# BEFORE

# THE CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

N THE MATTER OF: -	
Subject matter: Petition for truing up of Transmission tariff for 2019-24	and determination
of transmission tariff for 2024-29 tariff block for Asset under "02 <sup>nd</sup>	315 (3X105) MVA,
400/220 kV Transformer at Indravati (OHPC) Switchyard" in Eas	<b>tern Region</b> under
Section 62 read with Section 79 (1) (d) of Electricity Act, 2003 and unde	er the Regulation 15
(1) (a) and Regulation 23 of Central Electricity Regulatory Comm	ission (Conduct of
Business) Regulations, 2023 read with Central Electricity Regulatory C	Commission (Terms
and Condition of Tariff Regulations) 2019 and Central Electricity Regu	ulatory Commission
(Terms and Condition of Tariff Regulations) 2024.	
Power Grid Corporation of India Ltd.	PETITIONER
Registered office: B-9, Qutab Institutional Area,	
Katwaria Sarai, New Delhi 110 016.	

Bihar State Power (Holding) Company Ltd.

<u>Corporate Centre</u>: 'SAUDAMINI', Plot No-2, Sector-29, Gurgaon-122 001, Haryana.

---RESPONDENT

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

Vidyut Bhavan, Bailey Road, Patna – 800 001, Bihar. Represented by its Chairman

And others

Place:

**Petitioner** 

Date: 29.07.2024

(Zafrul Hasan)

General Manager (Commercial)

#### BEFORE

# THE CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

<b>PETITION</b>	NO.:	
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#### IN THE MATTER OF:

Subject matter: Petition for truing up of Transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block for Asset under "02<sup>nd</sup> 315 (3X105) MVA, 400/220 kV Transformer at Indravati (OHPC) Switchyard" in Eastern Region under Section 62 read with Section 79 (1) (d) of Electricity Act, 2003 and under the Regulation 15 (1) (a) and Regulation 23 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2023 read with Central Electricity Regulatory Commission (Terms and Condition of Tariff Regulations) 2019 and Central Electricity Regulatory Commission (Terms and Condition of Tariff Regulations) 2024.

Power Grid Corporation of India Ltd.

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---RESPONDENT

Vidyut Bhavan, Bailey Road, Patna – 800 001, Bihar. Represented by its Chairman

#### And others

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**FILED BY** 

POWER GRID CORPORATION OF INDIA LTD.

**GURGAON** 

DATED: 29.07.2024

REPRESENTED BY

(Zafrul Hasan)

General Manager (Commercial)

# BEFORE

# THE CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

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# 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.

# Bihar State Power (Holding) Company Ltd.

--- RESPONDENT

Vidyut Bhavan, Bailey Road, Patna – 800 001, Bihar. Represented by its Chairman

#### And others

To

The Secretary

Central Electricity Regulatory Commission

New Delhi 110001

Sir.



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

**FILED BY** 

POWER GRID CORPORATION OF INDIA LTD.

**GURGAON** 

DATED: 29.07.2024

REPRESENTED BY

(Zafrul Hasan)

General Manager (Commercial)

#### **BEFORE**

# THE CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

<b>PETITION NO</b>		
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### IN THE MATTER OF:

Subject matter: Petition for truing up of Transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block for Asset under "02<sup>nd</sup> 315 (3X105) MVA, 400/220 kV Transformer at Indravati (OHPC) Switchyard" in Eastern Region under Section 62 read with Section 79 (1) (d) of Electricity Act, 2003 and under the Regulation 15 (1) (a) and Regulation 23 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2023 read with Central Electricity Regulatory Commission (Terms and Condition of Tariff Regulations) 2019 and Central Electricity Regulatory Commission (Terms and Condition of Tariff Regulations) 2024.

Power Grid Corporation of India Ltd.

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

Sector-29, Gurgaon-122 001, Haryana.

--- RESPONDENT

Bihar State Power (Holding) Company Ltd.

Vidyut Bhavan, Bailey Road, Patna – 800 001. Bihar.

Represented by its Chairman

And others

# **MEMO OF PARTIES**

Power Grid Corporation of India Ltd.

--- PETITIONER

**VERSUS** 

**Eastern Region** 

--- RESPONDENTS

 Bihar State Power (Holding) Company Limited Vidyut Bhawan, Bailey Road, Patna - 781001, Assam Represented by its Chairman



- West Bengal State Electricity Distribution Company Limited Bidyut Bhawan, Bidhan Nagar, Block DJ, Sector-II, Salt Lake City, Kolkata - 700 091, West Bengal Represented by its Chairman.
- Grid Corporation Of Orissa Ltd
   Shahid Nagar,
   Bhubaneswar 751 007, Odisha
   Represented by its Chairman & Managing Director
- 4. Damodar Valley Corporation
  DVC Tower, Maniktala
  Civic Centre, VIP Road,
  Kolkata 700 054, West Bengal
  Represented by its Chairman
- Power Department, Govt. of Sikkim,
   Gangtok 737 101, Sikkim
   Represented by its Commissioner and Secretary (Power)
- 6. Jharkhand Bijli Vitran Nigam Ltd Engineering Building, H.E.C., Dhurwa, Ranchi – 834 004, Jharkhand Represented by its Chairman

PETITIONER

POWER GRID CORPORATION OF INDIA LTD.

**GURGAON** 

DATED:2907.2024

Zafrul Hasan

REPRESENTED BY

General Manager (Commercial)

### **BEFORE**

# THE CENTRAL ELECTRICITY REGULATORY COMMISSION

#### **NEW DELHI**

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

#### IN THE MATTER OF:

Subject matter: Petition for truing up of Transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block for Asset under "02nd 315 (3X105) MVA, 400/220 kV Transformer at Indravati (OHPC) Switchyard" in Eastern Region under Section 62 read with Section 79 (1) (d) of Electricity Act, 2003 and under the Regulation 15 (1) (a) and Regulation 23 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2023 read with Central Electricity Regulatory Commission (Terms and Condition of Tariff Regulations) 2019 and Central Electricity Regulatory Commission (Terms and Condition of Tariff Regulations) 2024.

# **Power Grid Corporation of India Ltd.**

---PETITIONER

Registered office: B-9, Qutab Institutional Area,

Katwaria Sarai, New Delhi. - 110 016.

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

### Bihar State Power (Holding) Company Ltd.

---RESPONDENT

Vidyut Bhavan, Bailey Road, Patna – 800 001, Bihar. Represented by its Chairman

And others

# MEMO OF APPEARANCE

#### POWER GRID CORPORATION OF INDIA LTD.

-- PETITIONER

1. Shri Dilip Nagesh Rozekar, ED (Commercial & Regulatory Cell), POWERGRID

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- 2. Shri Mohd. Mohsin, Chief GM (Commercial & Regulatory Cell), POWERGRID
- 3. Shri V. Srinivas, Chief GM (Commercial & Regulatory Cell)
- 4. V.C. Sekhar, Sr. GM (Regulatory Cell)
- 5. Shri Zafrul Hasan, GM (Commercial), 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 29.th date of Jul'2024.

**PETITIONER** 

POWER GRID CORPORATION OF INDIA LTD.

**GURGAON** 

DATED: 29.07.2024

Zafrul Hasan

General Manager (Commercial)

# **BEFORE**

# THE CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

<b>PETITIO</b>	N NO.	: .	 	 
		0 3	 	

### IN THE MATTER OF:

Subject matter: Petition for truing up of Transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block for Asset under "02nd 315 (3X105) MVA, 400/220 kV Transformer at Indravati (OHPC) Switchyard" in Eastern Region under Section 62 read with Section 79 (1) (d) of Electricity Act, 2003 and under the Regulation 15 (1) (a) and Regulation 23 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2023 read with Central Electricity Regulatory Commission (Terms and Condition of Tariff Regulations) 2019 and Central Electricity Regulatory Commission (Terms and Condition of Tariff Regulations) 2024.

# Power Grid Corporation of India Ltd.

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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.

# Bihar State Power (Holding) Company Ltd.

---RESPONDENT

Vidyut Bhavan, Bailey Road, Patna – 800 001, Bihar. Represented by its Chairman

#### And others

# A. EXECUTIVE SUMMARY OF THE PETITION:

# (i) Brief Background of the Petitioner

1. The Petitioner herein, Power Grid Corporation of India Ltd. (Hereinafter referred to as "POWERGRID/Petitioner") is a Government Company within the meaning of the Companies Act, 2013. POWERGRID is deemed transmission licensee in terms of Section 14 of the Electricity Act, 2003. POWERGRID by virtue of a transmission.

licensee is required to inter-alia build, maintain and operate an efficient, coordinated and economical interstate transmission system ("ISTS"). POWERGRID operates and functions within the regulatory control of this Hon'ble Central Electricity Regulatory Commission (hereinafter referred to as "Hon'ble Central Commission"). Tariff for the transmission system established by POWERGRID is required to be determined by this Hon'ble Central Commission in accordance with the Tariff Regulations as notified by this Hon'ble Central Commission in exercise of its powers under Section 178 of the Electricity Act, 2003.

# (ii) Brief Background of the Respondent(s):

POWERGRID has impleaded distribution licensees and Government department of the respective states which are engaged in distribution of electricity in Eastern 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 Eastern 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 "02nd 315 (3X105) MVA, 400/220 kV Transformer at Indravati (OHPC) Switchyard" in Eastern Region for the following:

Asset No	Asset Name		Remarks
Asset-I	02nd 315 (3X105) MVA, 400/220 kV Transformer at Indravati (OHPC) Switchyard	01.05.2006	-



# (iv) Summary of Claims:

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

Tariff P	eriod 2019-24			
				₹ in Lakhs
Asset No.	Apportioned Approved Cost as per FR / RCE	Expenditure Up to DOCO /31.03.2019	Expenditure during 2019-24 tariff block 2019-24	Actual Cost as on 31.03.2024
Asset-	1905.00 / NA	1501.42	0.00	1501.42

				₹ in Lakh
Asset No.	Apportioned Approved Cost as per FR / RCE	Expenditure Up to 31.03.2024	Estimated Expenditure during 2024-29 tariff block 2024-29	Total Estimated Cost as on 31.03.2029
Asset-	1905.00 / NA	1501.42	0.00	1501.42



- 5. It is prayed to hon'ble commission to reimburse expenditure of petition filing fee, license fee, newspaper publication expanses and RLDC fee & charges etc.
- 6. Details of tariff claimed are as under:

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

Tariff Fo	Tariff For 2014-19 Block									
Asset No	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24				
Asset	Approved Tariff (approved vide CERC order 355/TT/2019)	303.27	306.05	309.33	312.61	315.76				
	Revised tariff (claimed vide instant petition)	303.26	306.05	308.72	311.99	316.39				

Tariff For 2019-24 Block									
					₹ in Lakhs				
Asset No	2024-25	2025-26	2026-27	2027-28	2028-29				
Asset	251.69	256.85	263.47	271.43	280.22				

# 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. F/W

- 8. POWERGRID being transmission licensee is required to inter-alia build, maintain and operate an efficient, coordinated and economical interstate transmission system (ISTS). The tariff for the said transmission systems shall be determined by the Hon'ble Central Commission in accordance with the Tariff Regulations, 2019 and 2024.
- **9.** That the subject project/petition covers approval of transmission tariff for following Asset:

Asset No	Asset Name	DOCO	Remarks
Asset-1	02nd 315 (3X105) MVA, 400/220 kV Transformer at Indravati (OHPC) Switchyard	01.05.2006	Covered under instant petition (Earlier covered under Petition no. 355/TT/2019)

#### **COST DETAILS:**

10. The capital cost of Rs. 1501.42 Lakhs for subject Asset-I has been admitted by Hon'ble commission vide order dated 31.08.2021 in petition no. 355/TT/2019. Copy of order is enclosed as Encl-1. In the current petition, no additional capital expenditure was incurred during the 2019-24 tariff block, and no additional capital expenditures are proposed during the 2024-29 tariff block.

#### TRANSMISSION TARIFF:

# 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 according for the block period 2019-24 is summarized as under.

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

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

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

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

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

While filing Tariff petition for 2019-24 period, the petitioner had prayed for allowing the floating rate of Interest on Ioan 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:

Truing-Up Tariff For 2014-19 Block						
						₹ in Lakhs
Asset No	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Asset-I	Approved Tariff (approved vide CERC order 355/TT/2019)	303.27	306.05	309.33	312.61	315.76
	Revised tariff (claimed vide instant petition)	303.26	306.05	308.72	311.99	316.39

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:

Tariff For 2019-24 Block						
					₹ in Lakhs	
Asset No	2024-25	2025-26	2026-27	2027-28	2028-29	
Asset	251.69	256.85	263.47	271.43	280.22	

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

- 14. The asset has already completed 12 years of useful life in tariff block 2019-24 and the remaining depreciable value has been across the balance useful life of the asset in accordance with the Regulation 33(5) of the CERC tariff Regulation 2024. Further, the details have been computed and are provided in Form- 10 A.
- 15. That, it is submitted that the petitioner is currently liable to pay income tax at MAT rate specified in Income-tax Act,1961. Therefore, ROE has been calculated @ 18.782% after grossing up the ROE with MAT rate of 17.472% (Base Rate 15% + Surcharge 12% + Cess 4%) based on the formula given at regulation 31 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024 for 2024-29 period. That as per clause 31 (3) of the above regulation, the grossed up rate of ROE at the end of every financial year shall be trued up based on actual tax paid together with any additional tax demand including interest thereon duly adjusted for any refund of tax including interest received from the IT authorities pertaining to the tariff period 2024-29 on actual gross income of any financial year. However, penalty, if any, arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the generating company or the transmission licensee, as the case may be. Any under-recovery or over-recovery of grossed up rate on ROE after truing up

shall be recovered or refunded to beneficiaries or the long term customers, as the case may be on year to year basis. It is further submitted that adjustment due to any additional tax demand including interest duly adjusted for any refund of tax including interest received from IT authorities shall be recoverable /adjustable during the tariff period 2024-29 on year to year basis on receipt of Income Tax assessment order.

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

For the purpose of the supporting documents for rate of interest, a compendium of floating rate of interest of various loans during the tariff period 2019-24 shall be submitted shortly before the Hon'ble Commission.

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 EXPANSES:

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

#### **INSURANCE:**

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

#### **CAPITAL SPARE:**

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

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

20. That as per Regulation 99 of CERC Tariff Regulations, 2024, the fees and charges of Central Transmission Utility of India Limited ('CTUIL') shall be allowed separately by the Commission through a separate regulation. Further, it provides that that until such

regulation is issued by the Commission, the expenses of CTUIL shall be borne by POWERGRID which shall be recovered by POWERGRID as additional O&M expenses through a separate petition.

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

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

### **SHARING OF TRANSMISSION CHARGES:**

23. Transmission Tariff for 2019-24 as per above, shall be recovered as per Regulation 57 of CERC Tariff Regulations, 2019 and CERC Sharing Regulations, in vogue. Transmission Tariff for 2024-29 as per above, shall be recovered as per Regulation 78 of CERC Tariff Regulations, 2024 and CERC Sharing Regulations, in vogue.



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.

