

**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 **Assets under “Rangit Transmission System” 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**

**Place:**

Petitioner

**Date:** 13.11.2024



(Zafrul Hasan)

General Manager (Commercial)



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

**GURGAON**

**DATED: 13.11.2024**

**REPRESENTED BY**



**(Zafrul Hasan)**

**General Manager (Commercial)**



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Vidyut Bhavan, Bailey Road,  
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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: 13.11.2024**

**REPRESENTED BY**



**(Zafrul Hasan)**

**General Manager (Commercial)**



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Patna – 800 001, Bihar.

Represented by its Chairman

**And others**

**MEMO OF PARTIES**

**Power Grid Corporation of India Ltd.**

--- PETITIONER

VERSUS

**Eastern Region**

--- RESPONDENTS

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



*WA*

2. 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.
3. 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
5. 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

**GURGAON**

**DATED: 13.11.2024**

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

  
**Zafrul Hasan**

**General Manager (Commercial)**



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Vidyut Bhavan, Bailey Road,  
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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
2. Shri Mohd. Mohsin, Chief GM (Commercial & Regulatory Cell), POWERGRID
3. Shri V.C. Sekhar, Sr. GM (Regulatory Cell)
4. **Shri Zafrul Hasan, GM (Commercial), POWERGRID**
5. Smt. Suchitra Rani Gautam, DGM (Commercial)
6. Shri. Arjun Malhotra, Manager (Law-Commercial)





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 13<sup>th</sup> date of Nov'2024.

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

**GURGAON**  
**DATED: 13.11.2024**

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



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**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 under “**Rangit Transmission System**” in Eastern Region for the following:

<b>Asset No</b>	<b>Asset Name</b>	<b>DOCO (Combined Notional)</b>	<b>Remarks</b>
<b>Asset-I</b>	Rangit Transmission System	01.12.1998	-



**(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 Period 2019-24				
				₹ in Lakhs
Asset No.	Apportioned Approved Cost as per FR	Expenditure Up to DOCO /31.03.2019	Expenditure during 2019-24 tariff block	Actual Cost as on 31.03.2024
			2019-24	
Asset-I	5075.00	4387.65	0.00	4387.65

Tariff Period 2024-29				
				₹ in Lakhs
Asset No.	Apportioned Approved Cost as per FR	Expenditure Up to 31.03.2024	Estimated Expenditure during 2024-29 tariff block	Total Estimated Cost as on 31.03.2029
			2024-29	
Asset-I	5075.00	4387.65	0.00	4387.65



5. It is prayed to the 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 For 2019-24 Block						
						₹ in Lakhs
Asset No	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Asset - I	Approved Tariff (approved vide CERC order 487/TT/2019)	565.16	567.50	569.94	573.20	576.48
	Revised tariff (claimed vide instant petition)	565.16	567.50	569.94	573.20	577.91

Tariff For 2024-29 Block					
					₹ in Lakhs
Asset No	2024-25	2025-26	2026-27	2027-28	2028-29
Asset - I	563.25	567.68	572.35	577.28	582.46

**B. DETAILED PETITION:**

**MOST RESPECTFULLY SHOWETH:**

**Issue wise submission(s):**

7. The Petitioner herein, Power Grid Corporation of India Ltd/ POWERGRID. is a Government Company within the meaning of the Companies Act, 1956. POWERGRID is a deemed transmission licensee under Section 14 of the Electricity Act 2003.



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

Asset No	Asset Name	DOCO (Combined Notional)	Remarks
Asset-I	Rangit Transmission System	01.12.1998	Covered under instant petition <i>(Earlier covered under Petition no. 487/TT/2019)</i>

**COST DETAILS:**

10. The capital cost of Rs. 4387.65 Lakhs for subject Asset-I has been admitted by Hon'ble commission vide order dated 07.07.2021 in petition no. 487/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. **Transmission tariff:**

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



Regulation 13 of Tariff Regulation 2019-24:

**Quote**

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

**Unquote**

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

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

**Quote**

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

**Unquote**

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

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



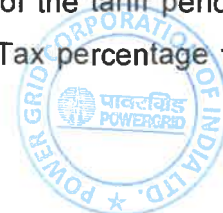
Financial Year	Basis considered	Total Tax & Interest paid (Rs)	Assessed MAT Income under Sec 115 JB (Rs)	Effective Tax percentage	Grossed up ROE (Base rate/(1-t))
2019-20	Assessment Order	24,52,62,76,991	1,40,37,47,53,855	17.472%	18.782%
2020-21	Assessment Order	26,08,93,59,008	1,49,32,09,65,036	17.472%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

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

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

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

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





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

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

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

<b>Truing-Up Tariff For 2019-24 Block</b>						
						<i>₹ in Lakhs</i>
<b>Asset No</b>	<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
<b>Asset-I</b>	Approved Tariff (approved vide CERC order 487/TT/2019)	565.16	567.50	569.94	573.20	576.48
	Revised tariff (claimed vide instant petition)	565.16	567.50	569.94	573.20	577.91

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



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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:

<b>Tariff For 2024-29 Block</b>					
					<i>₹ in Lakhs</i>
<b>Asset No</b>	<b>2024-25</b>	<b>2025-26</b>	<b>2026-27</b>	<b>2027-28</b>	<b>2028-29</b>
Asset-I	563.25	567.68	572.35	577.28	582.46

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 2009-14 and the remaining depreciable value has been spread 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



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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 was submitted in the petition vide Diary NO:677/2024.

These documents/details are also available on our website at the following link:

[https://apps.powergrid.in/cerc/docs/Western%20Region/2024/09/Khargone%20TPS/S\\_canned\\_petition\\_Khargone\\_TPS.pdf](https://apps.powergrid.in/cerc/docs/Western%20Region/2024/09/Khargone%20TPS/S_canned_petition_Khargone_TPS.pdf).



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.
- c) 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.
- d) Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 94 (1) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024, and other expenditure (if any) in relation to the filing of petition.



*Handwritten signature in blue ink.*



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

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



GURGAON

DATED: 13.11.2024

FILED BY  
POWER GRID CORPORATION OF INDIA LTD.

REPRESENTED BY

Zafrul Hasan  
General Manager (COMMERCIAL)





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

PETITION NO.: .....

**IN THE MATTER OF:**

**Subject matter:** Petition for truing up of Transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block for **Assets under “Rangit Transmission System” 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

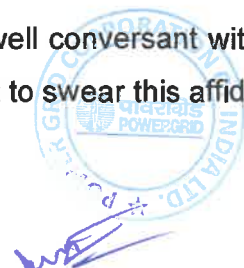
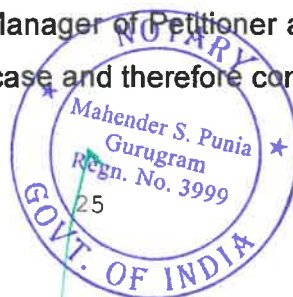
Vidyut Bhavan, Bailey Road,  
Patna – 800 001, Bihar.  
Represented by its Chairman

**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 13<sup>th</sup> day of Nov'2024 that the contents of the above affidavit are true to my knowledge and belief and no part of it is false and nothing material has been concealed there from.



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

13/11/2024

Ref: CC/Commercial/2024

Date: 28.08.2024

**LETTER OF AUTHORIZATION**


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

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

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

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



  
28/08/2024  
Dilip Nagesh Rozekar

Executive Director (Commercial & RC)

**दिलीप रोजेकर / DILIPROZEKAR**

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





**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 487/TT/2019**

**Coram:**

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

**Date of order: 07.07.2021**

**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 2001-04, 2004-09 and 2009-14 tariff periods and truing up of transmission tariff of 2014-19 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of 2019-24 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for **Asset-I:** Rangit-Melli Transmission Line of Rangit and Rangit-Rammam Transmission Line and **Asset-II:** 132 kV Rangit-Siliguri Transmission Line under Rangit Transmission System in Eastern Region.

**And in the matter of:**

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



**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,  
In Front of Main Secretariat,  
Doranda, Ranchi-834002.

*Page 28 to 68*

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

**Page 1 of 41**

 Order in Petition No. 487/TT/2019

5. Damodar Valley Corporation,  
DVC Tower, Maniktala,  
Civic Centre, VIP Road, Calcutta-700054.

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

.....Respondent(s)

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

**For Respondent:** 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 2001-04, 2004-09 and 2009-14 tariff periods; truing up of the capital expenditure for the period from 1.4.2014 to 31.3.2019 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as "the 2014 Tariff Regulations"); and determination of transmission tariff under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as "the 2019 Tariff Regulations") of the period from 1.4.2019 to 31.3.2024 in respect of **Asset-I:** Rangit-Melli Transmission Line of Rangit and Rangit-Rammam Transmission Line, and **Asset-II:** 132 kV Rangit-Siliguri Transmission Line (hereinafter referred to as "the transmission assets") under Rangit Transmission System in Eastern Region (hereinafter referred to as "the transmission system").

2. 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.

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2) Approve the tried 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 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.

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

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

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

7) Allow the petitioner to file a separate petition before Hon'ble Commission for claiming the overall security expenses and consequential IOWC on that security expenses as mentioned at para 10.5 above.

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

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

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

### 3. **Backdrop of the case:**

a) The execution of Rangit HEP (60 MW) with associated transmission system was approved by the Ministry of Power for ₹18116.00 lakh by letter dated 17.4.1990. Further, CEA vide its letter dated 31.10.1994 accorded techno-economic clearance to the DPR for the transmission system associated with Rangit HEP at an estimated cost of ₹3747.00 lakh, including an IDC of ₹138.00 lakh. The following works associated with Rangit HEP were included under the transmission System:



- i. Rangit-Siliguri 132 kV D/C transmission line;
- ii. Rangit-Rammam 132 kV S/C transmission line;
- iii. Rangit-Melli 66 kV S/C transmission line;
- iv. Extension of Bays at 132 kV Silliguri and Rammam Sub-stations;
- v. Extension of Bay at 66 kV Melli Sub-station.

b) In line with the powers delegated to the Board of Directors of Public Enterprises to sanction capital outlay, the investment approval of ₹5075.00 lakh for the transmission system was accorded by Board of Directors of the Petitioner company vide letter dated 2.2.1999. The following elements of the transmission system were declared under commercial operation:

- i. 66 kV Rangit-Melli S/C Transmission Line with associated bays at Rangit and Melli Sub-station - 1.4.1997;
- ii. 132 kV Rangit-Rammam S/C Transmission Line with associated bays at Rangit and Rammam Sub-stations - 1.1.1998.

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

d) The tariff of the two elements at sub-paragraph (b) above with capital cost of ₹1742 lakh was notified by the Ministry of Power vide notification dated 11.5.1999. The remaining assets of the transmission system i.e. Rangit-Silliguri 132 kV D/C Transmission Line along with associated bays was declared under commercial operation w.e.f. 1.12.1998 at a cost of ₹2788.85 lakh. The tariff of these assets was approved by the Commission vide order dated 7.6.2002 in Petition No. 65/2000 by considering the completion cost of ₹2788.85 lakh.

e) The transmission tariff for Assets-I and II was approved for the period from 1.4.2001 to 31.3.2004 vide order dated 6.8.2003 in Petition No. 62/2002. The transmission tariff for Assets-I and II was approved for the period from 1.4.2004 to 31.3.2009 vide order dated 17.1.2006 in Petition No. 118/2004. Transmission tariff for the period from 1.4.2009 to 31.3.2014 was approved vide order dated 13.1.2011 in Petition No. 169/2010. The tariff of the transmission assets for the 2009-14 tariff period was trued up and tariff for the period from 1.4.2014 to 31.3.2019 was determined vide order dated 26.11.2015 in Petition No. 224/TT/2014.

f) The Petitioner has sought revision of transmission tariff allowed for 2001-04 and 2004-09 tariff periods on account of change in Interest on Loan (IoL) and Interest on Working Capital (IWC) to the extent of revision in IoL and in Maintenance Spares in terms of the judgments of the Appellate Tribunal for Electricity (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. The Petitioner has sought consequential revision of transmission tariff allowed for 2009-14 tariff period, truing up of tariff of 2014-19 tariff period, and determination of transmission tariff for 2019-24 tariff period for the transmission assets.

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

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

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



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

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

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



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

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

m) The instant petition was heard on 18.5.2021 and in view of 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. Tariff period-wise transmission tariff is being re-worked based on the Tariff Regulations applicable for the respective tariff periods and suitable assumptions have been made at certain places and applied, which are indicated.

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

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

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

6. APTEL while dealing with the issue of computation of IoL, in judgment dated 22.1.2007 observed that IoL for the period from 1.4.1998 to 31.3.2001 shall be computed only on normative loan repayment as per its judgment dated 14.11.2006 in Appeal No. 94 of 2005 and Appeal No. 96 of 2005. APTEL vide its judgment dated

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

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

7. APTEL vide judgment dated 13.6.2007 in Appeal No. 139/2006 and others held that 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 2004-09 period are also required to be revised taking into consideration ACE after COD.

**Re: Depreciation**

8. As regards depreciation, 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 for deemed repayment of loan and accordingly directed the Commission to compute the outstanding loan afresh. In view of the above directions of APTEL, the outstanding loan allowed for the transmission assets for 2004-09 period is revised in the instant order.

9. The revision of tariff allowed for 2001-04 and 2004-09 tariff periods necessitates the revision of transmission tariff allowed for 2009-14 tariff period, which is also being done in the present order. The implementation of the directions APTEL vide 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 2001-04, 2004-09 and 2009-14 tariff periods. Therefore, we direct that the Petitioner will neither claim nor pay any carrying cost from or to the beneficiaries for the difference, if any, in the tariff allowed earlier and the tariff being allowed in the instant order. Further, the said difference in tariff shall be recovered/ paid over a period of six months from the date of issue of this order.

