

**Central Electricity Regulatory Commission  
New Delhi**

**Petition No. 385/TT/2024**

**Coram:**

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

**Date of Order: 16.12.2024**

**In the matter of:**

Petition for the truing-up of transmission tariff for the 2019-24 period and the determination of transmission tariff for the 2024-29 period in respect of a transmission asset, namely, LLO of Vemagiri-Gajuwaka 400 kV D/C line at Simhadri-II TPS under "Transmission System associated with Simhadri-II Generation Project" in Southern Region under Section 62 read with Section 79(1)(d) of the Electricity Act, 2003 and under Regulations 15(1)(a) and 23 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2023 read with the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 and the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024.

**And in the matter of:**

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

**...Petitioner**

**Vs.**

- 1. Tamil Nadu Generation and Distribution Corporation Limited,**  
NPKRR Maaligai, 800, Anna Salai,  
Chennai - 600 002
- 2. Kerala State Electricity Board Limited,**  
Vaidyuthi Bhavanam  
Pattom, Thiruvananthapuram - 695 004
- 3. Electricity Department,**  
Government of Goa,  
Vidyut Bhawan, Panaji- 403 001, Goa.



4. **Electricity Department,**  
Govt. of Pondicherry,  
137, Netaji Subash Chandra Bose Salai  
Pondicherry - 605001
5. **Eastern Power Distribution Company of Andhra Pradesh Limited,**  
APEPDCL, P&T Colony,  
Seethmmadhara, Vishakhapatnam, Andhra Pradesh
6. **Southern Power Distribution Company of Andhra Pradesh Limited,**  
#19-13-65/A, Srinivasapuram, Tiruchanoor Road,  
Tirupati - 517503, Andhra Pradesh
7. **Andhra Pradesh Central Power Distribution Company Limited,**  
Corporate Office, Beside Polytechnic College, ITI Road  
Vijayawada - 520 008, Krishna District, Andhra Pradesh
8. **Southern Power Distribution Company of Telangana Limited,**  
6-1-50, Corporate Office, Mint Compound,  
Hyderabad - 500 063, Telangana
9. **Northern Power Distribution Company of Telangana Limited,**  
H.No. 2-5-3 1/2, Vidyut Bhawan, Corporate Office,  
Nakkal Gutta, Hanamkonda, Warangal - 506 001, Telangana
10. **Bangalore Electricity Supply Company Limited,**  
Corporate Office, K.R. Circle  
Bangalore - 560 001, Karnataka
11. **Gulbarga Electricity Supply Company Limited,**  
Corporate Office, Station Main Road, Opp. Parivar Hotel,  
Gulbarga (Kalburgi) - 585102, Karnataka
12. **Hubli Electricity Supply Company Limited,**  
Navanagar, PB Road, Hubli- 580025, Karnataka
13. **Mangalore Electricity Supply Company Limited,**  
Corporate Office, 1st Floor, MESCOM Bhavan,  
Kavoor Cross Road, Bejai, Mangalore - 575 004, Karnataka
14. **Chamundeswari Electricity Supply Corporation Limited,**  
Corporate Office, #29, Vijayanagara 2nd Stage,  
Hinkal, Mysuru - 570017, Karnataka

...Respondents

**Party Present** : Shri A. Naresh Kumar, PGCIL



## ORDER

The instant Petition has been filed by Power Grid Corporation of India Limited for the truing-up of the transmission tariff for the 2019-24 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) and for the determination of transmission tariff for the 2024-29 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024 (hereinafter referred to as “the 2024 Tariff Regulations”) in respect of a transmission asset, namely, LILO of Vemagiri-Gajuwaka 400 kV D/C line at Simhadri-II TPS (hereinafter referred to as “the transmission asset”) under “Transmission System associated with Simhadri-II Generation Project” (hereinafter referred to as “the transmission project”) in the Southern Region.

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

- 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) *Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 94 (1) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024, and other expenditure (if any) in relation to the filing of petition.*
- d) *Allow the petitioner to bill and recover Licensee fee and RLDC fees & charges, separately from the respondents in terms of Regulation 94 (3) and (4) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024.*
- e) *Allow the petitioner to bill and adjust impact on Interest on Loan due to change in Interest rate on account of floating rate of interest applicable during 2024-29 period, if any, from the respondents.*
- f) *Allow the petitioner to file a separate petition before Hon’ble Commission for claiming the overall security expenses and consequential IOWC on that security expenses as mentioned at para 19 above.*



- g) *Allow the petitioner to file a separate petition before Hon'ble Commission for claiming the overall insurance expenses and consequential IOWC on that insurance expenses as mentioned at para 19 above.*
- h) *Allow the petitioner to file a separate petition before Hon'ble Commission for claiming the overall capital spares at the end of tariff block as per actual as mentioned at Para 19 above.*
- i) *Allow the petitioner to claim expenses of CTUIL borne by POWERGRID through a separate petition as mentioned at para 20 above.*
- j) *Allow the Petitioner to bill and recover GST on Transmission Charges separately from the respondents, if GST on transmission is levied at any rate in future. Further, any taxes including GST and duties including cess etc. imposed by any statutory/Govt./municipal authorities shall be allowed to be recovered from the beneficiaries.*

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

### **Background**

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

- a) The Investment Approval (the IA) for the implementation of the transmission project in the Southern Region was accorded by the Board of Directors of the Petitioner vide Memorandum Ref: C/CP/SIMHADRI-II dated 14.1.2010 at an estimated cost of ₹3841 lakh, including an Interest During Construction (IDC) of ₹156 lakh (based on the 3rd quarter 2009 price level). The transmission asset was put under commercial operation with effect from 1.8.2011.
- b) The transmission tariff from the COD (i.e., 1.8.2011) to 31.3.2014 was initially allowed by the Commission, vide order dated 27.9.2011 in Petition No. 58/2011, by considering the gross block of ₹3101.48 lakh as on COD. The transmission tariff was subsequently revised by the Commission, vide revised order dated 22.7.2014 in Petition No. 58/2011, in compliance with the judgment of the Appellate Tribunal for Electricity (APTEL) dated 2.9.2013 in Appeal No. 46 of 2013. The Commission, vide order dated 18.2.2016 in Petition No. 444/TT/2014, trued-up the transmission tariff for the 2009-14 period and determined the transmission tariff for the 2014-19 period in respect of the transmission



asset. The Commission, vide order dated 27.4.2020 in Petition No. 274/TT/2019, trued-up the transmission tariff for the 2014-19 period and determined the transmission tariff for the 2019-24 period in respect of the transmission asset covered under the instant Petition.

- c) The Petitioner has filed the instant Petition for the truing-up of transmission tariff for the 2019-24 period and the determination of transmission tariff for the 2024-29 period in respect of the following transmission asset in the Southern Region:

<b>Asset Name</b>	<b>COD</b>
LILO of Vemagiri-Gajuwaka 400 kV D/C line at Simhadri-II TPS	1.8.2011

4. The Respondents include Distribution Licensees, Power Departments, Power Utilities, and Transmission Licensees that receive transmission services from the Petitioner, primarily benefiting the Southern Region.
5. The Petitioner has served a copy of the Petition on the Respondents and notice regarding the filing of this Petition has been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003 (the Act). No comments or suggestions have been received from the general public in response to the aforesaid notices published in the newspapers by the Petitioner.
6. The hearing in the matter was held on 5.11.2024, and the order was reserved.
7. This order is issued considering the Petitioner's submissions in the Petition vide affidavits dated 30.7.2024 and 14.11.2024.
8. Having heard the Petitioner's representative and perused the material available on record, we proceed to dispose of the Petition.



