

**CENTRAL ELECTRICITY REGULATORY COMMISSION**

**NEW DELHI**

**Petition No. 349/TT/2019**

**Coram:**

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

**Date of Order: 28.08.2020**

**In the matter of**

Approval under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations 1999 and truing up of transmission tariff of 2014-19 period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff for 2019-24 period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2019 of 2<sup>nd</sup> Spare Converter Transformers at Kolar and Talcher of Talcher-Kolar HVDC Link in Southern Region.

**And in the matter of**

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

**.... Petitioner**

**Versus**

1. Karnataka Power Transmission Corporation Ltd.,  
(KPTCL), Kaveri Bhavan,  
Bangalore - 560 009
2. Transmission Corporation of Andhra Pradesh Ltd.,  
(APTRANSCO), Vidyut Soudha,  
Hyderabad- 500082
3. Kerala State Electricity Board (KSEB)  
Vaidyuthi Bhavanam Pattom,  
Thiruvananthapuram - 695 004
4. Tamil Nadu Generation and Distribution Corporation Ltd,  
(TANGEDCO), (Formerly Tamil Nadu Electricity Board -TNEB)  
NPKRR Maaligai, 800, Anna Salai,  
Chennai - 600 002



5. Electricity Department,  
Govt of Pondicherry,  
Pondicherry – 605 001
6. Eastern Power Distribution Company of Andhra Pradesh Limited  
(APEPDCL), P&T Colony, Seethmmadhara,  
Vishakhapatnam
7. Southern Power Distribution Company of Andhra Pradesh Limited  
(APSPDCL), Srinivasasa Kalyana Mandapam Backside,  
Tiruchanoor Road, Kesavayana Gunta, Tirupati-517 501
8. Central Power Distribution Company of Andhra Pradesh limited  
(APCPDCL), Corporate Office, Mint Compound,  
HYDERABAD - 500 063
9. Northern Power Distribution Company of Andhra Pradesh Limited  
(APNPDCL), Opp. NIT Petrol Pump, Chaitanyapuri,  
Kazipet, WARANGAL - 506 004
10. Bangalore Electricity Supply Company Ltd.,  
(BESCOM), Corporate Office, K.R.Circle,  
BANGALORE - 560 001, Karnataka
11. Gulbarga Electricity Supply Company Ltd.,  
(GESCOM) Station Main Road,  
Gulbarga, Karnataka
12. Hubli Electricity Supply Company Ltd.,  
(HESCOM) Navanagar, PB Road,  
Hubli, Karnataka
13. Mangalore Electricity Supply Company Ltd.,  
(MESCOM), Corporate Office,  
Paradigm Plaza, AB Shetty Circle,  
Mangalore - 575001, Karnataka
14. Chamundeswari Electricity Supply Corporation Ltd.,  
(CESC), # 927, L J Avenue Ground Floor,  
New Kantharaj Urs Road, Saraswatipuram,  
Mysore - 570 009, Karnataka
15. Electricity Department, Government of Goa  
Vidyuti Bhawan, Panaji,  
Goa 403001
16. Transmission Corporation of Telangana Limited,  
Vidhyut Soudha, Khairatabad,  
Hyderabad-500082
17. Tamil Nadu Transmission Corporation Limited,  
, NPKRR Maaligai, 800,  
Anna Salai, Chennai - 600 002

...Respondent



**Parties present:**

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

**For Respondent:** None

**ORDER**

The present petition has been filed by Power Grid Corporation of India Ltd. (“the Petitioner”) for truing up of the tariff for the 2014-19 tariff period under Regulation 8 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) and for determination of tariff of the 2019-24 tariff period under Regulation 8 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) of 2<sup>nd</sup> Spare Converter Transformers at Kolar and Talcher of Talcher-Kolar HVDC Link in Southern Region (hereinafter referred as “the transmission asset”).

2. The Petitioner has made the following prayers:

- “1) Approve the trued-up Transmission Tariff for the tariff block 2014-19 and transmission tariff for 2019-24 block for the assets covered under this petition, as per para 5 and 6 above.*
- 2) Allow the Petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided in Tariff Regulations 2014 and Tariff Regulations 2019 as per para 9 and 10 above for respective block.*
- 3) 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.*
- 4) 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.*



- 5) 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.
- 6) Allow the Petitioner to file a separate petition before the Commission for claiming the overall security expenses and consequential IOWC on that security expenses as mentioned at para 6.6 above.
- 7) Allow the petitioner to claim the capital spares at the end of tariff block as per actual.
- 8) Allow the Petitioner to bill and recover GST on Transmission Charges separately from the respondents, if GST on transmission is withdrawn from negative list at any time in future. Further, any taxes including GST and duties including cess etc. imposed by any statutory/Govt./municipal authorities shall be allowed to be recovered from the beneficiaries.

