07.03.2019 in the truing up petition for 2019-24 tariff block.

Regulation 31 (3) of the Tariff Regulations, 2019:

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 have 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 & 2023-24.

As such, basis of year wise effective tax rate and Grossed up ROE to be 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	Actual Tax paid	31,32,12,38,737	1,79,26,53,31,597	17.472%	18.782%

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 FY 2021-22, FY 2022-23 and FY 2023-24 are based on the Income-tax returns filed, for the purpose of grossing up of ROE rate of respective years.

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 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 29.04.2023 in petition no. 196/TT/2022, 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.

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

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

Rs in Lakh						
Name of the asset	Particular	2019-20	2020-21	2021-22	2022-23	2023-24
Combined Asset -I	AFC approved	1802.47	1809.27	1816.73	1828.43	1840.11
Combined Asset -I (A) (Original Asset)	Revised AFC based on truing up	1796.70	1788.38	1798.03	1848.18	1845.95
Combined Asset -I (B) (New Equipments)	Revised AFC based on truing up	0.00	0.00	0.00	259.18	558.16
Total Combined Asset -I (A+B)	Revised AFC based on truing up	1796.70	1788.38	1798.03	2107.36	2404.11

Tariff Filing Formats along with the other relevant information and supporting documentation are attached hereto as **Encl-4**.

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.

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

Rs in Lakh

Name of the asset	Particular	2024-25	2025-26	2026-27	2027-28	2028-29
Combined Asset -I (A) (Original Asset)	AFC	1585.94	1607.08	1629.36	1652.30	1679.10
Combined Asset -I (B) (New Equipments)	AFC	589.43	618.30	658.94	676.93	669.03
Total Combined Asset -I (A+B)	AFC	2175.37	2225.38	2288.30	2329.23	2348.13

Tariff Filing Formats along with the other relevant information and supporting documentation are attached hereto as **Encl-5**.

12. The subject asset is having actual/proposed Add-Cap from FY 2022-23 onwards, hence, the balance life of the subject asset is extended 12 years from FY 2022-23 as per Regulation 33(8) of Tariff Regulations'2024 and depreciation of proposed additional capital expenditure (Add-Cap) during 2024-29 tariff block, in the instant project, is being calculated equally spread, in 10 years from the first year of 2024-29 tariff block i.e. FY 2024-25. The details have been computed and are provided in Form-10 A.



13. That, it is submitted that the petitioner is currently liable to pay income tax at MAT rate specified in Income-tax Act, 1961. Therefore, ROE has been calculated @ 18.782% after grossing up the ROE with MAT rate of 17.472% (Base Rate 15% + Surcharge 12% + Cess 4%) based on the formula given at regulation 31 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024 for 2024-29 period. That as per clause 31 (3) of the above regulation, the grossed-up rate of ROE at the end of every financial year shall be trued up based on actual tax paid together with any additional tax demand including interest thereon duly adjusted for any refund of tax including interest received from the IT authorities pertaining to the tariff period 2024-29 on actual gross income of any financial year. However, penalty, if any, arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the generating company or the transmission licensee, as the case may be. Any under-recovery or over-recovery of grossed up rate on ROE after truing up shall be recovered or refunded to beneficiaries or the long-term customers, as the case may be on year to year basis. It is further submitted that adjustment due to any additional tax demand including interest duly adjusted for any refund of tax including interest received from IT authorities shall be recoverable /adjustable during the tariff period 2024-29 on year to year basis on receipt of Income Tax assessment order.
14. 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 I 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.
15. 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 supporting documents for rate of interest, a compendium of floating rate of interest of various loans during the tariff period 2019-24 has been submitted along with the truing up petition of **POWERGRID Works associated with Transmission system Strengthening in WR associated with Khargone TPS with Diary No. 716/2024**. These documents/details are also available on our website WWW.POWERGRID.IN

16. The transmission charges at para-10 & 11 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.
17. 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.

a. 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 20.04.2025 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.

b. 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.



c. 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.

18. 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.

19. 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.
20. The Transmission Charges and other related Charges indicated at para 10 & 11 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.

21. Cutoff date for filing True up petition

As per CERC Tariff regulation 2024, the cut-off date for filing true up petitions for the 2019-24 tariff block was 30.11.2024. Subsequently CERC vide order no. 443/MP/2024, dt: 28.11.2024, para-9b directed the following:

QUOTE

In the case of the existing assets, where the final orders for the 2019-24 tariff period are yet to be issued as on 31.3.2024, the tariff Petitions for truing up of the tariff for the 2019-24 tariff period and the determination of tariff for the 2024-29 tariff period may be filed by the Petitioner within six months from the date of issue of the final order for the 2019-24 tariff period.

UNQUOTE

As the instant petition has been prepared incorporating the direction of Hon'ble commission passed vide order dated 25.10.2024 & Corrigendum dated 21.04.2025 in petition no. 94/TT/2024, the same qualifies the petitioner to file the instant petition within the timeframe of 6 months from the issuance of order in petition 94/TT/2024. Thus, the instant petition has been filed within prescribed timeline.

22. Sharing Transmission Charges

Truing up tariff for Transmission of Electricity (Annual Fixed Charges) for 2019-24 as per para 10 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 accordance with the Central Electricity Regulatory Commission (Sharing of Inter State Transmission Charges and Losses) Regulations, 2010 & 2020 or as amended from time to time.

Tariff for Transmission of Electricity (Annual Fixed Charges) for 2024-29 as per para 11 for 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 accordance with the Central Electricity Regulatory Commission (Sharing of Inter State Transmission Charges and Losses) Regulations, 2020 or as amended from time to time.

In the circumstances mentioned above, it will be just and proper that the transmission tariff for the assets 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-7 may please be treated as an integral part of this petition.**

23. PRAYER

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

- i) 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 10 and 11 above.
- ii) Admit the capital cost claimed, additional capitalization and De-Capitalization incurred during 2019-24 and 2024-29 tariff block.
- iii) Allow the recovery of unrecovered depreciation arising due to the decapitalization of assets pursuant to the reconductoring works undertaken on the subject asset as detailed in Para 8, in exercise of the regulatory powers of this Hon'ble Commission and/or its power to relax or to remove difficulties, in the interest of equity and justice.

Allow the recovery of unrecovered depreciation arising due to the replacement of old bushings in ICTs and Bus Reactors at Mapusa Substation, as detailed in Para 8, and in terms of Regulation 35 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024.

- iv) 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 10 and 11 above for respective block.



Further it is submitted that deferred tax liability before 01.04.2009 shall be recoverable from beneficiaries or long-term customers / DIC as the case may be, as and when the same has 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.

- v) 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 petitions.
- vi) 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.
- vii) 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.
- viii) 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-17 above
- ix) 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-17 above.
- x) Allow the petitioner to file a separate petition before Hon'ble Commission for claiming the overall capital spares as mentioned at Para 17 above.
- xi) Allow the petitioner to claim expenses of CTUIL borne by POWERGRID through a separate petition as mentioned at para-18 above.



xii) 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 recover 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

Place: Gurugram

DATED: 25.04.2025

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

REPRESENTED BY


**Mohd Mohsin
Chief General Manager (Commercial/RC)**



**BEFORE THE HON'BLE CENTRAL ELECTRICITY REGULATORY COMMISSION,
NEW DELHI**

Petition No. ____ /TT/ ____

IN THE MATTER OF: Petition for truing up of Transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block for Combined Assets under **"Kolhapur- Mapusa Transmission System in Western Region"** under Section 62 read with Section 79 (1) (d) of Electricity Act, 2003 and under the Regulation 15 (1) (a) and Regulation 23 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2023 read with Central Electricity Regulatory Commission (Terms and 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

AFFIDAVIT VERIFYING THE PETITION

I, Mohd Mohsin, S/O Late Sh. Akhtar Hasan, working as Chief General Manager (Commercial/RC) in the Power Grid Corporation of India Limited., 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 1 to 23 of the facts 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 1 to 23 of the Petition are believed to be true based on the legal advice received.
4. That the annexures annexed to the Petition are correct and true copies of the respective originals.
5. That the Deponent has not filed any other Petition or Appeal before any other forum or court of law with respect to the subject matter of the dispute


(DEPONENT)

VERIFICATION

Solemnly affirmed at Gurgaon on this 25th day of April' 2025 that the contents of the above affidavit are true to my knowledge and belief and no part of it is false and nothing material has been concealed there from.


(DEPONENT)



ATTESTED
25/4/2025
MAHENDER S. PUNIA
ADVOCATE & NOTARY
Distt. Gurugram (Haryana) India



Ref: CC/Commercial/2024

Date: 28.08.2024

LETTER OF AUTHORIZATION

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

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

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

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


28/08/2024

Dilip Nagesh Rozekar

Executive Director (Commercial & RC)

दिलीप रोजेकर / DILIP ROZEKAR

Executive Director (Commercial & Regulatory Cell)

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



केन्द्रीय कार्यालय : "सौदामिनी" प्लॉट सं. 2, सेक्टर-29, गुरुग्राम-122001, (हरियाणा), दूरभाष : 0124-2571700-719
Corporate Office : "Saudamini", Plot No. 2, Sector-29, Gurugram-122001, (Haryana) Tel. : 0124-2571700-719

पंजीकृत कार्यालय : बी-9, कुतब इंस्टीट्यूशनल एरिया, कटवारीया सराय, नई दिल्ली-110016 011-26560112, 26564812, 26564812, 26564892, सीआईएन : L40101DL1989GOI038121
Registered Office : B-9, Qutab Institution Area, Katwaria Sarai, New Delhi-110016. Tel.: 011-26560112, 26564812, 26564812, 26564892, CIN : L40101DL1989GOI038121
Website : www.powergridindia.com

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 211/TT/2020

Coram:

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

Date of order: 23.12.2021

In the matter of:

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and revision of transmission tariff of the 2001-04, 2004-09 and 2009-14 tariff periods and truing up of transmission tariff of the 2014-19 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of the 2019-24 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2019 for 400 kV D/C Kolhapur- Mapusa transmission line (Ckt. I and Ckt. II) in Western Region.


And in the Matter of:

Power Grid Corporation of India Limited,
"SAUDAMINI", Plot No-2,
Sector-29, Gurgaon - 122 001,
(Haryana).

.....Petitioner

Versus

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


ATTESTED TRUE COPY
Page no 40 to 98
Authorised Signatory
Power Grid Corporation of India Ltd.
Plot No. 2, Sector-29, Gurgaon-122001 (HARYANA)



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5. Maharashtra State Electricity Transmission Company Limited,
Prakashganga, 6th Floor, Plot No. C-19, E-Block,
Bandra Kurla Complex, Bandra (East) Mumbai - 400 051.
6. Gujarat Urja Vikas Nigam Limited,
Sardar Patel Vidyut Bhawan,
Race Course Road, Vadodara - 390 007.
7. Gujarat Energy Transmission Corporation Limited,
Sardar Patel Vidyut Bhawan,
Race Course Road, Vadodara - 390 007.
8. Electricity Department,
Government of Goa, Vidyut Bhawan, Panaji,
Near Mandvi Hotel, Goa - 403 001.
9. Electricity Department,
Administration of Daman and Diu,
Daman - 396 210.
10. Electricity Department,
Administration of Dadra Nagar Haveli
U.T., Silvassa - 396 230.
11. Chhattisgarh State Electricity Board,
P.O.Sunder Nagar, Dangania, Raipur,
Chhattisgarh - 492 013.
12. Chhattisgarh State Power Transmission Company Limited,
Office of The Executive Director (C&P),
State Load Despatch Building,
Dangania, Raipur - 492 013.
13. Chhattisgarh State Power Distribution Company Limited,
P.O.Sunder Nagar, Dangania, Raipur,
Chhattisgarh - 492 013.

.....Respondent(s)

For Petitioner:

Shri S.S. Raju, PGCIL
Shri D.K. Biswal, PGCIL
Shri Ved Prakash Rastogi, PGCIL
Shri Amit Yadav, PGCIL

For Respondents:

Shri Anindya Khare, MPPMCL



ORDER

The instant petition has been filed by Power Grid Corporation of India Limited, a deemed transmission licensee, for revision of transmission tariff of 2001-04, 2004-09 and 2009-14 tariff periods, truing up of transmission tariff of 2014-19 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as "the 2014 Tariff Regulations") and for determination of tariff for the period from 1.4.2019 to 31.3.2024 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as "the 2019 Tariff Regulations") in respect of 400 kV D/C Kolhapur-Mapusa Transmission Line (Ckt.-I and Ckt.-II) in Western Region (hereinafter referred to as "the transmission asset").

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

"1) Approve the revised Transmission Tariff for 2001-04 block, 2004-09 block and 2009-14 block for the assets covered under this petition, as per para 8 above.

2) Approve the trued up Transmission Tariff for 2014-19 block and transmission tariff for 2019-24 block for the assets covered under this petition, as per para 9 and 10 above.

3) a). Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided in Tariff Regulation 2014 and Tariff regulations 2019 as per para 9 and 10 above for respective block.

b. further it is submitted that deferred tax liability before 01.04.2009 shall be recoverable from the beneficiaries or long term transmission customers /D/C as the case may be, as and when materialized as per regulation 49 of 2014 and regulation 67 of 2019 tariff regulation. The petitioner may be allowed to recover the deferred tax liability materialised directly without making any application before the commission as provided in the regulation



4) Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 70 (1) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019, and other expenditure (if any) in relation to the filing of petition.

5) Allow the petitioner to bill and recover Licensee fee and RLDC fees and charges, separately from the beneficiaries in terms of Regulation 70 (3) and (4) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019.

6) Allow the petitioner to bill and adjust impact on Interest on Loan due to change in Interest rate on account of floating rate of interest applicable during 2019-24 period, if any, from the beneficiaries.

7) Allow the petitioner to recover FERV on the foreign loans deployed as provided under clause 68 of the Tariff Regulations, 2019.

8) 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.

9) Allow the petitioner to claim the capital spares at the end of tariff block as per actual.

10) Allow the Petitioner to bill and recover GST on Transmission Charges separately from the beneficiaries, if GST on transmission is levied at any rate in future. Further, any taxes including GST and duties including cess etc. imposed by any statutory/Govt./municipal authorities shall be allowed to be recovered from the beneficiaries.

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

Backdrop of the case

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

(a) The Investment Approval (I.A.) for the transmission asset was accorded by the Ministry of Power vide letter dated 3.7.2000 at an estimated cost of ₹18194.00 lakh (4th quarter 1999, price level), including IDC of ₹1554.00 lakh.

(b) The scope of the work as per I.A. is as follows:

(i) 400 kV Kolahapur-Mapusa transmission line

(ii) 400 kV Mapusa Sub-station



(c) The complete scope of the work as per I.A. is covered in the instant petition.

(d) As per I.A., the transmission asset was to be commissioned within a period of 36 months from the date of I.A. i.e. by July 2003. Ckt-I of the transmission asset was put under commercial operation on 1.1.2003 and Ckt-II on 1.12.2002. Thus, the transmission asset has been commissioned without any delay.

(e) Transmission tariff in respect of the transmission asset for 2001-04 period was approved by the Commission vide order dated 23.3.2005 in Petition No. 120/2002 and it was revised vide order dated 9.5.2006 in Petition No. 61/2005.

(f) The transmission tariff for 2004-09 period was approved vide order dated 9.5.2006 in Petition No. 61/2005 and it was revised vide order dated 29.4.2008 in Petition No. 61/2005.

(g) The transmission tariff for 2009-14 period was allowed vide order dated 27.8.2010 in Petition No. 78/2010. The transmission tariff for 2009-14 period was trued up and tariff for the period from 1.4.2014 to 31.3.2019 was determined vide order dated 7.10.2015 in Petition No. 161/TT/2014.

(h) The Petitioner has sought revision of transmission tariff approved for 2001-04 and 2004-09 tariff periods on account of change in Interest on Loan ("IoL") and Interest on Working Capital ("IWC") to the extent of revision in IoL and in Maintenance Spares in terms of the judgments of the Appellate Tribunal for Electricity ("the APTEL") dated 22.1.2007 in Appeal No. 81 of 2005 and batch matters and 13.6.2007 in Appeal No. 139 of 2006 and batch cases. The Petitioner has also sought consequential revision of tariff allowed for 2009-14 tariff period, truing up of tariff of 2014-19 tariff period and determination of tariff for the 2019-24 tariff period in respect of the transmission asset.



(i) The APTEL in 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:

Sl. No.	Issue	APTEL's decisions/ directions
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 IoL.	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. The 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.	The Commission's view upheld.
3(b)	O&M Expenses: Non-inclusion of incentives and ex-gratia payment to employees.	The Commission's view upheld.
4	Cost of spares for calculation of working capital.	The Commission's view upheld.

(j) The 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 the APTEL are given in the following table:

Sl. No.	Issue	APTEL's decisions/ directions
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.	The Commission to consider the issue afresh.
III	Treating depreciation available as deemed repayment of loan	The Commission to make a fresh computation of outstanding loan.
IV	Admissibility of depreciation up to 90%.	The Commission to consider the issue afresh.
V	Cost of Maintenance Spares.	The 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. The Commission to act accordingly.
VII	Non-consideration of normative transit loss for coal import.	The 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. The 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.

(k) The Commission and certain interested parties preferred Civil 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.

(l) Based on the APTEL's judgments dated 22.1.2007 Appeal No. 81 of 2005 and batch matters and 13.6.2007 in Appeal No. 139 of 2007 and batch matters, the Petitioner had 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 pendency of Appeals before the Hon'ble Supreme Court adjourned the said petition *sine die* and directed that the same be revived after the disposal of Civil Appeals by the Hon'ble Supreme Court.

(m) 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 said judgements of APTEL have attained finality.

(n) Consequent to the Hon'ble Supreme Court's order dated 10.4.2018 in NTPC matters, Petition No. 121/2007 was listed for hearing before the



Commission on 8.1.2019. The Commission vide order dated 18.1.2019 in Petition No. 121/2007, directed the Petitioner to submit its claim separately for the assets at the time of filing of truing up petition for 2014-19 tariff period.

(o) The instant petition was heard on 9.7.2021 and in view of APTEL's judgments dated 22.1.2007 and dated 13.6.2007 and the order of Hon'ble Supreme Court dated 10.4.2018, 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 transmission utilities, distribution licensees and power departments which are procuring transmission services from the Petitioner, mainly beneficiaries of the Western Region.

5. The Petitioner has served the petition on the Respondents and notice regarding filing of this petition has been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003. No comments or objections have been received from the general public in response to the aforesaid notices published in the newspapers. Respondent No. 1, Madhya Pradesh Power Management Company Limited (MPPMCL) has filed its reply vide affidavit dated 22.2.2020 and has raised the issues of revision of transmission tariff of 2001-04, 2004-09 and 2009-14 periods and effective tax rate and grossing up of Return on Equity ("RoE"). The Petitioner vide affidavit dated 2.7.2021 has filed rejoinder to the reply of MPPMCL.

6. It has been placed before us that MPPMCL has been raising the same issues in other petitions as well despite clear findings of the Commission rejecting the contentions of MPPMCL. The contentions of MPPMCL have been rejected by the Commission in other petitions including Petition No. 215/TT/2020. As MPPMCL has



not challenged the findings, the same have attained finality. In view of this, the pleas raised by MPPMCL are rejected. Further, MPPMCL's submissions, Petitioner's clarifications thereto and the Commission's findings on the said issues have not been repeated herein for the sake of brevity.

Re: Interest on Loan ("IoL")

7. The 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. The 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 2001-04 and 2004-09 tariff periods is revised on the basis of the normative debt repayment methodology.

Re: Additional Capital Expenditure ("ACE")

8. The APTEL vide judgment dated 13.6.2007 in Appeal No. 139/2006 and others held that additional capitalisation after COD 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 the 2001-04 and 2004-09 periods are also required to be revised taking into consideration the ACE after the date of commercial operation.



Re: Depreciation

9. As regards depreciation, the 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 2001-04 and 2004-09 tariff periods is revised in the instant order.

10. The revision of transmission tariff allowed for 2001-04 and 2004-09 tariff period necessitates the revision of transmission tariff allowed for 2009-14 tariff period which is also being done in the present order. The implementation of the directions of the APTEL vide judgments dated 22.1.2007 in Appeal No. 81 of 2005 and batch matters and 13.6.2007 in Appeal No. 139 of 2006 and batch cases respectively, in case of the Petitioner, was kept pending awaiting 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 2001-04, 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.

11. This order is issued considering the submissions made by the Petitioner in the petition vide affidavit dated 7.1.2020, MPPMCL's reply vide affidavit dated 22.2.2020 and the Petitioner's rejoinder to MPPMCL's reply filed vide affidavit dated 2.7.2021.



12. The hearing in this matter was held on 9.7.2021 through video conference and order was reserved. Having heard the representatives of the Petitioner, MPPMCL and after perusal of the materials on record, we proceed to dispose of the petition.

REVISION OF TRANSMISSION CHARGES FOR 2001-04, 2004-09 AND 2009-14 TARIFF PERIODS

2001-04 Tariff Period

13. The Commission vide order dated 23.3.2005 in Petition No. 120/2002 approved the following transmission charges for 2001-04 period in respect of Ckt-I and Ckt.-II of the transmission asset:

Ckt.-I

(₹ in lakh)

Particulars	2002-03 (Pro-rata for 3 months)	2003-04
Depreciation	29.06	116.25
Return on Equity	30.17	120.70
O&M Expenses	33.24	140.92
Advance against Depreciation	0.00	0.00
Interest on Loan	47.89	193.39
Interest on Working Capital	3.95	16.11
Total	144.31	587.37

Ckt.-II

(₹ in lakh)

Particulars	2002-03 (Pro-rata for 4 months)	2003-04
Depreciation	82.80	248.40
Return on Equity	115.15	345.46
O&M Expenses	40.36	128.36
Advance against Depreciation	0.00	0.00
Interest on Loan	140.06	420.83
Interest on Working Capital	9.55	29.00
Total	387.92	1172.05

14. The Petitioner has claimed the following revised transmission charges in respect of Ckt.I and Ckt.-II of the transmission asset for 2001-04 period in this petition:



Ckt.-I

(₹ in lakh)

Particulars	2002-03 (Pro-rata for 3 months)	2003-04
Depreciation	29.06	116.25
Return on Equity	30.17	130.79
O&M Expenses	33.24	140.92
Advance against Depreciation	0.00	0.00
Interest on Loan	47.89	194.27
Interest on Working Capital	3.96	16.54
Total	144.32	598.76

Ckt.-II

(₹ in lakh)

Particulars	2002-03 (Pro-rata for 4 months)	2003-04
Depreciation	82.80	248.40
Return on Equity	115.15	345.46
O&M Expenses	40.36	128.36
Advance against Depreciation	0.00	0.00
Interest on Loan	140.06	421.99
Interest on Working Capital	9.55	29.30
Total	387.92	1173.51

15. We have considered the submissions of the Petitioner. The tariff is revised in respect of the transmission asset on the basis of the following:

- a) Admitted capital cost of ₹3963.54 lakh and ₹8747.49 as on COD in respect of Ckt-I and Ckt-II respectively of the transmission asset;
- b) ACE of ₹ 333.50 lakh and FERV of ₹226.25 lakh incurred up to 31.3.2004 for Ckt.-I and ACE of ₹ 22.17 lakh and FERV of ₹502.73 lakh incurred up to 31.3.2004 for Ckt.-II of the transmission asset have been considered as on 1.4.2004 for the purpose of tariff calculations.
- c) Weighted Average Rate of Interest (WAROI) on actual loan adopted vide order dated 23.3.2005 in Petition No. 120/ 2002;
- d) Weighted Average Rate of Depreciation (WAROD), Rate of Interest (RoI) for Working Capital and O&M Expenses as per order dated 23.3.2005 in Petition No. 120/ 2002.



16. In view of the above, the revised transmission charges allowed in respect of Ckt.-I and Ckt.-II of the transmission asset for 2001-04 tariff period are as follows:

Ckt.-I (₹ in lakh)		
Particulars	2002-03 (Pro-rata for 3 months)	2003-04
Depreciation	29.06	116.25
Return on Equity	30.17	120.70
O&M Expenses	33.24	140.92
Advance against Depreciation	0.00	0.00
Interest on Loan	47.89	193.06
Interest on Working Capital	3.96	16.33
Total	144.32	587.26

Ckt.-II (₹ in lakh)		
Particulars	2002-03 (Pro-rata for 4 months)	2003-04
Depreciation	82.80	248.40
Return on Equity	115.15	345.46
O&M Expenses	40.36	128.36
Advance against Depreciation	0.00	0.00
Interest on Loan	140.05	420.11
Interest on Working Capital	9.55	29.01
Total	387.91	1171.34

17. The Annual Fixed Charges (AFC) allowed in respect of Ckt-I and Ckt-II of the transmission asset for 2001-04 tariff period vide order dated 23.3.2005 in Petition No. 120/2002, the revised AFC claimed in the instant petition and AFC allowed in the instant order are as follows:

Ckt-I (₹ in lakh)		
	2002-03 (Pro-rata for 3 months)	2003-04
AFC approved vide order dated 23.3.2005 in Petition No. 120/ 2002.	144.31	587.37
AFC claimed by the Petitioner in the instant petition.	144.32	598.76
AFC allowed in the instant order.	144.32	587.26

*In addition to above, Return on Equity of ₹10.09 lakh and Interest on Loan of ₹0.88 lakh has been allowed in 2003-04 period as per order dated 9.5.2006 in Petition No. 61/ 2005 on account of ACE during FY 2002-03 and FY 2003-04.



(₹ in lakh)		
Ckt-II	2002-03 (Pro-rata for 4 months)	2003-04
AFC approved vide order dated 23.3.2005 in Petition No. 120/ 2002.	387.92	1172.05
AFC claimed by the Petitioner in the instant petition.	387.92	1173.51
AFC allowed in the instant order.	387.91	1171.34

**In addition to above, Interest on Loan of ₹ 1.17 lakh has been allowed in 2003-04 as per order dated 9.5.2006 in Petition No. 61/ 2005 on account of ACE during FY 2003-04.*

2004-09 Tariff Period

18. The Commission vide orders dated 9.5.2006 and 29.4.2008 in Petition No. 61/2005 approved the following transmission charges for 2004-09 period in respect of Ckt-I and Ckt-II of the transmission asset:

Ckt-I

(₹ in lakh)					
Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	116.36	116.36	116.36	116.36	116.36
Return on Equity	143.55	143.55	143.55	143.55	143.55
O&M Expenses	230.89	240.15	249.84	259.66	270.20
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Loan	176.94	168.66	160.64	152.87	144.94
Interest on Working Capital	18.06	18.42	18.82	19.24	19.69
Total	685.80	687.14	689.21	691.68	694.74

Ckt.-II

(₹ in lakh)					
Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	234.74	234.74	234.74	234.74	234.74
Return on Equity	302.28	302.28	302.28	302.28	302.28
O&M Expenses	202.77	210.9	219.42	228.03	237.30
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Loan	354.82	338.12	321.95	306.29	290.35
Interest on Working Capital	30.65	31.16	31.73	32.35	33.02
Total	1125.25	1117.20	1110.11	1103.68	1097.68

19. The Petitioner has claimed the following revised transmission charges in respect of Ckt.-I and Ckt.-II of the transmission asset for 2004-09 period in this petition:



Ckt-I

(₹ in lakh)

Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	116.36	116.36	116.36	116.36	116.36
Return on Equity	143.55	143.55	143.55	143.55	143.55
O&M Expenses	230.89	240.15	249.84	259.66	270.20
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Loan	179.35	175.84	170.10	161.99	153.41
Interest on Working Capital	18.67	19.15	19.63	20.08	20.56
Total	688.82	695.05	699.48	701.64	704.08

Ckt.-II

(₹ in lakh)

Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	234.74	234.74	234.74	234.74	234.74
Return on Equity	302.28	302.28	302.28	302.28	302.28
O&M Expenses	202.77	210.9	219.42	228.03	237.30
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Loan	359.66	352.65	341.15	324.90	307.73
Interest on Working Capital	31.15	31.85	32.53	33.16	33.84
Total	1130.60	1132.42	1130.12	1123.12	1115.89

20. The tariff is allowed in respect of the transmission asset on the basis of the following:

- Admitted capital cost of ₹4070.59 lakh and ₹8266.93 as on COD in Kolhapur Mapusa Ckt-I and Kolhapur Mapusa Ckt-II respectively;
- Nil ACE has been considered during the tariff period 2004-2009 in respect of Ckt.-I and Ckt.-II of the transmission asset;
- WAROI on actual loan adopted from order dated 9.5.2006 in Petition No. 61/ 2005; and
- WAROD, RoI for Working Capital and O&M Expenses as per order dated 9.5.2006 in Petition No. 61/2005.