#### PRAYER:

# 25. PRAYER

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

- a) Approve the trued-up Transmission Tariff for 2019-24 block and transmission tariff for 2024-29 block for the assets covered under this petition, as per para 12 and 13 above.
- b) Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided in Tariff Regulation 2019 and Tariff regulations 2024 as per para 12 and 13 above for respective block.
  Further it is submitted that deferred tax liability before 01.04.2009 shall be recoverable from the beneficiaries or long term customers / DIC as the case may be, as and when the same is materialized as per regulation 67 of 2019 and regulation 89 of 2024 tariff regulation. The petitioner may be allow to recover the deferred tax liability materialized directly without making any application before the commission as provided in the regulations.
- c) Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 94
   (1) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024, and other expenditure ( if any) in relation to the filing of petition.



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

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



# FILED BY POWER GRID CORPORATION OF INDIA LTD.

GURGAON

DATED: 29.07.2024

REPRESENTED BY

General Manager (Commercial)

#### BEFORE

# THE CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

PETITION NO.:
---------------

### IN THE MATTER OF:

Subject matter: Petition for truing up of Transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block for Asset under "02<sup>nd</sup> 315 (3X105) MVA, 400/220 kV Transformer at Indravati (OHPC) Switchyard" in Eastern Region under Section 62 read with Section 79 (1) (d) of Electricity Act, 2003 and under the Regulation 15 (1) (a) and Regulation 23 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2023 read with Central Electricity Regulatory Commission (Terms and Condition of Tariff Regulations) 2019 and Central Electricity Regulatory Commission (Terms and Condition of Tariff Regulations) 2024.

Power Grid Corporation of India Ltd.

---PETITIONER

Registered office: B-9, Qutab Institutional Area,

Katwaria Sarai, New Delhi. - 110 016.

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

Bihar State Power (Holding) Company Ltd.

---RESPONDENT

Vidyut Bhavan, Bailey Road, Patna – 800 001, Bihar. Represented by its Chairman

And others

# AFFIDAVIT VERIFYING THE PETITION

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

- 1. That the deponent is the General Manager of Petitioner and is well conversant with the facts and the circumstances of the case and therefore competent to swear this affidavit.
- 2. That the accompanying Petition under Section 62 of the Electricity Act, 2003, has been filed by my authorised representative/nominated counsel under my instruction and the contents of the same are true and correct to the best of my knowledge and belief.
- 3. That the contents of Para 01 to 25 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 25 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

# **VERIFICATION**

Solemnly affirmed at Gurgaon on this 29 day of Jul'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)

DEPONENT)



ATTESTED 29/0/201

ADVOCATE & NOTARY Distt. Gurugram (Haryana) India



# 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)

Mukesh Khanna
ED (Commercial &RC)



# CENTRAL ELECTRICITY REGULATORY COMMISSION **NEW DELHI**

# Petition No. 355/TT/2019

# Coram:

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

Date of Order: 31.08.2021

### In the matter of:

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and revision of transmission tariff of the 2004-09 and 2009-14 tariff periods and truing-up of transmission tariff of the 2014-19 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of the 2019-24 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for 2<sup>nd</sup> 315 (3X105) MVA, 400/220 kV Transformer at Indravati (OHPC) Switchyard in Eastern Region.

### And in the matter of:

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

.....Petitioner

#### Versus

- 1. Bihar State Power Holding Company Ltd., (Formerly Bihar State Electricity Board-BSEB), Vidyut Bhavan, Bailey Road, Patna-800001.
- 2. West Bengal State Electricity Distribution Company Ltd., Bidyut Bhawan, Bidhan Nagar, Block DJ, Sector-II, Salt Lake City, Calcutta-700091
- 3. Grid Corporation of Orissa Ltd., Shahid Nagar, Bhubaneswar-751007.
- 4. Jharkhand State Electricity Board, Doranda, Ranchi-834002.
- 5. Damodar Valley Corporation. DVC Tower, Maniktala, Civic Centre, VIP Road. Calcutta-700054

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Power Department, Govt. of Sikkim, 6. Gangtok-737101.

.....Respondents

For Petitioner

Shri S. S. Raju, PGCIL

Shri B. Dash. PGCIL Shri A. K. Verma, PGCIL

Shri Ved Prakash Rastogi, PGCIL

For Respondents

None

# ORDER

The instant petition has been filed by the Petitioner, Power Grid Corporation of India Ltd., a deemed transmission licensee, for revision of transmission tariff of the 2004-09 and 2009-14 tariff periods; truing up of transmission tariff of the 2014-19 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as "the 2014 Tariff Regulations"); and for determination of tariff for the period from 1.4.2019 to 31.3.2024 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as "the 2019 Tariff Regulations") in respect of 2<sup>nd</sup> 315 (3X105) MVA, 400/220 kV Transformer at Indravati (OHPC) Switchyard (hereinafter referred as "the transmission asset") in Eastern Region.

- 2. The Petitioner has made the following prayers in this petition:
  - "1) Approve the revised Transmission Tariff for 2004-09 block and transmission tariff for 2009-14 block for the assets covered under this petition, as per para 8 above.
  - 2) Approve the trued up Transmission Tariff for 2014-19 block and transmission tariff for 2019-24 block for the assets covered under this petition, as per Para 9 and 10 above.
  - 3) Allow the capital cost including the additional capitalization, incurred during 2014-19 period as claimed by petitioner.
  - 4) Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided in Tariff Regulation 2014 and Tariff Regulations 2019 as per para 9 and 10 above for respective block.

5) Approve the reimbursement of expenditure by the beneficiaries towards petition filing

Order in Petition No. 355/TT/2019

- 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.
- 6) 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.
- 7) 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 respondents.
- 8) Allow the petitioner to file a separate petition before Hon'ble Commission for claiming the overall security expenses and consequential IOWC on that security expenses as mentioned at para 10.5 above.
- 9) Allow the petitioner to claim the capital spares at the end of tariff block as per actual.
- 10) Allow the Petitioner to bill and recover GST on Transmission Charges separately from the 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"

#### 3. Backdrop of the case

- The Investment Approval (IA) for the transmission asset was accorded by the Board of Directors of the Petitioner company vide Memorandum dated 26.2.2003 at an estimated cost of ₹1905.00 lakh, including IDC of ₹152.00 lakh.
- b) Initially, the provisional transmission tariff for the period from 1.5.2006 to 31.3.2009 for the transmission asset was allowed by the Commission vide order dated 26.4.2007 in Petition No. 37/2007. The transmission tariff for the period from 1.5.2006 to 31.3.2009 for the transmission asset was allowed vide order dated 29.8.2008 in Petition No. 137/2007 which was subsequently revised on account of Additional Capital Expenditure (ACE) incurred during 2007-08 and 2008-09 vide order dated 26.4.2010 in Petition No. 320/2009.
- c) The transmission tariff for the period from 1.4.2009 to 31.3.2014 was allowed vide order dated 13.4.2011 in Petition No. 227/2010. The transmission tariff for the 2009-14 period was trued-up and tariff for the period from 1.4.2014

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to 31.3.2019 was allowed vide order dated 28.1.2016 in Petition No. 442/TT/2014

- d) As per IA, the transmission asset was scheduled to be commissioned by May 2005. However, it was declared under commercial operation on 1.5.2006. Therefore, there was a time over-run of about 11 months which was condoned vide order dated 29.8.2008 in Petition No. 137/2007.
- e) Complete scope of the work as per IA is covered in the instant petition.
- The Petitioner has prayed for revision of transmission tariff allowed for f) the 2004-09 tariff period on account of change in Interest on Loan (IoL) and Interest on Working Capital (IWC) to the extent of revision in IoL and in Maintenance Spares in terms of the judgments of the Appellate Tribunal for Electricity (APTEL) dated 22.1.2007 in Appeal No. 81 of 2005 and batch matters and 13.6.2007 in Appeal No. 139 of 2006 and batch matters; consequential revision of transmission tariff allowed for the 2009-14 tariff period; truing up of tariff of the 2014-19 tariff period; and determination of transmission tariff of the 2019-24 tariff period for the transmission asset.
- The APTEL in judgment dated 22.1.2007 in Appeal No. 81 of 2005 and g) batch matters pertaining to generating stations of NTPC had considered 4 (four) issues. The issues considered by the APTEL and its decisions are as given in the following table:

Sr. No.	Issue	APTEL's decision/direction
1	Whether APTEL can enquire into the validity of Regulations framed by the Commission	Challenge to the validity of Regulations framed by the Commission falls outside the purview of APTEL
2	Computation of IoL	In view of the order of APTEL dated 14.11.2016 in Appeal Nos. 94 and 96 of 2005 and order dated 24.1.2007 passed in Appeal Nos. 81 to 87, 89 to 93 of 2005, computation of loan has to be based on loan repayment on normative basis. Commission is required to recalculate the loan outstanding as on 31.3.2004 based on loan repayment on normative basis
3(a)	O&M Expenses: In adequate provision of employee costs as	Commission's view upheld



	part of O&M Expenses due to variation in salary and wages	
3(b)	O&M Expenses: Non-inclusion of incentives and ex-gratia payment to employees	Commission's view upheld
4	Cost of spares for calculation of working capital	Commission's view upheld

The APTEL in its judgment dated 13.6.2007 in Appeal No. 139 of 2006 h) and batch matters pertaining to generating stations of NTPC had considered 9 (nine) issues. The issues considered and the decision of the APTEL are given in the following table:

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

The Commission and certain interested parties preferred Civil Appeals i) against APTEL's judgments before the Hon'ble Supreme Court in 2007. The Appeals were admitted and initially stay was granted by the Hon'ble Supreme



Court. Subsequently, on an assurance by NTPC that the issues under Appeal would not be pressed for implementation during the pendency of the Appeals. the stay was vacated by the Hon'ble Supreme Court.

- j) Based on APTEL's judgments dated 22.1.2007 and 13.6.2007, the Petitioner had prayed for re-determination of tariff of its transmission assets of the 2001-04 and 2004-09 tariff periods in Petition No. 121/2007. The Commission after taking into consideration the pendency of Appeals before the Hon'ble Supreme Court adjourned the said petition sine die and directed that the same be revived after the disposal of the Civil Appeals by the Hon'ble Supreme Court.
- k) The Hon'ble Supreme Court vide its judgement dated 10.4.2018, dismissed the said Civil Appeals filed against the APTEL's said judgments. Thus, the judgments of the APTEL have attained finality.
- D Consequent to the Hon'ble Supreme Court's order dated 10.4.2018 in NTPC matter, Petition No. 121/2007 was listed for hearing on 8.1.2019. The Commission vide order dated 18.1.2019 in Petition No. 121/2007, directed the Petitioner to submit its claim separately for the assets at the time of filing of truing-up of the petition for the 2014-19 tariff period.
- m) The instant petition was heard on 24.3.2021 and in view of the APTEL's judgments dated 22.1.2007 and 13.6.2007 and the order of Hon'ble Supreme Court dated 10.4.2018, tariff is being revised. Period-wise transmission tariff is being re-worked based on the Tariff Regulations applicable for the respective tariff periods and suitable assumptions have been made at certain places and applied, which are indicated.
- 4. The Respondents are the distribution licensees, transmission utilities and power departments which are procuring transmission services from the Petitioner. mainly beneficiaries of Eastern Region.



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5. The Petitioner has served the petition on the Respondents and notice regarding filing of this petition has been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003. No comments or suggestions have been received from the general public in response to the aforesaid notices published in the newspapers. None of the Respondents have filed any reply.

### Re: Interest on Loan (IoL)

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

# Re: Additional Capital Expenditure (ACE)

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

# Re: Depreciation

8. As regards depreciation, the APTEL in its judgment dated 13.6.2007 in Appeal No. 139 of 2006 observed that depreciation is an expense and it cannot be deployed

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for deemed repayment of loan and accordingly directed the Commission to compute the outstanding loan afresh. Accordingly, the outstanding loan allowed for the transmission asset for 2004-09 period is revised in the instant order.

- 9. In view of the above directions of the APTEL, the outstanding loan allowed for the transmission asset for the 2004-09 period is revised in the instant order.
- 10. The revision of transmission tariff allowed for the 2004-09 tariff period necessitates the revision of transmission tariff allowed for the 2009-14 tariff period, which is also being done in the present order. The implementation of the directions of APTEL in judgments dated 22.1.2007 in Appeal No. 81 of 2005 and batch matters and dated 13.6.2007 in Appeal No. 139 of 2006 and batch matters was kept pending in case of the Petitioner awaiting the outcome of the Civil Appeals filed before the Hon'ble Supreme Court. Taking into consideration the facts of the case and keeping in view the interest of the consumers, we are of the view that the beneficiaries should not be burdened with the carrying cost for the difference in the tariff allowed earlier and allowed in the instant order for the 2004-09 and 2009-14 tariff periods. Therefore, we direct that the Petitioner will neither claim nor pay any carrying cost from or to the beneficiaries for the difference, if any, in the tariff allowed earlier and the tariff being allowed in the instant order. Further, the said difference in tariff shall be recovered/paid over a period of six months from the date of issue of this order.
- 11. This order is issued considering the submissions made by the Petitioner vide affidavits dated 20.8.2019 and 30.7.2020.



12. The hearing in this matter was held on 24.3.2021 through video conference and the order was reserved. Having heard the representative of the Petitioner and after perusal of the materials on record, we proceed to dispose of the petition.

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

# 2004-09 Period

13. The Commission vide order dated 26.4.2010 in Petition No. 320/2009 had approved the following transmission charges for the transmission asset for the period from 1.5.2006 to 31.3.2009:

(₹ in lakh)

Particulars	2006-07 (pro-rata for 11 months)	2007-08	2008-09
Depreciation	43.07	49.53	52.06
Interest on Loan	62.59	69.66	70.45
Return on Equity	44.57	51.59	54.54
Advance against Depreciation	0.00	0.00	0.00
Interest on Working Capital	5.30	6.04	6.30
O&M Expenses	55.77	63.26	65.80
Total	211.30	240.09	249.15

14. The Petitioner has claimed the following revised transmission charges for the transmission asset for the period from 1.5.2006 to 31.3.2009 in the instant petition:

/₹ in lakh\

Particulars	2006-07 (pro-rata for 11 months)	2007-08	2008-09	
Depreciation	43.07	49.53	52.06	
Interest on Loan	64.01	74.25	77.00	
Return on Equity	44.57	51.59	54.54	
Advance against Depreciation	0.00	0.00	0.00	
Interest on Working Capital	5.34	6.21	6.59	
O&M Expenses	55.77	63.26	65.80	
Total	212.76	244.84	256.00	

- 15. We have considered the submissions of the Petitioner. The transmission tariff is allowed for the transmission asset on basis of the following:
  - Admitted capital cost and ACE allowed for the period from 1.5.2006 to a) 31.3.2009 which are as follows:

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Particulars	Admitted		Admitted		
	Capital Cost (as on COD)	2006-07	2007-08	2008-09	Capital Cost (as on 31.3.2009)
Asset	1294.93	20.39	121.15	19.20	1455.67

- b) Weighted Average Rate of Interest on actual loan, Weighted Average Rate of Depreciation (WAROD), Rate of IWC and O&M Expenses as approved vide order dated 26.4.2010 in Petition No. 320/2009; and
- c) Equity of ₹344.22 lakh as on COD and additional equity of ₹6.12 lakh, ₹36.35 lakh and ₹5.76 lakh for the years 2006-07, 2007-08 and 2008-09 respectively as allowed vide order dated 26.4.2010 in Petition No. 320/2009.
- 16. In view of the above, the revised transmission charges approved for the transmission asset for the 2004-09 tariff period are as follows:

(₹ in lakh) **Particulars** 2006-07 2007-08 2008-09 (pro-rata for 11 months) Depreciation 43.07 49.53 52.06 Interest on Loan 62.57 71.08 73.87 Return on Equity 44.57 51.59 54.54 Advance against Depreciation 0.00 0.00 0.00 Interest on Working Capital 5.31 6.15 6.53 O&M Expenses 55.77 63.26 65.80 **Total** 211.29 241.61 252.80

Annual Fixed Charges (AFC) allowed for the 2004-09 period vide order dated 17. 26.4.2010 in Petition No. 320/2009, revised AFC claimed in the instant petition and the revised AFC approved is as follows:

			_(₹ in lakh	
Particulars	2006-07 (pro-rata for 11 months)	2007-08	2008-09	
AFC allowed vide order dated 26.4.2010 in Petition No. 320/2009	211.30	240.09	249.15	
AFC claimed by the Petitioner in the instant petition	212.76	244.84	256.00	
AFC approved in the instant order	211.29	241.61	252.80	

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#### 2009-14 Period

18. The Commission vide order dated 13.4.2011 in Petition No. 227/2010 had allowed the tariff for the transmission asset for the period from 1.4.2009 to 31.3.2014 which was trued-up vide order dated 28.1.2016 in Petition No. 442/TT/2014. The trued-up tariff allowed for 2009-14 period vide order dated 28.1.2016 is as follows:

(₹ in lakh)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	77.43	78.00	78.47	78.94	78.94
Interest on Loan	66.86	61.79	56.51	51.13	45.27
Return on Equity	73.89	77.22	77.82	78.34	79.28
Interest on Working Capital	9.00	9.23	9.42	9.61	9.81
O&M Expenses	89.08	94.18	99.57	105.26	111.28
Total	316.26	320.42	321.78	323.28	324.59

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

(₹ in lakh)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	77.43	78.00	78.47	78.94	78.94
Interest on Loan	73.88	68.83	63.56	58.21	52.37
Return on Equity	73.89	77.22	77.82	78.34	79.28
Interest on Working Capital	9.15	9.38	9.56	9.76	9.96
O&M Expenses	89.08	94.18	99.57	105.26	111.28
Total	323.43	327.61	328.99	330.50	331.82

- 20. We have considered the Petitioner's claim. The revised transmission tariff is allowed for the transmission asset on the basis of the following:
  - a) Admitted capital cost of ₹1455.67 lakh as on 1.4.2009; and
  - Weighted Average Rate of Interest on actual loan and WAROD is considered as allowed vide order dated 28.1.2016 in Petition No. 442/TT/2014.
- 21. In view of the above, the revised transmission charges approved for the transmission asset for the 2009-14 tariff period is as follows:

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(₹ in lakh)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	77.43	78.00	78.47	78.94	78.94
Interest on Loan	70.79	65.73	60.46	55.10	49.25
Return on Equity	73.89	77.22	77.82	78.34	79.28
Interest on Working Capital	9.09	9.32	9.50	9.69	9.89
O&M Expenses	89.08	94.18	99.57	105.26	111.28
Total	320.28	324.45	325.82	327.33	328.65

AFC allowed for the 2009-14 tariff period vide order dated 28.1.2016 in Petition 22. No. 442/TT/2014, the revised AFC claimed in the instant petition and AFC approved in the instant order are as follows:

(₹ in lakh)

Vi-					1
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
AFC allowed vide order dated 28.1.2016 in Petition No. 442/TT/2014	316.26	320.42	321.78	323.28	324.59
AFC claimed by the Petitioner in the instant petition	323.43	327.61	328.99	330.50	331.82
AFC approved in the instant order	320.28	324.45	325.82	327.33	328.65

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

23. The details of the trued-up transmission charges claimed by the Petitioner in respect of the transmission asset for the 2014-19 tariff period is as follows:

(₹ in lakh)

12 III lak					/ miakii
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	78.94	78.94	78.94	79.11	79.27
Interest on Loan	46.56	40.79	35.11	29.87	25.08
Return on Equity	79.34	79.70	79.66	79.85	80.25
Interest on Working Capital	10.38	10.44	10.50	10.59	10.70
O&M Expenses	102.51	105.91	109.43	113.06	116.81
Total	317.73	315.78	313.64	312.48	312.11

24. The details of the trued-up IWC claimed by the Petitioner in respect of the transmission asset for the 2014-19 tariff period are as follows:

(₹ in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
8.54	8.83	9.12	9.42	9.73
15.38	15.89	16.41	16.96	17.52
52.96	52.63	52.28	ON 52.08	52.02
76.88	77.35	77.81	78:46	79.27
	8.54 15.38 52.96	8.54 8.83 15.38 15.89 52.96 52.63	8.54     8.83     9.12       15.38     15.89     16.41       52.96     52.63     52.28	8.54     8.83     9.12     9.42       15.38     15.89     16.41     16.96       52.96     52.63     52.28     0 0 52.08

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Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	10.38	10.44	10.50	10.59	10.70

#### **Capital Cost**

- 25. The Commission vide order dated 28.1.2016 in Petition No. 442/TT/2014 had allowed the transmission tariff for the transmission asset for the 2014-19 period based on admitted capital cost of ₹1495.14 lakh as on 1.4.2014. The capital cost of the transmission asset has been calculated in accordance with Regulation 9(3) of the 2014 Tariff Regulations.
- 26. Accordingly, the capital cost of ₹1495.14 lakh as on 1.4.2014 has been considered for the purpose of truing-up of the tariff of the 2014-19 tariff period.

#### Additional Capital Expenditure (ACE)

- 27. The Commission vide order dated 28.1.2016 in Petition No. 442/TT/2014 observed as follows:
  - "38. We have considered the submission of the petitioner. The transmission asset was commissioned on 1.5.2006 and the petitioner has projected additional capital expenditure after a period of 8 years towards balance and retention payments. We are of the view that all contracts should be closed within a period of 3 years from the date of commercial operation and all payments should be made within the said period. In the instant petition the additional capital expenditure of ₹18.33 lakh during 2014-15 is allowed as a special case, subject to true up on actual basis. However, the petitioner is directed to take steps to close all the contracts pending beyond 3 years, not only in this case but for all the other assets."
- The Petitioner has claimed the following ACE for the transmission asset and 28. submitted the Auditor's Certificate and Form-7 in support of the same:

		(₹ in lakh)
Capital Cost (as on 1.4.2014)	ACE (2017-18)	Capital Cost (as on 31.3.2019)
1495.14	6.28	1501.42

29. The Petitioner has submitted that ACE incurred for the transmission asset is on account of balance and retention payments due to un-discharged liability towards final



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payment or withheld payment due to contractual exigencies for works executed within the cut-off date. ACE incurred during the 2014-19 tariff period has been claimed under Regulation 14(3)(v) of the 2014 Tariff Regulations.

- 30. The Petitioner vide affidavit dated 30.7.2020 has submitted that the outstanding liability of ₹6.28 lakh claimed as ACE during 2017-18 is on account of retention money of M/s BHEL for the sub-station package. The Petitioner has further submitted that there is no reversal and additional liability recognized during the 2014-19 tariff period and accordingly, there is no outstanding liability as on 31.3.2019.
- 31. The Petitioner's claim of ₹6.28 lakh as ACE is lower than the projected ACE allowed vide order dated 28.1.2016 in Petition No. 442/TT/2014. The total completion cost as on 31.3.2019 works out to ₹1501.42 lakh, which is within the approved FR cost of ₹1905 lakh. Accordingly, ₹6.28 lakh has been allowed as ACE during 2017-18.
- 32. Accordingly, the capital cost considered for truing-up of transmission tariff of the 2014-19 tariff period is as follows:

		(₹ in lakn)
Capital Cost (as on 1.4.2014)	ACE (2014-19)	Capital Cost (as on 31.3.2019)
1495.14	6.28	1501.42

#### **Debt-Equity Ratio**

33. The debt-equity ratio for the period ending on 31.3.2014 has been considered in terms of Regulation 19(3) of the 2014 Tariff Regulations. Accordingly, the details of the debt-equity ratio as on 1.4.2014 and 31.3.2019 for the transmission asset is as follows:

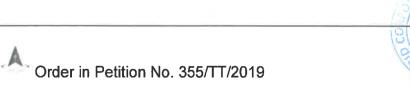
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Funding	As on 1.4.2014		As on 31.3.2019	
	Capital cost (₹ in lakh)	(in %)	Capital cost (₹ in lakh)	(in %)
Debt	1090.86	72.96	1095.26	72.95
Equity	404.29	27.04	406.17	27.05
Total	1495.14	100.00	1501.42	100.00

#### Depreciation

- 34. The Petitioner has claimed depreciation considering capital expenditure of ₹1495.14 lakh as on 1.4.2014 in respect of the transmission asset. The Petitioner has not claimed any depreciation towards "IT Equipment" in the instant petition.
- 35. The depreciation has been worked out as per the methodology provided in Regulation 27 of the 2014 Tariff Regulations. Depreciation has been allowed considering capital expenditure as on 1.4.2014 and allowed ACE during 2014-19 tariff period. The Gross Block during the 2014-19 tariff period has been depreciated at WAROD and working of WAROD is at Annexure-I. The trued-up depreciation allowed for 2014-19 tariff period for the transmission asset is as follows:

(₹ in lakh) **Particulars** 2014-15 2015-16 2016-17 2017-18 2018-19 Opening Gross Block 1495.14 1495.14 1495.14 1495.14 1501.42 Addition during 2014-19 due to 0.00 0.00 0.00 6.28 0.00 Additional Capitalisation Closing Gross Block 1495.14 1495.14 1495.14 1501.42 1501.42 Average Gross Block 1495.14 1495.14 1495.14 1498.28 1501.42 Weighted Average Rate 5.28 5.28 5.28 5.28 5.28 Depreciation (in %) Balance useful life of the asset 18.00 17.00 16.00 15.00 14.00 Lapsed life at the beginning of 7.00 8.00 9.00 10.00 11.00 the year (Year) Aggregated Depreciable Value 1345.63 1345.63 1345.63 1348.45 1351.28 Depreciation during the year 78.94 78.94 78.94 79.11 79.27 Aggregate Cumulative 615.38 694.33 773.27 852.38 931.65 Depreciation Remaining Aggregate 730.24 651.30 572.36 496.07 419.62 Depreciable Value



36. The details of depreciation allowed vide order dated 28.1.2016 in Petition No. 442/TT/2014, depreciation claimed by Petitioner in the instant petition and trued-up in the instant order are as follows:

					(₹ in lakh)
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 28.1.2016 in Petition No. 442/TT/2014	79.43	79.91	79.91	79.91	79.91
Claimed by the Petitioner in the instant petition	78.94	78.94	78.94	79.11	79.27
Approved after true-up in this order	78.94	78.94	78.94	79.11	79.27

#### Interest on Loan (IoL)

- 37. The Petitioner has claimed Weighted Average Rate of IoL, based on its actual interest rates for each year during the 2014-19 period. The Petitioner has submitted that the Weighted Average Rate of IoL has been considered on the basis of the rates prevailing as on 1.4.2014 and has prayed to consider floating rate of interest applicable during 2014-19 period, if any, during the truing up of tariff.
- 38. We have considered the submissions made by the Petitioner. loL has been calculated in terms of Regulation 26 of the 2014 Tariff Regulations based on the following:
  - a) Gross amount of loan, repayment of instalments, rate of interest and weighted average rate of interest on actual average loan have been considered as per the petition; and
  - b) The repayment for the 2014-19 tariff period which has been considered to be equal to the depreciation allowed for that period.
- 39. The trued-up loL allowed in respect of the transmission asset is as follows:

	,				(₹ in lakh)
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	1090.86	1090.86	1090.86	1090.86	1095.26
Cumulative Repayments upto	484.28	563.22	642.17	721.11	800.22
Previous Year			(37)	ONO	

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Net Loan-Opening	606.58	527.64	448.69	369.75	295.04
Addition due to Additional	0.00	0.00	0.00	4.40	0.00
Capitalization					
Repayment during the year	78.94	78.94	78.94	79.11	79.27
Net Loan-Closing	527.64	448.69	369.75	295.04	215.76
Average Loan	567.11	488.16	409.22	332.39	255.40
Weighted Average Rate of	7.657	7.709	7.800	8.000	8.462
Interest on Loan (in %)					
Interest on Loan	43.42	37.63	31.92	26.59	21.61

40. The details of loL allowed vide order dated 28.1.2016 in Petition No. 442/TT/2014, loL claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

				(₹	in lakh)
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 28.1.2016 in Petition No. 442/TT/2014	39.90	34.53	28.70	23.05	17.68
Claimed by the Petitioner in the instant petition	46.56	40.79	35.11	29.87	25.08
Approved after true-up in this order	43.42	37.63	31.92	26.59	21.61

# Return on Equity (RoE)

The Petitioner has claimed RoE for the transmission asset in terms of 41. Regulation 24 and Regulation 25 of the 2014 Tariff Regulations. The Petitioner has submitted that it is liable to pay income tax at Minimum Alternate Tax (MAT) rates and has claimed the 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	19.624
2016-17	21.338	19.715
2017-18	21.337	19.704
2018-19	21.549	19.704

42. We have considered the submissions of the Petitioner. The Commission vide order dated 27.4.2020 in Petition No. 274/TT/2019 has arrived at the effective tax rate based on the notified MAT rates and the same is given in the table as follows:

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Year	Notified MAT rates (in %) (inclusive of surcharge & cess)	Effective Tax (in %)
2014-15	20.961	20.961
2015-16	21.342	21.342
2016-17	21.342	21.342
2017-18	21.342	21.342
2018-19	21.549	21.549

The MAT rates considered in order dated 27.4.2020 for the purpose of 43. grossing up of rate of RoE for truing up of the transmission tariff of the 2014-19 tariff period, in terms of the provisions of the 2014 Tariff Regulations, is considered in the instant case which is as follows:

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

44. Accordingly, RoE allowed for the transmission asset is as follows:

(₹ in lakh) 2015-16 **Particulars** 2014-15 2016-17 2017-18 2018-19 404.28 404.28 404.28 406.16 Opening Equity 404.28 Additional Addition 0.00 due to 0.00 0.00 1.88 0.00 Capitalization 404.28 404.28 404.28 Closing Equity 406.16 406.16 404.28 404.28 404.28 Average Equity 405.22 406.16 Return on Equity (Base Rate) 15.500 15.500 15.500 15.500 15.500 (in %) MAT rate for the respective 20.961 21.342 21.342 21.342 21.549 Financial year (in %) 19.705 19.705 19.705 Rate of Return on Equity 19.610 19.758 (Pre-tax) (in %) 79.28 79.66

45. The details of RoE allowed vide order dated 28.1.2016 in Petition No. 442/TT/2014, RoE claimed by Petitioner in the instant petition and trued-up in the instant order are as under:



79.66

79.85

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80.25



Order in Petition No. 355/TT/2019

Return on Equity (Pre-tax)

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 28.1.2016 in Petition No. 442/TT/2014	79.82	80.36	80.36	80.36	80.36
Claimed by the Petitioner in the instant petition	79.34	79.70	79.66	79.85	80.25
Approved after true-up in this order	79.28	79.66	79.66	79.85	80.25