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

### **Background**

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

(a) Southern Regional Electricity Board (SREB), in its meeting held on 10.8.2004, agreed for procurement of two additional converter transformers for Talcher-Kolar HVDC Bi-pole, one each at Talcher and Kolar terminals. Accordingly, the administrative approval and expenditure sanction for the procurement of two nos. 397 MVA Converter Transformers was accorded by the Board of Directors of the Petitioner company in its 170<sup>th</sup> meeting held on 1.8.2005 at an estimated cost of ₹6525 lakh, including Interest During Construction (IDC) of ₹104 lakh. The Board of Directors of the Petitioner subsequently accorded approval for the revised estimated cost of ₹13553 lakh, including IDC of ₹527 lakh based on the 1<sup>st</sup> Quarter, 2011 price level. The revised approval was conveyed under order No C/CP/Spare Conv. Talcher & Kolar dated 20.12.2011. The Petitioner has built the transmission asset in the Southern Region. The dates of the commercial operation of Converter Transformer at Kolar (Transformer-I) and Converter Transformer at Talcher (Transformer-II) are 1.6.2011 and 1.10.2011, respectively.

(b) The details of assets i.e. 2<sup>nd</sup> Spare Converter Transformers at Kolar and Talcher of Talcher-Kolar HVDC Link, are as under:

<b>Name of Asset</b>	<b>Actual COD</b>	<b>Remarks</b>
Transformer-I at Kolar	1.6.2011	Commission Combined both assets for claiming



Transformer-II at Talcher	1.10.2011	tariff during 2009-14 w.e.f. 1.10.2011 in petition no 511/TT/2014
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- (c) The tariff from 1.6.2011 to 30.9 .2011 for Transformer-I and tariff from 1.10.2011 to 31.03.2012 as well as for 2012-13 and 2013-14 for Combined Transformers- I & II was allowed vide order dated 20.1.2014 in Petition No. 111/TT/2011 in accordance with the 2009 Tariff Regulations.
- (d) The Commission, vide order dated 29.2.2016 in petition no. 511/TT/2014, trued-up tariff for the 2009-14 tariff period and the admitted cost of Combined Transformer- I & II was ₹13531.95 lakh as on 31.3.2014.
- (e) The Petitioner did not claim any additional capital expenditure for Combined Transformer- I & II for the tariff period 2014-19. Accordingly, final Transmission tariff for tariff period 2014-19 based on admitted cost ₹13531.95 lakh as on 1.4.2014 and as on 31.3.2019 of the said transmission system was approved by the Commission vide order dated 29.2.2016 in petition no. 511/TT/2014.
4. As provided under Regulation 8(1) of the 2014 Tariff Regulations, the tariff allowed for the period from 1.4.2014 to 31.3.2019 is being trued-up and the tariff for the 2019-24 period is being determined under Regulation 8 of the 2019 Tariff Regulations.
5. The respondents are distribution licensees and power departments, who are procuring transmission service from the Petitioner, mainly beneficiaries of Southern Region.
6. The Petitioner has served the petition on the respondents and notice of this application has been published in the newspaper in accordance with Section 64 of the Electricity Act, 2003. No comments/ objections have been received from the public in response to the notice in newspaper. The Respondent, Power Company of Karnataka Limited (PCKL), has submitted reply vide affidavit dated 20.8.2020 in the matter

7. The Petition was heard on 31.7.2020 and the Commission reserved the order in the Petition. Having heard the representatives of the Petitioner and perused the material on record, we proceed to dispose of the petition.

8. This order has been issued after considering the main petition dated 5.8.2019 and reply of PCKL vide affidavit dated 20.8.2020.

### **Analysis and Decision**

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

9. The Commission vide order 29.2.2016 in petition no. 511/TT/2014 had approved the tariff allowed for 2014-19 tariff period as below:

	(₹ in lakh)				
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	714.49	714.49	714.49	714.49	714.49
Interest on Loan	655.05	591.58	527.98	464.27	400.50
Return on Equity	796.08	796.08	796.08	796.08	796.08
Interest on Working Capital	49.85	48.39	46.92	45.46	43.99
O&M Expenses	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>2215.47</b>	<b>2150.54</b>	<b>2085.47</b>	<b>2020.30</b>	<b>1955.06</b>

10. The Petitioner has submitted the information as required under the 2014 Tariff Regulations for truing up of annual fixed charges for 2014-19 period. The tariff for 2014-19 tariff period has been trued up as discussed in the subsequent paragraphs.