10. This order is issued considering the submissions made by the Petitioner in the petition vide affidavit dated 20.8.2019 and Petitioner's affidavit dated 30.7.2020 filed in compliance of Technical validation (TV) letter.

11. The hearing in this matter was held on 18.5.2021 through video conference and order was reserved. The Commission in Record of Proceeding (RoP) dated 18.5.2021 directed that the de-capitalization amount of ₹71.60 lakh pertaining to 132 kV AIS bays shall be taken into consideration for tariff determination. Having heard the representatives of the Petitioner and after perusal of the materials on record, we proceed to dispose of the petition.

### **Revision of Transmission Charges Allowed for 2001-04, 2004-09 and 2009-14**

#### **Tariff Periods**

##### **2001-04 Period**

12. The Commission vide order dated 6.8.2003 in Petition No. 62/2002 approved the following transmission charges for the transmission assets for 2001-04 tariff period:



(₹ in lakh)

Asset-I			
Particulars	2001-02	2002-03	2003-04
Depreciation	47.29	47.29	47.29
IoL	33.68	10.58	9.80
Return on Equity	128.32	128.32	128.32
Advance against Depreciation	31.04	0.00	0.00
IWC	9.52	8.76	9.05
O&M Expenses	78.07	82.76	87.72
<b>Total</b>	<b>327.93</b>	<b>277.70</b>	<b>282.18</b>

(₹ in lakh)

Asset-II			
Particulars	2001-02	2002-03	2003-04
Depreciation	73.36	73.36	73.36
IoL	52.89	16.71	15.48
Return on Equity	209.58	209.58	209.58
Advance against Depreciation	49.89	0.00	0.00
IWC	16.10	14.93	15.45
O&M Expenses	164.39	174.25	184.71
<b>Total</b>	<b>566.21</b>	<b>488.83</b>	<b>498.57</b>

13. The Petitioner has claimed the following revised transmission charges for the transmission assets for 2001-04 tariff period in the instant petition:

(₹ in lakh)

Asset-I			
Particulars	2001-02	2002-03	2003-04
Depreciation	47.29	47.29	47.29
IoL	33.68	10.58	9.80
Return on Equity	128.32	128.32	128.32
Advance against Depreciation	31.04	0.00	0.00
IWC	9.52	8.76	9.05
O&M Expenses	78.07	82.76	87.72
<b>Total</b>	<b>327.93</b>	<b>277.71</b>	<b>282.18</b>

(₹ in lakh)

Asset-II			
Particulars	2001-02	2002-03	2003-04
Depreciation	73.36	73.36	73.36
IoL	52.89	16.71	15.48
Return on Equity	209.58	209.58	209.58
Advance against Depreciation	49.89	0.00	0.00
IWC	16.10	14.93	15.45
O&M Expenses	164.39	174.25	184.71
<b>Total</b>	<b>566.21</b>	<b>488.84</b>	<b>498.58</b>

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

- a) Admitted capital cost as on 1.4.2001 vide order dated 6.8.2003 in Petition No. 62/2002 of ₹1742.00 lakh for Asset-I and ₹2788.85 lakh for Asset-II;
- b) Weighted Average Rate of Interest on actual loan derived/ adopted from order dated 6.8.2003 in Petition No. 62/2002;
- c) Weighted Average Rate of Depreciation, Rate of Interest for Working Capital and O & M Expenses as per order dated 6.8.2003 in Petition No. 62/2002;
- d) As there was no additional capital expenditure (ACE) during 2001-04 tariff period, there is no requirement to revise the maintenance spares component for calculating IWC.
- e) Admitted capital cost as on 31.3.2004 vide order dated 6.8.2003 in Petition No. 62/2002 for the transmission asset of ₹1742.00 lakh for Asset-I and ₹2788.85 lakh for Asset-II.

15. In view of the above, the revised transmission charges allowed for the transmission assets for 2001-04 tariff period are as follows:

(₹ in lakh)

<b>Asset-I</b>			
<b>Particulars</b>	<b>2001-02</b>	<b>2002-03</b>	<b>2003-04</b>
Depreciation	47.29	47.29	47.29
IoL	33.68	10.58	9.80
Return on Equity	128.32	128.32	128.32
Advance against Depreciation	31.04	0.00	0.00
IWC	9.52	8.76	9.05
O&M Expenses	78.07	82.76	87.72
<b>Total</b>	<b>327.93</b>	<b>277.70</b>	<b>282.18</b>

(₹ in lakh)

<b>Asset-II</b>			
<b>Particulars</b>	<b>2001-02</b>	<b>2002-03</b>	<b>2003-04</b>
Depreciation	73.36	73.36	73.36
IoL	52.89	16.71	15.48
Return on Equity	209.58	209.58	209.58
Advance against Depreciation	49.89	0.00	0.00
IWC	16.10	14.93	15.45
O&M Expenses	164.39	174.25	184.71
<b>Total</b>	<b>566.21</b>	<b>488.83</b>	<b>498.58</b>

16. The Annual Fixed Charges (AFC) allowed for 2001-04 period vide order dated 6.8.2003 in Petition No. 62/2002, revised AFC claimed in the instant petition and the revised AFC allowed in the instant order is as follows:

(₹ in lakh)

<b>Asset-I</b>			
<b>Particulars</b>	<b>2001-02</b>	<b>2002-03</b>	<b>2003-04</b>
AFC approved vide order dated 6.8.2003 in Petition No. 62/2002	327.93	277.70	282.18
AFC claimed by the Petitioner in the instant petition	327.92	277.71	282.18
AFC allowed in the instant order	327.93	277.70	282.18

(₹ in lakh)

<b>Asset-II</b>			
<b>Particulars</b>	<b>2001-02</b>	<b>2002-03</b>	<b>2003-04</b>
AFC approved vide order dated 6.8.2003 in Petition No. 62/2002	566.21	488.83	498.57
AFC claimed by the Petitioner in the instant petition	566.21	488.84	498.58
AFC allowed in the instant order	566.21	488.83	498.58

### **2004-09 Period**

17. The Commission vide order dated 17.1.2006 in Petition No. 118/2004 approved the following transmission charges for the transmission assets for 2004-09 tariff period:

(₹ in lakh)

<b>Asset-I</b>					
<b>Particulars</b>	<b>2004-05</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	47.29	47.29	37.57	37.57	37.57
IoL	6.33	1.94	0.00	0.00	0.00
Return on Equity	112.28	112.28	112.28	112.28	112.28
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
IWC	7.41	7.57	7.62	7.87	8.15
O&M Expenses	70.77	73.60	76.58	79.58	82.82
<b>Total</b>	<b>244.08</b>	<b>242.68</b>	<b>234.05</b>	<b>237.31</b>	<b>240.82</b>

(₹ in lakh)

<b>Asset-II</b>					
<b>Particulars</b>	<b>2004-05</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	73.36	73.36	64.00	64.00	64.00
IoL	10.06	3.13	0.00	0.00	0.00

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Return on Equity	183.38	183.38	183.38	183.38	183.38
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
IWC	11.13	11.35	11.49	11.86	12.26
O&M Expenses	97.78	101.69	105.86	109.93	114.48
<b>Total</b>	<b>375.71</b>	<b>372.91</b>	<b>364.73</b>	<b>369.17</b>	<b>374.12</b>

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

(₹ in lakh)

Asset-I					
Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	47.29	47.29	37.57	37.57	37.57
IoL	8.04	6.55	5.06	3.57	2.09
Return on Equity	112.28	112.28	112.28	112.28	112.28
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
IWC	7.45	7.66	7.71	7.95	8.20
O&M Expenses	70.77	73.60	76.58	79.58	82.82
<b>Total</b>	<b>245.83</b>	<b>247.38</b>	<b>239.20</b>	<b>240.95</b>	<b>242.95</b>

(₹ in lakh)

Asset-II					
Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	73.36	73.36	64.00	64.00	64.00
IoL	12.70	10.35	8.00	5.65	3.30
Return on Equity	183.38	183.38	183.38	183.38	183.38
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
IWC	11.20	11.50	11.66	11.99	12.35
O&M Expenses	97.78	101.69	105.86	109.93	114.48
<b>Total</b>	<b>378.42</b>	<b>380.28</b>	<b>372.90</b>	<b>374.95</b>	<b>377.52</b>

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

- The admitted capital cost of ₹1742.00 lakh for Asset-I and ₹2788.85 lakh for Asset-II as on 31.3.2009 has been approved by the Commission *vide* its order dated 17.1.2006 in Petition No. 118/2004.
- Weighted Average Rate of Interest on actual loan, Weighted Average Rate of Depreciation, Rate of IWC and O & M Expenses as per order dated 17.1.2006 in Petition No. 118/2004.





20. In view of the above, the revised transmission charges allowed for the transmission assets for 2004-09 tariff period are as follows:

(₹ in lakh)

<b>Asset-I</b>					
<b>Particulars</b>	<b>2004-05</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	47.29	47.29	37.57	37.57	37.57
IoL	8.04	6.55	5.06	3.57	2.08
Return on Equity	112.28	112.28	112.28	112.28	112.28
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
IWC	7.44	7.65	7.70	7.94	8.19
O&M Expenses	70.77	73.60	76.58	79.58	82.82
<b>Total</b>	<b>245.82</b>	<b>247.37</b>	<b>239.20</b>	<b>240.94</b>	<b>242.94</b>

(₹ in lakh)

<b>Asset-II</b>					
<b>Particulars</b>	<b>2004-05</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	73.36	73.36	64.00	64.00	64.00
IoL	12.70	10.35	8.00	5.65	3.30
Return on Equity	183.38	183.38	183.38	183.38	183.38
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
IWC	11.18	11.47	11.63	11.96	12.32
O&M Expenses	97.78	101.69	105.86	109.93	114.48
<b>Total</b>	<b>378.40</b>	<b>380.25</b>	<b>372.87</b>	<b>374.92</b>	<b>377.48</b>

21. AFC allowed for 2004-09 tariff period vide order dated 17.1.2006 in Petition No. 118/2004, revised AFC claimed in the instant petition and AFC allowed in the instant order are as follows:

(₹ in lakh)

<b>Asset-I</b>					
<b>Particulars</b>	<b>2004-05</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
AFC approved vide order dated 17.1.2006 in Petition No. 118/2004	244.08	242.68	234.05	237.31	240.82
AFC claimed by the Petitioner in the instant petition	245.83	247.38	239.20	240.95	242.95
AFC allowed in the instant order	245.82	247.37	239.20	240.94	242.94

(₹ in lakh)

<b>Asset-II</b>					
<b>Particulars</b>	<b>2004-05</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
AFC approved vide order dated 17.1.2006 in Petition No. 118/2004	375.71	372.91	364.73	369.17	374.12
AFC claimed by the Petitioner	378.42	380.28	372.90	374.95	377.52

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in the instant petition					
AFC allowed in the instant order	378.40	380.25	372.87	374.92	377.48

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

22. The Commission vide order dated 13.1.2011 in Petition No. 169/2010 approved the tariff for the transmission assets for 2009-14 tariff period which was trued-up vide order dated 26.11.2015 in Petition No. 224/TT/2014. The trued-up tariff approved vide order dated 26.11.2015 is as follows:

(₹ in lakh)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	238.81	238.81	88.59	88.59	88.59
IoL	0.00	0.00	0.00	0.00	0.00
Return on Equity	394.35	408.81	409.21	409.21	414.14
IWC	20.24	20.94	18.25	18.70	19.28
O&M Expenses	140.87	148.88	157.46	166.51	176.00
<b>Total</b>	<b>794.27</b>	<b>817.45</b>	<b>673.51</b>	<b>683.01</b>	<b>698.01</b>

23. The Petitioner has claimed the following revised transmission charges for the transmission assets for 2009-14 tariff period in the instant petition:

(₹ in lakh)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	238.81	238.81	88.59	88.59	88.59
IoL	1.74	0.00	0.00	0.00	0.00
Return on Equity	394.35	408.81	409.21	409.21	414.14
IWC	20.28	20.94	18.25	18.70	19.28
O&M Expenses	140.87	148.88	157.46	166.51	176.00
<b>Total</b>	<b>796.04</b>	<b>817.44</b>	<b>673.51</b>	<b>683.01</b>	<b>698.01</b>

24. We have considered the submissions of the Petitioner. The revised transmission tariff is allowed for the transmission assets on the basis of the following:

- a) Admitted capital cost of ₹4530.85 lakh as on 1.4.2009;
- b) Weighted Average Rate of Interest on actual loan and Weighted Average Rate of Depreciation considered from order dated 26.11.2015 in Petition No. 224/TT/2014.

