

# CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

**Petition No. 497/TT/2019**

**Coram:**

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

**Date of Order : 07.05.2021**

**In the matter of:**

Approval under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations 1999 and truing up of transmission tariff of the 2014-19 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of the 2019-24 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for extension of Kudankulam APP-Tirunelveli 400 kV (Quad) D/C line to Tuticorin Pooling Station along with associated bays at Tuticorin Pooling Station under Connectivity for Kudankulam 3 & 4 (2X1000 MW) with Inter-State Transmission System” in the Southern Region.

**And in the matter of:**

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

**.....Petitioner**

**Vs.**

1. Karnataka Power Transmission Corporation Ltd. ,  
Kaveri Bhavan, Bangalore-560009.
2. Transmission Corporation of Andhra Pradesh Ltd.,  
Vidyut Soudha, Hyderabad-500082.
3. Kerala State Electricity Board,  
Vaidyuthi Bhavanam,  
Pattom, Thiruvananthapuram-695004.
4. Tamil Nadu Generation and Distribution Corporation Ltd.,  
(Formerly Tamil Nadu Electricity Board -TNEB),  
NPKRR Maaligai, 800, Anna Salai, Chennai-600002.



5. Electricity Department,  
Government of Pondicherry, Pondicherry-605001.
6. Eastern Power Distribution Company of Andhra Pradesh Ltd.,  
APEPDCL, P&T Colony,  
Seethmmadhara, Vishakhapatnam, Andhra Pradesh.
7. Southern Power Distribution Company of Andhra Pradesh Ltd.),  
Srinivasasa Kalyana Mandapam Backside,  
Tiruchanoor Road, Kesavayana Gunta, Tirupati-517501,  
Chittoor District, Andhra Pradesh.
8. Central Power Distribution Company of Andhra Pradesh Ltd.,  
Corporate Office, Mint Compound,  
Hyderabad-500063, Telangana.
9. Northern Power Distribution Company of Andhra Pradesh Ltd.,  
Opposite NIT Petrol Pump, Chaitanyapuri, Kazipet,  
Warangal-506004, Telangana.
10. Bangalore Electricity Supply Company Limited,  
Corporate Office, K.R.Circle,  
Bangalore-560001, Karnataka.
11. Gulbarga Electricity Supply Company Ltd.,  
Station Main Road, Gulbarga, Karnataka.
12. Hubli Electricity Supply Company Ltd.,  
Navanagar, PB Road, Hubli, Karnataka.
13. MESCOM Corporate Office,  
Paradigm Plaza, AB Shetty Circle,  
Mangalore-575001, Karnataka.
14. Chamundeswari Electricity Supply Corporation Ltd.,  
927, L J Avenue, Ground Floor, New Kantharaj Urs Road,  
Saraswatipuram, Mysore-570009,  
Karnataka.
15. Electricity Department,  
Government of Goa,  
Vidyuti Bhawan, Panaji, Goa 403001.
16. Transmission Corporation of Telangana Ltd.,  
Vidhyut Sudha, Khairatabad,  
Hyderabad, 500082.
17. Tamil Nadu Transmission Corporation Ltd.,  
NPKRR Maaligai, 800, Anna Salai,  
Chennai-600002



18. Kudankulam Nuclear Power Plant,  
Kudankulam – 627 106, Radhapuram (Taluk),  
Tirunelveli (Dist.), Tamil Nadu.

...Respondent(s)

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

**For Respondents** : Shri B. Vinodh Kanna, Advocate, TANGEDCO  
Ms. R. Ramalakshmi, TANGEDCO  
Dr. R. Kathiravan, TANGEDCO

### **ORDER**

The instant petition has been filed by Power Grid Corporation of India Limited, a deemed transmission licensee, for truing up of the tariff of the period from date of commercial operation (COD) to 31.3.2019 under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) and for determination of tariff of the period from 1.4.2019 to 31.3.2024 under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) for extension of Kudankulam APP-Tirunelveli 400 kV (Quad) D/C Transmission Line to Tuticorin Pooling Station along with associated bays at Tuticorin Pooling Station under Connectivity for Kudankulam 3 & 4 (2X1000 MW) (hereinafter referred to as “the transmission asset”) with Inter-State Transmission System” in Southern Region.

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

- 1) *“Approve the trued up Transmission Tariff for 2014-19 block and transmission tariff for 2019-24 block for the assets covered under this petition, as per para 10.2 and 11.0 above.*
- 2) *Approve the Completion cost and additional capitalization incurred during 2014-19. Admit the projected Add Cap during 2019-24.*



- 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 10.2 and 11.0 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 11.6 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”*

### **Background**

3. The brief facts of the case are as under:
  - a) The Investment Approval (IA) for the transmission asset was accorded by the Board of Directors of the Petitioner Company *vide* Memorandum Ref: C/CP/Connectivity for Kudankulam 3 & 4 dated 14.1.2016, at an estimated cost of ₹16211.00 lakh, which included IDC of ₹948.00 lakh based on August, 2015 price level.
  - b) The entire scope of the Transmission Project has been covered in the instant petition and the same is as under:



**Transmission Line:**

- i. Extension of Kudankulam APP-Tirunelveli 400 kV (Quad) D/C line to Tuticorin Pooling Station
  - a. Tuticorin Pooling Station-Tirunelveli section of the agreed Tuticorin Pooling Station-Kudankulam 400 kV (Quad) D/C line,
  - b. Connection of one 400 kV D/C of Kudankulam-Tirunelveli 400 kV 2XD/C (Quad) lines to the above line section to make Kudankulam-Tuticorin Pooling Station 400 kV D/C (Quad) line

**Sub-station:**

- i. Extension of Tuticorin Pooling Station (existing Sub-station of Powergrid)
  - a. 2 no line bays for 400 kV D/C (Quad) line
- c) As per the IA dated 14.1.2016, the transmission asset was scheduled to be put into commercial operation within 28 months from the date of IA i.e. by 12.5.2018, against which the transmission asset was put into commercial operation on 10.3.2018. Therefore, there is no time over-run in this case.
- d) The tariff for the transmission asset from the COD to 31.3.2019 was approved *vide* order dated 29.6.2018 in Petition No. 110/TT/2017. The Annual Fixed Charges (AFC) approved by the Commission and trued up transmission tariff claimed by the Petitioner for the transmission asset are as under:

Particulars	(₹ in lakh)	
	2017-18 (pro-rata for 22 days)	2018-19
AFC approved <i>vide</i> order dated 29.6.2018 in Petition No. 110/TT/2017	156.72	2672.04
AFC claimed by the Petitioner based on truing up in the instant petition	156.49	2708.22

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



5. The Petitioner has served the petition on the Respondents and notice regarding filing of this petition has also been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003. No suggestions/objections have been received from the general public in response to the aforesaid notice published in the newspapers by the Petitioner. A general notice dated 14.1.2020 was also published on the website of the Commission directing the beneficiaries/ Respondents to file reply in the matter. Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO), Respondent No. 4 has filed its reply *vide* affidavit dated 2.3.2021 and has raised issues like discrepancies in amount claimed for PLCC in Form-5 and in Auditor's Certificate, reduction in Return on Equity (RoE) by 1.00% for not submitting any material to show that the Communication System was erected with the transmission asset, claim of IEDC, computation of Initial Spares and sharing of transmission charges. The Petitioner *vide* affidavit dated 11.3.2021 has filed rejoinder to the reply of TANGEDCO. The issues raised by TANGEDCO and clarifications given by the Petitioner are considered in the relevant portions of this order.