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

	(₹ in lakh)				
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	714.49	714.49	714.49	714.49	714.49
Interest on Loan	656.42	592.81	529.04	465.15	401.21
Return on Equity	796.69	800.35	799.94	799.94	802.09
Interest on Working Capital	49.89	48.51	47.04	45.57	44.14
O&M Expenses	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>2217.49</b>	<b>2156.16</b>	<b>2090.51</b>	<b>2025.15</b>	<b>1961.93</b>



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

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	0.00	0.00	0.00	0.00	0.00
O&M expenses	0.00	0.00	0.00	0.00	0.00
Receivables	369.58	359.36	348.42	337.53	326.99
<b>Total</b>	<b>369.58</b>	<b>359.36</b>	<b>348.42</b>	<b>337.53</b>	<b>326.99</b>
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
<b>Interest on Working Capital</b>	<b>49.89</b>	<b>48.51</b>	<b>47.04</b>	<b>45.57</b>	<b>44.14</b>

#### **Capital Cost as on 1.4.2014**

13. The capital cost of the transmission asset has been worked out in accordance with the Regulation 9(3) and Regulation 9(6) of 2014 Tariff Regulations. The Commission vide order dated 29.2.2016 in petition no. 511/TT/2014 had approved the transmission tariff for the Asset for the 2014-19 tariff period based on admitted capital cost of ₹13531.95 lakh as on 31.3.2014.

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

14. The Petitioner has not claimed any additional expenditure for Combined Transformers-I and II for the tariff period 2014-19. Accordingly, the final transmission tariff for the tariff period 2014-19 is based on admitted cost ₹13531.95 lakh as on 1.4.2014 and 31.3.2019 as approved by the Commission vide order dated 29.2.2016 in petition no. 511/TT/2014.

15. Accordingly, the capital cost admitted for the purpose of true up of 2014-19 period as under:

(₹ in lakh)		
Capital Cost as on 1.4.2014	Additional Capitalisation in 2014-19	Total Capital Cost as on 31.3.2019
13531.95	0.00	13531.95



### **Debt-Equity Ratio**

16. The debt-equity ratio has been allowed in accordance with Regulation 19(3) of the 2014 Tariff Regulations. As per Regulation 19(3) of the 2014 Tariff Regulations, the debt-equity ratio allowed by the Commission for determination of tariff for the period ending on 31.3.2014 shall be considered. The Petitioner has claimed debt-equity ratio as on 31.3.2014 as approved by the Commission in its order dated 29.2.2016 in Petition No. 511/TT/2014. The same has been considered as opening debt-equity ratio as on 1.4.2014. The Petitioner has not claimed any ACE for instant asset for the tariff period 2014-19. Accordingly, the details of the debt-equity ratio considered by the Commission as on 1.4.2014 and 31.3.2019 of the instant transmission asset is as follows:

(₹ in lakh)				
Particulars	Capital cost as on 1.4.2014	%	Capital cost as on 31.3.2019	%
Funding				
Debt	9472.37	70.00	9472.37	70.00
Equity	4059.59	30.00	4059.59	30.00
<b>Total</b>	<b>13531.95</b>	<b>100.00</b>	<b>13531.95</b>	<b>100.00</b>

### **Interest on Loan (IOL)**

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

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	9472.37	9472.37	9472.37	9472.37	9472.37
Cumulative Repayment up to previous Year	1809.65	2524.14	3238.62	3953.11	4667.60
Net Loan-Opening	7662.72	6948.23	6233.75	5519.26	4804.77
Addition due to Additional Capitalization	0.00	0.00	0.00	0.00	0.00
Repayment during the year	714.49	714.49	714.49	714.49	714.49
Net Loan-Closing	6948.23	6233.75	5519.26	4804.77	4090.29
Average Loan	7305.48	6590.99	5876.50	5162.02	4447.53
Weighted Average Rate of Interest on Loan (%)	8.9853%	8.9943%	9.0027%	9.0111%	9.0209%
<b>Interest on Loan</b>	<b>656.42</b>	<b>592.81</b>	<b>529.04</b>	<b>465.15</b>	<b>401.21</b>





### **Return on Equity (ROE)**

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

<b>Year</b>	<b>Claimed effective tax (in %)</b>	<b>Grossed up ROE (Base Rate/1-t) (in %)</b>
2014-15	21.02	19.625
2015-16	21.38	19.715
2016-17	21.34	19.705
2017-18	21.34	19.705
2018-19	21.55	19.758

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

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

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

<b>Year</b>	<b>Notified MAT rates (inclusive of surcharge &amp; cess) (in %)</b>	<b>Effective tax (in %)</b>
2014-15	20.9605	20.961