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25. In view of the above, the revised transmission charges allowed for the transmission assets for 2009-14 tariff period is as follows:

(₹ in lakh)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	238.81	238.81	88.59	88.59	88.59
IoL	1.73	0.00	0.00	0.00	0.00
Return on Equity	394.35	408.81	409.21	409.21	414.14
IWC	20.28	20.94	18.25	18.70	19.28
O&M Expenses	140.87	148.88	157.46	166.51	176.00
<b>Total</b>	<b>796.05</b>	<b>817.44</b>	<b>673.51</b>	<b>683.01</b>	<b>698.01</b>

26. AFC allowed for 2009-14 tariff period vide order dated 26.11.2015 in Petition No. 224/TT/2014, revised AFC claimed in the instant petition and AFC allowed in the instant order are as follows:

(₹ in lakh)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
AFC allowed vide order dated 26.11.2015 in Petition No. 224/TT/2014	794.27	817.45	673.51	683.01	698.01
AFC claimed by the Petitioner in the instant petition	796.04	817.44	673.51	683.01	698.01
AFC allowed in the instant order	796.05	817.44	673.51	683.01	698.01

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

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

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	88.59	88.59	88.59	88.59	88.59
IoL	0.00	0.00	0.00	0.00	0.00
Return on Equity	414.45	416.36	416.14	416.14	417.26
IWC	20.49	20.83	21.13	21.44	21.80
O&M Expenses	161.24	166.61	172.19	177.83	183.82
<b>Total</b>	<b>684.77</b>	<b>692.39</b>	<b>698.05</b>	<b>704.00</b>	<b>711.47</b>

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

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(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	13.44	13.88	14.35	14.82	15.32
Maintenance Spares	24.19	24.99	25.83	26.67	27.57
Receivables	114.13	115.40	116.34	117.33	118.58
Total Working Capital	151.76	154.27	156.52	158.82	161.47
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
<b>IWC</b>	<b>20.49</b>	<b>20.83</b>	<b>21.13</b>	<b>21.44</b>	<b>21.80</b>

### **Capital Cost**

29. The Commission vide order 26.11.2015 in Petition No. 224/TT/2014 allowed capital cost as on 1.4.2014 of ₹4530.85 lakh and capital cost as on 1.4.2019 of ₹4387.67 lakh. No ACE in respect of the transmission assets is claimed for 2014-19 tariff period. The capital cost of the transmission assets has been calculated in accordance with Regulations 9(3) and 9(6) of the 2014 Tariff Regulations and the same is as follows:

(₹ in lakh)		
Admitted Capital Cost as on 1.4.2014	ACE during 2014-19 period	Admitted Capital Cost as on 1.4.2019
4530.85	0.00	4530.85

### **Decapitalisation**

30. The Commission through technical validation letter dated 17.7.2020 directed the Petitioner to confirm whether all the assets are currently in use and also to confirm whether there is any decapitalization. In response, the Petitioner has submitted that there was modification of 132 kV AIS bays into GIS bays at Siliguri Sub-station under ERSS-XII project and the modification done on 30.11.2016.

31. The Petitioner has not claimed decapitalisation while claiming tariff for 2014-19 and 2019-24 tariff period in the instant petition. However, the Petitioner has submitted Form-10B vide affidavit dated 30.7.2020.

32. During the hearing on 18.5.2021, the representative of the Petitioner submitted that the details of de-capitalisation have been submitted vide affidavit dated 30.7.2020 and that the same was not submitted in the original petition. He further submitted that the de-capitalization of 132 kV AIS bays was done during 2016-17 period for ₹71.60 lakh. The Commission in RoP for hearing dated 18.5.2021 noted that the Petitioner has not factored the de-capitalization amount in the tariff calculation submitted in the original petition and the same has to be taken into consideration for tariff determination. The decapitalisation details submitted by the Petitioner as per Form-10 B are as follows:

(₹ in lakh)

Year of decapitalisation	Work/ Equipment proposed to be replaced	Year of capitalisation of Asset/ Equipment to be decapitalised	Original book value of the asset to be decapitalised	Cumulative depreciation corresponding to decapitalisation date	Net book value
2016-17	SS 132 kV bay equipment	1.12.1998	71.60	54.39	17.21
2016-17	SS 132 kV bay equipment	1.12.1998	71.60	54.39	17.21

33. Accordingly, decapitalisation has been considered in the instant petition to determine tariff for 2014-19 tariff period and the same is as follows:

(₹ in lakh)

Admitted Capital Cost as on 31.3.2014	De-capitalisation in 2016-17	Admitted Capital Cost as on 31.3.2019
4530.85	143.20	4387.65

34. The admitted capital cost of ₹4530.85 lakh for the transmission assets as on 31.3.2014 has been considered for working out the true up of tariff for 2014-19 tariff period.

#### **Additional Capital Expenditure (ACE)**

35. The Petitioner has not claimed any ACE in 2014-19 tariff period.

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36. Accordingly, the capital cost considered for 2014-19 tariff period is as follows:

Capital cost allowed as on 1.4.2014	Net ACE 2014-2019					(₹ in lakh)
	2014-15	2015-16	2016-17	2017-18	2018-19	Capital Cost as on 31.3.2019
4530.85	0.00	0.00	(143.20)	0.00	0.00	4387.65

### Debt-Equity Ratio

37. The debt-equity ratio has been allowed in accordance with Regulation 19(3) of the 2014 Tariff Regulations that provides that the debt-equity ratio allowed by the Commission for determination of tariff for the period ending on 31.3.2014 shall be considered. The de-capitalisation in the instant case is carried out in the debt-equity ratio as on the date of capitalisation as per the details submitted by the Petitioner in Form-10B. Accordingly, the details of the debt-equity ratio as on 1.4.2014 and 31.3.2019 for the transmission assets is as follows:

Particulars	Capital Cost as on 1.4.2014 (₹ in lakh)	(%)	Decapitalisation during 2016-17 (₹ in lakh)	(%)	Total Capital Cost as on 31.3.2019 (₹ in lakh)	(%)
Debt	2419.02	53.39	76.45	53.39	2342.57	53.39
Equity	2111.83	46.61	66.75	46.61	2045.08	46.61
<b>Total</b>	<b>4530.85</b>	<b>100.00</b>	<b>143.20</b>	<b>100.00</b>	<b>4387.65</b>	<b>100.00</b>

### Depreciation

38. The transmission assets have already completed 12 years of life before 1.4.2014. Accordingly, depreciation has been calculated based on the remaining depreciable value to be recovered over the balance useful life. The depreciation allowed during the 2014-19 tariff period is as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
<b>Depreciation</b>					
Opening Gross Block	4530.85	4530.85	4530.85	4387.65	4387.65
ACE	0.00	0.00	0.00	0.00	0.00
De-capitalization	0.00	0.00	143.20	0.00	0.00
Closing Gross Block	4530.85	4530.85	4387.65	4387.65	4387.65

Average Gross Block	4530.85	4530.85	4459.25	4387.65	4387.65
WAROD (%)	1.96	1.96	1.90	2.00	2.00
Balance useful life of the asset (Year)	19	18	17	16	15
Elapsed Life of the asset (Year)	15	16	17	18	19
Depreciable Value	4077.77	4077.77	4013.33	3948.89	3948.89
<b>Depreciation during the year</b>	<b>88.59</b>	<b>88.59</b>	<b>84.80</b>	<b>87.57</b>	<b>87.57</b>
Cumulative depreciation at the end of the year	2483.14	2571.73	2547.75	2635.32	2722.89
Remaining Depreciable Value at the end of the year	1594.62	1506.03	1356.79	1313.56	1225.99

39. The details of depreciation approved vide order dated 26.11.2015 in Petition No. 224/TT/2014, depreciation claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 26.11.2015 in Petition No. 224/TT/2014	88.59	88.59	88.59	88.59	88.59
Claimed by the Petitioner in the instant petition	88.59	88.59	88.59	88.59	88.59
Allowed after true-up in this order	88.59	88.59	84.80	87.57	87.57

#### Interest on Loan (IoL)

40. The Petitioner has not claimed IoL during 2014-19 tariff period.

#### Return on Equity (RoE)

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

Year	Claimed effective tax rate (in %)	Grossed up RoE [(Base Rate)/(1-t)] (in %)
2014-15	21.018	19.625
2015-16	21.382	19.715
2016-17	21.338	19.705

2017-18	21.337	19.705
2018-19	21.549	19.758

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

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

43. The MAT rates as considered vide order dated 27.4.2020 in Petition No. 274/TT/2019 is considered for the purpose of grossing up of rate of RoE for truing up of tariff of 2014-19 period in terms of the provisions of the 2014 Tariff Regulations 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. The Petitioner has claimed RoE for the 2014-19 period after grossing up RoE of 15.50% with Effective Tax rates (based on MAT rates) each year as per the 2014 Tariff Regulation. RoE is trued up on the basis of the MAT rate applicable in the respective years and is allowed for the transmission assets as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	2111.83	2111.83	2111.83	2045.08	2045.08
Additions due to ACE	0.00	0.00	0.00	0.00	0.00
De-capitalisation	0.00	0.00	66.75	0.00	0.00
Closing Equity	2111.83	2111.83	2045.08	2045.08	2045.08
Average Equity	2111.83	2111.83	2078.46	2045.08	2045.08

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RoE (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50
MAT Rate for respective year (%)	20.961	21.342	21.342	21.342	21.549
Rate of RoE (%)	19.610	19.705	19.705	19.705	19.758
<b>RoE</b>	<b>414.13</b>	<b>416.14</b>	<b>409.56</b>	<b>402.98</b>	<b>404.07</b>

45. The details of RoE approved vide order dated 26.11.2015 in Petition No. 224/TT/2014, RoE 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
Approved vide order dated 26.11.2015 in Petition No. 224/TT/2014	414.14	414.14	414.14	414.14	414.14
Claimed by the Petitioner in the instant petition	414.45	416.36	416.14	416.14	417.26
Allowed after true-up in this order	414.13	416.14	409.56	402.98	404.07

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

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

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
4 Numbers 132 kV Sub-station Bays					
64.00 km S/C (Single Conductor)					
91.50 km D/C (Single Conductor)					
<b>Claimed by the Petitioner in the instant petition</b>	161.24	166.61	172.19	177.83	183.82

47. Regulation 29(3) of the 2014 Tariff Regulations specifies the norms for O&M Expenses for the transmission system. The norms specified in respect of the elements covered in the transmission assets are as follows:

Element	Norms for 2014-15	Norms for 2015-16	Norms for 2016-17	Norms for 2017-18	Norms for 2018-19
D/C (Single Conductor)	₹0.303 lakh/km	₹0.313 lakh/km	₹0.324 lakh/km	₹0.334 lakh/km	₹0.346 lakh/km
132 kV Sub-station	₹30.15 lakh/ bay	₹31.15 lakh/ bay	₹32.18 lakh/ bay	₹33.25 lakh/ bay	₹34.36 lakh/ bay
S/C (Single Conductor)	₹0.202 lakh/km	₹0.209 lakh/km	₹0.216 lakh/km	₹0.223 lakh/km	₹0.230 lakh/km

48. The Petitioner has de-capitalised two 132 kV AIS bays in 2016-17 and due to the decapitalisation, the O&M Expenses for the de-capitalised bays have been allowed only till the year of de-capitalisation i.e. 2016-17. The O&M Expenses for these two bays from the date of de-capitalisation shall be dealt in the petition where the Petitioner claims the tariff for conversion of AIS bays into GIS bays. The O&M Expenses allowed under Regulation 29(3) of the 2014 Tariff Regulations are as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
4 Numbers 132 kV sub-station Bays	120.60	124.60	96.54	66.50	68.72
64.00 km S/C (Single Conductor)	12.93	13.38	13.82	14.27	14.72
91.50 km D/C (Single Conductor)	27.72	28.64	29.65	30.56	31.66
<b>Total</b>	<b>161.25</b>	<b>166.62</b>	<b>140.01</b>	<b>111.33</b>	<b>115.10</b>

49. The details of O&M Expenses approved vide order dated 26.11.2015 in Petition No. 224/TT/2014, claimed by the Petitioner in the instant petition and trued up in the instant order are as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 26.11.2015 in Petition No. 224/TT/2014	161.25	166.62	172.19	177.83	183.82
Claimed by the Petitioner in the instant petition	161.24	166.61	172.19	177.83	183.82
Allowed after true-up in this order	161.25	166.62	140.01	111.33	115.10

#### Interest on Working Capital (IWC)

50. IWC has been worked out as per the methodology provided in Regulation 28 of the 2014 Tariff Regulations and trued up IWC allowed for the transmission assets for 2014-19 tariff period are as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses (O&M Expenses)	13.44	13.88	11.67	9.28	9.59



for 1 month)					
Maintenance Spares (15% of O&M Expenses)	24.19	24.99	21.00	16.70	17.26
Receivables (Equivalent to 2 months of annual fixed cost)	114.08	115.36	108.91	103.22	104.07
<b>Total Working Capital</b>	<b>151.70</b>	<b>154.24</b>	<b>141.58</b>	<b>129.20</b>	<b>130.93</b>
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
<b>IWC</b>	<b>20.48</b>	<b>20.82</b>	<b>19.11</b>	<b>17.44</b>	<b>17.67</b>

51. The details of IWC approved vide order dated 26.11.2015 in Petition No. 224/TT/2014, IWC claimed by the Petitioner in the instant petition and trued-up in the instant order are shown as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 26.11.2015 in Petition No. 224/TT/2014	20.48	20.78	21.08	21.40	21.73
Claimed by the Petitioner in the instant petition	20.49	20.83	21.13	21.44	21.80
Allowed after true-up in this order	20.48	20.82	19.11	17.44	17.67

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

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

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	88.59	88.59	84.80	87.57	87.57
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	414.13	416.14	409.56	402.98	404.07
IWC	20.48	20.82	19.11	17.44	17.67
O&M Expenses	161.25	166.62	140.01	111.33	115.10
<b>Total</b>	<b>684.45</b>	<b>692.16</b>	<b>653.48</b>	<b>619.33</b>	<b>624.41</b>

53. Accordingly, the annual transmission charges approved vide order dated 26.11.2015 in Petition No. 224/TT/2014, claimed by the Petitioner in the instant petition and approved after truing up in the instant order is as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 26.11.2015 in Petition No. 224/TT/2014	684.46	690.12	696.00	701.96	708.27
Claimed by the Petitioner in the instant petition	684.77	692.39	698.05	704.00	711.47
Allowed after true-up in this order	684.45	692.16	653.48	619.33	624.41

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

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

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	88.59	88.59	88.59	88.59	88.59
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	417.26	417.26	417.26	417.26	417.26
IWC	12.63	12.83	13.02	13.21	13.37
O&M Expenses	115.29	119.33	123.52	127.86	132.30
<b>Total</b>	<b>633.77</b>	<b>638.01</b>	<b>642.39</b>	<b>646.92</b>	<b>651.53</b>

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

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	9.61	9.94	10.29	10.66	11.03
Maintenance Spares	17.29	17.90	18.53	19.18	19.85
Receivables	77.92	78.66	79.20	79.76	80.11
Total Working Capital	104.82	106.50	108.02	109.60	110.99
Rate of Interest (%)	12.05	12.05	12.05	12.05	12.05
<b>IWC</b>	<b>12.63</b>	<b>12.83</b>	<b>13.02</b>	<b>13.21</b>	<b>13.37</b>

### 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:*

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



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

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

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

*Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.*

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

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

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

- (a) The assets forming part of the project, but not in use, as declared in the tariff petition;*
- (b) De-capitalised Assets after the date of commercial operation on account of replacement or removal on account of obsolescence or shifting from one project to another project:*

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

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

- (c) In case of hydro generating stations, any expenditure incurred or committed to be incurred by a project developer for getting the project site allotted by the State Government by following a transparent process;*
- (d) Proportionate cost of land of the existing project which is being used for generating power from generating station based on renewable energy; and*
- (e) Any grant received from the Central or State Government or any statutory body or authority for the execution of the project which does not carry any liability of repayment."*

57. The Petitioner has claimed capital cost of ₹4530.87 lakh as on 31.3.2019 for the transmission assets. The admitted capital cost as on 31.3.2019 is considered as the opening capital cost as on 1.4.2019 for determination of tariff in accordance with Regulation 19 of the 2019 Tariff Regulations.