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

Ckt.-I

(₹ in lakh)

Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	116.36	116.36	116.36	116.36	116.36



Return on Equity	143.55	143.55	143.55	143.55	143.55
O&M Expenses	230.89	240.15	249.84	259.66	270.20
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Loan	179.35	175.84	170.11	161.99	153.41
Interest on Working Capital	18.47	18.94	19.40	19.84	20.31
Total	688.63	694.85	699.26	701.41	703.83

Ckt.-II

(₹ in lakh)

Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	234.74	234.74	234.74	234.74	234.74
Return on Equity	302.28	302.28	302.28	302.28	302.28
O&M Expenses	202.77	210.9	219.42	228.03	237.30
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Loan	359.66	352.65	341.16	324.91	307.73
Interest on Working Capital	30.76	31.44	32.09	32.70	33.35
Total	1130.21	1132.01	1129.69	1122.66	1115.40

22. AFC allowed for 2004-09 tariff period vide orders dated 9.5.2006 and 29.4.2008 in Petition No. 61/2005, the revised AFC claimed in the instant petition and AFC allowed in respect of Ckt.-I and Ckt.-II of the transmission asset in the instant order are as follows:

Ckt.-I

(₹ in lakh)

Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
AFC approved vide orders dated 9.5.2006 and 29.4.2008 in Petition No. 61/2005.	685.80	687.14	689.21	691.68	694.74
AFC claimed by the Petitioner in the instant petition.	688.82	695.05	699.48	701.64	704.08
AFC allowed in the instant order.	688.63	694.85	699.26	701.40	703.83

Ckt.-II

(₹ in lakh)

Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
AFC approved vide orders dated 9.5.2006 and 29.4.2008 in Petition No. 61/2005.	1125.25	1117.2	1110.11	1103.68	1097.68
AFC claimed by the Petitioner in the instant petition.	1130.60	1132.42	1130.12	1123.12	1115.89
AFC allowed in the instant order	1130.21	1132.01	1129.69	1122.66	1115.40

2009-14 Tariff Period

23. The Petitioner in Petition No. 78/2010 combined the elements Ckt.-I and Ckt.-II of the transmission asset and claimed combined tariff in respect of the transmission



asset. Accordingly, the Commission vide order dated 27.8.2010 in Petition No. 78/2010 approved the transmission tariff in respect of the transmission asset for 2009-14 period and subsequently vide order dated 7.10.2015 in Petition No. 161/TT/2014 trued up the tariff for 2009-14 period with respect to the transmission asset and the same is as follows:

(₹ in lakh)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	627.37	627.37	627.37	627.37	627.37
Return on Equity	594.67	616.45	617.05	617.05	624.47
O&M Expenses	680.93	719.93	761.14	804.63	850.59
Interest on Loan	346.67	270.68	242.9	225.18	200.13
Interest on Working Capital	66.76	67.58	69.07	70.88	72.81
Total	2316.38	2302	2317.53	2345.11	2375.36

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

(₹ in lakh)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	627.37	627.37	627.37	627.37	627.37
Return on Equity	594.67	616.45	617.05	617.05	624.47
O&M Expenses	680.93	719.93	761.14	804.63	850.59
Interest on Loan	367.88	288.87	260.99	243.99	219.17
Interest on Working Capital	67.20	67.96	69.45	71.27	73.21
Total	2338.05	2320.57	2336.00	2364.32	2394.81

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

- Admitted capital cost of ₹12337.72 lakh in respect of the transmission asset as on 1.4.2009;
- Nil ACE has been considered during 2009-2014 tariff period in respect of the transmission asset.
- WAROI on actual loan derived/adopted from order dated 7.10.2015 in Petition No. 161/TT/2014, and

d) WAROD as per order dated 7.10.2015 in Petition No. 161/TT/2014.

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

(₹ in lakh)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	627.37	627.37	627.37	627.37	627.37
Interest on Loan	367.89	288.87	261.00	244.00	219.17
Return on equity	594.67	616.45	617.05	617.05	624.47
Interest on Working Capital	67.20	67.96	69.45	71.27	73.21
O&M Expenses	680.93	719.93	761.14	804.63	850.59
Total	2338.05	2320.58	2336.01	2364.32	2394.81

27. AFC allowed in respect of the transmission asset for 2009-14 tariff period vide order dated 7.10.2015 in Petition No. 161/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. 161/TT/2014.	2316.38	2302	2317.53	2345.11	2375.36
AFC claimed by the Petitioner in the instant petition.	2338.05	2320.57	2336.00	2364.32	2394.81
AFC allowed in the instant order.	2338.05	2320.58	2336.01	2364.32	2394.81

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

28. 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	627.37	266.83	266.83	266.83	266.84
Interest on Loan	200.47	179.67	186.35	188.72	189.45
Return on equity	624.95	627.81	627.50	627.50	629.18
Interest on Working Capital	76.61	69.33	70.96	72.54	74.18
O&M Expenses	781.41	807.41	834.20	861.87	890.47
Total	2310.81	1951.05	1985.84	2017.46	2050.12

29. 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	65.12	67.28	69.52	71.82	74.21
Maintenance Spares	117.21	121.11	125.13	129.28	133.57
Receivables	385.13	325.18	330.97	336.24	341.69
Total	567.46	513.57	525.62	537.34	549.47
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	76.61	69.33	70.96	72.54	74.18

Capital Cost as on 1.4.2014

30. The capital cost in respect of the transmission asset has been calculated in accordance with Regulations 9(3) and 9(6) of the 2014 Tariff Regulations. The Commission vide order dated 7.10.2015 in Petition No. 161/TT/2014 approved the transmission tariff in respect of the transmission asset for 2014-19 period based on admitted capital cost of ₹12337.72 lakh as on 31.3.2014. Therefore, the admitted capital cost of ₹12337.72 lakh as on 31.3.2014 has been considered for working out the trued up tariff for 2014-19 period.

31. The Petitioner has not claimed any ACE during 2014-19 period.

Capital Cost considered for true up of tariff for 2014-19 period

32. The capital cost considered for truing up of tariff in respect of transmission asset for 2014-19 period is as follows:

(₹ in lakh)		
Capital Cost as on 1.4.2014	ACE during 2014-19 Period	Capital Cost as on 31.3.2019
12337.72	0.00	12337.72

Debt-Equity Ratio

33. 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 shall be considered. Accordingly, the admitted debt-equity ratio of 74.19:25.81 for the period ending on 31.3.2014 has been considered as opening debt-equity ratio as on 1.4.2014 for the purpose of truing up of tariff of 2014-19 tariff period in respect of the transmission asset. The details of debt-equity ratio allowed in respect of the transmission asset as on 1.4.2014 and 31.3.2019 are as follows:

Particulars	Capital cost as on 1.4.2014 (₹ in lakh)	(in %)	Total cost as on 31.3.2019 (₹ in lakh)	(in %)
Debt	9153.26	74.19	9153.26	74.19
Equity	3184.46	25.81	3184.46	25.81
Total	12337.72	100.00	12337.72	100.00

Depreciation

34. Depreciation has been worked out as per the methodology provided in Regulation 27 of the 2014 Tariff Regulations. The Gross Block during 2014-19 tariff period has been depreciated at WAROD. As the transmission asset has completed 12 years of life as on 31.3.2015, the remaining depreciable value of ₹5069.78 lakh has been spread across the balance useful life of 19 years in accordance with Regulation 27(5) of 2014 Tariff Regulations. WAROD as given in Annexure-I to this order has been worked out after taking into account the depreciation rates of transmission assets as prescribed in the 2014 Tariff Regulations. Accordingly, depreciation allowed in respect of the transmission asset for 2014-19 tariff period is as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	12337.72	12337.72	12337.72	12337.72	12337.72
Additional Capitalisation	0.00	0.00	0.00	0.00	0.00



Closing Gross Block	12337.72	12337.72	12337.72	12337.72	12337.72
Average Gross Block	12337.72	12337.72	12337.72	12337.72	12337.72
Freehold Land	42.16	42.16	42.16	42.16	42.16
WAROD (in %)	5.08	2.16	2.16	2.16	2.16
Balance useful life (at the beginning of the year) (Year)	20	19	18	17	16
Aggregate Depreciable Value	11066.00	11066.00	11066.00	11066.00	11066.00
Depreciation during the year	627.37	266.83	266.83	266.83	266.83
Cumulative Aggregate Depreciation	5996.22	6263.05	6529.88	6796.72	7063.55
Remaining Aggregate Depreciable Value	5069.78	4802.95	4536.12	4269.29	4002.46

35. Accordingly, depreciation approved vide order dated 7.10.2015 in Petition No. 161/TT/2014, as claimed by the Petitioner in the instant petition and trued up depreciation allowed in respect of the transmission asset 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. 161/TT/2014.	627.37	267.49	267.49	267.49	267.49
Claimed by the Petitioner in the instant petition.	627.37	266.83	266.83	266.83	266.84
Allowed after true-up in this order.	627.37	266.83	266.83	266.83	266.83

Interest on Loan ("IoL")

36. The Petitioner has claimed IoL based on actual interest rates for each year during 2014-19 period. We have considered the submissions of the Petitioner and accordingly calculated IoL based on actual interest rate, in accordance with Regulation 26 of the 2014 Tariff Regulations. IoL in respect of the transmission asset has been worked out as follows:

- (i) Gross amount of loan, repayment of instalments and weighted average rate of interest on actual average loan have been considered as per the petition.
- (ii) The repayment for the tariff period 2014-19 has been considered to be equal to the depreciation allowed for that period.



37. The details of trued-up IoL allowed in respect of the transmission asset is as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	9153.26	9153.26	9153.26	9153.26	9153.26
Cumulative Repayments up to Previous Year	4512.98	5140.35	5407.18	5674.01	5940.84
Net Loan-Opening	4640.28	4012.91	3746.08	3479.25	3212.42
Additions due to ACE	0.00	0.00	0.00	0.00	0.00
Repayment during the year	627.37	266.83	266.83	266.83	266.83
Net Loan-Closing	4012.91	3746.08	3479.25	3212.42	2945.59
Average Loan	4326.60	3879.50	3612.67	3345.84	3079.01
Weighted Average Rate of Interest on Loan (in %)	4.634	4.631	5.158	5.640	6.153
Interest on Loan	200.47	179.67	186.35	188.72	189.46

38. Accordingly, IoL approved vide order dated 7.10.2015 in Petition No. 161/TT/2014, as claimed by the Petitioner in the instant petition and allowed after truing up in the instant order in respect of the transmission asset 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. 161/TT/2014.	173.27	149.39	135.41	123.90	112.53
Claimed by the Petitioner in the instant petition.	200.47	179.67	186.35	188.72	189.45
Allowed after true-up in this order.	200.47	179.67	186.35	188.72	189.46

Return on Equity ("RoE")

39. The Petitioner has claimed RoE in respect of the transmission asset in terms of Regulation 24 and Regulation 25 of the 2014 Tariff Regulations. The Petitioner has submitted that it is liable to pay income tax at Minimum Alternate Tax (MAT) rates and has claimed following effective tax rates for 2014-19 tariff period:

Year	Claimed effective tax rate (in %)	Grossed up RoE (in %) [(Base Rate)/(1-t)]
2014-15	21.018	19.624
2015-16	21.382	19.716



2016-17	21.338	19.705
2017-18	21.337	19.704
2018-19	21.549	19.758

40. The Commission vide order dated 27.4.2020 in Petition No. 274/TT/2019 has arrived at the effective tax rate for the Petitioner based on the notified MAT rates and the same are as follows:

Year	Notified MAT rates (in %) (inclusive of surcharge & cess)	Effective tax (in %)
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

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

Year	Notified MAT rates (in %) (inclusive of surcharge & cess) (in %)	Base rate of RoE (in %)	Grossed up RoE (in %) [(Base Rate)/(1-t)]
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

42. The details of trued-up RoE allowed in respect of the transmission asset is as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	3184.46	3184.46	3184.46	3184.46	3184.46
Addition due to ACE	0.00	0.00	0.00	0.00	0.00
Closing Equity	3184.46	3184.46	3184.46	3184.46	3184.46
Average Equity	3184.46	3184.46	3184.46	3184.46	3184.46
RoE (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
Tax Rate applicable (in %)	20.961	21.342	21.342	21.342	21.549
Applicable RoE Rate (in %)	19.610	19.705	19.705	19.705	19.758
Return on Equity for the year	624.47	627.50	627.50	627.50	629.19



43. Accordingly, RoE approved order dated 7.10.2015 in Petition No. 161/TT/2014, as claimed in the instant petition and trued up in the instant order in respect of the transmission asset 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. 161/TT/2014.	624.47	624.47	624.47	624.47	624.47
Claimed by the Petitioner in the instant petition.	624.95	627.81	627.50	627.50	629.18
Allowed after true-up in this order.	624.47	627.50	627.50	627.50	629.19

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

44. O&M Expenses as claimed by the Petitioner in respect of the transmission asset are within the norms specified under the 2014 Tariff Regulations. The allowable O&M Expenses in respect of the transmission asset are as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Transmission Line					
Twin Conductor Double Circuit Kolhapur- Mapusa Transmission line Ckt.- I and Ckt.- II (km).	150.00	150.00	150.00	150.00	150.00
Norms (₹ lakh/km)					
D/C Twin/Triple Conductor	0.71	0.73	0.76	0.78	0.81
O&M Expenses Transmission Line	106.05	109.65	113.25	117.00	120.90
Sub-station					
400 kV Mapusa: Kolhapur-I Bay	1	1	1	1	1
400 kV Mapusa: ICT-I Bay	1	1	1	1	1
220 kV Mapusa: ICT-I Bay	1	1	1	1	1
220 kV Mapusa: TIVIM-I Bay	1	1	1	1	1
220 kV Mapusa: PONDIA-I Bay	1	1	1	1	1
220 kV Mapusa: PONDIA-II Bay	1	1	1	1	1
400 kV Kolhapur: Mapusa-I	1	1	1	1	1
400 kV Mapusa: Kolhapur-2	1	1	1	1	1
400 kV Mapusa: ICT-II	1	1	1	1	1
220 kV Mapusa: ICT-II Bay	1	1	1	1	1
220 kV Mapusa: TIVIM-II Bay	1	1	1	1	1
400 kV Mapusa: Bus Reactor	1	1	1	1	1
400 kV Kolhapur: Mapusa-II	1	1	1	1	1
Norms (₹ lakh/Bay)					
400 kV AIS	60.30	62.30	64.37	66.51	68.71



220 kV AIS	42.21	43.61	45.06	46.55	48.10
O&M Expenses Sub-station	675.36	697.76	720.95	744.87	769.57
Total O&M Expenses (₹ in lakh)	781.41	807.41	834.20	861.87	890.47

45. Accordingly, O&M Expenses approved vide order dated 7.10.2015 in Petition No. 161/TT/2014, as claimed in the instant petition and trued up in the instant order in respect of the transmission asset 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. 161/TT/2014	781.41	807.41	834.20	861.87	890.47
Claimed by the Petitioner in the instant petition	781.41	807.41	834.20	861.87	890.47
Allowed after true up in this order	781.41	807.41	834.20	861.87	890.47

Interest on Working Capital ("IWC")

46. The Petitioner is entitled to IWC as per Regulation 28 of the 2014 Tariff Regulations.

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

	(₹ in lakh)				
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Working Capital for O&M Expenses (O&M Expenses for one month).	65.12	67.28	69.52	71.82	74.21
Working Capital for Maintenance Spares (15% of O&M Expenses).	117.21	121.11	125.13	129.28	133.57
Working Capital for Receivables (Equivalent to two months of annual fixed cost / annual transmission charges).	385.05	325.12	330.97	336.24	341.69
Total	567.38	513.52	525.62	537.35	549.46
Rate of Interest on working capital (in %)	13.50	13.50	13.50	13.50	13.50
Interest of Working Capital	76.60	69.33	70.96	72.54	74.18



48. Accordingly, IWC approved vide order dated 7.10.2015 in Petition No. 161/TT/2014, as claimed in the instant petition and trued up IWC in the instant order in respect of the transmission asset 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. 161/TT/2014	75.97	68.57	69.73	71.00	72.31
Claimed by the Petitioner in the instant petition	76.61	69.33	70.96	72.54	74.18
Allowed after true-up in this order	76.60	69.33	70.96	72.54	74.18

Approved Annual Fixed Charges for 2014-19 Tariff Period

49. The trued-up AFC allowed 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	627.37	266.83	266.83	266.83	266.83
Interest on Loan	200.47	179.67	186.35	188.72	189.46
Return on Equity	624.47	627.50	627.50	627.50	629.19
O&M Expenses	781.41	807.41	834.20	861.87	890.47
Interest on Working Capital	76.60	69.32	70.96	72.54	74.18
Total	2310.32	1950.74	1985.84	2017.46	2050.12

50. Accordingly, the details of the Annual Transmission Charges as approved vide order dated 7.10.2015 in Petition No. 161/TT/2014, as claimed by the Petitioner in the instant petition 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
Allowed earlier vide order dated 7.10.2015 in Petition No. 161/TT/2014.	2282.49	1917.33	1931.30	1948.73	1967.27
Claimed by the Petitioner in the instant petition.	2310.81	1951.05	1985.84	2017.46	2050.12
Allowed after true-up in this order.	2310.32	1950.74	1985.84	2017.46	2050.12

DETERMINATION OF ANNUAL FIXED CHARGES FOR 2019-24 TARIFF PERIOD

51. The Petitioner has claimed the following transmission charges in respect of the transmission asset for 2019-24 tariff period:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	266.82	266.84	266.82	266.84	266.82
Interest on Loan	172.84	156.43	140.03	123.63	107.23
Return on Equity	598.10	598.10	598.10	598.10	598.10
Interest on Working Capital	47.02	47.96	48.85	49.79	50.66
O&M Expenses	720.89	746.39	772.48	799.76	827.09
Total	1805.67	1815.72	1826.28	1838.12	1849.90

52. The Petitioner has claimed the following IWC for 2019-24 period in respect of the transmission asset:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	60.07	62.20	64.37	66.65	68.92
Maintenance Spares	108.13	111.96	115.87	119.96	124.06
Receivables	222.01	223.86	225.16	226.62	227.45
Total	390.21	398.02	405.40	413.23	420.43
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	47.02	47.96	48.85	49.79	50.66

Capital Cost

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

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

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

(a) The expenditure incurred or projected to be incurred up to the date of commercial operation of the project;

(b) Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;

(c) Any gain or loss on account of foreign exchange risk variation pertaining to the loan amount availed during the construction period;

(d) Interest during construction and incidental expenditure during construction as computed in accordance with these regulations;



- (e) Capitalised initial spares subject to the ceiling rates in accordance with these regulations;
- (f) Expenditure on account of additional capitalization and de-capitalisation determined in accordance with these regulations;
- (g) Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the date of commercial operation as specified under Regulation 7 of these regulations;
- (h) Adjustment of revenue earned by the transmission licensee by using the asset 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 up to the receiving end of the generating station but does not include the transportation cost and any other appurtenant cost paid to the railway;
- (k) Capital expenditure on account of biomass handling equipment and facilities, for co-firing;
- (l) Capital expenditure on account of emission control system necessary to meet the revised emission standards and sewage treatment plant;
- (m) Expenditure on account of fulfilment of any conditions for obtaining environment clearance for the project;
- (n) Expenditure on account of change in law and force majeure events; and
- (o) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.

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

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

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

- (a) cost of approved rehabilitation and resettlement (R&R) plan of the project in conformity with National R&R Policy and R&R package as approved; and
- (b) cost of the developer's 10% contribution towards Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) and Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) project in the affected area.

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



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

(b) De-capitalised Asset 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 asset.

(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.”

54. The Petitioner has claimed capital cost of ₹12337.72 lakh in respect of the transmission asset as on 31.3.2019, which is same as worked out by the Commission in preceding paragraphs. Accordingly, capital cost of ₹12337.72 lakh in respect of the transmission asset has been considered as on 1.4.2019 for determination of tariff in accordance with Regulation 19 of the 2019 Tariff Regulations.

55. The Petitioner has not claimed any ACE for 2019-24 tariff period in respect of the transmission asset.

Debt-Equity Ratio

56. 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.

(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."

57. The details of debt-equity ratio considered in respect of the transmission asset for the purpose of tariff of 2019-24 period are as follows:

Particulars	Capital cost as on 1.4.2019 (₹ in lakh)	(in %)	Total cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	9153.26	74.19	9153.26	74.19
Equity	3184.46	25.81	3184.46	25.81
Total	12337.72	100.00	12337.72	100.00

Depreciation

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



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

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

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

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

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

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

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

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

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

(5) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix-I to these regulations for the asset 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 asset.



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

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

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

59. The transmission asset has already completed more than 12 years before 1.4.2019. Accordingly, depreciation has been calculated based on the remaining depreciable value (up to 90% of existing gross block of assets) to be recovered over the balance useful life. Depreciation has been worked out considering ACE as on 31.3.2019 and accumulated depreciation up to 31.3.2019. Depreciation as worked out and allowed in respect of the transmission asset is as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	12337.72	12337.72	12337.72	12337.72	12337.72
Addition during 2019-24 due to projected ACE	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	12337.72	12337.72	12337.72	12337.72	12337.72
Average Gross Block	12337.72	12337.72	12337.72	12337.72	12337.72
Freehold Land	42.16	42.16	42.16	42.16	42.16
Balance useful life at the beginning of the year (Year)	15	14	13	12	11
Depreciable Value	11066.00	11066.00	11066.00	11066.00	11066.00
Rate of Depreciation (in %)	2.16	2.16	2.16	2.16	2.16
Depreciation during the year	266.83	266.83	266.83	266.83	266.83
Cumulative Aggregate Depreciation	7330.38	7597.21	7864.04	8130.87	8397.70
Remaining Aggregate Depreciable Value	3735.63	3468.80	3201.97	2935.14	2668.31

Interest on Loan ("IoL")

60. 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 asset, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered up to the date of de-capitalisation of such asset.

(4) Notwithstanding any moratorium period availed by the generating company or the transmission licensee, as the case may be, the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the depreciation allowed for the year or part of the year. (5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio after providing appropriate accounting adjustment for interest capitalized:

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

Provided further that if the generating station or the transmission 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.

(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".



61. The weighted average rate of IoL has been considered on the basis of rate prevailing as on 1.4.2019. Accordingly, the floating rate of interest, if any, shall be considered at the time of true up. Therefore, IoL has been allowed in accordance with Regulation 32 of the 2019 Tariff Regulations. IoL allowed in respect of the transmission asset is as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	9153.26	9153.26	9153.26	9153.26	9153.26
Cumulative Repayments up to Previous Year.	6207.67	6474.50	6741.33	7008.16	7274.99
Net Loan-Opening	2945.59	2678.76	2411.93	2145.10	1878.27
Additions	0.00	0.00	0.00	0.00	0.00
Repayment during the year	266.83	266.83	266.83	266.83	266.83
Net Loan-Closing	2678.76	2411.93	2145.10	1878.27	1611.44
Average Loan	2812.17	2545.34	2278.51	2011.68	1744.85
Weighted Average Rate of Interest on Loan (in %)	6.1463	6.1459	6.1459	6.1459	6.1459
Interest on Loan	172.85	156.43	140.03	123.64	107.24

Return on Equity ("RoE")

62. Regulation 30 and Regulation 31 of the 2019 Tariff Regulations specify 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 follows:

Rate of pre-tax return on equity = 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:

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."

63. The Petitioner has submitted that MAT rate is applicable to it. We have considered the submissions of the Petitioner. Accordingly, MAT rate applicable in 2019-20 has been considered for the purpose of RoE which shall be trued up with actual tax rate in accordance with Regulation 31(3) of the 2019 Tariff Regulations.