<b>Year</b>	<b>Notified MAT rates (inclusive of surcharge &amp; cess) (in %)</b>	<b>Effective tax (in %)</b>
2015-16	21.3416	21.342
2016-17	21.3416	21.342
2017-18	21.3416	21.342
2018-19	21.5488	21.549

20. The same MAT rates as considered in the above order 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.

<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	20.9605	15.50	19.610
2015-16	21.3416	15.50	19.705
2016-17	21.3416	15.50	19.705
2017-18	21.3416	15.50	19.705
2018-19	21.5488	15.50	19.758

21. The Petitioner has claimed ROE for the 2014-19 period after grossing up the ROE of 15.50% with Effective Tax rates (based on MAT rates) each year. ROE is trued up on the basis of the MAT rate applicable in the respective years and is allowed as follows:

<b>Particulars</b>	<b>(₹ in lakh)</b>				
	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Opening Equity	4059.59	4059.59	4059.59	4059.59	4059.59
Addition due to Additional Capitalization	0.00	0.00	0.00	0.00	0.00
Closing Equity	4059.59	4059.59	4059.59	4059.59	4059.59
Average Equity	4059.59	4059.59	4059.59	4059.59	4059.59
Return on Equity (Base Rate) (%)	15.50%	15.50%	15.50%	15.50%	15.50%
MAT rate for the Respective year (%)	20.9605%	21.3416%	21.3416%	21.3416%	21.5488%
Rate of Return on Equity (Pre-tax) (%)	19.610%	19.705%	19.705%	19.705%	19.758%
<b>Return on Equity (Pre-tax)</b>	<b>796.09</b>	<b>799.94</b>	<b>799.94</b>	<b>799.94</b>	<b>802.09</b>

### **Depreciation**

22. The Gross Block during the 2014-19 tariff period has been depreciated at Weighted Average Rate of Depreciation (WAROD) as placed in Annexure-1. WAROD has been worked out after taking into account the depreciation rates of assets as



prescribed in the 2014 Tariff Regulations and the depreciation allowed during the 2014-19 tariff period is as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	13531.95	13531.95	13531.95	13531.95	13531.95
Additional Capital expenditure	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	13531.95	13531.95	13531.95	13531.95	13531.95
Average Gross Block	13531.95	13531.95	13531.95	13531.95	13531.95
Rate of Depreciation (%)	5.2800%	5.2800%	5.2800%	5.2800%	5.2800%
Depreciable Value	12178.76	12178.76	12178.76	12178.76	12178.76
Remaining Depreciable Value	10369.11	9654.62	8940.13	8225.64	7511.16
<b>Depreciation</b>	<b>714.49</b>	<b>714.49</b>	<b>714.49</b>	<b>714.49</b>	<b>714.49</b>

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

23. Since the assets are spare in nature, O&M is not applicable. Also the Petitioner has not claimed O&M expenses and as such its entitlement to O&M expenses is NIL.

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

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

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	0.00	0.00	0.00	0.00	0.00
O&M expenses	0.00	0.00	0.00	0.00	0.00
Receivables	369.48	359.29	348.42	337.52	326.99
<b>Total</b>	<b>369.48</b>	<b>359.29</b>	<b>348.42</b>	<b>337.52</b>	<b>326.99</b>
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
<b>Interest on Working Capital</b>	<b>49.88</b>	<b>48.50</b>	<b>47.04</b>	<b>45.57</b>	<b>44.14</b>

25. The details of IWC approved earlier vide order dated 29.2.2016 in Petition No. 511/TT/2014, IWC claimed by the Petitioner in the instant petition and true up in the instant order for the 2014-19 period is shown as under: -

(₹ in lakh)					
Particulars (IWC)	2014-15	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 29.2.2016 in 511/TT/2014	49.85	48.39	46.92	45.46	43.99
Claimed by the Petitioner in the instant petition	49.89	48.51	47.04	45.57	44.14
Allowed after true-up in this order	49.88	48.50	47.04	45.57	44.14



### **Annual Transmission Charges for 2014-19 Tariff period**

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

(₹ in lakh)					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	714.49	714.49	714.49	714.49	714.49
Interest on Loan	656.42	592.81	529.04	465.15	401.21
Return on Equity	796.09	799.94	799.94	799.94	802.09
Interest on Working Capital	49.88	48.50	47.04	45.57	44.14
O&M Expenses	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>2216.87</b>	<b>2155.75</b>	<b>2090.51</b>	<b>2025.15</b>	<b>1961.93</b>