58. The Petitioner has not projected any ACE during 2019-24 tariff period for the transmission assets. Accordingly, the capital cost considered for 2019-24 tariff period is as follows:

(₹ in lakh)		
Total Capital Cost as on 1.4.2019	ACE for 2019-24 period	Total Capital Cost as on 31.3.2024
4387.65	0.00	4387.65

### Debt-Equity Ratio

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

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

Provided that:

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

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

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

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

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

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

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

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

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

Particulars	Capital Cost as on 1.4.2019 (₹ in lakh)	(%)	Total Capital Cost as on 31.3.2024 (₹ in lakh)	(%)
Debt	2342.57	53.39	2342.57	53.39
Equity	2045.08	46.61	2045.08	46.61
<b>Total</b>	<b>4387.65</b>	<b>100.00</b>	<b>4387.65</b>	<b>100.00</b>

### Depreciation

61. Regulations 33(1), 33(2) and 33(5) of the 2019 Tariff Regulations provide as follows:

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

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

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





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

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

62. The depreciation has been worked out considering the admitted capital expenditure as on 31.3.2019 and accumulated depreciation up to 31.3.2019. The transmission assets have already completed more than 12 years before 1.4.2019. The depreciation allowed for the transmission assets for 2019-24 period is as follows:

	(₹ in lakh)				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	4387.65	4387.65	4387.65	4387.65	4387.65
Addition during the year 2019-24 due to projected ACE	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	4387.65	4387.65	4387.65	4387.65	4387.65
Average Gross Block	4387.65	4387.65	4387.65	4387.65	4387.65
WAROD (%)	1.99	1.99	1.99	1.99	1.99
Depreciable Value	3948.89	3948.89	3948.89	3948.89	3948.89
Cumulative Depreciation at the beginning (Year)	2722.89	2810.46	2898.03	2985.61	3073.18
Balance useful life of the Asset (Year)	14	13	12	11	10
Elapsed life (Year)	20	21	22	23	24
<b>Depreciation</b>	<b>87.57</b>	<b>87.57</b>	<b>87.57</b>	<b>87.57</b>	<b>87.57</b>
Remaining Depreciable Value at the end of the year	1138.42	1050.85	963.28	875.71	788.14

#### **Interest on Loan (IoL)**

63. The Petitioner has not claimed IoL during 2019-24 tariff period.

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

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

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

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

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*type hydro generating stations including pumped storage hydro generating stations and run-of river generating station with pondage:*

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

*Provided further that:*

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

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

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

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

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

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

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

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

*Rate of pre-tax return on equity = Base rate / (1-t)*

*Where "t" is the effective tax rate in accordance with clause (1) of this Regulation and shall be calculated at the beginning of every financial year based on the estimated profit and tax to be paid estimated in line with the provisions of the*



relevant Finance Act applicable for that financial year to the company on pro-rata basis by excluding the income of non-generation or non-transmission business, as the case may be, and the corresponding tax thereon. In case of generating company or transmission licensee paying Minimum Alternate Tax (MAT), "t" shall be considered as MAT rate including surcharge and cess.

**Illustration-**

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

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

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

- (a) Estimated Gross Income from generation or transmission business for FY 2019-20 is Rs 1,000 crore;
- (b) Estimated Advance Tax for the year on above is Rs 240 crore;
- (c) Effective Tax Rate for the year 2019-20 = Rs 240 Crore/Rs 1000 Crore = 24%;
- (d) Rate of return on equity =  $15.50 / (1 - 0.24) = 20.395\%$ .

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

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 assets for 2019-24 tariff period is as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	2045.08	2045.08	2045.08	2045.08	2045.08
Additions	0.00	0.00	0.00	0.00	0.00
Closing Equity	2045.08	2045.08	2045.08	2045.08	2045.08
Average Equity	2045.08	2045.08	2045.08	2045.08	2045.08
RoE (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year	17.472	17.472	17.472	17.472	17.472



(%)					
Rate of RoE (%)	18.782	18.782	18.782	18.782	18.782
RoE	384.11	384.11	384.11	384.11	384.11

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

66. The O&M Expenses claimed by the Petitioner for the transmission assets for 2019-24 tariff period are as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
4 Numbers 132 kV sub-station Bays	64.32	66.56	68.92	71.32	73.84
64.00 km S/C (Single Conductor)	16.13	16.64	17.28	17.86	18.50
91.50 km D/C (Single Conductor)	34.50	35.78	36.97	38.34	39.62
2% of PLCC (₹ 17.50 lakh)	0.35	0.35	0.35	0.35	0.35
<b>Total</b>	<b>115.29</b>	<b>119.33</b>	<b>123.52</b>	<b>127.86</b>	<b>132.30</b>

67. Regulations 35(3)(a) and 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
<b>Norms for sub-station Bays (₹ Lakh per bay)</b>					
765 kV	45.01	46.60	48.23	49.93	51.68
400 kV	32.15	33.28	34.45	35.66	36.91
220 kV	22.51	23.30	24.12	24.96	25.84
132 kV and below	16.08	16.64	17.23	17.83	18.46
<b>Norms for Transformers (₹ Lakh per MVA)</b>					
765 kV	0.491	0.508	0.526	0.545	0.564
400 kV	0.358	0.371	0.384	0.398	0.411
220 kV	0.245	0.254	0.263	0.272	0.282
132 kV and below	0.245	0.254	0.263	0.272	0.282
<b>Norms for AC and HVDC lines (₹ Lakh per km)</b>					
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.881	0.912	0.944	0.977	1.011
Single Circuit (Bundled conductor with four sub-conductors)	0.755	0.781	0.809	0.837	0.867

Single Circuit (Twin & Triple Conductor)	0.503	0.521	0.539	0.558	0.578
Single Circuit (Single Conductor)	0.252	0.260	0.270	0.279	0.289
Double Circuit (Bundled conductor with four or more sub- conductors)	1.322	1.368	1.416	1.466	1.517
Double Circuit (Twin & Triple Conductor)	0.881	0.912	0.944	0.977	1.011
Double Circuit (Single Conductor)	0.377	0.391	0.404	0.419	0.433
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.319	2.401	2.485	2.572	2.662
Multi Circuit (Twin & Triple Conductor)	1.544	1.598	1.654	1.713	1.773
<b>Norms for HVDC stations</b>					
HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)	834	864	894	925	958
Gazuwaka HVDC Back-to-Back station (₹ Lakh per 500 MW)	1,666	1,725	1,785	1,848	1,913
500 kV Rihand-Dadri HVDC bipole scheme	2,252	2,331	2,413	2,498	2,586
±500 kV Talcher- Kolar HVDC bipole scheme	2,468	2,555	2,645	2,738	2,834
±500 kV Bhiwadi-Balia HVDC bipole scheme	1,696	1,756	1,817	1,881	1,947
±800 kV, Bishwanath- Agra HVDC bipole	2,563	2,653	2,746	2,842	2,942

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

Provided further that:

- i. the operation and maintenance expenses for new HVDC bi-pole schemes commissioned after 1.4.2019 for a particular year shall be allowed pro-rata on the basis of normative rate of operation and maintenance expenses of similar HVDC bi-pole scheme for the corresponding year of the tariff period;
- ii. the O&M expenses norms for HVDC bi-pole line shall be considered as Double Circuit quad AC line;
- iii. the O&M expenses of ±500 kV Mundra-Mohindergarh HVDC bipole scheme

*(2000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±500 kV Talchar-Kolar HVDC bi-pole scheme (2000 MW);*

*iv. the O&M expenses of ±800 kV Champa-Kurukshetra HVDC bi-pole scheme (3000 MW) shall be on the basis of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme;*

*v. the O&M expenses of ±800 kV, Alipurduar-Agra HVDC bi-pole scheme (3000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme; and*

*vi. the O&M expenses of Static Synchronous Compensator and Static Var Compensator shall be worked at 1.5% of original project cost as on commercial operation which shall be escalated at the rate of 3.51% to work out the O&M expenses during the tariff period. The O&M expenses of Static Synchronous Compensator and Static Var Compensator, if required, may be reviewed after three year*

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

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

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

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

68. We have considered the submission of the Petitioner. The Petitioner has claimed O&M Expenses separately for PLCC under Regulation 35(4) of the 2019 Tariff Regulations @2% of its original project cost in the instant petition. The Petitioner has made similar claim in other petitions as well. Though PLCC is a communication system, it has been considered as part of the sub-station in the 2014 Tariff Regulations and the 2019 Tariff Regulations and the norms for sub-station have been specified accordingly. Accordingly, the Commission vide order dated 24.1.2021 in Petition No. 126/TT/2020 has already concluded that no separate O&M Expenses can be allowed for PLCC under Regulation 35(4) of the 2019 Tariff Regulations even



though PLCC is a communication system. Therefore, the Petitioner's claim for separate O&M Expenses for PLCC @2% is not allowed.

69. The O&M expenses allowed for the transmission assets is as follows:

	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
<b>O&amp;M Expenses</b>					
22 Numbers of 132 kV sub-station bays					
Norms (₹ lakh/Bay)	16.08	16.64	17.23	17.83	18.46
<b>Total</b>	<b>32.16</b>	<b>33.28</b>	<b>34.46</b>	<b>35.66</b>	<b>36.92</b>
64.00 km S/C (Single Conductor)					
Norms (₹ lakh/km)	0.252	0.26	0.27	0.279	0.289
<b>Total</b>	<b>16.13</b>	<b>16.64</b>	<b>17.28</b>	<b>17.86</b>	<b>18.50</b>
91.50 km D/C (Single Conductor)					
Norms (₹ lakh/km)	0.377	0.391	0.404	0.419	0.433
<b>Total</b>	<b>34.50</b>	<b>35.78</b>	<b>36.97</b>	<b>38.34</b>	<b>39.62</b>
<b>Total O&amp;M Expenses allowed (₹ in lakh)</b>	<b>82.78</b>	<b>85.70</b>	<b>88.71</b>	<b>91.85</b>	<b>95.04</b>

\* O&M for 2 Nos of AIS bays have not been considered in the instant petition and the same will be dealt in the petition where conversion of AIS bays into GIS bays is done.

### Interest on Working Capital (IWC)

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

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

*(1)...*

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

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

*“(3)Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2019 or as on 1st April of the year during the tariff period 2019-24 in which the generating station or a unit thereof or the*

transmission system including communication system or element thereof, as the case may be, is declared under commercial operation, whichever is later:

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

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

“3.Definitions ...

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

71. The Petitioner has submitted that it has computed IWC for 2019-24 period considering the SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of IWC as 12.05%. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. Rate of Interest (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, 11.25% (SBI 1 year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points) for 2020-21, whereas RoI for 2021-22 onwards has been considered as 10.50% (SBI 1 year MCLR applicable as on 1.4.2020 of 7.50% plus 350 basis points). The components of the working capital and interest allowed thereon is as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses (O&M Expenses for 1 month)	6.90	7.14	7.39	7.65	7.92
Maintenance Spares (15% of O&M Expenses)	12.42	12.85	13.31	13.78	14.26
Receivables (Equivalent to 45 days of annual transmission charges)	69.49	69.97	70.27	70.67	70.88
<b>Total Working Capital</b>	<b>88.80</b>	<b>89.96</b>	<b>90.96</b>	<b>92.10</b>	<b>93.05</b>
Rate of Interest (%)	12.05	11.25	10.50	10.50	10.50
<b>Interest on Working Capital</b>	<b>10.70</b>	<b>10.12</b>	<b>9.55</b>	<b>9.67</b>	<b>9.77</b>





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

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

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	87.57	87.57	87.57	87.57	87.57
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	384.11	384.11	384.11	384.11	384.11
Interest on Working Capital	10.70	10.12	9.55	9.67	9.77
O&M Expenses	82.78	85.70	88.71	91.85	95.04
<b>Total</b>	<b>565.16</b>	<b>567.50</b>	<b>569.94</b>	<b>573.20</b>	<b>576.48</b>

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

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

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

74. The Petitioner has sought reimbursement of licence fees in accordance with Regulation 70(4) of the 2019 Tariff Regulations. The Petitioner shall be entitled for reimbursement of licence fee in accordance with Regulation 70(4) of the 2019 Tariff Regulations for 2019-24 tariff period. The Petitioner shall also be entitled for recovery of RLDC fee and charges in accordance with Regulation 70(3) of the 2019 Tariff Regulations for 2019-24 tariff period.

