BEFORE

THE CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

	Petition No/TT/
IN THE MATTER OF: -	
Petition for truing up of Transmission tariff for 2019-24 and	determination of transmission
tariff for 2024-29 tariff block for installation of 1X315 MVA	400/220kV Autotransformer
(ICT-III) along with associated bays at 400/220 kV Vapi (POWERGRID) substation in
Western Region under Section 62 read with Section 79 (1)	(d) of Electricity Act, 2003 and
under the Regulation 15 (1) (a) and Regulation 23 of (Central Electricity Regulatory
Commission (Conduct of Business) Regulations, 2023	read with Central Electricity
Regulatory Commission (Terms and Conditions of Tariff) F	Regulations 2019 and Central
Electricity Regulatory Commission (Terms and Conditions of	Tariff) Regulations 2024.
Power Grid Corporation of India Ltd.	Petitioner Name
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).	
	Respondent Name
Madhya Pradesh Power Management Company Limited,	
Shakti Bhawan, Rampur, Jabalpur – 482 008	
Represented by its Managing Director	
And others	
Place:	Petitioner
Date: 5 08 24	wa

(Zafrul Hasan)

General Manager (Commercial)

BEFORE

THE CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

PETITION	NO.:	
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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 installation of 1X315 MVA 400/220kV Autotransformer (ICT-III) along with associated bays at 400/220 kV Vapi (POWERGRID) substation in Western Region under Section 62 read with Section 79 (1) (d) of Electricity Act, 2003 and under the Regulation 15 (1) (a) and Regulation 23 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2023 read with Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2019 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2024.

Power Grid Corporation of India Ltd.

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

Madhya Pradesh Power Management Company

---- RESPONDENTS

Limited.

Shakti Bhawan, Rampur, Jabalpur - 482 008

Represented by its Managing Director

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FILED BY

POWER GRID CORPORATION OF INDIA LTD.

GURGAON

DATED: 05/08/24

REPRESENTED BY

Zafrul Hasan

General Manager (Commercial)



BEFORE

THE CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

PETI	TI	0	Ν	N	0	.:	10	 			_

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 installation of 1X315 MVA 400/220kV Autotransformer (ICT-III) along with associated bays at 400/220 kV Vapi (POWERGRID) substation in Western Region under Section 62 read with Section 79 (1) (d) of Electricity Act, 2003 and under the Regulation 15 (1) (a) and Regulation 23 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2023 read with Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2019 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2024.

Power Grid Corporation of India Ltd.

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--- PETITIONER

Katwaria Sarai, New Delhi. 110 016.

Corporate Centre: 'SAUDAMINI', Plot No-2,

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

Madhya Pradesh Power Management Company Limited.

---- RESPONDENTS

Shakti Bhawan, Rampur, Jabalpur – 482 008 Represented by its Managing Director

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) of Electricity Act, 2003 and under the Regulation 15 (1) (a) and Regulation 23 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2023 read with Central

Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2019 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2024 and same may be pleased to be registered and taken on record by the Hon'ble Commission.

GURGAON FILED BY

DATED: 08 2024

POWER GRID CORPORATION OF INDIA LTD.

REPRESENTED BY

Zafrul Hasan General Manager (Commercial)



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BEFORE

THE CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

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PET	111	O	N	N	O.	:	_	 		_	_	_

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 installation of 1X315 MVA 400/220kV Autotransformer (ICT-III) along with associated bays at 400/220 kV Vapi (POWERGRID) substation in Western Region under Section 62 read with Section 79 (1) (d) of Electricity Act, 2003 and under the Regulation 15 (1) (a) and Regulation 23 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2023 read with Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2019 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2024.

Power Grid Corporation of India Ltd.

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Madhya Pradesh Power Management Company

Limited.

Shakti Bhawan, Rampur, Jabalpur - 482 008

Represented by its Managing Director

---- RESPONDENTS

MEMO OF PARTIES

Power Grid Corporation of India Ltd.

VERSUS

--- PETITIONER

Western region

--- RESPONDENTS

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



- 3. Madhya Pradesh Industrial Development Corporation, ATULYA IT PARK, 1st Floor, Near Crystal IT Park, Khandwa Road, Opp. University, Indore (MP)-452010.
- 4. Maharashtra State Electricity Distribution Co. Ltd. Hongkong Bank Building, 3rd Floor, M.G. Road, Fort, Mumbai-400 001.
- Maharashtra State Electricity Transmission Co. Ltd.
 Prakashganga, 6th Floor, Plot No. C-19, E-Block,
 Bandra Kurla Complex, Bandra (East), Mumbai-400 051.
- Gujarat Urja Vikas Nigam Ltd.
 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.DNH and DD Power Corporation Ltd. 1st & 2nd floor, Vidyut bhavan, Silvassa - 396230, DNH, India
- 10. Chhattisgarh State Power Transmission Co. Ltd. Office Of The Executive Director (C&P), State Load Dispatch Building, Dangania, Raipur 492 013
- 11. Chhattisgarh State Power Distribution Co. Ltd. P.O.Sunder Nagar, Dangania, Raipur, Chhattisgarh-492 013

PETITIONER

POWER GRID CORPORATION OF INDIA LTD.

GURGAON

DATED: 05 08 24

(2/00)

REPRESENTED BY

General Manager (Commercial)

BEFORE

THE CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

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

IN THE MATTER OF: Petition for truing up of Transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block for installation of 1X315 MVA 400/220kV Autotransformer (ICT-III) along with associated bays at 400/220 kV Vapi (POWERGRID) substation in Western Region under Section 62 read with Section 79 (1) (d) of Electricity Act, 2003 and under the Regulation 15 (1) (a) and Regulation 23 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2023 read with Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2019 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2024.

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

Madhya Pradesh Power Management Company Limited, Shakti Bhawan, Rampur, Jabalpur – 482 008 Represented by its Managing Director

--- RESPONDENT

MEMO OF APPEARANCE

POWER GRID CORPORATION OF INDIA LTD.

-- PETITIONER

- 1. Shri Dilip Nagesh Rozekar, ED (Commercial & RC), POWERGRID
- 2. Shri Mohd. Mohsin, Chief GM (Comml- Petition), POWERGRID
- 3. V.C. Sekhar, Sr. GM (Commercial-RC), POWERGRID
- 4. Shri Zafrul Hasan, GM (Comml- Petition), POWERGRID



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

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

PETITIONER

POWER GRID CORPORATION OF INDIA LTD.

GURGAON

DATED:--.05:08.2024

Zafrul Hasan

General Manager (Commercial)

BEFORE

THE CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

PETI	TION	INO		

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 installation of 1X315 MVA 400/220kV Autotransformer (ICT-III) along with associated bays at 400/220 kV Vapi (POWERGRID) substation in Western Region under Section 62 read with Section 79 (1) (d) of Electricity Act, 2003 and under the Regulation 15 (1) (a) and Regulation 23 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2023 read with Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2019 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2024.

Power Grid Corporation of India Ltd

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

Madhya Pradesh Power Management Company Limited,
Shakti Bhawan, Rampur, Jabalpur – 482 008
Represented by its Managing Director

---- RESPONDENTS

- A. Executive Summary of the Petition:
- (i) Brief Background of the Petitioner
- 1. The Petitioner herein, Power Grid Corporation of India Ltd. (Hereinafter referred to as "POWERGRID/Petitioner") is a Government Company within the meaning of the Companies Act, 2013. POWERGRID is deemed transmission licensee in terms of Section 14 of the Electricity Act, 2003. POWERGRID by virtue of a transmission licensee is required to inter-alia build, maintain and operate an efficient, operates and and economical interstate transmission system ("ISTS"). POWERGRID is as a supplied to the company of the Company within the meaning of the Companies Act, 2013.

functions within the regulatory control of this Hon'ble Central Electricity Regulatory Commission (hereinafter referred to as "Hon'ble Commission"). Tariff for the transmission system established by POWERGRID is required to be determined by this Hon'ble Commission in accordance with the Tariff Regulations as notified by this Hon'ble Commission in exercise of its powers under Section 178 of the Electricity Act, 2003.

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

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

(iii) Background of Transmission Assets:

2. POWERGRID has filed the present petition for truing up of transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block for the following Assets which are implemented under "Installation of 1X315 MVA 400/220kV Autotransformer (ICT-III) along with associated bays at 400/220 kV Vapi (POWERGRID) substation in Western Region " for the following:

Asset No	Asset Name	DOCO	Remarks
Installation of 1X315 MVA 40			True up Tariff of
	1 - 1 - 1 - 1 - 1 5 4 V 0 4 5 BU V 0 4 00 (000 U V		2014-19 block has
	Autotransformer (ICT-III) along with associated bays at 400/220 kV Vapi (POWERGRID) substation	01.03.2013	been approved
Asset-I			vide order dated
			26.02.2020 in
			petition no.
			310/TT/2019

(iv)Summary of Claims:

 A. POWERGRID is seeking truing up of transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block for aforesaid transmission. assets on capital cost comprising of capital cost incurred/Admitted upto 31.03.2019/DOCO and additional capital expenditure during 2019-24 & 2024-29 in accordance with terms of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 ("Tariff Regulations, 2019") and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024 ("Tariff Regulations, 2024").

4. The details of FR/RCE approved cost vis-a cis claimed capital cost as on 31.03.2019 and additional capital expenditure during 2019-24 and 2024-29 tariff block is as under:

Rs in lakhs

Asset No.	Approved Cost as per FR	Approved cost as per RCE	Expenditure Up to DOCO /31.03.2019	Expenditure during 2019-24 tariff block 2019-24	Actual Cost as on 31.03.2024
Asset-I	2118.00	NA	1763.06	No add cap	1763.06

Rs in lakhs

	Anneound	Approved		Estimated	Estimated
	Approved	cost as per	Expenditure Up to	expenditure during	completion
Asset No.	Cost as per	RCE	31.03.2024	2024-29 tariff block	Cost as on
	FR			2024-29	31.03.2029
Asset-I	2118.00	NA	1763.06	No add cap	1763.06

- 5. It is prayed to hon'ble commission to reimburse expenditure of petition filing fee, license fee, newspaper publication expanses and RLDC fee & charges etc.
- 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
	AFC approved	418.75	416.01	414.04	412.53	410.93
Asset-1	Revised AFC based on truing up	418.52	415.04	412.48	411.24	411.55 PORATION

Tariff claimed for 2024-29 tariff block:

Rs in Lakhs

Name of the asset	2024-25	2025-26	2026-27	2027-28	2028-29
Asset-1	341.18	285.49	289.71	294.42	300.15

B. Detailed Petition:

MOST RESPECTFULLY SHOWETH:

Issue wise submission(s):

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

Asset No	Asset Name	DOCO	Remarks
Asset-1	Installation of 1X315 MVA 400/220kV Autotransformer (ICT-III) along with associated bays at 400/220 kV Vapi (POWERGRID) substation	01.03.2013	Earlier covered under petition no. 310/TT/2019 now covered under instant petition

10. Cost detail:

The capital cost of Rs. 1763.06 Lakhs for subject Asset has been admitted by Hon'ble commission vide order dated 26.08.2020 in petition no. 310/TT/2019. Copy of order is enclosed as **EncI-1**. In the current petition, no additional capital expenditure was incurred during the 2019-24 tariff block, and no additional capital expenditures are proposed during the 2024-29 tariff block.

11. <u>Transmission tariff:</u>

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

Regulation 13 of Tariff Regulation 2019-24:

Quote

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

Unquote

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

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

Quote

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

Unquote

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

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

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

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

The above Effective Tax percentage shall be applied by the petitioner in arriving out the Grossed up ROE rate in all cases of truing up petitions to be filed for the period 2019-24. It is submitted that effective rate of tax considered for FY 2019-20 and 2020-21 are based on Assessment Order issued by Income-Tax authorities, for the purpose of grossing up of ROE rate and that the effective rate of tax considered for F/Y 2021-22 and F/Y 2022-23 are based on the Income-tax returns filed, for the purpose of grossing up of ROE rate of respective years. Further, for F/Y 2023-24, pending filing of ITR, effective tax rate is calculated based the applicable MAT rate (i.e. MAT 15% + Surcharge 12.00% + Cess 4%), for the purpose of grossing up of ROE rate.

The Hon'ble Commission is requested to allow the petitioner to claim the differential tariff on account of the trued up ROE based on effective tax rate calculated on completion of Income-tax assessment/re-assessment for the F/Y 2019-20, 2020-21,2021-22-23

and 2023-24 on receipt of the respective assessment orders, directly from the beneficiaries, on year to year basis as provided in the regulation.

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

While filing Tariff petition for 2019-24 period, the petitioner had prayed for allowing the floating rate of Interest on loan adjustments. As per Hon'ble Commission order dated 18.04.2022 in petition no. 26/TT/2021, it has been stated that the weighted average rate of IoL has been considered on the basis of rate prevailing as on 1.4.2019 and accordingly, the floating rate of interest on actual, applicable from time to time, if any, during 2019-24 tariff shall be considered at the time of true up or next revision of tariff.