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

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

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	167.71	167.71	167.71	167.71	167.71
Interest on Loan	78.10	63.08	48.06	33.03	17.97
Return on Equity	175.43	175.43	175.43	175.43	175.43
Interest on Working Capital	6.70	6.07	5.47	5.29	5.83
O&M Expenses	8.40	8.69	9.00	9.32	9.65
<b>Total</b>	<b>436.34</b>	<b>420.98</b>	<b>405.67</b>	<b>390.78</b>	<b>376.59</b>

10. The details of the trued-up Interest on Working Capital (IWC) claimed by the Petitioner in respect of the transmission asset are as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	0.70	0.72	0.75	0.78	0.80
Maintenance Spares	1.26	1.30	1.35	1.40	1.45
Receivables	53.65	51.90	50.01	48.18	46.30
<b>Total Working Capital</b>	<b>55.61</b>	<b>53.92</b>	<b>52.11</b>	<b>50.36</b>	<b>48.55</b>
Rate of Interest (In %)	12.05	11.25	10.50	10.50	12.00
<b>Interest on Working Capital</b>	<b>6.70</b>	<b>6.07</b>	<b>5.47</b>	<b>5.29</b>	<b>5.83</b>

### Capital Cost for the 2019-24 Tariff Period

11. The Commission, vide order dated 27.4.2020 in Petition No. 274/TT/2019, considered the capital cost of ₹3164.73 lakh in respect of the transmission asset as on 31.3.2019 and the same has been considered as the opening capital cost as on 1.4.2019 for truing-up the transmission tariff for the 2019-24 period in accordance with Regulation 19 of the 2019 Tariff Regulations in the instant Petition.

12. The Petitioner, in the instant true-up Petition, has not claimed ACE for the 2019-24 tariff period.



13. We have considered the Petitioner's submissions. The capital cost allowed for the transmission asset is as follows:

(₹ in lakh)

Capital cost as on 1.4.2019	ACE during the 2019-24 tariff period	Capital cost as on 31.3.2024
3164.73	0.00	3164.73

### Debt-Equity Ratio

14. The details of the debt-equity ratio considered and allowed under Regulation 18 of the 2019 Tariff Regulations for computation of tariff of the transmission asset during the 2019-24 tariff period are as follows:

Funding	Capital Cost as on 1.4.2019		Capital Cost as on 31.3.2024	
	₹ in lakh	(In %)	₹ in lakh	(In %)
<b>Debt</b>	2230.69	70.49	2230.69	70.49
<b>Equity</b>	934.04	29.51	934.04	29.51
<b>Total</b>	<b>3164.73</b>	<b>100.00</b>	<b>3164.73</b>	<b>100.00</b>

### Depreciation

15. The depreciation has been worked out considering the admitted capital expenditure as on 1.4.2019 and thereafter up to 31.3.2024. The Weighted Average Rate of Depreciation (WAROD) has been worked out and placed as Annexure-I for the transmission asset as per Regulation 33 of the 2019 Tariff Regulations.

16. The depreciation allowed for the transmission asset is as follows:

(₹ in lakh)

Sl. No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Opening Gross Block	3164.73	3164.73	3164.73	3164.73	3164.73
B	Addition during the year 2019-24 due to projected ACE	0.00	0.00	0.00	0.00	0.00
C	Closing Gross Block (A+B)	3164.73	3164.73	3164.73	3164.73	3164.73
D	Average Gross Block (A+C)/2	3164.73	3164.73	3164.73	3164.73	3164.73
E	Average Gross Block (90% depreciable assets)	3164.73	3164.73	3164.73	3164.73	3164.73



Sl. No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
F	Average Gross Block (100% depreciable assets)	0.00	0.00	0.00	0.00	0.00
G	Depreciable value (excluding IT equipment and software) (E*90%)	2848.26	2848.26	2848.26	2848.26	2848.26
H	Depreciable value of IT equipment and software (F*100%)	0.00	0.00	0.00	0.00	0.00
I	Total Depreciable Value (G+H)	2848.26	2848.26	2848.26	2848.26	2848.26
J	Weighted average rate of Depreciation (WAROD) (In %)	5.299	5.299	5.299	5.299	5.299
K	Lapsed useful life at the beginning of the year (Year)	7	8	9	10	11
L	Balance useful life at the beginning of the year (Year)	28	27	26	25	24
<b>M</b>	<b>Depreciation during the year (D*J)</b>	<b>167.71</b>	<b>167.71</b>	<b>167.71</b>	<b>167.71</b>	<b>167.71</b>
N	Cumulative Depreciation at the end of the year	1444.48	1612.19	1779.89	1947.60	2115.31
O	Remaining Aggregate Depreciable Value at the end of the year	1403.78	1236.07	1068.36	900.65	732.95

17. The details of depreciation allowed vide order dated 27.4.2020 in Petition No. 274/TT/2019, depreciation claimed in the instant Petition, and trued-up depreciation allowed for the transmission asset in the instant order is as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Allowed vide order dated 27.4.2020 in Petition No. 274/TT/2019	167.71	167.71	167.71	167.71	167.71
Claimed by the Petitioner in the instant Petition	167.71	167.71	167.71	167.71	167.71
Allowed after truing-up in this order	167.71	167.71	167.71	167.71	167.71

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

18. The Petitioner has claimed the Weighted Average Rate of Interest (WAROI) on Loans based on its actual loan portfolio and prevailing interest rate. The IoL has been calculated based on the actual interest rate submitted by the Petitioner in accordance with Regulation 32 of the 2019 Tariff Regulations. The trued-up IoL allowed in respect of the transmission asset is as follows:





(₹ in lakh)

Sl. No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Gross Normative Loan	2230.69	2230.69	2230.69	2230.69	2230.69
B	Cumulative Repayments up to Previous Year	1276.77	1444.48	1612.19	1779.89	1947.60
C	Net Loan-Opening (A-B)	953.92	786.21	618.50	450.80	283.09
D	Addition due to ACE	0.00	0.00	0.00	0.00	0.00
E	Repayment during the year	167.71	167.71	167.71	167.71	167.71
F	Net Loan-Closing (C+D-E)	786.21	618.50	450.80	283.09	115.38
G	Average Loan (C+F)/2	870.07	702.36	534.65	366.94	199.23
H	Weighted Average Rate of Interest on Loan (In %)	8.976	8.982	8.990	9.002	9.022
I	<b>Interest on Loan (G*H)</b>	<b>78.10</b>	<b>63.08</b>	<b>48.06</b>	<b>33.03</b>	<b>17.97</b>

19. The details of the IoL allowed vide order dated 27.4.2020 in Petition No. 274/TT/2019, IoL claimed in the instant Petition, and trued-up IoL allowed in the instant order in respect of the transmission asset are as follows:

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Allowed vide order dated 27.4.2020 in Petition No. 274/TT/2019	78.10	63.08	48.06	33.03	17.97
Claimed by the Petitioner in the instant Petition	78.10	63.08	48.06	33.03	17.97
Allowed after truing-up in this order	78.10	63.08	48.06	33.03	17.97

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

20. The Petitioner has submitted that its income tax assessment has been completed, and assessment orders have been issued by the Income Tax Department for the FY 2019-20 and the FY 2020-21. Further, the Income Tax Returns have been filed with the Income Tax Department for the FY 2021-22 and 2022-23. The Income Tax Returns for the FY 2023-24 would be filed in due course. The Petitioner has also submitted that it is liable to pay the income tax and has claimed the following effective tax rates for the 2019-24 tariff period:



Year	Claimed effective tax rate (In %)	Grossed up RoE (In %) [(Base Rate)/(1-t)]
2019-20	17.472%	18.782%
2020-21	17.472%	18.782%
2021-22	17.472%	18.782%
2022-23	17.472%	18.782%
2023-24	17.472%	18.782%

21. We have considered the Petitioner's submissions and have also gone through the record. We have arrived at the effective tax rate based on the notified MAT rates, and the same is as follows:

Year	Notified MAT rates (In %) (inclusive of surcharge & cess)	Effective tax (In %)	Base rate of RoE (In %)	Grossed-up RoE [(Base Rate)/(1-t)] (In%)
2019-20	17.472%	17.472%	15.50	18.782%
2020-21	17.472%	17.472%	15.50	18.782%
2021-22	17.472%	17.472%	15.50	18.782%
2022-23	17.472%	17.472%	15.50	18.782%
2023-24	17.472%	17.472%	15.50	18.782%

22. Accordingly, the trued-up RoE allowed in respect of the transmission asset for the 2019-24 tariff period is as follows:

(₹ in lakh)						
Sl. No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Opening Equity	934.04	934.04	934.04	934.04	934.04
B	Addition due to ACE	0.00	0.00	0.00	0.00	0.00
C	Closing Equity (A+B)	934.04	934.04	934.04	934.04	934.04
D	Average Equity (A+C)/2	934.04	934.04	934.04	934.04	934.04
E	Return on Equity (Base Rate) (In %)	15.50	15.50	15.50	15.50	15.50
F	Tax Rate applicable (In %)	17.472	17.472	17.472	17.472	17.472
G	Rate of Return on Equity (In %)	18.782	18.782	18.782	18.782	18.782
H	<b>Return on Equity (D*G)</b>	<b>175.43</b>	<b>175.43</b>	<b>175.43</b>	<b>175.43</b>	<b>175.43</b>

23. The details of the RoE allowed vide order dated 27.4.2020 in Petition No. 274/TT/2019, RoE claimed in the instant Petition, and trued-up RoE allowed in the instant order in respect of the transmission asset are as follows:



(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Allowed vide order dated 27.4.2020 in Petition No. 274/TT/2019	175.43	175.43	175.43	175.43	175.43
Claimed by the Petitioner in the instant Petition	175.43	175.43	175.43	175.43	175.43
Allowed after truing-up in this order	175.43	175.43	175.43	175.43	175.43

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

24. The Commission, vide order dated 27.4.2020 in Petition No. 274/TT/2019, allowed the following O&M Expenses with respect to the transmission asset for the 2019-24 period:

(₹ in lakh)

O&M Expenses					
	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Total O&amp;M Expenses</b>	9.56	9.85	10.16	10.48	10.81

25. The Petitioner, in the instant true-up Petition, has claimed the following O&M Expenses:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Transmission Line</b>					
LILO of Vemagiri-Gajuwaka 400 kV TWIN Conductor D/C line at Simhadri-II TPS (km)	1.650	1.650	1.650	1.650	1.650
<b>Norms (₹ lakh per km)</b>	0.881	0.912	0.944	0.977	1.011
<b>O&amp;M Expenses Claimed</b>	1.45	1.50	1.56	1.61	1.67
LILO of Vemagiri-Gajuwaka 400 kV TWIN Conductor M/C line at Simhadri-II TPS (km)	4.500	4.500	4.500	4.500	4.500
<b>Norms (₹ lakh per km)</b>	1.544	1.598	1.654	1.713	1.773
<b>O&amp;M Expenses Claimed</b>	6.95	7.19	7.44	7.71	7.98
<b>O&amp;M Expenses of Transmission Line</b>	8.40	8.69	9.00	9.32	9.65
<b>Total Normative O&amp;M Expenses</b>	8.40	8.69	9.00	9.32	9.65

26. We have considered the Petitioner's submissions. The Petitioner, in the instant true-up Petition, has not claimed the O&M Expenses towards PLCC under the communication system. Accordingly, the details of O&M Expenses allowed vide order dated 27.4.2020 in Petition No.



274/TT/2019, O&M Expenses claimed in the instant Petition, and trued-up O&M Expenses allowed in the instant order in respect of the transmission asset are as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Approved vide order dated 27.4.2020 in Petition No. 274/TT/2019	9.56	9.85	10.16	10.48	10.81
As claimed by the Petitioner in the instant Petition	8.40	8.69	9.00	9.32	9.65
Allowed in the instant true-up Petition	8.40	8.69	9.00	9.32	9.65

### **Interest on Working Capital (IWC)**

27. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The 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 the FY 2019-20, 11.25% (SBI 1-year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points) for the FY 2020-21, 10.50% (SBI 1-year MCLR applicable as on 1.4.2021 of 7.00% plus 350 basis points) for the FY 2021-22 and FY 2022-23 and 12.00% (SBI 1 year MCLR applicable as on 1.4.2023 of 8.50% plus 350 basis points) for FY 2023-24.

28. The components of the working capital and interest allowed thereon for the transmission asset are as follows:

(₹ in lakh)						
Sl. No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Working Capital for O&M Expenses (O&M Expenses for one month)	0.70	0.72	0.75	0.78	0.80
B	Working Capital for Maintenance Spares (15% of O&M Expenses)	1.26	1.30	1.35	1.40	1.45
C	Working Capital for Receivables (Equivalent to 45 days of annual fixed cost /annual transmission charges)	53.65	51.90	50.01	48.18	46.30
D	<b>Total Working Capital (A+B+C)</b>	<b>55.61</b>	<b>53.93</b>	<b>52.11</b>	<b>50.35</b>	<b>48.55</b>
E	Rate of Interest for working capital (In %)	12.05	11.25	10.50	10.50	12.00
F	<b>Interest on Working Capital (D*E)</b>	<b>6.70</b>	<b>6.07</b>	<b>5.47</b>	<b>5.29</b>	<b>5.83</b>



29. The details of the IWC Expenses allowed vide order dated 27.4.2020 in Petition No. 274/TT/2019, IWC claimed in the instant Petition, and trued-up IWC allowed in the instant order in respect of the transmission asset are as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Allowed vide order dated 27.4.2020 in Petition No. 274/TT/2019	6.75	6.56	6.34	6.13	5.90
Claimed by the Petitioner in the instant Petition	6.70	6.07	5.47	5.29	5.83
Allowed after truing-up in this order	6.70	6.07	5.47	5.29	5.83

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

30. Accordingly, the annual fixed charges allowed after truing-up for the 2019-24 tariff period in respect of the transmission asset are as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	167.71	167.71	167.71	167.71	167.71
Interest on Loan	78.10	63.08	48.06	33.03	17.97
Return on Equity	175.43	175.43	175.43	175.43	175.43
Operation & Maintenance Expenses	8.40	8.69	9.00	9.32	9.65
Interest on Working Capital	6.70	6.07	5.47	5.29	5.83
<b>Total</b>	<b>436.34</b>	<b>420.98</b>	<b>405.67</b>	<b>390.78</b>	<b>376.59</b>

31. The details of annual transmission charges allowed vide order dated 27.4.2020 in Petition No. 274/TT/2019, annual transmission charges claimed in the instant Petition, and trued-up annual transmission charges allowed in the instant order in respect of the transmission asset are as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Allowed vide order dated 27.4.2020 in Petition No. 274/TT/2019	437.55	422.63	407.71	392.78	377.83
Claimed by the Petitioner in the instant Petition	436.34	420.98	405.67	390.78	376.59
Allowed after truing-up in this order	436.34	420.98	405.67	390.78	376.59