27. The details of Annual Transmission Charges approved earlier vide order dated 29.2.2016 in Petition No. 511/TT/2014, claimed by the Petitioner in the instant petition and trued up in the instant order for the 2014-19 period is shown as under: -

(₹ in lakh)					
<b>Particulars (AFC)</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Approved vide order dated 29.2.2016 in 511/TT/2014	<b>2215.47</b>	<b>2150.54</b>	<b>2085.47</b>	<b>2020.30</b>	<b>1955.06</b>
Claimed by the Petitioner in the instant petition	<b>2217.49</b>	<b>2156.16</b>	<b>2090.51</b>	<b>2025.15</b>	<b>1961.93</b>
Allowed after true-up in this order	<b>2216.87</b>	<b>2155.75</b>	<b>2090.51</b>	<b>2025.19</b>	<b>1961.93</b>

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

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

(₹ in lakh)					
<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Depreciation	714.49	714.49	714.49	714.49	714.49
Interest on Loan	337.19	273.08	208.84	144.46	79.81
Return on Equity	802.09	802.09	802.09	802.09	802.09
Interest on Working Capital	27.88	26.99	26.02	25.05	24.01
O&M Expenses	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>1881.65</b>	<b>1816.65</b>	<b>1751.44</b>	<b>1686.09</b>	<b>1620.40</b>

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



(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Maintenance Spares	0.00	0.00	0.00	0.00	0.00
O&M expenses	0.00	0.00	0.00	0.00	0.00
Receivables	231.35	223.97	215.93	207.87	199.23
<b>Total</b>	<b>231.35</b>	<b>223.97</b>	<b>215.93</b>	<b>207.87</b>	<b>199.23</b>
Rate of Interest	12.05%	12.05%	12.05%	12.05%	12.05%
<b>Interest on Working Capital</b>	<b>27.88</b>	<b>26.99</b>	<b>26.02</b>	<b>25.05</b>	<b>24.01</b>

30. The tariff for 2019-24 period is allowed as discussed in the subsequent paragraphs.

### **Capital Cost**

31. Regulation 19 of the 2019 Tariff Regulations provides as follows: -

*“(1) The Capital cost of the generating station or the transmission system, as the case may be, as determined by the Commission after prudence check in accordance with these regulations shall form the basis for determination of tariff for existing and new projects.”*

*(2) The Capital Cost of a new project shall include the following:*

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

*(b) Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;*

*(c) Any gain or loss on account of foreign exchange risk variation pertaining to the loan amount availed during the construction period;*

*(d) Interest during construction and incidental expenditure during construction as computed in accordance with these regulations;*

*(e) Capitalised initial spares subject to the ceiling rates in accordance with these regulations;*

*(f) Expenditure on account of additional capitalization and de-capitalisation determined in accordance with these regulations;*

*(g) Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the date of commercial operation as specified under Regulation 7 of these regulations;*

*(h) Adjustment of revenue earned by the transmission licensee by using the assets before the date of commercial operation;*

*(i) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*

*(j) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of the generating station but does not include the transportation cost and any other appurtenant cost paid to the railway;*

*(k) Capital expenditure on account of biomass handling equipment and facilities, for co-firing;*

*(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 up to the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and*
- (f) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.”*

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

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

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

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

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

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

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



32. The Petitioner has claimed capital cost of ₹13531.95 lakh as on 31.3.2019 for the instant asset. The Commission has worked out capital cost of ₹13531.95 lakh as on 31.3.2019 and the same has been approved and 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)**

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

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

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

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

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

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

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

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

- (a) Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority, or order or decree of any court of law;*
- (b) Change in law or compliance of any existing law;*
- (c) Deferred works relating to ash pond or ash handling system in the original scope of work;*



- (d) Liability for works executed prior to the cut-off date;  
 (e) Force Majeure events;  
 (f) Liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments; and  
 (g) Raising of ash dyke as a part of ash disposal system.

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

- (a) The useful life of the assets is not commensurate with the useful life of the project and such assets have been fully depreciated in accordance with the provisions of these regulations;  
 (b) The replacement of the asset or equipment is necessary on account of change in law or Force Majeure conditions;  
 (c) The replacement of such asset or equipment is necessary on account of obsolescence of technology; and  
 (d) The replacement of such asset or equipment has otherwise been allowed by the Commission.”

34. The Petitioner has not claimed/ projected any Additional Capital Expenditure during 2019-24 tariff period. Accordingly, the capital cost considered as on 1.4.2019 and 31.3.2014 is ₹13531.95 as under:

(₹ in lakh)		
Capital Cost as on 1.4.2019	ACE claimed 2019-24	Total Capital Cost as on 31.3.2024
13531.95	Nil	13531.95

### **Debt-Equity Ratio**

35. 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.”