6. This order is issued considering Petitioner's affidavits dated 7.10.2019 and 23.7.2020 and reply of TANGEDCO and Petitioner's rejoinder thereto.

7. The hearing in this matter was held on 3.3.2021 through video conference and order was reserved.

8. Having heard the representatives of the Petitioner, learned counsel for TANGEDCO and having perused the material on record, we proceed to dispose of the petition.



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

9. The details of the trued up transmission charges claimed by the Petitioner for the transmission asset for the 2014-19 tariff period are as follows:

Particulars	(₹ in lakh)	
	2017-18 (pro-rata)	2018-19
Depreciation	44.89	784.23
Interest on Loan	45.01	762.90
Return on Equity	50.25	880.44
Interest on Working Capital	3.66	63.26
O&M Expenses	12.68	217.39
<b>Total</b>	<b>156.49</b>	<b>2708.22</b>

10. The details of the trued up Interest on Working Capital (IWC) claimed by the Petitioner in respect of the transmission asset for the 2014-19 tariff period are as follows:

Particulars	(₹ in lakh)	
	2017-18 (pro-rata)	2018-19
O&M Expenses	17.53	18.12
Maintenance Spares	31.56	32.61
Receivables	432.71	451.37
Total Working Capital	481.81	502.10
Rate of Interest (%)	12.60	12.60
<b>Interest on Working Capital</b>	<b>3.66</b>	<b>63.26</b>

## **Interest During Construction (IDC) and Incidental Expenditure During Construction (IEDC)**

11. The transmission asset was scheduled to be put into commercial operation on 12.5.2018 and it was put into commercial operation on 10.3.2018, therefore, there was no time over-run. The Petitioner has claimed Interest During Construction (IDC) for the transmission asset and has also submitted the statement showing IDC claim, discharge of IDC liability as on COD and thereafter. The details of the same are as under:



(₹ in lakh)

IDC as per Auditor's Certificate	IDC discharged up to COD	IDC discharged in 2018-19
691.19	493.02	198.17

12. The Commission allowed IDC of ₹691.19 lakh *vide* order dated 29.6.2018 in the Petition No. 110/TT/2017. Out of the total ₹691.19 lakh, ₹493.02 lakh was allowed as on COD and the remaining ₹198.17 lakh was allowed as Additional Capital Expenditure (ACE) in the year 2018-19. The Petitioner has submitted the statement showing IDC discharged up to COD for the transmission asset in which the loan wise drawl has also been mentioned. For the purpose of determining IDC, loan wise drawl date as furnished by the Petitioner has been considered as the date of infusion of debt for the concerned loan.

13. We have considered the above submissions of the Petitioner. It is observed that the loan portfolio mentioned in the IDC statement and in Form 9C of the instant petition is not matching. Therefore, for the purpose of determination of allowable IDC, we have considered the loan amount mentioned in Form 9C. Based on the available information, IDC allowed for the transmission asset is as under:

(₹ in lakh)

IDC as per Auditor Certificate dated 30.7.2019	IDC disallowed due to computational difference	IDC allowed on accrued basis	IDC allowed on cash basis as on COD	Un-discharged IDC as on COD (allowed as ACE during 2018-19)
A	B	C=A-B	D	E
691.18	3.72	687.46	491.54	195.92

14. The Petitioner has claimed Incidental Expenditure During Construction (IEDC) of ₹543.27 lakh for the transmission asset. The Petitioner has submitted that IEDC has been discharged on or before the COD of the transmission asset and the same





was allowed *vide* order dated 29.6.2018 in Petition No. 110/TT/2017. Further, the Petitioner has not claimed any additional IEDC in the instant petition.

15. TANGEDCO has submitted that the Petitioner has not furnished the detailed IEDC statement. In response, the Petitioner has submitted that the details of the IEDC claimed are given in Form-12A.

16. We have considered the submissions of the Petitioner and TANGEDCO. The IEDC claimed as on COD was already admitted by the Commission *vide* order dated 29.6.2018. The IEDC claimed and allowed is within the percentage of hard cost indicated in the approved abstract cost estimate. Therefore, IEDC claimed has been considered for the purpose of tariff.

**Initial Spares**

17. Regulation 13(d) of the 2014 Tariff Regulations provides that Initial Spares shall be capitalized as a percentage of plant and machinery cost up to the cut-off date, subject to the following ceiling norms:

- “(d) *Transmission System*
  - (i) *Transmission line: 1.00%*
  - (ii) *Transmission sub-station (Green Field): 4.00%*
  - (iii) *Transmission sub-station (Brown Field): 6.00%*
  - (iv) *Series Compensation devices and HVDC Station: 4.00%*
  - (v) *Gas Insulated Sub-station (GIS): 5.00%*
- .....”

18. The Initial Spares claimed by the Petitioner are as under:

Particulars	Plant and Machinery Cost (A) (₹ in lakh)	Initial Spares as per Auditor’s Certificate dated 30.7.2019 (B) (₹ in lakh)	Ceiling (%) (C)	Initial Spares worked out as per Norms (₹ in lakh)
				$D = [(A-B) * C / (100-C)]$
Sub-station (conventional)	475.63	27.90	6.00	28.58
Transmission Line	14099.62	140.86	1.00	140.99



19. TANGEDCO has submitted that the Petitioner has claimed Initial Spares at 6% of the sub-station cost and 1% Initial Spares for transmission line which was not claimed in the original petition even though the tariff was approved after the COD of the project. TANGEDCO has further submitted that the Commission vide order dated 29.6.2018 in Petition No. 110/TT/2017 restricted the Initial Spares at 4% of the sub-station (plant & machinery) cost. The Petitioner has submitted that the transmission asset is bay extension work at Tuticorin Sub-station. Hence, the Petitioner has claimed the Initial Spares at 6% under brown field sub-station as per 2014 Tariff Regulations.