## **DETERMINATION OF ANNUAL FIXED CHARGES FOR THE 2024-29 TARIFF PERIOD**

32. The Petitioner has claimed the following transmission charges for the transmission asset for the 2024-29 tariff period:

Particulars	(₹ in lakh)				
	2024-25	2025-26	2026-27	2027-28	2028-29
Depreciation	31.87	31.87	31.87	31.87	31.87
Interest on Loan	9.01	6.19	3.33	0.92	0.00
Return on Equity	175.43	175.43	175.43	175.43	175.43
Interest on Working Capital	3.57	3.55	3.53	3.50	3.52
O&M Expenses	8.21	8.64	9.09	9.57	10.07
<b>Total</b>	<b>228.09</b>	<b>225.68</b>	<b>223.25</b>	<b>221.29</b>	<b>220.89</b>

33. The Petitioner has claimed the following IWC for the transmission asset for the 2024-29 tariff period:

Particulars	(₹ in lakh)				
	2024-25	2025-26	2026-27	2027-28	2028-29
O&M Expenses	0.68	0.72	0.76	0.80	0.84
Maintenance Spares	1.23	1.30	1.36	1.44	1.51
Receivables	28.12	27.82	27.52	27.21	27.23
<b>Total Working Capital</b>	<b>30.03</b>	<b>29.84</b>	<b>29.64</b>	<b>29.45</b>	<b>29.58</b>
Rate of Interest (In %)	11.90	11.90	11.90	11.90	11.90
<b>Interest on Working Capital</b>	<b>3.57</b>	<b>3.55</b>	<b>3.53</b>	<b>3.50</b>	<b>3.52</b>

### **Capital Cost**

34. Regulation 19 of the 2024 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 checks in accordance with these regulations shall form the basis for the 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 and, in the event actual equity is in excess of 30% on a pari-passu basis, by treating the excess equity over and above 30% of the funds deployed as a normative loan, or (ii) being equal to the actual amount of the loan in the event of actual equity being 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 the sale of infirm power in excess of fuel cost prior to the date of commercial operation as specified under Regulation 6 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 up to the receiving end of the generating station but does not include the transportation cost and any other appurtenant cost paid to the railway;
- (k) Capital expenditure on account of biomass handling equipment and facilities, for co-firing;
- (l) Capital expenditure on account of emission control system necessary to meet the revised emission standards and sewage treatment plant;
- (m) Expenditure on account of the 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 the Perform, Achieve and Trade (PAT) scheme of the Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.
- (p) Expenditure required to enable flexible operation of the generating station at lower loads.

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

- (a) Capital cost admitted by the Commission prior to 1.4.2024 duly trued up by excluding liability, if any, as on 1.4.2024;
- (b) Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;
- (c) Capital expenditure on account of renovation and modernisation as admitted by this Commission in accordance with these regulations;
- (d) Capital expenditure on account of ash disposal and utilization, including handling and transportation facility;
- (e) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal up to the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway;
- (f) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under the Perform, Achieve and Trade (PAT) scheme of the Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries;
- (g) Expenditure required to enable flexible operation of the generating station at lower loads;
- (h) Capital expenditure on account of biomass handling equipment and facilities, for cofiring; and
- (i) Expenditure on account of change in law and force majeure events;

(4) The capital cost in case of existing or new hydro generating stations 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 the Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) and Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) project in the affected area.*

*(c) For uninterrupted and timely development of Hydro projects, expenditure incurred towards developing local infrastructure in the vicinity of the power plant not exceeding Rs. 10 lakh/MW shall be considered as part of the Capital cost, and in case the same work is covered under budgetary support provided by the Government of India, the funding of such works shall be adjusted on receipt of such funds.*

*Provided that such funds shall be allowed only if the funds are spent through Indian Governmental Instrumentality;*

*(5) For Projects acquired through NCLT proceedings under the Insolvency and Bankruptcy Code, 2016, the following shall be considered while approving Capital Costs for the determination of tariff:*

*(a) For projects already under operation, historical GFA of the project acquired or the acquisition cost paid by the generating company, whichever is lower;*

*(b) For considering the historical GFA for the purpose of Sub-Clause (a) above, the same shall be the capital cost approved by the appropriate commission till the date of acquisition;*

*Provided that in the absence of any prior approved capital cost of an Appropriate Commission, the Commission shall consider the same on the basis of audited accounts subject to prudence check;*

*Provided further, that in case additional capital expenditure is required post acquisition of an already operational project, the same shall be considered under the provisions of Chapter 7 of these Regulations;*

*(c) In case any under construction project is acquired that has yet to achieve commercial operation, the acquisition cost or the actual audited cost incurred till the date of acquisition, whichever is lower, shall be considered and;*

*(d) any additional capital expenditure incurred post acquisition of such project up to the date of commercial operation of the project in line with the investment approval of the Board of Directors of the generating company or the transmission licensees shall also be considered on a case to case basis subject to prudence check.*

*Provided that post commercial operation, additional capital expenditure shall be allowed under the provisions of Chapter 7 of these Regulations.*

*(6) 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 obsolescence;*

*(c) De-capitalised Assets on account of upgradation or shifting from one project to another project:*

*Provided that in case such an asset is recommended for further utilisation by the Regional Power Committee in consultation with CTU, such asset shall be de-capitalised from the original project only after its redeployment;*

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

*(d) In the 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;*

*(e) Proportionate cost of land of the existing generation or transmission project, as the case may be, which is being used for generating power from a generating station based on renewable energy as may be permitted by the Commission; and*





(f) Any grant received from the Central or State Government or any statutory body or authority for the execution of the project that does not carry any liability of repayment.”

35. The capital cost as on 1.4.2024 is allowed as ₹3164.73 lakh in accordance with Regulation 19(3) of the 2024 Tariff Regulations.

### **Additional Capital Expenditure**

36. The Petitioner has not claimed any ACE in respect of the transmission asset for the 2024-29 tariff period.

### **Debt Equity Ratio**

37. Regulation 18 of the 2024 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 the approval of the competent authority in other cases regarding the 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 the case of the generating station and the transmission system, including the communication system declared under commercial operation prior to 1.4.2024, the debt-equity ratio allowed by the Commission for the determination of tariff for the period ending 31.3.2024 shall be considered:

*Provided that in the case of a generating station or a transmission system, including a communication system which has completed its useful life as on 1.4.2024 or is completing*



its useful life during the 2024-29 tariff period, if the equity actually deployed 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 96 of these regulations.

(4) In the case of the generating station and the transmission system, including communication system declared under commercial operation prior to 1.4.2024, but where debt: equity ratio has not been determined by the Commission for determination of tariff for the period ending 31.3.2024, 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 1.4.2024 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.

(6) Any expenditure incurred for the emission control system during the tariff period as may be admitted by the Commission as additional capital expenditure for determination of supplementary tariff, shall be serviced in the manner specified in clause (1) of this Regulation.”