# Operation & Maintenance Expenses (O&M Expenses)

The total O&M Expenses claimed by the Petitioner for the transmission asset 46. are as follows:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Sub-station Bays					
200 kV ICT Bays at Indravati	1	1	1	1	1
(OHPC) Switchyard (AIS)-					
Numbers					
Total 200 kV (AIS) Bays	1	1	1	1	1
400 kV ICT Bays at Indravati	1	1	1	1	1
(OHPC) Switchyard (AIS)-					
Numbers					
Total 400 kV (AIS) Bays	1	1	1	1	1
Norm (₹ lakh/bay)					
200 kV Bay (AIS)	42.210	43.610	45.060	46.550	48.100
400 kV Bay (AIS)	60.300	62.300	64.370	66.510	68.710
Total Sub-station O&M	102.51	105.91	109.43	113.06	116.81
Total O&M Expenses	102.51	105.91	109.43	113.06	116.81

The O&M Expenses claimed by the Petitioner are within the norms specified 47. under the 2014 Tariff Regulations. The O&M Expenses approved for the transmission asset for the 2014-19 tariff period are as follows:

/₹ in lakh\

					(Killi lakii)
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Sub-station Bays					
200 kV ICT Bays at Indravati (OHPC) Switchyard (AIS)- Numbers	1	1	1	1	1
Total 200 kV (AIS) Bays	1	1	1	1	1
400 kV ICT Bays at Indravati (OHPC) Switchyard (AIS)-	1	1	1	1	1
Numbers					
Total 400 kV (AIS) Bays	1	11_	3,0	NO 1	1

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Norm (₹ lakh/bay)					
200 kV Bay (AIS)	42.210	43.610	45.060	46.550	48.100
400 kV Bay (AIS)	60.300	62.300	64.370	66.510	68.710
Total Sub-station O&M	102.51	105.91	109.43	113.06	116.81
Total O&M Expenses	102.51	105.91	109.43	113.06	116.81

48. The details of O&M Expenses allowed vide order dated 28.1.2016 in Petition No. 442/TT/2014, claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:

					(₹ in lakh)
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed in order dated 28.1.2016 in Petition No. 442/TT/2014	102.51	105.91	109.43	113.06	116.81
Claimed by the Petitioner in the instant petition	102.51	105.91	109.43	113.06	116.81
Approved after true-up in this order	102.51	105.91	109.43	113.06	116.81

## Interest on Working Capital (IWC)

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

#### a) Maintenance spares:

Regulation 28 of the 2014 Tariff Regulations provides for maintenance spares @ 15% per annum of the O&M Expenses. The value of maintenance spares has accordingly been worked out.

#### b) O&M Expenses:

Operation and maintenance expenses have been considered for one month as a component of working capital. The Petitioner has claimed O&M Expenses for 1 month of the respective year as claimed in the petition. This has been considered in the working capital.



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### c) Receivables:

Receivables as a component of working capital will be equivalent to two months fixed cost. The Petitioner has claimed the receivables on the basis of 2 months annual transmission charges. In the tariff being allowed, receivables have been worked out on the basis of 2 months transmission charges

#### d) Rate of interest on working capital:

As per Proviso 3 of Regulation 28 of the 2014 Tariff Regulation, SBI Base rate 10.00% as on 1.4.2014 plus 350 Bps i.e. 13.50% has been considered for the asset, as the rate of interest on working capital.

50. The trued-up IWC allowed for the transmission asset for the 2014-19 tariff period are as follows:

(₹ in lakh)

					1
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
WC for O&M Expenses	8.54	8.83	9.12	9.42	9.73
WC for Maintenance Spares	15.38	15.89	16.41	16.96	17.52
WC for Receivables	52.41	52.09	51.73	51.52	51.43
Total Working Capital	76.33	76.80	77.27	77.90	78.68
Rate of Interest on Working Capital (in %)	13.50	13.50	13.50	13.50	13.50
Interest on working capital	10.30	10.37	10.43	10.52	10.62

51. The details of IWC allowed vide order dated 28.1.2016 in Petition No. 442/TT/2014, IWC claimed by Petitioner in the instant petition and trued-up in the instant order are as follows:

(₹ in lakh)

					1
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed in order dated 28.1.2016 in Petition No. 442/TT/2014	10.25	10.33	10.39	10.46	10.55
Claimed by the Petitioner in the instant petition	10.38	10.44	10.50	10.59	10.70
Approved after true-up in this order	10.30	10.37	10.43	10.52	10.62

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

52. The trued-up AFC approved for the transmission asset for the 2014-19 tariff period are as follows:



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(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	78.94	78.94	78.94	79.11	79.27
Interest on Loan	43.42	37.63	31.92	26.59	21.61
Return on Equity	79.28	79.66	79.66	79.85	80.25
Interest on Working Capital	10.30	10.37	10.43	10.52	10.62
O&M Expenses	102.51	105.91	109.43	113.06	116.81
Total	314.46	312.52	310.39	309.13	308.57

Accordingly, the Annual Transmission Charges allowed vide order dated 53. 28.1.2016 in Petition No. 442/TT/2014, claimed by Petitioner in the instant petition and approved after truing-up in the instant order is as follows:

(₹ in lakh)

					( and location)
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed in order dated 28.1.2016 in Petition No.	311.91	311.04	308.79	306.84	305.31
442/TT/2014					
Claimed by the Petitioner in the instant petition	317.73	315.78	313.64	312.48	312.11
Approved after true-up in this order	314.46	312.52	310.39	309.13	308.57

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

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

(₹ in lakh)

(7.11)					(
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	32.28	32.28	32.28	32.28	32.28
Interest on Loan	21.78	18.97	15.94	12.35	8.79
Return on Equity	80.25	80.25	80.25	80.25	80.25
Interest on Working Capital	9.32	9.55	9.77	10.00	10.20
O&M Expenses	167.43	173.45	179.53	185.99	192.22
Total	311.06	314.50	317.77	320.87	323.74

55. The details of IWC claimed by the Petitioner for the 2019-24 period for the transmission asset are as follows:

(₹ in lakh)

				/ III lakii
2019-20	2020-21	2021-22	2022-23	2023-24
13.95	14.45	14.96	15.50	16.02
25.11	26.02	26.93	27.90	28.83
38.25	38.77	39.18	39.56	39.80
77.31	79.24	81.07	82.96	84.65
12.05	12.05	12.05	12.05	12.05
	13.95 25.11 38.25 77.31	13.95 14.45 25.11 26.02 38.25 38.77 77.31 79.24	13.95     14.45     14.96       25.11     26.02     26.93       38.25     38.77     39.18       77.31     79.24     81.07	13.95     14.45     14.96     15.50       25.11     26.02     26.93     27.90       38.25     38.77     39.18     39.56       77.31     79.24     81.07     82.96       12.05     12.05     12.05     12.05

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#### **Capital Cost**

- 56. Regulation 19 of the 2019 Tariff Regulations provides as follows:
  - "19. Capital Cost (1) The Capital cost of the generating station or the transmission system, as the case may be, as determined by the Commission after prudence check in accordance with these regulations shall form the basis for determination of tariff for existing and new projects.
  - (2) The Capital Cost of a new project shall include the following:
    - The expenditure incurred or projected to be incurred up to the date of commercial operation of the project:
    - Interest during construction and financing charges, on the loans (i) being (b) 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;
    - Any gain or loss on account of foreign exchange risk variation pertaining to (c) the loan amount availed during the construction period;
    - Interest during construction and incidental expenditure during construction (d) as computed in accordance with these regulations;
    - Capitalised initial spares subject to the ceiling rates in accordance with (e) these regulations:
    - (f) Expenditure on account of additional capitalization and de-capitalisation determined in accordance with these regulations:
    - Adjustment of revenue due to sale of infirm power in excess of fuel cost (g)prior to the date of commercial operation as specified under Regulation 7 of these regulations:
    - Adjustment of revenue earned by the transmission licensee by using the (h) assets before the date of commercial operation;
    - Capital expenditure on account of ash disposal and utilization including (i) handling and transportation facility;
    - Capital expenditure incurred towards railway infrastructure and its (i) 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;
    - Capital expenditure on account of emission control system necessary to *(l)* meet the revised emission standards and sewage treatment plant;
    - Expenditure on account of fulfilment of any conditions for obtaining (m)environment clearance for the project;
    - Expenditure on account of change in law and force majeure events: and (n)
    - 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:

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- Capital cost admitted by the Commission prior to 1.4.2019 duly trued up by (a) excluding liability, if any, as on 1.4.2019;
- Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations:
- Capital expenditure on account of renovation and modernisation as admitted by this Commission in accordance with these regulations:
- Capital expenditure on account of ash disposal and utilization including (d) handling and transportation facility;
- Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto 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:
  - cost of approved rehabilitation and resettlement (R&R) plan of the project in (a) conformity with National R&R Policy and R&R package as approved; and
  - cost of the developer's 10% contribution towards Raiiv 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:
  - The assets forming part of the project, but not in use, as declared in the (a) 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 de-capitalised 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.

- 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;
- Proportionate cost of land of the existing project which is being used for generating power from generating station based on renewable energy; and
- Any grant received from the Central or State Government or any statutory (e) body or authority for the execution of the project which does not carry any liability of repayment."



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57. The capital cost of ₹1501.42 lakh as on 31.3.2019 has been considered for the purpose of determination of transmission tariff for the 2019-24 period in accordance with Regulation 19 of the 2019 Tariff Regulations. The Petitioner has not projected any ACE during the 2019-24 tariff period for the transmission asset. Accordingly, the capital cost considered for the 2019-24 tariff period is as follows:

(₹ in lakh)

Capital Cost (as on 1.4.2019)	ACE (2019-24)	Estimated Completion Cost (Up to 31.3.2024)
1501.42	0.00	1501.42

#### **Debt-Equity Ratio**

- Regulation 18 of the 2019 Tariff Regulations provides as follows: 58.
  - "18. Debt-Equity Ratio: 1) For new projects, the debt-equity ratio of 70:30 as on date of commercial operation shall be considered. If the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:

#### Provided that:

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

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

- (2) The generating company or the transmission licensee, as the case may be, shall submit the resolution of the Board of the company or approval of the competent authority in other cases regarding infusion of funds from internal resources in support of the utilization made or proposed to be made to meet the capital expenditure of the generating station or the transmission system including communication system, as the case may be.
- (3) In case of the generating station and the transmission project including communication, project declared under commercial operation prior to 1.4.2019, debt: equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2019 shall be considered:

Provided that in case of a generating station or a transmission project including communication project which has completed its useful life as on or after 1.4.2019, if

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the equity actually deployed as on 1.4.2019 is more than 30% of the capital cost, equity in excess of 30%shall not be taken into account for tariff computation;

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

- (4) In case of the generating station and the transmission project including communication project declared under commercial operation prior to 1.4.2019, but where debt: equity ratio has not been determined by the Commission for determination of tariff for the period ending 31.3.2019, the Commission shall approve the debt: equity ratio in accordance with clause (1) of this Regulation.
- (5) Any expenditure incurred or projected to be incurred on or after 1.4.2019 as may be admitted by the Commission as Additional Capital Expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this Regulation."
- 59. The debt-equity considered for the purpose of computation of tariff for the 2019-24 tariff period is as follows:

Funding	Capital Cost as on 1.4.2019 (₹ lakh)	(in %)	Total Capital Cost as on 31.3.2024 (₹ lakh)	(in %)
Debt	1095.26	72.95	1095.26	72.95
Equity	406.16	27.05	406.16	27.05
Total	1501.42	100.00	1501.42	100.00

## **Depreciation**

- 60 Regulation 33 of the 2019 Tariff Regulations provides as follows:
  - "33. Depreciation: (1) Depreciation shall be computed from the date of commercial operation of a generating station or unit thereof or a transmission project or element thereof including communication project. In case of the tariff of all the units of a generating station or all elements of a transmission project including communication project 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 project 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 project, 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 project, weighted average life for the generating station of the transmission project 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.



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(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 Asset of the generating station and transmission project:

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

- (6) In case of the existing projects, the balance depreciable value as on 1.4.2019 shall be worked out by deducting the cumulative depreciation as admitted by the Commission 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."
- 61. The depreciation is allowed considering the admitted capital expenditure as on 31.3.2019 and accumulated depreciation up to 31.3.2019. WAROD at Annexure-II is allowed after taking into account the depreciation rates of asset as specified in the

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2019 Tariff Regulations. The transmission asset has completed 12 years of useful life as on 31.3.2019 and the remaining depreciable value has been spread across the balance useful life of 13 years in accordance with Regulation 33(5) of the 2019 Tariff Regulations. The depreciation worked out in respect of the transmission asset is as follows:

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Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	1501.42	1501.42	1501.42	1501.42	1501.42
Addition during 2019-24 due to Projected Additional Capitalisation	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	1501.42	1501.42	1501.42	1501.42	1501.42
Average Gross Block	1501.42	1501.42	1501.42	1501.42	1501.42
Weighted Average Rate of Depreciation (WAROD) (in %)	2.15	2.15	2.15	2.15	2.15
Balance useful life of the asset (Year)	13.00	12.00	11.00	10.00	9.00
Lapsed Life at the beginning of the year (Year)	12.00	13.00	14.00	15.00	16.00
Aggregate Depreciable Value	1351.28	1351.28	1351.28	1351.28	1351.28
Depreciation during the year	32.28	32.28	32.28	32.28	32.28
Cumulative depreciation up to previous year	931.65	963.93	996.21	1028.49	1060.77
Aggregate Cumulative Depreciation	963.93	996.21	1028.49	1060.77	1093.05
Remaining Depreciable Value	387.34	355.07	322.79	290.51	258.23

#### Interest on Loan (IoL)

- 62. Regulation 32 of the 2019 Tariff Regulations provides as follows:
  - "32. Interest on loan capital: (1) The loans arrived at in the manner indicated in Regulation 18 of these regulations shall be considered as gross normative loan for calculation of interest on loan.
  - (2) The normative loan outstanding as on 1.4.2019 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2019 from the gross normative loan.
  - (3) The repayment for each of the year of the tariff period 2019-24 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of decapitalization of Asset, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered up to the date of de-capitalisation of such asset.