20. We have considered the submissions of the Petitioner and TANGEDCO. The transmission asset is a brown field sub-station and the allowable Initial Spares for brown field sub-station is 6%. The Petitioner has not submitted any reasons for claiming Initial Spares towards transmission line at the time of truing up. However, in line with the provisions of the 2014 Tariff Regulations, the Petitioner is entitled for Initial Spares in respect of transmission line. Accordingly, the following Initial Spares are allowed as per Clause 43 of Regulation 3 of the 2014 Tariff Regulations, subject to the furnishing of reasons for claiming the Initial Spares of 1% towards transmission line at the time of next true up exercise.

Particulars	Plant and Machinery Cost as on cut-off date (A) (₹ in lakh)	Initial Spares as per Auditor's Certificate dated 30.7.2019 (B) (₹ in lakh)	Ceiling (%) (C)	Initial Spares worked out as per Norms (₹ in lakh)	Excess Claim E=B-D (₹ in lakh)	Initial Spares allowed (₹ in lakh)
				D = [(A-B)*C/(100-C)]		
Sub-station (conventional)	475.63	27.90	6.00	28.58	-	27.90
Transmission Line	14099.62	140.86	1.00	140.99	-	140.86



### **Capital Cost as on COD**

21. The capital cost of the transmission asset is allowed in accordance with Regulation 9(3) of the 2014 Tariff Regulations. The Commission *vide* order dated 29.6.2018 in Petition No. 110/TT/2017 approved the following capital cost and projected ACE in respect of the transmission asset from COD to 31.3.2019:

(₹ in lakh)

<b>FR Apportioned Approved Capital Cost</b>	<b>Admitted Capital Cost as on COD</b>	<b>Projected ACE 2014-19</b>	<b>Total Capital Cost as on 31.3.2019</b>
16211.00	13955.11	1092.85	15047.96

22. The details of FR approved apportioned cost, actual expenditure up to COD and actual ACE incurred up to 31.3.2019 claimed by the Petitioner for the transmission asset are as under:

(₹ in lakh)

<b>Apportioned Approved Capital Cost as per FR</b>	<b>Expenditure up to COD</b>	<b>ACE as per Auditor Certificate dated 30.7.2019 (2017-18)</b>	<b>ACE as per Auditor Certificate dated 30.7.2019 (2018-19)</b>	<b>Total Capital Cost as on 31.3.2019</b>
16211.00	14237.78	129.27	1171.42	15538.47

23. The Commission *vide* order dated 29.6.2018 in Petition No. 110/TT/2017 directed the Petitioner to provide reconciliation of the capital cost as per Form-5, Form -4A and the Auditor's Certificate at the time of truing up of transmission tariff for 2014-19 tariff period. Accordingly, the Petitioner has submitted the revised Forms-5 and 4A in the instant petition.

24. We have considered the submissions made by the Petitioner. The details of the approved capital cost as on COD are as under:



(₹ in lakh)

Capital Cost claimed as on COD (as per Auditor Certificate dated 30.7.2019) (A)	IDC un-discharged as on COD (B)	IDC disallowed due to computational difference as on COD (C)	Capital Cost allowed as on COD (D=A-B-C)
14237.78	195.92	3.72	14038.14

**Additional Capital Expenditure (ACE)**

25. ACE of ₹1092.85 lakh (₹129.27 lakh for 2017-18 and ₹963.58 lakh for 2018-19) was allowed by the Commission vide order dated 29.6.2018 in Petition No. 110/TT/2017 in respect of the transmission asset for the 2014-19 tariff period towards balance and retention payments, works deferred for execution under Regulation 14(1)(i) and (ii) of the 2014 Tariff Regulations.

26. As per the Auditor's Certificate dated 30.7.2019, the Petitioner has claimed ACE based on actual expenditure as under:

ACE		IDC discharged during the year
2017-18	2018-19	2018-19
129.27	1171.42	198.17

27. The transmission asset was put into commercial operation on 10.3.2018. Accordingly, the cut-off date for transmission asset was 31.3.2021. The Petitioner has submitted that ACE claimed during the 2014-19 period for the transmission asset is within the cut-off date.

28. In response to a query regarding higher claim of ACE than what was approved vide order dated 29.6.2018 in Petition No. 110/TT/2017, the Petitioner has submitted that ACE approved by the Commission was based on projections. However, in the instant true up petition, the Petitioner has claimed ACE on the basis of actual



payments made to the contractor after receipt of final invoices from the contractor. The Petitioner has further submitted that the payments were made after submission of invoice and reconciliation in accordance with contractual clause as per the provisions of the contract. ACE for the year 2018-19 has been claimed under Regulation 14(1)(i) and (ii) of the 2014 Tariff Regulations.

29. We have considered the above submissions of the Petitioner. The ACE in 2018-19 has been claimed towards balance and retention payments and works deferred for execution. Therefore, ACE as claimed is allowed under Regulations 14(1)(i) and (ii) of the 2014 Tariff Regulations.

30. The un-discharged IDC liability as on COD of the transmission asset has been allowed as part of ACE during their respective year of discharge. The ACE allowed from COD to 31.3.2019 in respect of the transmission asset is summarized as under:

(₹ in lakh)

Particulars	ACE	
	2017-18	2018-19
ACE	129.27	1171.42
IDC Discharged	0.00	195.92
<b>Total</b>	<b>129.27</b>	<b>1367.34</b>

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

(₹ in lakh)

Capital Cost as on COD	ACE		Total Capital Cost as on 31.3.2019
	2017-18	2018-19	
14038.14	129.27	1367.34	15534.75

**Debt-Equity ratio**

32. The Petitioner has claimed the debt-equity ratio of 70:30 as on COD and the same has been considered under Regulation 19(1) of the 2014 Tariff Regulations.



Further, for the purpose of ACE, debt-equity ratio of 70:30 has been considered in accordance with Regulation 19(3) of the 2014 Tariff Regulations.