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

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

Rs in Lakh

Project		2019-20	2020-21	2021-22	2022-23	2023-24
Asset-I	AFC approved	418.75	416.01	414.04	412.53	410.93
	Revised AFC	418.52	415.04	412.48	411.24	411.55
	based on truing up					

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

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

deemed Capital Cost as per books / Gross Block amount as per Books for arriving at the figures to be provided in various Tariff Forms.

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

Rs in Lakh

Project		2024-25	2025-26	2026-27	2027-28	2028-29
Asset-1	AFC	341.18	285.49	289.71	294.42	300.15

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

- 14. The asset will complete 12 Yrs during the tariff block 2024-29 and thus depreciation till 2024-25 has been calculated based on the straight line method and at rate specified in Appendix-I as per clause 33 (5) of the CERC Tariff regulations 2024. Further, for FY 2025-26 has been calculated based on remaining depreciable value to be recovered in the balance useful life. The details have been computed and are provided in Form- 10 A.
- 15. That, it is submitted that the petitioner is currently liable to pay income tax at MAT rate specified in Income-tax Act, 1961. Therefore, ROE has been calculated @ 18.782% after grossing up the ROE with MAT rate of 17.472% (Base Rate 15% + Surcharge 12% + Cess 4%) based on the formula given at regulation 31 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024 for 2024-29 period. That as per clause 31 (3) of the above regulation, the grossed up rate of ROE at the end of every financial year shall be trued up based on actual tax paid together with any additional tax demand including interest thereon duly adjusted for any refund of tax including interest received from the IT authorities pertaining to the tariff period 2024-29 on actual gross income of any financial year. However, penalty, if any, arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the generating company or the transmission licensee, as the case may be. Any under-recovery or over-recovery of grossed up rate on ROE after truing up shall be recovered or refunded to beneficiaries or the long term customers as the case may be on year to year basis. It is further submitted that adjustment due to any additional tax demand including interest duly adjusted for any refund of the motivation

no

interest received from IT authorities shall be recoverable /adjustable during the tariff period 2024-29 on year to year basis on receipt of Income Tax assessment order.

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

For the purpose of the supporting documents for rate of interest, a compendium of floating rate of interest of various loans during the tariff period 2019-24 shall be submitted shortly. These documents/details are also available on our website www.powergrid.in.

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

Security Expenses:

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

Insurance:

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

Capital Spare:

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

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

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

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

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

23. Sharing of Transmission Charges

Truing up tariff for Transmission of Electricity (Annual Fixed Cost) for 2019-24 as per para 12 above shall be recovered on monthly basis in accordance with Regulation 57 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 and shall be shared by the beneficiaries and long-term transmission customers in Central Electricity Regulatory Commission (Sharing of Inter State Transmission Charges and Losses) Regulations, 2020 or as amended from to time.

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

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

A. PRAYER

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

- a) Approve the trued-up Transmission Tariff for 2019-24 block and transmission tariff for 2024-29 block for the assets covered under this petition, as per para 12 and 13 above.
- b) Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided in Tariff Regulation 2019 and Tariff regulations 2024 as per para 12 and 13 above for respective block.
- c) Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided in Tariff Regulation 2019 and Tariff regulations 2024 as per para 12 and 13 above for respective block.
- d) Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 94
 (1) Central Electricity Regulatory Commission (Terms and Conditions of Tariff)
 Regulations, 2024, and other expenditure (if any) in relation to the filing of petition.
- e) Allow the petitioner to bill and recover Licensee fee and RLDC fees & charges, separately from the respondents in terms of Regulation 94 (3) and (4) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024.

f) Allow the petitioner to bill and adjust impact on Interest on Loan due to change in Interest rate on account of floating rate of interest applicable during 2024-29 period, if any, from the respondents.

g) Allow the petitioner to file a separate petition before Hon'ble Commission for claiming the overall security expenses and consequential IOWC on that security expenses as mentioned at para 19 above.

h) Allow the petitioner to file a separate petition before Hon'ble Commission for claiming the overall insurance expenses and consequential IOWC on that insurance expenses as mentioned at para 19 above.

Allow the petitioner to file a separate petition before Hon'ble Commission for claiming the overall capital spares at the end of tariff block as per actual as mentioned at Para 19 above.

Allow the petitioner to claim expenses of CTUIL borne by POWERGRID through a separate petition as mentioned at para 20 above.

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

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

FILED BY

GURGAON

POWER GRID CORPORATION OF INDIA LTD.

DATED:--.05:08.2024

REPRESENTED BY

General Manager (COMME

BEFORE

THE CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

PETIT	ION	NO		
	IUN	NO.	:	

IN THE MATTER OF: Petition for truing up of Transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block for installation of 1X315 MVA 400/220kV Autotransformer (ICT-III) along with associated bays at 400/220 kV Vapi (POWERGRID) substation in Western Region under Section 62 read with Section 79 (1) (d) of Electricity Act, 2003 and under the Regulation 15 (1) (a) and Regulation 23 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2023 read with Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2019 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2024.

Power Grid Corporation of India Ltd.

---PETITIONER

Registered office: B-9, Qutab Institutional Area,

Katwaria Sarai, New Delhi. 110 016.

Corporate Centre: 'SAUDAMINI', Plot No-2.

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

Madhya Pradesh Power Management Company Limited, Shakti Bhawan, Rampur, Jabalpur – 482 008 Represented by its Managing Director

--- RESPONDENT



AFFIDAVIT VERIFYING THE PETITION

I, Zafrul Hasan, S/O Late Sh Zahurul Hasan, working as General Manager (Commercial) in the Powergrid Corporation of India Ltd., having its registered Office at B-9, Institutional Area, Katwaria Sarai, New Delhi-110 016, do hereby solemnly affirm and state as under: -

1. That the deponent is the General Manager of Petitioner and is well conversant with the facts and the circumstances of the case and therefore competent to swear this affidavit.

VAZ

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- 2. That the accompanying Petition under Section 62 of the Electricity Act, 2003, has been filed by my authorised representative/nominated counsel under my instruction and the contents of the same are true and correct to the best of my knowledge and belief.
- 3. That the contents of Para 01 to 24 of the facts as mentioned in the Petition are true and correct based on the my personal knowledge, belief and records maintained in the office and the contents of Para 01 to 24 of the Petition are believed to be true on the basis of the legal advice received.
- 4. That the annexures annexed to the Petition are correct and true copies of the respective originals.
- 5. That the Deponent has not filed any other Petition or Appeal before any other forum or court of law with respect to the subject matter of the dispute

(DEPONENT)

VERIFICATION

Solemnly affirmed at Gurgaon on this 95 day of August' 2024 that the contents of the above affidavit are true to my knowledge and belief and no part of it is false and nothing material has been concealed there from.

(DEPONENT)



MAHENDERS. RUNIA ADVOCATE & NOTA 24/05 PA 10 India

CENTRAL ELECTRICITY REGULATORY COMMISSION **NEW DELHI**

Petition No. 310/TT/2019

Coram:

Shri I.S. Jha, Member Shri Arun Goyal, Member

Date of Order: 26.8.2020

In the matter of

Approval under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations 1999 and truing up of transmission tariff of 2014-19 period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff for 2019-24 period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2019 of 400/220 kV, 1X315 MVA Autotransformer (ICT-III) at 400/220 kV Vapi (POWERGRID) substation in Western Region.

And in the matter of

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

.... Petitioner

Versus

- Madhya Pradesh Power Management Company Ltd. Shakti Bhawan, Rampur, Jabalpur - 482 008
- Madhya Pradesh Power Transmission Company Ltd. Shakti Bhawan, Rampur, Jabalpur - 482 008
- Madhya Pradesh Audyogik Kendra Vikas Nigam (Indore) Ltd. all No. : 25 , 5 3/54, Press Complex, Agra-Bombay Road, Authorised Signatory Indore-452 008 Power Grid Corporation of India ! Plot No. 2, Sector-29, Gurgaon-122001
- Maharashtra State Electricity Distribution Co. Ltd. Hongkong Bank Building, 3rd Floor, M.G. Road, Fort, Mumbai-400 001.
- Maharashtra State Electricity Transmission Co. Ltd. Prakashganga, 6th Floor, Plot No. C-19, E-Block,





Order in Petition No. 496/TT/2019

Bandra Kurla Complex, Bandra (East), Mumbai-400 051.

- 6. Gujarat Urja Vikas Nigam Ltd. Sardar Patel Vidvut Bhawan. Race Course Road, Vadodara - 390 007
- **Gujarat Energy Transmission Corporation Limited** Sardar Patel Vidyut Bhawan, Race Course Road, Vadodara - 390 007
- **Electricity Department** Government of Goa, Vidyut Bhawan, Panaji, Near Mandvi Hotel, Goa - 403 001
- **Electricity Department** Administration of Daman & Diu Daman - 396 210
- 10. Electricity Department Administration of Dadra Nagar Haveli, U.T., Silvassa - 396 230
- 11. Chhattisgarh State Electricity Board P.O.Sunder Nagar, Dangania, Raipur, Chhattisgarh-492 013
- 12. Chhattisgarh State Power Transmission Co. Ltd. Office Of The Executive Director (C&P), State Load Dispatch Building, Dangania, Raipur - 492 013
- 13. Chhattisgarh State Power Distribution Co. Ltd. P.O.Sunder Nagar, Dangania, Raipur, Chhattisgarh-492 013

...Respondents

Parties present:

For Petitioner:

Shri S. S. Raju, PGCIL Shri A. K. Verma, PGCIL

Shri B. Dash, PGCIL Shri V. Rastogi, PGCIL

For Respondent: None

ORDER

The present petition has been filed by Power Grid Corporation of India Ltd. (hereinafter referred to as "the Petitioner"), a deemed transmission licensee for truing up of the tariff of the 2014-19 tariff period under Regulation 8 of the Central Electricity

Order in Petition No. 496/TT/2019

Page 2 of 30

Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as "the 2014 Tariff Regulations") and for determination of tariff of the 2019-24 tariff period under Regulation 8 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as "the 2019 Tariff Regulations") of 400/220 kV, 1X315 MVA Autotransformer (ICT-III) at 400/220 kV substation Vapi (POWERGRID) substation in Western Region (hereinafter referred as "transmission asset").

- 2. The Petitioner has made the following prayers:
 - "1) Allow the add cap for 2014-19 tariff block as claimed in the petition.
 - 2) Approve the trued-up Transmission Tariff for the tariff block 2014-19 and transmission tariff for 2019-24 block for the assets covered under this petition.
 - 3) a) Allow the Petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided in Tariff Regulations 2014 and Tariff Regulations 2019.
 - b) Further it is submitted that deferred tax liability before 01.04.2009 shall be recoverable from the beneficiaries or long term transmission customers /DIC 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 respondents in terms of Regulation 70(3) and (4) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019.
 - 6) Allow the Petitioner to bill and adjust impact on Interest on Loan due to change in Interest rate on account of floating rate of interest applicable during 2019-24 period, if any, from the beneficiaries.
 - 7) Allow the Petitioner to file a separate petition before the Commission for claiming the overall security expenses and consequential IWC on that security expenses.
 - 8) Allow the petitioner to claim the capital spares at the end of tariff block as per actual.

9) Allow the Petitioner to bill and recover GST on Transmission Charges separately from the respondents, if GST on transmission is withdrawn from negative list at any time 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 the Commission deems fit and appropriate under the circumstances of the case and in the interest of justice."

Background

- 3. The brief facts of the case are as follows:
 - The Investment approval for installation of 1X315 MVA, 400/220 kV Transformer at Vapi (POWERGRID) substation in Western Region was accorded by the Board of Directors of the Petitioner company vide letter dated 27.9.2011 at an estimated cost of ₹2118 lakh, which included IDC of ₹57 lakh (based on 2nd quarter, 2011 price level).
 - Entire scope under the subject project has been covered in the instant (ii) petition.
 - The instant asset was declared under commercial operation on 1.3.2013 (iii) with a delay of two months. The delay of two months was not condoned by the Commission.
 - The transmission tariff from the date of commercial operation to (iv) 31.3.2014 for instant asset was initially allowed vide order dated 3.7.2014 in Petition No. 49/TT/2013.
 - The transmission tariff of the instant asset from the COD to 31.3.2014 (v) was trued up and tariff for the 2014-19 tariff period was approved vide order dated 17.2.2016 in petition no. 503/TT/2014.
 - The Commission vide order dated 17.2.2016 in petition no. 503/TT/2014 (vi) admitted the ₹1750.36 lakh as Capital Cost as on 31.3.2014.
- The respondents are distribution licensees and power departments, who are 4. procuring transmission service from the Petitioner, mainly beneficiaries of Western Region.

- 5. The Petitioner has served a copy of the petition upon the respondents and notice of this application has been published in the newspaper in accordance with Section 64 of the Electricity Act, 2003. No comments or suggestions have been received from the public in response to the notice in newspaper. MPPMCL (Respondent No. 1) has filed its reply dated 17.1.2020. In response, the Petitioner has filed its rejoinder dated 16.7.2020 in the matter.
- The Petition was heard on 31.7.2020 and the Commission reserved the order in 6. the Petition.
- 7. Having heard the representatives of the Petitioner and perused the material on record, we proceed to dispose of the petition.
- 8. This order has been issued after considering the main petition dated 5.9.2019, reply dated 17.1.2020 of the Respondent, MPPCL and Petitioner's rejoinder vide affidavit dated 16.7.2020.