### **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. The Petitioner has requested to consider the actual security expenses incurred during 2018-19 for claiming estimated security expenses for 2019-20 which shall be subject to true up at the end of the year based on the actuals. The Petitioner has submitted that similar petition for security expenses for 2020-21, 2021-22, 2022-23 and 2023-24 shall be filed on a yearly basis on the basis of the actual expenses of previous year subject to true up at the end of the year on actual expenses. The Petitioner has submitted that the difference, if any, between the estimated security expenses and actual security expenses as per the audited accounts may be allowed to be recovered from the beneficiaries on a yearly basis.

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

security expenses will be dealt with in Petition No. 260/MP/2020 in accordance with the applicable provisions of the 2019 Tariff Regulations.

### **Capital Spares**

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 2001-04, 2004-09 and 2009-14 (up to 30.6.2011), the transmission charges for inter-State transmission systems were being shared in accordance with the Tariff Regulations for the respective tariff periods. With effect from 1.7.2011, sharing of transmission charges for inter-State transmission systems was governed by the 2010 Sharing Regulations. With effect from 1.11.2020, sharing is governed by the 2020 Sharing Regulations. Accordingly, the liabilities of the DICs for arrears of transmission charges determined through this order shall be computed DIC-wise in accordance with the provisions of respective Tariff Regulations and shall be recovered from the concerned DICs through Bill 2 under Regulation 15(2)(b) of the 2020 Sharing Regulations. For subsequent period, the billing, collection and disbursement of the transmission charges approved in this order shall be governed by the provisions of the 2020 Sharing Regulations as provided in Regulation 57 of the 2019 Tariff Regulations.

81. To summarise:

- a) The revised AFC allowed for the transmission assets of 2001-04 and 2004-09 tariff periods are:

(₹ in lakh)

Asset	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
Asset-I	327.93	277.70	282.18	245.82	247.37	239.20	240.94	242.94
Asset-II	566.21	488.83	498.58	378.40	380.25	372.87	374.92	377.48



b) The consequential revision of AFC allowed for the transmission assets of 2009-14 tariff period are:

(₹ in lakh)				
2009-10	2010-11	2012-13	2013-14	2014-15
796.05	817.44	673.51	683.01	698.01

c) The trued-up AFC allowed for the transmission assets of 2014-19 tariff period are:

(₹ in lakh)				
2014-15	2015-16	2016-17	2017-18	2018-19
684.45	692.16	653.48	619.33	624.41

d) AFC allowed for the transmission assets of 2019-24 tariff period in this order are:

(₹ in lakh)				
2019-20	2020-21	2021-22	2022-23	2023-24
565.16	567.50	569.94	573.20	576.48

82. This order disposes of Petition No. 487/TT/2019 in terms of the above discussions and findings.

sd/-  
(Pravas Kumar Singh)  
Member

sd/-  
(I. S. Jha)  
Member

sd/-  
(P. K. Pujari)  
Chairperson



Page 28 to 68  
ATTESTED TRUE COPY  
Authorised Signatory  
Power Grid Corporation of India Ltd.  
Plot No. 2, Sector-29, Gurgaon-122001 (HARYANA)

**Summary of Tariff**

Form No. - 1 ENCL 2

Name of the Transmission Licensee:	Power Grid Corporation of India Limited		
Project	RANGIT TRANSMISSION SYSTEM		
Element Description	RANGIT TRANSMISSION SYSTEM (CLUBBED)		
Region	Eastern Region	DOCO Date	Dec 1, 1998

(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	87.57	87.57	87.57	87.57	87.58
Interest on Loan-Form No. 9E	0.00	0.00	0.00	0.00	0.00
Return on Equity-Form No. 8	384.11	384.11	384.11	384.11	384.11
Int. on Working capital-Form No.11	10.70	10.12	9.55	9.67	11.19
Op. and maintenance-Form No.2	82.78	85.70	88.71	91.85	95.03
Total AFC	565.16	567.50	569.94	573.20	577.91

  
(Petitioner)

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

Name of the Transmission Licensee	Power Grid Corporation of India Limited			
Project	RANGIT TRANSMISSION SYSTEM			
Element Description	RANGIT TRANSMISSION SYSTEM (CLUBBED)			
Region	Eastern Region	DOCO Date	Dec 1, 1998	

**1. Transmission Lines**

(Amount in Rs. Lakh)

Name of Line	Type of Line AC/HVDC	S/C or D/C	No of Sub-Conductors	Voltage Level KV	Line Bays	Line Reactor (Including Switchable Reactor)	Line Length Km	Date of Commercial operation	Covered in the present petition	
									Yes/No	If No, Petition No.
RANGIT RAMMAM	AC	SC	1	132 KV	0.000	0.000	27.000	Dec 1, 1998	Y	
66 kV RANGIT MELLI Line	AC	SC	1	132 KV	0.000	0.000	37.000	Dec 1, 1998	Y	
RANGIT SILIGURI	AC	DC	1	132 KV	0.000	0.000	91.500	Dec 1, 1998	Y	

**Summary:**

O&M Expenses For the Transmission Lines Covered in the instant petition	2019-20	2020-21	2021-22	2022-23	2023-24
<b>SINGLE CIRCUIT (SINGLE CONDUCTOR)</b>					
Normative Rate of O&M as per Regulation	0.252	0.26	0.27	0.279	0.289

No. of Units - ( Length in KM )	64.00	64.00	64.00	64.00	64.00
O&M Claimed	16.12	16.64	17.28	17.85	18.49
<b>DOUBLE CIRCUIT (SINGLE CONDUCTOR)</b>					
Normative Rate of O&M as per Regulation	0.377	0.391	0.404	0.419	0.433
No. of Units - ( Length in KM )	91.50	91.50	91.50	91.50	91.50
O&M Claimed	34.50	35.78	36.97	38.34	39.62

*WA*



## 2. Sub Station

Name of Sub-station	Type of Substation	Voltage Level KV	No. of Transformers/ Reactor/ SVC etc. (with capacity)	No. of Bays				MVA/MVAR Capacity				Date of Comm. operation	Covered in the present petition	
				765 KV	400 KV	220 KV	132 KV	765 KV	400 KV	220 KV	132 KV		Yes/ No	If No, Petition No.
Siliguri:RANGIT-I*		132 KV					0.000					Dec 1, 1998	Y	
Siliguri:RANGIT-II*		132 KV					0.000					Dec 1, 1998	Y	
Melli:66KV LINE BAY FOR RANGIT		132 KV					1.000					Dec 1, 1998	Y	
Rammam:132KV LINE BAY FOR RANGIT		132 KV					1.000					Dec 1, 1998	Y	

\*02 nos 132kV line bays (Rangit- I & II) at Siliguri are no longer being claimed under instnat project and shall be claimed in truing up of project ERSS-XII as per direction in order no. 487/TT/2019

### Summary:

O&M Expenses For Substations Covered in the instant petition	2019-20	2020-21	2021-22	2022-23	2023-24
<b>132KV SUB-STATION AND BELOW</b>					
Normative Rate of O&M as per Regulation	16.08	16.64	17.23	17.83	18.46
No. of Units	2.00	2.00	2.00	2.00	2.00
O&M Claimed	32.16	33.28	34.46	35.66	36.92



*WD*



Summary of O&M Expenses claim

(Amount in Rs. Lakh)

Particular	2019-20	2020-21	2021-22	2022-23	2023-24
<b>A) Normative O&amp;M</b>					
Transmission Line	50.62	52.42	54.25	56.19	58.11
Substation	32.16	33.28	34.46	35.66	36.92
Communication System	0.00	0.00	0.00	0.00	0.00
Total Normative O&M	82.78	85.70	88.71	91.85	95.03
<b>B) O&amp;M Claimed under Regulation 35 (3)(C) (* The same is not being claimed and will be claimed through separate Petition )</b>					
*Security Expenses	0.00	0.00	0.00	0.00	0.00
*Actual Capital Spare consumed	0.00	0.00	0.00	0.00	0.00
*Insurance Premium Paid	0.00	0.00	0.00	0.00	0.00
Total O&M	82.78	85.70	88.71	91.85	95.03



*[Handwritten signature]*

(Petitioner)

**Normative parameters considered for tariff computations**

Form No. - 3

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	RANGIT TRANSMISSION SYSTEM		
Element Description	RANGIT TRANSMISSION SYSTEM (CLUBBED)		
Region	Eastern Region	DOCOC Date	Dec 1, 1998

(Amount in Rs. Lakh)

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



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



(Petitioner)



**Financial Package upto COD**

Form No. - 6

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	RANGIT TRANSMISSION SYSTEM		
Element Description	RANGIT TRANSMISSION SYSTEM (CLUBBED)		
Region	Eastern Region	DOCO Date	Dec 1, 1998

(Amount in Rs. Lakh)

Particulars	Financial Package as Approved		Financial Package as on COD 01/04/2019		As Admitted on COD 01/04/2019	
	Currency	Amount	Currency	Amount	Currency	Amount
Loans		0.00		0.00		0.00
Loan-Domestic		0.00		0.00		0.00
Loan-Foreign		0.00		0.00		0.00
Total Loans	INR	3,552.50		0.00	INR	2,342.57
Equity		0.00		0.00		0.00
Foreign		0.00		0.00		0.00
Domestic	INR	1,522.50		0.00	INR	2,045.08
Total Equity	INR	1,522.50		0.00	INR	2,045.08
Debt Equity Ratio					53:47	
Total Cost	INR	5,075.00		0.00	INR	4,387.65

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



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Addcap for 2023 - 2024			0.00	
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Particulars	Actual	Normative	
<b>Addcap for 2019 - 2020</b>			
Equity		0.00	
Debt		0.00	
Total		0.00	
<b>Addcap for 2020 - 2021</b>			
Equity		0.00	
Debt		0.00	
Total		0.00	
<b>Addcap for 2021 - 2022</b>			
Equity		0.00	
Debt		0.00	
Total		0.00	
<b>Addcap for 2022 - 2023</b>			
Equity		0.00	
Debt		0.00	
Total		0.00	
<b>Addcap for 2023 - 2024</b>			
Equity		0.00	
Debt		0.00	
Total		0.00	
<b>Total Capital cost with Addcap</b>		4,387.65	



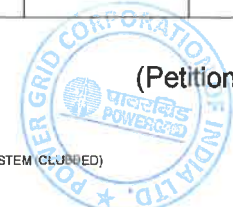
**Calculation of ROE**

Form No. - 8

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	RANGIT TRANSMISSION SYSTEM		
Element Description	RANGIT TRANSMISSION SYSTEM (CLUBBED)		
Region	Eastern Region	DOCO Date	Dec 1, 1998

(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	2,045.08	2,045.08	2,045.08	2,045.08	2,045.08
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)	2,045.08	2,045.08	2,045.08	2,045.08	2,045.08
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	2,045.08	2,045.08	2,045.08	2,045.08	2,045.08
Average Normative Equity	2,045.08	2,045.08	2,045.08	2,045.08	2,045.08
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	384.11	384.11	384.11	384.11	384.11
Pro rata return on Equity	384.11	384.11	384.11	384.11	384.11



(Petitioner)

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

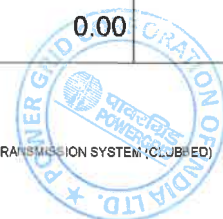
Form No. - 9C

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	RANGIT TRANSMISSION SYSTEM		
Element Description	RANGIT TRANSMISSION SYSTEM (CLUBBED)		
Region	Eastern Region	DOCOC Date	Dec 1, 1998

(Amount in Rs. Lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>BOND VI -DOCOC - 01-APR-1997</b>					
Gross Loan- Opening	34.00	34.00	34.00	34.00	34.00
Cumulative repayments of Loans upto previous year	34.00	34.00	34.00	34.00	34.00
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	13.13	13.13	13.13	13.13	13.13
Interest on loan	0.00	0.00	0.00	0.00	0.00

<b>BOND VI -DOCOC - 01-DEC-1998</b>					
Gross Loan- Opening	54.00	54.00	54.00	54.00	54.00
Cumulative repayments of Loans upto previous year	54.00	54.00	54.00	54.00	54.00
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	13.13	13.13	13.13	13.13	13.13
Interest on loan	0.00	0.00	0.00	0.00	0.00

**BOND - XI - OPTION - II -DOCO - 01-  
APR-1997**

Gross Loan- Opening	68.00	68.00	68.00	68.00	68.00
Cumulative repayments of Loans upto previous year	68.00	68.00	68.00	68.00	68.00
Net loan-Opening	0.00	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Net Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	9.20	9.20	9.20	9.20	9.20
Interest on loan	0.00	0.00	0.00	0.00	0.00

**BOND - XI - OPTION - II -DOCO - 01-  
DEC-1998**

Gross Loan- Opening	107.00	107.00	107.00	107.00	107.00
Cumulative repayments of Loans upto previous year	107.00	107.00	107.00	107.00	107.00
Net loan-Opening	0.00	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Net Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	9.20	9.20	9.20	9.20	9.20
Interest on loan	0.00	0.00	0.00	0.00	0.00



*Handwritten signature*



**BOND-I (ISSUE-I) -DOCO - 01-APR-1997**

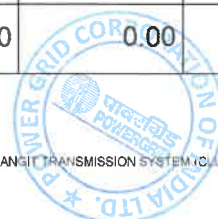
Gross Loan- Opening	765.00	765.00	765.00	765.00	765.00
Cumulative repayments of Loans upto previous year	765.00	765.00	765.00	765.00	765.00
Net loan-Opening	0.00	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00
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	16.75	16.75	16.75	16.75	16.75
Interest on loan	0.00	0.00	0.00	0.00	0.00

**BOND-I (ISSUE-I) -DOCO - 01-DEC-1998**

Gross Loan- Opening	1,205.00	1,205.00	1,205.00	1,205.00	1,205.00
Cumulative repayments of Loans upto previous year	1,205.00	1,205.00	1,205.00	1,205.00	1,205.00
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	16.75	16.75	16.75	16.75	16.75
Interest on loan	0.00	0.00	0.00	0.00	0.00