36. The debt-equity ratio for the 2019-24 period is allowed as per Regulation 18(3) of the 2019 Tariff Regulations. The details of the debt-equity ratio considered for the purpose of tariff for 2019-24 tariff period is as follows:-

Particulars	Capital cost as on 1.4.2019 (₹ in lakh)	%	Total cost as on 31.3.2024 (₹ in lakh)	%
Funding				
Debt	9472.37	70.00	9472.37	70.00
Equity	4059.59	30.00	4059.59	30.00
<b>Total</b>	<b>13531.95</b>	<b>100.00</b>	<b>13531.95</b>	<b>100.00</b>

### **Return on Equity (ROE)**

37. Regulation 30 and Regulation 31 of the 2019 Tariff Regulations specify as under:-



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

(2) Return on equity shall be computed at the base rate of 15.50% for thermal generating station, transmission system including communication system and runoff 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 runoff river generating station with pondage:

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

Provided further that:

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

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

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

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

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

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

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

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

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



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.

(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.”

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

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	4059.59	4059.59	4059.59	4059.59	4059.59
Addition due to Additional Capitalization	0.00	0.00	0.00	0.00	0.00
Closing Equity	4059.59	4059.59	4059.59	4059.59	4059.59
Average Equity	4059.59	4059.59	4059.59	4059.59	4059.59
Return on Equity (Base Rate)	15.50%	15.50%	15.50%	15.50%	15.50%
MAT rate for the Financial year 2019-20	17.4720%	17.4720%	17.4720%	17.4720%	17.4720%
Rate of Return on Equity (Pre-tax)	18.782%	18.782%	18.782%	18.782%	18.782%
<b>Return on Equity (Pre-tax)</b>	<b>762.47</b>	<b>762.47</b>	<b>762.47</b>	<b>762.47</b>	<b>762.47</b>

### **Interest on Loan (IOL)**

39. Regulation 32 of the 2019 Tariff Regulations provides that:

**“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.”

40. 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 the change in interest rate due to floating rate of interest applicable, if any, during 2019-24 tariff period will be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of true up.

41. The details of IOL allowed in accordance with Regulation 32 of 2019 Tariff Regulations, subject to true up, is as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	9472.37	9472.37	9472.37	9472.37	9472.37
Cumulative Repayment upto previous Year	5382.10	6096.59	6811.07	7525.56	8240.05
Net Loan-Opening	4090.27	3375.78	2661.30	1946.81	1232.32
Addition due to ACE	0.00	0.00	0.00	0.00	0.00
Repayment during the year	714.49	714.49	714.49	714.49	714.49
Net Loan-Closing	3375.78	2661.30	1946.81	1232.32	517.84
Average Loan	3733.03	3018.54	2304.05	1589.57	875.08
Weighted Average Rate of Interest on Loan (%)	9.0325%	9.0466%	9.0639%	9.0882%	9.1205%
<b>Interest on Loan</b>	<b>337.19</b>	<b>273.07</b>	<b>208.84</b>	<b>144.46</b>	<b>79.81</b>



## **Depreciation**

42. Regulation 33 of the 2019 Tariff Regulations provide that:-

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

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

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

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

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

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

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

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

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

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

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



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

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

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

43. The depreciation has been worked out considering the admitted capital cost as on 31.3.2019 and accumulated depreciation up to 31.3.2019. The calculation of WAROD for the 2019-24 period is placed in Annexure-2. The depreciation worked out and allowed for the instant asset is as under:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	13531.95	13531.95	13531.95	13531.95	13531.95
Additional Capital expenditure	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	13531.95	13531.95	13531.95	13531.95	13531.95
Average Gross Block	13531.95	13531.95	13531.95	13531.95	13531.95
Rate of Depreciation (%)	5.2800%	5.2800%	5.2800%	5.2800%	5.2800%
Depreciable Value	12178.76	12178.76	12178.76	12178.76	12178.76
Remaining Depreciable Value	6796.66	6082.17	5367.68	4653.19	3938.71
<b>Depreciation</b>	<b>714.49</b>	<b>714.49</b>	<b>714.49</b>	<b>714.49</b>	<b>714.49</b>

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

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

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

Particulars	2019- 20	2020-21	2021-22	2022-23	2023- 24
<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