Analysis and Decision

Truing-Up of Annual Fixed Charges of 2014-19 Tariff Period

- The Petitioner has submitted the information as required under the 2014 Tariff 9. Regulations for truing up of annual fixed charges for 2014-19 period. The tariff for 2014-19 tariff period has been trued up as discussed in the subsequent paragraphs.
- 10. The Commission vide order 17.2.2016 in petition no. 503/TT/2014 had approved the tariff for the 2014-19 tariff period as below:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	92.78	93.15	93.15	93.15	93.15
Interest on Loan	107.42	99.39	90.83	82.21	73.61
Return on Equity	87.50	87.90	87.90	87.90	87.90
Interest on Working Capital	12.29	12.31	12.30	12.31	12.31
O&M Expenses	102.51	105.91	109.43	113.06	116.81

Partic	ulars	2014-15	2015-16	2016-17	2017-18	2018-19
To	otal	402.50	398.65	393.62	388.63	383.78

11. The details of the trued up transmission charges claimed by the Petitioner are as under:-

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	92.75	93.09	93.09	93.09	93.09
Interest on Loan	107.39	98.51	89.33	79.71	71.14
Return on Equity	87.54	88.31	88.27	88.27	88.50
Interest on Working Capital	12.29	12.29	12.28	12.26	12.27
O&M Expenses	102.51	105.91	109.43	113.06	116.81
Total	402.48	398.11	392.40	386.39	381.81

12. The details of the trued up interest on working capital claimed by the Petitioner are as under: -

(₹ in lakh)

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Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	15.38	15.89	16.41	16.96	17.52
O&M expenses	8.54	8.83	9.12	9.42	9.73
Receivables	67.08	66.35	65.40	64.40	63.64
Total	91.00	91.07	90.93	90.78	90.89
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
Interest on Working Capital	12.29	12.29	12.28	12.26	12.27

Capital Cost as on 1.4.2014

13. The Petitioner has claimed the following capital cost incurred up to COD and Additional Capital Expenditure (ACE) up to 31.3.2019:

9				(₹ in lakh)
Apportioned approved cost as per FR	Admitted Capital Cost	ACE 20		Cost as on 31.3.2019
ood as por riv	up to 31.3.2014	2014-15	2015-16	011012010
2118.00	1750.36	12.70	0	1763.06

14. The capital cost of ₹1750.36 lakh admitted by the Commission as on 31.3.2014 has been considered as opening capital cost as on 1.4.2014 for determination of tariff in accordance with the Regulation 9 of the 2014 Tariff Regulations.

Additional Capital Expenditure (ACE)

- 15. The Commission vide order dated 17.2.2016 in petition no. 503/TT/2014 has approved the ACE of ₹13.79 lakh during the FY 2014-15.
- 16. The Petitioner in the instant petition has claimed the following ACE based on actual expenditure during 2014-19 tariff period:

(₹ in lakh)
ACE 2014-19
2014-15
12.70

- The Petitioner has submitted that the instant asset has been commissioned on 17. 1.3.2013 and accordingly, cut-off dated is 31.3.2016. Thus, ACE claimed during 2014-15 is within cut-off date. The Petitioner has claimed the ACE during 2014-19 under Regulation 14(1)(i) of the 2014 Tariff Regulations..
- 18. We have considered the submissions of the Petitioner. ACE claimed for the instant asset during 2014-15 is within the cut-off date. The Petitioner has submitted that ACE claimed is on account of undischarged liability towards final payment/ withheld payment due to contractual exigencies for works executed and payment made within the cut-off date. Accordingly, ACE claimed for 2014-19 tariff period is allowed under Regulation 14(1)(i) of the 2014 Tariff Regulations.
- 19. The total capital cost allowed as on 31.3.2019 based on approved ACE is as under:-

		(₹ in lakh)
Capital Cost as on	Approved ACE	Total Capital Cost as on
1.4.2014	2014-15	31.3.2019
1750.36	12.70	1763.06

Debt-Equity Ratio

20. The Petitioner has claimed debt-equity ratio as on 31.3.2014 as approved by the Commission in its order dated 17.2.2016 in Petition No. 503/TT/2014. The same has been considered as opening debt-equity ratio as on 1.4.2014. The details of the debt-equity ratio considered by the Commission are as under:

Particulars	Amount (₹ in lakh)	(%)	
Debt	1306.24	74.63	
Equity	444.12	25.37	
Total	1750.36	100.00	

The debt-equity ratio of 70:30 has been considered for ACE allowed during 21. 2014-19 in accordance to Regulation 19(3) of the 2014 Tariff Regulations. The details of the debt and equity as on 1.4.2014 and 31.3.2019 considered for the purpose of tariff for the 2014-19 tariff period are as under:

Particulars	Capital cost as on 1.4.2014 (₹ in lakh)	%	Total cost as on 31.3.2019 (₹ in lakh)	%
Debt	1306.24	74.63	1315.13	74.59
Equity	444.12	25.37	447.93	25.41
Total	1750.36	100.00	1763.06	100.00

Interest on Loan (IOL)

The Petitioner has claimed the weighted average rate of IOL based on its actual 22. loan portfolio and rate of interest. Accordingly, IOL has been calculated based on actual interest rate submitted by the Petitioner, in accordance with the Regulation 26 of the 2014 Tariff Regulations. IOL worked out is as under:

(₹ in lakh)

					ii iaitii
Particulars			Asset-I		
	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	1306.24	1315.13	1315.13	1315.13	1315.13
Cumulative Repayment upto previous Year	86.44	179.19	272.28	365.37	458.46
Net Loan-Opening	1219.80	1135.94	1042.85	949.76	856.67
Addition due to Additional Capitalization	8.89	0.00	0.00	0.00	0.00
Repayment during the year	92.75	93.09	93.09	93.09	93.09
Net Loan-Closing	1135.94	1042.85	949.76	856.67	763.58
Average Loan	1177.87	1089.39	996.30	903.21	810.12
Weighted Average Rate of Interest on Loan	9.118%	9.042%	8.966%	8.825%	8.781%
Interest on Loan	107.39	98.51	89.33	79.71	71.13

23. The details of IoL approved earlier vide order dated 17.2.2016 in Petition No. 503/TT/2014, claimed by the Petitioner in the instant petition and trued up in the instant order are shown in the table below:

(₹ in lakh)

Particular	2014-15	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 17.2.2016 in Petition No. 503/TT/2014	107.42	99.39	90.83	82.21	73.61
Claimed by the Petitioner in the instant petition	107.39	98.51	89.33	79.71	71.14
Allowed after true-up in this order	107.39	98.51	89.33	79.71	71.13

Return on Equity (ROE)

The Petitioner is entitled for Return on equity for the instant assets in terms of 24. Regulation 24 and 25 of the 2014 Tariff Regulations. The Petitioner has submitted that they are liable to pay income tax at MAT rates and has claimed following effective tax rates for the 2014-19 tariff period: -

Year	Claimed effective tax (in %)	Grossed up ROE (Base Rate/1-t) (in %)
2014-15	21.018	19.624
2015-16	21.382	19.716
2016-17	21.338	19.705

Year -	Claimed effective tax (in %)	Grossed up ROE (Base Rate/1-t) (in %)
2017-18	21.337	19.704
2018-19	21.549	19.758

The Commission in order dated 27.4.2020 in Petition No.274/TT/2019 has 25. arrived at the effective tax rate based on the notified MAT rates. The relevant portion of the order dated 27.4.2020 is as under:

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

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

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

The same MAT rates as in the above order dated 27.4.2020 are considered for 26. the purpose of grossing up of rate of ROE for truing up of the tariff of the 2014-19 tariff period in terms of the provisions of the 2014 Tariff Regulations.

Year	Notified MAT rates (inclusive of surcharge & cess) (in %)	Base Rate of ROE (in %)	Grossed up ROE (Base Rate/1-t) (in %)
2014-15	20.9605	15.50	19.610
2015-16	21.3416	15.50	19.705
2016-17	21.3416	15.50	19.705
2017-18	21.3416	15.50	19.705
2018-19	21.5488	15.50	19.758

27. ROE is trued up on the basis of the MAT rate applicable in the respective years and is allowed as follows:-

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	444.12	447.93	447.93	447.93	447.93
Addition due to Additional Capitalization	3.81	0.00	0.00	0.00	0.00
Closing Equity	447.93	447.93	447.93	447.93	447.93
Average Equity	446.03	447.93	447.93	447.93	447.93
Return on Equity (Base Rate)	15.50%	15.50%	15.50%	15.50%	15.50%
MAT rate for the Respective year	20.9605%	21.3416%	21.3416%	21.3416%	21.5488%
Rate of Return on Equity (Pretax)	19.610%	19.705%	19.705%	19.705%	19.758%
Return on Equity (Pre-tax)	87.47	88.26	88.26	88.26	88.50

28. The details of RoE approved earlier vide order dated 17.2.2016 in Petition No. 503/TT/2014, claimed by the Petitioner in the instant petition and trued up in the instant order are shown in the table under:

(₹ in lakh)

Particular	2014-15	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 17.2.2016 in Petition No. 503/TT/2014	87.50	87.90	87.90	87.90	87.90
Claimed by the Petitioner in the instant petition	87.54	88.31	88.27	88.27	88.50
Allowed after true-up in this order	87.47	88.26	88.26	88.26	88.50

Depreciation

The depreciation has been worked out as per the methodology provided in 29. Regulation 27 of the 2014 Tariff Regulations. The Gross Block during the tariff period 2014-19 has been depreciated at weighted average rate of depreciation (WAROD)

and working of WAROD is given in Annexure-1. The weighted average rate of depreciation (WAROD) has been worked out after taking into account the depreciation rates of assets as prescribed in the 2014 Tariff Regulations and depreciation allowed during 2014-19 tariff period is as under:-

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	1750.36	1763.06	1763.06	1763.06	1763.06
Additional Capital expenditure	12.70	0.00	0.00	0.00	0.00
Closing Gross Block	1763.06	1763.06	1763.06	1763.06	1763.06
Average Gross Block	1756.71	1763.06	1763.06	1763.06	1763.06
Weighted Average Rate of Depreciation (WAROD)	5.2800%	5.2800%	5.2800%	5.2800%	5.2800%
Elapsed life Value at the beginning of the year	1	2	3	4	5
Aggregated Depreciable Value	1581.04	1586.75	1586.75	1586.75	1586.75
Depreciation	92.75	93.09	93.09	93.09	93.09
Remaining Depreciable Value at the beginning of the year	1494.60	1407.56	1314.47	1221.38	1128.29

30. The details of the depreciation approved earlier vide order dated 17.2.2016 in Petition No. 503/TT/2014, claimed by the Petitioner in the instant petition and trued up in the instant order are shown in the table below:

(₹ in lakh)

(Thirteen)					
Particular	2014-15	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 17.2.2016	92.78	93.15	93.15	93.15	93.15
Claimed by the Petitioner in the instant petition	92.75	93.09	93.09	93.09	93.09
Allowed after true-up in this order	92.75	93.09	93.09	93.09	93.09

Operation and Maintenance Expenses (O&M Expenses)

The Petitioner has claimed the same O&M Expenses for the instant 31. transmission system for the 2014-19 period as approved by the Commission vide order dated 17.2.2016 in petition no. 503/TT/2014. The Petitioner's claim is as per the norms specified in the 2014 Tariff Regulations. Hence, it is allowed and the details are as follows:-

(₹ in lakh)

Particulars (O&M Expenses)	2014-15	2015-16	2016-17	2017-18	2018-19	
Approved vide order dated 17.2.2016	102.51	105.91	109.43	113.06	116.81	
Claimed by the Petioner in the instant petition	102.51	105.91	109.43	113.06	116.81	
Allowed after true-up in this order	102.51	105.91	109.43	113.06	116.81	

Interest on Working Capital (IWC)

32. The Petitioner is entitled for IWC as per Regulation 28 of the 2014 Tariff Regulations. IWC allowed as per the methodology provided in Regulation 28 of the 2014 Tariff Regulations is as under: -

33 (₹ in lakh)

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Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	15.38	15.89	16.41	16.96	17.52
O&M expenses	8.54	8.83	9.12	9.42	9.73
Receivables	67.07	66.34	65.40	64.40	63.63
Total	90.99	91.06	90.93	90.78	90.89
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
Interest on Working Capital	12.28	12.29	12.28	12.25	12.27

The details of IWC approved earlier vide order dated 17.2.2016 in Petition No. 34. 503/TT/2014, IWC claimed by the Petitioner in the instant petition and trued up in the instant order for the 2014-19 period are shown as under: -

(₹ in lakh)

Particulars (IWC)	2014-15	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 17.2.2016 in Petition No. 503/TT/2014	12.29	12.31	12.30	12.31	12.31
Claimed by the Petitioner in the instant petition	12.29	12.29	12.28	12.26	12.27
Allowed after true-up in this order	12.28	12.29	12.28	12.25	12.27