RoE 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	3184.46	3184.46	3184.46	3184.46	3184.46
Additions due to ACE	0.00	0.00	0.00	0.00	0.00
Closing Equity	3184.46	3184.46	3184.46	3184.46	3184.46
Average Equity	3184.46	3184.46	3184.46	3184.46	3184.46
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (in %)	17.472	17.472	17.472	17.472	17.472
Rate of Return on Equity (in %)	18.782	18.782	18.782	18.782	18.782
Return on Equity	598.11	598.11	598.11	598.11	598.11

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

64. The norms specified under Regulation 35(3)(a) of the 2019 Tariff Regulations are 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
Norms for sub-station Bays (₹ Lakh per bay)					
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
Norms for Transformers (₹ Lakh per MVA)					
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
Norms for AC and HVDC lines (₹ Lakh per km)					
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.881	0.912	0.944	0.977	1.011
Single Circuit (Bundled conductor with four sub-conductors)	0.755	0.781	0.809	0.837	0.867
Single Circuit (Twin & Triple Conductor)	0.503	0.521	0.539	0.558	0.578
Single Circuit (Single Conductor)	0.252	0.260	0.270	0.279	0.289
Double Circuit (Bundled conductor with four or more sub-conductors)	1.322	1.368	1.416	1.466	1.517
Double Circuit (Twin & Triple Conductor)	0.881	0.912	0.944	0.977	1.011
Double Circuit (Single Conductor)	0.377	0.391	0.404	0.419	0.433
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.319	2.401	2.485	2.572	2.662
Multi Circuit (Twin & Triple Conductor)	1.544	1.598	1.654	1.713	1.773
Norms for HVDC stations					
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:

- the operation and maintenance expenses for new HVDC bi-pole schemes



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

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

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

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

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

65. The Petitioner has claimed O&M Expenses for 2019-24 tariff period as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Transmission Line					
400 kV Kolhapur- Mapusa Transmission line Ckt I and Ckt II Twin Conductor Double Circuit (km)	150.00	150.00	150.00	150.00	150.00
Norms (₹ lakh/km)					
D/C Twin/Triple Conductor	0.88	0.91	0.94	0.98	1.01
O&M Expenses Transmission Line	132.15	136.80	141.60	146.55	151.65
Sub-station					
400 kV Mapusa: Kolhapur-I Bay	1	1	1	1	1
400 kV Mapusa: ICT-I Bay	1	1	1	1	1



220 kV Mapusa: ICT-I Bay	1	1	1	1	1
220 kV Mapusa: TIVIM-I Bay	1	1	1	1	1
220 kV Mapusa: PONDA-I Bay	1	1	1	1	1
220 kV Mapusa: PONDA-II Bay	1	1	1	1	1
400 kV Kolhapur: Mapusa-I	1	1	1	1	1
400 kV Mapusa:Kolhapur-2	1	1	1	1	1
400 kV Mapusa: ICT-II	1	1	1	1	1
220 kV Mapusa: ICT-II Bay	1	1	1	1	1
220 kV Mapusa: TIVIM-II Bay	1	1	1	1	1
400 kV Mapusa: Bus Reactor	1	1	1	1	1
400 kV Kolhapur: Mapusa-II	1	1	1	1	1
Norms (₹ lakh/Bay)					
400 kV AIS	32.15	33.28	34.45	35.66	36.91
220 kV AIS	22.51	23.30	24.12	24.96	25.84
O&M Expenses Sub-station	360.11	372.76	385.87	399.38	413.41
Transformers					
400 kV Mapusa: ICT-I at Mapusa	315	315	315	315	315
400 kV Mapusa: ICT-II at Mapusa	315	315	315	315	315
Norms (₹ lakh/ MVA)					
400 kV	0.36	0.37	0.38	0.40	0.41
O&M Expenses Transformers	225.54	233.73	241.92	250.74	258.93
Communication System (PLCC)					
Project Cost (₹ in lakh)	154.63	154.63	154.63	154.63	154.63
Norm (in %)	2	2	2	2	2
O&M Expenses PLCC	3.09	3.09	3.09	3.09	3.09
Total O&M Expenses (₹ in lakh)	720.89	746.39	772.48	799.76	827.09

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



67. O&M Expenses allowed in respect of the transmission asset covered in the instant petition are as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Transmission Line					
400 kV D/C Kolhapur- Mapusa Transmission line Ckt I and Ckt II (km)	150.00	150.00	150.00	150.00	150.00
Norms (₹ lakh/km)					
D/C Twin/Triple Conductor	0.88	0.91	0.94	0.98	1.01
O&M Expenses Transmission Line	132.15	136.80	141.60	146.55	151.65
Sub-station					
400 kV Mapusa: Kolhapur-I Bay	1	1	1	1	1
400 kV Mapusa: ICT-I Bay	1	1	1	1	1
220 kV Mapusa: ICT-I Bay	1	1	1	1	1
220 kV Mapusa: TIVIM-I Bay	1	1	1	1	1
220 kV Mapusa: PONDA-I Bay	1	1	1	1	1
220 kV Mapusa: PONDA-II Bay	1	1	1	1	1
400 kV Kolhapur: Mapusa-I	1	1	1	1	1
400 kV Mapusa: Kolhapur-2	1	1	1	1	1
400 kV Mapusa: ICT-II	1	1	1	1	1
220 kV Mapusa: ICT-II Bay	1	1	1	1	1
220 kV Mapusa: TIVIM-II Bay	1	1	1	1	1
400 kV Mapusa: Bus Reactor	1	1	1	1	1
400 kV Kolhapur: Mapusa-II	1	1	1	1	1
Norms (₹ lakh/Bay)					
400 kV AIS	32.15	33.28	34.45	35.66	36.91
220 kV AIS	22.51	23.30	24.12	24.96	25.84
O&M Expenses Sub-station	360.11	372.76	385.87	399.38	413.41
Transformers					
400 kV Mapusa: ICT-I at Mapusa	315	315	315	315	315
400 kV Mapusa: ICT-II at Mapusa	315	315	315	315	315
Norms (₹ lakh/ MVA)					
400 kV	0.36	0.37	0.38	0.40	0.41
O&M Expenses Transformers	225.54	233.73	241.92	250.74	258.93
Total O&M Expenses (₹ in lakh)	717.80	743.29	769.39	796.67	823.99

Interest on Working Capital ("IWC")

68. Regulation 34(1)(c), Regulation 34(3), Regulation 34(4) and Regulation 3(7) of the 2019 Tariff Regulations specify 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;”

69. The Petitioner has submitted that it has computed IWC for 2019-24 period considering the SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of interest on working capital as 12.05%. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The Rate of IWC considered is 12.05% (SBI 1 year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for 2019-20, 11.25% (SBI 1 year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points) for 2020-21 and 10.50% (SBI 1 year MCLR applicable as on 1.4.2021 of 7.00% plus 350 basis points) for 2021-24. The components of the working capital and interest allowed thereon in respect of the transmission asset is as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Working Capital for O&M Expenses (O&M expenses for one month).	59.82	61.94	64.12	66.39	68.67

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Working Capital for Maintenance Spares (15% of O&M Expenses).	107.67	111.49	115.41	119.50	123.60
Working Capital for Receivables (Equivalent to 45 days of annual fixed cost / annual transmission charges).	221.61	223.06	223.98	225.42	226.24
Total	389.10	396.49	403.50	411.31	418.51
Rate of Interest (in %)	12.05	11.25	10.50	10.50	10.50
Interest on working capital	46.89	44.61	42.37	43.19	43.94

Annual Fixed Charges for 2019-24 Tariff Period

70. 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	266.83	266.83	266.83	266.83	266.83
Interest on Loan	172.85	156.43	140.03	123.64	107.24
Return on Equity	598.11	598.11	598.11	598.11	598.11
O&M Expenses	717.80	743.29	769.39	796.67	823.99
Interest on Working Capital	46.89	44.61	42.37	43.19	43.94
Total	1802.47	1809.27	1816.73	1828.43	1840.11

Filing Fee and Publication Expenses

71. 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

72. The Petitioner shall be entitled to 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 to RLDC fee and charges in accordance with Regulation 70(3) of the 2019 Tariff Regulations for 2019-24 tariff period.

Good and Service Tax

73. 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 Respondents 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.

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

Security Expenses

75. The Petitioner has submitted that security expenses in respect of 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.

76. We have considered the above submissions of Petitioner. The Petitioner has claimed consolidated security expenses for all the transmission assets owned by it on projected basis for 2019-24 tariff period on the basis of actual security expenses incurred in 2018-19 in Petition No. 260/MP/2020. The said petition has already been disposed of by the Commission vide order dated 3.8.2021. Therefore, security expenses will be shared in terms of the order dated 3.8.2021 in Petition No. 260/MP/2020. Accordingly, the Petitioner's prayer in the instant petition for allowing it



to file a separate petition for claiming the overall security expenses and consequential IWC has become infructuous.

Capital Spares

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

Sharing of Transmission Charges

78. During the tariff periods 2001-04, 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 systems was governed by the 2010 Sharing Regulations and with effect from 1.11.2020 (after repeal of the 2010 Sharing Regulations), sharing of transmission charges is governed by 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 Sharing Regulations and shall be recovered from the concerned DICs through Bills under Regulation 15(2) (b) of the 2020 Sharing Regulations. Billing, collection and disbursement of the transmission charges for subsequent period shall be recovered in terms of provisions of the 2020 Sharing Regulations as provided in Regulation 57 of the 2019 Tariff Regulations.

79. To summarise:

- a) The revised AFC allowed in respect of Ckt.-I and Ckt.-II of the transmission asset for 2001-04 tariff periods are as follows:



Ckt.-I

(₹ in lakh)

Particulars	2002-03 Pro-rata for 3 months	2003-04
AFC	144.32	587.26

Ckt.-II

(₹ in lakh)

Particulars	2002-03 Pro-rata for 4 months	2003-04
AFC	387.91	1171.34

b) The revised AFC allowed in respect of Ckt.-I and Ckt.-II of the transmission asset for 2004-09 tariff periods are as follows:

Ckt.-I

(₹ in lakh)

Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
AFC	688.63	694.85	699.26	701.41	703.83

Ckt.-II

(₹ in lakh)

Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
AFC	1130.21	1132.01	1129.69	1122.66	1115.40

c) The revised AFC allowed in respect of the transmission asset for 2009-14 tariff periods are as follows:

(₹ in lakh)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
AFC	2338.05	2320.58	2336.01	2364.32	2394.81

d) The trued-up AFC allowed 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
AFC	2310.32	1950.74	1985.84	2017.46	2050.12

e) AFC allowed in respect of the transmission asset for 2019-24 tariff period in this order are as follows:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
AFC	1802.47	1809.27	1816.73	1828.43	1840.11

80. Annexure-I given hereinafter forms part of the order.



81. This order disposes of Petition No. 211/TT/2020 in terms of the above discussions and findings.

sd/-
(P. K. Singh)
Member

sd/-
(Arun Goyal)
Member

sd/-
(I.S. Jha)
Member



Annexure-I

	Particulars	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations (₹ in lakh)				
					2014-15	2015-16	2016-17	2017-18	2018-19
Asset	Land	42.16	42.16	0.00	0.00				
	Building	1209.44	1209.44	3.34	40.40				
	Transmission Line	7134.53	7134.53	5.28	376.70				
	Sub Station	3796.96	3796.96	5.28	200.48				
	PLCC	154.63	154.63	6.33	9.79				
	TOTAL	12337.72	12337.72		627.37	266.83	266.83	266.83	266.83
			Average Gross Block (₹ in lakh)		12337.72	12337.72	12337.72	12337.72	
			Weighted Average Rate of Depreciation (in %)		5.08	2.16	2.16	2.16	

Spreading



**Central Electricity Regulatory Commission
New Delhi**

Petition No. 94/TT/2024

Coram:

**Shri Jishnu Barua, Chairperson
Shri Ramesh Babu V., Member
Shri Harish Dudani, Member**

Date of Order: 25.10.2024

In the matter of:

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for the determination of transmission tariff from COD to 31.3.2024 for **Asset 1-** Reconductoring of 400 kV Kolhapur (PG) - Kolhapur (MSETCL) TL - Ckt 1 along with upgradation of 400 kV bays at Kolhapur (MSETCL) substation and **Asset 2-** Reconductoring of 400 kV Kolhapur (PG)- Kolhapur (MSETCL) TL - Ckt 2 along with upgradation of 400 kV bays at Kolhapur (MSETCL) substation under "Transmission system strengthening beyond Kolhapur for export of power from Solar & Wind energy zones in Southern Region - Re-conductoring of Kolhapur (PG) - Kolhapur 400 kV D/c line".

And

In the matter of:

**Power Grid Corporation of India Limited,
"Saudamini", Plot No. 2,
Sector 29, Gurgaon - 122 001 (Haryana)**

... Petitioner

Vs.

- 1. Madhya Pradesh Power Management Company Limited,
Shakti Bhawan, Rampur,
Jabalpur-482008.**
- 2. Madhya Pradesh Audyogik Kendra Vikas Nigam (Indore) Limited,
3/54, Press Complex, Agra-Bombay Road,
Indore-452008.**
- 3. Maharashtra State Electricity Distribution Company Limited,
Hongkong Bank Building, 3rd Floor,
M.G. Road, Fort, Mumbai-400001.**



4. **Gujarat Urja Vikas Nigam Limited,**
Sardar Patel Vidyut Bhawan,
Race Course Road, Vadodara-390007.
5. **Electricity Department,**
Govt. of Goa, Vidyut Bhawan, Panaji,
Near Mandvi Hotel, Goa-403001.
6. **Electricity Department,**
Administration of Daman & Diu,
Daman-396210.
7. **DNH Power Distribution Corporation Limited,**
Vidyut Bhawan, 66 kV Road, Near Secretariat Amla,
Silvassa-396230.
8. **Chhattisgarh State Power Distribution Company Limited,**
P.O. Sunder Nagar, Dangania, Raipur,
Chhattisgarh-492013.

...Respondents

Parties Present : Shri Vyom Chaturvedi, Advocate, MSEDCL
Shri Mohd. Mohsin, PGCIL
Shri Zafrul Hassan, PGCIL
Shri Arjun Malhotra, PGCIL

ORDER

The Petitioner, Power Grid Corporation of India Limited, has filed the instant Petition for the determination of transmission tariff under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) from the commercial operation date (COD) to 31.3.2024 for **Asset 1**-Reconductoring of 400 kV Kolhapur (PG) - Kolhapur (MSETCL) TL - Ckt 1 along with upgradation of 400 kV bays at Kolhapur (MSETCL) substation and **Asset 2**- Reconductoring of 400 kV Kolhapur (PG)- Kolhapur (MSETCL) TL - Ckt 2 along with upgradation of 400 kV bays at Kolhapur (MSETCL) substation (hereinafter referred to as “the transmission assets”) under “Transmission system strengthening beyond Kolhapur for export of power from



Solar & Wind energy zones in Southern Region - Re-conductoring of Kolhapur (PG) - Kolhapur 400 kV D/c line" (hereinafter referred to as "the transmission project").

2. The Petitioner has made the following prayers in the instant Petition:

- "1) Condone the delay in the commissioning of assets covered under this petition.*
 - 2) Admit the capital cost as claimed in the Petition and approve the Additional Capitalization incurred/projected to be incurred.*
 - 3) Approve the Transmission Tariff for the tariff block 2019-24 block for the assets covered under this petition, as per para -7 above.*
 - 4) Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to a 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 as per para 8 above for respective block.*
 - 5) Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on the 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 the petition.*
 - 6) Allow the petitioner to bill and recover Licensee fees 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.*
 - 7) Allow the petitioner to bill and adjust the impact on Interest on Loan due to a change in the Interest rate on account of the floating rate of interest applicable during the 2019-24 period, if any, from the beneficiaries.*
 - 8) 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 the 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.*
 - 9) Allow interim tariff in accordance with Regulation 10(3) of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for the purpose of inclusion in the PoC charges.*
- and pass such other relief as the Hon'ble Commission deems fit and appropriate under the circumstances of the case and in the interest of justice."*

3. The matter was heard on 28.8.2024.

4. During the course of the hearing, the Petitioner's representative has submitted as follows:



- i. Claiming the transmission tariff for the transmission assets separately is based on the requirements of Power System Operation Cooperation Limited (POSOCO) (now 'GCIL'). The tariff for the transmission assets is not in the nature of O&M Expenses and Additional Capitalization, instead it is a system requirement.
- ii. The Commission has granted the relief separately in similar cases.
- iii. The Investment Approval (IA) of the transmission project was accorded separately by the Committee on Investment on Project vide Memorandum dated 28.3.2022. Further, the transmission project was recommended for implementation through the Regulated Tariff Mechanism (RTM) route in the 5th meeting of the National Committee on Transmission (NCT) held on 25.8.2021 and 2.9.2021.
- iv. Since the COD of the transmission assets was declared in 2023, the cash flows are being affected. Further, the Petitioner will be able to claim the Additional Capitalization of the transmission assets at the end of November when the true-up petition will be filed.
- v. Alternatively, the Commission may grant relief in the instant matter, and the concern of the Commission will be taken care of in future cases.
- vi. If the Commission does not agree to grant the relief then the matter has to be taken up with CTUIL and obtain an IA afresh. Further, the directions may be given to CTUIL in case of future projects, so that at the planning stage, this aspect may be taken care of.



5. The learned counsel for Respondent No. 3, Maharashtra State Electricity Distribution Company Limited (MSEDCL), has submitted that once the changes are incorporated by the Petitioner, it may be allowed to file the written submissions.

6. We have considered the submissions of the parties and have perused the documents placed on record.

7. The instant transmission petition covers the determination of transmission tariff for the reconductoring of Kolhapur (PG) -Kolhapur (MSETCL) 400 kV D/C line with conductor of minimum capacity of 2100 MVA/ckt.

8. The scheme is discussed in the 3rd meeting of WRPC(TP) held on 14.6.2021, 5th meeting of NCT held on 25.08.2021 and 02.09.2021. The relevant extracts of minutes of the 3rd WRPC(TP) held on 14.6.2021 are as follows:



11. Transmission system strengthening beyond Kolhapur for export of power from Solar & Wind Energy Zones in Southern Region

- 11.1.** CEA stated that the following transmission system had been agreed in the 2nd SRST meeting held on 10.06.2019 for evacuation of power from Solar Energy Zone in Gadag Karnataka:

Gadag SEZ (2500 MW)

- i. Establishment of 400/220 kV, 5x500 MVA Gadag Pooling Station.
- ii. Gadag PS-Koppal PS 400 kV (high capacity equivalent to quad moose) D/C Line.
- iii. Gadag PS-Narendra (New) PS 400 kV (high capacity equivalent to quad moose) D/C Line.
- iv. 220 kV line bays for interconnection of solar projects (8 nos.)
- v. 1x125 MVA (400 kV) bus reactor at Gadag PS.
- vi. Upgradation of Narendra (New) to its rated voltage of 765 kV level alongwith 2x1500 MVA transformer and 1x330 MVA Bus Reactor.
- vii. Upgradation of Kolhapur (PG) to its rated voltage of 765 kV level alongwith 2x1500 MVA transformer and 1x330 MVA Bus Reactor.
- viii. Upgradation/charging of Narendra new - Kolhapur (PG) 765 kV D/c line (initially charged at 400 kV) to its rated voltage of 765 kV along with 1x330 MVA switchable Line Reactor on Kolhapur (PG) end of each circuit.

It was also noted that the proposed system strengthening in the inter-regional corridors and system strengthening beyond Kolhapur in Western region shall require all-India study.

- 11.2.** Further, in the 3rd meeting of NCT held on 20th & 28th January, 2021, it was agreed that Strengthening of Kolhapur (PG) - Kolhapur (MSETCL) 400 kV section may be taken in WRPC(TP) based on the operational constraint reported by POSOCO.

Subsequently, POSOCO vide letter dated 02.02.2021 (Annexure-IX) has intimated that during Dec'20 – Jan'21, the power flow in the Kolhapur (PG) - Kolhapur(MSETCL) 400kV D/c line has been observed very high with 'N-1' non-compliance. NLDC and RLDCs are taking various measures in operations such as reduction in power order of HVDCs toward southern region (Talcher – Kolar, Bhadravati, Rajahm – Pugalur) to relieve the loading of Kolhapur (PG) - Kolhapur(MSETCL) 400 kV D/c line.

- 11.3.** System studies were carried out with the following considerations:

- i. Scenario: Solar Max (June, 24 Afternoon Peak) with high generations in Narendra complex (Kudgi, Raichur, Bellary, Gadag SEZ & Koppal WEZ)
- ii. All India Demand of 235GW considered (against EPS demand of 266GW)
- iii. Demand for WR & SR as 73 GW & 56 GW respectively (against 19th EPS demand of 85 GW & 75 GW respectively)
- iv. For simulating the worst case scenario:
 - 100% Solar Despatch has been considered at Gadag SEZ (2500MW)
 - 85% Wind Despatch has been considered at Koppal WEZ (2500MW)
 - 90% Thermal Despatch has been considered at Kudgi TPS (3x800MW)



With this, the Net SR Surplus in Solar Max scenario works out to 7800 MW with SR to WR inter-regional flow to the tune of 9300 MW. LGB is shown at Annexure-X.

- v. Narendra New existing 765/400kV 2x1500MVA ICTs are seen to be heavily loaded in all study cases. Hence, addl. (3rd) 1x1500MVA, 765/400kV ICT has also been considered at Narendra New S/s. System strengthening, if any, in Southern Region is out of the scope of the present study.
- vi. LILO of both circuits of Warora Pool – Parli (PG) 400 kV D/c line at Parli (M) (Implementation by MSETCL) has been considered in studies as agreed in the 2nd WRPC(TP) meeting held on 04.09.2021 and needs to be expedited by MSETCL.

11.4. The following alternatives were studied and the study results are attached as Annexure- XI:

- i. Kolhapur (PG) (GIS) - Kolhapur (MH) reconductoring with conductor of min capacity of 2100 MVA at nominal voltage & with Kolhapur 765/400kV 3rd 1500MVA ICT
- ii. Kolhapur (PG) (GIS) - Kolhapur (MH) 2nd D/c line with conductor of minimum capacity of 2100 MVA at nominal voltage & with Kolhapur 765/400kV 3rd 1500MVA ICT
- iii. Kolhapur (PG) (GIS) - Pune (PG) (GIS) 765 kV D/c line along with Kolhapur (PG) (GIS) - Kolhapur (MH) reconductoring with conductor of min capacity of 2100 MVA at nominal voltage*
- iv. Kolhapur (PG) (GIS) - Solapur (PG) 765 kV D/c line along with Kolhapur (PG) (GIS) - Kolhapur (MH) reconductoring with conductor of minimum capacity of 2100 MVA at nominal voltage
- v. LILO of Solapur (PG) – Pune (PG) (GIS) 765 kV S/c line at Kolhapur PG along with Kolhapur (PG) (GIS) - Kolhapur (MH) reconductoring with conductor of min capacity of 2100 MVA at nominal voltage*
- vi. Narendra New – Solapur (PG) 765kV D/c line along with Kolhapur (PG) (GIS) - Kolhapur (MH) reconductoring with conductor of min capacity of 2100 MVA/Ck at nominal voltage and with Narendra-Madhugiri-Salem-Tuticorin charged at 400 kV & Narendra New-Kolhapur 765 kV D/c line charged at 400 kV

11.5. CTU stated that Alt- iii is providing an additional path to Pune S/stn which is a load centre.

11.6. CEA stated that Alt-vi is technically feasible and a cost effective option involving Narendra New – Solapur (PG) 765 kV D/c line of appx.150 km. This would avert the need of upgrading Kolhapur to 765 kV level. Also, the losses in case of Alt-vi were observed to be minimum. Further, as far as providing additional path to Pune is concerned, it may be noted that Pune(GIS) is well connected at 765 kV and 400 kV level.

11.7. CTU stated that in case of Alternative vi, with full generation at Kaiga Nuclear Power Plant, there is possibility that Narendra New – Solapur (PG) 765 kV D/c line may become overloaded. Accordingly, before finalizing any alternative, it is suggested to hold a joint study meeting



11.8. POSOCO stated that there is a need to resolve the overloading of Kolhapur (PG) – Kolhapur 400 kV D/c line as the line is currently 'n-1' non-compliant.

11.9. CEA and CTU stated that as re-conductoring of Kolhapur (PG) – Kolhapur 400 kV D/c line is required in all alternatives, accordingly, the same can be agreed to be taken up.

11.10. After detailed deliberations, members agreed for the following:

- (i) Re-conductoring of Kolhapur (PG) – Kolhapur 400 kV D/c line with conductor of minimum capacity of 2100 MVA/Ckt at nominal voltage along with bay upgradation work at Kolhapur (MSETCL).
- (ii) The strengthening requirement beyond Kolhapur other than re-conductoring of Kolhapur (PG) – Kolhapur 400 kV D/c line would be studied in separate joint study meeting with CEA, CTU, WRPC & POSOCO.

9. The relevant extracts of the 5th meeting of the "National Committee on Transmission" (NCT) was held through VC on 25.08.2021 and 02.09.2021 are as follows:

"5.6. Transmission system strengthening beyond Kolhapur for export of power from Solar & Wind Energy Zones in Southern Region- Re-conductoring of Kolhapur (PG) – Kolhapur 400 kV D/c line.

5.6.1. CEA stated that in the 4th meeting of NCT held on 20th & 28th January, 2021, it was agreed that Strengthening of Kolhapur (PG) - Kolhapur (MSETCL) 400 kV section may be deliberated in WRPC(TP) meeting based on the operational constraint reported by POSOCO. The issue was deliberated in the 3rd meeting of WRPC(TP) held on 14.06.2021 wherein reconductoring of Kolhapur (PG) – Kolhapur 400 kV D/c line with conductor of minimum capacity of 2100 MVA/Ckt was agreed.

5.6.2. NCT made the following recommendation:

Sl. No	Name of the scheme	Mode of implementation	Justification
1.	Re-conductoring of Kolhapur (PG) – Kolhapur 400 kV D/c line Estimated cost: Rs 54 cr. Implementation timeframe: 15 months from date of issue of MoP OM	RTM	Remedial measure to overcome operational constraint ('N-1' noncompliance) reported by POSOCO.

The details of the scheme is given below:

Sl. No	Name of the scheme	Capacity /km
1.	Re-conductoring of Kolhapur (PG) – Kolhapur 400 kV D/c line Estimated cost: Rs 54 cr. Implementation timeframe: 15 months from the date of issue of MoP OM	Re-conductoring length – 60 km approx. 400 kV bay upgradation- 2 nos.

10. We are of the view that in the instance case, the petitioner carried out the stringing of new conductors on existing towers using the same RoW, and also, the



Petitioner carried out the replacement of terminal bay equipment with high-rating equipment. It is further observed that reconductoring is considered as technical upgradation due to the fact that only replacement of existing conductors is taking place.

11. In the instant case, the Petitioner has replaced the conductors of Kolhapur (PG)- Kolhapur 400 kV D/c line with HTLS conductors and claimed COD of the ckt-1 as 9.03.2023 and ckt-2 as 1.09.2023. The details of the existing transmission line and tariff approval details of the same is as follows:

Name of the transmission line	COD of the assets considered	Petition No under which Tariff is approved.
400 kV Kolhapur- Mapusa Transmission line Ckt I and Ckt II	Ckt-I of the transmission asset was put under commercial operation on 1.1.2003 and Ckt-II on 1.12.2002	Vide order dated 23.12.2021 in Petition No. 211/TT/2020 has trued-up tariff for 2014-19 and granted tariff for 2019-24 tariff Period.
LILO of 400 kV D/C Kolhapur-Mapusa at 400 kV Kolhapur GIS (New) along with associated bays and 125 MVAR Bus Reactor along with associated bays at 400 kV Kolhapur GIS (New)	12.11.2015	Vide order dated 27.9.2021 in Petition No. 208/TT/2020 has trued-up tariff for 2014-19 and granted tariff for 2019-24 tariff Period.

12. As per the above, it is observed that the petitioner first implemented 400 kV Kolhapur- Mapusa Transmission line in the year 2002/2003, and further LILO of 400 kV Kolhapur- Mapusa Transmission line at the Kolahapur (New) GIS Substation was implemented in the year 2015. The existing 400 kV Kolhapur- Mapusa Transmission line has already completed 21 years, and LILO has completed about 8 years as on 9.3.2023. Regulation 3(73) of 2019 tariff Regulations defines useful life in relation to transmission lines as 35 years. The towers installed in both assets have not completed their useful life, and only their conductor and associated bay equipments have been replaced under the re-conductoring scheme. We observe that the transmission assets covered in the instant Petition are not new assets. Instead, they are reconductoring and upgrading the already existing assets, which are expenses in the nature of Additional



Capitalization in the assets, for which the tariff has already been approved. The Petitioner is, accordingly, directed to claim the capital cost incurred towards the Reconductoring of Kolhapur (PG) – Kolhapur 400 kV D/c line under additional capital expenditure (ACE) under Transmission System associated with System Strengthening-XVII in the Southern Region in Petition No. 208/TT/2020 while filing true-up of tariff for 2019-24 and determination of tariff for 2024-29 Period.