38. The Debt-equity ratio for the 2024-29 tariff period is dealt with in line with Regulation 18 of the 2024 Tariff Regulations. Accordingly, the debt-equity considered for the 2024-29 tariff period for the transmission asset is as follows:

Funding	Capital Cost as on 1.4.2024		Capital Cost as on 31.3.2029	
	₹ in lakh	(In %)	₹ in lakh	(In %)
Debt	2230.69	70.49	2230.69	70.49
Equity	934.04	29.51	934.04	29.51
<b>Total</b>	<b>3164.73</b>	<b>100.00</b>	<b>3164.73</b>	<b>100.00</b>

### **Depreciation**

39. Regulation 33 of the 2024 Tariff Regulations provides as follows:

**"33. Depreciation:** (1) Depreciation shall be computed from the date of commercial operation of a generating station or unit thereof or a transmission system or element thereof including communication system. In the case of the tariff of all the units of a generating station or all elements of a transmission system including the 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 the 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 a 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, the weighted average life for the generating station or the transmission system shall be applied. Depreciation shall be chargeable from the first year of commercial operation. In the case of commercial operation of the asset for a part of the year, depreciation shall be charged on a pro rata basis.*

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

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

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

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

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

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

*(5) Depreciation for Existing Projects shall be calculated annually based on the 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 generating station or transmission system, as the case may be, shall be spread over the balance useful life of the assets.*

*Provided further that in the case of an existing hydro generating station, the generating company, with the consent of the beneficiaries, may charge depreciation at a rate lower than that specified in Appendix I and Appendix II to these Regulations to reduce front loading of tariff.*

*(6) Depreciation for New Projects shall be calculated annually based on the Straight Line Method and at rates specified in Appendix-II 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 15 years from the effective date of commercial operation of the generating station or the transmission system, as the case may be, shall be spread over the balance useful life of the assets.*



*Provided further that in the case of a new hydro generating stations, the generating company, with the consent of the beneficiaries, may charge depreciation at a rate lower than that specified in Appendix II to these Regulations to reduce front loading of tariff.*

*(7) In the case of the existing projects, the balance depreciable value as on 1.4.2024 shall be worked out by deducting the cumulative depreciation as admitted to by the Commission up to 31.3.2024 from the gross depreciable value of the assets.*

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

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

*(10) Where the emission control system is implemented within the original scope of the generating station and the date of commercial operation of the generating station or unit thereof and the date of operation of the emission control system are the same, depreciation of the generating station or unit thereof including the emission control system shall be computed in accordance with Clauses (1) to (9) of this Regulation.*

*(11) Depreciation of the emission control system of an existing generating station that is yet to complete its useful life or a new generating station or unit thereof where the date of operation of the emission control system is subsequent to the date of commercial operation of the generating station or unit thereof, shall be computed annually from the date of operation of such emission control system based on the straight line method at rates specified in Appendix-I to these regulations;*

*Provided that the remaining depreciable value as on 31st March of the year closing after a period of 12 years from the date of operation of such emission control system shall be spread over the balance period of thirteen years or balance operational life of generating station, whichever is lower;*

*Provided also that in case the date of operation of the emission control system is after the 20th year of commercial operation of the generating station or unit thereof, but before the completion of the useful life of the generating station, the depreciation on emission control system (ECS) shall be computed annually from the date of operation of such ECS based on the straight line method, with a salvage value of 10% and the depreciable value shall be recovered till the operational life of the generating station.*

*(12) In case the date of operation of the emission control system is subsequent to the date of completion of the useful life of generating station commercial operation of the generating station or unit thereof, depreciation of ECS shall be computed annually from the date of operation of such emission control system based on the straight line method, with a salvage value of 10% and recovered over ten years or a period mutually agreed by the generating company and the beneficiaries, whichever is higher.”*



40. The depreciation has been worked out considering the admitted capital expenditure as on 1.4.2024 and thereafter up to 31.3.2029. The Weighted Average Rate of Depreciation (WAROD) has been worked out and placed as Annexure-II for the transmission asset as per the rates of depreciation specified in the 2024 Tariff Regulations. The transmission asset has completed its 12 years of life as on 1.4.2024. Therefore, the remaining depreciable value of ₹732.95 lakh as on 1.4.2024 has been spread over the balance useful life of the transmission asset in accordance with the 2024 Tariff Regulations.

41. The depreciation allowed for the transmission asset under Regulation 33 of the 2024 Tariff Regulations for the 2024-29 tariff period is as under:

(₹ in lakh)

Sl. No.	Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
A	Opening Gross Block	3164.73	3164.73	3164.73	3164.73	3164.73
B	Addition during the year 2024-29 due to projected ACE	0.00	0.00	0.00	0.00	0.00
C	Closing Gross Block (A+B)	3164.73	3164.73	3164.73	3164.73	3164.73
D	Average Gross Block (A+C)/2	3164.73	3164.73	3164.73	3164.73	3164.73
E	Average Gross Block (90% depreciable assets)	3164.73	3164.73	3164.73	3164.73	3164.73
F	Average Gross Block (100% depreciable assets)	0.00	0.00	0.00	0.00	0.00
G	Depreciable value (excluding IT equipment and software) (E*90%)	2848.26	2848.26	2848.26	2848.26	2848.26
H	Depreciable value of IT equipment and software (F*100%)	0.00	0.00	0.00	0.00	0.00
I	Total Depreciable Value (G+H)	2848.26	2848.26	2848.26	2848.26	2848.26
J	Weighted average rate of Depreciation (WAROD) (In %)	Spread-over depreciation				
K	Lapsed useful life at the beginning of the year (Year)	12	13	14	15	16
L	Balance useful life at the beginning of the year (Year)	23	22	21	20	19
<b>M</b>	<b>Depreciation during the year (D*J)</b>	<b>31.87</b>	<b>31.87</b>	<b>31.87</b>	<b>31.87</b>	<b>31.87</b>
N	Cumulative Depreciation at the end of the year	2147.18	2179.04	2210.91	2242.78	2274.65
O	Remaining Aggregate Depreciable Value at the end of the year	701.08	669.21	637.35	605.48	573.61



## Interest on Loan (IoL)

42. Regulation 32 of the 2024 Tariff Regulations provides as follows:

**“32. Interest on loan capital:** (1) *The loans arrived at in the manner indicated in Regulation 18 of these regulations shall be considered gross normative loans for the calculation of interest on loans.*

(2) *The normative loan outstanding as on 1.4.2024 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2024 from the gross normative loan.*

(3) *The repayment for each of the years of the tariff period 2024-29 shall be deemed to be equal to the depreciation allowed for the corresponding year or period. In case of de-capitalization of assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis, and the adjustment should not exceed cumulative depreciation recovered up to the date of de-capitalisation of such asset.*

(4) *Notwithstanding any moratorium period availed of by the generating company or the transmission licensee, as the case may be, the repayment of the loan shall be considered from the first year of commercial operation of the project and shall be equal to the depreciation allowed for the year or part of the year.*

(5) *The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio or allocated loan portfolio;*

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

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

*Provided that the rate of interest on the loan for the installation of the emission control system commissioned subsequent to date of commercial operation of the generating station or unit thereof, shall be the weighted average rate of interest of the actual loan portfolio of the emission control system, and in the absence of the actual loan portfolio, the weighted average rate of interest of the generating company as a whole shall be considered, subject to a ceiling of 14%;*

*Provided further that if the generating company or the transmission licensee, as the case may be, does not have any actual loan, then the rate of interest for a loan shall be considered as 1-year MCLR of the State Bank of India as applicable as on April 01, of the relevant financial year.*

(6) *The interest on the loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.*

(7) *The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing.”*

43. The Petitioner has claimed the Weighted Average Rate of Interest (WAROI) on loans based on its actual loan portfolio and rate of interest prevailing as on 1.4.2024. The IoL has been calculated based on the actual interest rate of various loans deployed for each year in



accordance with the 2024 Tariff Regulations. The Petitioner has prayed that the change in interest rate due to the floating rate of interest applicable, if any, during the 2024-29 tariff period will be adjusted. Accordingly, the floating interest rate, if any, shall be considered at the time of truing-up.