<b>Particulars</b>	<b>2019- 20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023- 24</b>
132 kV and below	0.245	0.254	0.263	0.272	0.282
<b>Norms for AC and HVDC lines (₹ Lakh per km)</b>					
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.881	0.912	0.944	0.977	1.011
Single Circuit (Bundled conductor with four sub-conductors)	0.755	0.781	0.809	0.837	0.867
Single Circuit (Twin & Triple Conductor)	0.503	0.521	0.539	0.558	0.578
Single Circuit (Single Conductor)	0.252	0.260	0.270	0.279	0.289
Double Circuit (Bundled conductor with four or more sub-conductors)	1.322	1.368	1.416	1.466	1.517
Double Circuit (Twin & Triple Conductor)	0.881	0.912	0.944	0.977	1.011
Double Circuit (Single Conductor)	0.377	0.391	0.404	0.419	0.433
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.319	2.401	2.485	2.572	2.662
Multi Circuit (Twin & Triple Conductor)	1.544	1.598	1.654	1.713	1.773
<b>Norms for HVDC stations</b>					
HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)	834.00	864.00	894.00	925.00	958.00
Gazuwaka HVDC Back-to-Back station (₹ Lakh per 500 MW)	1,666.00	1,725.00	1,785.00	1,848.00	1,913.00
500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)	2,252.00	2,331.00	2,413.00	2,498.00	2,586.00
±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)	2,468.00	2,555.00	2,645.00	2,738.00	2,834.00
±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)	1,696.00	1,756.00	1,817.00	1,881.00	1,947.00
±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW)	2,563.0	2,653	2,746.00	2,842.00	2,942.00

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

Provided further that:

- i. the operation and maintenance expenses for new HVDC bi-pole schemes commissioned after 1.4.2019 for a particular year shall be allowed pro-rata on the basis of normative rate of operation and maintenance expenses of similar HVDC bi-pole scheme for the corresponding year of the tariff period;
- ii. the O&M expenses norms for HVDC bi-pole line shall be considered as Double Circuit quad AC line;
- iii. the O&M expenses of ±500 kV Mundra-Mohindergarh HVDC bipole scheme (2000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±500 kV Talcher-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.”*

45. Since the assets are spare in nature, O&M is not applicable. Also the Petitioner has not claimed O&M expenses and as such Petitioner's entitlement to O&M expenses is NIL.

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

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

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

.....

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

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

.....

*(3) Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2019 or as on 1st April of the year during the*





tariff period 2019-24 in which the generating station or a unit thereof or the transmission system including communication system or element thereof, as the case may be, is declared under commercial operation, whichever is later:

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

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

iv. **“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;”

47. The Petitioner has submitted that it has computed IWC for 2019-24 period considering the SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of interest on working capital as 12.05%.

48. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The Rate of Interest (ROI) on working capital considered is 12.05% (SBI 1 year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for 2019-20, whereas, ROI for 2020-21 onwards has been considered as 11.25% (SBI 1 year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points) . The components of the working capital and interest thereon allowed is as under:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Maintenance Spares	0.00	0.00	0.00	0.00	0.00
O&M expenses	0.00	0.00	0.00	0.00	0.00
Receivables	226.41	218.79	210.76	202.71	194.09
<b>Total</b>	<b>226.41</b>	<b>218.79</b>	<b>210.76</b>	<b>202.71</b>	<b>194.09</b>
Rate of Interest on working capital	12.05%	11.25%	11.25%	11.25%	11.25%
<b>Interest on Working Capital</b>	<b>27.28</b>	<b>24.61</b>	<b>23.71</b>	<b>22.81</b>	<b>21.84</b>

#### **APPROVED ANNUAL TRANSMISSION CHARGES FOR 2019-24 TARIFF PERIOD**

49. The transmission charges allowed for the instant transmission assets for the 2019-24 period are summarised as under:



(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	714.49	714.49	714.49	714.49	714.49
Interest on Loan	337.19	273.07	208.84	144.46	79.81
Return on Equity	762.47	762.47	762.47	762.47	762.47
Interest on Working Capital	27.28	24.61	23.71	22.81	21.84
O&M Expenses	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>1841.43</b>	<b>1774.65</b>	<b>1709.51</b>	<b>1644.23</b>	<b>1578.61</b>

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

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

### **License fee and RLDC Fees and Charges**

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

### **Security Expenses**

52. The Petitioner has submitted that security expenses for the instant 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 will be filed on a yearly basis on the basis of the actual expenses of previous year subject to true up at the end of the year on actual expenses. The Petitioner has submitted that the difference, if any,



between the estimated security expenses and actual security expenses as the audited accounts may be allowed to be recovered from the beneficiaries on a yearly basis.

53. We have considered the submissions of the Petitioner. We are of the view that 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 Petition No. 260/MP/2020 in accordance with the appropriate provisions of the 2019 Tariff Regulations.