13. Accordingly, we deem it proper to dispose of this Petition and grant liberty to claim the subject assets as Additional Capitalization under the main tariff Petition.

sd/-
(Harish Dudani)
Member

sd/-
(Ramesh Babu V.)
Member

sd/-
(Jishnu Barua)
Chairperson



**Central Electricity Regulatory Commission
New Delhi**

Petition No. 94/TT/2024

Coram:

**Shri Jishnu Barua, Chairperson
Shri Ramesh Babu V., Member
Shri Harish Dudani, Member**

Date of Order: 21.04.2025

In the matter of:

Corrigendum to the order dated 25.10.2024 in Petition No. 94/TT/2024.

And

In the matter of:

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for the determination of transmission tariff from COD to 31.3.2024 for **Asset 1-** Reconductoring of 400 kV Kolhapur (PG) - Kolhapur (MSETCL) TL - Ckt 1 along with upgradation of 400 kV bays at Kolhapur (MSETCL) substation and **Asset 2-** Reconductoring of 400 kV Kolhapur (PG)- Kolhapur (MSETCL) TL - Ckt 2 along with upgradation of 400 kV bays at Kolhapur (MSETCL) substation under "Transmission system strengthening beyond Kolhapur for export of power from Solar & Wind energy zones in Southern Region - Re-conductoring of Kolhapur (PG) - Kolhapur 400 kV D/c line".

And

In the matter of:

Power Grid Corporation of India Limited,
"Saudamini", Plot No. 2,
Sector 29, Gurgaon - 122 001 (Haryana)

... Petitioner

Vs.

Madhya Pradesh Power Management Company Limited,
Shakti Bhawan, Rampur,
Jabalpur-482008 and 7 others.

... Respondents



CORRIGENDUM ORDER

In terms of Regulation 54, read with Regulation 66 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2023, the order dated 25.10.2024 in Petition No. 94/TT/2024 has been amended as under:

Line 12 of the paragraph 12, after the (.) the sentence *"The Petitioner is, accordingly, directed to claim the capital cost incurred towards the Reconductoring of Kolhapur (PG) – Kolhapur 400 kV D/c line under additional capital expenditure (ACE) under Transmission System associated with System Strengthening-XVII in the Southern Region in Petition No. 208/TT/2020 while filing true-up of tariff for 2019-24 and determination of tariff for 2024-29 Period."* shall be read as "Accordingly, the Petitioner is directed to claim the capital cost incurred towards the Reconductoring of the 400 kV Kolhapur- Mapusa Transmission line and the LILO of 400 kV Kolhapur- Mapusa Transmission line at Kolahapur (New) GIS Sub-station as Additional Capital Expenditure (ACE) under the Transmission System associated with System Strengthening-XVII in the Southern Region, while filing the petition(s) for true-up for the 2019-24 Tariff Period and determination for the 2024-29 Tariff Period in Petition Nos. 211/TT/2020 and 208/TT/2020, respectively."

2. Except for the above, all other terms of the order dated 25.10.2024 in Petition No. 94/TT/2024 shall remain unaltered.

sd/-
(Harish Dudani)
Member

sd/-
(Ramesh Babu V.)
Member

sd/-
(Jishnu Barua)
Chairperson



[Signature]
ATTESTED TRUE COPY
Page no 40-98
Authorised Signatory
Power Grid Corporation of India Ltd.
Plot No. 2, Sector-29, Gurgaon-122001 (HARYANA)



CERTIFICATE

This is to certify that we have verified the relevant records and other documents of Power Grid Corporation Of India Limited having its Registered Office at B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi-110016 and on the basis of our verification, we certify that Capital Cost for Kolhapur-Mapusa Transmission System in KPWR of Power Grid Corporation of India Limited, which is detailed as under:

(₹ in Lakh)

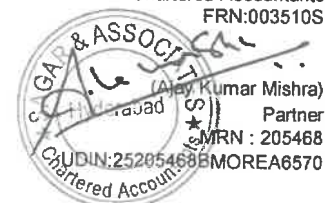
S/N	Particulars	Freehold Land	Leasehold Land	Building and Civil Works	Tr. Line	Sub Station	OPGW	Communication System excl. OPGW	I. T Equipment Incl. software	Batteries	Total
1	CAPITAL COST AS ADMITTED BY CERC as on 31.03.2019 for TARIFF BLOCK 2019-24 vide order 211/TT/2020 dated 23.12.2021	42.16	-	1,209.44	7,134.53	3,796.96	-	154.63	-	-	12,337.72
2	Expenditure from 01.04.2019 to 31.03.2020	-	-	-	-	-	-	-	-	-	-
3	Expenditure from 01.04.2020 to 31.03.2021	-	-	-	-	-	-	-	-	-	-
4	Expenditure from 01.04.2021 to 31.03.2022	-	-	-	-	-	-	-	-	-	-
5	Expenditure from 01.04.2022 to 31.03.2023	-	-	-	2,658.39	178.88	-	-	-	-	2,837.27
6	Decap from 01.04.2022 to 31.03.2023	-	-	-	(217.25)	(63.23)	-	-	-	-	(280.49)
7	Expenditure from 01.04.2023 to 31.03.2024	-	-	-	309.02	66.35	-	-	-	-	375.37
8	Decap from 01.04.2023 to 31.03.2024	-	-	-	(217.28)	(63.23)	-	-	-	-	(280.52)
9	Estimated Expenditure from 01.04.2024 to 31.03.2025	-	-	-	91.03	29.92	-	-	-	-	120.96
10	Estimated Expenditure from 01.04.2025 to 31.03.2026	-	-	-	229.34	117.63	-	-	-	-	346.97
11	Estimated Decap from 01.04.2025 to 31.03.2026	-	-	-	-	(3.96)	-	-	-	-	(3.96)
12	Estimated Expenditure from 01.04.2026 to 31.03.2027	-	-	-	-	217.73	-	-	-	-	217.73
13	Estimated Decap from 01.04.2026 to 31.03.2027	-	-	-	-	(21.77)	-	-	-	-	(21.77)
14	Estimated Expenditure from 01.04.2027 to 31.03.2028	-	-	-	-	138.55	-	-	-	-	138.55
15	Estimated Decap from 01.04.2027 to 31.03.2028	-	-	-	-	(13.86)	-	-	-	-	(13.86)
	Total	42.16	-	1,209.44	9,987.77	4,379.97	-	154.63	-	-	15,773.97

We certify that we have verified the expenditure up to 31.03.2024 as referred above on the basis of the information drawn from the audited Statement of Accounts of Power Grid Corporation of India Ltd. (Western Region-1) as on 31.03.2024.

The estimated expenditure is based on Management estimate.

Place:- Hyderabad
 Date:- 28-03-2025

For Sagar & Associates
 Chartered Accountants
 FRN:003510S



B.O.: Flat No. FF-3, H No 40-6-2, Goteti Apartment, Kandari Hotel Street, Krishna Nagar, Vijayawada – 520 010
 B.O.: H. No. 10-1-86, Mehar Nagar, Old Gajuwaka, Visakhapatnam – 530 026
 B.O.: No. 4, Poes Road, 4th Street, Teynampet, Chennai – 600 018
 B.O.: Flat No. 3C, Jeevan Residency, Behind Kalanjali, Renigunta Road, Tirupati - 517 501

PART-III
FORM-10BStatement of De-capitalisation

Name of the petitioner
Name of the Region
Name of the Project
Name of the transmission element or communication system
COD

Powergrid Corporation of India Ltd
Western Region-I
Kolhapur-Mapusa Transmission System
Kolhapur-Mapusa Transmission System
01.01.2003

(Rs in Lakhs)										
S. No.	Year of Decapitalisation	Work/Equipment proposed to be de-capitalised	Year of capitalisation of asset/equipment being decapitalised	Original book value of asset being de-capitalised	Debt Equity ratio at the time of capitalisation	Cumulative Depreciation corresponding to decapitalisation	Cumulative Repayment of Loan corresponding to decapitalisation	Justification	Petition No (Old)	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(9)	(10)	(11)	
1	2022-23	Trans. Lines	2002-03	217.25	74.19:25.81	157.25	140.13	Reconductoring works claimed as directed by the Hon'ble Commission in 94/TT/2024	211/TT/2020 & 94/TT/2024	
2	2022-23	Substation	2002-03	63.23	74.19:25.81	49.53	44.14			
3	2023-24	Trans. Lines	2002-03	217.28	74.19:25.81	159.66	142.85			
4	2023-24	Substation	2002-03	63.23	74.19:25.81	50.76	45.42	Replacement of Old bushings in ICT and Bus Reactors at Mapusa SS		
5	2025-26	Substation	2002-03	3.96	74.19:25.81	3.33	2.94			
6	2026-27	Substation	2002-03	21.77	74.19:25.81	18.75	16.15			
7	2027-28	Substation	2002-03	13.86	74.19:25.81	12.21	10.28			

Petitioner



Summary of Tariff

Name of the Transmission Licensee:	Power Grid Corporation of India Limited		
Project	Kolhapur -Mapusa		
Element Description	COMBINED ELEMENTS OF kolhapur-Mapusa TL		
Region	Western Region	DOCO Date	Jan 1, 2003

(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	266.82	266.84	266.82	310.60	302.99
Interest on Loan-Form No. 9E	167.17	135.81	121.58	106.75	91.56
Return on Equity-Form No. 8	598.11	598.11	598.11	591.31	577.71
Int. on Working capital-Form No.11	46.80	44.32	42.13	42.85	49.69
Op. and maintenance-Form No.2	717.80	743.30	769.39	796.67	824.00
Total AFC	1,796.70	1,788.38	1,798.03	1,848.18	1,845.95

(Petitioner)



Name of the Transmission Licensee		Power Grid Corporation of India Limited	
Project	Kolhapur -Mapusa		
Element Description	COMBINED ELEMENTS OF kolhapur-Mapusa TL		
Region	Western Region	DOCO Date	Jan 1, 2003

1. Transmission Lines

(Amount in Rs. Lakh)

Name of Line	Type of Line AC/ HVDC	S/C or D/C	No of Sub-Conductors	Voltage Level KV	Line Bays	Line Reactor (Including Switchable Reactor)	Line Length Km	Date of Commercial operation	Covered in the present petition	
									Yes/No	If No, Petition No.
102 KOLHAPUR-MAPUSA TL (CKT. I AND CKT. II)	AC	DC	2	400 KV	0.000	0.000	150.000	Jan 1, 2003	Y	

Summary:

O&M Expenses For the Transmission Lines Covered in the Instant petition		2019-20	2020-21	2021-22	2022-23	2023-24
DOUBLE CIRCUIT (TWIN CONDUCTOR)						
Normative Rate of O&M as per Regulation		0.881	0.912	0.944	0.977	1.011
No. of Units - (Length in KM)		150.00	150.00	150.00	150.00	150.00
O&M Claimed		132.15	136.80	141.60	146.55	151.65



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		
Mapusa:KOLHAPUR-I	Conventional	400 KV			1.000							Jan 1, 2003	Y
Mapusa:ICT-I	Conventional	400 KV			1.000							Jan 1, 2003	Y
Mapusa:ICT-I	Conventional	220 KV				1.000						Jan 1, 2003	Y
Mapusa:TIVIM-I	Conventional	220 KV				1.000						Jan 1, 2003	Y
Mapusa:PONDA-I	Conventional	220 KV				1.000						Jan 1, 2003	Y
Mapusa:PONDA-II	Conventional	220 KV				1.000						Jan 1, 2003	Y
Kolhapur:MAPUSA-I	Conventional	400 KV			1.000							Jan 1, 2003	Y
Mapusa:KOLHAPUR-2	Conventional	400 KV			1.000							Jan 1, 2003	Y
Mapusa:ICT-II	Conventional	400 KV			1.000							Jan 1, 2003	Y



Mapusa:ICT-II	Conventional	220 KV						1.000						Jan 1, 2003	Y
Mapusa:TIVIM-II	Conventional	220 KV						1.000						Jan 1, 2003	Y
Mapusa:BUS REACTOR	Conventional	400 KV					1.000							Jan 1, 2003	Y
Kolhapur:MAPUSA-II	Conventional	400 KV					1.000							Jan 1, 2003	Y
Mapusa:ICT-I AT MAPUSA	Conventional	400 KV	1.000									315.00		Jan 1, 2003	Y
Mapusa:ICT-II AT MAPUSA	Conventional	400 KV	1.000									315.00		Jan 1, 2003	Y
Mapusa:400KV 50 MVAR BUS REACTOR AT MAPUSA	Conventional	400 KV	1.000									50.000		Jan 1, 2003	Y

Summary:

O&M Expenses For Substations Covered in the instant petition												2019-20	2020-21	2021-22	2022-23	2023-24
400KV SUB-STATION																
Normative Rate of O&M as per Regulation												32.15	33.28	34.45	35.66	36.91
No. of Units												7.00	7.00	7.00	7.00	7.00
O&M Claimed												225.05	232.96	241.15	249.62	258.37
220KV SUB-STATION																
Normative Rate of O&M as per Regulation												22.51	23.30	24.12	24.96	25.84



No. of Units	6.00	6.00	6.00	6.00	6.00	6.00
O&M Claimed	135.06	139.80	144.72	149.76	155.04	
400KV SUB-STATION ICT						
Normative Rate of O&M as per Regulation	0.358	0.371	0.384	0.398	0.411	
No. of Units	2.00	2.00	2.00	2.00	2.00	
O&M Claimed	225.54	233.74	241.92	250.74	258.94	
400KV Sub-station Reactor						
Normative Rate of O&M as per Regulation	0.00	0.00	0.00	0.00	0.00	
No. of Units	0.00	0.00	0.00	0.00	0.00	
O&M Claimed	0.00	0.00	0.00	0.00	0.00	

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Summary of O&M Expenses claim

(Amount in Rs. Lakh)

Particular	2019-20	2020-21	2021-22	2022-23	2023-24
A) Normative O&M					
Transmission Line	132.15	136.80	141.60	146.55	151.65
Substation	585.65	606.50	627.79	650.12	672.35
Communication System	0.00	0.00	0.00	0.00	0.00
Total Normative O&M	717.80	743.30	769.39	796.67	824.00
B) O&M Claimed under Regulation 35 (3)(C) (* The same is not being claimed and will be claimed through separate Petition)					
*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
Total O&M	717.80	743.30	769.39	796.67	824.00



(Petitioner)

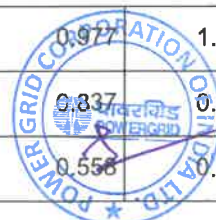
Normative parameters considered for tariff computations

Form No. - 3

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Kolhapur -Mapusa		
Element Description	COMBINED ELEMENTS OF kolhapur-Mapusa TL		
Region	Western Region	DOCO Date	Jan 1, 2003

(Amount in Rs. Lakh)

Particulars	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Base Rate of Return of Equity (in %)						
Tax Rate (in %)	21.55	17.472	17.472	17.472	17.472	17.472
Effective tax rate (in %)						
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
Norms for sub-station Bays (Rs Lakh per bay)						
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
Norms for Transformers (Rs Lakh per MVA)						
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
Norms for AC and HVDC lines (Rs Lakh per km)						
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

Norms for HVDC stations

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

(Petitioner)



Statement of Capital cost

Form No. -4A

Name of the Transmission Licensee		Power Grid Corporation of India Limited	
Project	Kolhapur -Mapusa		
Element Description	COMBINED ELEMENTS OF kolhapur-Mapusa TL		
Region	Western Region	DOCO Date	Jan 1, 2003

(Amount in Rs. Lakh)

A) Capital Cost

Particular	Accrual Basis	Un-discharged Liabilities	Cash Basis
As on relevant date :2019-20			
a) Opening Gross Block Amount as per books	12,337.72	0.00	12,337.72
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	12,337.72	0.00	12,337.72
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 :2020-21			
a) Opening Gross Block Amount as per books	12,337.72	0.00	12,337.72
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
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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	12,337.72	0.00	12,337.72
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	12,337.72	0.00	12,337.72
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	12,337.72	0.00	12,337.72
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	12,337.72	0.00	12,337.72
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) 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		-280.48	0.00	-280.48

a) Closing Gross Block Amount as per books		12,057.24	0.00	12,057.24
b) Amount of (i) IDC (ii) 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		12,057.24	0.00	12,057.24
b) Amount of (i) IDC (ii) 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

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a) Addition in Gross Block Amount during the period		0.00	0.00	0.00
b) Amount of (i) IDC (ii) 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		-280.51	0.00	-280.51

a) Closing Gross Block Amount as per books		11,776.73	0.00	11,776.73
b) Amount of (i) IDC (ii) 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	0.00	0.00	0.00	0.00
Add: Liability from ACE	0.00	0.00	0.00	0.00	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

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(Petitioner)



Financial Package upto COD

Form No. - 6

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Kolhapur -Mapusa		
Element Description	COMBINED ELEMENTS OF kolhapur-Mapusa TL		
Region	Western Region	DOCO Date	Jan 1, 2003

(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	9,153.26
Equity		0.00		0.00		0.00
Foreign		0.00		0.00		0.00
Domestic	INR	0.00		0.00	INR	3,184.46
Total Equity	INR	0.00		0.00	INR	3,184.46
Debt Equity Ratio					74:26	
Total Cost	INR	0.00		0.00	INR	12,337.72

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			-280.48



Addcap for 2023 - 2024			-280.51	
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Particulars	Actual	Normative	
Addcap for 2019 - 2020			
Equity		0.00	
Debt		0.00	
Total		0.00	
Addcap for 2020 - 2021			
Equity		0.00	
Debt		0.00	
Total		0.00	
Addcap for 2021 - 2022			
Equity		0.00	
Debt		0.00	
Total		0.00	
Addcap for 2022 - 2023			
Equity		-72.39	
Debt		-208.09	
Total		-280.48	
Addcap for 2023 - 2024			
Equity		-72.40	
Debt		-208.11	
Total		-280.51	
Total Capital cost with Addcap		11,776.73	



(Petitioner)

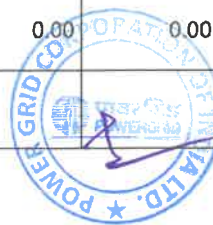
Statement of Additional Capitalisation after COD

Form No. - 7

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Kolhapur -Mapusa		
Element Description	COMBINED ELEMENTS OF kolhapur-Mapusa TL		
Region	Western Region	DOCO Date	Jan 1, 2003

(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)			
ACE for the year :2019-20 (Actual/Projected)									
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
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ACE for the year :2020-21 (Actual/Projected)									



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
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ACE for the year :2021-22 (Actual/Projected)									
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
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ACE for the year :2022-23 (Actual/Projected)									
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	-217.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Substations	0.00	-63.23	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
Total	0.00	-280.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ACE for the year :2023-24 (Actual/Projected)									
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	-217.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Substations	0.00	-63.23	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
Total	0.00	-280.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00

(Petitioner)



Financing of Additional Capitalisation

Form No. - 7A

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Kolhapur -Mapusa		
Element Description	COMBINED ELEMENTS OF kolhapur-Mapusa TL		
Region	Western Region	DOCO Date	Jan 1, 2003

(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	-208.09	-208.11					
Equity	0.00	0.00	0.00	-72.39	-72.40					
Total	0.00	0.00	0.00	-280.48	-280.51					



(Petitioner)

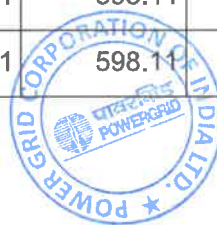
Calculation of ROE

Form No. - 8

Name of the Transmission Licensee	Power Grid Corporation of India Limited				
Project	Kolhapur -Mapusa				
Element Description	COMBINED ELEMENTS OF kolhapur-Mapusa TL				
Region	Western Region	DOC Date	Jan 1, 2003		

(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	3,184.46	3,184.46	3,184.46	3,184.46	3,112.07
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)	3,184.46	3,184.46	3,184.46	3,184.46	3,112.07
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	72.39	72.40
Add: Increase due to discharge during the year / period	0.00	0.00	0.00	0.00	0.00
Closing Normative Equity	3,184.46	3,184.46	3,184.46	3,112.07	3,039.67
Average Normative Equity	3,184.46	3,184.46	3,184.46	3,148.27	3,075.87
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	598.11	598.11	598.11	591.31	577.71
Pro rata return on Equity	598.11	598.11	598.11	591.31	577.71



(Petitioner)

Calculation of WAR of interest on actual loan

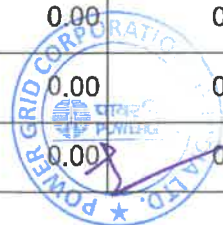
Form No. - 9C

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Kolhapur -Mapusa		
Element Description	COMBINED ELEMENTS OF kolhapur-Mapusa TL		
Region	Western Region	DOCO Date	Jan 1, 2003

(Amount in Rs. Lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
BOND IX -DOCO - 01-DEC-2002					
Gross Loan- Opening	225.00	225.00	225.00	225.00	225.00
Cumulative repayments of Loans upto previous year	225.00	225.00	225.00	225.00	225.00
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	12.25	12.25	12.25	12.25	12.25
Interest on loan	0.00	0.00	0.00	0.00	0.00

BOND IX -DOCO - 01-JAN-2003					
Gross Loan- Opening	110.00	110.00	110.00	110.00	110.00
Cumulative repayments of Loans upto previous year	110.00	110.00	110.00	110.00	110.00
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	12.25	12.25	12.25	12.25	12.25
Interest on loan	0.00	0.00	0.00	0.00	0.00

BOND XII -DOCO - 01-DEC-2002

Gross Loan- Opening	42.00	42.00	42.00	42.00	42.00
Cumulative repayments of Loans upto previous year	42.00	42.00	42.00	42.00	42.00
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

BOND XII -DOCO - 01-JAN-2003

Gross Loan- Opening	21.00	21.00	21.00	21.00	21.00
Cumulative repayments of Loans upto previous year	21.00	21.00	21.00	21.00	21.00
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



**ORIENTAL BANK OF COMMERCE -DOCO -
01-DEC-2002**

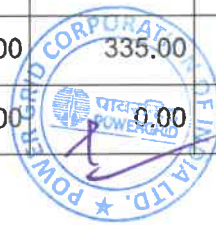
Gross Loan- Opening	279.00	279.00	279.00	279.00	279.00
Cumulative repayments of Loans upto previous year	279.00	279.00	279.00	279.00	279.00
Net loan-Opening	0.00	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00
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	0.00	0.00	0.00	0.00	0.00
Interest on loan	0.00	0.00	0.00	0.00	0.00

**ORIENTAL BANK OF COMMERCE -DOCO -
01-JAN-2003**

Gross Loan- Opening	137.00	137.00	137.00	137.00	137.00
Cumulative repayments of Loans upto previous year	137.00	137.00	137.00	137.00	137.00
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	0.00	0.00	0.00	0.00	0.00
Interest on loan	0.00	0.00	0.00	0.00	0.00

**PUNJAB NATIONAL BANK- II -DOCO - 01-
DEC-2002**

Gross Loan- Opening	335.00	335.00	335.00	335.00	335.00
Cumulative repayments of Loans upto previous year	335.00	335.00	335.00	335.00	335.00
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	0.00	0.00	0.00	0.00	0.00
Interest on loan	0.00	0.00	0.00	0.00	0.00

**PUNJAB NATIONAL BANK- II -DOCO - 01-
JAN-2003**

Gross Loan- Opening	164.00	164.00	164.00	164.00	164.00
Cumulative repayments of Loans upto previous year	164.00	164.00	164.00	164.00	164.00
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	0.00	0.00	0.00	0.00	0.00
Interest on loan	0.00	0.00	0.00	0.00	0.00

ADB II LB -DOCO - 01-DEC-2002

Gross Loan- Opening	2,472.94	2,472.94	2,472.94	2,472.94	2,472.94
Cumulative repayments of Loans upto previous year	1,895.69	2,169.94	2,472.94	2,472.94	2,472.94
Net loan-Opening	577.25	303.00	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	274.25	303.00	0.00	0.00	0.00
Net Loan-Closing	303.00	0.00	0.00	0.00	0.00
Average Net Loan	440.13	151.50	0.00	0.00	0.00

Rate of Interest on Loan on Annual Basis	4.179738	2.866431	0.00	0.00	0.00
Interest on loan	18.3963	4.3426	0.00	0.00	0.00

ADB II LB -DOCO - 01-JAN-2003

Gross Loan- Opening	1,211.88	1,211.88	1,211.88	1,211.88	1,211.88
Cumulative repayments of Loans upto previous year	928.99	1,063.39	1,211.88	1,211.88	1,211.88
Net loan-Opening	282.89	148.49	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	134.40	148.49	0.00	0.00	0.00
Net Loan-Closing	148.49	0.00	0.00	0.00	0.00
Average Net Loan	215.69	74.25	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	4.179738	2.866431	0.00	0.00	0.00
Interest on loan	9.0153	2.1283	0.00	0.00	0.00

ADB II UV -DOCO - 01-DEC-2002

Gross Loan- Opening	2,731.71	2,731.71	2,731.71	2,731.71	2,731.71
Cumulative repayments of Loans upto previous year	2,101.59	2,401.29	2,731.71	2,731.71	2,731.71
Net loan-Opening	630.12	330.42	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	299.70	330.42	0.00	0.00	0.00
Net Loan-Closing	330.42	0.00	0.00	0.00	0.00
Average Net Loan	480.27	165.21	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	7.56175	7.60	0.00	0.00	0.00
Interest on loan	36.3168	12.556	0.00	0.00	0.00

ADB II UV -DOCO - 01-JAN-2003


Gross Loan- Opening	1,339.05	1,339.05	1,339.05	1,339.05	1,339.05
Cumulative repayments of Loans upto previous year	1,030.17	1,177.08	1,339.05	1,339.05	1,339.05
Net loan-Opening	308.88	161.97	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	146.91	161.97	0.00	0.00	0.00
Net Loan-Closing	161.97	0.00	0.00	0.00	0.00
Average Net Loan	235.43	80.99	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	7.56175	7.60	0.00	0.00	0.00
Interest on loan	17.8026	6.1552	0.00	0.00	0.00

Summary

Gross Loan- Opening	9,068.58	9,068.58	9,068.58	9,068.58	9,068.58
Cumulative repayments of Loans upto previous year	7,269.44	8,124.70	9,068.58	9,068.58	9,068.58
Net loan-Opening	1,799.14	943.88	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	855.26	943.88	0.00	0.00	0.00
Net Loan-Closing	943.88	0.00	0.00	0.00	0.00
Average Net Loan	1,371.52	471.95	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	5.9446	5.3358	5.3358	5.3358	5.3358
Interest on loan	81.531	25.1821	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	Kolhapur -Mapusa		
Element Description	COMBINED ELEMENTS OF kolhapur-Mapusa TL		
Region	Western Region	DOCO Date	Jan 1, 2003

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
ADB II LB -DOCO - 01-DEC-2002 -USD					
Gross Loan-Opening	55.81	55.81	55.81	55.81	55.81
Cumulative repayments of loans upto previous year	42.7824	48.9718	55.81	55.81	55.81
Net Loans-Opening	13.0276	6.8382	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	6.1894	6.8382	0.00	0.00	0.00
Net Loan-Closing	6.8382	0.00	0.00	0.00	0.00
Average Net Loan	9.9329	3.4191	0.00	0.00	0.00
Rate of interest on Loan on Annual Basis	4.179738	2.866431	0.00	0.00	0.00
Interest on loan	0.415169	0.098006	0.00	0.00	0.00