Annual Transmission Charges allowed for 2014-19 Tariff Period

The trued up annual fixed charges for the transmission assets for the tariff 35. period 2014-19 are summarised below: -

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	92.75	93.09	93.09	93.09	93.09
Interest on Loan	107.39	98.51	89.33	79.71	71.13
Return on Equity	87.47	88.26	88.26	88.26	88.50
Interest on Working Capital	12.28	12.29	12.28	12.25	12.27
O&M Expenses	102.51	105.91	109.43	113.06	116.81
Total	402.41	398.06	392.39	386.38	381.81

DETERMINATION OF ANNUAL FIXED CHARGES FOR 2019-24 TARIFF PERIOD

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

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	93.09	93.09	93.09	93.09	93.09
Interest on Loan	63.19	55.02	46.84	38.72	30.76
Return on Equity	88.50	88.50	88.50	88.50	88.50
Interest on Working Capital	10.98	11.13	11.28	11.44	11.57
O&M Expenses	167.43	173.45	179.53	185.99	192.22
Total	423.19	421.19	419.24	417.74	416.14

37. The details of the interest on working capital claimed by the Petitioner are as under: -

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Maintenance Spares	25.11	26.02	26.93	27.90	28.83
O&M expenses	13.95	14.45	14.96	15.50	16.02
Receivables	52.03	51.93	51.69	51.50	51.16
Total	91.09	92.40	93.58	94.90	96.01
Rate of Interest	12.05%	12.05%	12.05%	12.05%	12.05%
Interest on Working Capital	10.98	11.13	11.28	11.44	11.57

Capital Cost

- Regulation 19 of the 2019 Tariff Regulations provides as follows: -
 - "(1) The Capital cost of the generating station or the transmission system, as the case may be, as determined by the Commission after prudence check in accordance with these regulations shall form the basis for determination of tariff for existing and new projects."
 - (2) The Capital Cost of a new project shall include the following:
 - (a) The expenditure incurred or projected to be incurred up to the date of commercial operation of the project;
 - (b) Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to

the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;

- (c) Any gain or loss on account of foreign exchange risk variation pertaining to the loan amount availed during the construction period;
- (d) Interest during construction and incidental expenditure during construction as computed in accordance with these regulations;
- (e) Capitalised initial spares subject to the ceiling rates in accordance with these regulations:
- (f) Expenditure on account of additional capitalization and de-capitalisation determined in accordance with these regulations;
- (g) Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the date of commercial operation as specified under Regulation 7 of these regulations;
- (h) Adjustment of revenue earned by the transmission licensee by using the assets before the date of commercial operation;
- (i) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
- (j) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of the generating station but does not include the transportation cost and any other appurtenant cost paid to the railway;
- (k) Capital expenditure on account of biomass handling equipment and facilities, for co-firing:
- (I) 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 renovation and modernisation as admitted by this Commission in accordance with these regulations;
- (d) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
- (e) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal up to the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and
- (f) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries."
- (4) The capital cost in case of existing or new hydro generating station shall also include:
- (a) cost of approved rehabilitation and resettlement (R&R) plan of the project in conformity with National R&R Policy and R&R package as approved; and
- (b) cost of the developer's 10% contribution towards Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) and Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) project in the affected area.

- (5) The following shall be excluded from the capital cost of the existing and new projects:
- (a) The assets forming part of the project, but not in use, as declared in the tariff petition:
- (b) De-capitalised Assets after the date of commercial operation on account of replacement or removal on account of obsolescence or shifting from one project to another project:

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

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

- (c) In case of hydro generating stations, any expenditure incurred or committed to be incurred by a project developer for getting the project site allotted by the State Government by following a transparent process;
- (d) Proportionate cost of land of the existing project which is being used for generating power from generating station based on renewable energy: and
- (e) Any grant received from the Central or State Government or any statutory body or authority for the execution of the project which does not carry any liability of repayment."
- 39. The admitted capital cost of ₹1763.06 lakh as on 31.3.2019 as trued up in above paragraphs is considered as the capital cost as on 1.4.2019 for the purpose of determination of tariff for the 2019-24 tariff period.

Additional Capital Expenditure (ACE)

40. Regulations 24 and Regulation 25 of the 2019 Tariff Regulations provide as under:

"24. Additional Capitalisation within the original scope and upto the cut-off date

- (1) The additional capital expenditure in respect of a new project or an existing project incurred or projected to be incurred, on the following counts within the original scope of work, after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to prudence check:
- (a) Undischarged liabilities recognized to be payable at a future date;
- (b) Works deferred for execution;
- (c) Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 23 of these regulations;
- (d) Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority or order or decree of any court of law;
- (e) Change in law or compliance of any existing law; and
- (f) Force Majeure events:

Provided that in case of any replacement of the assets, the additional capitalization shall be worked out after adjusting the gross fixed assets and cumulative depreciation of the assets replaced on account of de-capitalization.

- (2) The generating company or the transmission licensee, as the case may be shall submit the details of works asset wise/work wise included in the original scope of work along with estimates of expenditure, liabilities recognized to be payable at a future date and the works deferred for execution.
- 25. Additional Capitalisation within the original scope and after the cut-off date:
- (1) The additional capital expenditure incurred or projected to be incurred in respect of an existing project or a new project on the following counts within the original scope of work and after the cut-off date may be admitted by the Commission, subject to prudence check:
- (a) Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority, or order or decree of any court of law;
- (b) Change in law or compliance of any existing law;
- (c) Deferred works relating to ash pond or ash handling system in the original scope of work;
- (d) Liability for works executed prior to the cut-off date;
- (e) Force Majeure events;
- (f) Liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments; and
- (g) Raising of ash dyke as a part of ash disposal system.
- (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) The useful life of the assets 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 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."
- 41. The Petitioner has not claimed/ projected any Additional Capital Expenditure during 2019-24 tariff period.
- 42. Accordingly, the capital cost considered as on 1.4.2019 is as under:

(₹ in lakh)

Capital Cost as on	ACE claimed	Total Capital Cost as on		
1.4.2019	2019-24	31.3.2024		
1763.06	Nil	1763.06		

Debt-Equity Ratio

The debt-equity ratio for the 2019-24 period is allowed as per Regulation 18(3) 43. of the 2019 Tariff Regulations. Accordingly, the admitted debt-equity ratio as on 31.3.2019 has been considered as the debt-equity ratio as on 1.4.2019 for the purpose of determination of tariff for the 2019-24 tariff period and the same has been summarized as under:

(₹ in lakh)

Particulars Funding	Capital cost as on 1.4.2019	%	Total cost as on 31.3.2024	%
Debt	1315.13	74.59	1315.13	74.59
Equity	447.93	25.41	447.93	25.41
Total	1763.06	100.00	1763.06	100.00

Return on Equity (ROE)

- 44 Regulation 30 and Regulation 31 of the 2019 Tariff Regulations specify as under:-
 - "30. Return on Equity: (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with Regulation 18 of these regulations.
 - (2) Return on equity shall be computed at the base rate of 15.50% for thermal generating station, transmission system including communication system and runof 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 runof 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 by1.00% for such period as may be decided by the Commission, if the generating station or transmission system is found to be declared under commercial operation without commissioning of any of the Restricted Governor Mode Operation (RGMO) or Free Governor Mode Operation(FGMO), data telemetry, communication system up to load dispatch centre or protection system based on the report submitted by the respective RLDC;
- ii. in case of existing generating station, as and when any of the requirements under (i) above of this Regulation are found lacking based on the report submitted by the concerned RLDC, rate of return on equity shall be reduced by 1.00% for the period for which the deficiency continues;

- iii. in case of a thermal generating station, with effect from 1.4.2020:
 - a) rate of return on equity shall be reduced by 0.25% in case of failure to achieve the ramp rate of 1% per minute;
 - b) an additional rate of return on equity of 0.25% shall be allowed for every incremental ramp rate of 1% per minute achieved over and above the ramp rate of 1% per minute, subject to ceiling of additional rate of return on equity of 1.00%:

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

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

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.

- (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."
- 45. The Petitioner has submitted that MAT rate is applicable to the Petitioner's company. Accordingly, the MAT rate applicable in 2019-20 has been considered for the purpose of ROE, which shall be trued up with actual tax rate in accordance with Regulation 31(3) of the 2019 Tariff Regulations. However, in the instant petition, the

Petitioner has claimed the ROE on the basis of MAT rate of 21.55% whereas the Petitioner in Petition No. 244/TT/2019 has claimed the ROE based on the MAT rate of 17.472% on account of Taxation Laws (Amendment) ordinance, 2019 published in the Gazette dated 20.9.2019. Accordingly, based on the submissions made by the Petitioner in Petition No. 244/TT/2019, the ROE has been allowed for the instant transmission assets considering the applicable MAT rate of 17.472% as under:-

				(₹	in lakh)
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	447.93	447.93	447.93	447.93	447.93
Addition due to Additional Capitalization	0.00	0.00	0.00	0.00	0.00
Closing Equity	447.93	447.93	447.93	447.93	447.93
Average Equity	447.93	447.93	447.93	447.93	447.93
Return on Equity (Base Rate)	15.50%	15.50%	15.50%	15.50%	15.50%
MAT rate for the Financial year 2019-20	17.4720%	17.4720%	17.4720%	17.4720%	17.4720%
Rate of Return on Equity (Pre-tax)	18.782%	18.782%	18.782%	18.782%	18.782%
Return on Equity (Pre-tax)	84.13	84.13	84.13	84.13	84.13

Interest on Loan (IOL)

The details of IOL allowed in accordance with Regulation 32 of 2019 Tariff 46. Regulations is as follows:-

			(₹	in lakh)
2019-20	2020-21	2021-22	2022-23	2023-24

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	1315.13	1315.13	1315.13	1315.13	1315.13
Cumulative Repayment previous Year	551.55	644.64	737.73	830.82	923.91
Net Loan-Opening	763.58	67,0.49	577.40	484.31	391.22
Addition due to Additional Capitalization (ACE)	0.00	0.00	0.00	0.00	0.00
Repayment during the year	93.09	93.09	93.09	93.09	93.09
Net Loan-Closing	670.49	577.40	484.31	391.22	298.13
Average Loan	717.03	623.94	530.85	437.76	344.67
Weighted Average Rate of Interest on Loan	8.812%	8.817%	8.823%	8.845%	8.924%
Interest on Loan	63.19	55.02	46.84	38.72	30.76

Depreciation

- 47. Regulation 33 of the 2019 Tariff Regulations provide that:-
 - "33. Depreciation: (1) Depreciation shall be computed from the date of commercial operation of a generating station or unit thereof or a transmission system or element thereof including communication system. In case of the tariff of all the units of a generating station or all elements of a transmission system including communication system for which a single tariff needs to be determined, the depreciation shall be computed from the effective date of commercial operation of the generating station or the transmission system taking into consideration the depreciation of individual units:

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

- (2) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission. In case of multiple units of a generating station or multiple elements of a transmission system, weighted average life for the generating station of the transmission system shall be applied. Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis.
- (3) The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset:

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

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

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

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

- (4) Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.
- (5) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix-I to these regulations for the assets of the generating station and transmission system:

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

(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 upto 31.3.2019 from the gross depreciable value of the assets.

- (7) The generating company or the transmission licensee, as the case may be, shall submit the details of proposed capital expenditure five years before the completion of useful life of the project along with justification and proposed life extension. The Commission based on prudence check of such submissions shall approve the depreciation on capital expenditure.
- (8) In case of de-capitalization of assets in respect of generating station or unit thereof or transmission system or element thereof, the cumulative depreciation shall be adjusted by taking into account the depreciation recovered in tariff by the decapitalized asset during its useful services."
- 48. The Gross Block during the tariff period 2019-24 has been depreciated at weighted average rate of depreciation (WAROD) and working of WAROD is given in Annexure-2. The weighted average rate of depreciation (WAROD) has been worked out after taking into account the depreciation rates of assets as prescribed in the 2019 Tariff Regulations and depreciation allowed during 2019-24 tariff period is as under:-

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	1763.06	1763.06	1763.06	1763.06	1763.06
Additional Capital expenditure	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	1763.06	1763.06	1763.06	1763.06	1763.06
Average Gross Block	1763.06	1763.06	1763.06	1763.06	1763.06
Weighted Average Rate of Depreciation (WAROD)	5.28%	5.28%	5.28%	5.28%	5.28%
Elapsed life at the beginning of the year	6	7	8	9	10
Aggregate Depreciable value	1586.75	1586.75	1586.75	1586.75	1586.75
Depreciation	93.09	93.09	93.09	93.09	93.09
Remaining Depreciable Value at the beginning of the year	1035.20	942.11	849.02	755.93	662.84

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

- 49. Regulation 35(3)(a) of the 2019 Tariff Regulations specifies the norms for the O&M Expenses for the transmission system and it is as follows:-
 - "(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

Particulars	2019- 20	2020-21	2021-22	2022-23	2023- 24
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 k	m)			
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)	834.00	864.00	894.00	925.00	958.00
Gazuwaka HVDC Back-to-Back station (₹ Lakh per 500 MW)	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)	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)	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)	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)	2,563.0	2,653	2,746.00	2,842.00	2,942.00