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

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

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

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

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

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

- (6) The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.
- (7) The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing."
- 63. We have considered the submissions of Petitioner. The Weighted Average Rate of loL has been considered on the basis of the rate prevailing as on 1.4.2019. The Petitioner has prayed that the change in interest rate due to floating rate of interest applicable, if any, during the 2019-24 tariff period will be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of true up. Therefore, loL has been allowed in accordance with Regulation 32 of the 2019 Tariff Regulations. IoL allowed for the transmission asset for the 2019-24 period is as follows:

(₹ in lakh)

					1
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	1095.26	1095.26	1095.26	1095.26	1095.26
Cumulative Repayments up to	879.49	911.77	944.05	976.33	1008.61
Previous Year					
Net Loan-Opening	215.76	183.48	151.20	118.93	86.65



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Addition due to Additional	0.00	0.00	0.00	0.00	0.00
Capitalization	L				
Repayment during the year	32.28	32.28	32.28	32.28	32.28
Net Loan-Closing	183.48	151.20	118.93	86.65	54.37
Average Loan	199.62	167.34	135.06	102.79	70.51
Weighted Average Rate of	9.053	9.108	9.058	8.594	7.890
Interest on Loan (in %)					
Interest on Loan	18.07	15.24	12.23	8.83	5.56

#### Return on Equity (RoE)

- 64. Regulation 30 and Regulation 31 of the 2019 Tariff Regulations provide as follows:
  - "30. Return on Equity: (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with Regulation 18 of these regulations.
  - (2) Return on equity shall be computed at the base rate of 15.50% for thermal generating station, transmission project including communication project and run-ofriver hydro generating station, and at the base rate of 16.50% for the storage type hydro generating stations including pumped storage hydro generating stations and run-of-river generating station with pondage:

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

#### Provided further that:

i. In case of a new project, the rate of return on equity shall be reduced by 1.00% for such period as may be decided by the Commission, if the generating station or transmission project 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 project up to load dispatch centre or protection project 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%:

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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 underrecovery 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."
- 65. The Petitioner has submitted that MAT rate is applicable to the Petitioner's company. Accordingly, MAT rate applicable in 2019-20 has been considered for the purpose of RoE, which shall be trued-up with actual tax rate in accordance with Regulation 31(3) of the 2019 Tariff Regulations. RoE allowed for the transmission asset for the 2019-24 tariff period is as follows:

					(₹ in lakh)
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	406.16	406.16	406.16	406.16	406.16
Addition due to Additional	0.00	0.00	0.00	0.00	0.00

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Capitalization					
Closing Equity	406.16	406.16	406.16	406.16	406.16
Average Equity	406.16	406.16	406.16	406.16	406.16
Return on Equity (Base Rate)	15.500	15.500	15.500	15.500	15.500
(in %)					
Tax Rate applicable (in %)	17.472	17.472	17.472	17.472	17.472
Rate of Return on Equity	18.782	18.782	18.782	18.782	18.782
(Pre-tax) (in %)					
Return on Equity (Pre-tax)	76.29	76.29	76.29	76.29	76.29

# Operation & Maintenance Expenses (O&M Expenses)

66. The O&M Expenses claimed by the Petitioner for the various elements included in the transmission asset for the 2019-24 tariff period are as follows:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Sub-s	tation Bays	3		
220 kV ICT Bay at Indravati (OHPC) Switchyard (AIS)- Numbers	1	1	1	1	1
Total 220 kV (AIS) Bays	1	1	1	1	1
400 kV ICT Bay at Indravati (OHPC) Switchyard (AIS)- Numbers	1	1	1	1	1
Total 400 kV (AIS) Bays	1	1	1	1	1
Norm (₹ lakh/bay)					
220 kV Bay (AIS)	22.510	23.300	24.120	24.960	25.840
400 kV Bay (AIS)	32.150	33.280	34.450	35.660	36.910
Total Sub-station Bays					
	Trar	nsformers			
400kV 315 MVA ICT at Indravati (OHPC) Switchyard (MVA)	315	315	315	315	315
Total 400 kV Transformers (MVA)	315	315	315	315	315
Norms (₹ lakh/ MVA)	0.358	0.371	0.384	0.398	0.411
Total Transformers	112.77	116.87	120.96	125.37	129.47
Total O&M Expenses	167.43	173.45	179.53	185.99	192.22

67. Regulation 35(3)(a) and Regulation 33 (4) of the 2019 Tariff Regulations provide as follows:

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





Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Norms for sub-station Bays (Rs L	akh per bay)				l
765 kV	45.01	46.60	48.23	49.93	51.68
400 kV	32.15	33.28	34.45	35.66	36.91
220 kV	22.51	23.30	24.12	24.96	25.84
132 kV and below	16.08	16.64	17.23	17.83	18.46
Norms for Transformers (Rs 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 (Rs	l akh ner kn	2)			
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		2.212			
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	4.544	4 500	4.054	4 740	4 77
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	834	864	894	925	958
Gazuwaka BTB)					
Gazuwaka HVDC Back-to-Back	1 666	1 725	1 705	1 0 1 0	1.01
station (Rs. Lakh per 500 MW)	1,666	1,725	1,785	1,848	1,913
500 kV Rihand-Dadri HVDC bipole	2.252	2,331	2,413	2,498	2,586
scheme (Rs Lakh) (1500 MW)	2,252	2,331	2,413	2,490	2,560
±500 kV Talcher- Kolar HVDC					
bipole scheme (Rs Lakh) (2000	2,468	2,555	2,645	2,738	2,834
MW)					
±500 kV Bhiwadi-Balia HVDC					
bipole scheme (Rs Lakh) (2500	1,696	1,756	1,817	1,881	1,947
MW)					
±800 kV, Bishwanath-Agra HVDC					
bipole scheme (Rs Lakh)(3000	2,563	2,653	2,746	2,842	2,942
MW)					

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;

The total allowable operation and maintenance expenses for the transmission (b)



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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.

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 iustification."

"(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."

#### 68. The O&M Expenses allowed for the transmission asset are as follows:

(₹ in lakh)

					(₹ in iakn)
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Sub-sta	tion Bays	•		
220 kV ICT Bay at Indravati (OHPC) Switchyard (AIS)- Numbers	1	1	1	1	1
Total 220 kV (AIS) Bays	1	1	1	1	1
400 kV ICT Bay at Indravati (OHPC) Switchyard (AIS)- Numbers	1	1	1	1	1
Total 400 kV (AIS) Bays	1	1	1	1	1
Norm (₹ lakh/bay)					
220 kV Bay (AIS)	22.510	23.300	24.120	24.960	25.840
400 kV Bay (AIS)	32.150	33.280	34.450	35.660	36.910
Total Sub-station Bays	54.66	56.58	58.57	60.62	62.75
	Trans	formers			
400kV 315 MVA ICT at Indravati (OHPC) Switchyard (MVA)	315	315	315	315	315
Total 400 kV Transformers (MVA)	315	315	315	315	315
Norms (₹ lakh/ MVA)	0.358	0.371	0.384	0.398	0.411
Total ICT O&M Expenses	112.77	116.87	120.96	125.37	129.47
Total O&M Expenses	167.43	173.45	179.53	185.99	192.22

#### Interest on Working Capital (IWC)

Regulation 34(1)(c), Regulation 34(3) and Regulation 34(4) and Regulation 69.

3(7) of the 2019 Tariff Regulations provide as follows:

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- *"34.* Interest on Working Capital:
- (1) ...
- (c) For Hydro Generating Station (including Pumped Storage Hydro Generating Station) and Transmission Project:
- (i) Receivables equivalent to 45 days of annual 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 project including communication project 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;"
- 70. The Petitioner has submitted that it has computed IWC for the 2019-24 period considering the SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of IWC as 12.05%. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. ROI considered is 12.05% (SBI 1 year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for 2019-20 and 11.25% (SBI 1-year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points) for 2020-24. The components of the working capital and interest allowed thereon is as follows:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
WC for O&M Expenses	13.95	14.45	14.96	15.50	16.02
WC for Maintenance Spares	25.11	26.02	26.93	ORP 27.90	28.83

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WC for Receivables	37.29	37.73	38.14	38.54	38.82
Total Working Capital	76.35	78.20	80.03	81.94	83.67
Rate of Interest (in %)	12.05	11.25	11.25	11.25	11.25
Interest on Working Capital	9.20	8.80	9.00	9.22	9.41

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

71. The transmission charges allowed for the transmission asset for the tariff period 2019-24 are as follows:

(₹ in	lakh)
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Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	32.28	32.28	32.28	32.28	32.28
Interest on Loan	18.07	15.24	12.23	8.83	5.56
Return on Equity	76.29	76.29	76.29	76.29	76.29
Interest on Working Capital	9.20	8.80	9.00	9.22	9.41
O&M Expenses	167.43	173.45	179.53	185.99	192.22
Total	303.27	306.05	309.33	312.61	315.76

#### Filing Fee and the Publication Expenses

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

#### Licence Fee and RLDC Fees and Charges

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

A.

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#### Goods and Services Tax

- 75. The Petitioner has submitted that, if GST is levied at any rate and at any point of time in future on charges of transmission of electricity, the same shall be borne and additionally paid by the Respondent(s) to the Petitioner and the same shall be charged and billed separately by the Petitioner. Further additional taxes, if any, are to be paid by the Petitioner on account of demand from Government / Statutory authorities, the same may be allowed to be recovered from the beneficiaries.
- 76. We have considered the submissions of the Petitioner. Since GST is not levied on transmission service at present, we are of the view that the Petitioner's prayer is premature.

#### Security Expenses

- 77. The Petitioner has submitted that security expenses for the transmission assets are not claimed in the instant petition and it would file a separate petition for claiming the overall security expenses and the consequential IWC.
- 78. We have considered the submissions of the Petitioner. The Petitioner has claimed consolidated security expenses on projected basis for the 2019-24 tariff period on the basis of actual security expenses incurred in 2018-19 in Petition No. 260/MP/2020. The said petition has already been disposed of by the Commission vide order dated 3.8.2021. Therefore, the Petitioner's prayer in the instant petition for allowing it to file a separate petition for claiming the overall security expenses and consequential IWC has become infructuous.





#### **Capital Spares**

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

## **Sharing of Transmission Charges**

80. During the tariff periods 2004-09 and 2009-14 (up to 30.6.2011), the transmission charges for inter-State transmission system were being shared in accordance with the Tariff Regulations for the respective tariff periods. With effect from 1.7.2011, sharing of transmission charges for inter-State transmission system was governed by the 2010 Sharing Regulations. However, with effect from 1.11.2020, the 2010 Sharing Regulations have been repealed and sharing of transmission charges are governed by the provisions of the 2020 Sharing Regulations. Accordingly, the liabilities of DICs for arrears of transmission charges determined through this order shall be computed DIC-wise in accordance with the provisions of respective Tariff Regulations and shall be recovered from the concerned DICs through Bill-2 under Regulation 15(2)(b) of the 2020 Sharing Regulations. Billing, collection and disbursement of transmission charges for subsequent period shall be recovered in terms of provisions of the 2020 Sharing Regulations as provided in Regulation 57 of the 2019 Tariff Regulations.

#### 81. To summarise:

a) The revised AFC approved for the transmission asset for the 2004-09 tariff period are as follows:

	.00		(₹ in lakh)
2006-07		2007-08	2008-09
(pro-rata for 11 months)			
	211.29	241.61	252.80

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The consequential revision of AFC approved for the transmission asset for the 2009-14 tariff period are as follows:

					(₹ in lakh)
Γ	2009-10	2010-11	2011-12	2012-13	2013-14
	320.28	324.45	325.82	327.33	328.65

The trued-up AFC approved for the transmission asset for the 2014-19 c) tariff period are as follows:

				(₹ in lakh)
2014-15	2015-16	2016-17	2017-18	2018-19
314.46	312.52	310.39	309.13	308.57

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

				(₹ in lakh)
2019-20	2020-21	2021-22	2022-23	2023-24
303.27	306.05	309.33	312.61	315.76

- 82. Annexure-I and Annexure-II given hereinafter shall form part of the order.
- 83. This order disposes of Petition No. 355/TT/2019 in terms of the above discussion and findings.

sd/-	sd/-	sd/-	sd/-
(Pravas Kumar Singh)	(Arun Goyal)	(I. S. Jha)	(P. K. Pujari)
Member	Member	Member	Chairperson

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Annexure-I

	2014-19	Admitted	Admitted		Admitted						
Asset	Capital Expenditure as on 1.4.2014	Capital Cost as on 1.4.2014 (₹ in lakh)	1 Cost as on	Rate of Depreciation (in %)	2014-15 (₹ in lakh)	2015-16 (₹ in lakh)	2016-17 (₹ in lakh)	2017-18 (₹ in lakh)	2018-19 (₹ in lakh)		
Asset	Sub Station	1495.14	1501.42	5.28	78.94	78.94	78.94	79.11	79.27		
Asset	TOTAL				78.94	78.94	78.94	79.11	79.27		
			Average Gro lakh)	ss Block (₹ in	1495.14	1495.14	1495.14	1498.28	1501.42		
			Weighted Average Rate of Depreciation (in %)		5.28	5.28	5.28	5.28	5.28		

Annexure-II

	2019-24	Admitted	Admitted		A	nnual Depre	ciation as pe	er Regulation	S
Asset	Capital Expenditure as on 1.4.2014	Capital Cost as on 1.4.2019 (₹ in lakh)	Capital Cost as on 31.3.2014 (₹ in lakh)	Rate of Depreciation (in %)	2014-15 (₹ in lakh)	2015-16 (₹ in lakh)	2016-17 (₹ in lakh)	2017-18 (₹ in lakh)	2018-19 (₹ in lakh)
Asset	Sub Station	1501.42	1501.42	5.28	32.28	32.28	32.28	32.28	32.28
Asset	TOTAL				32.28	32.28	32.28	32.28	32.28
NER GRIO	IER GRID		Average Gross Block (₹ in lakh)		1501.42	1501.42	1501.42	1501.42	1501.42
Se les			Weighted Av Depreciation	erage Rate of (in %)	2.15	2.15	2.15	2.15	2.15

The transmission asset has completed 12 years of useful life as on 31.3.2019, the remaining depreciable value has been spread across the balance useful life in accordance with Regulation 33(5) of the 2019 Tariff Regulations.



Order in Petition No. 355/TT/2019

Violangie bezinottua. Ltd. Signatorio Ltd. S. Ltd. Norsker S. Ltd. Signatua. S. S. Ltd. S. Ltd ATTESTED TRUE COPY

# **Summary of Tariff**

Form	No.	-	1
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Name of the Ti	ransmission Licensee:	Power Grid Corporation	on of India Limited				
Project Installation of 2nd 315 (3x105) MVA , 400/220 kV transformer at Indravati (OHPC) switchyard							
Element Description	Installation of 2nd 315 (	(3x105) MVA , 400/220	kV transformer at I	Indravati (OHPC) switchyard			
Region Eastern Region			DOCO Date	May 1, 2006			

(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	32.28	32.28	32.28	32.28	32.28
Interest on Loan-Form No. 9E	18.07	15.24	12.24	8.84	5.56
Return on Equity-Form No. 8	76.28	76.28	76.28	76.28	76.28
Int. on Working capital-Form No.11	9.20	8.80	8.39	8.60	10.05
Op. and maintenance-Form No.2	167.43	173.45	179.53	185.99	192.22
Total AFC	303.26	306.05	308.72	311.99	316.39

(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 Transmission Licensee Power Grid Corporation of India Limited									
Project Installation of 2nd 315 (3x105) MVA , 400/220 kV transformer at Indravati (OHPC) switchyard									
Element Description	Installation of 2nd 315 (3x105) MVA , 400/220 kV transformer at Indravati (OHPC) switchyard								
Region	Eastern Region	DOCO Date	May 1, 2006						

#### 1. Transmission Lines

(Amount in Rs. Lakh)

Summary:





#### 2. Sub Station

				r No. or Days			MVA/MVAR Capacity				Date of	Covered in the present petition		
Name of Sub-station	Substation	KV KV	Reactor/ SVC etc. (with capacity)	765 KV	400 KV	220 KV	132 KV	765 KV	400 KV	220 KV	132 KV	Comm. operation		If No, Petitio n No.
Indravati:220KV BAY OF ICT INDRAVATI (OHPC)	Conventio nal	220 KV				1.000						May 1, 2006	Υ	
Indravati:400KV BAY OF ICT INDRAVATI (OHPC)		400 KV			1.000							May 1, 2006	Υ	
Indravati:315 MVA ICT AT INDRAVATI (OHPC)	Conventio nal	400 KV	1.000						315.00			May 1, 2006	Υ	

# 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 O&M 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

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0139001 : Truing Up: Installation of 2nd 315 (3x105) MVA , 400/220 kV transformer at Indravati (OHPC) switchyard