33. The details of debt- equity ratio of the capital cost as on COD and 31.3.2019 for the transmission asset considered for the purpose of truing up of tariff for the 2014-19 period are as under:

(₹ in lakh)						
Funding	Capital Cost as on 1.4.2014 (₹ in lakh)	(%)	ACE 2014-19	(%)	Total Capital Cost as on 31.3.2019 (₹ in lakh)	(%)
Debt	9826.70	70.00	1047.63	70.00	10874.33	70.00
Equity	4211.44	30.00	448.98	30.00	4660.42	30.00
<b>Total</b>	<b>14038.14</b>	<b>100.00</b>	<b>1496.59</b>	<b>100.00</b>	<b>15534.75</b>	<b>100.00</b>

### Depreciation

34. The Petitioner has claimed the rate of depreciation for the transmission asset as per Regulation 27 of 2014 Tariff Regulations. The transmission asset was put under commercial operation during 2017-18. Accordingly, it will complete 12 years beyond the tariff period 2014-19. The Gross Block during the 2014-19 tariff period has been depreciated at Weighted Average Rate of Depreciation (WAROD) (Annexure-I). The WAROD has been worked out after taking into account the depreciation rates of the transmission asset as prescribed in the 2014 Tariff Regulations and trued up depreciation allowed for the transmission asset for the 2014-19 period is as under:

(₹ in lakh)		
Particulars	2017-18 (pro-rata for 22 days)	2018-19
Opening Gross Block	14038.14	14167.41
ACE	129.27	1367.34
Closing Gross Block	14167.41	15534.75
Average Gross Block	14102.78	14851.08
WAROD (%)	5.28	5.28
Balance useful life of the asset (years)	35	35
Lapsed life (years)	0	0
Depreciable Value	12692.50	13365.97
<b>Depreciation during the year</b>	<b>44.88</b>	<b>784.09</b>



Cumulative depreciation	44.88	828.97
Remaining Depreciable Value	12647.62	12537.00

35. Accordingly, the depreciation approved vide order dated 29.6.2018 in Petition No. 110/TT/2017, depreciation claimed in the instant petition for the 2014-19 period and depreciation allowed after true up of the 2014-19 period for the transmission asset is as under:

Particulars	(₹ in lakh)	
	2017-18 (pro-rata for 22 days)	2018-19
Approved vide order dated 29.6.2018 in Petition No. 110/TT/2017	44.89	784.23
Claimed by the Petitioner in the instant petition	44.89	784.23
Allowed after true-up in this order	44.88	784.09

#### **Interest on Loan (“IoL”)**

36. The Petitioner has claimed that the weighted average rate of IoL is based on its actual loan portfolio and rate of interest. Accordingly, IoL has been calculated based on the actual interest rate, in accordance with Regulation 26 of the 2014 Tariff Regulations. The trued up IoL allowed for the transmission asset is as follows:

Particulars	(₹ in lakh)	
	2017-18 (pro-rata for 22 days)	2018-19
<b>Interest on Loan</b>		
Gross Normative Loan	9826.70	9917.19
Cumulative Repayments upto Previous Year	0.00	44.88
Net Loan-Opening	9826.70	9872.31
Additions due to ACE	90.49	957.14
Repayment during the year	44.88	784.09
Net Loan-Closing	9872.31	10045.35
Average Loan	9849.50	9958.83
Weighted Average Rate of Interest on Loan (%)	7.5810	7.6592
<b>Interest on Loan</b>	<b>45.01</b>	<b>762.76</b>

37. Accordingly, IoL approved vide order dated 29.6.2018 in Petition No. 110/TT/2017, IoL claimed in the instant petition for the 2014-19 period and IoL allowed after true up for the 2014-19 period for the transmission asset is as follows:



Particulars	(₹ in lakh)	
	2017-18 (pro-rata for 22 days)	2018-19
Approved vide order dated 29.6.2018 in Petition No. 110/TT/2017	45.01	762.90
Claimed by the Petitioner in the instant petition	45.01	762.90
Allowed after true-up in this order	45.01	762.76

### **Return on Equity (“RoE”)**

38. The Petitioner has claimed RoE for the transmission asset in accordance with 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 the following effective tax rates for the 2014-19 period:

Year	Claimed effective tax (in %)	Grossed up RoE [Base Rate/(1-t)] (in %)
2014-15	21.018	19.624
2015-16	21.382	19.715
2016-17	21.338	19.704
2017-18	21.337	19.704
2018-19	21.549	19.757

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

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





the long-term transmission customers / DICs as the case may be on year to year basis.

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

<b>Year</b>	<b>Notified MAT rates (inclusive of surcharge &amp; cess)</b>	<b>Effective tax (in %)</b>
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

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

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

41. TANGEDCO has submitted that the Petitioner has not claimed the expenditure estimated under Communication System. Therefore, as per Regulation 24(2)(iv) of the 2014 Tariff Regulations RoE may be reduced by 1.00%. In response, the Petitioner has submitted that the actual expenditure incurred for Communication System is included in the cost of transmission line in Form-5 because no separate contract was awarded for the Communication System. The Petitioner has also submitted that the transmission asset was declared commercial operational after the successful trial operation certificate issued by RLDC vide letter dated 3.4.3018 based on the utilization of Communication System and the same is available on record.



42. We have considered the submissions of the Petitioner and TANGEDCO. TANGEDCO has contended that the RoE should be reduced by 1.00% for not submitting any information regarding of completion of Communication System. As per the submissions of the Petitioner, the Communication System i.e. PLCC is part of transmission line which was put into commercial operation on 10.3.2018 and that the successful trial operation certificate issued by RLDC is based on the utilisation of the Communication System. It shows that the Communication System has been put into commercial operation alongwith the transmission line. Therefore, TANGEDCO's contention is set aside and RoE is allowed for the transmission system, including the Communication System, as provided in Regulation 24 of the 2014 Tariff Regulations. RoE is trued up on the basis of MAT rate applicable in the respective years. The following table shows trued up RoE allowed for the transmission asset:

(₹ in lakh)		
Particulars	2017-18 ( <i>pro-rata for 22 days</i> )	2018-19
<b>Return on Equity</b>		
Opening Equity	4211.44	4250.22
Additions due to ACE	38.78	410.20
Closing Equity	4250.22	4660.42
Average Equity	4230.83	4455.32
Return on Equity (Base Rate) (%)	15.500	15.500
MAT Rate for respective year (%)	21.342	21.549
Rate of Return on Equity (%)	19.705	19.758
<b>Return on Equity</b>	<b>50.25</b>	<b>880.28</b>

43. Accordingly, RoE approved vide order dated 29.6.2018 in Petition No. 110/TT/2017, RoE claimed in the instant petition for the 2014-19 period and allowed after true up of the 2014-19 period for the transmission asset is as follows:

(₹ in lakh)		
Particulars	2017-18 ( <i>pro-rata for 22 days</i> )	2018-19
Approved <i>vide</i> order dated 29.6.2018 in Petition No. 110/TT/2017	50.25	880.44
Claimed by the Petitioner in the instant petition	50.25	880.44
Allowed after true-up in this order	50.25	880.28