#### **Goods and Services Tax**

54. The Petitioner has sought to recover GST on transmission charges separately from the Respondents, if at any time GST on transmission is withdrawn from negative list in future. Further additional taxes, if any, are to be paid by the Petitioner on account of demand from Govt. / Statutory authorities, the same may be allowed to be recovered from the beneficiaries.

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

#### **Capital Spares**

56. 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**

57. The billing, collection and disbursement of the transmission charges approved in this order shall be governed by the provisions of Central Electricity Regulatory



Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010, as amended from time to time as provided in Regulation 43 of 2014 Tariff Regulations for the 2014-19 tariff period and Regulation 57 of the 2019 Tariff Regulations for the 2019-24 tariff period.

58. To summarise, the trued-up Annual Fixed Charges allowed for the instant asset for the 2014-19 tariff period are as under:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
<b>Annual Fixed Charges</b>	<b>2216.87</b>	<b>2155.75</b>	<b>2090.51</b>	<b>2025.15</b>	<b>1961.93</b>

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

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Annual Fixed Charges</b>	<b>1841.43</b>	<b>1774.65</b>	<b>1709.51</b>	<b>1644.23</b>	<b>1578.61</b>

59. This order disposes of Petition No. 349/TT/2019.

**Sd/-**  
**(Arun Goyal)**  
**Member**

**Sd/-**  
**(I. S. Jha)**  
**Member**



## Annexure-1

Capital Expenditures for 2014-19	Admitted Capital Cost as on 1.4.2014	Additional capitalisation (Rs. In lakh)					Admitted cap cost as on 31.3.2019	Rate of Depreciation as per Regulation	Annual Depreciation as per Regulations (Rs. in lakh)					
		2014-15	2015-16	2016-17	2017-18	2018-19			2014-15	2015-16	2016-17	2017-18	2018-19	
Freehold land	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Leasehold land	0.00	0.00	0.00	0.00	0.00	0.00	3.34%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building & Other Civil Works	0.00	0.00	0.00	0.00	0.00	0.00	3.34%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transmission line	0.00	0.00	0.00	0.00	0.00	0.00	5.28%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sub-Station Equipment	13531.95	0.00	0.00	0.00	0.00	0.00	5.28%	13531.95	714.49	714.49	714.49	714.49	714.49	714.49
PLCC	0.00	0.00	0.00	0.00	0.00	0.00	6.33%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>13531.95</b>	0.00	0.00	0.00	0.00	0.00	<b>TOTAL</b>	<b>13531.95</b>	<b>714.49</b>	<b>714.49</b>	<b>714.49</b>	<b>714.49</b>	<b>714.49</b>	<b>714.49</b>
							Average Gross Block (Rs. In lakh)	13531.95	13531.95	13531.95	13531.95	13531.95	13531.95	13531.95
							<b>Weighted Average Rate of Depreciation</b>	5.2800%	5.2800%	5.2800%	5.2800%	5.2800%	5.2800%	5.2800%

Capital Expenditures for 2019-24	Admitted Capital Cost as on 1.4.2019	Additional capitalisation (Rs. In lakh)					Admitted cap cost as on 31.3.2024	Rate of Depreciation as per Regulation	Annual Depreciation as per Regulations (Rs. in lakh)				
		2019-20	2020-21	2021-22	2022-23	2023-24			2019-20	2020-21	2021-22	2022-23	2023-24
Freehold land	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
Leasehold land	0.00	0.00	0.00	0.00	0.00	0.00	3.34%	0.00	0.00	0.00	0.00	0.00	0.00
Building & Other Civil Works	0.00	0.00	0.00	0.00	0.00	0.00	3.34%	0.00	0.00	0.00	0.00	0.00	0.00
Transmission line	0.00	0.00	0.00	0.00	0.00	0.00	5.28%	0.00	0.00	0.00	0.00	0.00	0.00
Sub-Station Equipment	13531.95	0.00	0.00	0.00	0.00	0.00	5.28%	714.49	714.49	714.49	714.49	714.49	714.49
PLCC	0.00	0.00	0.00	0.00	0.00	0.00	6.33%	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>13531.95</b>	0.00	0.00	0.00	0.00	0.00	<b>TOTAL</b>	<b>13531.95</b>	<b>13531.95</b>	<b>13531.95</b>	<b>13531.95</b>	<b>13531.95</b>	<b>13531.95</b>
		Average Gross Block (Rs. In lakh)							5.2800%	5.2800%	5.2800%	5.2800%	5.2800%
		<b>Weighted Average Rate of Depreciation</b>							<b>5.2800%</b>	<b>5.2800%</b>	<b>5.2800%</b>	<b>5.2800%</b>	<b>5.2800%</b>