400KV SUB-STATION ICT					
Normative Rate of O&M as per Regulation	0.358	0.371	0.384	0.398	0.411
No. of Units	1.00	1.00	1.00	1.00	1.00
O&M Claimed	112.77	116.87	120.96	125.37	129.47





Particular	2019-20	2020-21	2021-22	2022-23	2023-24
A) Normative O&M					
Transmission Line	0.00	0.00	0.00	0.00	0.00
Substation	167.43	173.45	179.53	185.99	192.22
Communication System	0.00	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	0.00
*Actual Capital Spare consumed	0.00	0.00	0.00	0.00	0.00
*Insurance Premium Paid	0.00	0.00	0.00	0.00	0.00
Total O&M	167.43	173.45	179.53	185.99	192.22

(Petitioner)



Name of the Transmission Licensee		Power Grid Corporation of India Limited					
Project	Installation of 2nd 315 (3x105) MVA , 400/220 kV transformer at Indravati (OHPC) switchyard						
Element Description	Installation of 2nd 315 /32105\ IVIVA AUD/22D KV transformer at Indravati (CHPC) switchvard						
Region	Eastern Region		DOCO Date	May 1, 2006			

(Amount in Rs. Lakh)

Particulars	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Base Rate of Return of Equity (in %)			'			
Tax Rate (in %)	21.55	17.472	17.472	17.472	17.472	17.472
Effective tax rate (in %)						
Grossed up Rate of ROE (in %)	19.758	18.782	18.782	18.782	18.782	18.782
Target availability - AC System (in %)	98.00	98.00	98.00	98.00	98.00	98.00
Target availability - HVDC System (in %)	96.00	96.00	96.00	96.00	96.00	96.00
Norms for sub-station Bays (Rs Lakh per bay)						
765 kV	96.20	45.01	46.60	48.23	49.93	51.68
400 kV	68.71	32.15	33.28	34.45	35.66	36.91
220 kV	48.10	22.51	23.30	24.12	24.96	25.84
132 kV and below	34.36	16.08	16.64	17.23	17.83	18.46
Norms for Transformers (Rs Lakh per MVA)			,			
765 kV	0.00	0.491	0.508	0.526	0.545	0.564
400 kV	0.00	0.358	0.371	0.384	0.398	0.411
220 kV	0.00	0.245	0.254	0.263	0.272	0.282
132 kV and below	0.00	0.245	0.254	0.263	0.272	0.282
Norms for AC and HVDC lines (Rs Lakh per km)		,1			1	
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.806	0.881	0.912	0.944	0.977	1.011
Single Circuit (Bundled conductor with four sub- conductors)	0.691	0.755	0.781	0.809	0.837	0.867
Single Circuit (Twin & Triple Conductor)	0.461	0.503	0.521	0.539	0.558	0.578

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0139001 : Truing Up: installation of 2nd 315 (3x105) MVA , 400/220 kV transform of a

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 T	ransmission Licensee	Power Grid Corporation of India Limited					
Project	Project Installation of 2nd 315 (3x105) MVA , 400/220 kV transformer at Indravati (OHPC) switchyard						
Element Description	Installation of 2nd 315 (3y105) MVA 400/220 kV transformer at Indravati (OHPC) switchvard						
Region	Eastern Region	DOCO Date May 1, 2006					

(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	406.16	406.16	406.16	406.16	406.16
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)	406.16	406.16	406.16	406.16	406.16
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	406.16	406.16	406.16	406.16	406.16
Average Normative Equity	406.16	406.16	406.16	406.16	406.16
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	76.28	76.28	76.28	76.28	76.28
Pro rata return on Equity	76.28	76.28	76.28	76.28	76.28
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(Petitioner)

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## Calculation of WAR of interest on actual loan

Name of the	Transmission Licensee	ower Grid Corporation of India Limited					
Project	ject Installation of 2nd 315 (3x105) MVA , 400/220 kV transformer at Indravati (OHPC) switchyard						
Element Description	Installation of 2nd 315 (3x105) MVA , 400/220 kV transformer at Indravati (OHPC) switchyard						
Region	Eastern Region	DOCO Date May 1, 2006					

(Amount in Rs. Lakh)

			(Amount in Rs. Lakn)			
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24	
BOND XV -DOCO 01-MAY-2006						
Gross Loan- Opening	130.00	130.00	130.00	130.00	130.00	
Cumulative repayments of Loans upto previous year	130.00	130.00	130.00	130.00	130.00	
Net loan-Opening	0.00	0.00	0.00	0.00	0.00	
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00	
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00	
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00	
Average Net Loan	0.00	0.00	0.00	0.00	0.00	
Rate of Interest on Loan on Annual Basis	6.68	6.68	6.68	6.68	6.68	
Interest on loan	0.00	0.00	0.00	0.00	0.00	

BOND XVI -DOCO 01-MAY-2006					
Gross Loan- Opening	304.00	304.00	304.00	304.00	304.00
Cumulative repayments of Loans upto previous year	304.00	304.00	304.00	304.00	304.00
Net loan-Opening	0.00	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00

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0139001 : Truing Up: Installation of 2nd 315 (3x105) MVA\_3 0/220 kV

Average Net Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	7.10	7.10	7.10	7.10	7.10
Interest on loan	0.00	0.00	0.00	0.00	0.00

BOND XVII -DOCO 01-MAY-2006					
Gross Loan- Opening	440.00	440.00	440.00	440.00	440.00
Cumulative repayments of Loans upto previous year	440.00	440.00	440.00	440.00	440.00
Net loan-Opening	0.00	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Net Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	7.39	7.39	7.39	7.39	7.39
Interest on loan	0.00	0.00	0.00	0.00	0.00

BOND XVIII -DOCO 01-MAY-2006					
Gross Loan- Opening	80.00	80.00	80.00	80.00	80.00
Cumulative repayments of Loans upto previous year	66.67	73.33	80.00	80.00	80.00
Net loan-Opening	13.33	6.67	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	6.67	6.67	0.00	0.00	0.00
Net Loan-Closing	6.66	0.00	0.00	0.00	0.00
Average Net Loan	10.00	3.34	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	8.15	8.15	8.15	8.15	8.15
Interest on loan	0.815	0.2722	0.00	0.00	0.00

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20.39	20.39	20.39	20.39	20.39
15.29	16.99	18.69	20.39	20.39
5.10	3.40	1.70	0.00	0.00
0.00	0.00	0.00	0.00	0,00
1.70	1.70	1.70	0.00	0.00
3.40	1.70	0.00	0.00	0.00
4.25	2.55	0.85	0.00	0.00
9.95	9.95	9.95	9.95	9.95
0.4229	0.2537	0.0846	0.00	0.00
	15.29 5.10 0.00 1.70 3.40 4.25 9.95	15.29 16.99 5.10 3.40 0.00 0.00 1.70 1.70 3.40 1.70 4.25 2.55 9.95 9.95	15.29     16.99     18.69       5.10     3.40     1.70       0.00     0.00     0.00       1.70     1.70     1.70       3.40     1.70     0.00       4.25     2.55     0.85       9.95     9.95     9.95	15.29       16.99       18.69       20.39         5.10       3.40       1.70       0.00         0.00       0.00       0.00       0.00         1.70       1.70       1.70       0.00         3.40       1.70       0.00       0.00         4.25       2.55       0.85       0.00         9.95       9.95       9.95       9.95

BOND XXVII -ADDCAP FOR 2007-2008					
Gross Loan- Opening	85.00	85.00	85.00	85.00	85.00
Cumulative repayments of Loans upto previous year	56.67	63.75	70.83	77.92	85.00
Net loan-Opening	28.33	21.25	14.17	7.08	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	7.08	7.08	7.08	7.08	0.00
Net Loan-Closing	21.25	14.17	7.09	0.00	0.00
Average Net Loan	24.79	17.71	10.63	3.54	0.00
Rate of Interest on Loan on Annual Basis	9.47	9.47	9.47	9.47	9.47
Interest on loan	2.3476	1.6771	1.0067	0.3352	0.00

BOND 58 -ADD CAP LOAN 1					
Gross Loan- Opening	4.40	4.40	4.40	4.40	4.40
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.00	0.00
Net loan-Opening	4.40	4.40	4.40	NER GO	4.40

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0139001 Truing Up: installation of 2nd 315 (3x105) MVA

MVA Irou 20 kV (miles imer at Indi New OHPC) switchyard

0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00
4.40	4.40	4.40	4.40	4.40
4.40	4.40	4.40	4.40	4.40
7.89	7.89	7.89	7.89	7.89
0.3472	0.3472	0.3472	0.3472	0.3472
	4.40 4.40 7.89	4.40     4.40       4.40     4.40       7.89     7.89	4.40     4.40       4.40     4.40       4.80     4.40       7.89     7.89       7.89     7.89	4.40     4.40     4.40     4.40       4.40     4.40     4.40     4.40       7.89     7.89     7.89     7.89

## Summary

1,063.79	1,063.79	1,063.79	1,063.79	1,063.79
1,012.63	1,028.07	1,043.52	1,052.31	1,059.39
51.16	35.72	20.27	11.48	4.40
0.00	0.00	0.00	0.00	0.00
15.45	15.45	8.78	7.08	0.00
35.71	20.27	11.49	4.40	4.40
43.44	28.00	15.88	7.94	4.40
9.0532	9.1079	9.0586	8.5945	7.8909
3.9327	2.5502	1.4385	0.6824	0.3472
	1,012.63 51.16 0.00 15.45 35.71 43.44 9.0532	1,012.63 1,028.07 51.16 35.72 0.00 0.00 15.45 15.45 35.71 20.27 43.44 28.00 9.0532 9.1079	1,012.63     1,028.07     1,043.52       51.16     35.72     20.27       0.00     0.00     0.00       15.45     15.45     8.78       35.71     20.27     11.49       43.44     28.00     15.88       9.0532     9.1079     9.0586	1,012.63       1,028.07       1,043.52       1,052.31         51.16       35.72       20.27       11.48         0.00       0.00       0.00       0.00         15.45       15.45       8.78       7.08         35.71       20.27       11.49       4.40         43.44       28.00       15.88       7.94         9.0532       9.1079       9.0586       8.5945



Name of the Transmission Licensee Power Grid Corporation of India Limited									
Project	Installation of 2nd 315 (3	3×105) MVA , 400/220	kV transformer at	Indravati (OHPC) switchyard					
Element Description									
Region	Eastern Region	stern Region DOCO Date May 1, 2006							

(Amount in Rs. Lakh)

Dortlaulara	0010 05			(Amount in K		
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	1,095.26	1,095.26	1,095.26	1,095.26	1,095.26	
Cumulative repayments of Normative loan upto previous year	879.48	911.76	944.04	976.32	1,008.60	
Net normative loan-Opening	215.78	183.50	151.22	118.94	86.66	
Addition in normative loan towards the ACE	0.00	0.00	0.00	0.00	0.00	
Adjustment of normative gross loan pertaining to the decapitalised asset	0.00	0.00	0.00	0.00	0.00	
Normative repayments of normative loan during the year	32.28	32.28	32.28	32.28	32.28	
Adjustment of cumulative repayment pertaining to the decapitalised asset	0.00	0.00	0.00	0.00	0.00	
Net normative loan - closing	183.50	151.22	118.94	86.66	54.38	
Average normative loan	199.64	167.36	135.08	102.80	70.52	
Weighted Average Rate of interest on actual loan	9.0532	9.1079	9.0586	8.5945	7.8909	
Interest on normative loan	18.07	15.24	12.24	8.84	5.56	
Pro rata interest on normative loan	18.07	15.24	12.24	8.84	5.56	

# Calculation of Depreciation Rate on Original Project Cost

Form No. - 10

Name of the T	ransmission Licensee	tion of India Limite	ed						
Project	ect Installation of 2nd 315 (3x105) MVA , 400/220 kV transformer at Indravati (OHPC) switchyard								
Element Description	Installation of 2nd 315 (3v105) MVA 400/220 kV transformer at Indravati (OHPC) switchvard								
Region	Eastern Region		DOCO Date	May 1, 2006					

(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	1,501.42	0.00	1,501.42	1,501.42	5.28	32.28
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	1,501.42	0.00	1,501.42	1,501.42	0.00	32.28
Weighted Average Rate of Depreciation(%)			-		2.149965	

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

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0139001 : Truing Up: Installation of 2nd 315 (3x105, M/A , 400/22 ky trans

WA, 400/22 k (transform) at horavati (OHPC) switchyar

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	1,501.42	0.00	1,501.42	1,501.42	5.28	32.28
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	1,501.42	0.00	1,501.42	1,501.42	0.00	32.28
Weighted Average Rate of Depreciation(%)					2.149965	

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	1,501.42	0.00	1,501.42	1,501.42	5.28	32.28
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	1,501.42	0.00	1,501.42	1,501.42	0.00	32.28
Weighted Average Rate of Depreciation(%)					2.149965	RIDA

Page 2 of 4

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	1,501.42	0.00	1,501.42	1,501.42	5.28	32.28
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	1,501.42	0.00	1,501.42	1,501.42	0.00	32.28
Weighted Average Rate of Depreciation(%)					2.149965	

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	1,501.42	0.00	1,501.42	1,501.42	5.28	32.28
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	1,501.42	0.00 age 3 of 4	1,501.42	1,501.42	ONE 0.00	32.28

0139001 : Truing Up: Installation of 2nd 315 (3x105) VA 400/220 Tayleformer II atti (OHPC) Chyar

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Weighted Average Rate of	
Depreciation(%)	2.149965

(Petitioner)

Name of the Transmission Licensee Power Grid Corpor			oration of India Limit	ed
Project	Installation of 2nd 315	(3x105) MVA , 400/	/220 kV transformer	at Indravati (OHPC) switchyard
Element Description	Installation of 2nd 315	(3x105) MVA , 400/	/220 kV transformer	at Indravati (OHPC) switchyard
Region	Eastern Region		DOCO Date	May 1, 2006

Particulars				(Amount in F	Rs. Lakh)
raruculars	2019-20	2020-21	2021-22	2022-23	2023-24
No of Days in the year	366.00	365.00	365.00	365.00	366.00
No of days for which tariff claimed	366.00	365.00	365.00	365.00	366.00
Life at the beginning of the year		\			
1.1 Weighted Average useful life of the Asset/ Project	0.00	0.00	0.00	0.00	0.00
1.2 Lapsed Weighted Average useful life of the Asset/Project(in completed no. of year)	12.00	13.00	14.00	15.00	16.00
1.3 Balance Weighted Average useful life of the Asset/Project(in completed no. of year)	0.00	0.00	0.00	0.00	0.00
Capital Base			I		
1.4 Opening capital cost	1,501.42	1,501.42	1,501.42	1,501.42	1,501.42
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	1,501.42	1,501.42	1,501.42	1,501.42	1,501.42
1.8 Average capital cost	1,501.42	1,501.42	1,501.42	1,501.42	1,501.42
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 n 1.8	0.00	0.00	0.00	0.00	0.00
1.11 Asset having 10% salvage value included n 1.8	1,501.42	1,501.42	1,501.42	1,501.42	1,501.42
1.12 Depreciable Value(1.10+90% of 1.11)	1,351.28	1,351.28	1,351.28	1,351.28	1,351.28
Depreciation for the period and Cum. Depreciation		4			
.13 Weighted Average Rate of depreciation	2.149965	2.149965	2.149965	2.149965	2.149965