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

44. The O&M Expenses claimed by the Petitioner for the transmission asset for the 2014-19 period are as under:

O&M Expenses	Transmission asset	
	2017-18 (pro-rata for 22 days)	2018-19
<b>Particulars</b>		
<b>Transmission line of Kudankulam- Tuticorin 400 kV D/C line</b>		
D/C Bundled (4 or more sub-conductors) (km)	66.09	66.09
Norms (₹ lakh/km)	1.171	1.21
<b>Sub-station Bays 400 kV(conventional)</b>		
Tuticorin Pooling Station	2 number	2 number
Norms (₹ lakh/bays)	66.51	68.71
<b>Total O&amp;M expenses (₹ in lakh)</b>	<b>12.68</b>	<b>217.39</b>

45. The details of the O&M Expenses claimed by the Petitioner for the transmission asset and allowed under Regulation 29(4)(a) of the 2014 Tariff Regulations are as under:

Particulars	Transmission asset	
	2017-18 (pro-rata for 22 days)	2018-19
<b>Transmission line of Kudankulam-Tuticorin 400 kV D/C line</b>		
D/C Bundled (4 or more sub-conductors) (km)	66.09	66.09
Norms (₹ lakh/km)	1.171	1.21
<b>Sub-station Bays 400 kV (conventional)</b>		
Tuticorin Pooling Station	2 nos.	2 nos.
Norms (₹ lakh/bays)	66.51	68.71
<b>Total O&amp;M Expenses (₹ in lakh)</b>	<b>12.68</b>	<b>217.39</b>

46. Accordingly, the O&M Expenses approved vide order dated 29.6.2018 in Petition No. 110/TT/2017, O&M claimed in the instant petition for the 2014-19 period and as allowed after true up of the 2014-19 period with respect to the transmission asset is as under:



Particulars	(₹ in lakh)	
	2017-18 (pro-rata for 22 days)	2018-19
Approved vide order dated 29.6.2018 in Petition No. 110/TT/2017	12.68	217.39
Claimed by the Petitioner in the instant petition	12.68	217.39
Allowed after true-up in this order	<b>12.68</b>	<b>217.39</b>

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

47. The Petitioner is entitled to claim IWC as per Regulation 28(1)(c) of the 2014 Tariff Regulations. The components of the working capital and the Petitioner’s entitlement to interest thereon are discussed hereunder:

#### **(i) Maintenance Spares:**

Maintenance spares have been worked out based on 15% of Operation and Maintenance Expenses specified in Regulation 28.

#### **(ii) O & M Expenses:**

O&M Expenses have been considered for one month of the allowed O&M Expenses.

#### **(iii) Receivables:**

The receivables have been worked out on the basis of 2 months of annual transmission charges as worked out above.

#### **(iv) Rate of interest on working capital**

Rate of interest on working capital is considered on normative basis in accordance with Clause (3) of Regulation 28 of the 2014 Tariff Regulations.

48. The IWC has been worked out as per the methodology provided in Regulation 28(3) of the 2014 Tariff Regulations. The trued up IWC allowed for the transmission asset is as under:



(₹ in lakh)

Particulars	2017-18 (pro-rata for 22 days)	2018-19
O&M Expenses (O&M Expenses for 1 month)	17.53	18.12
Maintenance Spares (15% of O&M Expenses)	31.56	32.61
Receivables (Equivalent to 2 months of annual fixed cost)	432.69	451.30
<b>Total Working Capital</b>	<b>481.78</b>	<b>502.02</b>
Rate of Interest (%)	12.60	12.60
<b>Interest on Working Capital</b>	<b>3.66</b>	<b>63.25</b>

49. Accordingly, IWC approved earlier vide order dated 29.6.2018 in Petition No. 110/TT/2017, IWC claimed in the instant petition for the 2014-19 period and as allowed after true up of the 2014-19 period with respect to the transmission asset is as under:

Particulars	(₹ in lakh)	
	2017-18 (pro-rata for 22 days)	2018-19
Approved vide order dated 29.6.2018 in Petition No. 110/TT/2017	3.66	63.26
Claimed by the Petitioner in the instant petition	3.66	63.26
Allowed after true-up in this order	3.66	63.25

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

50. The trued up Annual Fixed Charges approved for the transmission asset for the 2014-19 tariff period are as follows:

Particulars	(₹ in lakh)	
	2017-18 (pro-rata for 22 days)	2018-19
Depreciation	44.88	784.09
Interest on Loan	45.01	762.76
Return on Equity	50.25	880.28
Interest on Working Capital	3.66	63.25
O&M Expenses	12.68	217.39
<b>Total</b>	<b>156.48</b>	<b>2707.78</b>



51. Accordingly, the Annual Transmission Charges allowed vide order dated 29.6.2018 in Petition No. 110/TT/2017, claimed in the instant petition for the 2014-19 period and allowed after true up of the 2014-19 period for the transmission asset are as under:

Particulars	(₹ in lakh)	
	2017-18 (pro-rata for 22 days)	2018-19
Approved vide order dated 29.6.2018 in Petition No. 110/TT/2017	156.72	2672.04
Claimed by the Petitioner in the instant petition	156.49	2708.22
Allowed after true-up in this order	156.48	2707.78

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

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

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	832.17	843.98	843.98	843.98	843.98
Interest on Loan	756.51	702.74	640.25	577.82	511.00
Return on Equity	888.14	900.75	900.75	900.75	900.75
Interest on Working Capital	43.89	43.80	43.09	42.40	41.55
O&M Expenses	152.56	157.86	163.37	169.10	174.97
<b>Total</b>	<b>2673.27</b>	<b>2649.13</b>	<b>2591.44</b>	<b>2534.05</b>	<b>2472.25</b>

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

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	12.71	13.16	13.61	14.09	14.58
Maintenance Spares	22.88	23.68	24.51	25.37	26.25
Receivables	328.68	326.61	319.49	312.42	303.97
<b>Total Working Capital</b>	<b>364.27</b>	<b>363.45</b>	<b>357.61</b>	<b>351.88</b>	<b>344.80</b>
Rate of Interest (%)	12.05	12.05	12.05	12.05	12.05
<b>Interest on Working Capital</b>	<b>43.89</b>	<b>43.80</b>	<b>43.09</b>	<b>42.40</b>	<b>41.55</b>

### **Capital Cost**

54. 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 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 upto the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and*
- (f) *Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.*
- (4) *The capital cost in case of existing or new hydro generating station shall also include:*
- (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 de-capitalised only after its redeployment;*

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

- (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."*

55. The Petitioner has claimed capital cost of ₹15538.47 lakh as on 31.3.2019 for the transmission asset. However, we have considered the capital cost of ₹15534.75 lakh on 31.3.2019 as admitted above and it has been 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.