44. We have considered the submissions of the Petitioner, and the IoL has been worked out in accordance with Regulation 32 of the 2024 Tariff Regulations. The IoL allowed for the transmission asset for the 2024-29 tariff period is as follows:

(₹ in lakh)						
Sl. No.	Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
A	Gross Normative Loan	2230.69	2230.69	2230.69	2230.69	2230.69
B	Cumulative Repayments up to Previous Year	2115.31	2147.18	2179.04	2210.91	2230.69
C	Net Loan-Opening (A-B)	115.38	83.51	51.65	19.78	0.00
D	Addition due to ACE	0.00	0.00	0.00	0.00	0.00
E	Repayment during the year	31.87	31.87	31.87	19.78	0.00
F	Net Loan-Closing (C+D-E)	83.51	51.65	19.78	0.00	0.00
G	Average Loan (C+F)/2	99.45	67.58	35.71	9.89	0.00
H	Weighted Average Rate of Interest on Loan (In %)	9.061	9.165	9.328	9.338	9.350
I	<b>Interest on Loan (G*H)</b>	<b>9.01</b>	<b>6.19</b>	<b>3.33</b>	<b>0.92</b>	<b>0.00</b>

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

45. Regulations 30 and 31 of the 2024 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 for existing project 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 storage type hydro generating stations, pumped storage hydro generating stations and run-of- river generating station with pondage;

(3) Return on equity for new project achieving COD on or after 01.04.2024 shall be computed at the base rate of 15.00% for the transmission system, including the communication system, at the base rate of 15.50% for Thermal generating station and run-of-river hydro generating station and at the base rate of 17.00% for storage type hydro generating stations, pumped storage hydro generating stations and run-of-river generating station with pondage;

Provided that return on equity in respect of additional capitalization beyond the original scope, including additional capitalization on account of the emission control system, Change in



Law, and Force Majeure shall be computed at the base rate of one-year marginal cost of lending rate (MCLR) of the State Bank of India plus 350 basis points as on 1st April of the year, subject to a ceiling of 14%;

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 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 an 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, the rate of return on equity shall be reduced by 1.00% for the period for which the deficiency continues;
- iii. in the case of a thermal generating station:
  - a) rate of return on equity shall be reduced by 0.25% in case of failure to achieve the ramp rate as specified under Regulation 45(9) of IEGC Regulations, 2023.
  - b) an additional rate of return on equity of 0.125% shall be allowed for every incremental ramp rate of 0.50% per minute achieved over and above the ramp rate specified by Central Electricity Authority, subject to the ceiling of additional rate of return on equity of 1.00%:

**31. Tax on Return on Equity.** (1) The 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. The effective tax rate 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 concerned generating company or the transmission licensee by excluding the income of non-generation or non-transmission business, as the case may be, and the corresponding tax thereon.

Provided that in case a generating company or transmission licensee is paying Minimum Alternate Tax (MAT) under Section 115JB of the Income Tax Act, 1961, the effective tax rate shall be the MAT rate, including surcharge and cess;

Provided further that in case a generating company or transmission licensee has opted for Section 115BAA, the effective tax rate shall be tax rate including surcharge and cess as specified under Section 115BAA of the Income Tax Act, 1961.

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

$$\text{Rate of pre-tax return on equity} = \text{Base rate} / (1-t)$$

(3) The generating company or the transmission licensee, as the case may be, shall true up the effective tax rate for 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 2024-29 on actual gross income of any financial year. Further, any penalty arising on account of delay in deposit or short deposit of tax amount shall not be considered while computing the actual tax paid for the generating company or the transmission licensee, as the case may be.





Provided that in case a generating company or transmission licensee is paying Minimum Alternate Tax (MAT) under Section 115JB, 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 with the applicable MAT rate including surcharge and cess.

Provided that in case a generating company or transmission licensee is paying tax under Section 115BAA, 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 with the tax rate including surcharge and cess as specified under Section 115BAA.

Provided that 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 a year to year basis.”

46. The Petitioner has submitted that the MAT rate applies to it.

47. We have considered the applicable MAT rate for the RoE, which will be trued-up in accordance with the 2024 Tariff Regulations. The RoE allowed to the transmission asset for the 2024-29 tariff period is as follows:

(₹ in lakh)						
Sl. No.	Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
A	Opening Equity	934.04	934.04	934.04	934.04	934.04
B	Addition due to ACE	0.00	0.00	0.00	0.00	0.00
C	Closing Equity (A+B)	934.04	934.04	934.04	934.04	934.04
D	Average Equity (A+C)/2	934.04	934.04	934.04	934.04	934.04
E	Return on Equity (Base Rate) (In %)	15.50	15.50	15.50	15.50	15.50
F	Tax Rate applicable (In %)	<b>17.472</b>	<b>17.472</b>	<b>17.472</b>	<b>17.472</b>	<b>17.472</b>
G	Rate of Return on Equity (In %)	18.782	18.782	18.782	18.782	18.782
H	<b>Return on Equity (D*G)</b>	<b>175.43</b>	<b>175.43</b>	<b>175.43</b>	<b>175.43</b>	<b>175.43</b>

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

48. The O&M Expenses claimed by the Petitioner for the 2024-29 tariff period for the transmission asset is as follows:

(₹ in lakh)					
Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
O&M Expenses	8.21	8.64	9.09	9.57	10.07

49. Regulation 36(3) of the 2024 Tariff Regulations provides as follows:



**“36. Operation and Maintenance Expenses:**

.....

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

<b>Particulars</b>	<b>2024-25</b>	<b>2025-26</b>	<b>2026-27</b>	<b>2027-28</b>	<b>2028-29</b>
<b>Norms for sub-station Bays (Rs Lakh per bay)</b>					
765 kV	41.34	43.51	45.79	48.20	50.73
400 kV	29.53	31.08	32.71	34.43	36.23
220 kV	20.67	21.75	22.90	24.10	25.36
132 kV and below	15.78	16.61	17.48	18.40	19.35
<b>Norms for Transformers/Reactors (Rs Lakh per MVA or MVAR)</b>					
O&M expenditure per MVA or per MVAR (Rs Lakh per MVA or per MVAR)	0.262	0.276	0.290	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)	0.861	0.906	0.953	1.003	1.056
Single Circuit (Bundled conductor with four or more sub-conductors)	0.738	0.776	0.817	0.860	0.905
Single Circuit (Twin & Triple Conductor)	0.492	0.518	0.545	0.573	0.603
Single Circuit (Single Conductor)	0.246	0.259	0.272	0.287	0.302
Double Circuit (Bundled conductor with four or more sub-conductors)	1.291	1.359	1.430	1.506	1.585
Double Circuit (Twin & Triple Conductor)	0.861	0.906	0.953	1.003	1.056
Double Circuit (Single Conductor)	0.369	0.388	0.409	0.430	0.453
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.266	2.385	2.510	2.642	2.781
Multi Circuit (Twin & Triple Conductor)	1.509	1.588	1.671	1.759	1.851
<b>Norms for HVDC stations</b>					
HVDC Back-to-Back stations (Rs Lakh per MW)	2.07	2.18	2.30	2.42	2.55
Gazuwaka BTB (Rs Lakh/MW)	1.83	1.92	2.03	2.13	2.24
HVDC bipole scheme (Rs Lakh/MW)	1.04	1.10	1.16	1.22	1.28

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 that the O&M expense norms of Double Circuit quad AC line shall be applicable to for HVDC bi-pole line;

Provided that the O&M expenses of  $\pm 500$  kV Mundra-Mohindergarh HVDC bipole scheme (2500 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for HVDC bipole scheme;

Provided further that the O&M expenses for Transmission Licensees whose transmission assets are located solely in NE Region (including Sikkim), States of Uttarakhand, Himachal Pradesh, the Union Territories of Jammu and Kashmir and Ladakh, district of



Darjeeling of West Bengal shall be worked out by multiplying 1.50 to the normative O&M expenses prescribed above.