**UTI -DOCO - 01-APR-1997**

Gross Loan- Opening	73.00	73.00	73.00	73.00	73.00
Cumulative repayments of Loans upto previous year	73.00	73.00	73.00	73.00	73.00
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	13.50	13.50	13.50	13.50	13.50
Interest on loan	0.00	0.00	0.00	0.00	0.00

#### UTI -DOCO - 01-DEC-1998

Gross Loan- Opening	113.00	113.00	113.00	113.00	113.00
Cumulative repayments of Loans upto previous year	113.00	113.00	113.00	113.00	113.00
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	13.50	13.50	13.50	13.50	13.50
Interest on loan	0.00	0.00	0.00	0.00	0.00

#### Summary

Gross Loan- Opening	2,419.00	2,419.00	2,419.00	2,419.00	2,419.00
Cumulative repayments of Loans upto previous year	2,419.00	2,419.00	2,419.00	2,419.00	2,419.00
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



*WAS*

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



(Petitioner)



**Calculation of interest on Normative loan**

Form No. - 9E

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	RANGIT TRANSMISSION SYSTEM		
Element Description	RANGIT TRANSMISSION SYSTEM (CLUBBED)		
Region	Eastern Region	DOCO Date	Dec 1, 1998

(Amount in Rs. Lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
No. of Days in the Year	366.00	365.00	365.00	365.00	366.00
No. of days for which Tariff claimed	366.00	365.00	365.00	365.00	366.00
Gross normative loan-Opening	2,342.57	2,342.57	2,342.57	2,342.57	2,342.57
Cumulative repayments of Normative loan upto previous year	2,342.57	2,342.57	2,342.57	2,342.57	2,342.57
Net normative loan-Opening	0.00	0.00	0.00	0.00	0.00
Addition in normative loan towards the ACE	0.00	0.00	0.00	0.00	0.00
Adjustment of normative gross loan pertaining to the decapitalised asset	0.00	0.00	0.00	0.00	0.00
Normative repayments of normative loan during the year	0.00	0.00	0.00	0.00	0.00
Adjustment of cumulative repayment pertaining to the decapitalised asset	0.00	0.00	0.00	0.00	0.00
Net normative loan - closing	0.00	0.00	0.00	0.00	0.00
Average normative loan	0.00	0.00	0.00	0.00	0.00
Weighted Average Rate of interest on actual loan	0.00	0.00	0.00	0.00	0.00
Interest on normative loan	0.00	0.00	0.00	0.00	0.00
Pro rata interest on normative loan	0.00	0.00	0.00	0.00	0.00



(Petitioner)

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

Form No. - 10

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	RANGIT TRANSMISSION SYSTEM		
Element Description	RANGIT TRANSMISSION SYSTEM (CLUBBED)		
Region	Eastern Region	DOCO Date	Dec 1, 1998

(Amount in Rs. Lakh)

Name of Assets	Gross block at the beginning of the year	Add Cap during the year	Gross block at the end of the year	Average Gross Block	Depreciation Rate as per CERC's Depreciation Rate Schedule	Depreciation Amount for each year upto 31.03.2024
<b>2019-20</b>						
Land(Freehold)	0.00	0.00	0.00	0.00	0.00	0.00
Civil & Building	31.13	0.00	31.13	31.13	3.34	0.61
Transmission Line	4,109.38	0.00	4,109.38	4,109.38	5.28	80.35
Sub Station	229.63	0.00	229.63	229.63	5.28	6.27
Comm. Sys. excluding Fiber Optic	17.51	0.00	17.51	17.51	6.33	0.34
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDSM/SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	0.00	0.00	0.00	5.28	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
<b>TOTAL</b>	<b>4,387.65</b>	<b>0.00</b>	<b>4,387.65</b>	<b>4,387.65</b>	<b>0.00</b>	<b>87.57</b>
<b>Weighted Average Rate of Depreciation(%)</b>					<b>1.995829</b>	

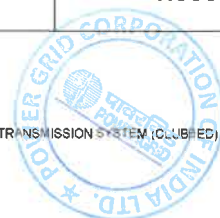
<b>2020-21</b>						
Land(Freehold)	0.00	0.00	0.00	0.00	0.00	0.00



*WAS*

Civil & Building	31.13	0.00	31.13	31.13	3.34	0.61
Transmission Line	4,109.38	0.00	4,109.38	4,109.38	5.28	80.35
Sub Station	229.63	0.00	229.63	229.63	5.28	6.27
Comm. Sys. excluding Fiber Optic	17.51	0.00	17.51	17.51	6.33	0.34
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDMS/SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	0.00	0.00	0.00	5.28	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
<b>TOTAL</b>	<b>4,387.65</b>	<b>0.00</b>	<b>4,387.65</b>	<b>4,387.65</b>	<b>0.00</b>	<b>87.57</b>
<b>Weighted Average Rate of Depreciation(%)</b>					<b>1.995829</b>	

<b>2021-22</b>						
Land(Freehold)	0.00	0.00	0.00	0.00	0.00	0.00
Civil & Building	31.13	0.00	31.13	31.13	3.34	0.61
Transmission Line	4,109.38	0.00	4,109.38	4,109.38	5.28	80.35
Sub Station	229.63	0.00	229.63	229.63	5.28	6.27
Comm. Sys. excluding Fiber Optic	17.51	0.00	17.51	17.51	6.33	0.34
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDMS/SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	0.00	0.00	0.00	5.28	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
<b>TOTAL</b>	<b>4,387.65</b>	<b>0.00</b>	<b>4,387.65</b>	<b>4,387.65</b>	<b>0.00</b>	<b>87.57</b>
<b>Weighted Average Rate of Depreciation(%)</b>					<b>1.995829</b>	



2022-23						
Land(Freehold)	0.00	0.00	0.00	0.00	0.00	0.00
Civil & Building	31.13	0.00	31.13	31.13	3.34	0.61
Transmission Line	4,109.38	0.00	4,109.38	4,109.38	5.28	80.35
Sub Station	229.63	0.00	229.63	229.63	5.28	6.27
Comm. Sys. excluding Fiber Optic	17.51	0.00	17.51	17.51	6.33	0.34
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDSM/SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	0.00	0.00	0.00	5.28	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
<b>TOTAL</b>	<b>4,387.65</b>	<b>0.00</b>	<b>4,387.65</b>	<b>4,387.65</b>	<b>0.00</b>	<b>87.57</b>
<b>Weighted Average Rate of Depreciation(%)</b>					<b>1.995829</b>	

2023-24						
Land(Freehold)	0.00	0.00	0.00	0.00	0.00	0.00
Civil & Building	31.13	0.00	31.13	31.13	3.34	0.61
Transmission Line	4,109.38	0.00	4,109.38	4,109.38	5.28	80.35
Sub Station	229.63	0.00	229.63	229.63	5.28	6.27
Comm. Sys. excluding Fiber Optic	17.51	0.00	17.51	17.51	6.33	0.35
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDSM/SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	0.00	0.00	0.00	5.28	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
<b>TOTAL</b>	<b>4,387.65</b>	<b>0.00</b>	<b>4,387.65</b>	<b>4,387.65</b>	<b>0.00</b>	<b>87.58</b>



Weighted Average Rate of Depreciation(%)					1.996057	
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(Petitioner)





**Statement of Depreciation**

Form No. - 10A

Name of the Transmission Licensee		Power Grid Corporation of India Limited			
Project	RANGIT TRANSMISSION SYSTEM				
Element Description	RANGIT TRANSMISSION SYSTEM (CLUBBED)				
Region	Eastern Region	DOCO Date	Dec 1, 1998		

(Amount in Rs. Lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
No of Days in the year	366.00	365.00	365.00	365.00	366.00
No of days for which tariff claimed	366.00	365.00	365.00	365.00	366.00
<b>Life at the beginning of the year</b>					
1.1 Weighted Average useful life of the Asset/ Project	34.00	34.00	34.00	34.00	34.00
1.2 Lapsed Weighted Average useful life of the Asset/Project(in completed no. of year)	20.00	21.00	22.00	23.00	24.00
1.3 Balance Weighted Average useful life of the Asset/Project(in completed no. of year)	14.00	13.00	12.00	11.00	10.00
<b>Capital Base</b>					
1.4 Opening capital cost	4,387.65	4,387.65	4,387.65	4,387.65	4,387.65
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	4,387.65	4,387.65	4,387.65	4,387.65	4,387.65
1.8 Average capital cost	4,387.65	4,387.65	4,387.65	4,387.65	4,387.65
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	4,387.65	4,387.65	4,387.65	4,387.65	4,387.65
1.12 Depreciable Value(1.10+90% of 1.11)	3,948.89	3,948.89	3,948.89	3,948.89	3,948.89
<b>Depreciation for the period and Cum. Depreciation</b>					
1.13 Weighted Average Rate of depreciation	1.995829	1.995829	1.995829	1.995829	1.996057



*WA*

1.14 Depreciation(for the period)	87.57	87.57	87.57	87.57	87.58
1.15 Depreciation(Annualised)	87.57	87.57	87.57	87.57	87.58
Unrecovered Depreciation for DECAP	0.00	0.00	0.00	0.00	0.00
1.16 Cumulative depreciation at the beginning of the period	2,722.90	2,810.47	2,898.04	2,985.61	3,073.18
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	2,810.47	2,898.04	2,985.61	3,073.18	3,160.76

*wa*

(Petitioner)



**Calculation of interest on working Capital**

Form No. - 11

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	RANGIT TRANSMISSION SYSTEM		
Element Description	RANGIT TRANSMISSION SYSTEM (CLUBBED)		
Region	Eastern Region	DOC0 Date	Dec 1, 1998

(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	6.90	7.14	7.39	7.65	7.92
Maintenance spares 15% of O&M Expenses	12.42	12.86	13.31	13.78	14.25
Receivables equivalent to 45 days of AFC	69.49	69.97	70.27	70.67	71.05
Total Working capital	88.81	89.97	90.97	92.10	93.22
Bank Rate as on 01.04.2019 or as on 01st April of the COD year, whichever is later.	12.05	11.25	10.50	10.50	12.00
Interest on working capital	10.70	10.12	9.55	9.67	11.19
Pro rata interest on working capital	10.70	10.12	9.55	9.67	11.19

  
(Petitioner)

**Summary of Tariff**

Form No. - 1

ENCL 3

Name of the Transmission Licensee:	Power Grid Corporation of India Limited		
Project	RANGIT TRANSMISSION SYSTEM		
Element Description	RANGIT TRANSMISSION SYSTEM (CLUBBED)		
Region	Eastern Region	DOC0 Date	Dec 1, 1998

(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	87.57	87.58	87.57	87.58	87.57
Interest on Loan-Form No. 9E	0.00	0.00	0.00	0.00	0.00
Return on Equity-Form No. 8	384.11	384.11	384.11	384.11	384.11
Int. on Working capital-Form No.11	10.51	10.70	10.89	11.07	11.31
Op. and maintenance-Form No.2	81.06	85.29	89.78	94.52	99.47
Total AFC	563.25	567.68	572.35	577.28	582.46

  
(Petitioner)

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

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	RANGIT TRANSMISSION SYSTEM		
Element Description	RANGIT TRANSMISSION SYSTEM (CLUBBED)		
Region	Eastern Region	DOCO Date	Dec 1, 1998

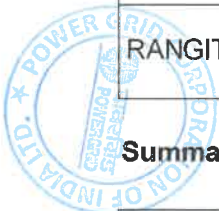
**1. Transmission Lines**

(Amount in Rs. Lakh)

Name of Line	Type of Line AC/HVDC	S/C or D/C	No of Sub-Conductors	Voltage Level KV	Line Bays	Line Reactor (Including Switchable Reactor)	Line Length Km	Date of Commercial operation	Covered in the present petition	
									Yes/No	If No, Petition No.
RANGIT RAMMAM	AC	SC	1	132 KV	0.000	0.000	27.000	Dec 1, 1998	Y	
66 KV RANGIT MELLI LINE	AC	SC	1	132 KV	0.000	0.000	37.000	Dec 1, 1998	Y	
RANGIT SILIGURI	AC	DC	1	132 KV	0.000	0.000	91.500	Dec 1, 1998	Y	

**Summary:**

O&M Expenses For the Transmission Lines Covered in the instant petition	2024-25	2025-26	2026-27	2027-28	2028-29
<b>SINGLE CIRCUIT (SINGLE CONDUCTOR)</b>					
Normative Rate of O&M as per Regulation	0.246	0.259	0.272	0.287	0.302



No. of Units - ( Length in KM )	64.00	64.00	64.00	64.00	64.00
O&M Claimed	15.74	16.57	17.40	18.37	19.32
<b>DOUBLE CIRCUIT (SINGLE CONDUCTOR)</b>					
Normative Rate of O&M as per Regulation	0.369	0.388	0.409	0.43	0.453
No. of Units - ( Length in KM )	91.50	91.50	91.50	91.50	91.50
O&M Claimed	33.76	35.50	37.42	39.35	41.45

*WD*



## 2. Sub Station

Name of Sub-station	Type of Substation	Voltage Level KV	No. of Transfor ms/ Reactor/ SVC etc. (with capacity)	No. of Bays				MVA/MVAR Capacity				Date of Comm. operation	Covered in the present petition	
				765 KV	400 KV	220 KV	132 KV	765 KV	400 KV	220 KV	132 KV		Ye s/ No	If No, Petitio n No.
Siliguri:RANGIT-I*		132 KV					0.000					Dec 1, 1998	Y	
Siliguri:RANGIT-II*		132 KV					0.000					Dec 1, 1998	Y	
Melli:66KV LINE BAY FOR RANGIT		132 KV					1.000					Dec 1, 1998	Y	
Rammam:132KV LINE BAY FOR RANGIT		132 KV					1.000					Dec 1, 1998	Y	

\* Not claimed here , to be claimed in Truingup ofproject ERSS-XII as per direction in CERC order no. 487/TT/2019.