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

Provided further that:

- i. the operation and maintenance expenses for new HVDC bi-pole schemes commissioned after 1.4.2019 for a particular year shall be allowed pro-rata on the basis of normative rate of operation and maintenance expenses of similar HVDC bi-pole scheme for the corresponding year of the tariff period;
- ii. the O&M expenses norms for HVDC bi-pole line shall be considered as Double Circuit quad AC line;

- iii. the O&M expenses of ±500 kV Mundra-Mohindergarh HVDC bipole scheme (2000 MW)shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±500 kV Talchar-Kolar HVDC bi-pole scheme (2000 MW);
- iv. the O&M expenses of ±800 kV Champa-Kurukshetra HVDC bi-pole scheme (3000 MW) shall be on the basis of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme;
- v. the O&M expenses of ±800 kV, Alipurduar-Agra HVDC bi-pole scheme (3000 MW)shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme; and
- vi. the O&M expenses of Static Synchronous Compensator and Static Var Compensator shall be worked at 1.5% of original project cost as on commercial operation which shall be escalated at the rate of 3.51% to work out the O&M expenses during the tariff period. The O&M expenses of Static Synchronous Compensator and Static Var Compensator, if required, may be reviewed after three years.
- (b) The total allowable operation and maintenance expenses for the transmission system shall be calculated by multiplying the number of sub-station bays, transformer capacity of the transformer (in MVA) and km of line length with the applicable norms for the operation and maintenance expenses per bay, per MVA and per km respectively.
- (c) The Security Expenses and Capital Spares for transmission system shall be allowed separately after prudence check:

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

- (4) Communication system: The operation and maintenance expenses for the communication system shall be worked out at 2.0% of the original project cost related to such communication system. The transmission licensee shall submit the actual operation and maintenance expenses for truing up."
- 50. The O&M Expenses claimed by the Petitioner are as per the norms specified in the 2019 Tariff Regulations and hence, they are allowed as claimed as under:-

(₹ in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Claimed by the Petitioner	167.43	173.45	179.53	185.99	192.22
Allowed in this order	167.43	173.45	179.53	185.99	192.22

Interest on Working Capital (IWC)

51. Regulation 34(1)(c), Regulation 34(3), Regulation 34(4) and Regulation 3(7) of the 2019 Tariff Regulations specifies as follows:

"34. Interest on Working Capital (1)...



- (c) For Hydro Generating Station (including Pumped Storage Hydro Generating Station) and Transmission System:
 - i. Receivables equivalent to 45 days of fixed cost;
 - ii. Maintenance spares @ 15% of operation and maintenance expenses including security expenses; and
 - iii. Operation and maintenance expenses, including security expenses for one month"
- "(3) Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2019 or as on 1st April of the year during the tariff period 2019-24 in which the generating station or a unit thereof or the transmission system including communication system or element thereof, as the case may be, is declared under commercial operation, whichever is later:

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

- (4) Interest on working capital shall be payable on normative basis notwithstanding that the generating company or the transmission licensee has not taken loan for working capital from any outside agency."
- "3.Definitions ...
- (7) 'Bank Rate' means the one year marginal cost of lending rate (MCLR) of the State Bank of India issued from time to time plus 350 basis points;"
- 52. 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%.
- 53. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The Rate of Interest (ROI) on working capital considered is 12.05% (SBI 1 year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for 2019-20, whereas, ROI for 2020-21 onwards has been considered as 11.25% (SBI 1 year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points). The components of the working capital and interest thereon allowed is as under:

(₹ in lakh)

Particular	2019-20	2020-21	2021-22	2022-23	2023-24
Maintenance Spares	25.11	26.02	26.93	27.90	28.83
O&M expenses	13.95	14.45	14.96	15.50	16.02
Receivables	51.49	51.29	51.05	50.86	50.52
Total	90.55	91.76	92.94	94.26	95.38
Rate of Interest on working capital	12.05%	11.25%	11.25%	11.25%	11.25%
Interest on Working Capital	10.91	10.32	10.46	10.60	10.73

APPROVED ANNUAL TRANSMISSION CHARGES FOR 2019-24 TARIFF PERIOD

54. The transmission charges allowed for the instant transmission assets for the 2019-24 period are summarised below:-

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	93.09	93.09	93.09	93.09	93.09
Interest on Loan	63.19	55.02	46.84	38.72	30.76
Return on Equity	84.13	84.13	84.13	84.13	84.13
Interest on Working Capital	10.91	10.32	10.46	10.60	10.73
O&M Expenses	167.43	173.45	179.53	185.99	192.22
Total	418.75	416.01	414.04	412.53	410.93

Filing Fee and Publication Expenses

The Petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses, in terms of Regulation 70(1) of the 2019 Tariff Regulations. 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 prorata basis in accordance with Regulation 70(1) of the 2019 Tariff Regulations.

License fee and RLDC Fees and Charges

56. The Petitioner has requested to allow the Petitioner to bill and recover License fee and RLDC fees and charges, separately from the Respondents. The Petitioner shall be entitled for reimbursement of licence fee and RLDC fees and charges in accordance with Clause (3) and (4) of Regulation 70 of the 2019 Tariff Regulations.

Goods and Services Tax

57. The Petitioner has sought to recover GST on transmission charges separately from the Respondents, if at any time GST on transmission is withdrawn from negative list in future. 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.

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

Security Expenses

- 59. The Petitioner has submitted that security expenses for the instant assets are not claimed in the instant petition and it would file a separate petition for claiming the overall security expenses and the consequential Interest on Working Capital. The Petitioner has requested to consider the actual security expenses incurred during 2018-19 for claiming estimated security expenses for 2019-20 which shall be subject to true up at the end of the year based on the actuals. The Petitioner has submitted that similar petition for security expenses for 2020-21, 2021-22, 2022-23 and 2023-24 shall be filed on a yearly basis on the basis of the actual expenses of previous year subject to true up at the end of the year on actual expenses. The Petitioner has submitted that the difference, if any, between the estimated security expenses and actual security expenses as the audited accounts may be allowed to be recovered from the beneficiaries on a yearly basis.
- 60. We have considered the submissions of the Petitioner. We are of the view that the Petitioner should claim security expenses for all the transmission assets in one petition. The Commission observes that the Petitioner has already filed the Petition No. 260/MP/2020 claiming consolidated security expenses on projected basis for the 2019-24 tariff period on the basis of actual security expenses incurred in 2018-19. Therefore, security expenses will be dealt with in Petition No. 260/MP/2020 in accordance with the applicable provisions of the 2019 Tariff Regulations.

Capital Spares

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

Sharing of Transmission Charges

- The billing, collection and disbursement of the transmission charges approved 62. in this order shall be governed by the provisions of Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010, as amended from time to time as provided in Regulation 43 of 2014 Tariff Regulations for the 2014-19 tariff period and Regulation 57 of the 2019 Tariff Regulations for the 2019-24 tariff period.
- 63. To summarise, the trued-up Annual Fixed Charges allowed for the instant asset after true-up for the 2014-19 tariff period are as under:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Annual Fixed Charges	402.41	398.06	392.39	386.38	381.81

64. The Annual Fixed Charges allowed for the 2019-24 tariff period in this order are as under:

(₹ in lakh)

					(V III I GIRTI)
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Annual Fixed Charges	418.75	416.01	414.04	412.53	410.93

65. This order disposes of Petition No. 310/TT/2019.

> Sd/-(Arun Goyal) Member

Sd/-(I. S. Jha) Member

Annexure-1

													(₹ in	Lakh)
Capital Expenditures as on COD / 01.04.2014	Admitted Capital Cost as on 01.04.2014 for tariff		A	dditional c	apitalisatio	on		Estimated Completion Cost as	Rate of Depreciation as per		Deprec	iation as per Re	gulation	
	purpose	2014-15	2015-16	2016-17	2017-18	2018-19	Total	31.3.2019	Regulation 27	2014-15	2015-16	2016-17	2017-18	2018-19
Freehold Land		-		(30)			0	-			- 1			
Leasehold Land						- 2			3.34%		- 1			
Building & Other Civil Works				-		- 2			3.34%	-	- 1			
Transmission Line							-		5.28%	-	- 1	-		
Sub-Station Equipments	1,750.36	12.70				-	12.70	1,763.06	5.28%	92.75	93.09	93.09	93.09	93.09
PLCC		-		-					6.33%				- 1	
IT Equipment & Software	- 1								5.28%					
Total	1,750.36	12,70	1 -	(**)		-	12.70	1,763.06		92,75	93.09	93.09	93.09	93.09
	Average Gros	s Block (in lakh)							1,756.71	1,763.06	1,763.06	1,763.06	1,763.06
	Weighted Average	e Rate of	Depreciat	ion						5.2800%	5.2800%	5.2800%	5.2800%	5.2800%

Annexure-2

														(₹ in Lacs)
Capital Expenditure	Admitted Capital Cost as on 01.04.2019		Proje	cted Additio	onal Capital	sation		Admitted Cost as 31,3,2024	Rate of Depreciation as per		Depreciat	ion as per R	egulation	
		2019-20	2020-21	2021-22	2022-23	2023-24	Total	31.3.2024	Regulation	2019-20	2020-21	2021-22	2022-23	2023-24
Freehold Land				-	-	-	•	-	0.00%	0.00	0.00	0.00	0.00	0.00
Leasehold Land		-			-	-	-	-	3.34%	0.00	0.00	0.00	0.00	0.00
Building & Other Civil Works	-		-	-	-	-	-	-	3.34%	0.00	0.00	0.00	0.00	0.00
Transmission Line	-	-	-	-		-			5.28%	0.00	0.00	0.00	0.00	0.00
Sub-Station Equipments	1,763.06	- 2			-	- 1		1,763.06	5.28%	93.09	93.09	93.09	93.09	93.09
PLCC	-		-	-		-	-	-	6.33%	0.00	0.00	0.00	0.00	0.00
IT and Software	-	- 2	-	-	-		-	-	15.00%	0.00	0.00	0.00	0.00	0.00
Total	1,763.06					-		1,763.06		93.09	93.09	93.09	93.09	93.09
	Av	erage Gro	ss Block	(₹ in lakh)						1763.06	1763.06	1763.06	1763.06	1763.06
	Weigh	ited Avera	ge Rate of	Deprecia	tion					5.28%	5.28%	5.28%	5.28%	5.28%



Summary of Tariff

Form No. - 1

Name of the	Transmission Licensee:	Power Grid Corporation	on of India Limited	
Project	Installation of 1x315 M	IVA 400/220 kV Transfo	ormer at Vapi (PO\	WERGRID) substation
Element Description	Installation of 1x315 M	IVA 400/220 kV Transfo	ormer along with a	ssociated bays at Vapi(POWERGRID)Substation
Region	Western Region		DOCO Date	Mar 1, 2013

(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	93.09	93.09	93.09	93.09	93.09
Interest on Loan-Form No. 9E	62.96	54.06	45.99	38.15	30.66
Return on Equity-Form No. 8	84.13	84.13	84.13	84.13	84.13
Int. on Working capital-Form No.11	10.91	10.31	9.74	9.88	11.45
Op. and maintenance-Form No.2	167.43	173.45	179.53	185.99	192.22
Total AFC	418.52	415.04	412.48	411.24	411.55

(Petitioner)



Details of Transmission Lines and Substations, Communication System covered in the project scope Form No. - 2 and O&M for instant asset

Name of the Tra	Name of the Transmission Licensee Power Grid Corporation of India Limited		
Project	Installation of 1x315 MVA 400/220 kV Transformer at Vapi (POWERGRID) substation	RGRID) substation	
Element Description	Installation of 1x315 MVA 400/220 kV Transformer along with associated bays at Vapi(POWERGRID)Substation	ciated bays at Vapi(F	OWERGRID)Substation
Region	Western Region	DOCO Date	Mar 1, 2013

1. Transmission Lines

(Amount in Rs. Lakh)

Summary:

56



2. Sub Station

	Type of Voltage	Voltage	No. of Transfor ms/		Š	No. of Bays		2	MVA/MVAR Capacity	IR Cap	acity	Date of	S = g g	Covered in the present petition
Name of Sub-station	Substation Level KV	Level	Reactor/ SVC etc. (with capacity)	765 KV	400 KV	220 KV	132 ₹ \$	765 KV	400 K2	220 KV	132 KV	Comm.	S o K	Ye If No, s/ Petitio No n No.
Vapi:ICT III AT VAPI	Brownfield 400 KV	400 KV			1.000							Mar 1, 2013	>	
Vapi:ICT III AT VAPI	Brownfield	220 KV				1.000						Mar 1, 2013	>	
Vapi:ICT-III AT VAPI	Brownfield	400 KV	1.000						315.00			Mar 1, 2013	>	

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	1.00	1.00	1.00	1.00	1.00
O&M Claimed	32.15	33.28	34.45	35.66	36.91
220KV SUB-STATION					
Normative Rate of Command as per Regulation	22.51	23.30	24.12	24.96	25.84
No. of Units	1.00	1.00	1.00	1.00	1.00
O&M Claimed	22.51	23.30	24.12	24.96	25.84