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

56. Regulations 24 and 25 of the 2019 Tariff Regulations provides as under:

### **“24. Additional Capitalisation within the original scope and upto the cut-off date**

(1) *The additional capital expenditure in respect of a new project or an existing project incurred or projected to be incurred, on the following counts within the original scope of work, after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to prudence check:*

- (a) *Undischarged liabilities recognized to be payable at a future date;*
- (b) *Works deferred for execution;*
- (c) *Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 23 of these regulations;*
- (d) *Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority or order or decree of any court of law;*
- (e) *Change in law or compliance of any existing law; and*
- (f) *Force Majeure events:*

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

(2) *The generating company or the transmission licensee, as the case may be shall submit the details of works asset wise/work wise included in the original scope of work along with estimates of expenditure, liabilities recognized to be payable at a future date and the works deferred for execution.”*

### **25. Additional Capitalisation within the original scope and after the cut-off date:**

(1) *The ACE incurred or projected to be incurred in respect of an existing project or a new project on the following counts within the original scope of work and after the cut-off date may be admitted by the Commission, subject to prudence check:*

- (a) *Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority, or order or decree of any court of law;*
- (b) *Change in law or compliance of any existing law;*
- (c) *Deferred works relating to ash pond or ash handling system in the original scope of work;*
- (d) *Liability for works executed prior to the cut-off date;*
- (e) *Force Majeure events;*
- (f) *Liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments; and*
- (g) *Raising of ash dyke as a part of ash disposal system.*

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

- (a) *The useful life of the assets is not commensurate with the useful life of the project and such assets have been fully depreciated in accordance with the provisions of these regulations;*
- (b) *The replacement of the asset or equipment is necessary on account of change in law or Force Majeure conditions;*
- (c) *The replacement of such asset or equipment is necessary on account of*



- (d) *obsolescence of technology; and  
The replacement of such asset or equipment has otherwise been allowed by the Commission.”*

57. As per the Auditor’s Certificate dated 30.7.2019, the Petitioner has claimed ACE of ₹447.57 lakh in 2019-20 during the 2019-24 tariff period. The Petitioner has claimed the following capital cost as on 31.3.2024:

Capital Cost as on 31.3.2019	Projected ACE	Capital Cost as on 31.3.2024
	2019-24	
15538.47	447.57	15986.04

58. The Petitioner vide affidavit dated 23.7.2020 has submitted the following contractor-wise liabilities:

Sl. No.	Vendor	Nature of Work	(₹ in lakh)
1	B G Shirke	Transmission line	20.00
2	ZTT India Private Limited	Transmission line	23.13
3	Hindustan Urban Infrastructure Limited	Transmission line	5.94
4	The India Fruits Private Limited	Transmission line	5.96
5	Sterlite Power	Transmission line	12.64
6	Jiandong Fittings	Transmission line	239.04
7	Spares	Transmission line	140.86
	<b>TOTAL</b>		<b>447.57</b>

59. The Petitioner has further submitted that ACE is claimed under Regulation 24(1)(a) and (b) of the 2019 Tariff Regulations.

60. We have considered the submissions of the Petitioner. The ACE claimed is allowed under Regulation 24(1)(a) and (b) of the 2019 Tariff Regulations. Accordingly, the following capital cost as on 31.3.2024 is considered:

Admitted Capital Cost as on 1.4.2019 (A)	ACE allowed	Capital Cost as on 31.3.2024 (C=A+B)
	2019-24 (B)	
15534.75	447.57	15982.32



## **Debt-Equity ratio**

61. Regulation 18 of the 2019 Tariff Regulations provides as under:

**“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.”



62. The details of the debt-equity considered for the purpose of computation of tariff for the 2019-24 tariff period for the transmission asset is as follows:

Particulars	Capital Cost as on 1.4.2019 (₹ in lakh)	%	ACE 2019-24 (₹ in lakh)	%	Capital Cost as on 31.3.2024 (₹ in lakh)	%
Debt	10874.33	70.00	313.30	70.00	11187.62	70.00
Equity	4660.42	30.00	134.27	30.00	4794.70	30.00
<b>Total</b>	<b>15534.75</b>	<b>100.00</b>	<b>447.57</b>	<b>100.00</b>	<b>15982.32</b>	<b>100.00</b>

### Depreciation

63. Regulation 33 of the 2019 Tariff Regulations provides as under:

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

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

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

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

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

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

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

Provided also that any depreciation disallowed on account of lower availability of the generating station or unit or transmission system as the case may be, shall not be



allowed to be recovered at a later stage during the useful life or the extended life.

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

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

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

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

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

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

64. The Gross Block during the 2019-24 tariff period has been depreciated at WAROD. The WAROD has been worked out as per Annexure-II to this order after taking into account the depreciation rates of assets as prescribed in the 2019 Tariff Regulations and depreciation allowed is as follows:

	(₹ in lakh)				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Depreciation</b>					
Opening Gross Block	15534.75	15982.32	15982.32	15982.32	15982.32
Additions due to ACE	447.57	0.00	0.00	0.00	0.00
Closing Gross Block	15982.32	15982.32	15982.32	15982.32	15982.32
Average Gross Block	15758.54	15982.32	15982.32	15982.32	15982.32
WAROD (%)	5.28	5.28	5.28	5.28	5.28
Balance useful life of the asset (Year)	34	33	32	31	30
Lapsed life (Year)	1	2	3	4	5
Depreciable Value	14182.68	14384.09	14384.09	14384.09	14384.09
<b>Depreciation during the year</b>	<b>831.97</b>	<b>843.79</b>	<b>843.79</b>	<b>843.79</b>	<b>843.79</b>
Total Cumulative Depreciation	1660.94	2504.73	3348.52	4192.30	5036.09



Remaining Depreciable Value	12521.74	11879.36	11035.57	10191.79	9348.00
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### **Interest on Loan (“IoL”)**

65. Regulation 32 of the 2019 Tariff Regulations provides as under:

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

(2) *The normative loan outstanding as on 1.4.2019 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2019 from the gross normative loan.*

(3) *The repayment for each of the year of the tariff period 2019-24 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of de-capitalization of 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 upto the date of de-capitalisation of such asset.*

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

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

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

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

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

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

66. The weighted average rate of IoL has been considered on the basis of rate prevailing as on 1.4.2019. The Petitioner has prayed that change in interest rate due to floating rate of interest applicable, if any, during the 2019-24 tariff period will be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of truing-up. Therefore, IoL has been allowed in accordance with Regulation 32 of the 2019 Tariff Regulations for the transmission asset is as under:



(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	108 74. 33	111 87. 62	111 87. 62	111 87. 62	111 87. 62
Cumulative Repayments up to Previous Year	828.97	1660.94	2504.73	3348.52	4192.30
Net Loan-Opening	10045.35	9526.68	8682.89	7839.11	6995.32
Additions due to ACE	313.30	0.00	0.00	0.00	0.00
Repayment during the year	831.97	843.79	843.79	843.79	843.79
Net Loan-Closing	9526.68	8682.89	7839.11	6995.32	6151.54
Average Loan	9786.02	9104.79	8261.00	7417.22	6573.43
Weighted Average Rate of Interest on Loan (%)	7.7287	7.7165	7.7484	7.7884	7.7719
<b>Interest on Loan</b>	<b>756.33</b>	<b>702.57</b>	<b>640.10</b>	<b>577.68</b>	<b>510.88</b>

### Return on Equity ("RoE")

67. Regulations 30 and 31 of the 2019 Tariff Regulations provides as under:

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

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

Provided that return on equity in respect of additional capitalization after cut-off date beyond the original scope 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:

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

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.”

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

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	4660.43	4794.70	4794.70	4794.70	4794.70
Additions due to ACE	134.27	0.00	0.00	0.00	0.00
Closing Equity	4794.70	4794.70	4794.70	4794.70	4794.70
Average Equity	4727.56	4794.70	4794.70	4794.70	4794.70
Return on Equity (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 Return on Equity (%)	18.782	18.782	18.782	18.782	18.782
<b>Return on Equity</b>	<b>887.93</b>	<b>900.54</b>	<b>900.54</b>	<b>900.54</b>	<b>900.54</b>

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

69. The O&M Expenses claimed by the Petitioner for the transmission asset for the 2019-24 period are as under:

O&M Expenses					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Transmission line of Kudankulam-Titucorin 400 kV D/C line</b>					
D/C Bundled (4 or more sub-conductors) (km)	66.09	66.09	66.09	66.09	66.09
Norms (₹ lakh/km)	1.322	1.368	1.416	1.466	1.517
<b>Sub-station 400 kV (Conventional)</b>					
Tuticorin Pooling Station (Number)	2	2	2	2	2
Norms (₹ lakh/Bay)	32.15	33.28	34.45	35.66	36.91
PLCC	2% of the project cost				
PLCC related project cost (₹ in lakh)	44.71	44.71	44.71	44.71	44.71
O&M for PLCC (2% of ₹ 44.71 lakh)	0.894	0.894	0.894	0.894	0.894
<b>Total O&amp;M expense (₹ in lakh)</b>	<b>152.56</b>	<b>157.86</b>	<b>163.37</b>	<b>169.10</b>	<b>174.97</b>



70. Regulation 35(3)(a) of the 2019 Tariff Regulations provides as under:

**“35. 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>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
<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-	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 (Rs Lakh) (1500 MW)	2,252	2,331	2,413	2,498	2,586
±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)	2,468	2,555	2,645	2,738	2,834
±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)	1,696	1,756	1,817	1,881	1,947



<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
<i>±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW)</i>	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 years.*

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

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

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



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

71. The Petitioner has claimed O&M Expenses separately for the PLCC under Regulation 35(4) of the 2019 @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 2019 Tariff Regulations and the norms for sub-station has 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 . Therefore, the Petitioner’s claim for separate O&M Expenses for PLCC @2% is not allowed. The relevant portions of the order dated 24.1.2021 in Petition No.126/TT/2020 are as follows:

*“103. Thus, although PLCC equipment is a communication system, it has been considered as a part of sub-station, as it is used both for protection and communication. Therefore, we are of the considered view that rightly, it was not considered for separate O&M Expenses while framing norms of O&M for 2019-24 tariff period. While specifying norms for bays and transformers, O&M Expenses for PLCC have been included within norms for O&M Expenses for sub-station. Norms of O&M Expenses @2% of the capital cost in terms of Regulation 35(4) of the 2019 Tariff Regulations have been specified for communication system such as PMU, RMU, OPGW etc. and not for PLCC equipment.”*

*“105. In our view, granting of O&M Expenses for PLCC equipment @2% of its capital cost under Regulation 35(4) of the 2014 Tariff Regulations under the communication system head would tantamount to granting O&M Expenses twice for PLCC equipment as PLCC equipment has already been considered as part of the sub-station. Therefore, the Petitioner’s prayer for grant of O&M Expenses for the PLCC equipment @2% of its capital cost under Regulation 35(4) of the 2014 Tariff Regulations is rejected.*

*106. The principle adopted in this petition that PLCC is part of sub-station and accordingly no separate O&M Expenses is admissible for PLCC equipment in the 2019- 24 tariff period under Regulation 35(4) of the 2019 Tariff Regulations shall be applicable in case of all petitions where similar claim is made by the Petitioner. As already mentioned, the Commission, however, on the basis of the claim made by the Petitioner has inadvertently allowed O&M Expenses for PLCC equipment*



*@2% of its original project cost, which is applicable for other “communication system”, for 2019-24 period in 31 petitions given in Annexure-3 of this order. Therefore, the decision in this order shall also be applicable to all the petitions given in Annexure-3. Therefore, PGCIL is directed to bring this decision to the notice of all the stakeholders in the 31 petitions given in Annexure-3 and also make revised claim of O&M Expenses for PLCC as part of the substation at the time of truing up of the tariff allowed for 2019-24 period in respective petitions.”*

Therefore, the Petitioner’s claim for separate O&M Expenses for PLCC @2% is not allowed.

72. The O&M Expenses allowed for the transmission asset in accordance with Regulation 35(3)(a) of 2019 Tariff Regulations are as follows:

<b>O&amp;M Expenses</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>Transmission line of Kudankulam- Tuticorin 400 kV D/C line</b>					
D/C Bundled (4 or more sub-conductors) (km)	66.09	66.09	66.09	66.09	66.09
Norms (₹ lakh/km)	1.322	1.368	1.416	1.466	1.517
<b>Sub-station 400 kV (Conventional)</b>					
Tuticorin Pooling Station (Number)	2	2	2	2	2
Norms (₹ lakh/Bay)	32.15	33.28	34.45	35.66	36.91
<b>Total O&amp;M expense (₹ in lakh)</b>	<b>151.67</b>	<b>156.97</b>	<b>162.48</b>	<b>168.21</b>	<b>174.08</b>

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

73. Regulation 34(1)(c), 34(3) and (4) and Regulation 3(7) of the 2019 Tariff Regulations provide 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 annual fixed cost;*
- (ii) Maintenance spares @ 15% of operation and maintenance expenses including security expenses; and*
- (iii) Operation and maintenance expenses, including security expenses for one month.” .*