ADB II LB -DOCO - 01-JAN-2003 -USD					
Gross Loan-Opening	27.35	27.35	27.35	27.35	27.35
Cumulative repayments of loans upto previous year	20.9657	23.9989	27.35	27.35	27.35
Net Loans-Opening	6.3843	3.3511	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of Loan during the year	3.0331	3.3511	0.00	0.00	0.00
Net Loan-Closing	3.3512	0.00	0.00	0.00	0.00



Average Net Loan	4.86775	1.67555	0.00	0.00	0.00
Rate of interest on Loan on Annual Basis	4.179738	2.866431	0.00	0.00	0.00
Interest on loan	0.203459	0.048028	0.00	0.00	0.00

ADB II UV -DOCO - 01-DEC-2002 -USD

Gross Loan-Opening	61.65	61.65	61.65	61.65	61.65
Cumulative repayments of loans upto previous year	47.4293	54.1929	61.65	61.65	61.65
Net Loans-Opening	14.2207	7.4571	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	6.7636	7.4571	0.00	0.00	0.00
Net Loan-Closing	7.4571	0.00	0.00	0.00	0.00
Average Net Loan	10.8389	3.72855	0.00	0.00	0.00
Rate of interest on Loan on Annual Basis	7.56175	7.60	0.00	0.00	0.00
Interest on loan	0.819611	0.28337	0.00	0.00	0.00

ADB II UV -DOCO - 01-JAN-2003 -USD

Gross Loan-Opening	30.22	30.22	30.22	30.22	30.22
Cumulative repayments of loans upto previous year	23.2492	26.5646	30.22	30.22	30.22
Net Loans-Opening	6.9708	3.6554	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of Loan during the year	3.3154	3.6554	0.00	0.00	0.00
Net Loan-Closing	3.6554	0.00	0.00	0.00	0.00
Average Net Loan	5.3131	1.8277	0.00	0.00	0.00
Rate of interest on Loan on Annual Basis	7.56175	7.60	0.00	0.00	0.00
Interest on loan	0.401763	0.138905	0.00	0.00	0.00



Calculation of interest on Normative loan

Form No. - 9E

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Kolhapur -Mapusa		
Element Description	COMBINED ELEMENTS OF kolhapur-Mapusa TL		
Region	Western Region	DOCO Date	Jan 1, 2003

(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	9,153.26	9,153.26	9,153.26	9,153.26	8,945.17
Cumulative repayments of Normative loan upto previous year	6,207.68	6,474.50	6,741.34	7,008.16	7,088.83
Net normative loan-Opening	2,945.58	2,678.76	2,411.92	2,145.10	1,856.34
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	208.09	208.11
Normative repayments of normative loan during the year	266.82	266.84	266.82	264.94	260.94
Adjustment of cumulative repayment pertaining to the decapitalised asset	0.00	0.00	0.00	184.27	188.27
Net normative loan - closing	2,678.76	2,411.92	2,145.10	1,856.34	1,575.56
Average normative loan	2,812.17	2,545.34	2,278.51	2,000.72	1,715.95
Weighted Average Rate of interest on actual loan	5.9446	5.3358	5.3358	5.3358	5.3358
Interest on normative loan	167.17	135.81	121.58	106.75	91.56
Pro rata interest on normative loan	167.17	135.81	121.58	106.75	91.56



(Petitioner)

Calculation of Depreciation Rate on Original Project Cost

Form No. - 10

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Kolhapur -Mapusa		
Element Description	COMBINED ELEMENTS OF kolhapur-Mapusa TL		
Region	Western Region	DOCO Date	Jan 1, 2003

(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
2019-20						
Land(Freehold)	42.16	0.00	42.16	42.16	0.00	0.00
Civil & Building	1,209.44	0.00	1,209.44	1,209.44	3.34	27.37
Transmission Line	7,134.53	0.00	7,134.53	7,134.53	5.28	154.16
Sub Station	3,796.96	0.00	3,796.96	3,796.96	5.28	82.04
Comm. Sys. excluding Fiber Optic	154.63	0.00	154.63	154.63	6.33	3.25
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
TOTAL	12,337.72	0.00	12,337.72	12,337.72	0.00	266.82
Weighted Average Rate of Depreciation(%)					2.162636	

2020-21

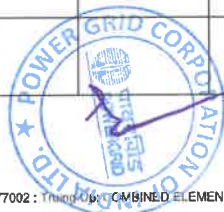
Land(Freehold)	42.16	0.00	42.16	42.16	0.00	0.00
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Civil & Building	1,209.44	0.00	1,209.44	1,209.44	3.34	27.37
Transmission Line	7,134.53	0.00	7,134.53	7,134.53	5.28	154.16
Sub Station	3,796.96	0.00	3,796.96	3,796.96	5.28	82.05
Comm. Sys. excluding Fiber Optic	154.63	0.00	154.63	154.63	6.33	3.26
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
TOTAL	12,337.72	0.00	12,337.72	12,337.72	0.00	266.84
Weighted Average Rate of Depreciation(%)					2.162798	

2021-22

Land(Freehold)	42.16	0.00	42.16	42.16	0.00	0.00
Civil & Building	1,209.44	0.00	1,209.44	1,209.44	3.34	27.37
Transmission Line	7,134.53	0.00	7,134.53	7,134.53	5.28	154.16
Sub Station	3,796.96	0.00	3,796.96	3,796.96	5.28	82.04
Comm. Sys. excluding Fiber Optic	154.63	0.00	154.63	154.63	6.33	3.25
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
TOTAL	12,337.72	0.00	12,337.72	12,337.72	0.00	266.82
Weighted Average Rate of Depreciation(%)					2.162636	



2022-23

Land(Freehold)	42.16	0.00	42.16	42.16	0.00	0.00
Civil & Building	1,209.44	0.00	1,209.44	1,209.44	3.34	27.37
Transmission Line	7,134.53	-217.25	6,917.28	7,025.91	5.28	152.57
Sub Station	3,796.96	-63.23	3,733.73	3,765.35	5.28	81.74
Comm. Sys. excluding Fiber Optic	154.63	0.00	154.63	154.63	6.33	3.26
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
TOTAL	12,337.72	-280.48	12,057.24	12,197.49	0.00	264.94
Weighted Average Rate of Depreciation(%)					2.172086	

2023-24

Land(Freehold)	42.16	0.00	42.16	42.16	0.00	0.00
Civil & Building	1,209.44	0.00	1,209.44	1,209.44	3.34	27.37
Transmission Line	6,917.28	-217.28	6,700.00	6,808.64	5.28	149.20
Sub Station	3,733.73	-63.23	3,670.50	3,702.12	5.28	81.12
Comm. Sys. excluding Fiber Optic	154.63	0.00	154.63	154.63	6.33	3.25
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
TOTAL	12,057.24	-280.51	11,776.73	11,916.99	0.00	260.94

Weighted Average Rate of Depreciation(%)					2.189647	
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(Petitioner)



Statement of Depreciation

Form No. - 10A

Name of the Transmission Licensee	Power Grid Corporation of India Limited				
Project	Kolhapur -Mapusa				
Element Description	COMBINED ELEMENTS OF kolhapur-Mapusa TL				
Region	Western Region	DOCOCO Date	Jan 1, 2003		

(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
Life at the beginning of the year					
1.1 Weighted Average useful life of the Asset/Project	31.00	31.00	31.00	31.00	31.00
1.2 Lapsed Weighted Average useful life of the Asset/Project(in completed no. of year)	16.00	17.00	18.00	19.00	20.00
1.3 Balance Weighted Average useful life of the Asset/Project(in completed no. of year)	15.00	14.00	13.00	12.00	11.00
Capital Base					
1.4 Opening capital cost	12,337.72	12,337.72	12,337.72	12,337.72	12,057.24
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	280.48	280.51
1.7 Closing capital cost	12,337.72	12,337.72	12,337.72	12,057.24	11,776.73
1.8 Average capital cost	12,337.72	12,337.72	12,337.72	12,197.49	11,916.99
1.9 Freehold land included in 1.8	42.16	42.16	42.16	42.16	42.16
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	12,295.56	12,295.56	12,295.56	12,155.33	11,874.83
1.12 Depreciable Value(1.10+90% of 1.11)	11,066.01	11,066.01	11,066.01	10,939.81	10,687.36
Depreciation for the period and Cum. Depreciation					
1.13 Weighted Average Rate of depreciation	2.162636	2.162798	2.162636	2.172086	2.189647

1.14 Depreciation(for the period)	266.82	266.84	266.82	264.94	260.94
1.15 Depreciation(Annualised)	266.82	266.84	266.82	264.94	260.94
Unrecovered Depreciation for DECAP	0.00	0.00	0.00	45.66	42.05
1.16 Cumulative depreciation at the beginning of the period	7,063.56	7,330.38	7,597.22	7,864.06	7,922.22
1.17 Less:Adj of Cum. Dep pertaining to decapitalised Asset	0.00	0.00	0.00	206.78	210.42
1.18 Cumulative depreciation at the end of the period	7,330.38	7,597.22	7,864.04	7,922.22	7,972.74

(Petitioner)



Calculation of interest on working Capital

Form No. - 11

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Kolhapur -Mapusa		
Element Description	COMBINED ELEMENTS OF kolhapur-Mapusa TL		
Region	Western Region	DOCO Date	Jan 1, 2003

(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	59.82	61.94	64.12	66.39	68.67
Maintenance spares 15% of O&M Expenses	107.67	111.50	115.41	119.50	123.60
Receivables equivalent to 45 days of AFC	220.91	220.48	221.67	222.23	221.79
Total Working capital	388.40	393.92	401.20	408.12	414.06
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	46.80	44.32	42.13	42.85	49.69
Pro rata interest on working capital	46.80	44.32	42.13	42.85	49.69

(Petitioner)



Summary of Tariff

Name of the Transmission Licensee:	Power Grid Corporation of India Limited		
Project	Kolhapur -Mapusa		
Element Description	Combined Elements of Kolhapur- Mapusa Transmission System (NEW EQUIPMENTS)		
Region	Western Region	DOCO Date	Jan 1, 2003

(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	0.00	0.00	0.00	106.40	237.82
Interest on Loan-Form No. 9E	0.00	0.00	0.00	69.50	141.66
Return on Equity-Form No. 8	0.00	0.00	0.00	79.93	170.44
Int. on Working capital-Form No.11	0.00	0.00	0.00	3.35	8.24
Op. and maintenance-Form No.2	0.00	0.00	0.00	0.00	0.00
Total AFC	0.00	0.00	0.00	259.18	558.16

(Petitioner)



Statement of Capital cost

Form No. -4A

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Kolhapur -Mapusa		
Element Description	Combined Elements of Kolhapur- Mapusa Transmission System (NEW EQUIPMENTS)		
Region	Western Region	DOCO Date	Jan 1, 2003

(Amount in Rs. Lakh)

A) Capital Cost

Particular	Accrual Basis	Un-discharged Liabilities	Cash Basis
As on relevant date :2019-20			
a) Opening Gross Block Amount as per books	0.00	0.00	0.00
b) Amount of (i) IDC (ii) FCRV & (iv) Hedging cost included in A(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FCRV & 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) FCRV & (iv) Hedging cost included in B(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FCRV & 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	0.00	0.00	0.00
b) Amount of (i) IDC (ii) FCRV & (iv) Hedging cost included in C(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FCRV & Hedging cost) included in C(a) above	0.00	0.00	0.00
As on relevant date :2020-21			
a) Opening Gross Block Amount as per books	0.00	0.00	0.00
b) Amount of (i) IDC (ii) FCRV & (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
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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	0.00	0.00	0.00
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	0.00	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

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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	0.00	0.00	0.00
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	0.00	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	2,837.27	0.00	2,837.27
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	2,837.27	0.00	2,837.27
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	2,837.27	0.00	2,837.27
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

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a) Addition in Gross Block Amount during the period	375.37	0.00	375.37
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	3,212.64	0.00	3,212.64
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	0.00
Add: Liability from ACE	0.00	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	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	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	0.00

(Petitioner)



Financial Package upto COD

Form No. - 6

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Kolhapur -Mapusa		
Element Description	Combined Elements of Kolhapur- Mapusa Transmission System (NEW EQUIPMENTS)		
Region	Western Region	DOCO Date	Jan 1, 2003

(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	0.00
Equity		0.00		0.00		0.00
Foreign		0.00		0.00		0.00
Domestic	INR	0.00		0.00	INR	0.00
Total Equity	INR	0.00		0.00	INR	0.00
Debt Equity Ratio					0:0	
Total Cost	INR	0.00		0.00	INR	0.00

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			2,837.27



Addcap for 2023 - 2024			375.37	
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Particulars	Actual	Normative	
Addcap for 2019 - 2020			
Equity		0.00	
Debt		0.00	
Total		0.00	
Addcap for 2020 - 2021			
Equity		0.00	
Debt		0.00	
Total		0.00	
Addcap for 2021 - 2022			
Equity		0.00	
Debt		0.00	
Total		0.00	
Addcap for 2022 - 2023			
Equity		851.18	
Debt		1,986.09	
Total		2,837.27	
Addcap for 2023 - 2024			
Equity		112.61	
Debt		262.76	
Total		375.37	
Total Capital cost with Addcap		3,212.64	



Statement of Additional Capitalisation after COD

Form No. - 7

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Kolhapur -Mapusa		
Element Description	Combined Elements of Kolhapur- Mapusa Transmission System (NEW EQUIPMENTS)		
Region	Western Region	DOCOD Date	Jan 1, 2003

(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)			
ACE for the year :2019-20 (Actual/Projected)									
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
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ACE for the year :2020-21 (Actual/Projected)									



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
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ACE for the year :2021-22 (Actual/Projected)									
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
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ACE for the year :2022-23 (Actual/Projected)									
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	2,658.39	0.00	0.00	0.00	0.00	0.00	0.00	2,658.39	0.00
Substations	178.88	0.00	0.00	0.00	0.00	0.00	0.00	178.88	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
Total	2,837.27	0.00	0.00	0.00	0.00	0.00	0.00	2,837.27	0.00
ACE for the year :2023-24 (Actual/Projected)									
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	309.02	0.00	0.00	0.00	0.00	0.00	0.00	309.02	0.00
Substations	66.35	0.00	0.00	0.00	0.00	0.00	0.00	66.35	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
Total	375.37	0.00	0.00	0.00	0.00	0.00	0.00	375.37	0.00

(Petitioner)




Financing of Additional Capitalisation

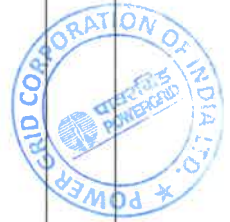
Form No. - 7A

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Kolhapur -Mapusa		
Element Description	Combined Elements of Kolhapur- Mapusa Transmission System (NEW EQUIPMENTS)		
Region	Western Region	DOCO Date	Jan 1, 2003

(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	1,986.09	262.76					
Equity	0.00	0.00	0.00	851.18	112.61					
Total	0.00	0.00	0.00	2,837.27	375.37					





(Petitioner)

Calculation of ROE

Form No. - 8

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Kolhapur -Mapusa		
Element Description	Combined Elements of Kolhapur- Mapusa Transmission System (NEW EQUIPMENTS)		
Region	Western Region	DOCO Date	Jan 1, 2003

(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	0.00	0.00	0.00	0.00	851.18
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)	0.00	0.00	0.00	0.00	851.18
Add: Increase in Equity due to addition during the year / period	0.00	0.00	0.00	851.18	112.61
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	0.00	0.00	0.00	851.18	963.79
Average Normative Equity	0.00	0.00	0.00	425.59	907.49
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	0.00	0.00	0.00	79.93	170.44
Pro rata return on Equity	0.00	0.00	0.00	79.93	170.44

(Petitioner)

Calculation of WAR of interest on actual loan

Form No. - 9C

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Kolhapur -Mapusa		
Element Description	Combined Elements of Kolhapur- Mapusa Transmission System (NEW EQUIPMENTS)		
Region	Western Region	DOCO Date	Jan 1, 2003

(Amount in Rs. Lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
SBI-04 -ADD CAP LOAN 2022-23					
Gross Loan- Opening	0.00	0.00	0.00	0.00	189.75
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	17.91	17.91
Net loan-Opening	0.00	0.00	0.00	0.00	171.84
Add: Drawl(s) during the year	0.00	0.00	0.00	189.75	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	18.98
Net Loan-Closing	0.00	0.00	0.00	189.75	152.86
Average Net Loan	0.00	0.00	0.00	94.88	162.35
Rate of Interest on Loan on Annual Basis	8.027596	6.902593	6.65	7.225616	8.126549
Interest on loan	0.00	0.00	0.00	6.8557	13.1935

BOND LXX (70) -ADD CAP LOAN 2022-23					
Gross Loan- Opening	0.00	0.00	0.00	0.00	1,400.00
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.00	0.00
Net loan-Opening	0.00	0.00	0.00	0.00	1,400.00
Add: Drawl(s) during the year	0.00	0.00	0.00	1,400.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	140.00
Net Loan-Closing	0.00	0.00	0.00	1,400.00	1,260.00

Average Net Loan	0.00	0.00	0.00	700.00	1,330.00
Rate of Interest on Loan on Annual Basis	7.40	7.40	7.40	7.40	7.40
Interest on loan	0.00	0.00	0.00	51.80	98.42

BOND LXXI (71) -ADD CAP LOAN 2022-23

Gross Loan- Opening	0.00	0.00	0.00	0.00	200.00
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.00	0.00
Net loan-Opening	0.00	0.00	0.00	0.00	200.00
Add: Drawl(s) during the year	0.00	0.00	0.00	200.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	15.00
Net Loan-Closing	0.00	0.00	0.00	200.00	185.00
Average Net Loan	0.00	0.00	0.00	100.00	192.50
Rate of Interest on Loan on Annual Basis	7.52	7.52	7.52	7.52	7.52
Interest on loan	0.00	0.00	0.00	7.52	14.476

BOND LXXII (72) -ADD CAP LOAN 2023-24

Gross Loan- Opening	0.00	0.00	0.00	0.00	0.00
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.00	0.00
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	11.78
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.88
Net Loan-Closing	0.00	0.00	0.00	0.00	10.90
Average Net Loan	0.00	0.00	0.00	0.00	5.45
Rate of Interest on Loan on Annual Basis	7.56	7.56	7.56	7.56	7.56
Interest on loan	0.00	0.00	0.00	0.00	0.412



Bond LXXIV (74) -ADD CAP LOAN 2023-24

Gross Loan- Opening	0.00	0.00	0.00	0.00	0.00
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.00	0.00
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	2.82
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	2.82
Average Net Loan	0.00	0.00	0.00	0.00	1.41
Rate of Interest on Loan on Annual Basis	7.70	7.70	7.70	7.70	7.70
Interest on loan	0.00	0.00	0.00	0.00	0.1086

Bond LXXV (75) -ADD CAP LOAN 2023-24

Gross Loan- Opening	0.00	0.00	0.00	0.00	0.00
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.00	0.00
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	51.80
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	51.80
Average Net Loan	0.00	0.00	0.00	0.00	25.90
Rate of Interest on Loan on Annual Basis	7.65	7.65	7.65	7.65	7.65
Interest on loan	0.00	0.00	0.00	0.00	1.9814

Summary

Gross Loan- Opening	0.00	0.00	0.00	0.00	1,789.75
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	17.91	17.91

Net loan-Opening	0.00	0.00	0.00	0.00	1,771.84
Add: Drawl(s) during the year	0.00	0.00	0.00	1,789.75	66.40
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	174.86
Net Loan-Closing	0.00	0.00	0.00	1,789.75	1,663.38
Average Net Loan	0.00	0.00	0.00	894.88	1,717.61
Rate of Interest on Loan on Annual Basis	0.00	0.00	0.00	7.3949	7.4867
Interest on loan	0.00	0.00	0.00	66.1757	128.5915

(Petitioner)



Calculation of interest on Normative loan

Form No. - 9E

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Kolhapur -Mapusa		
Element Description	Combined Elements of Kolhapur- Mapusa Transmission System (NEW EQUIPMENTS)		
Region	Western Region	DOCO Date	Jan 1, 2003

(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	0.00	0.00	0.00	0.00	1,986.09
Cumulative repayments of Normative loan upto previous year	0.00	0.00	0.00	0.00	106.40
Net normative loan-Opening	0.00	0.00	0.00	0.00	1,879.69
Addition in normative loan towards the ACE	0.00	0.00	0.00	1,986.09	262.76
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	106.40	237.82
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	1,879.69	1,904.63
Average normative loan	0.00	0.00	0.00	939.85	1,892.16
Weighted Average Rate of interest on actual loan	0.00	0.00	0.00	7.3949	7.4867
Interest on normative loan	0.00	0.00	0.00	69.50	141.66
Pro rata interest on normative loan	0.00	0.00	0.00	69.50	141.66

(Petitioner)



Calculation of Depreciation Rate on Original Project Cost

Form No. - 10

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Kolhapur -Mapusa		
Element Description	Combined Elements of Kolhapur- Mapusa Transmission System (NEW EQUIPMENTS)		
Region	Western Region	DOC Date	Jan 1, 2003

(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
2019-20						
Land(Freehold)	0.00	0.00	0.00	0.00	0.00	0.00
Civil & Building	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	0.00	0.00	0.00	0.00	5.28	0.00
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
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00
Weighted Average Rate of Depreciation(%)					0.00	

2020-21						
Land(Freehold)	0.00	0.00	0.00	0.00	0.00	0.00



Civil & Building	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	0.00	0.00	0.00	0.00	5.28	0.00
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
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00
Weighted Average Rate of Depreciation(%)					0.00	

2021-22						
Land(Freehold)	0.00	0.00	0.00	0.00	0.00	0.00
Civil & Building	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	0.00	0.00	0.00	0.00	5.28	0.00
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
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00
Weighted Average Rate of Depreciation(%)					0.00	



2022-23

Land(Freehold)	0.00	0.00	0.00	0.00	0.00	0.00
Civil & Building	0.00	0.00	0.00	0.00	3.34	0.00
Transmission Line	0.00	2,658.39	2,658.39	1,329.20	5.28	99.69
Sub Station	0.00	178.88	178.88	89.44	5.28	6.71
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
TOTAL	0.00	2,837.27	2,837.27	1,418.64	0.00	106.40
Weighted Average Rate of Depreciation(%)					7.500141	

2023-24

Land(Freehold)	0.00	0.00	0.00	0.00	0.00	0.00
Civil & Building	0.00	0.00	0.00	0.00	3.34	0.00
Transmission Line	2,658.39	309.02	2,967.41	2,812.90	5.28	221.08
Sub Station	178.88	66.35	245.23	212.06	5.28	16.74
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
TOTAL	2,837.27	375.37	3,212.64	3,024.96	0.00	237.82

Weighted Average Rate of Depreciation(%)					7.861922	
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(Petitioner)



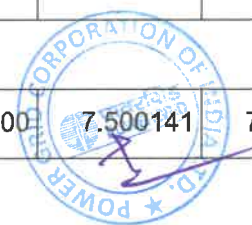
Statement of Depreciation

Form No. - 10A

Name of the Transmission Licensee	Power Grid Corporation of India Limited				
Project	Kolhapur -Mapusa				
Element Description	Combined Elements of Kolhapur- Mapusa Transmission System (NEW EQUIPMENTS)				
Region	Western Region	DOC Date	Jan 1, 2003		

(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
Life at the beginning of the year					
1.1 Weighted Average useful life of the Asset/ Project	0.00	0.00	0.00	12.00	12.00
1.2 Lapsed Weighted Average useful life of the Asset/Project(in completed no. of year)	0.00	0.00	0.00	0.00	1.00
1.3 Balance Weighted Average useful life of the Asset/Project(in completed no. of year)	0.00	0.00	0.00	12.00	11.00
Capital Base					
1.4 Opening capital cost	0.00	0.00	0.00	0.00	2,837.27
1.5 Additional Capital Expenditure dr. the year	0.00	0.00	0.00	2,837.27	375.37
1.6 De-Capitalisation During the year	0.00	0.00	0.00	0.00	0.00
1.7 Closing capital cost	0.00	0.00	0.00	2,837.27	3,212.64
1.8 Average capital cost	0.00	0.00	0.00	1,418.64	3,024.96
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	0.00	0.00	0.00	1,418.64	3,024.96
1.12 Depreciable Value(1.10+90% of 1.11)	0.00	0.00	0.00	1,276.78	2,722.46
Depreciation for the period and Cum. Depreciation					
1.13 Weighted Average Rate of depreciation	0.00	0.00	0.00	7.500141	7.861922



1.14 Depreciation(for the period)	0.00	0.00	0.00	106.40	237.82
1.15 Depreciation(Annualised)	0.00	0.00	0.00	106.40	237.82
Unrecovered Depreciation for DECAP	0.00	0.00	0.00	0.00	0.00
1.16 Cumulative depreciation at the beginning of the period	0.00	0.00	0.00	0.00	106.40
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	0.00	0.00	0.00	106.40	344.22

(Petitioner)



Calculation of interest on working Capital

Form No. - 11

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Kolhapur -Mapusa		
Element Description	Combined Elements of Kolhapur- Mapusa Transmission System (NEW EQUIPMENTS)		
Region	Western Region	DOCO Date	Jan 1, 2003

(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	0.00	0.00	0.00	0.00	0.00
Maintenance spares 15% of O&M Expenses	0.00	0.00	0.00	0.00	0.00
Receivables equivalent to 45 days of AFC	0.00	0.00	0.00	31.95	68.63
Total Working capital	0.00	0.00	0.00	31.95	68.63
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	0.00	0.00	0.00	3.35	8.24
Pro rata interest on working capital	0.00	0.00	0.00	3.35	8.24

(Petitioner)



Summary of Tariff

Name of the Transmission Licensee:	Power Grid Corporation of India Limited			
Project	Kolhapur -Mapusa			
Element Description	COMBINED ELEMENTS OF kolhapur-Mapusa TL			
Region	Western Region	DOCO Date	Jan 1, 2003	

(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	258.85	259.05	259.60	258.94	258.66
Interest on Loan-Form No. 9E	77.16	63.35	49.54	35.74	21.94
Return on Equity-Form No. 8	570.91	570.82	570.19	569.33	568.99
Int. on Working capital-Form No.11	40.98	42.22	43.51	44.82	46.38
Op. and maintenance-Form No.2	638.04	671.64	706.52	743.47	783.13
Total AFC	1,585.94	1,607.08	1,629.36	1,652.30	1,679.10

(Petitioner)



Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Kolhapur -Mapusa		
Element Description	COMBINED ELEMENTS OF kolhapur-Mapusa TL		
Region	Western Region	DOCO Date	Jan 1, 2003

1. Transmission Lines

(Amount in Rs. Lakh)

Name of Line	Type of Line AC/ HVDC	S/C or D/C	No of Sub- Conductors	Voltage Level KV	Line Bays	Line Reactor (Including Switchable Reactor)	Line Length Km	Date of Commercial operation	Covered in the present petition	
									Yes/No	If No, Petition No.
161 KOLHAPUR-MAPUSA TL (CKT. I AND CKT. II)	AC	DC	2	400 KV	0.000	0.000	150.000	Jan 1, 2003	Y	