### Summary:

O&M Expenses For Substations Covered in the instant petition	2024-25	2025-26	2026-27	2027-28	2028-29
<b>132KV SUB-STATION AND BELOW</b>					
Normative Rate of O&M as per Regulation	15.78	16.61	17.48	18.40	19.35
No. of Units	2.00	2.00	2.00	2.00	2.00
O&M Claimed	31.56	33.22	34.96	36.80	38.70

Summary of O&M Expenses claim

(Amount in Rs. Lakh)

Particular	2024-25	2025-26	2026-27	2027-28	2028-29
<b>A) Normative O&amp;M</b>					
Transmission Line	49.50	52.07	54.82	57.72	60.77
Substation	31.56	33.22	34.96	36.80	38.70
Communication System	0.00	0.00	0.00	0.00	0.00
Total Normative O&M	81.06	85.29	89.78	94.52	99.47
<b>B) O&amp;M Claimed under Regulation 35 (3)(C) (* The same is not being claimed and will be claimed through separate Petition )</b>					
*Security Expenses	0.00	0.00	0.00	0.00	0.00
*Actual Capital Spare consumed	0.00	0.00	0.00	0.00	0.00
*Insurance Premium Paid	0.00	0.00	0.00	0.00	0.00
Total O&M	81.06	85.29	89.78	94.52	99.47



*[Handwritten Signature]*

(Petitioner)



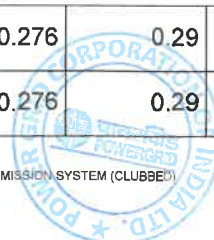
**Normative parameters considered for tariff computations**

Form No. - 3

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	RANGIT TRANSMISSION SYSTEM		
Element Description	RANGIT TRANSMISSION SYSTEM (CLUBBED)		
Region	Eastern Region	DOCO Date	Dec 1, 1998

(Amount in Rs. Lakh)

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



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

*va*

(Petitioner)



**Financial Package upto COD**

Form No. - 6

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	RANGIT TRANSMISSION SYSTEM		
Element Description	RANGIT TRANSMISSION SYSTEM (CLUBBED)		
Region	Eastern Region	DOCODate	Dec 1, 1998

(Amount in Rs. Lakh)

Particulars	Financial Package as Approved		Financial Package as on COD 01/04/2024		As Admitted on COD 01/04/2024	
	Currency	Amount	Currency	Amount	Currency	Amount
Loans		0.00		0.00		0.00
Loan-Domestic		0.00		0.00		0.00
Loan-Foreign		0.00		0.00		0.00
Total Loans	INR	3,552.50		0.00	INR	2,342.57
Equity		0.00		0.00		0.00
Foreign		0.00		0.00		0.00
Domestic	INR	1,522.50		0.00	INR	2,045.08
Total Equity	INR	1,522.50		0.00	INR	2,045.08
Debt Equity Ratio					53:47	
Total Cost	INR	5,075.00		0.00	INR	4,387.65

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



Addcap for 2028 - 2029			0.00	
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Particulars	Actual	Normative	
<b>Addcap for 2024 - 2025</b>			
Equity		0.00	
Debt		0.00	
Total		0.00	
<b>Addcap for 2025 - 2026</b>			
Equity		0.00	
Debt		0.00	
Total		0.00	
<b>Addcap for 2026 - 2027</b>			
Equity		0.00	
Debt		0.00	
Total		0.00	
<b>Addcap for 2027 - 2028</b>			
Equity		0.00	
Debt		0.00	
Total		0.00	
<b>Addcap for 2028 - 2029</b>			
Equity		0.00	
Debt		0.00	
Total		0.00	
<b>Total Capital cost with Addcap</b>		4,387.65	

(Petitioner)



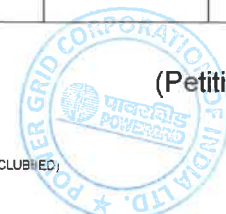
**Calculation of ROE**

Form No. - 8

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	RANGIT TRANSMISSION SYSTEM		
Element Description	RANGIT TRANSMISSION SYSTEM (CLUBBED)		
Region	Eastern Region	DOC Date	Dec 1, 1998

(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	2,045.08	2,045.08	2,045.08	2,045.08	2,045.08
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)	2,045.08	2,045.08	2,045.08	2,045.08	2,045.08
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	2,045.08	2,045.08	2,045.08	2,045.08	2,045.08
Average Normative Equity	2,045.08	2,045.08	2,045.08	2,045.08	2,045.08
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	384.11	384.11	384.11	384.11	384.11
Pro rata return on Equity	384.11	384.11	384.11	384.11	384.11



(Petitioner)

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

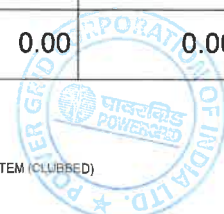
Form No. - 9C

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	RANGIT TRANSMISSION SYSTEM		
Element Description	RANGIT TRANSMISSION SYSTEM (CLUBBED)		
Region	Eastern Region	DOCO Date	Dec 1, 1998

(Amount in Rs. Lakh)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
<b>BOND VI -DOCO - 01-APR-1997</b>					
Gross Loan- Opening	34.00	34.00	34.00	34.00	34.00
Cumulative repayments of Loans upto previous year	34.00	34.00	34.00	34.00	34.00
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	13.13	13.13	13.13	13.13	13.13
Interest on loan	0.00	0.00	0.00	0.00	0.00

<b>BOND VI -DOCO - 01-DEC-1998</b>					
Gross Loan- Opening	54.00	54.00	54.00	54.00	54.00
Cumulative repayments of Loans upto previous year	54.00	54.00	54.00	54.00	54.00
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





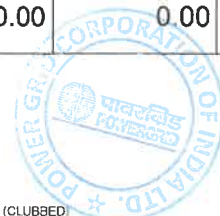
Average Net Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	13.13	13.13	13.13	13.13	13.13
Interest on loan	0.00	0.00	0.00	0.00	0.00

**BOND - XI - OPTION - II -DOCO - 01-  
APR-1997**

Gross Loan- Opening	68.00	68.00	68.00	68.00	68.00
Cumulative repayments of Loans upto previous year	68.00	68.00	68.00	68.00	68.00
Net loan-Opening	0.00	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Net Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	9.20	9.20	9.20	9.20	9.20
Interest on loan	0.00	0.00	0.00	0.00	0.00

**BOND - XI - OPTION - II -DOCO - 01-  
DEC-1998**

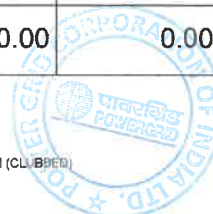
Gross Loan- Opening	107.00	107.00	107.00	107.00	107.00
Cumulative repayments of Loans upto previous year	107.00	107.00	107.00	107.00	107.00
Net loan-Opening	0.00	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Net Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	9.20	9.20	9.20	9.20	9.20
Interest on loan	0.00	0.00	0.00	0.00	0.00



<b>BOND-I (ISSUE-I) -DOCO - 01-APR-1997</b>					
Gross Loan- Opening	765.00	765.00	765.00	765.00	765.00
Cumulative repayments of Loans upto previous year	765.00	765.00	765.00	765.00	765.00
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	16.75	16.75	16.75	16.75	16.75
Interest on loan	0.00	0.00	0.00	0.00	0.00

<b>BOND-I (ISSUE-I) -DOCO - 01-DEC-1998</b>					
Gross Loan- Opening	1,205.00	1,205.00	1,205.00	1,205.00	1,205.00
Cumulative repayments of Loans upto previous year	1,205.00	1,205.00	1,205.00	1,205.00	1,205.00
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	16.75	16.75	16.75	16.75	16.75
Interest on loan	0.00	0.00	0.00	0.00	0.00

<b>UTI -DOCO - 01-APR-1997</b>					
Gross Loan- Opening	73.00	73.00	73.00	73.00	73.00
Cumulative repayments of Loans upto previous year	73.00	73.00	73.00	73.00	73.00
Net loan-Opening	0.00	0.00	0.00	0.00	0.00

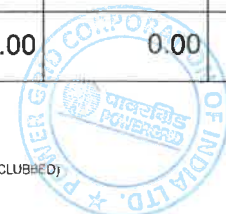




Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Net Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	13.50	13.50	13.50	13.50	13.50
Interest on loan	0.00	0.00	0.00	0.00	0.00

<b>UTI -DOCO - 01-DEC-1998</b>					
Gross Loan- Opening	113.00	113.00	113.00	113.00	113.00
Cumulative repayments of Loans upto previous year	113.00	113.00	113.00	113.00	113.00
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	13.50	13.50	13.50	13.50	13.50
Interest on loan	0.00	0.00	0.00	0.00	0.00

<b>Summary</b>					
Gross Loan- Opening	2,419.00	2,419.00	2,419.00	2,419.00	2,419.00
Cumulative repayments of Loans upto previous year	2,419.00	2,419.00	2,419.00	2,419.00	2,419.00
Net loan-Opening	0.00	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00



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

*W.D.*

(Petitioner)



**Calculation of interest on Normative loan**

Form No. - 9E

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	RANGIT TRANSMISSION SYSTEM		
Element Description	RANGIT TRANSMISSION SYSTEM (CLUBBED)		
Region	Eastern Region	DOCO Date	Dec 1, 1998

(Amount in Rs. Lakh)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
No. of Days in the Year	365.00	365.00	365.00	366.00	365.00
No. of days for which Tariff claimed	365.00	365.00	365.00	366.00	365.00
Gross normative loan-Opening	2,342.57	2,342.57	2,342.57	2,342.57	2,342.57
Cumulative repayments of Normative loan upto previous year	2,342.57	2,342.57	2,342.57	2,342.57	2,342.57
Net normative loan-Opening	0.00	0.00	0.00	0.00	0.00
Addition in normative loan towards the ACE	0.00	0.00	0.00	0.00	0.00
Adjustment of normative gross loan pertaining to the decapitalised asset	0.00	0.00	0.00	0.00	0.00
Normative repayments of normative loan during the year	0.00	0.00	0.00	0.00	0.00
Adjustment of cumulative repayment pertaining to the decapitalised asset	0.00	0.00	0.00	0.00	0.00
Net normative loan - closing	0.00	0.00	0.00	0.00	0.00
Average normative loan	0.00	0.00	0.00	0.00	0.00
Weighted Average Rate of interest on actual loan	0.00	0.00	0.00	0.00	0.00
Interest on normative loan	0.00	0.00	0.00	0.00	0.00
Pro rata interest on normative loan	0.00	0.00	0.00	0.00	0.00



(Petitioner)

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

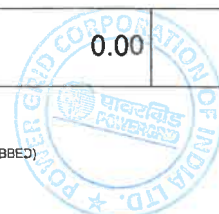
Form No. - 10

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	RANGIT TRANSMISSION SYSTEM		
Element Description	RANGIT TRANSMISSION SYSTEM (CLUBBED)		
Region	Eastern Region	DOCO Date	Dec 1, 1998

(Amount in Rs. Lakh)

Name of Assets	Gross block at the beginning of the year	Add Cap during the year	Gross block at the end of the year	Average Gross Block	Depreciation Rate as per CERC's Depreciation Rate Schedule	Depreciation Amount for each year upto 31.03.2029
<b>2024-25</b>						
Land(Freehold)	0.00	0.00	0.00	0.00	0.00	0.00
Civil & Building	31.13	0.00	31.13	31.13	3.34	0.61
Transmission Line	4,109.38	0.00	4,109.38	4,109.38	5.28	80.35
Sub Station	229.63	0.00	229.63	229.63	5.28	6.27
Comm. Sys. excluding Fiber Optic	17.51	0.00	17.51	17.51	15.00	0.34
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDSM/SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	0.00	0.00	0.00	9.50	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
<b>TOTAL</b>	<b>4,387.65</b>	<b>0.00</b>	<b>4,387.65</b>	<b>4,387.65</b>	<b>0.00</b>	<b>87.57</b>
<b>Weighted Average Rate of Depreciation(%)</b>					<b>1.995829</b>	

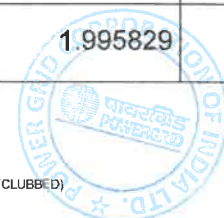
<b>2025-26</b>						
Land(Freehold)	0.00	0.00	0.00	0.00	0.00	0.00



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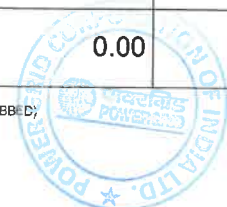
Civil & Building	31.13	0.00	31.13	31.13	3.34	0.61
Transmission Line	4,109.38	0.00	4,109.38	4,109.38	5.28	80.35
Sub Station	229.63	0.00	229.63	229.63	5.28	6.27
Comm. Sys. excluding Fiber Optic	17.51	0.00	17.51	17.51	15.00	0.35
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDSM/SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	0.00	0.00	0.00	9.50	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
<b>TOTAL</b>	<b>4,387.65</b>	<b>0.00</b>	<b>4,387.65</b>	<b>4,387.65</b>	<b>0.00</b>	<b>87.58</b>
<b>Weighted Average Rate of Depreciation(%)</b>					<b>1.996057</b>	

<b>2026-27</b>						
Land(Freehold)	0.00	0.00	0.00	0.00	0.00	0.00
Civil & Building	31.13	0.00	31.13	31.13	3.34	0.61
Transmission Line	4,109.38	0.00	4,109.38	4,109.38	5.28	80.35
Sub Station	229.63	0.00	229.63	229.63	5.28	6.27
Comm. Sys. excluding Fiber Optic	17.51	0.00	17.51	17.51	15.00	0.34
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDSM/SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	0.00	0.00	0.00	9.50	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
<b>TOTAL</b>	<b>4,387.65</b>	<b>0.00</b>	<b>4,387.65</b>	<b>4,387.65</b>	<b>0.00</b>	<b>87.57</b>
<b>Weighted Average Rate of Depreciation(%)</b>					<b>1.995829</b>	