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0139001 : Truing Up: Installation of 2nd 315 (3x105) MVV 40022 VALUE onsfo

MVA 400/22 MV transformer at Indravati (OFIPC) switchyal

1.14 Depreciation(for the period)	32.28	32.28	32.28	32.28	32.28
1.15 Depreciation(Annualised)	32.28	32.28	32.28	32.28	32.28
Unrecovered Depreciation for DECAP	0.00	0.00	0.00	0.00	0.00
1.16 Cumulative depreciation at the beginning of the period	931.64	963.92	996.20	1,028.48	1,060.76
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	963.92	996.20	1,028.48	1,060.76	1,093.04

(Petitioner)



# Calculation of interest on working Capital

Name of the T	Fransmission Licensee	Power Grid Corpora	ation of India Limite	ed
Project	Installation of 2nd 315 (3)	(105) MVA , 400/220	kV transformer a	t Indravati (OHPC) switchyard
Element Description	Installation of 2nd 315 (3x	(105) MVA , 400/220	kV transformer a	t Indravati (OHPC) switchyard
Region	Eastern Region		DOCO Date	May 1, 2006

(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	37.29	37.73	38.06	38.46	38.90
Total Working capital	76.35	78.20	79.95	81.86	83.75
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	9.20	8.80	8.39	8.60	10.05
Pro rata interest on working capital	9.20	8.80	8.39	8.60	10.05

(Petitioner)



#### Form No. - 1

# **Summary of Tariff**

Name of the	Transmission Licensee:	Power Grid Corporation	on of India Limited	
Project	Installation of 2nd 315	(3x105) MVA , 400/220	kV transformer at	Indravati (OHPC) switchyard
Element Description	Installation of 2nd 315	(3x105) MVA , 400/220	kV transformer at l	Indravati (OHPC) switchyard
Region	Eastern Region		DOCO Date	May 1, 2006

(Amount in Rs. Lakh)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Year Days	365.00	365.00	365.00	366.00	365.00
Tariff Days	365.00	365.00	365.00	366.00	365.00
Depreciation-Form No. 10A	32.28	32.28	32.28	32.28	32.28
Interest on Loan-Form No. 9E	3.02	0.87	0.00	0.00	0.00
Return on Equity-Form No. 8	76.28	76.28	76.28	76.28	76.28
Int. on Working capital-Form No.11	7.38	7.65	7.95	8.26	8.64
Op. and maintenance-Form No.2	132.73	139.77	146.96	154.61	163.02
Total AFC	251.69	256.85	263.47	271.43	280.22



# 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 Tr	ansmission Licensee	Power Grid Corporation of India Limited		
Project	Installation of 2nd 315 (	3x105) MVA , 400/220 kV transformer at li	ndravati (OHPC) sw	ritchyard
Element Description	Installation of 2nd 315 (	3x105) MVA , 400/220 kV transformer at li	ndravati (OHPC) sw	vitchyard
Region	Eastern Region		DOCO Date	May 1, 2006

#### 1. Transmission Lines

Summary:

(Amount in Rs. Lakh)



#### 2. Sub Station

	Type of	Voltage	No. of Transfor ms/		No.	of Bays			//VA/MV	AR Cap	acity	Date of	i pı	overed n the resent etition
Name of Sub-station	Substation	Level KV	Reactor/ SVC etc. (with capacity)	765 KV	400 KV	220 KV	132 KV	765 KV	400 KV	220 KV	132 KV	Comm. operation		If No, Petitio n No.
Indravati:220KV BAY OF ICT INDRAVATI (OHPC)	Conventio nal	220 KV				1.000						May 1, 2006	Υ	
Indravati:400KV BAY OF ICT INDRAVATI (OHPC)		400 KV			1.000							May 1, 2006	Υ	
Indravati:315 MVA ICT AT INDRAVATI (OHPC)	Conventio nal	400 KV	1.000						315.00			May 1, 2006	Υ	

## Summary:

2024-25	2025-26	2026-27	2027-28	2028-29
		115		
29.53	31.08	32.71	34.43	36.23
1.00	1.00	1.00	1.00	1.00
29.53	31.08	32.71	34.43	36.23
		*		)
20.67	21.75	22.90	24.10	25.36
1.00	1.00	1.00	1.00	1.00
20.67	21.75	22.90	24.10	25.36
	29.53 1.00 29.53 20.67 1.00	29.53 31.08 1.00 1.00 29.53 31.08 20.67 21.75 1.00 1.00	29.53 31.08 32.71 1.00 1.00 1.00 29.53 31.08 32.71 20.67 21.75 22.90 1.00 1.00 1.00	29.53     31.08     32.71     34.43       1.00     1.00     1.00     1.00       29.53     31.08     32.71     34.43       20.67     21.75     22.90     24.10       1.00     1.00     1.00     1.00

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0139001 : Installation of 2nd 315 (3x105) MVA , 400/220 kV transformer at Indravati (OHPC) switchyard

400KV SUB-STATION ICT					
Normative Rate of O&M as per Regulation	0.262	0.276	0.29	0.305	0.322
No. of Units	1.00	1.00	1.00	1.00	1.00
O&M Claimed	82.53	86.94	91.35	96.08	101.43



Particular	2024-25	2025-26	2026-27	2027-28	2028-29
A) Normative O&M					
Transmission Line	0.00	0.00	0.00	0.00	0.00
Substation	132.73	139.77	146.96	154.61	163.02
Communication System	. 0.00	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	0.00
*Actual Capital Spare consumed	0.00	0.00	0.00	0.00	0.00
*Insurance Premium Paid	0.00	0.00	0.00	0.00	0.00
Total O&M	132.73	139.77	146.96	154.61	163.02

Petitioner)

# Normative parameters considered for tariff computations

Name of the Transmission Licensee Power Grid Corpo			tion of India Limited				
Project	Installation of 2nd 315 (3	x105) MVA , 400/220	kV transformer at	Indravati (OHPC) switchyard			
Element Description	inctaliation of and 315 /32105) MVA ADD/270 KV transformer at indravati (CHPC) switchvard						
Region	Eastern Region		DOCO Date	May 1, 2006			

(Amount in Rs. Lakh)

Particulars	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
Base Rate of Return of Equity (in %)						
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)					•	
765 kV	51.68	41.34	43.51	45.79	48.20	50.73
400 kV	36.91	29.53	31.08	32.71	34.43	36.23
220 kV	25.84	20.67	21.75	22.90	24.10	25.36
132 kV and below	18.46	15.78	16.61	17.48	18.40	19.35
Norms for Transformers (Rs Lakh per MVA)					1	
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)						
765 kV	0.00	0.262	0.276	0.29	0.305	0.322
400 kV	0.00	0.262	0.276	0.29	CO1305	0.322

Page 1 of 2

93 0139001 | Installation of 2nd 315 (3x105) MVA , 400/220 kV tra

0.00	0.262	0.276	0.29	0.305	0.322
0.00	0.262	0.276	0.29	0.305	0.322
1.011	0.861	0.906	0.953	1.003	1.056
0.867	0.738	0.776	0.817	0.86	0.905
0.578	0.492	0.518	0.545	0.573	0.603
0.289	0.246	0.259	0.272	0.287	0.302
1.517	1.291	1.359	1.43	1.506	1.585
1.011	0.861	0.906	0.953	1.003	1.056
0.433	0.369	0.388	0.409	0.43	0.453
2.662	2.266	2.385	2.51	2.642	2.781
1.773	1.509	1.588	1.671	1.759	1.851
		,		*/	1,1
0.00	1.04	1.10	1.16	1.22	1.28
0.00	2.07	2.18	2.30	2.42	2.55
0.00	1.83	1.92	2.03	2.13	2.24
	0.867 0.578 0.289 1.517 1.011 0.433 2.662 1.773 0.00	0.00     0.262       1.011     0.861       0.867     0.738       0.578     0.492       0.289     0.246       1.517     1.291       1.011     0.861       0.433     0.369       2.662     2.266       1.773     1.509       0.00     1.04       0.00     2.07	0.00     0.262     0.276       1.011     0.861     0.906       0.867     0.738     0.776       0.578     0.492     0.518       0.289     0.246     0.259       1.517     1.291     1.359       1.011     0.861     0.906       0.433     0.369     0.388       2.662     2.266     2.385       1.773     1.509     1.588       0.00     1.04     1.10       0.00     2.07     2.18	0.00       0.262       0.276       0.29         1.011       0.861       0.906       0.953         0.867       0.738       0.776       0.817         0.578       0.492       0.518       0.545         0.289       0.246       0.259       0.272         1.517       1.291       1.359       1.43         1.011       0.861       0.906       0.953         0.433       0.369       0.388       0.409         2.662       2.266       2.385       2.51         1.773       1.509       1.588       1.671         0.00       1.04       1.10       1.16         0.00       2.07       2.18       2.30	0.00       0.262       0.276       0.29       0.305         1.011       0.861       0.906       0.953       1.003         0.867       0.738       0.776       0.817       0.86         0.578       0.492       0.518       0.545       0.573         0.289       0.246       0.259       0.272       0.287         1.517       1.291       1.359       1.43       1.506         1.011       0.861       0.906       0.953       1.003         0.433       0.369       0.388       0.409       0.43         2.662       2.266       2.385       2.51       2.642         1.773       1.509       1.588       1.671       1.759         0.00       1.04       1.10       1.16       1.22         0.00       2.07       2.18       2.30       2.42



## **Calculation of ROE**

Name of the	Transmission Licensee	Power Grid Corporation	on of India Limited	I			
Project	Installation of 2nd 315 (	3x105) MVA , 400/220	kV transformer a	t Indravati (OHPC) switchyard			
Element Description	Installation of 2nd 315 (3y105) MVA 400/220 kV transformer at Indravati (OHPC) switchvard						
Region	Eastern Region		DOCO Date	May 1, 2006			

(Amount in Rs. Lakh)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
No. of Days in the year	365.00	365.00	365.00	366.00	365.00
No. of days for which tariff claimed	365.00	365.00	365.00	366.00	365.00
Opening Normative Equity	406.16	406.16	406.16	406.16	406.16
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)	406.16	406.16	406.16	406.16	406.16
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	406.16	406.16	406.16	406.16	406.16
Average Normative Equity	406.16	406.16	406.16	406.16	406.16
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	76.28	76.28	76.28	76.28	76.28
Return on Equity	76.28	76.28	76.28	76.28	76.28

(Petitioner)

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0139001 : Installation of 2nd 315 (3x105) MVA , 400

#### Calculation of WAR of interest on actual loan

Name of the T	ransmission Licensee	Power Grid Corporation	on of India Limited	ŀ			
Project	Installation of 2nd 315 (	(3x105) MVA , 400/220	kV transformer a	t Indravati (OHPC) switchyard			
Element Description	Inctallation of 2nd 31k /3V11lk) MV/A All(1/2/11 kV/ transformer of Indravati // HHZC) cuitchuard						
Region	Eastern Region		DOCO Date	May 1, 2006			

(Amount in Rs. Lakh)

	(Allouit III No. Laki)					
Particulars	2024-25	2025-26	2026-27	2027-28	2028-29	
BOND XV -DOCO 01-MAY-2006						
Gross Loan- Opening	130.00	130.00	130.00	130.00	130.00	
Cumulative repayments of Loans upto previous year	130.00	130.00	130.00	130.00	130.00	
Net loan-Opening	0.00	0.00	0.00	0.00	0.00	
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00	
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00	
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00	
Average Net Loan	0.00	0.00	0.00	0.00	0.00	
Rate of Interest on Loan on Annual Basis	6.68	6.68	6.68	6.68	6.68	
Interest on loan	0.00	0.00	0.00	0.00	0.00	

BOND XVI -DOCO 01-MAY-2006					
Gross Loan- Opening	304.00	304.00	304.00	304.00	304.00
Cumulative repayments of Loans upto previous year	304.00	304.00	304.00	304.00	304.00
Net loan-Opening	0.00	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00

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0139001 Installation of 2nd 315 (3x105) MVA , 400/22

at necaval (OHPC) witchyan

Average Net Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	7.10	7.10	7.10	7.10	7.10
Interest on loan	0.00	0.00	0.00	0.00	0.00

BOND XVII -DOCO 01-MAY-2006					
Gross Loan- Opening	440.00	440.00	440.00	440.00	440.00
Cumulative repayments of Loans upto previous year	440.00	440.00	440.00	440.00	440.00
Net loan-Opening	0.00	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Net Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	7.39	7.39	7.39	7.39	7.39
Interest on loan	0.00	0.00	0.00	0.00	0.00

BOND XVIII -DOCO 01-MAY-2006					
Gross Loan- Opening	80.00	80.00	80.00	80.00	80.00
Cumulative repayments of Loans upto previous year	80.00	80.00	80.00	80.00	80.00
Net loan-Opening	0.00	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Net Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	8.15	8.15	8.15	8.15	8.15
Interest on loan	0.00	0.00	0.00	0.00	0.00

BOND XXIV -ADDCAP FOR 2006-2007					
Gross Loan- Opening	20.39	20.39	20.39	20.39	20.39
Cumulative repayments of Loans upto previous year	20.39	20.39	20.39	20.39	20.39
Net loan-Opening	0.00	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Net Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	9.95	9.95	9.95	9.95	9.95
Interest on loan	0.00	0.00	0.00	0.00	0.00

BOND XXVII -ADDCAP FOR 2007-2008					
Gross Loan- Opening	85.00	85.00	85.00	85.00	85.00
Cumulative repayments of Loans upto previous year	85.00	85.00	85.00	85.00	85.00
Net loan-Opening	0.00	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Net Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	9.47	9.47	9.47	9.47	9.47
Interest on loan	0.00	0.00	0.00	0.00	0.00

BOND 58 -ADD CAP LOAN 1					
Gross Loan- Opening	4.40	4.40	4.40	4.40	4.40
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	4.40	4.40
Net loan-Opening	4.40	4.40	4.40	0.00	0.00

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0.00	0.00	0.00	0.00	0.00
0.00	0.00	4.40	0.00	0.00
4.40	4.40	0.00	0.00	0.00
4.40	4.40	2.20	0.00	0.00
7.89	7.89	7.89	7.89	7.89
0.3472	0.3472	0.1736	0.00	0.00
	0.00 4.40 4.40 7.89	0.00     0.00       4.40     4.40       4.40     4.40       7.89     7.89	0.00     0.00     4.40       4.40     4.40     0.00       4.40     4.40     2.20       7.89     7.89     7.89	0.00     0.00     4.40     0.00       4.40     4.40     0.00     0.00       4.40     4.40     2.20     0.00       7.89     7.89     7.89     7.89

# Summary

Gross Loan- Opening	1,063.79	1,063.79	1,063.79	1,063.79	1,063.79
Cumulative repayments of Loans upto previous year	1,059.39	1,059.39	1,059.39	1,063.79	1,063.79
Net loan-Opening	4.40	4.40	4.40	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	4.40	0.00	0.00
Net Loan-Closing	4.40	4.40	0.00	0.00	0.00
Average Net Loan	4.40	4.40	2.20	0.00	0.00
Rate of Interest on Loan on Annual Basis	7.8909	7.8909	7.8909	7.8909	7.8909
Interest on loan	0.3472	0.3472	0.1736	0.00	0.00