Summary:

O&M Expenses For the Transmission Lines Covered in the instant petition	2024-25	2025-26	2026-27	2027-28	2028-29
DOUBLE CIRCUIT (TWIN CONDUCTOR)					
Normative Rate of O&M as per Regulation	0.861	0.906	0.953	1.003	1.056
No. of Units - (Length in KM)	150.00	150.00	150.00	150.00	150.00
O&M Claimed	129.15	135.90	142.95	150.45	158.40



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		
Mapusa:KOLHAPUR-I	Conventional	400 KV			1.000							Jan 1, 2003	Y
Mapusa:ICT-I	Conventional	400 KV			1.000							Jan 1, 2003	Y
Mapusa:ICT-I	Conventional	220 KV				1.000						Jan 1, 2003	Y
Mapusa:TIVIM-I	Conventional	220 KV				1.000						Jan 1, 2003	Y
Mapusa:PONDA-I	Conventional	220 KV				1.000						Jan 1, 2003	Y
Mapusa:PONDA-II	Conventional	220 KV				1.000						Jan 1, 2003	Y
Kolhapur:MAPUSA-I	Conventional	400 KV			1.000							Jan 1, 2003	Y
Mapusa:KOLHAPUR-2	Conventional	400 KV			1.000							Jan 1, 2003	Y
Mapusa:ICT-II	Conventional	400 KV			1.000							Jan 1, 2003	Y



Mapusa:ICT-II	Conventio nal	220 KV							1.000							Jan 1, 2003	Y	
Mapusa:TIVIM-II	Conventio nal	220 KV							1.000							Jan 1, 2003	Y	
Mapusa:BUS REACTOR	Conventio nal	400 KV						1.000								Jan 1, 2003	Y	
Kolhapur:MAPUSA-II	Conventio nal	400 KV						1.000								Jan 1, 2003	Y	
Mapusa:ICT-I AT MAPUSA	Conventio nal	400 KV	1.000											315.00		Jan 1, 2003	Y	
Mapusa:ICT-II AT MAPUSA	Conventio nal	400 KV	1.000											315.00		Jan 1, 2003	Y	
1 3 Mapusa:400KV 50 MVAR BUS REACTOR AT MAPUSA	Conventio nal	400 KV	1.000											50.000		Jan 1, 2003	Y	

Summary:

O&M Expenses For Substations Covered in the instant petition		2024-25	2025-26	2026-27	2027-28	2028-29
400KV SUB-STATION						
Normative Rate of O&M as per Regulation		29.53	31.08	32.71	34.43	36.23
No. of Units		7.00	7.00	7.00	7.00	7.00
O&M Claimed		206.71	217.56	228.97	241.01	253.61
220KV SUB-STATION						
Normative Rate of O&M as per Regulation		20.67	21.75	22.90	24.10	25.36



No. of Units	6.00	6.00	6.00	6.00	6.00
O&M Claimed	124.02	130.50	137.40	144.60	152.16
400KV SUB-STATION ICT					
Normative Rate of O&M as per Regulation	0.262	0.276	0.29	0.305	0.322
No. of Units	2.00	2.00	2.00	2.00	2.00
O&M Claimed	165.06	173.88	182.70	192.16	202.86
400KV Sub-station Reactor					
Normative Rate of O&M as per Regulation	0.262	0.276	0.29	0.305	0.322
No. of Units	1.00	1.00	1.00	1.00	1.00
O&M Claimed	13.10	13.80	14.50	15.25	16.10

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Summary of O&M Expenses claim

(Amount in Rs. Lakh)

Particular	2024-25	2025-26	2026-27	2027-28	2028-29
A) Normative O&M					
Transmission Line	129.15	135.90	142.95	150.45	158.40
Substation	508.89	535.74	563.57	593.02	624.73
Communication System	0.00	0.00	0.00	0.00	0.00
Total Normative O&M	638.04	671.64	706.52	743.47	783.13
B) O&M Claimed under Regulation 35 (3)(C) (* The same is not being claimed and will be claimed through separate Petition)					
*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
Total O&M	638.04	671.64	706.52	743.47	783.13

(Petitioner)



Statement of Capital cost

Form No. -4A

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Kolhapur -Mapusa		
Element Description	COMBINED ELEMENTS OF kolhapur-Mapusa TL		
Region	Western Region	DOCO Date	Jan 1, 2003

A) Capital Cost

(Amount in Rs. Lakh)

Particular	Accrual Basis	Un-discharged Liabilities	Cash Basis
As on relevant date :2024-25			
a) Opening Gross Block Amount as per books	11,776.73	0.00	11,776.73
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	11,776.73	0.00	11,776.73
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 :2025-26			
a) Opening Gross Block Amount as per books	11,776.73	0.00	11,776.73
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
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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	-3.96	0.00	-3.96

a) Closing Gross Block Amount as per books	11,772.77	0.00	11,772.77
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 :2026-27

a) Opening Gross Block Amount as per books	11,772.77	0.00	11,772.77
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	-21.77	0.00	-21.77

a) Closing Gross Block Amount as per books	11,751.00	0.00	11,751.00
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 :2027-28

a) Opening Gross Block Amount as per books	11,751.00	0.00	11,751.00
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		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		-13.86	0.00	-13.86

a) Closing Gross Block Amount as per books	11,737.14	0.00	0.00	11,737.14
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in C(a) above	0.00	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	0.00

As on relevant date :2028-29

a) Opening Gross Block Amount as per books	11,737.14	0.00	0.00	11,737.14
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in A(a) above	0.00	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	0.00

-16-

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	11,737.14	0.00	0.00	11,737.14
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in C(a) above	0.00	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	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	0.00	0.00	0.00	0.00
Add: Liability from ACE	0.00	0.00	0.00	0.00	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

(Petitioner)



Financial Package upto COD

Form No. - 6

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Kolhapur -Mapusa		
Element Description	COMBINED ELEMENTS OF kolhapur-Mapusa TL		
Region	Western Region	DOCO Date	Jan 1, 2003

(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	8,737.06
Equity		0.00		0.00		0.00
Foreign		0.00		0.00		0.00
Domestic	INR	0.00		0.00	INR	3,039.67
Total Equity	INR	0.00		0.00	INR	3,039.67
Debt Equity Ratio					74:26	
Total Cost	INR	0.00		0.00	INR	11,776.73

Particulars	Debt	Equity	Total	
Addcap for 2024 - 2025			0.00	
Addcap for 2025 - 2026			-3.96	
Addcap for 2026 - 2027			-21.77	
Addcap for 2027 - 2028			-13.86	



Addcap for 2028 - 2029			0.00	
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Particulars	Actual	Normative	
Addcap for 2024 - 2025			
Equity		0.00	
Debt		0.00	
Total		0.00	
Addcap for 2025 - 2026			
Equity		-1.02	
Debt		-2.94	
Total		-3.96	
Addcap for 2026 - 2027			
Equity		-5.62	
Debt		-16.15	
Total		-21.77	
Addcap for 2027 - 2028			
Equity		-3.58	
Debt		-10.28	
Total		-13.86	
Addcap for 2028 - 2029			
Equity		0.00	
Debt		0.00	
Total		0.00	
Total Capital cost with Addcap		11,737.14	



Statement of Additional Capitalisation after COD

Form No. - 7

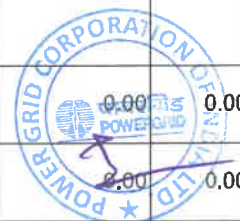
Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Kolhapur -Mapusa		
Element Description	COMBINED ELEMENTS OF kolhapur-Mapusa TL		
Region	Western Region	DOCO Date	Jan 1, 2003

(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)			
ACE for the year :2024-25 (Actual/Projected)									
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
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ACE for the year :2025-26 (Actual/Projected)									



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	-3.96	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
Total	0.00	-3.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ACE for the year :2026-27 (Actual/Projected)									
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	-21.77	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
Total	0.00	-21.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ACE for the year :2027-28 (Actual/Projected)									
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	-13.86	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
Total	0.00	-13.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ACE for the year :2028-29 (Actual/Projected)									
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
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

(Petitioner)



Financing of Additional Capitalisation

Form No. - 7A

Name of the Transmission Licensee		Power Grid Corporation of India Limited	
Project	Kolhapur -Mapusa		
Element Description	COMBINED ELEMENTS OF kolhapur-Mapusa TL		
Region	Western Region	DOCO Date	Jan 1, 2003

(Amount in Rs. Lakh)

Financial Year (Starting of COD)	Actual/Projected					Admitted			
	2024-25	2025-26	2026-27	2027-28	2028-29	2024-25	2025-26	2026-27	2027-28
Amount capitalized in Work/ Equipment									
Financing Details									
Total Loan	0.00	-2.94	-16.15	-10.28	0.00				
Equity	0.00	-1.02	-5.62	-3.58	0.00				
Total	0.00	-3.96	-21.77	-13.86	0.00				



A
(Petitioner)

Calculation of ROE

Form No. - 8

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Kolhapur -Mapusa		
Element Description	COMBINED ELEMENTS OF kolhapur-Mapusa TL		
Region	Western Region	DOCO Date	Jan 1, 2003

(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	3,039.67	3,039.67	3,038.65	3,033.03	3,029.45
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)	3,039.67	3,039.67	3,038.65	3,033.03	3,029.45
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	1.02	5.62	3.58	0.00
Add: Increase due to discharge during the year / period	0.00	0.00	0.00	0.00	0.00
Closing Normative Equity	3,039.67	3,038.65	3,033.03	3,029.45	3,029.45
Average Normative Equity	3,039.67	3,039.16	3,035.84	3,031.24	3,029.45
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	570.91	570.82	570.19	569.33	568.99
Pro rata return on Equity	570.91	570.82	570.19	569.33	568.99



Calculation of WAR of interest on actual loan

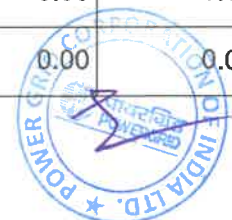
Form No. - 9C

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Kolhapur -Mapusa		
Element Description	COMBINED ELEMENTS OF kolhapur-Mapusa TL		
Region	Western Region	DOCO Date	Jan 1, 2003

(Amount in Rs. Lakh)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
BOND IX -DOCO - 01-DEC-2002					
Gross Loan- Opening	225.00	225.00	225.00	225.00	225.00
Cumulative repayments of Loans upto previous year	225.00	225.00	225.00	225.00	225.00
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	12.25	12.25	12.25	12.25	12.25
Interest on loan	0.00	0.00	0.00	0.00	0.00

BOND IX -DOCO - 01-JAN-2003					
Gross Loan- Opening	110.00	110.00	110.00	110.00	110.00
Cumulative repayments of Loans upto previous year	110.00	110.00	110.00	110.00	110.00
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



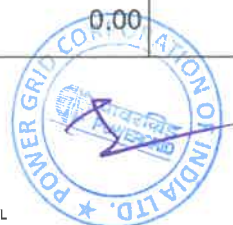
Average Net Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	12.25	12.25	12.25	12.25	12.25
Interest on loan	0.00	0.00	0.00	0.00	0.00

BOND XII -DOCO - 01-DEC-2002

Gross Loan- Opening	42.00	42.00	42.00	42.00	42.00
Cumulative repayments of Loans upto previous year	42.00	42.00	42.00	42.00	42.00
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

BOND XII -DOCO - 01-JAN-2003

Gross Loan- Opening	21.00	21.00	21.00	21.00	21.00
Cumulative repayments of Loans upto previous year	21.00	21.00	21.00	21.00	21.00
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



**ORIENTAL BANK OF COMMERCE -DOCO -
01-DEC-2002**

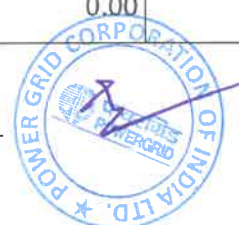
Gross Loan- Opening	279.00	279.00	279.00	279.00	279.00
Cumulative repayments of Loans upto previous year	279.00	279.00	279.00	279.00	279.00
Net loan-Opening	0.00	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00
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	9.10	9.10	9.10	9.10	9.10
Interest on loan	0.00	0.00	0.00	0.00	0.00

**ORIENTAL BANK OF COMMERCE -DOCO -
01-JAN-2003**

Gross Loan- Opening	137.00	137.00	137.00	137.00	137.00
Cumulative repayments of Loans upto previous year	137.00	137.00	137.00	137.00	137.00
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	9.10	9.10	9.10	9.10	9.10
Interest on loan	0.00	0.00	0.00	0.00	0.00

**PUNJAB NATIONAL BANK- II -DOCO - 01-
DEC-2002**

Gross Loan- Opening	335.00	335.00	335.00	335.00	335.00
Cumulative repayments of Loans upto previous year	335.00	335.00	335.00	335.00	335.00
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	8.85	8.85	8.85	8.85	8.85
Interest on loan	0.00	0.00	0.00	0.00	0.00

**PUNJAB NATIONAL BANK- II -DOCO - 01-
JAN-2003**

Gross Loan- Opening	164.00	164.00	164.00	164.00	164.00
Cumulative repayments of Loans upto previous year	164.00	164.00	164.00	164.00	164.00
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	8.85	8.85	8.85	8.85	8.85
Interest on loan	0.00	0.00	0.00	0.00	0.00

ADB II LB -DOCO - 01-DEC-2002

Gross Loan- Opening	2,472.94	2,472.94	2,472.94	2,472.94	2,472.94
Cumulative repayments of Loans upto previous year	2,472.94	2,472.94	2,472.94	2,472.94	2,472.94
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	2.2196	2.2196	2.2196	2.2196	2.2196
Interest on loan	0.00	0.00	0.00	0.00	0.00

ADB II LB -DOCO - 01-JAN-2003

Gross Loan- Opening	1,211.88	1,211.88	1,211.88	1,211.88	1,211.88
Cumulative repayments of Loans upto previous year	1,211.88	1,211.88	1,211.88	1,211.88	1,211.88
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	2.2196	2.2196	2.2196	2.2196	2.2196
Interest on loan	0.00	0.00	0.00	0.00	0.00

ADB II UV -DOCO - 01-DEC-2002

Gross Loan- Opening	2,731.71	2,731.71	2,731.71	2,731.71	2,731.71
Cumulative repayments of Loans upto previous year	2,731.71	2,731.71	2,731.71	2,731.71	2,731.71
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	7.60	7.60	7.60	7.60	7.60
Interest on loan	0.00	0.00	0.00	0.00	0.00

ADB II UV -DOCO - 01-JAN-2003



Gross Loan- Opening	1,339.05	1,339.05	1,339.05	1,339.05	1,339.05
Cumulative repayments of Loans upto previous year	1,339.05	1,339.05	1,339.05	1,339.05	1,339.05
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	7.60	7.60	7.60	7.60	7.60
Interest on loan	0.00	0.00	0.00	0.00	0.00

Summary

Gross Loan- Opening	9,068.58	9,068.58	9,068.58	9,068.58	9,068.58
Cumulative repayments of Loans upto previous year	9,068.58	9,068.58	9,068.58	9,068.58	9,068.58
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	5.3358	5.3358	5.3358	5.3358	5.3358
Interest on loan	0.00	0.00	0.00	0.00	0.00

(Petitioner)



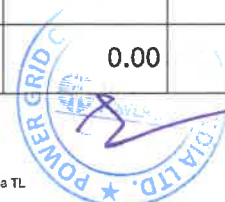
Loans in Foreign Currency

Form No. - 9D

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Kolhapur -Mapusa		
Element Description	COMBINED ELEMENTS OF kolhapur-Mapusa TL		
Region	Western Region	DOCO Date	Jan 1, 2003

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
ADB II LB -DOCO - 01-DEC-2002 -USD					
Gross Loan-Opening	55.81	55.81	55.81	55.81	55.81
Cumulative repayments of loans upto previous year	55.81	55.81	55.81	55.81	55.81
Net Loans-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	2.2196	2.2196	2.2196	2.2196	2.2196
Interest on loan	0.00	0.00	0.00	0.00	0.00

ADB II LB -DOCO - 01-JAN-2003 -USD					
Gross Loan-Opening	27.35	27.35	27.35	27.35	27.35
Cumulative repayments of loans upto previous year	27.35	27.35	27.35	27.35	27.35
Net Loans-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	2.2196	2.2196	2.2196	2.2196	2.2196
Interest on loan	0.00	0.00	0.00	0.00	0.00

ADB II UV -DOCO - 01-DEC-2002 -USD

Gross Loan-Opening	61.65	61.65	61.65	61.65	61.65
Cumulative repayments of loans upto previous year	61.65	61.65	61.65	61.65	61.65
Net Loans-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	7.60	7.60	7.60	7.60	7.60
Interest on loan	0.00	0.00	0.00	0.00	0.00

ADB II UV -DOCO - 01-JAN-2003 -USD

Gross Loan-Opening	30.22	30.22	30.22	30.22	30.22
Cumulative repayments of loans upto previous year	30.22	30.22	30.22	30.22	30.22
Net Loans-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	7.60	7.60	7.60	7.60	7.60
Interest on loan	0.00	0.00	0.00	0.00	0.00



Calculation of interest on Normative loan

Form No. - 9E

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Kolhapur -Mapusa		
Element Description	COMBINED ELEMENTS OF kolhapur-Mapusa TL		
Region	Western Region	DOCO Date	Jan 1, 2003

(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	8,737.06	8,737.06	8,734.12	8,717.97	8,707.69
Cumulative repayments of Normative loan upto previous year	7,161.50	7,420.35	7,676.23	7,918.84	8,167.23
Net normative loan-Opening	1,575.56	1,316.71	1,057.89	799.13	540.46
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	2.94	16.15	10.28	0.00
Normative repayments of normative loan during the year	258.85	258.82	258.76	258.67	258.66
Adjustment of cumulative repayment pertaining to the decapitalised asset	0.00	2.94	16.15	10.28	0.00
Net normative loan - closing	1,316.71	1,057.89	799.13	540.46	281.80
Average normative loan	1,446.14	1,187.30	928.51	669.80	411.13
Weighted Average Rate of interest on actual loan	5.3358	5.3358	5.3358	5.3358	5.3358
Interest on normative loan	77.16	63.35	49.54	35.74	21.94
Pro rata interest on normative loan	77.16	63.35	49.54	35.74	21.94

(Petitioner)



Calculation of Depreciation Rate on Original Project Cost

Form No. - 10

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Kolhapur -Mapusa		
Element Description	COMBINED ELEMENTS OF kolhapur-Mapusa TL		
Region	Western Region	DOCO Date	Jan 1, 2003

(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
2024-25						
Land(Freehold)	42.16	0.00	42.16	42.16	0.00	0.00
Civil & Building	1,209.44	0.00	1,209.44	1,209.44	3.34	27.37
Transmission Line	6,700.00	0.00	6,700.00	6,700.00	5.28	147.40
Sub Station	3,670.50	0.00	3,670.50	3,670.50	5.28	80.82
Comm. Sys. excluding Fiber Optic	154.63	0.00	154.63	154.63	15.00	3.26
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDSM/ SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	0.00	0.00	0.00	9.50	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
TOTAL	11,776.73	0.00	11,776.73	11,776.73	0.00	258.85
Weighted Average Rate of Depreciation(%)					2.197979	

2025-26						
Land(Freehold)	42.16	0.00	42.16	42.16	0.00	0.00



Comm. Sys. excluding Fiber Optic	154.63	0.00	154.63	154.63	15.00	3.25
Civil & Building	1,209.44	0.00	1,209.44	1,209.44	3.34	27.37
Transmission Line	6,700.00	0.00	6,700.00	6,700.00	5.28	147.40
Sub Station	3,670.50	-3.96	3,666.54	3,668.52	5.28	80.80
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
TOTAL	11,776.73	-3.96	11,772.77	11,774.75	0.00	258.82
Weighted Average Rate of Depreciation(%)					2.198093	

2026-27						
Sub Station	3,666.54	-21.77	3,644.77	3,655.66	5.28	80.73
Land(Freehold)	42.16	0.00	42.16	42.16	0.00	0.00
Civil & Building	1,209.44	0.00	1,209.44	1,209.44	3.34	27.37
Transmission Line	6,700.00	0.00	6,700.00	6,700.00	5.28	147.40
Comm. Sys. excluding Fiber Optic	154.63	0.00	154.63	154.63	15.00	3.26
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
TOTAL	11,772.77	-21.77	11,751.00	11,761.89	0.00	258.76
Weighted Average Rate of Depreciation(%)					2.199987	



2027-28

Sub Station	3,644.77	-13.86	3,630.91	3,637.84	5.28	80.65
Land(Freehold)	42.16	0.00	42.16	42.16	0.00	0.00
Civil & Building	1,209.44	0.00	1,209.44	1,209.44	3.34	27.37
Transmission Line	6,700.00	0.00	6,700.00	6,700.00	5.28	147.40
Comm. Sys. excluding Fiber Optic	154.63	0.00	154.63	154.63	15.00	3.25
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
TOTAL	11,751.00	-13.86	11,737.14	11,744.07	0.00	258.67
Weighted Average Rate of Depreciation(%)					2.202558	

2028-29

Transmission Line	6,700.00	0.00	6,700.00	6,700.00	5.28	147.40
Sub Station	3,630.91	0.00	3,630.91	3,630.91	5.28	80.63
Comm. Sys. excluding Fiber Optic	154.63	0.00	154.63	154.63	15.00	3.26
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
Civil & Building	1,209.44	0.00	1,209.44	1,209.44	3.34	27.37
Land(Freehold)	42.16	0.00	42.16	42.16	0.00	0.00
TOTAL	11,737.14	0.00	11,737.14	11,737.14	0.00	258.66

Weighted Average Rate of Depreciation(%)					2.203774	
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(Petitioner)



Statement of Depreciation

Form No. - 10A

Name of the Transmission Licensee	Power Grid Corporation of India Limited			
Project	Kolhapur -Mapusa			
Element Description	COMBINED ELEMENTS OF kolhapur-Mapusa TL			
Region	Western Region	DOC Date	Jan 1, 2003	

(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
Life at the beginning of the year					
1.1 Weighted Average useful life of the Asset/ Project	31.00	31.00	31.00	31.00	31.00
1.2 Lapsed Weighted Average useful life of the Asset/Project(in completed no. of year)	21.00	22.00	23.00	24.00	25.00
1.3 Balance Weighted Average useful life of the Asset/Project(in completed no. of year)	10.00	9.00	8.00	7.00	6.00
Capital Base					
1.4 Opening capital cost	11,776.73	11,776.73	11,772.77	11,751.00	11,737.14
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	3.96	21.77	13.86	0.00
1.7 Closing capital cost	11,776.73	11,772.77	11,751.00	11,737.14	11,737.14
1.8 Average capital cost	11,776.73	11,774.75	11,761.89	11,744.07	11,737.14
1.9 Freehold land included in 1.8	42.16	42.16	42.16	42.16	42.16
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	11,734.57	11,732.59	11,719.73	11,701.91	11,694.98
1.12 Depreciable Value(1.10+90% of 1.11)	10,561.12	10,559.34	10,547.76	10,531.73	10,525.49
Depreciation for the period and Cum. Depreciation					
1.13 Weighted Average Rate of depreciation	2.197979	2.198093	2.199987	2.202558	2.203774

1.14 Depreciation(for the period)	258.85	258.82	258.76	258.67	258.66
1.15 Depreciation(Annualised)	258.85	258.82	258.76	258.67	258.66
Unrecovered Depreciation for DECAP	0.00	0.23	0.84	0.27	0.00
1.16 Cumulative depreciation at the beginning of the period	7,972.74	8,231.60	8,487.10	8,727.12	8,973.58
1.17 Less:Adj of Cum. Dep pertaining to decapitalised Asset	0.00	3.33	18.75	12.21	0.00
1.18 Cumulative depreciation at the end of the period	8,231.59	8,487.09	8,727.11	8,973.58	9,232.24

(Petitioner)



Calculation of interest on working Capital

Form No. - 11

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Kolhapur -Mapusa		
Element Description	COMBINED ELEMENTS OF kolhapur-Mapusa TL		
Region	Western Region	DOCO Date	Jan 1, 2003

(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
O&M Expenses-one month	53.17	55.97	58.88	61.96	65.26
Maintenance spares 15% of O&M Expenses	95.71	100.75	105.98	111.52	117.47
Receivables equivalent to 45 days of AFC	195.53	198.10	200.78	203.12	207.01
Total Working capital	344.41	354.82	365.64	376.60	389.74
Bank Rate as on 01.04.2024 or as on 01st April of the COD year, whichever is later.	11.90	11.90	11.90	11.90	11.90
Interest on working capital	40.98	42.22	43.51	44.82	46.38
Pro rata interest on working capital	40.98	42.22	43.51	44.82	46.38


(Petitioner)

Summary of Tariff

Name of the Transmission Licensee:	Power Grid Corporation of India Limited				
Project	Kolhapur -Mapusa				
Element Description	Combined Elements of Kolhapur- Mapusa Transmission System (NEW EQUIPMENTS)				
Region	Western Region	DOCO Date	Jan 1, 2003		

(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	260.16	283.55	315.33	338.22	348.62
Interest on Loan-Form No. 9E	136.19	128.07	120.42	105.26	83.13
Return on Equity-Form No. 8	184.43	197.61	213.52	223.55	227.46
Int. on Working capital-Form No.11	8.65	9.07	9.67	9.90	9.82
Op. and maintenance-Form No.2	0.00	0.00	0.00	0.00	0.00
Total AFC	589.43	618.30	658.94	676.93	669.03

(Petitioner)



Statement of Capital cost

Form No. - 4A

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Kolhapur -Mapusa		
Element Description	Combined Elements of Kolhapur- Mapusa Transmission System (NEW EQUIPMENTS)		
Region	Western Region	DOCO Date	Jan 1, 2003

(Amount in Rs. Lakh)

A) Capital Cost

Particular	Accrual Basis	Un-discharged Liabilities	Cash Basis
As on relevant date :2024-25			
a) Opening Gross Block Amount as per books	3,212.64	0.00	3,212.64
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	120.95	0.00	120.95
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	3,333.59	0.00	3,333.59
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 :2025-26			
a) Opening Gross Block Amount as per books	3,333.59	0.00	3,333.59
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
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a) Addition in Gross Block Amount during the period	346.97	0.00	346.97
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	3,680.56	0.00	3,680.56
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 :2026-27

a) Opening Gross Block Amount as per books	3,680.56	0.00	3,680.56
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

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a) Addition in Gross Block Amount during the period	217.73	0.00	217.73
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	3,898.29	0.00	3,898.29
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 :2027-28

a) Opening Gross Block Amount as per books	3,898.29	0.00	3,898.29
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	138.55	0.00	138.55
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	4,036.84	0.00	4,036.84
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	4,036.84	0.00	4,036.84
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

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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	4,036.84	0.00	4,036.84
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

(Petitioner)



Financial Package upto COD

Form No. - 6

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Kolhapur -Mapusa		
Element Description	Combined Elements of Kolhapur- Mapusa Transmission System (NEW EQUIPMENTS)		
Region	Western Region	DOCO Date	Jan 1, 2003