Page 2 of 5 042202: Truing Up: Installation of 1x315 MVA 400220 kV Transformer along with associated bays at Vapi(POWERGRID)Substation

Normative Rate of O&M as per Regulation	0.358	0.371	0.384	0.398	0.411
No. of Units	1.00	1.00	1.00	1.00	1.00
O&M Claimed	112.77	116.87	120.96	125.37	129.47

400KV SUB-STATION ICT





Particular	2019-20	2020-21	2021-22	2022-23	2023-24
A) Normative O&M					
Transmission Line	00.00	00.00	00.00	00.00	0.00
Substation	167.43	173.45	179.53	185.99	192.22
Communication System	00.00	00.00	00.00	00.00	0.00
Total Normative O&M	167.43	173.45	179.53	185.99	192.22
B) O&M Claimed under Regulation 35 (3)(C) (* The same is not being claimed and will be claimed through separate Petition)					
*Security Expenses	00.00	00.00	0.00	00.00	0.00
*Actual Capital Spare consumed	00.00	00.00	00.00	00.0	0.00
*Insurance Premium Paid	00.00	00:00	00.00	00.00	0.00
Total O&M	167.43	173.45	179.53	185.99	192.22

(Petitioner)



Normative parameters considered for tariff computations

Name of the Tra	ansmission Licensee	Power Grid Corporat	ion of India Limited	
Project	Installation of 1x315 MVA	A 400/220 kV Transfo	rmer at Vapi (POW	/ERGRID) substation
Element Description	Installation of 1x315 MVA	\ 400/220 kV Transfo	rmer along with as	sociated bays at Vapi(POWERGRID)Substation
Region	Western Region		DOCO Date	Mar 1, 2013

(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)	FI				1	3
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)					apOR.	ATION
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.806	0.881	0.912	0.944	9.977	वरति । 1011
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
		5.4				

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)



Calculation of ROE

Name of the	Transmission Licensee	Power Grid Corporation	n of India Limited	
Project	Installation of 1x315 M	VA 400/220 kV Transfori	mer at Vapi (POW	/ERGRID) substation
Element Description	Installation of 1x315 M	/A 400/220 kV Transform	mer along with ass	sociated bays at Vapi(POWERGRID)Substation
Region	Western Region		DOCO Date	Mar 1, 2013

(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	447.93	447.93	447.93	447.93	447.93
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)	447.93	447.93	447.93	447.93	447.93
Add: Increase in Equity due to addition during the year / period	0.00	0.00	0.00	0.00	0.00
Less: Decrease due to de-capitalisation during the year / period	0.00	0.00	0.00	0.00	0.00
Add: Increase due to discharge during the year / period	0.00	0.00	0.00	0.00	0.00
Closing Normative Equity	447.93	447.93	447.93	447.93	447.93
Average Normative Equity	447.93	447.93	447.93	447.93	447.93
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	84.13	84.13	84.13	ORANG 13	84.13
Pro rata return on Equity	84.13	84.13	84.13	84113	84.13

Mod (Petitioner)

Calculation of WAR of interest on actual loan

Name of the 1	Fransmission Licensee	Power Grid Corporation of India Limited
Project	Installation of 1x315 M	A 400/220 kV Transformer at Vapi (POWERGRID) substation
Element Description	Installation of 1x315 M	A 400/220 kV Transformer along with associated bays at Vapi(POWERGRID)Substation
Region	Western Region	DOCO Date Mar 1, 2013

(Amount in Rs. Lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
BOND XXXVIII -BOND XXXVIII					
Gross Loan- Opening	100.00	100.00	100.00	100.00	100.00
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.00	0.00
Net loan-Opening	100.00	100.00	100.00	100.00	100.00
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	100.00	100.00	100.00	100.00	100.00
Average Net Loan	100.00	100.00	100.00	100.00	100.00
Rate of Interest on Loan on Annual Basis	9.25	9.25	9.25	9.25	9.25
Interest on loan	9.25	9.25	9.25	9.25	9.25

SBI (21.03.2012) -ADDCAP FOR 2013-2014					
Gross Loan- Opening	212.00	212.00	212.00	212.00	212.00
Cumulative repayments of Loans upto previous year	57.75	77.00	96.25	115.50	134.75
Net loan-Opening	154.25	135.00	115.75	96.50	77.25
Add: Drawl(s) during the year	0.00	0.00	0.00	TION 0.00	0.00
Less: Repayment(s) of loan during the year	19.25	19.25	99.25	25	19.25
Net Loan-Closing	135.00	115.75	96.50	.25	58.00

Average Net Loan	144.63	125.38	106.13	86.88	67.63
Rate of Interest on Loan on Annual Basis	7.995219	6.898405	6.65	7.233189	8.134574
Interest on loan	11.5635	8.6492	7.0576	6.2842	5.5014

BOND - XLI -BOND XLI					
Gross Loan- Opening	247.00	247.00	247.00	247.00	247.00
Cumulative repayments of Loans upto previous year	61.75	82.33	102.92	123.50	144.08
Net loan-Opening	185.25	164.67	144.08	123.50	102.92
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	20.58	20.58	20.58	20.58	20.58
Net Loan-Closing	164.67	144.09	123.50	102.92	82.34
Average Net Loan	174.96	154.38	133.79	113.21	92.63
Rate of Interest on Loan on Annual Basis	8.85	8.85	8.85	8.85	8.85
Interest on loan	15.484	13.6626	11.8404	10.0191	8,1978

BOND - XLII -ADDCAP FOR 2012-2013					
Gross Loan- Opening	10.61	10.61	10.61	10.61	10.61
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.00	10.61
Net loan-Opening	10.61	10.61	10.61	10.61	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	10.61	0.00
Net Loan-Closing	10.61	10.61	10.61	0.00	0.00
Average Net Loan	10.61	10.61	10.61	5.31	0.00
Rate of Interest on Loan on Annual Basis	8.80	8.80	8.80	ORATION 880	8.80
Interest on loan	0.9337	0.9337	0.9837	POINT 46 23	0.00

BOND - XLII -ADDCAP FOR 2013-2014							
Gross Loan- Opening	120.09	120.09	120.09	120.09	120.09		
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.00	120.09		
Net loan-Opening	120.09	120.09	120.09	120.09	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	120.09	0.00		
Net Loan-Closing	120.09	120.09	120.09	0.00	0.00		
Average Net Loan	120.09	120.09	120.09	60.05	0.00		
Rate of Interest on Loan on Annual Basis	8.80	8.80	8.80	8.80	8.80		
Interest on loan	10.5679	10.5679	10.5679	5.2844	0.00		

BOND - XLII -BOND XLII					
Gross Loan- Opening	557.54	557.54	557.54	557.54	557.54
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.00	557.54
Net loan-Opening	557.54	557.54	557.54	557.54	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	557.54	0.00
Net Loan-Closing	557.54	557.54	557.54	0.00	0.00
Average Net Loan	557.54	557.54	557.54	278.77	0.00
Rate of Interest on Loan on Annual Basis	8.80	8.80	8.80	8.80	8.80
Interest on loan	49.0635	49.0635	49.0635	24.5318	0.00

BOND - XLV -ADDCAP FOR 2013-2014			CRATION	
Gross Loan- Opening	59.00	59.00	59.00	59.00
Cumulative repayments of Loans upto previous year	9.83	14.75	19.67 24.58	29.50
Net loan-Opening	49.17	44.25	39.33 34.42	29.50

Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	4.92	4.92	4.92	4.92	4.92
Net Loan-Closing	44.25	39.33	34.41	29.50	24.58
Average Net Loan	46.71	41.79	36.87	31.96	27.04
Rate of Interest on Loan on Annual Basis	9.65	9.65	9.65	9.65	9.65
Interest on loan	4.5075	4.0327	3.558	3.0841	2.6094

Summary

1,306.24	1,306.24	1,306.24	1,306.24	1,306.24
129.33	174.08	218.84	263.58	996.57
1,176.91	1,132.16	1,087.40	1,042.66	309.67
0.00	0.00	0.00	0.00	0.00
44.75	44.75	44.75	732.99	44.75
1,132.16	1,087.41	1,042.65	309.67	264.92
1,154.54	1,109.79	1,065.03	676.18	287.30
8.7801	8.6647	8.6637	8.7138	8.8961
101.3701	96.1596	92.2711	58.9209	25.5586
	129.33 1,176.91 0.00 44.75 1,132.16 1,154.54 8.7801	129.33 174.08 1,176.91 1,132.16 0.00 0.00 44.75 44.75 1,132.16 1,087.41 1,154.54 1,109.79 8.7801 8.6647	129.33 174.08 218.84 1,176.91 1,132.16 1,087.40 0.00 0.00 0.00 44.75 44.75 44.75 1,132.16 1,087.41 1,042.65 1,154.54 1,109.79 1,065.03 8.7801 8.6647 8.6637	129.33 174.08 218.84 263.58 1,176.91 1,132.16 1,087.40 1,042.66 0.00 0.00 0.00 0.00 44.75 44.75 732.99 1,132.16 1,087.41 1,042.65 309.67 1,154.54 1,109.79 1,065.03 676.18 8.7801 8.6647 8.6637 8.7138

(Petitioner)



Calculation of interest on Normative loan

Name of the Tr	ansmission Licensee	Power Grid Corporation of India Limited					
Project	Project Installation of 1x315 MVA 400/220 kV Transformer at Vapi (POWERGRID) substation						
Element Description	Installation of 19315 MVA (IIII/2/I) KV Transformer along with associated have at VaniPE WERGERI INSUnstation						
Region	Western Region		DOCO Date	Mar 1, 2013			

(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	1,315.13	1,315.13	1,315.13	1,315.13	1,315.13
Cumulative repayments of Normative loan upto previous year	551.55	644.64	737.73	830.82	923.91
Net normative loan-Opening	763.58	670.49	577.40	484.31	391.22
Addition in normative loan towards the ACE	0.00	0.00	0.00	0.00	0.00
Adjustment of normative gross loan pertaining to the decapitalised asset	0.00	0.00	0.00	0.00	0.00
Normative repayments of normative loan during the year	93.09	93.09	93.09	93.09	93.09
Adjustment of cumulative repayment pertaining to the decapitalised asset	0.00	0.00	0.00	0.00	0.00
Net normative loan - closing	670.49	577.40	484.31	391.22	298.13
Average normative loan	717.04	623.95	530.86	437.77	344.68
Weighted Average Rate of interest on actual loan	8.7801	8.6647	8.6637	8.7138	8.8961
Interest on normative loan	62.96	54.06	45.99	38.15	30.66
Pro rata interest on normative loan	62.96	54.06	45.99	38.15	30.66

Calculation of Depreciation Rate on Original Project Cost

Name of the Transmission Licensee		Power Grid Corporation of India Limited						
Project	Project Installation of 1x315 MVA 400/220 kV Transformer at Vapi (POWERGRID) substation							
Element Description	Installation of 1x315 MVA 400/220 kV Transformer along with associated bays at Vapi(POWERGRID)Substation							
Region	Western Region	DOCO Date Mar 1, 2013						

(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	1,763.06	0.00	1,763.06	1,763.06	5.28	93.09
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/URTDSM/ SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	0.00	0.00	0.00	5.28	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
TOTAL	1,763.06	0.00	1,763.06	, 1,763.06	0.00	93.09
Weighted Average Rate of Depreciation(%)					5.280025	

2020-21					820F
Land(Freehold)	0.00	0.00	0.00	0.00	0.00
				-1//	100

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	1,763.06	0.00	1,763.06	1,763.06	5.28	93.09
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/URTDSM/ SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	0.00	0.00	0.00	5.28	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
TOTAL	1,763.06	0.00	1,763.06	1,763.06	0.00	93.09
Weighted Average Rate of Depreciation(%)					5.280025	

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	1,763.06	0.00	1,763.06	1,763.06	5.28	93.09
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/URTDSM/ SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	0.00	0.00	0.00	5.28	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
TOTAL	1,763.06	0.00	1,763.06	1,763.06	0.00	110N OF 93.09
Weighted Average Rate of Depreciation(%)					5.280025	A LITO

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	0.00	0.00	0.00	5.28	0.00
Sub Station	1,763.06	0.00	1,763.06	1,763.06	5.28	93.09
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/URTDSM/ SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	0.00	0.00	0.00	5.28	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
TOTAL	1,763.06	0.00	1,763.06	1,763.06	0.00	93.09
Weighted Average Rate of Depreciation(%)					5.280025	

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	0.00	0.00	0.00	0.00	5.28	0.00
Sub Station	1,763.06	0.00	1,763.06	1,763.06	5.28	93.09
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/URTDSM/ SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	0.00	0.00	0.00	5.28	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	SORATION OF TO
TOTAL	1,763.06	0.00	1,763.06	1,763.06	0.00	93.09

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0422002 : Truing Up: Installation of 1x315 MVA 400/220 kV Transformer along with association Vapi(POWERGRID)Substation



Weighted Average Rate of			5.280025	
Depreciation(%)			5.200025	



Statement of Depreciation

Name of the Tr	ansmission Licensee Powe	Grid Corporation of India Limit	ed
Project	Installation of 1x315 MVA 400	220 kV Transformer at Vapi (P0	OWERGRID) substation
Element Description	Installation of 1x315 MVA 400	220 kV Transformer along with	associated bays at Vapi(POWERGRID)Substation
Region	Western Region	DOCO Date	Mar 1, 2013