## Calculation of interest on Normative loan

Name of the	Fransmission Licensee	Power Grid Corporati	Corporation of India Limited						
Project	Installation of 2nd 315 (3x105) MVA , 400/220 kV transformer at Indravati (OHPC) switchyard								
Element Description	Installation of 2nd 315 (3x105) MVA , 400/220 kV transformer at Indravati (OHPC) switchyard								
Region	Eastern Region		DOCO Date	May 1, 2006					

(Amount in Rs. Lakh)

2024-25	2025-26	2026-27	2027-28	2028-29
365.00	365.00	365.00	366.00	365.00
365.00	365.00	365.00	366.00	365.00
1,095.26	1,095.26	1,095.26	1,095.26	1,095.26
1,040.88	1,073.16	1,095.26	1,095.26	1,095.26
54.38	22.10	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00
32.28	22.10	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00
22.10	0.00	0.00	0.00	0.00
38.24	11.05	0.00	0.00	0.00
7.8909	7.8909	7.8909	7.8909	7.8909
3.02	0.87	0.00	0.00	0.00
3.02	0.87	0.00	0.00	0.00
	365.00 365.00 1,095.26 1,040.88 54.38 0.00 0.00 32.28 0.00 22.10 38.24 7.8909 3.02	365.00       365.00         365.00       365.00         1,095.26       1,095.26         1,040.88       1,073.16         54.38       22.10         0.00       0.00         32.28       22.10         0.00       0.00         22.10       0.00         38.24       11.05         7.8909       7.8909         3.02       0.87	365.00       365.00       365.00         365.00       365.00       365.00         1,095.26       1,095.26       1,095.26         1,040.88       1,073.16       1,095.26         54.38       22.10       0.00         0.00       0.00       0.00         0.00       0.00       0.00         32.28       22.10       0.00         0.00       0.00       0.00         22.10       0.00       0.00         38.24       11.05       0.00         7.8909       7.8909       7.8909         3.02       0.87       0.00	365.00       365.00       365.00       366.00         365.00       365.00       366.00         1,095.26       1,095.26       1,095.26         1,040.88       1,073.16       1,095.26         54.38       22.10       0.00       0.00         0.00       0.00       0.00       0.00         0.00       0.00       0.00       0.00         32.28       22.10       0.00       0.00         0.00       0.00       0.00       0.00         22.10       0.00       0.00       0.00         38.24       11.05       0.00       0.00         7.8909       7.8909       7.8909       7.8909         3.02       0.87       0.00       0.00

Name of the	Fransmission Licensee	d							
Project	Installation of 2nd 315 (3x105) MVA , 400/220 kV transformer at Indravati (OHPC) switchyard								
Element Description	Installation of 2nd 315 (3y105) M//A - 400/220 kV/ transformer at Indravati (OHPC) switchvard								
Region	Eastern Region		DOCO Date	May 1, 2006					

(Amount in Rs. Lakh)

Name of Assets	Gross block at the beginning of the year	Add Cap during the year	Gross block at the end of the year	Average Gross Block	Depreciation Rate as per CERC's Depreciation Rate Schedule	Depreciation Amount for each year upto 31.03.2029
2024-25					41	
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	1,501.42	0.00	1,501.42	1,501.42	5.28	32.28
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	1,501.42	0.00	1,501.42	1,501.42	0.00	32.28
Weighted Average Rate of Depreciation(%)					2.149965	

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

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0139001 : Installation of 2nd 315 (3x105) MVA , 400/22016

VA, 400/220 V transformer at regration (C) PC) switchyard

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	1,501.42	0.00	1,501.42	1,501.42	5.28	32.28
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	1,501.42	0.00	1,501.42	1,501.42	0.00	32.28
Weighted Average Rate of Depreciation(%)					2.149965	

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	1,501.42	0.00	1,501.42	1,501.42	5.28	32.28
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	1,501.42	0.00	1,501.42	1,501.42	0.00	32.28
Weighted Average Rate of Depreciation(%)					2.149965	WES

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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	1,501.42	0.00	1,501.42	1,501.42	5.28	32.28
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	1,501.42	0.00	1,501.42	1,501.42	0.00	32.28
Weighted Average Rate of Depreciation(%)					2.149965	

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	1,501.42	0.00	1,501.42	1,501.42	5.28	32.28
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	1,501.42	0.00	1,501.42	1,501.42	0.00	32.28

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0139001 : Installation of 2nd 315 (3x105) MVA , 400/220 kV transformer at Ind

Weighted Average Rate of			2 440065	
Depreciation(%)			2.149965	



## **Statement of Depreciation**

Name of the T	ransmission Licensee	Power Grid Corporation of Indi	a Limited	
Project	Installation of 2nd 315 (	x105) MVA , 400/220 kV transi	ormer at l	Indravati (OHPC) switchyard
Element Description	Installation of 2nd 315 (	x105) MVA , 400/220 kV transi	ormer at l	Indravati (OHPC) switchyard
Region	Eastern Region	DOCO	ate	May 1, 2006

(Amount in Rs. Lakh)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
No of Days in the year	365.00	365.00	365.00	366.00	365.00
No of days for which tariff claimed	365.00	365.00	365.00	366.00	365.00
Life at the beginning of the year					-
1.1 Weighted Average useful life of the Asset/ Project	0.00	0.00	0.00	0.00	0.00
1.2 Lapsed Weighted Average useful life of the Asset/Project(in completed no. of year)	17.00	18.00	19.00	20.00	21.00
1.3 Balance Weighted Average useful life of the Asset/Project(in completed no. of year)	0.00	0.00	0.00	0.00	0.00
Capital Base					
1.4 Opening capital cost	1,501.42	1,501.42	1,501.42	1,501.42	1,501.42
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	1,501.42	1,501.42	1,501.42	1,501.42	1,501.42
1.8 Average capital cost	1,501.42	1,501.42	1,501.42	1,501.42	1,501.42
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	1,501.42	1,501.42	1,501.42	1,501.42	1,501.42
1.12 Depreciable Value(1.10+90% of 1.11)	1,351.28	1,351.28	1,351.28	1,351.28	1,351.28
Depreciation for the period and Cum.  Depreciation					
1.13 Weighted Average Rate of depreciation	2.149965	2.149965	2.149965	2.149965	2.149965
			-	1001	

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0139001 : Installation of 2nd 315 (3x105) MV . 430

(OHPC) switchya

1.14 Depreciation(for the period)	32.28	32.28	32.28	32.28	32.28
1.15 Depreciation(Annualised)	32.28	32.28	32.28	32.28	32.28
Unrecovered Depreciation for DECAP	0.00	0.00	0.00	0.00	0.00
1.16 Cumulative depreciation at the beginning of the period	1,093.04	1,125.32	1,157.60	1,189.88	1,222.16
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	1,125.32	1,157.60	1,189.88	1,222.16	1,254.44



# Calculation of interest on working Capital

Name of the	Transmission Licensee	Power Grid Corpora	ition of India Limite	ed
Project	Installation of 2nd 315 (3)	(105) MVA , 400/220	kV transformer at	: Indravati (OHPC) switchyard
Element Description	Installation of 2nd 315 (3)	(105) MVA , 400/220	kV transformer at	: Indravati (OHPC) switchyard
Region	Eastern Region		DOCO Date	May 1, 2006

(Amount in Rs. Lakh)

(Petitioner)

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	31.03	31.67	32.48	33.37	34.55
Total Working capital	62.00	64.29	66.77	69.44	72.59
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	7.38	7.65	7.95	8.26	8.64
Pro rata interest on working capital	7.38	7.65	7.95	8.26	8.64

(Petitionet) Ep

		Summary of issue involved in the	PART-III petition FORM- 15						
1. Nan	ne of the Pe	etitioner	Powergrid Corporation of India Ltd						
2. Petit	tion Catego	ory	Transmission						
3. Tarif	ff Period		2019-24 & 2024-29						
4. Nam	ne of the Pro	oject	Assets under 02nd 315 (3X105) MVA, 400/220 kV Transformer at Indravati (OHPC) Switchyard in Eastern Region						
5. Inve	stment App	roval date	NA						
6. SCC	D of the Pr	oject	NA						
7. Actu	al COD of t	the project	01.05.2006						
8. Whe	ther entire	scope is covered in the present petition.	Yes						
9. No.	of Assets c	overed in instant petition	01 nos						
10. No	of Assets	having time over run	NA						
11. Est	timated Pro	ject Cost as per IA	Rs. 1905.00 Lakh						
12. Is	there any R	EC? if so, provide the date	NA						
13. Re	vised Estim	ated Project Cost (if any)	NA						
14. Co	mpletion co	st for all the assets covered in the instant petition.	Rs. 1501.42 Lakh						
15. No	. of Assets	covered in instant petition and having cost overrun.	NA						
16	Prayer in	brief							
17	Key deta	ils and any Specific issue involved							
18	Respond	lents							
	Name of	Respondents							
	1	BSPHCL							
	2	JBVNL							
	3	WBSEDCL							
	4	DVC							
	5	Power Dept., Govt. of Sikkim							
	6	GRIDCO							

											PART-III		
		Summ	ary of Capital	Cost & Annua	I Fixed Cost (AF	C) Claimed	for ALL the	assets cove	red in the pres	sent petition.			
	he Petitioner				poration of India Lt	d							
Tariff P	eriod			2019-24									
Name of t	he Transmissio	n Project		Assets under 02nd 315 (3X105) MVA, 400/220 kV Transformer at Indravati (OHPC) Switchyard in Eastern Region									
COD of th	e Project (if entire	scope of project is	completed)	01.05.2006									
												Rupees in lakt	
4) Summa	ary of Capital Co	st as on COD a	nd Additional	Capital Expen	diture claimed fo	r all the as	sets Cover	ed in the insta	ınt petition.				
	Asset No.	COD	i) Apportion Cost	ed Approved	ii) Summary of	Actual / Pro	jected Cap	ital Cost				Capital Cost as	
S. No.			As per IA	As per RCE	As on COD/ as on 31.03.2019	2019-20	2020-21	2021-22	2022-23	2023-24	Capital Cost as on 31.03.2024	on Cut-off Date	
		1	2	3	4	5	6	7	8	9	11= (5+6+7+8+9+10)	12	
1	Asset-I	01.05.2006	1905.00	NA	1501.42	0	0	0	0	0	1501.42		
Total Cap	ital Cost Claime	d	1905.00	0.00	1501.42	0.00	0.00	0.00	0.00	0.00	1501.42		
3) Summa	ary of Trued-Up	Annual Fixed C	ost (AFC) clain	ned for all the	assets covered	n the insta	nt petition.						
S. No.	Asset No.		As	set Name and	its location			2019-20	2020-21	2021-22	2022-23	2023-24	
1	Asset-I		ssets under 02nd 315 (3X105) MVA, 400/220 kV Transformer at Indravati (OHPC witchyard in Eastern Region						306.05	308.72	311.99	316.39	
		Т	otal AFC for al	I the Assets				303.26	306.05	308.72	311.99	316.39	

											PART-III		
		Sumn	nary of Capital	Cost & Annua	Fixed Cost (AF	C) Claimed	for ALL the	assets cove	red in the pres	ent petition.			
Name of	the Petitioner			Powergrid Cor	poration of India Lt	d							
Tariff P				2024-29									
Name of	the Transmission	n Project		Assets under 02nd 315 (3X105) MVA, 400/220 kV Transformer at Indravati (OHPC) Switchyard in Eastern Region									
COD of th	ne Project (if entire	scope of project is	completed)	01.05.2006									
												Rupees in lak	
A) Summ	ary of Capital Co	st as on COD a	ind Additional (	Capital Expen	diture claimed fo	r all the as	sets Cover	ed in the inst	ant <b>petitio</b> n.				
		COD	i) Apportion Cost	ed Approved	ii) Summary of	Actual / Pro	ojected Cap	oital Cost				Capital Cost as	
S. No.	Asset No.	000	As per IA	As per RCE	As on COD/ as on 31.03,2024	2024-25	2025-26	2026-27	2027-28	2028-29	Capital Cost considered as on 31.03.2029	on Cut-off Date	
		1	2	3	4	5	6	7	8	9	11= (5+6+7+8+9+10)	12	
1	Asset-I	01.05.2006	1905.00	NA	1501.42	0	0	0	0	0	1501.42		
Total Cap	oital Cost Claime	d	1905.00	0.00	1501.42	0.00	0.00	0.00	0.00	0.00	1501.42		
B) Summ	ary of Annual Fix	(ed Cost (AFC)	claimed for all	the assets co	vered in the inst	ant petition							
S. No.	Asset No.		As	set Name and	lits location			2024-25	2025-26	2026-27	2027-28	2028-29	
1	Asset-I		02nd 315 (3X10 Eastern Region	K105) MVA, 400/220 kV Transformer at Indravati (OHPC) ion				251.69	256.85	263.47	271.43	280.22	
19		1	Total AFC for al	the Assets				251.69	256.85	263.47	271.43	280.22	

(Petitioner)

	INDEX  Checklist of Forms and other information/ documents for tariff filing for ransmission System& Communication System (2019-24 & 2024-29 periods)	
Form No.	Title of Tariff Filing Forms (Transmission& Communication System)	Tick
FORM- 1	Summary of Tariff	1
ORM- 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	1
FORM-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.	N.A.
FORM- 4A	Statement of Capital cost	N.A.
FORM- 4B	Statement of Capital Works in Progress	N.A.
FORM- 4C	Abstract of Capital Cost Estimates and Schedule of Commissioning for the New Project/Element	N.A.
FORM-5	Element wise Break-up of Project/Asset/Element Cost for Transmission System or Communication System	N.A.
FORLI FA		
FORM-5A	Break-up of Construction/Supply/Service packages	N.A.
FORM-5B	Details of all the assets covered in the project	N.A.
FORM- 6	Actual Cash Expenditure and Financial Package up to COD	N.A.
FORM-7	Statement of Additional Capitalisation after COD	N.A.
FORM- 7A	Financing of Additional Capitalisation	N.A.
FORM-7B	Statement of Additional Capitalisation during five year before the end of the useful life of the project.	N.A.
FORM-8	Calculation of Return on Equity	-
ORM-8A	Details of Foreign Equity	N.A.
ORM-9	Details of Allocation of corporate loans to various transmission elements	N.A.
FORM-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	-
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
FORM- 10A	Statement of Depreciation	-
ORM-10B	Statement of De-capitalisation	N.A.
ORM- 11	Calculation of Interest on Working Capital	
ORM- 12 ORM- 12A	Details of time over run Incidental Expenditure during Construction	N.A.
ORM- 12B	Calculation of IDC & Financing Charges	N.A.
ORM- 13	Details of Initial spares	N.A.
FORM- 14	Non-Tariff Income	N.A.
FORM- 15	Summary of issue involved in the petition	-
FORM A	Summary of Capital Cost & Annual Fixed Cost (AFC) Claimed for ALL	1
Other Information/ I S. No.	Information/Document	T
,, 140.	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.
	Copies of the approval of Competent Authority for the Capital Cost and Financial package.  Copies of the Equity participation agreements and necessary approval for the foreign equity.	N.A.
		N.A.
	Copies of the BPTA/TSA/PPA with the beneficiaries, if any  Detailed note giving reasons of cost and time over run, if applicable. List of supporting documents to be submitted:	N.A.
7	Detailed Project Report     CPM Analysis     PERT Chart and Bar Chart     d. Justification for cost and time Overrun	N.A.
3	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 fariff filing the latest available Cost Audit Report should be furnished.	N.A.
	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	N.A.
).	available information to them for submission of required information for tariff purpose.	