(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	2,248.85
Equity		0.00		0.00		0.00
Foreign		0.00		0.00		0.00
Domestic	INR	0.00		0.00	INR	963.79
Total Equity	INR	0.00		0.00	INR	963.79
Debt Equity Ratio					70:30	
Total Cost	INR	0.00		0.00	INR	3,212.64

Particulars	Debt	Equity	Total
Addcap for 2024 - 2025			120.95
Addcap for 2025 - 2026			346.97
Addcap for 2026 - 2027			217.73
Addcap for 2027 - 2028			138.55



Addcap for 2028 - 2029			0.00	
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Particulars	Actual	Normative	
Addcap for 2024 - 2025			
Equity		36.28	
Debt		84.67	
Total		120.95	
Addcap for 2025 - 2026			
Equity		104.09	
Debt		242.88	
Total		346.97	
Addcap for 2026 - 2027			
Equity		65.32	
Debt		152.41	
Total		217.73	
Addcap for 2027 - 2028			
Equity		41.56	
Debt		96.99	
Total		138.55	
Addcap for 2028 - 2029			
Equity		0.00	
Debt		0.00	
Total		0.00	
Total Capital cost with Addcap		4,036.84	



Statement of Additional Capitalisation after COD

Form No. - 7

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Kolhapur -Mapusa		
Element Description	Combined Elements of Kolhapur- Mapusa Transmission System (NEW EQUIPMENTS)		
Region	Western Region	DOCO Date	Jan 1, 2003

(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 Receiv ed (if any) (3)	Asset pertain ing to other busines s (If any) (4)	Other Dedu ct ion (if any) (5)	Less: Un- discharge d liability included in (2-4-5)			
ACE for the year :2024-25 (Actual/Projected)									
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	91.03	0.00	0.00	0.00	0.00	0.00	0.00	91.03	0.00
Substations	29.92	0.00	0.00	0.00	0.00	0.00	0.00	29.92	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
Total	120.95	0.00	0.00	0.00	0.00	0.00	0.00	120.95	0.00
ACE for the year :2025-26 (Actual/Projected)									



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	229.34	0.00	0.00	0.00	0.00	0.00	0.00	229.34	0.00
Substations	117.63	0.00	0.00	0.00	0.00	0.00	0.00	117.63	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
Total	346.97	0.00	0.00	0.00	0.00	0.00	0.00	346.97	0.00
ACE for the year :2026-27 (Actual/Projected)									
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	217.73	0.00	0.00	0.00	0.00	0.00	0.00	217.73	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
Total	217.73	0.00	0.00	0.00	0.00	0.00	0.00	217.73	0.00
ACE for the year :2027-28 (Actual/Projected)									
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	138.55	0.00	0.00	0.00	0.00	0.00	0.00	138.55	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
Total	138.55	0.00	0.00	0.00	0.00	0.00	0.00	138.55	0.00
ACE for the year :2028-29 (Actual/Projected)									
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
Total	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	Kolhapur -Mapusa		
Element Description	Combined Elements of Kolhapur- Mapusa Transmission System (NEW EQUIPMENTS)		
Region	Western Region	DOCO Date	Jan 1, 2003

(Amount in Rs. Lakh)										
Financial Year (Starting of COD)	Actual/Projected					Admitted				
	2024-25	2025-26	2026-27	2027-28	2028-29	2024-25	2025-26	2026-27	2027-28	2028-29
Amount capitalized in Work/ Equipment										
Financing Details										
Total Loan	84.67	242.88	152.41	96.99	0.00					
Equity	36.28	104.09	65.32	41.56	0.00					
Total	120.95	346.97	217.73	138.55	0.00					



(Petitioner)

Calculation of ROE

Form No. - 8

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Kolhapur -Mapusa		
Element Description	Combined Elements of Kolhapur- Mapusa Transmission System (NEW EQUIPMENTS)		
Region	Western Region	DOCO Date	Jan 1, 2003

(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	963.79	1,000.07	1,104.16	1,169.48	1,211.04
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)	963.79	1,000.07	1,104.16	1,169.48	1,211.04
Add: Increase in Equity due to addition during the year / period	36.28	104.09	65.32	41.56	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	1,000.07	1,104.16	1,169.48	1,211.04	1,211.04
Average Normative Equity	981.93	1,052.12	1,136.82	1,190.26	1,211.04
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	184.43	197.61	213.52	223.55	227.46
Pro rata return on Equity	184.43	197.61	213.52	223.55	227.46



(Petitioner)

Calculation of WAR of interest on actual loan

Form No. - 9C

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Kolhapur -Mapusa		
Element Description	Combined Elements of Kolhapur- Mapusa Transmission System (NEW EQUIPMENTS)		
Region	Western Region	DOCO Date	Jan 1, 2003

(Amount in Rs. Lakh)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
SBI-04 -ADD CAP LOAN 2022-23					
Gross Loan- Opening	189.75	189.75	189.75	189.75	189.75
Cumulative repayments of Loans upto previous year	36.89	55.86	74.84	93.81	112.79
Net loan-Opening	152.86	133.89	114.91	95.94	76.96
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	18.98	18.98	18.98	18.98	18.98
Net Loan-Closing	133.88	114.91	95.93	76.96	57.98
Average Net Loan	143.37	124.40	105.42	86.45	67.47
Rate of Interest on Loan on Annual Basis	8.20	8.20	8.20	8.20	8.20
Interest on loan	11.7563	10.2008	8.6444	7.0889	5.5325

BOND LXX (70) -ADD CAP LOAN 2022-23					
Gross Loan- Opening	1,400.00	1,400.00	1,400.00	1,400.00	1,400.00
Cumulative repayments of Loans upto previous year	140.00	280.00	420.00	560.00	700.00
Net loan-Opening	1,260.00	1,120.00	980.00	840.00	700.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	140.00	140.00	140.00	140.00	140.00
Net Loan-Closing	1,120.00	980.00	840.00	700.00	560.00



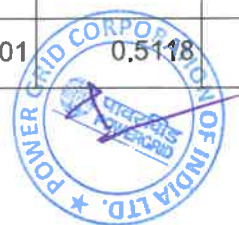
Average Net Loan	1,190.00	1,050.00	910.00	770.00	630.00
Rate of Interest on Loan on Annual Basis	7.40	7.40	7.40	7.40	7.40
Interest on loan	88.06	77.70	67.34	56.98	46.62

BOND LXXI (71) -ADD CAP LOAN 2022-23

Gross Loan- Opening	200.00	200.00	200.00	200.00	200.00
Cumulative repayments of Loans upto previous year	15.00	35.00	55.00	75.00	95.00
Net loan-Opening	185.00	165.00	145.00	125.00	105.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	20.00	20.00	20.00	20.00	20.00
Net Loan-Closing	165.00	145.00	125.00	105.00	85.00
Average Net Loan	175.00	155.00	135.00	115.00	95.00
Rate of Interest on Loan on Annual Basis	7.52	7.52	7.52	7.52	7.52
Interest on loan	13.16	11.656	10.152	8.648	7.144

BOND LXXII (72) -ADD CAP LOAN 2023-24

Gross Loan- Opening	11.78	11.78	11.78	11.78	11.78
Cumulative repayments of Loans upto previous year	0.88	2.06	3.24	4.42	5.60
Net loan-Opening	10.90	9.72	8.54	7.36	6.18
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	1.18	1.18	1.18	1.18	1.18
Net Loan-Closing	9.72	8.54	7.36	6.18	5.00
Average Net Loan	10.31	9.13	7.95	6.77	5.59
Rate of Interest on Loan on Annual Basis	7.56	7.56	7.56	7.56	7.56
Interest on loan	0.7794	0.6902	0.601	0.5118	0.4226



Bond LXXIV (74) -ADD CAP LOAN 2023-24

Gross Loan- Opening	2.82	2.82	2.82	2.82	2.82
Cumulative repayments of Loans upto previous year	0.00	0.28	0.56	0.85	1.13
Net loan-Opening	2.82	2.54	2.26	1.97	1.69
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.28	0.28	0.28	0.28	0.28
Net Loan-Closing	2.54	2.26	1.98	1.69	1.41
Average Net Loan	2.68	2.40	2.12	1.83	1.55
Rate of Interest on Loan on Annual Basis	7.70	7.70	7.70	7.70	7.70
Interest on loan	0.2064	0.1848	0.1632	0.1409	0.1194

Bond LXXV (75) -ADD CAP LOAN 2023-24

Gross Loan- Opening	51.80	51.80	51.80	51.80	51.80
Cumulative repayments of Loans upto previous year	0.00	5.18	10.36	15.54	20.72
Net loan-Opening	51.80	46.62	41.44	36.26	31.08
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	5.18	5.18	5.18	5.18	5.18
Net Loan-Closing	46.62	41.44	36.26	31.08	25.90
Average Net Loan	49.21	44.03	38.85	33.67	28.49
Rate of Interest on Loan on Annual Basis	7.65	7.65	7.65	7.65	7.65
Interest on loan	3.7646	3.3683	2.972	2.5758	2.1795

Summary

Gross Loan- Opening	1,856.15	1,856.15	1,856.15	1,856.15	1,856.15
Cumulative repayments of Loans upto previous year	192.77	378.38	564.00	749.62	935.24



Net loan-Opening	1,663.38	1,477.77	1,292.15	1,106.53	920.91
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	185.62	185.62	185.62	185.62	185.62
Net Loan-Closing	1,477.76	1,292.15	1,106.53	920.91	735.29
Average Net Loan	1,570.57	1,384.96	1,199.34	1,013.72	828.10
Rate of Interest on Loan on Annual Basis	7.4958	7.4948	7.4935	7.4918	7.4892
Interest on loan	117.7267	103.8001	89.8726	75.9454	62.018

(Petitioner)



Calculation of Interest on Normative loan

Form No. - 9E

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Kolhapur -Mapusa		
Element Description	Combined Elements of Kolhapur- Mapusa Transmission System (NEW EQUIPMENTS)		
Region	Western Region	DOCO Date	Jan 1, 2003

(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	2,248.85	2,333.52	2,576.40	2,728.81	2,825.80
Cumulative repayments of Normative loan upto previous year	344.22	604.38	887.93	1,203.26	1,541.48
Net normative loan-Opening	1,904.63	1,729.14	1,688.47	1,525.55	1,284.32
Addition in normative loan towards the ACE	84.67	242.88	152.41	96.99	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	260.16	283.55	315.33	338.22	348.62
Adjustment of cumulative repayment pertaining to the decapitalised asset	0.00	0.00	0.00	0.00	0.00
Net normative loan - closing	1,729.14	1,688.47	1,525.55	1,284.32	935.70
Average normative loan	1,816.89	1,708.81	1,607.01	1,404.94	1,110.01
Weighted Average Rate of interest on actual loan	7.4958	7.4948	7.4935	7.4918	7.4892
Interest on normative loan	136.19	128.07	120.42	105.26	83.13
Pro rata interest on normative loan	136.19	128.07	120.42	105.26	83.13

(Petitioner)



Calculation of Depreciation Rate on Original Project Cost

Form No. - 10

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Kolhapur -Mapusa		
Element Description	Combined Elements of Kolhapur- Mapusa Transmission System (NEW EQUIPMENTS)		
Region	Western Region	DOCO Date	Jan 1, 2003

(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
2024-25						
Land(Freehold)	0.00	0.00	0.00	0.00	0.00	0.00
Civil & Building	0.00	0.00	0.00	0.00	3.34	0.00
Transmission Line	2,967.41	91.03	3,058.44	3,012.93	5.28	239.09
Sub Station	245.23	29.92	275.15	260.19	5.28	21.07
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
TOTAL	3,212.64	120.95	3,333.59	3,273.12	0.00	260.16
Weighted Average Rate of Depreciation(%)					7.94838	

2025-26						
Land(Freehold)	0.00	0.00	0.00	0.00	0.00	0.00



Civil & Building	0.00	0.00	0.00	0.00	3.34	0.00
Transmission Line	3,058.44	229.34	3,287.78	3,173.11	5.28	255.10
Sub Station	275.15	117.63	392.78	333.97	5.28	28.45
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/URTDSM/SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	0.00	0.00	0.00	9.50	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
TOTAL	3,333.59	346.97	3,680.56	3,507.08	0.00	283.55
Weighted Average Rate of Depreciation(%)					8.085074	

2026-27

Land(Freehold)	0.00	0.00	0.00	0.00	0.00	0.00
Civil & Building	0.00	0.00	0.00	0.00	3.34	0.00
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
Transmission Line	3,287.78	0.00	3,287.78	3,287.78	5.28	268.01
Sub Station	392.78	217.73	610.51	501.65	5.28	47.32
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	15.00	0.00
IT/Software/UNMS/URTDSM/SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	0.00	0.00	0.00	9.50	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
TOTAL	3,680.56	217.73	3,898.29	3,789.43	0.00	315.33
Weighted Average Rate of Depreciation(%)					8.321304	



2027-28

Sub Station	610.51	138.55	749.06	679.79	5.28	70.22
Land(Freehold)	0.00	0.00	0.00	0.00	0.00	0.00
Civil & Building	0.00	0.00	0.00	0.00	3.34	0.00
Transmission Line	3,287.78	0.00	3,287.78	3,287.78	5.28	268.00
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/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
TOTAL	3,898.29	138.55	4,036.84	3,967.57	0.00	338.22
Weighted Average Rate of Depreciation(%)					8.524613	

2028-29

Civil & Building	0.00	0.00	0.00	0.00	3.34	0.00
Land(Freehold)	0.00	0.00	0.00	0.00	0.00	0.00
Transmission Line	3,287.78	0.00	3,287.78	3,287.78	5.28	268.01
Sub Station	749.06	0.00	749.06	749.06	5.28	80.61
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
TOTAL	4,036.84	0.00	4,036.84	4,036.84	0.00	348.62

Weighted Average Rate of Depreciation(%)					8.635963	
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(Petitioner)



Statement of Depreciation

Form No. - 10A

Name of the Transmission Licensee	Power Grid Corporation of India Limited				
Project	Kolhapur -Mapusa				
Element Description	Combined Elements of Kolhapur- Mapusa Transmission System (NEW EQUIPMENTS)				
Region	Western Region	DOCO Date	Jan 1, 2003		

(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
Life at the beginning of the year					
1.1 Weighted Average useful life of the Asset/ Project	12.00	12.00	12.00	12.00	12.00
1.2 Lapsed Weighted Average useful life of the Asset/Project(in completed no. of year)	2.00	3.00	4.00	5.00	6.00
1.3 Balance Weighted Average useful life of the Asset/Project(in completed no. of year)	10.00	9.00	8.00	7.00	6.00
Capital Base					
1.4 Opening capital cost	3,212.64	3,333.59	3,680.56	3,898.29	4,036.84
1.5 Additional Capital Expenditure dr. the year	120.95	346.97	217.73	138.55	0.00
1.6 De-Capitalisation During the year	0.00	0.00	0.00	0.00	0.00
1.7 Closing capital cost	3,333.59	3,680.56	3,898.29	4,036.84	4,036.84
1.8 Average capital cost	3,273.12	3,507.08	3,789.43	3,967.57	4,036.84
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	3,273.12	3,507.08	3,789.43	3,967.57	4,036.84
1.12 Depreciable Value(1.10+90% of 1.11)	2,945.81	3,156.37	3,410.49	3,570.81	3,633.15
Depreciation for the period and Cum. Depreciation					
1.13 Weighted Average Rate of depreciation	7.94838	8.085074	8.321304	8.524613	8.635963



1.14 Depreciation(for the period)	260.16	283.55	315.33	338.22	348.62
1.15 Depreciation(Annualised)	260.16	283.55	315.33	338.22	348.62
Unrecovered Depreciation for DECAP	0.00	0.00	0.00	0.00	0.00
1.16 Cumulative depreciation at the beginning of the period	344.22	604.38	887.93	1,203.26	1,541.48
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	604.38	887.93	1,203.26	1,541.48	1,890.10

(Petitioner)



Calculation of interest on working Capital

Form No. - 11

Name of the Transmission Licensee		Power Grid Corporation of India Limited	
Project	Kolhapur -Mapusa		
Element Description	Combined Elements of Kolhapur- Mapusa Transmission System (NEW EQUIPMENTS)		
Region	Western Region	DOCO Date	Jan 1, 2003

(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
O&M Expenses-one month	0.00	0.00	0.00	0.00	0.00
Maintenance spares 15% of O&M Expenses	0.00	0.00	0.00	0.00	0.00
Receivables equivalent to 45 days of AFC	72.67	76.23	81.24	83.23	82.48
Total Working capital	72.67	76.23	81.24	83.23	82.48
Bank Rate as on 01.04.2024 or as on 01st April of the COD year, whichever is later.	11.90	11.90	11.90	11.90	11.90
Interest on working capital	8.65	9.07	9.67	9.90	9.82
Pro rata interest on working capital	8.65	9.07	9.67	9.90	9.82

(Petitioner)



I/16620/2021

Encl-6



भारत सरकार

Government of India

विद्युत मंत्रालय

Ministry of Power

केन्द्रीय विद्युत प्राधिकरण

Central Electricity Authority

विद्युत प्रणाली योजना एवं मूल्यांकन-I प्रभाग

Power System Planning & Appraisal-I Division

सेवा में / To

-As per enclosed list -

विषय: पश्चिमी क्षेत्रीय विद्युत समिति (पारेषण योजना) (WRPCTP) की तीसरी बैठक का कार्यवृत्त।

Subject: Minutes of the 3rd meeting of Western Regional Power Committee (Transmission Planning) [WRPC(TP)]

महोदया (Madam) / महोदय (Sir),

The 3rd meeting of Western Regional Power Committee (Transmission Planning) [WRPC(TP)] was held on **14.06.2021** through VC (Microsoft Teams). Minutes of the meeting are attached herewith.

भवदीय/ Yours faithfully,

Signature Not Verified

Digitally signed by ISHAN SHARAN
Date: 2021.07.19 18:16:37 IST

(ईशान शरण/ Ishan Sharan)

मुख्य अभियन्ता / Chief Engineer



I/16620/2021

11. Transmission system strengthening beyond Kolhapur for export of power from Solar & Wind Energy Zones in Southern Region

11.1. CEA stated that the following transmission system had been agreed in the 2nd SRSCT meeting held on 10.06.2019 for evacuation of power from Solar Energy Zone in Gadag, Karnataka:

Gadag SEZ (2500 MW)

- i. Establishment of 400/220 kV, 5x500 MVA Gadag Pooling Station.
- ii. Gadag PS-Koppal PS 400 kV (high capacity equivalent to quad moose) D/C Line.
- iii. Gadag PS-Narendra (New) PS 400 kV (high capacity equivalent to quad moose) D/C Line.
- iv. 220 kV line bays for interconnection of solar projects (8 nos.)
- v. 1x125 MVAR (400 kV) bus reactor at Gadag PS.
- vi. Upgradation of Narendra (New) to its rated voltage of 765 kV level alongwith 2x1500 MVA transformer and 1x330 MVAR Bus Reactor.
- vii. Upgradation of Kolhapur (PG) to its rated voltage of 765 kV level alongwith 2x1500 MVA transformer and 1x330 MVAR Bus Reactor.
- viii. Upgradation/charging of Narendra new - Kolhapur (PG) 765 kV D/c line (initially charged at 400 kV) to its rated voltage of 765 kV along with 1x330 MVAR switchable Line Reactor on Kolhapur (PG) end of each circuit.

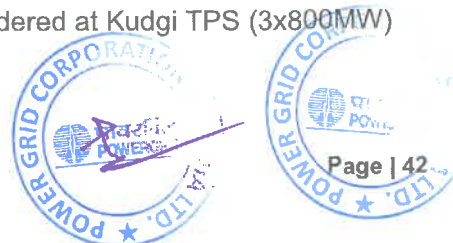
It was also noted that the proposed system strengthening in the inter-regional corridors and system strengthening beyond Kolhapur in Western region shall require all-India study.

11.2. Further, in the 3rd meeting of NCT held on 20th & 28th January, 2021, it was agreed that Strengthening of Kolhapur (PG) - Kolhapur (MSETCL) 400 kV section may be taken in WRPC(TP) based on the operational constraint reported by POSOCO.

Subsequently, POSOCO vide letter dated 02.02.2021 (Annexure-IX) has intimated that during Dec'20 – Jan'21, the power flow in the Kolhapur (PG) - Kolhapur(MSETCL) 400kV D/c line has been observed very high with 'N-1' non-compliance. NLD/C and RLDCs are taking various measures in operations such as reduction in power order of HVDCs toward southern region (Talcher – Kolar, Bhadravati, Raigarh – Pugalur) to relieve the loading of Kolhapur (PG) - Kolhapur(MSETCL) 400 kV D/c line.

11.3. System studies were carried out with the following considerations:

- i. Scenario: Solar Max (June, 24 Afternoon Peak) with high generations in Narendra complex (Kudgi, Raichur, Bellary, Gadag SEZ & Koppal WEZ)
- ii. All India Demand of 235GW considered (against EPS demand of 266GW)
- iii. Demand for WR & SR as 73 GW & 56 GW respectively (against 19th EPS demand of 85 GW & 75 GW respectively)
- iv. For simulating the worst case scenario:
 - 100% Solar Despatch has been considered at Gadag SEZ (2500MW)
 - 85% Wind Despatch has been considered at Koppal WEZ (2500MW)
 - 90% Thermal Despatch has been considered at Kudgi TPS (3x800MW)



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With this, the Net SR Surplus in Solar Max scenario works out to 7800 MW with SR to WR inter-regional flow to the tune of 9300 MW. LGB is shown at Annexure-X.

- v. Narendra New existing 765/400kV 2x1500MVA ICTs are seen to be heavily loaded in all study cases. Hence, addl. (3rd) 1x1500MVA, 765/400kV ICT has also been considered at Narendra New S/s. System strengthening, if any, in Southern Region is out of the scope of the present study.
- vi. LILO of both circuits of Warora Pool – Parli (PG) 400 kV D/c line at Parli (M) (Implementation by MSETCL) has been considered in studies as agreed in the 2nd WRPC(TP) meeting held on 04.09.2021 and needs to be expedited by MSETCL.

11.4. The following alternatives were studied and the study results are attached as Annexure- XI:

- i. Kolhapur (PG) (GIS) - Kolhapur (MH) reconductoring with conductor of min capacity of 2100 MVA at nominal voltage & with Kolhapur 765/400kV 3rd 1500MVA ICT
- ii. Kolhapur (PG) (GIS) - Kolhapur (MH) 2nd D/c line with conductor of minimum capacity of 2100 MVA at nominal voltage & with Kolhapur 765/400kV 3rd 1500MVA ICT
- iii. Kolhapur (PG) (GIS) - Pune (PG) (GIS) 765 kV D/c line along with Kolhapur (PG) (GIS) - Kolhapur (MH) reconductoring with conductor of min capacity of 2100 MVA at nominal voltage*
- iv. Kolhapur (PG) (GIS) - Solapur (PG) 765 kV D/c line along with Kolhapur (PG) (GIS) - Kolhapur (MH) reconductoring with conductor of minimum capacity of 2100 MVA at nominal voltage
- v. LILO of Solapur (PG) – Pune (PG) (GIS) 765 kV S/c line at Kolhapur PG along with Kolhapur (PG) (GIS) - Kolhapur (MH) reconductoring with conductor of min capacity of 2100 MVA at nominal voltage*
- vi. Narendra New – Solapur (PG) 765kV D/c line along with Kolhapur (PG) (GIS) - Kolhapur (MH) reconductoring with conductor of min capacity of 2100 MVA/Ckt at nominal voltage and with Narendra-Madhugiri-Salem-Tuticorin charged at 400 kV & Narendra New-Kolhapur 765 kV D/c line charged at 400 kV

11.5. CTU stated that Alt- iii is providing an additional path to Pune S/stn which is a load centre.

11.6. CEA stated that Alt-vi is technically feasible and a cost effective option involving Narendra New - Solapur (PG) 765 kV D/c line of appx.150 km. This would avert the need of upgrading Kolhapur to 765 kV level. Also, the losses in case of Alt-vi were observed to be minimum. Further, as far as providing additional path to Pune is concerned, it may be noted that Pune(GIS) is well connected at 765 kV and 400 kV level.

11.7. CTU stated that in case of Alternative vi, with full generation at Kaiga Nuclear Power Plant, there is possibility that Narendra New – Solapur (PG) 765 kV D/c line may become overloaded. Accordingly, before finalizing any alternative, it is suggested to hold a joint study meeting.



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- 11.8. POSOCO stated that there is a need to resolve the overloading of Kolhapur (PG) – Kolhapur 400 kV D/c line as the line is currently 'n-1' non-compliant.
- 11.9. CEA and CTU stated that as re-conductoring of Kolhapur (PG) – Kolhapur 400 kV D/c line is required in all alternatives, accordingly, the same can be agreed to be taken up.
- 11.10. After detailed deliberations, members agreed for the following:
- Re-conductoring of Kolhapur (PG) – Kolhapur 400 kV D/c line with conductor of minimum capacity of 2100 MVA/Ckt at nominal voltage along with bay upgradation work at Kolhapur (MSETCL).
 - The strengthening requirement beyond Kolhapur other than re-conductoring of Kolhapur (PG) – Kolhapur 400 kV D/c line would be studied in separate joint study meeting with CEA, CTU, WRPC & POSOCO.

C. ToR 2(iii) – APPLICATIONS FOR CONNECTIVITY AND ACCESS

12. Summary of the connectivity and LTA granted in the connectivity and LTA meetings of WR

12.1. Stage-II Connectivity granted to RE developers in Western Region

The details of stage-II connectivity / RE connectivity (within own premises) granted to RE applicants from 44th to 55th meetings of WR constituents for Connectivity & Long-term Access applications in Western Region is tabulated below:

Sl.	Name of Applicant (Organization)	Stage-II Application No	Stage-II Ccnn Quantum (MW)	Date: Stage-II connectivity required	Criteria Stage II*	Proposed ISTS System for Stage-II connectivity	Dedicated Transmission System for Stage-II connectivity (under scope of applicant)
1.	Srijan Energy Systems Private Limited	1200002419	150	15/01/2021	A SECI Tr-VI (Wind)	Bhuj-II PS (GIS) (New) <ul style="list-style-type: none"> Establishment of Bhuj II PS with at least 1x1500MVA (765/400kV), 1x500MVA (400/220kV) ICTs Reconfiguration of Bhuj PS – Lakadia PS 765kV D/c line as per 	Srijan Energy Systems Private Limited - Bhuj-II PS 220kV S/c line along with associated line bays at generation end



I/18024/2021



भारत सरकार
 Government of India
 विद्युत मंत्रालय
 Ministry of Power
 केन्द्रीय विद्युत प्राधिकरण
 Central Electricity Authority
 विद्युत प्रणाली योजना एवं मूल्यांकन-I प्रभाग
 Power System Planning & Appraisal-I Division

सेवा में / To

-As per enclosed list-

विषय: "ट्रांसमिशन पर राष्ट्रीय समिति" (एनसीटी) की 4th बैठक का कार्यवृत्त ।Subject: Minutes of the 5th Meeting of "National Committee on Transmission (NCT)"

महोदया / महोदय/Sir/Madam,

The 5th meeting of the "National Committee on Transmission" (NCT) was held through VC on 25.08.2021 and 02.09.2021 under the Chairmanship of Chairperson, CEA & Chairman, NCT. The minutes of the meeting is enclosed herewith.