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	25.00	25.00	25.00	25.00	25.00
1.2 Lapsed Weighted Average useful life of the Asset/Project(in completed no. of year)	6.00	7.00	8.00	9.00	10.00
1.3 Balance Weighted Average useful life of the Asset/Project(in completed no. of year)	19.00	18.00	17.00	16.00	15.00
Capital Base					
1.4 Opening capital cost	1,763.06	1,763.06	1,763.06	1,763.06	1,763.06
1.5 Additional Capital Expenditure dr. the year	0.00	0.00	0.00	0.00	0.00
1.6 De-Capitalisation During the year	0.00	0.00	0.00	0.00	0.00
1.7 Closing capital cost	1,763.06	1,763.06	1,763.06	1,763.06	1,763.06
1.8 Average capital cost	1,763.06	1,763.06	1,763.06	1,763.06	1,763.06
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	1,763.06	1,763.06	1,763.06	1,763.06	1,763.06
1.12 Depreciable Value(1.10+90% of 1.11)	1,586.75	1,586.75	1,586.75	1,586.75	1,586.75
Depreciation for the period and Cum. Depreciation	1	1		QUATION	
1.13 Weighted Average Rate of depreciation	5.280025	5.280025	5.280025	5.280025 MEN	5 280025

1.14 Depreciation(for the period)	93.09	93.09	93.09	93.09	93.09
1.15 Depreciation(Annualised)	93.09	93.09	93.09	93.09	93.09
Unrecovered Depreciation for DECAP	0.00	0.00	0.00	0.00	0.00
1.16 Cumulative depreciation at the beginning of the period	551.55	644.64	737.73	830.82	923.91
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	644.64	737.73	830.82	923.91	1,017.00

Calculation of interest on working Capital

Name of the 1	Fransmission Licensee	Power Grid Corpora	ition of India Limite	ed
Project	Installation of 1x315 MVA	400/220 kV Transfo	rmer at Vapi (POV	VERGRID) substation
Element Description	Installation of 1x315 MVA	400/220 kV Transfo	rmer along with as	ssociated bays at Vapi(POWERGRID)Substation
Region	Western Region		DOCO Date	Mar 1, 2013

(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	13.95	14.45	14.96	15.50	16.02
Maintenance spares 15% of O&M Expenses	25.11	26.02	26.93	27.90	28.83
Receivables equivalent to 45 days of AFC	51.46	51.17	50.85	50.70	50.60
Total Working capital	90.52	91.64	92.74	94.10	95.45
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	10.91	10.31	9.74	9.88	11.45
Pro rata interest on working capital	10.91	10.31	9.74	9.88	11.45



Summary of Tariff

Form No. - 1

Name of the 1	Fransmission Licensee:	Power Grid Corporation	on of India Limited	
Project	Installation of 1x315 M	/A 400/220 kV Transfo	ormer at Vapi (POW	/ERGRID) substation
Element Description	Installation of 1x315 M	/A 400/220 kV Transfo	ormer along with ass	sociated bays at Vapi(POWERGRID)Substation
Region	Western Region		DOCO Date	Mar 1, 2013

(Amount in Rs. Lakh)

4-25 365.00	2025-26 365.00	2026-27	2027-28	2028-29
365.00	365.00	205.00		
	300.00	365.00	366.00	365.00
365.00	365.00	365.00	366.00	365.00
93.09	36.67	36.67	36.67	36.67
22.54	16.85	13.62	10.41	7.40
84.13	84.13	84.13	84.13	84.13
8.69	8.07	8.33	8.60	8.93
132.73	139.77	146.96	154.61	163.02
341.18	285.49	289.71	294.42	300.15
	365.00 93.09 22.54 84.13	365.00 365.00 93.09 36.67 22.54 16.85 84.13 84.13 8.69 8.07 132.73 139.77	365.00 365.00 93.09 36.67 22.54 16.85 84.13 84.13 8.69 8.07 8.33 132.73 139.77 146.96	365.00 365.00 365.00 366.00 93.09 36.67 36.67 36.67 22.54 16.85 13.62 10.41 84.13 84.13 84.13 84.13 8.69 8.07 8.33 8.60 132.73 139.77 146.96 154.61



Details of Transmission Lines and Substations, Communication System covered in the project scope Form No. -2 and O&M for instant asset

Name of the Tra	Name of the Transmission Licensee Power Grid Corporation of India Limited		
Project	Installation of 1x315 MVA 400/220 kV Transformer at Vapi (POWERGRID) substation	(GRID) substation	
Element Description	Installation of 1x315 MVA 400/220 kV Transformer along with assoc	iated bays at Vapi(F	along with associated bays at Vapi(POWERGRID)Substation
Region	Western Region	DOCO Date	Mar 1, 2013

1. Transmission Lines

Summary:

(Amount in Rs. Lakh)



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0422002 : Installation of 1x315 MVA 400/220 kV Transformer along with associated bays at Vapi(POWERGRID)Substation

2. Sub Station

	Type of Voltage	Voltage	No. of Transfor ms/		No. o	No. of Bays		Σ	MVA/MVAR Capacity	IR Cap	acity	Date of	Covered in the present petition
Name of Sub-station	Substation	Level KV	Reactor/ SVC etc. (with capacity)	765 KV	400 ₹	220 KV	132 K	765 K	₩ ¥ 400	220 KV	132 KV	Comm.	Ye If No, s/ Petitio No n No.
Vapi:ICT III AT VAPI	Brownfield 400 KV	400 KV			1.000							Mar 1, 2013	>-
Vapi:ICT III AT VAPI	Brownfield 220 KV	220 KV				1.000						Mar 1, 2013	>
Vapi:ICT-III AT VAPI	Brownfield 400 KV	400 KV	1.000						315.00			Mar 1, 2013	>

8ummary:

400KV SUB-STATION			20707	07-1707	67-0707
Normative Rate of O&M as per Regulation	29.53	31.08	32.71	34.43	36.23
No. of Units	1.00	1.00	1.00	1.00	1.00
O&M Claimed	29.53	31.08	32.71	34.43	36.23
220KV SUB-STATION					
Normative Rate of O&M as per Regulation	20.67	21.75	22.90	24.10	25.36
No. of Units QIT VICE	1.00	1.00	1.00	1.00	1.00
O&M Claimed	20.67	21.75	22.90	24.10	25.36

(20)	TION	OF,	20
CORPO	50		A LTO
63	ERG	MOS	1

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	82.53	86.94	91.35	96.08	101.43

400KV SUB-STATION ICT





Particular	2024-25	2025-26	2026-27	2027-28	2028-29
A) Normative O&M					
Transmission Line	00.00	00.0	0.00	00:00	0.00
Substation	132.73	139.77	146.96	154.61	163.02
Communication System	00.00	00.00	0.00	00.00	0.00
Total Normative O&M	132.73	139.77	146.96	154.61	163.02
B) O&M Claimed under Regulation 35 (3)(C) (* The same is not being claimed and will be claimed through separate Petition)					
*Security Expenses	00.00	00.00	0.00	0.00	00.0
*Actual Capital Spare consumed	00.0	00.00	0.00	00.00	0.00
*Insurance Premium Paid	00.0	0.00	0.00	00.0	0.00
Total O&M	132.73	139.77	146.96	154.61	163.02



Form No. - 3

Normative parameters considered for tariff computations

Name of the Tr	ansmission Licensee	Power Grid Corporat	tion of India Limited	d
Project	Installation of 1x315 MVA	400/220 kV Transfo	ormer at Vapi (POV	VERGRID) substation
Element Description	Installation of 1x315 MVA	400/220 kV Transfo	rmer along with as	ssociated bays at Vapi(POWERGRID)Substation
Region	Western Region		DOCO Date	Mar 1, 2013

Particulars	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
Base Rate of Return of Equity (in %)			1		· · · · · · · · · · · · · · · · · · ·	
Tax Rate (in %)	17.472	17.472	17.472	17.472	17.472	17.472
Effective tax rate (in %)			'		'	
Grossed up Rate for ROE of 15.5% (in %)	18.782	18.782	18.782	18.782	18.782	18.782
Grossed up Rate for ROE of 15.0% (in %)	18.176	18.176	18.176	18.176	18.176	18.176
Target availability - AC System (in %)	98.00	98.00	98.00	98.00	98.00	98.00
Target availability - HVDC System (in %)	96.00	96.00	96.00	96.00	96.00	96.00
Norms for sub-station Bays (Rs Lakh per bay)	,	111				
765 kV	51.68	41.34	43.51	45.79	48.20	50.73
400 kV	36.91	29.53	31.08	32.71	34.43	36.23
220 kV	25.84	20.67	21.75	22.90	24.10	25.36
132 kV and below	1,8.46	15.78	1,6.61	17.48	1,8.40	19.35
Norms for Transformers (Rs Lakh per MVA)						
765 kV	0.564	0.262	0.276	0.29	0.305	0.322
400 kV	0.411	0.262	0.276	0.29	0.305	0.322
220 kV	0.282	0.262	0.276	0.29	0.305	0.322
132 kV and below	0.282	0.262	0.276	0.29	0.305	0.322
Norms for Reactor (Rs Lakh per MVAR)	1				JION O	FINO
765 kV	0.00	0.262	0.276	0.29	0.305	0.322
400 kV	0.00	0.262	0.276	0.29	0 305	0.322

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

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Calculation of ROE

Name of the Tr	ansmission Licensee	Power Grid Corporation o	f India Limited	
Project	Installation of 1x315 M\	/A 400/220 kV Transforme	er at Vapi (POW	ERGRID) substation
Element Description	Installation of 1x315 M\	/A 400/220 kV Transforme	er along with ass	sociated bays at Vapi(POWERGRID)Substation
Region	Western Region	DC	OCO Date	Mar 1, 2013

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	447.93	447.93	447.93	447.93	447.93
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)	447.93	447.93	447.93	447.93	447.93
Add: Increase in Equity due to addition during the year / period	0.00	0.00	0.00	0.00	0.00
Less: Decrease due to de-capitalisation during the year / period	0.00	0.00	0.00	0.00	0.00
Add: Increase due to discharge during the year / period	0.00	0.00	0.00	0.00	0.00
Closing Normative Equity	447.93	447.93	447.93	447.93	447.93
Average Normative Equity	447.93	447.93	447.93	447.93	447.93
Rate of return on Equity (%)	18.782	18.782	18.782	18.782	18.782 ⁻
Reduced rate of 1% decided by commission under Regulation 30(2) (if any)	0.00	0.00	0.00	0.00	0.00
Effective rate of ROE	15.50	15.50	15.50	15.50	15.50
MAT/Corporate Rate	17.472	17.472	17.472	17.472	17.472
Grossed up rate of ROE	18.782	18.782	18.782	18.782	18.782
Pro rata return on Equity	84.13	84.13	84.13	84.13	84.13
Return on Equity	84.13	84.13	84.13	84.13	84.13

Calculation of WAR of interest on actual loan

Name of the Tr	ransmission Licensee	Power Grid Corporation	Power Grid Corporation of India Limited				
Project	Project Installation of 1x315 MVA 400/220 kV Transformer at Vapi (POWERGRID) substation						
Element Description	Installation of 1x315 M\	/A 400/220 kV Transfo	ormer along with as	sociated bays at Vapi(POWERGRID)Substation			
Region	Western Region		DOCO Date	Mar 1, 2013			

(Amount in Rs. Lakh)

				(Allibuilt III IX	o. Lakin
Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
BOND XXXVIII -BOND XXXVIII					
Gross Loan- Opening	100.00	100.00	100.00	100.00	100.00
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	100.00	100.00
Net loan-Opening	100.00	100.00	100.00	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	100.00	0.00	0.00
Net Loan-Closing	100.00	100.00	0.00	0.00	0.00
Average Net Loan	100.00	100.00	50.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	9.25	9.25	9.25	9.25	9.25
Interest on loan	9.25	9.25	4.625	0.00	0.00

Gross Loan- Opening	212.00	212.00	
Cumulative repayments of Loans upto previous year	154.00	173.25	

SBI (21.03.2012) -ADDCAP FOR 2013-2014

previous year	154.00	173.25	192.50	212.00	212.00
Net loan-Opening	58.00	38.75	19.50	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00 ORAT	0.00
Less: Repayment(s) of loan during the year	19.25	19.25	19.50	0.00	0.00
Net Loan-Closing	38.75	19.50	0.00	0.00	0.00

212.00

212.00

212.00

Average Net Loan	48.38	29.13	9.75	0.00	0.00
Rate of Interest on Loan on Annual Basis	8.20	8.20	8.20	8.20	8.20
Interest on loan	3.9672	2.3887	0.7995	0.00	0.00