(b) The total allowable operation and maintenance expenses for the transmission system shall be calculated by multiplying the number of substation bays, transformer capacity of the transformer/reactor/Static Var Compensator/Static Synchronous Compensator (in MVA/MVAr) and km of line length with the applicable norms for the operation and maintenance expenses per bay, per MVA/MVAr and per km respectively.

(c) .....

(d) The Security Expenses, Capital Spares individually costing more than Rs. 10 lakh and Insurance expenses arrived through competitive bidding for the transmission system and associated communication system shall be allowed separately after prudence check: Provided that in case of self insurance, the premium shall not exceed 0.09% of the GFA of the assets insured;

Provided that the transmission licensee shall submit the along with estimated security expenses based on assessment of the security requirement, capital spares and insurance expenses, which shall be trued up based on details of the year-wise actuals along with appropriate justification for incurring the same and along with confirmation that the same is not claimed as a part of additional capitalisation or consumption of stores and spares and renovation and modernization.

(e) On the occurrence of any change in law event affecting O&M expenses, the impact shall be allowed to the transmission licensee at the time of truing up of tariff.

Provided that such impact shall be allowed only in case the overall impact of such change in law event in a year is more than 5% of normative O&M expenses of the project for the year.

(f) In case of a transmission licensee owned by the Central or State Government, the impact on account of implementation of wage or pay revision shall be allowed at the time of truing up of tariff.”

50. We have considered the Petitioner’s submissions. The O&M Expenses for the 2024-29 tariff period have been worked out as per norms specified in the 2024 tariff Regulations. The O&M Expenses allowed for the 2024-29 tariff period for the transmission asset as per Regulation 36 of the 2024 Tariff Regulations are as under:

Particulars	(₹ in lakh)				
	2024-25	2025-26	2026-27	2027-28	2028-29
<b>Transmission Line</b>					
LILO of Vemagiri-Gajuwaka 400 kV Twin Conductor D/C line at Simhadri-II TPS (km)	1.650	1.650	1.650	1.650	1.650
<b>Norms (₹ lakh per km)</b>	0.861	0.906	0.953	1.003	1.056
<b>O&amp;M Expenses Claimed</b>	1.42	1.49	1.57	1.65	1.74



LILO of Vemagiri-Gajuwaka 400 kV Twin Conductor M/C line at Simhadri-II TPS (km)	4.500	4.500	4.500	4.500	4.500
<b>Norms (₹ lakh per km)</b>	1.509	1.588	1.671	1.759	1.851
<b>O&amp;M Expenses Claimed</b>	6.79	7.15	7.52	7.92	8.33
<b>O&amp;M Expenses of Transmission Line</b>	8.21	8.64	9.09	9.57	10.07
<b>Total Normative O&amp;M Expenses</b>	8.21	8.64	9.09	9.57	10.07

### **Interest on Working Capital (IWC)**

51. Regulations 34 (1) (d), 34 (3) and 34(4) of the 2024 Tariff Regulations provide as follows:

*“34. Interest on Working Capital: (1) The working capital shall cover:*

*“(d) For Hydro generating station (including Pumped Storage Hydro generating station) and Transmission System:*

*(i) Receivables equivalent to 45 days of annual fixed cost;*

*(ii) Maintenance spares @ 15% of operation and maintenance expenses including security expenses; and*

*(iii) Operation and maintenance expenses, including security expenses for one month.*

.....

*(3) Rate of interest on working capital shall be on a normative basis and shall be considered at the Reference Rate of Interest as on 1.4.2024 or as on 1st April of the year during the tariff period 2024- 29 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 Reference Rate of Interest as on 1st April of each of the financial year during the tariff period 2024-29.*

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

52. The Petitioner has considered the rate of IWC as 11.90% as on 1.4.2024. IWC is worked out in accordance with Regulation 34 of the 2024 Tariff Regulations. The Rate of Interest (RoI)



considered is 11.90% (SBI 1-year MCLR applicable as on 1.4.2024 of 8.65% plus 325 basis points) for the FY 2024-25 to FY 2028-29.

53. The components of the working capital and interest allowed thereon under Regulation 34 of the 2024 Tariff Regulations for the 2024-29 tariff period in respect of the transmission asset are as under:

(₹ in lakh)						
Sl. No.	Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
A	Working Capital for O&M Expenses (O&M Expenses for one month)	0.68	0.72	0.76	0.80	0.84
B	Working Capital for Maintenance Spares (15% of O&M Expenses)	1.23	1.30	1.36	1.44	1.51
C	Working Capital for Receivables (Equivalent to 45 days of annual fixed cost /annual transmission charges)	28.04	27.82	27.52	27.21	27.23
D	<b>Total Working Capital (A+B+C)</b>	<b>29.96</b>	<b>29.84</b>	<b>29.64</b>	<b>29.44</b>	<b>29.58</b>
E	Rate of Interest for Working Capital (In %)	11.90	11.90	11.90	11.90	11.90
F	<b>Interest on Working Capital (D*E)</b>	<b>3.57</b>	<b>3.55</b>	<b>3.53</b>	<b>3.50</b>	<b>3.52</b>

#### **Annual Fixed Charges for the 2024-29 Tariff Period**

54. The transmission charges allowed in respect of the transmission asset for the 2024-29 tariff period are as follows:

(₹ in lakh)					
Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Depreciation	31.87	31.87	31.87	31.87	31.87
Interest on Loan	9.01	6.19	3.33	0.92	0.00
Return on Equity	175.43	175.43	175.43	175.43	175.43
Operation & Maintenance Expenses	8.21	8.64	9.09	9.57	10.07
Interest on Working Capital	3.57	3.55	3.53	3.50	3.52
<b>Total</b>	<b>228.09</b>	<b>225.68</b>	<b>223.25</b>	<b>221.29</b>	<b>220.89</b>

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

55. The Petitioner has claimed reimbursement of the fee paid by it for filing the Petition and publication expenses. The Petitioner has further submitted that it shall be entitled to the reimbursement of the filing fee and the expenses incurred on publication of notices in the



application for approval of tariff directly from the beneficiaries or the long-term customers, as the case may be in accordance with Regulation 94(1) of the 2024 Tariff Regulations.

56. We have considered the Petitioner's submissions. The Petitioner is entitled to reimbursement of the fees paid for filing the Petition and publication expenses incurred on this count directly from the beneficiaries or long-term customers, as the case may be.

### **Fees and Charges of CTUIL**

57. The Petitioner has submitted that as per Regulation 99 of the 2024 Tariff Regulations, the fees and charges of the Central Transmission Utility of India Limited (CTUIL) may be allowed separately through a separate regulation. The Petitioner has further submitted that in the absence of such regulation, the expenses of CTUIL will be borne by the Petitioner, which will be recovered by the Petitioner as additional O&M Expenses through a separate Petition at the end of the tariff period.