भवदीय

Signature Not Verified
 Digitally signed by SHAN
 SHARAN
 Date: 2021.09.29 10:26:44 IST

(ईशान शरण /Ishan Sharan)

मुख्य अभियन्ता एवं सदस्य सचिव/

Chief Engineer & Member Secretary (NCT)

Copy to:

- (i) Joint Secretary (Trans), Ministry of Power, Shram Shakti Bhawan, New Delhi-110001.



I/18024/2021

power from Khavda RE park was agreed. It included establishment of a 765 kV corridor namely, KPS2- Halvad-Vataman-Kosamba and establishment of 765/400 kV switching stations at Halvad and Vataman. Implementation of the transmission system has been proposed through four nos. transmission schemes.

- 5.5.2.** Director, MoP stated that the possibility of implementation of Battery Energy & Storage systems can be explored alongwith with this additional 7 GW RE scheme under Phase-B.
- 5.5.3.** Adviser, MNRE, also opined that transmission system for evacuation of 8 GW power from Khavda RE park has already been recommended, therefore additional transmission system may be re-studied considering BESS.
- 5.5.4.** Expert member, Shri R. Saha, stated that with adoption of new technologies like BESS and other storage systems, the implication on overall cost of the scheme and the techno-economic feasibility of the scheme also needs to be analysed while firming up the system.
- 5.5.5.** After deliberations, NCT deferred the scheme for re-study with consideration of BESS at Khavda RE park.
- 5.6. Transmission system strengthening beyond Kolhapur for export of power from Solar & Wind Energy Zones in Southern Region- Re-conductoring of Kolhapur (PG) – Kolhapur 400 kV D/c line.**
- 5.6.1.** CEA stated that in the 4th meeting of NCT held on 20th & 28th January, 2021, it was agreed that Strengthening of Kolhapur (PG) - Kolhapur (MSETCL) 400 kV section may be deliberated in WRPC(TP) meeting based on the operational constraint reported by POSOCO. The issue was deliberated in the 3rd meeting of WRPC(TP) held on 14.06.2021 wherein re-conductoring of Kolhapur (PG) – Kolhapur 400 kV D/c line with conductor of minimum capacity of 2100 MVA/Ckt was agreed.
- 5.6.2.** NCT made the following recommendation:

Sl. No.	Name of the scheme	Mode of implementation	Justification
1.	Re-conductoring of Kolhapur (PG) – Kolhapur 400 kV D/c line Estimated cost: Rs 54 cr. Implementation timeframe: 15 months from date of issue of MoP OM	RTM	Remedial measure to overcome operational constraint ('N-1' non-compliance) reported by POSOCO.

The details of the scheme is given below:



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Re-conductoring of Kolhapur (PG) – Kolhapur 400 kV D/c line

Sl. No.	Scope of the Transmission Scheme	Capacity /km
1.	Re-conductoring of Kolhapur (PG) – Kolhapur 400 kV D/c line with conductor of minimum capacity of 2100 MVA/Ckt at nominal voltage along with bay up-gradation work at Kolhapur (MSETCL).	Re-conductoring length – 60 km approx. 400 kV bay upgradation- 2 nos.

5.7. Scheme to control fault level at Indore S/s:

5.7.1. CEA stated that Indore 765/400/220 kV S/s in MP acts as a node for transfer of power from generation projects in MP and Gujarat to load centres in MP through high capacity 400 kV and 765 kV networks. A large number of RE generation projects are coming up in Gujarat whose power is getting dispersed through various substations (at 765 kV level) including Indore (PG) for onward transfer of power to other parts of the grid resulting in high short circuit levels of interconnected grid. As per system studies, it was observed that short circuit level at Indore (PG) 400 kV substation in 2022-2023 time-frame crosses 50 kA as against designed rating of 40 kA. The issue was deliberated in the 3rd meeting of WRPC(TP) held on 14.06.2021 wherein, 400 kV Bus Splitting of 765/400/220 kV Indore substation into two sections A&B and shifting of 765/400 kV, 1x1500 MVA ICT from section A to Section B (through jumpering arrangement) was agreed.

Transmission elements on 400 kV Bus Section A:

- (i) 1 no. of 765/400 kV 1x1500MVA ICT
- (ii) Indore (MP) 400 kV D/C line
- (iii) Khandwa 400 kV D/C line
- (iv) 2x125 MVA Bus reactors.

Transmission elements on 400 kV Bus Section B:

- (i) 1 no. of 765/400 kV 1500MVA ICT
- (ii) 2 nos. of 400/220 kV, 500MVA ICT
- (iii) Ujjain (MP) 400 kV D/C line
- (iv) Pithampur (MP) 400 kV D/C line.
- (v) 1 no. of 400/220 kV 500MVA ICT associated with M/s SBESS

The schematic of the 400 kV section after bus splitting is as given below:



I/18024/2021

2. She further informed that Srinagar- Leh 220 kV S/c transmission line has become an ISTS line after bifurcation of state of J&K into UT of J&K and UT of Ladakh and the transmission line has been transferred to Powergrid by MoP vide letter dated 23.03.2021. MoP has directed CEA to take up the proposal of Powergrid in the NCT meeting for taking decision regarding its implementation under RTM The detail scope is as under:

Sl.No.	Scope of the Transmission Scheme	Capacity /km
1	Laying of cable about 15km provided between Minamarg and Zojila Top section of Alusteng – Drass 220kV section	Length- 15 km
2	2x25 MVAR, 220kV bus reactors at 220/66kV Drass S/s	25 MVAR, 220kV bus reactor – 2 nos. 220 kV reactor bay – 2 nos.
3	1x25 MVAR, 220kV bus reactors at 220/66kV Alusteng S/s	25 MVAR, 220kV bus reactor – 1 no. 220 kV reactor bay – 1 no.
	Estimated Cost (Rs. Crore) (as provided by Powergrid)	226

3. NCT recommended that since the line is an ISTS line, the scheme need to be first deliberated in the meeting of NRPC (TP) and may be put up in the next meeting of NCT.

5.21 Summary of the new transmission schemes recommended by NCT in Western and Northern region along with mode of implementation and survey agency.

Mode of Implementation	New schemes	Modifications in earlier notified schemes	Schemes assigned for survey No. (Estimated cost of the schemes)		
			PFCCL	RECPDCL	CTUIL
TBCB	14	2 (allotted to RECPDCL	5 (Rs 5015 cr.)	5 (Rs. 5614 cr.)	4 (Rs 4937 cr.)
RTM	13	0			



I/18024/2021

Sl. No.	Transmission scheme	Scheme (New/ Modification of Notified scheme)	Implementation mode	Survey agency	Estimated cost
					(Rs. Crs.)
1.	Transmission system for evacuation of power from Neemuch SEZ (1000 MW)	New	TBCB	CTUIL	547
2.	Establishment of Khavda Pooling Station-2 (KPS2) in Khavda RE Park	New	TBCB	RECPDCL	789
3.	Establishment of Khavda Pooling Station-3 (KPS3) in Khavda RE Park	New	TBCB	RECPDCL	665
4.	Transmission scheme for evacuation of 4.5 GW RE injection at Khavda P.S. under Phase-II – Part A	Modification	TBCB	RECPDCL	862
5.	Transmission scheme for injection beyond 3 GW RE power at Khavda PS1 (KPS1)	New	TBCB	RECPDCL	780
6.	Transmission scheme for evacuation of 4.5 GW RE injection at Khavda P.S. under Phase-II – Part C	Modification	TBCB	RECPDCL	1440
7.	Transmission system strengthening beyond Kolhapur for export of power from Solar & Wind Energy Zones in Southern Region- Re-conductoring of Kolhapur (PG) – Kolhapur 400 kV D/c line	New	RTM		54
8.	Augmentation of 1x500 MVA, 400/220 kV ICT (3rd) at Bhatapara (PG)	New	RTM		30
9.	Transmission system for evacuation of power from REZ in Rajasthan (20GW) under Phase-III Part A1	New	TBCB	PFCCL	210
10.	Transmission system for evacuation of power from REZ in Rajasthan (20GW) under Phase-III Part A2	New	RTM		100
11.	Transmission system for evacuation of power from REZ in Rajasthan (20GW) under Phase-III Part A3	New	TBCB	PFCCL	505
12.	Transmission system for evacuation of power from REZ in Rajasthan (20GW) under Phase-III Part B1	New	TBCB	PFCCL	2500
13.	Transmission system for evacuation of power from REZ in Rajasthan (20GW) under Phase-	New	RTM		235



No. 15/3/2018-Trans-Part(1)
Government of India
Ministry of Power
Shram Shakti Bhawan, Rafi Marg, New Delhi-110001

Dated: 1st December, 2021

OFFICE MEMORANDUM

Subject: New transmission schemes to be taken up under Regulated Tariff Mechanism (RTM).

The undersigned is directed to inform that Hon'ble Minister for Power has approved the implementation of following transmission schemes, which were recommended by 5th meeting of the National Committee on Transmission (NCT), under the Regulated Tariff Mechanism (RTM) mode by agencies as indicated in the table below:

Sl. No.	Elements	Agency
1.	Transmission system strengthening beyond Kolhapur for export of power from Solar & Wind Energy Zones in Southern Region- Re-conductoring of Kolhapur (PG) – Kolhapur 400 kV D/c line	PGCIL
2.	Augmentation of 1x500 MVA, 400/220 kV ICT (3rd) at Bhatpara (PG)	PGCIL
3.	Transmission system for evacuation of power from REZ in Rajasthan (20GW) under Phase-III Part E1	PGCIL
4.	Transmission system for evacuation of power from REZ in Rajasthan (20GW) under Phase-III Part E2	PGCIL
5.	Transmission system for evacuation of power from REZ in Rajasthan (20GW) under Phase-III Part J	PGCIL
6.	System Strengthening scheme for Reconductoring of portion of Dulhasti-Kishtwar- Kishtwar 400 kV (Quad) S/c	PGCIL
7.	Grant of 400kV & 220kV bays to RE generators at Fatehgarh-III (erstwhile Ramgarh-II) PS under ISTS	M/s PRTL- Powergrid Ramgarh Transmission Limited)
8.	1x500 MVA, 400/220 kV ICT augmentation (3rd) at Sohawal (PG)) under system strengthening	PGCIL
9.	One no of 220kV bay at Chamera Pooling point for 2 nd Circuit stringing of 220 kV Karian – Chamera Pool line under implementation by HPPTCL	PGCIL
10.	220 kV bays at 400 kV substation PGCIL Khatkar (Jind) & Naggal (Panchkula) substation	PGCIL



2. Detailed scope of works for the above schemes, as recommended by the NCT is at Annexure.

3. These schemes are awarded to CTUIL for their implementation under RTM mode. The CTUIL is requested to take necessary action for entering into a concession agreement with agencies as mentioned in table at para 1 above, for implementation of these schemes.

4. This issues with the approval of Competent Authority.

Encl: as stated.


(Bihari Lal)
Under Secretary (Trans)
Tele: 011-23325242

To:

COO, CTUIL,
Gurugram.

Copy to:

1. Chairperson, Central Electricity Authority, New Delhi..
2. CMD, PGCIL, Gurugram.



Annexure

Detailed scope of works for new ISTS schemes in Western Region for implementation through RTM route

1. Re-conductoring of Kolhapur (PG) – Kolhapur 400 kV D/c line

Sl. No.	Scope of the Transmission Scheme	Capacity /km
1.	Re-conductoring of Kolhapur (PG) – Kolhapur 400 kV D/c line with conductor of minimum capacity of 2100 MVA/Ckt at nominal voltage along with bay up-gradation work at Kolhapur (MSETCL).	Re-conductoring length – 60 km approx. 400 kV bay upgradation- 2 nos.

Implementation timeframe: 15 months from date of issue of MoP OM.

2. Augmentation of 1x500 MVA, 400/220 kV ICT (3rd) at Bhatapara (PG)

Sl. No.	Scope of the Transmission Scheme	Capacity /km
1.	Augmentation of 1x500 MVA, 400/220 kV ICT (3 rd) at Bhatapara (PG)	400/220 kV, 500 MVA ICT –1 nos. 400 kV ICT bays – 1 nos. 220 kV ICT bays – 1 nos.
Approximate cost (Rs. Cr)		30

Note: To be implemented in the timeframe of implementation of LILO of one circuit of Bhatapara (PG) – Suhela 220 kV T/c line at Bhatapara (CSPTCL) under Intra-state.

Implementation timeframe: 15 months from date of issue of MoP OM or implementation of LILO of one circuit of Bhatapara (PG) – Suhela 220 kV T/c line at Bhatapara (CSPTCL) under intra-state, whichever is later.

Signature
11/2/2024



Detailed scope of works for new ISTS schemes in Northern Region for implementation through RTM route

3. Transmission system for evacuation of power from REZ in Rajasthan (20GW) under Phase-III Part E1"

Sl. No.	Scope of the Transmission Scheme	Capacity /km
1.	Establishment of 3x1500 MVA 765/400kV & 3x500 MVA 400/220 kV pooling station at Fatehgarh-3 (new section*) (In addition to 4x500 MVA ICT proposed under Rajasthan SEZ Ph-II of Section-1) along with 2x330 MVar, 765kV & 2x125 MVar, 420kV Bus Reactors	765/400kV 1500 MVA ICT: 3 nos (10x500 MVA, including one spare unit) 330 MVar, 765 kV bus reactor- 2 (7x110 MVar, including one spare unit) 765kV ICT bays - 3 nos. 400/220 kV, 500 MVA ICT - 3nos. 400 kV ICT bays -6 nos. 220 kV ICT bays - 3 nos. 765 kV line bays - 2nos. 765kV reactor bay- 2 nos. 125 MVar, 420kV bus reactor - 2 nos. 420 kV reactor bay - 2 nos.

Note: Provision of suitable sectionalization shall be kept at Fatehgarh-3 at 400kV & 220kV level to limit short circuit level

Implementation Timeframe: 18 months from MoP OM or matching timeframe of Transmission system for evacuation of power from REZ in Rajasthan (20 GW) under Phase III - Part A1, whichever is later.

4. Transmission system for evacuation of power from REZ in Rajasthan (20GW) under Phase-III Part E2

Sl. No.	Scope of the Transmission Scheme	Capacity /km
1.	Augmentation of 3x1500 MVA 765/400kV & 2x500 MVA 400/220 kV pooling station at Fatehgarh-3 (new section)	765/400kV 1500 MVA ICT:3 nos. 400/220 kV 500 MVA ICT:2 nos 765kV ICT bay – 3 nos 400kV ICT bay -5 nos. 220 kV ICT bay- 2nos

Note: Implementation to be taken up at later stage based on evacuation requirement beyond 3000 MW cumulative at Fatehgarh-3 (new section) & Fatehgarh-4 PS.



Implementation Timeframe: 15 months from MoP OM or evacuation requirement beyond 3000 MW cumulative at Fatehgarh-3 (new section) & Fatehgarh-4 PS, whichever is later.

5. Transmission system for evacuation of power from REZ in Rajasthan (20GW) under Phase-III Part J"

Sl.No.	Scope of the Transmission Scheme	Capacity /km	Implementation Timeframe- 15 months from MoP OM or conditions as given below, whichever is later.
1.	Augmentation with 400/220kV, 1x500MVA Transformer (10 th) at Fatehgarh-2 PS	400/220kV 500 MVA ICT: 1 no 400 kV ICT bays – 1 nos. 220 kV ICT bays – 1 nos.	<ul style="list-style-type: none"> Evacuation requirement beyond 4490 MW at 220 kV level of Fatehgarh-2 Presently 3660 MW LTA granted at 220 kV level of Fatehgarh-2
2.	Augmentation with 765/400kV, 1x1500MVA Transformer (5 th) at Bhadla-2 PS	765/400kV 1500 MVA ICT: 1 no. 765kV ICT bays – 1no. 400 kV ICT bays – 1 no.	<ul style="list-style-type: none"> Evacuation requirement beyond 4000 MW at Bhadla-2 PS At present 5945MW Stage-II connectivity applications and 2645 MW LTA applications granted at Bhadla-2 PS.
3.	Augmentation with 765/400kV, 1x1500MVA Transformer (3 rd) at Bikaner (PG)	765/400kV 1500 MVA ICT: 1 no 765kV ICT bays – 1no. 400 kV ICT bays – 1 no.	<ul style="list-style-type: none"> Evacuation requirement beyond 3900 MW LTA at Bikaner(PG) /Bikaner-2 PS At present 3935 MW Stage-II connectivity applications and 2975 MW LTA applications granted at Bikaner/Bikaner-2 PS.
4.	Augmentation of 1x1500 MVA ICT (3 rd), 765/400kV ICT at Jhatikara Substation (Bamnoli/Dwarka section)	765/400kV 1500 MVA ICTs : 1 no 765kV ICT bays – 1no. 400 kV ICT bays – 1 no.	In matching timeframe of Transmission system for evacuation of power from REZ in Rajasthan (20GW) under Phase-III Part D

Qureshi
11/12/2021



6. System Strengthening scheme for reconductoring of portion of Dulhasti-Kishtwar-Kishenpur 400 kV (Quad) S/c"

Sl. No.	Scope of the Transmission Scheme	Capacity /km
1.	Reconductoring of Dulhasti-Ratle LILO tap Point of Dulhasti - Kishenpur 400 kV line (approx. 13 kms) implemented through twin moose conductor, with Quad moose conductor in matching time frame of Pakaldul HEP generation.	Length – 13 km

Implementation Timeframe: In matching time frame of Pakaldul HEP generation.

7. Grant of 400 kV & 220 kV bays to RE generators at Fatehgarh-III (erstwhile Ramgarh-II) PS under ISTS

Sl. No.	Scope of the Transmission Scheme	Capacity /km
1.	6 nos. of 220 kV bays and 3 nos. of 400 kV bays along with bus extension of 220 kV & 400 kV bus as well as bus sectionaliser arrangement between both the levels i.e 400 kV new section and 220 kV new section with under implementation section at Fatehgarh-III PS	400 kV line bays - 3 nos. 220kV line bays - 6 nos. 400kV bus sectionaliser: 1 no. 220kV bus sectionalizer: 1 no.

Implementation Timeframe: 15 months from MoP OM.

8. 1x500 MVA, 400/220 kV ICT augmentation (3rd) at Sohawal (PG) under system strengthening"

Sl.No.	Scope of the Transmission Scheme	Capacity /km
1	Augmentation with 400/220kV, 1x500 MVA Transformer (3 rd) at Sohawal (PG)	400/220kV 500 MVA ICT: 1 no 400 kV ICT bays – 1 nos. 220 kV ICT bays – 1 nos.

Implementation Timeframe: 15 months from MoP OM.

Q. S. M.
11/12/2021



9. One no of 220 kV bay at Chamera Pooling point for 2nd Circuit stringing of 220 kV Karian – Chamera Pool line”

Sl. No.	Scope of the Transmission Scheme	Capacity /km
1	One no of 220kV bay at Chamera Pooling point (PG) for 2 nd Circuit stringing of 220 kV Karian – Chamera Pool line	220 kV line bay -1 no

Implementation Timeframe: 12 months from MoP OM

10. 220 kV bays at 400 kV substation PGCIL Khatkar (Jind) & Naggal (Panchkula) substation”

Sl. No.	Scope of the Transmission Scheme	Capacity /km	Implementation timeframe
1	220 kV bays at 400 kV substation PGCIL Khatkar (Jind) for LILO of both circuits of 220 kV Jind HVPNL to PTPS D/C line at 400 kV substation PGCIL Khatkar (Jind)	220 kV line bays -2 nos	July' 2023
2	220 kV bays at 400 kV PGCIL Naggal (Panchkula) substation for 220 kV D/C line from 400 kV PGCIL Naggal (Panchkula) to proposed 220 kV substation Sadhaura	220 kV line bays -2 nos	September' 2023

Q. 10
11/11/2021.



Summary of issue involved in the petition		PART-III FORM- 15		
1. Name of the Petitioner	Power Grid Corporation of India Limited			
2. Petition Category	Transmission			
3. Tariff Period	2019-24			
4. Name of the Project	Kolhapur- Mapusa Transmission System in Western Region			
5. Investment Approval date	3.7.2000			
6. SCOD of the Project	2.7.2003			
7. Actual COD/ECOD of the project	01.01.2003 (E COD)			
8. Whether entire scope is covered in the present petition.	Yes			
9. No. of Assets covered in instant petition	2			
10. No. of Assets having time over run	NA			
11. Estimated Project Cost as per IA	₹18194 lakh			
12. Is there any REC? if so, provide the date	NA			
13. Revised Estimated Project Cost (if any)				
14. Completion cost for all the assets covered in the instant petition.	Rs. 15773.97 Lakh			
15. No. of Assets covered in instant petition and having cost overrun.	N.A.			
16	Prayer in brief			
17	Key details and any Specific issue involved			
18	Respondents			
	Name of Respondents			
	1	MADHYA PRADESH POWER MANAGEMENT COMPANY LTD	4	ELECTRICITY DEPARTMENT, GOA
	2	MAHARASHTRA STATE ELECTRICITY DISTRIBUTION CO. LTD.	5	DNHDD POWER DISTRIBUTION CORPORATION LIMITED
	3	GUJARAT URJA VIKAS NICAM LTD.	6	CHHATTISGARH STATE POWER DISTRIBUTION CO. LTD

(Petitioner)



PART-III

Summary of Capital Cost & Annual Fixed Cost (AFC) Claimed for ALL the assets covered in the present petition.																
Name of the Petitioner		Powergrid Corporation of India Limited														
Tariff Period		2019-24														
Name of the Transmission Project		Kolhapur- Mapusa Transmission System in Western Region														
COD/E-COD of the Project (if entire scope of project is completed)		01.01.2003														
Rupees in lakhs																
A) Summary of Capital Cost as on COD and Additional Capital Expenditure claimed for all the assets Covered in the instant petition.																
S. No.	Asset No.	COD/E-COD	Cut-off Date	i) Apportioned Approved Cost		ii) Summary of Actual / Projected Capital Cost								Capital Cost as on Cut-off Date		
				As per LA	As per RCE	Cost as on COD/ 31.03.2019	5	6	7	8	9	10	Capital Cost as on cut of date			
															11= (5+6+7+8+9+10)	
1	Combined Asset	01.01.2003	2	3	4	18194.00	12337.72	0	0	0	0	0	2556.78	94.85	14989.35	12
				18194.00	0.00	12337.72	0.00	0.00	0.00	0.00	0.00	0.00	2556.78	94.85	14989.35	
B) Summary of Annual Fixed Cost (AFC) claimed for all the assets covered in the instant petition.																
S. No.	Asset No.	Asset Name and its location														
		Kolhapur- Mapusa Transmission System in Western Region														
1	1	Kolhapur- Mapusa Transmission System in Western Region														
							1796.70	1788.38			1798.03	2107.36		2404.11		
							1796.70	1788.38			1798.03	2107.36		2404.11		
Total AFC for all the Assets																
Note: 1) The purpose of this form is to summarise the Capital cost & AFC claimed for all the assets covered in the instant petition.																

(Petitioner)



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

PART-III
Check List

Form No.	Title of Tariff Filing Forms (Transmission & Communication System)	Tick
FORM- 1	Summary of Tariff	✓
FORM- 1A	Summary of Asset level cost	N.A.
FORM-2	Details of Transmission Lines and Substations and Communication System covered in the project scope and O&M for instant asset	✓
FORM-3	Normative parameters considered for tariff computations	✓
FORM- 4	Abstract of existing transmission assets/elements under project, Determination of Effective COD and Weighted Average Life for single AFC for the project as whole.	N.A.
FORM- 4A	Statement of Capital cost	✓
FORM- 4B	Statement of Capital Works in Progress	N.A.
FORM- 4C	Abstract of Capital Cost Estimates and Schedule of Commissioning for the New Project/ Element	N.A.
FORM-5	Element wise Break-up of Project/Asset/Element Cost for Transmission System or Communication System	N.A.
FORM-5A	Break-up of Construction/Supply/Service packages	N.A.
FORM-5B	Details of all the assets covered in the project	N.A.
FORM- 6	Actual Cash Expenditure and Financial Package up to COD	✓
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 of the useful life of the project.	N.A.
FORM- 8	Calculation of Return on Equity	✓
FORM-8A	Details of Foreign Equity	N.A.
FORM-9	Details of Allocation of corporate loans to various transmission elements	N.A.
FORM-9A	Details of Project Specific Loans	N.A.
FORM-9B	Details of Foreign loans	N.A.
FORM-9C	Calculation of Weighted Average Rate of Interest on Actual Loans	✓
FORM-9D	Loans in Foreign Currency	✓
FORM-9E	Calculation of Interest on Normative Loan	✓
FORM- 10	Calculation of Depreciation Rate on original project cost	✓
FORM- 10A	Statement of Depreciation	✓
FORM- 10B	Statement of De-capitalisation	✓
FORM- 11	Calculation of Interest on Working Capital	✓
FORM- 12	Details of time over run	N.A.
FORM- 12A	Incidental Expenditure during Construction	N.A.
FORM- 12B	Calculation of IDC & Financing Charges	N.A.
FORM- 13	Details of Initial spares	N.A.
FORM- 14	Non-Tariff Income	N.A.
FORM- 15	Summary of issue involved in the petition	N.A.
FORM A	Summary of Capital Cost & Annual Fixed Cost (AFC) Claimed for ALL	N.A.
Other Information/ Documents		
S. No.	Information/Document	Tick
1	Certificate of incorporation, Certificate for Commencement of Business, Memorandum of Association, & Articles of Association (For New Project(s) setup by a company making tariff application for the first time to CERC)	N.A.
2	Region wise and Corporate audited Balance Sheet and Profit & Loss Accounts with all the Schedules & Annexure for the new Transmission System & Communication System for the relevant years.	N.A.
3	Copies of relevant loan Agreements	N.A.
4	Copies of the approval of Competent Authority for the Capital Cost and Financial package.	N.A.
5	Copies of the Equity participation agreements and necessary approval for the foreign equity.	N.A.
6	Copies of the BPTA/TSA/PPA with the beneficiaries, if any	N.A.
7	Detailed note giving reasons of cost and time over run, if applicable. List of supporting documents to be submitted: a. Detailed Project Report b. CPM Analysis c. PERT Chart and Bar Chart d. Justification for cost and time Overrun	N.A.
8	Transmission Licensee shall submit copy of Cost Audit Report along with cost accounting records, cost details, statements, schedules etc. for the transmission system as submitted to the Govt. of India for first two years i.e. 2019-20 and 2020-21 at the time of mid-term true-up in 2021-22 and for balance period of tariff period 2019-24 at the time of final true-up in 2024-25. In case of initial tariff filing the latest available Cost Audit Report should be furnished.	N.A.
9.	BBMB is maintaining the records as per the relevant applicable Acts. Formats specified herein may not be suitable to the available information with BBMB. BBMB may modify formats suitably as per available information to them for submission of required information for tariff purpose.	N.A.
10.	Any other relevant information, (Please specify)	N.A.
Note 1: Electronic copy of the petition (in words format) and detailed calculation as per these formats (in excel format) and any other information submitted has to be uploaded in the e-filing website and shall also be furnished in pen drive/flash drive.		