2027-28						
Land(Freehold)	0.00	0.00	0.00	0.00	0.00	0.00
Civil & Building	31.13	0.00	31.13	31.13	3.34	0.61
Transmission Line	4,109.38	0.00	4,109.38	4,109.38	5.28	80.35
Sub Station	229.63	0.00	229.63	229.63	5.28	6.27
Comm. Sys. excluding Fiber Optic	17.51	0.00	17.51	17.51	15.00	0.35
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDSM/SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	0.00	0.00	0.00	9.50	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
<b>TOTAL</b>	<b>4,387.65</b>	<b>0.00</b>	<b>4,387.65</b>	<b>4,387.65</b>	<b>0.00</b>	<b>87.58</b>
<b>Weighted Average Rate of Depreciation(%)</b>					<b>1.996057</b>	

2028-29						
Land(Freehold)	0.00	0.00	0.00	0.00	0.00	0.00
Civil & Building	31.13	0.00	31.13	31.13	3.34	0.61
Transmission Line	4,109.38	0.00	4,109.38	4,109.38	5.28	80.35
Sub Station	229.63	0.00	229.63	229.63	5.28	6.27
Comm. Sys. excluding Fiber Optic	17.51	0.00	17.51	17.51	15.00	0.34
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDSM/SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	0.00	0.00	0.00	9.50	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
<b>TOTAL</b>	<b>4,387.65</b>	<b>0.00</b>	<b>4,387.65</b>	<b>4,387.65</b>	<b>0.00</b>	<b>87.57</b>



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Weighted Average Rate of Depreciation(%)					1.995829	
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(Petitioner)





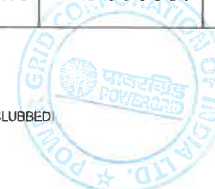
## Statement of Depreciation

Form No. - 10A

Name of the Transmission Licensee	Power Grid Corporation of India Limited				
Project	RANGIT TRANSMISSION SYSTEM				
Element Description	RANGIT TRANSMISSION SYSTEM (CLUBBED)				
Region	Eastern Region	DOCO Date	Dec 1, 1998		

(Amount in Rs. Lakh)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
No of Days in the year	365.00	365.00	365.00	366.00	365.00
No of days for which tariff claimed	365.00	365.00	365.00	366.00	365.00
<b>Life at the beginning of the year</b>					
1.1 Weighted Average useful life of the Asset/ Project	34.00	34.00	34.00	34.00	34.00
1.2 Lapsed Weighted Average useful life of the Asset/Project(in completed no. of year)	25.00	26.00	27.00	28.00	29.00
1.3 Balance Weighted Average useful life of the Asset/Project(in completed no. of year)	9.00	8.00	7.00	6.00	5.00
<b>Capital Base</b>					
1.4 Opening capital cost	4,387.65	4,387.65	4,387.65	4,387.65	4,387.65
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	4,387.65	4,387.65	4,387.65	4,387.65	4,387.65
1.8 Average capital cost	4,387.65	4,387.65	4,387.65	4,387.65	4,387.65
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	4,387.65	4,387.65	4,387.65	4,387.65	4,387.65
1.12 Depreciable Value(1.10+90% of 1.11)	3,948.89	3,948.89	3,948.89	3,948.89	3,948.89
<b>Depreciation for the period and Cum. Depreciation</b>					
1.13 Weighted Average Rate of depreciation	1.995829	1.996057	1.995829	1.996057	1.995829





1.14 Depreciation(for the period)	87.57	87.58	87.57	87.58	87.57
1.15 Depreciation(Annualised)	87.57	87.58	87.57	87.58	87.57
Unrecovered Depreciation for DECAP	0.00	0.00	0.00	0.00	0.00
1.16 Cumulative depreciation at the beginning of the period	3,160.76	3,248.33	3,335.91	3,423.48	3,511.06
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	3,248.33	3,335.91	3,423.48	3,511.06	3,598.63

*WA*

(Petitioner)



**Calculation of interest on working Capital**

Form No. - 11

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	RANGIT TRANSMISSION SYSTEM		
Element Description	RANGIT TRANSMISSION SYSTEM (CLUBBED)		
Region	Eastern Region	DOCOC Date	Dec 1, 1998

(Amount in Rs. Lakh)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
No of Days in the year	365.00	365.00	365.00	366.00	365.00
No of days for which tariff claimed	365.00	365.00	365.00	366.00	365.00
O&M Expenses-one month	6.76	7.11	7.48	7.88	8.29
Maintenance spares 15% of O&M Expenses	12.16	12.79	13.47	14.18	14.92
Receivables equivalent to 45 days of AFC	69.44	69.99	70.56	70.98	71.81
Total Working capital	88.36	89.89	91.51	93.04	95.02
Bank Rate as on 01.04.2024 or as on 01st April of the COD year, whichever is later.	11.90	11.90	11.90	11.90	11.90
Interest on working capital	10.51	10.70	10.89	11.07	11.31
Pro rata interest on working capital	10.51	10.70	10.89	11.07	11.31

  
 (Petitioner)



Summary of issue involved in the petition		PART-III FORM- 15
1. Name of the Petitioner	Powergrid Corporation of India Ltd	
2. Petition Category	Transmission	
3. Tariff Period	2019-24 & 2024-29	
4. Name of the Project	Assets under Rangit Transmission System in Eastern Region	
5. Investment Approval date	NA	
6. SCOD of the Project	NA	
7. Actual COD of the project	01.12.1998	
8. Whether entire scope is covered in the present petition.	Yes	
9. No. of Assets covered in instant petition	01 nos	
10. No. of Assets having time over run	NA	
11. Estimated Project Cost as per IA	Rs. 5075.00 Lakh	
12. Is there any REC? if so, provide the date	No	
13. Revised Estimated Project Cost (if any)	NA	
14. Completion cost for all the assets covered in the instant petition.	Rs. 4387.65 Lakh	
15. No. of Assets covered in instant petition and having cost overrun.	NA	
16	<b>Prayer in brief</b>	
17	<b>Key details and any Specific issue involved</b>	
18	<b>Respondents</b>	
	<b>Name of Respondents</b>	
	1	BSPHCL
	2	JBVNL
	3	WBSEDCL
	4	DVC
	5	Power Dept., Govt. of Sikkim
	6	GRIDCO

(Petitioner) 

PART-III												
Summary of Capital Cost & Annual Fixed Cost (AFC) Claimed for ALL the assets covered in the present petition.												
Name of the Petitioner			Powergrid Corporation of India Ltd									
Tariff Period			2019-24									
Name of the Transmission Project			Assets under Rangit Transmission System in Eastern Region									
COD of the Project (if entire scope of project is completed)			01.12.1998									
												Rupees in lakh
A) Summary of Capital Cost as on COD and Additional Capital Expenditure claimed for all the assets Covered in the instant petition.												
S. No.	Asset No.	COD	i) Apportioned Approved Cost		ii) Summary of Actual / Projected Capital Cost							Capital Cost as on Cut-off Date
			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	
			1	2	3	4	5	6	7	8	9	
1	Asset-I	01.12.1998	5075.00	NA	4387.65	0	0	0	0	0	4387.65	
<b>Total Capital Cost Claimed</b>			<b>5075.00</b>	<b>0.00</b>	<b>4387.65</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>4387.65</b>	
B) Summary of Trued-Up Annual Fixed Cost (AFC) claimed for all the assets covered in the instant petition.												
S. No.	Asset No.	Asset Name and its location					2019-20	2020-21	2021-22	2022-23	2023-24	
1	Asset-I	Assets under Rangit Transmission System in Eastern Region					565.16	567.5	569.94	573.2	577.91	
<b>Total AFC for all the Assets</b>						<b>565.16</b>	<b>567.5</b>	<b>569.94</b>	<b>573.2</b>	<b>577.91</b>		
Note: 1) The purpose of this form is to summarise the Capital cost & AFC claimed for all the assets covered in the instant petition.												
												(Petitioner)



PART-III													
Summary of Capital Cost & Annual Fixed Cost (AFC) Claimed for ALL the assets covered in the present petition.													
Name of the Petitioner			Powergrid Corporation of India Ltd										
Tariff Period			2024-29										
Name of the Transmission Project			Assets under Rangit Transmission System in Eastern Region										
COD of the Project (if entire scope of project is completed)			01.12.1998										
A) Summary of Capital Cost as on COD and Additional Capital Expenditure claimed for all the assets Covered in the instant petition.												Rupees in lakh	
S. No.	Asset No.	COD	i) Apportioned Approved Cost		ii) Summary of Actual / Projected Capital Cost							Capital Cost as on Cut-off Date	
			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		
			1	2	3	4	5	6	7	8	9		11= (5+6+7+8+9+10)
1	Asset-I	01.12.1998	5075.00	NA	4387.65	0	0	0	0	0	0	4387.65	
<b>Total Capital Cost Claimed</b>			<b>5075.00</b>	<b>0.00</b>	<b>4387.65</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>4387.65</b>	
B) Summary of Annual Fixed Cost (AFC) claimed for all the assets covered in the instant petition.													
S. No.	Asset No.	Asset Name and its location					2024-25	2025-26	2026-27	2027-28	2028-29		
1	Asset-I	Assets under Rangit Transmission System in Eastern Region					563.25	567.68	572.35	577.28	582.46		
<b>Total AFC for all the Assets</b>						<b>563.25</b>	<b>567.68</b>	<b>572.35</b>	<b>577.28</b>	<b>582.46</b>			
<b>Note: 1) The purpose of this form is to summarise the Capital cost &amp; AFC claimed for all the assets covered in the instant petition.</b>													

(Petitioner)



INDEX		PART-III
Checklist of Forms and other Information/ documents for tariff filing for Transmission System & Communication System (2019-24 & 2024-29 periods)		
Form No.	Title of Tariff Filing Forms (Transmission & Communication System)	Tick
FORM- 1	Summary of Tariff	
FORM- 1A	Summary of Asset level cost	✓
FORM-2	Details of Transmission Lines and Substations and Communication System covered in the project scope and O&M for instant asset	N.A.
FORM-3	Normative parameters considered for tariff computations	✓
FORM- 4	Abstract of existing transmission assets/elements under project, Determination of Effective COD and Weighted Average Life for single AFC for the project as whole.	N.A.
FORM- 4A	Statement of Capital cost	
FORM- 4B	Statement of Capital Works in Progress	N.A.
FORM- 4C	Abstract of Capital Cost Estimates and Schedule of Commissioning for the New Project/Element	N.A.
FORM-5	Element wise Break-up of Project/Asset/Element Cost for Transmission System or Communication System	N.A.
FORM-5A	Break-up of Construction/Supply/Service packages	
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	✓
FORM- 7A	Financing of Additional Capitalisation	N.A.
FORM- 7B	Statement of Additional Capitalisation during five year before the end of the useful life of the project.	N.A.
FORM- 8	Calculation of Return on Equity	
FORM-8A	Details of Foreign Equity	✓
FORM-9	Details of Allocation of corporate loans to various transmission elements	N.A.
FORM-9A	Details of Project Specific Loans	N.A.
FORM-9B	Details of Foreign loans	N.A.
FORM-9C	Calculation of Weighted Average Rate of Interest on Actual Loans	N.A.
FORM-9D	Loans in Foreign Currency	✓
FORM-9E	Calculation of Interest on Normative Loan	N.A.
FORM- 10	Calculation of Depreciation Rate on original project cost	✓
FORM- 10A	Statement of Depreciation	✓
FORM- 10B	Statement of De-capitalisation	✓
FORM- 11	Calculation of Interest on Working Capital	N.A.
FORM- 12	Details of time over run	✓
FORM- 12A	Incidental Expenditure during Construction	N.A.
FORM- 12B	Calculation of IDC & Financing Charges	N.A.
FORM- 13	Details of Initial spares	N.A.
FORM- 14	Non-Tariff Income	N.A.
FORM- 15	Summary of issue involved in the petition	N.A.
FORM A	Summary of Capital Cost & Annual Fixed Cost (AFC) Claimed for ALL	✓
Other Information/ Documents		✓
S. No.	Information/Document	Tick
1	Certificate of incorporation, Certificate for Commencement of Business, Memorandum of Association, & Articles of Association (For New Project(s) setup by a company making tariff application for the first time to CERC)	N.A.
2	Region wise and Corporate audited Balance Sheet and Profit & Loss Accounts with all the Schedules & Annexure for the new Transmission System & Communication System for the relevant years.	N.A.
3	Copies of relevant loan Agreements	
4	Copies of the approval of Competent Authority for the Capital Cost and Financial package.	N.A.
5	Copies of the Equity participation agreements and necessary approval for the foreign equity.	N.A.
6	Copies of the BPTA/TSA/PPA with the beneficiaries, if any	N.A.
7	Detailed note giving reasons of cost and time over run, if applicable. List of supporting documents to be submitted: a. Detailed Project Report b. CPM Analysis c. PERT Chart and Bar Chart d. Justification for cost and time Overrun	N.A.
8	Transmission Licensee shall submit copy of Cost Audit Report along with cost accounting records, cost details, statements, schedules etc. for the transmission system as submitted to the Govt. of India for first two years i.e. 2019-20 and 2020-21 at the time of mid-term true-up in 2021- 22 and for balance period of tariff period 2019-24 at the time of final true-up in 2024-25. In case of initial tariff filing the latest available Cost Audit Report should be furnished.	N.A.
9.	BBMB is maintaining the records as per the relevant applicable Acts. Formats specified herein may not be suitable to the available information with BBMB. BBMB may modify formats suitably as per available information to them for submission of required information for tariff purpose.	N.A.
10.	Any other relevant information, (Please specify)	N.A.

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