BOND - XLI -BOND XLI					
Gross Loan- Opening	247.00	247.00	247.00	247.00	247.00
Cumulative repayments of Loans upto previous year	164.67	185.25	205.83	226.42	247.00
Net loan-Opening	82.33	61.75	41.17	20.58	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	20.58	20.58	20.58	20.58	0.00
Net Loan-Closing	61.75	41.17	20.59	0.00	0.00
Average Net Loan	72.04	51.46	30.88	10.29	0.00
Rate of Interest on Loan on Annual Basis	8.85	8.85	8.85	8.85	8.85
Interest on loan	6.3755	4.5542	2.7329	0.9107	0.00

BOND - XLII -ADDCAP FOR 2012-2013					
Gross Loan- Opening	10.61	10.61	10.61	10.61	10.61
Cumulative repayments of Loans upto previous year	10.61	10.61	10.61	10.61	10.61
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	8.80	8.80	8.80	8.80	8.80
Interest on loan	0.00	0.00	0.00	/5/	0.00

BOND - XLII -ADDCAP FOR 2013-2014					
Gross Loan- Opening	120.09	120.09	120.09	120.09	120.09
Cumulative repayments of Loans upto previous year	120.09	120.09	120.09	120.09	120.09
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	8.80	8.80	8.80	8.80	8.80
Interest on loan	0.00	0.00	0.00	0.00	0.00

BOND - XLII -BOND XLII					
Gross Loan- Opening	557.54	557.54	557.54	557.54	557.54
Cumulative repayments of Loans upto previous year	557.54	557.54	557.54	557.54	557.54
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	8.80	8.80	8.80	8.80	8.80
Interest on loan	0.00	0.00	0.00	0.00	0.00

BOND - XLV -ADDCAP FOR 2013-2014					
Gross Loan- Opening	59.00	59.00	59.00	59.00	59.00
Cumulative repayments of Loans upto previous year	34.42	39.33	44.25	49.17	54.08
Net loan-Opening	24.58	19.67	14.75	9983	पावरविड 4.92

Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	4.92	4.92	4.92	4.92	4.92
Net Loan-Closing	19.66	14.75	9.83	4.91	0.00
Average Net Loan	22.12	17.21	12.29	7.37	2.46
Rate of Interest on Loan on Annual Basis	9.65	9.65	9.65	9.65	9.65
Interest on loan	2.1346	1.6608	1.186	0.7112	0.2374

Summary

Gross Loan- Opening	1,306.24	1,306.24	1,306.24	1,306.24	1,306.24
Cumulative repayments of Loans upto previous year	1,041.33	1,086.07	1,130.82	1,275.83	1,301.32
Net loan-Opening	264.91	220.17	175.42	30.41	4.92
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	44.75	44.75	145.00	25.50	4.92
Net Loan-Closing	220.16	175.42	30.42	4.91	0.00
Average Net Loan	242.54	197.80	102.92	17.66	2.46
Rate of Interest on Loan on Annual Basis	8.9582	9.0261	9.0783	9.184	9.6504
Interest on loan	21.7273	17.8537	9.3434	1.6219	0.2374



Calculation of interest on Normative Ioan

Name of the	Transmission Licensee	Power Grid Corporation of India Limited							
Project	Installation of 1x315 MVA 400/220 kV Transformer at Vapi (POWERGRID) substation								
Element Description	Installation of 1x315 MVA 400/220 kV Transformer along with associated bays at Vapi(POWERGRID)Substation								
Region	Western Region	DOCO Date Mar 1, 2013							

				(S. Lakii)	
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	1,315.13	1,315.13	1,315.13	1,315.13	1,315.13
Cumulative repayments of Normative Ioan upto previous year	1,017.00	1,110.09	1,146.76	1,183.43	1,220.10
Net normative loan-Opening	298.13	205.04	168.37	131.70	95.03
Addition in normative loan towards the ACE	0.00	0.00	0.00	0.00	0.00
Adjustment of normative gross loan pertaining to the decapitalised asset	0.00	0.00	0.00	0.00	0.00
Normative repayments of normative loan during the year	93.09	36.67	36.67	36.67	36.67
Adjustment of cumulative repayment pertaining to the decapitalised asset	0.00	0.00	0.00	0.00	0.00
Net normative loan - closing	205.04	168.37	131.70	95.03	58.36
Average normative loan	251.59	186.71	150.04	113.37	76.70
Weighted Average Rate of interest on actual loan	8.9582	9.0261	9.0783	9.184	9.6504
Interest on normative loan	22.54	16.85	13.62	10.41	7.40
Pro rata interest on normative loan	22.54	16.85	13.62	10.41	7.40



Calculation of Depreciation Rate on Original Project Cost

Form No. - 10

Name of the	Transmission Licensee	Power Grid Corpora	tion of India Limite	d				
Project	Installation of 1x315 MVA 400/220 kV Transformer at Vapi (POWERGRID) substation							
Element Description	Installation of 1x315 MVA 400/220 kV Transformer along with associated bays at Vapi(POWERGRID)Substation							
Region	Western Region		DOCO Date	Mar 1, 2013				

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	0.00	0.00	0.00	0.00	5.28	0.00
Sub Station	1,763.06	0.00	1,763.06	1,763.06	5.28	93.09
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	1,763.06	0.00	1,763.06	1,763.06	0.00	93.09
Weighted Average Rate of Depreciation(%)					5.280025	

2025-26					RORATIONO
Land(Freehold)	0.00	0.00	0.00	0.00	0.00
		90			MO4

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	1,763.06	0.00	1,763.06	1,763.06	5.28	36.67
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	1,763.06	0.00	1,763.06	1,763.06	0.00	36.67
Weighted Average Rate of Depreciation(%)					2.079907	

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
Transmission Line	0.00	0.00	0.00	0.00	5.28	0.00
Sub Station	1,763.06	0.00	1,763.06	1,763.06	5.28	36.67
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	1,763.06	0.00	1,763.06	1,763.06	0.000	36.67
Weighted Average Rate of Depreciation(%)					2.07	PONERED

2027-28						
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	1,763.06	0.00	1,763.06	1,763.06	5.28	36.67
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	1,763.06	0.00	1,763.06	1,763.06	0.00	36.67
Weighted Average Rate of Depreciation(%)					2.079907	

2028-29						
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	1,763.06	0.00	1,763.06	1,763.06	5.28	36.67
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	1,763.06	0.00 age 3 of 4	1,763.06	1,763.06	8000	36.67

0422002 : Installation of 1x315 MVA 400/220 kV Transformer along with associated bays at Vapi(POWERGRID)Substation

Weighted Average Rate of		2.070007	
Depreciation(%)		2.079907	

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Statement of Depreciation

Name of the Transmission Licensee		Power Grid Corporation of India Limited			
Project	Installation of 1x315 MV	400/220 kV Transformer at Vapi (POWERGRID) substation			
Element Description	Installation of 1x315 MVA 400/220 kV Transformer along with associated bays at Vapi(POWERGRID)Substation				
Region	Western Region	DOCO Date Mar 1, 2013			

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	25.00	25.00	25.00	25.00	25.00
1.2 Lapsed Weighted Average useful life of the Asset/Project(in completed no. of year)	11.00	12.00	13.00	14.00	15.00
1.3 Balance Weighted Average useful life of the Asset/Project(in completed no. of year)	14.00	13.00	12.00	11.00	10.00
Capital Base					
1.4 Opening capital cost	1,763.06	1,763.06	1,763.06	1,763.06	1,763.06
1.5 Additional Capital Expenditure dr. the year	0.00	0.00	0.00	0.00	0.00
1.6 De-Capitalisation During the year	0.00	0.00	0.00	0.00	0.00
1.7 Closing capital cost	1,763.06	1,763.06	1,763.06	1,763.06	1,763.06
1.8 Average capital cost	1,763.06	1,763.06	1,763.06	1,763.06	1,763.06
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	1,763.06	1,763.06	1,763.06	1,763.06	1,763.06
1.12 Depreciable Value(1.10+90% of 1.11)	1,586.75	1,586.75	1,586.75	1,586.75	ATIO 586.75
Depreciation for the period and Cum. Depreciation				D CO	Alastate S
1.13 Weighted Average Rate of depreciation	5.280025	2.079907	2.079907	2.079907	2.079907

1.14 Depreciation(for the period)	93.09	36.67	36.67	36.67	36.67
1.15 Depreciation(Annualised)	93.09	36.67	36.67	36.67	36.67
Unrecovered Depreciation for DECAP	0.00	0.00	0.00	0.00	0.00
1.16 Cumulative depreciation at the beginning of the period	1,017.00	1,110.09	1,146.76	1,183.43	1,220.10
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	1,110.09	1,146.76	1,183.43	1,220.10	1,256.77



Calculation of interest on working Capital

Name of the Transmission Licensee Power Grid Corporation of India Limited			3		
Project	Installation of 1x315 MVA	. 400/220 kV Transfo	ormer at Vapi (POW	ERGRID) substation	
Element Description	Installation of 1v315 MVA AUD/220 kV. Transformer along with associated have at Vani/PU/MERCEU INSUnctation				
Region	Western Region		DOCO Date	Mar 1, 2013	

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	11.06	11.65	12.25	12.88	13.59
Maintenance spares 15% of O&M Expenses	19.91	20.97	22.04	23.19	24.45
Receivables equivalent to 45 days of AFC	42.06	35.20	35.72	36.20	37.00
Total Working capital	73.03	67.82	70.01	72.27	75.04
Bank Rate as on 01.04.2019 or as on 01st April of the COD year,whichever is later.	11.90	11.90	11.90	11.90	11.90
Interest on working capital	8.69	8.07	8.33	8.60	8.93
Pro rata interest on working capital	8.69	8.07	8.33	8.60	8.93



	Summary of issue inv in the petition	olved	PART-III FORM- 15			
1. Name of the Peti	ioner	Power Gr	id Corporation of India Limited			
2. Petition Categor	y .	Transmission				
3. Tariff Period		2019-24 a	and 2024-29			
4. Name of the Proj	ect	Installation of 1X315 MVA 400/220kV Autotransformer (ICT-III) along with associated bays at 400/220 kV Vapi (POWERGRID) substation in Western Region				
5. Investment Appr	oval date	-				
6. SCOD of the Proj	ect	-				
7. Actual COD of th	e project	-				
8. Whether entire scope is covered in the present petition.						
9. No. of Assets covered in instant petition						
10. No. of Assets ha	*	-				
11. Estimated Projec	rt Cost as per IA	2118				
	E? if so, provide the date	no				
13. Revised Estimat	ed Project Cost (if any)	-				
14. Completion cost	for all the assets covered in the instant petition.	1763.06				
15. No. of Assets co	vered in instant petition and having cost overrun.	-				
16 Prayer in b	rief					
17 Key details	and any Specific issue involved					
18 Responder	ts					
Name of R	espondents					
1	MADHYA PRADESH POWER MANAGEMENT COMPANY LTD	7	DNH and DD Power Corporation Ltd _			
2	Madhya Pradesh Power Transmission Company Limited	8	Maharashtra State Electricity Transmission Company Limited			
3	Madhya Pradesh Industrial Development Corporation	9	Chattisgarh State Power Transmission Company Limited			
4	MAHARASHTRA STATE ELECTRICITY DISTRIBUTION CO. LTD.	10	CHHATTISGARH STATE POWER DISTRIBUTION CO. LTD			
5	GUJARAT URJA VIKAS NIGAM LTD.	11	Gujarat Energy Transmission Corporation Ltd.			
6	ELECTRICITY DEPARTMENT, GOA					



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

Note 1: Electronic copy of the petition (in words format) and detailed calculation as per these formats (in excel format) and an information submitted has to be uploaded in the e-filing website and shall also be furnished in pen drive/flash drive.

BOWER



पावर ग्रिड कॉर्पोरेशन ऑफ इंडिया लिमिटेड

(भारत सरकार का उद्यम)

POWER GRID CORPORATION OF INDIA LIMITED

(A Government of India Enterprise)

पावर ग्रिड कॉरपोरेशन ऑफ इन्डिया लिमिटेड केन्द्रीय वाणिज्यिक विभाग

Ref: CC/Commercial/2022

Date:-13.12.2022

LETTER OF AUTHORIZATION

Pursuant to the POWER OF ATTORNEY dated 08.12.2022 and in supersession of the letters of authorization dated 19.07.2022, I hereby authorize the following Executives to sign on Vakalatnama, Affidavits and to appear and conduct case proceedings on behalf of the company before CERC, SERC, APTEL, High Courts and Supreme Court.

- 1. Sh. S.S Raju, CGM (Commercial)
- 2. Sh. V. Srinivas, CGM (Commercial BCD)
- 3. Sh. Mohd Mohsin, Sr. GM (Commercial)
- 4. Sh. Bipin Bihari Rath, Sr.GM (Commercial)
- 5. Sh. V.C Shekhar, GM (Regulatory Cell)
- 6. Sh. Zafrul Hasan, Sr. DGM (Commercial)

Mukeen Khanna ED (Compercial ARC)

ED (Confercial &RC)

केन्द्रीय कार्यालय : "सौदामिनी" प्लॉट सं. २, सैक्टर—२९, गुरुग्राम -122001, (हरियाणा), तूरभाष : 0124—2571700-719 Corporate Office : "Saudamini", Plot No. 2, Sector-29, Gurugram-122001, (Haryana) Tel. : 0124-2571700-719