58. It is apt here to refer to Regulation 99 of the 2024 Tariff Regulations, which provides as under:

***“99. Special Provisions relating to Central Transmission Utility of India Ltd. (CTUIL): The fee and charges of CTUIL shall be allowed separately by the Commission through a separate regulation:***

*Provided that until such regulation is issued by the Commission, the expenses of CTUIL shall be borne by Power Grid Corporation of India Ltd. (PGCIL) which shall be recovered by PGCIL as additional O&M expenses through a separate petition.”*

59. We have considered the Petitioner's submissions and perused Regulation 99 of the 2024 Tariff Regulations. In view of the explicit provision made under Regulation 99 of the 2024 Tariff Regulations, we permit the Petitioner, i.e., PGCIL, to bear the fees and charges expenses of CTUIL and recover the same as an additional O&M Expenses through a separate Petition until such regulation is notified and issued by the Commission.



### **License Fee and RLDC Fees and Charges**

60. The Petitioner has claimed reimbursement of the license fee, RLDC Fees and Charges. The Petitioner is allowed the reimbursement of the license fee in accordance with Regulation 94(4) of the 2024 Tariff Regulations for the 2024-29 tariff period. The Petitioner is also allowed to recover the RLDC fee and charges from the beneficiaries in terms of Regulation 94(3) of the 2024 Tariff Regulations for the 2024-29 tariff period.

### **Goods and Services Tax**

61. The Petitioner has submitted that the transmission charges claimed herein are exclusive of GST, and in case GST is levied in the future, the same shall be additionally paid by the Respondents and be charged and billed separately by the Petitioner. It is also prayed that additional taxes, if any, are paid by the Petitioner on account of the demand from the Government/ statutory authorities, and the Commission may allow the same to be recovered from the beneficiaries.

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

### **Security Expenses, Insurance, and Capital Spares**

63. The Petitioner has submitted that as per Regulation 36(3) (d) of the 2024 Tariff Regulations, the security expenses and capital spares of more than ₹10 lakh and insurance expenses arrived through the competitive bidding for the transmission system and associated communication system shall be allowed by the Commission separately after prudence check.

64. As regards the security expenses of the transmission assets, the Petitioner has submitted that it shall file a separate Petition for the truing up of security expenses from



1.4.2019 to 31.3.2024 under Regulation 35(3)(c) of the 2019 Tariff Regulations and recovery of security expenses from 1.4.2024 to 31.3.2029 under Regulation 36 (3) (d) of the 2024 Tariff Regulations. According to the Petitioner, the security expenses regarding the transmission assets have not been claimed in the instant Petition.

65. The Petitioner has also submitted that it has not claimed insurance expenses in the instant Petition, and in this regard, it shall file a separate Petition for claiming the overall insurance expenses and consequential Interest on Working Capital (IWC), considering the actual insurance expenses incurred by it for the FY 2023-24 after escalating the same at 5.25% per annum to arrive at the estimated insurance expense for the FY 2024-25, FY 2025-26, FY 2026-27, FY 2027-28, and FY 2028-29.

66. The Petitioner has not claimed capital spares for the transmission assets in the instant Petition for the 2024-29 tariff period. According to the Petitioner, it shall file a separate Petition for the capital spares consumed and consequential IWC thereon on an actual basis for the 2024-29 tariff period as per the 2024 Tariff Regulations. The Petitioner has also submitted that it has filed Petition No. 45/MP/2024, claiming therein capital spares for the 2019-24 tariff period as per the 2019 Tariff Regulations.

67. We have considered the Petitioner's submissions and have perused the record. We deem it proper here to refer to Regulation 36(3) (d) of the 2024 Tariff Regulations which provides as follows:

*"36(3)*

*(d) The Security Expenses, Capital Spares individually costing more than Rs. 10 lakh and Insurance expenses arrived through competitive bidding for the transmission system and associated communication system shall be allowed separately after prudence check:*

*Provided that in case of self insurance, the premium shall not exceed 0.09% of the GFA of the assets insured;*

*Provided that the transmission licensee shall submit the along with estimated security expenses based on assessment of the security requirement, capital spares and insurance expenses, which shall be trued up based on details of the year-wise actuals along with*





*appropriate justification for incurring the same and along with confirmation that the same is not claimed as a part of additional capitalisation or consumption of stores and spares and renovation and modernization.”*

68. On perusal of Regulation 36 (3) (d) of the 2024 Tariff Regulations and considering the Petitioner’s submissions, the Petitioner is allowed to file a single consolidated Petition comprising of security expenses, capital spares individually costing more than ₹10 lakh, and insurance expenses on estimated basis as per the 2024 Tariff Regulations for the 2024-29 tariff period.

### **Sharing of Transmission Charges**

69. The billing, collection, and disbursement of the transmission charges for the transmission asset shall be recovered in terms of provisions of the 2020 Sharing Regulations as provided in Regulation 57 of the 2019 Tariff Regulations for the 2019-24 tariff period and Regulation 78 of the 2024 Tariff Regulations for the 2024-29 tariff period.

70. To summarize:

- a) The trued-up Annual Fixed Charges allowed for the 2019-24 tariff period in respect of the transmission asset are as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
AFC	436.34	420.98	405.67	390.78	376.59

- b) The Annual Fixed Charges allowed in respect of the transmission asset for the 2024-29 tariff period are as follows:

Particulars	(₹ in lakh)				
	2024-25	2025-26	2026-27	2027-28	2028-29
AFC	228.09	225.68	223.25	221.29	220.89

71. Annexures to this order form part of the order.



72. This order disposes of Petition No. 385/TT/2024 in terms of the above discussions and findings.

**sd/-**  
**(Harish Dudani)**  
**Member**

**sd/-**  
**(Ramesh Babu V.)**  
**Member**

**sd/-**  
**(Jishnu Barua)**  
**Chairperson**



**Annexure-I**

**Weighted Average Rate of Depreciation for the 2019-24 tariff period**

(₹ in lakh)

Capex	Capital Cost as on 1.4.2019	ACE					Capital Cost as on 31.3.2024	Depreciation Rate	Annual Depreciation				
	Amount (₹ in lakh)	2019-20	2020-21	2021-22	2022-23	2023-24	2019-20		2020-21	2021-22	2022-23	2023-24	
Transmission Line	3106.61	0.00	0.00	0.00	0.00	0.00	3106.61	5.28%	164.03	164.03	164.03	164.03	164.03
PLCC	58.12	0.00	0.00	0.00	0.00	0.00	58.12	6.33%	3.68	3.68	3.68	3.68	3.68
<b>Total</b>	<b>3164.73</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>3164.73</b>		<b>167.71</b>	<b>167.71</b>	<b>167.71</b>	<b>167.71</b>	<b>167.71</b>
								<b>Average Gross Block</b>	<b>3164.73</b>	<b>3164.73</b>	<b>3164.73</b>	<b>3164.73</b>	<b>3164.73</b>
								<b>WARO D (In %)</b>	5.299	5.299	5.299	5.299	5.299



**Annexure-II**

**Weighted Average Rate of Depreciation for the 2024-29 tariff period**

**(₹ in lakh)**

Capex	Capital Cost as on 1.4.2024	ACE					Capital Cost as on 31.3.2029	Depreciation Rate	Annual Depreciation				
	Amount (₹ in lakh)	2024-25	2025-26	2026-27	2027-28	2028-29	2024-25		2025-26	2026-27	2027-28	2028-29	
Transmission Line	3106.61	0.00	0.00	0.00	0.00	0.00	3106.61	5.28%	Spread over depreciation				
PLCC	58.12	0.00	0.00	0.00	0.00	0.00	58.12	15.00%	Spread over depreciation				
<b>Total</b>	<b>3164.73</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>3164.73</b>		<b>00</b>	<b>00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
								<b>Average Gross Block</b>	3164.73	3164.73	3164.73	3164.73	3164.73
								<b>WAROD (In %)</b>	Spread over depreciation				