*(3) Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2019 or as on 1<sup>st</sup> 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. - In these regulations, unless the context otherwise requires:*

*(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;”*

74. The Petitioner has submitted that it has computed IWC for the 2019-24 tariff 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. 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 2019-20, whereas, ROI for 2020-21 onwards has been considered as 11.25% (SBI 1-year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points). The components of the working capital and interest allowed thereon are as follows:

	(₹ in lakh)				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses (O&M Expenses for 1 month)	12.64	13.08	13.54	14.02	14.51
Maintenance Spares (15% of O&M Expenses )	22.75	23.55	24.37	25.23	26.11
Receivables (Equivalent to 45 days of annual fixed cost)	328.68	326.61	319.49	312.42	303.97
<b>Total Working Capital</b>	<b>364.07</b>	<b>363.23</b>	<b>357.41</b>	<b>351.67</b>	<b>344.58</b>
Rate of Interest (%)	12.05	11.25	11.25	11.25	11.25
<b>Interest on Working Capital</b>	<b>43.87</b>	<b>40.86</b>	<b>40.21</b>	<b>39.56</b>	<b>38.77</b>

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

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



(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	831.97	843.79	843.79	843.79	843.79
Interest on Loan	756.33	702.57	640.10	577.68	510.88
Return on Equity	887.93	900.54	900.54	900.54	900.54
Interest on Working Capital	43.87	40.86	40.21	39.56	38.77
O&M Expenses	151.67	156.97	162.48	168.21	174.08
<b>Total</b>	<b>2671.78</b>	<b>2644.73</b>	<b>2587.11</b>	<b>2529.78</b>	<b>2468.05</b>

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

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

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

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

### **Goods and Services Tax**

78. 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.



79. 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**

80. The Petitioner has submitted that security expenses for the transmission asset 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 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.

81. 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 the 2019-24 tariff period on the basis of actual security expenses incurred in 2018-19. Therefore, security expenses will be dealt with in Petition No. 260/MP/2020 in accordance with the applicable provisions of the 2019 Tariff Regulations.





### **Capital Spares**

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

### **Sharing of Transmission Charges**

83. TANGEDCO has submitted the new Sharing Regulations was notified on 4.5.2020 and came into force with effect from 1.11.2020. Under this, it is essential to segregate the additional cost and tariff liability up to 31.10.2020 and from 1.11.2020 so as to allocate the charges based on Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010 (2010 Sharing Regulations) and the Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2020, (2020 Sharing Regulations) respectively.

84. In response, the Petitioner has submitted that after the truing up and determination of transmission tariff, the transmission charges for 2014-19 tariff period and 2019-24 tariff period up to 31.10.2020 shall be shared as per the 2010 Sharing Regulations and thereafter from 1.11.2020 onwards it shall be shared as per the 2020 Sharing Regulations. The aspect of YTC bifurcation raised by TANGEDCO shall be considered by CTU at the time of billing.

85. We have considered the submissions of the Petitioner and TANGEDCO. The billing, collection and disbursement of the transmission charges approved shall be governed by the provisions of the 2010 Sharing Regulations or the 2020 Sharing Regulations, as applicable, as provided in Regulation 43 of the 2014 Tariff Regulations for the 2014-19 tariff period and Regulation 57 of the 2019 Tariff Regulations for the 2019-24 tariff period.



86. To summarise:

(a) The trued-up Annual Fixed Charges allowed for the transmission asset for the 2014-19 tariff period are as follows:

Particulars	(₹ in lakh)	
	2017-18 (pro-rata for 22 days)	2018-19
Annual Fixed Charges	156.48	2707.78

(b) The Annual Fixed Charges allowed for the transmission asset for the 2019-24 tariff period in the instant order are as under:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Annual Fixed Charges	2671.78	2644.73	2587.11	2529.78	2468.05

87. The two Annexures attached hereinafter form part of the order.

88. This order disposes of Petition No. 497/TT/2019.

sd/  
(Pravas Kumar Singh)  
Member

sd/  
(Arun Goyal)  
Member

sd/  
(I. S. Jha)  
Member

sd/  
(P. K. Pujari)  
Chairperson



**ANNEXURE-I (WAROD)**

2014-19 Capital Expenditure	Admitted Capital Cost as on 1.4.2014/COD (₹ in lakh)	ACE (₹ in lakh)			Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)	
		2017-18	2018-19	Total			2017-18	2018-19
Building Civil Works & Colony	24.18	-	4.20	4.20	28.37	3.34%	0.81	0.88
Transmission Line	13565.85	129.27	1305.50	1434.77	15000.62	5.28%	719.69	757.57
Sub Station	404.02	-	57.03	57.03	461.05	5.28%	21.33	22.84
PLCC	44.09	-	0.62	0.62	44.71	6.33%	2.79	2.81
<b>Total</b>	<b>14038.14</b>	<b>129.27</b>	<b>1367.34</b>	<b>1496.61</b>	<b>15534.75</b>	<b>Total</b>	<b>744.62</b>	<b>784.09</b>
<b>Average Gross Block (₹ in lakh)</b>							<b>14102.78</b>	<b>14851.08</b>
<b>Weighted Average Rate of Depreciation</b>							<b>5.28%</b>	<b>5.28%</b>



## Annexure-II (WAROD)

2019-24 Capital Expenditure	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Projected ACE (₹ in lakh)		Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)				
		2019-20	Total			2019-20	2020-21	2021-22	2022-23	2023-24
Building Civil Works & Colony	28.37	-	-	28.37	3.34%	0.95	0.95	0.95	0.95	0.95
Transmission Line	15000.62	447.57	447.57	15448.19	5.28%	803.85	815.66	815.66	815.66	815.66
Sub Station	461.05	-	-	461.05	5.28%	24.34	24.34	24.34	24.34	24.34
PLCC	44.71	-	-	44.71	6.33%	2.83	2.83	2.83	2.83	2.83
<b>Total</b>	<b>15534.75</b>	<b>447.57</b>	<b>447.57</b>	<b>15982.32</b>	<b>Total</b>	<b>831.97</b>	<b>843.79</b>	<b>843.79</b>	<b>843.79</b>	<b>843.79</b>
<b>Average Gross Block (₹ in lakh)</b>						<b>15758.54</b>	<b>15982.32</b>	<b>15982.32</b>	<b>15982.32</b>	<b>15982.32</b>
<b>Weighted Average Rate of Depreciation</b>						<b>5.28%</b>	<b>5.28%</b>	<b>5.28%</b>	<b>5.28%</b>	<b>5.28%</b>

