

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 16/TT/2022**

**Coram:**

**Shri I.S. Jha, Member  
Shri Arun Goyal, Member  
Shri P. K. Singh, Member**

**Date of Order: 02.09.2022**

**In the matter of:**

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and truing up of transmission tariff of 2014-19 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of 2019-24 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for 400 kV Dharmapuri (Salem New)– Somanahalli 400 kV D/C Quad Line along with Bay Extensions at Dharmapuri (Salem New) and Somanahalli Sub-stations” under Transmission System associated with “System Strengthening in Southern Region – XIV”.

**And in the matter of:**

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

**.....Petitioner**

**Versus**

1. Karnataka Power Transmission Corporation Limited,  
Kaveri Bhavan, Bangalore-560009.
2. Transmission Corporation of Andhra Pradesh Limited,  
Vidyut Soudha, Gunadala, Eluru Road,  
Vijaywada -520004.
3. Kerala State Electricity Board,  
Vaidyuthi Bhavanam,  
Pattom, Thiruvananthapuram-695004.
4. Tamil Nadu Generation and Distribution Corporation Limited,  
(Formerly Tamilnadu 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 Limited,  
P&T Colony, Seethmmadhara,  
Vishakhapatnam, Andhra Pradesh.
7. Southern Power Distribution Company of Andhra Pradesh Limited,  
D.No: 19-13-65/A, Srinivasapuram, Corporate Office,  
Tiruchanoor Road, Tirupati-517501,  
Chittoor District, Andhra Pradesh.
8. Southern Power Distribution Company of Telangana Limited,  
6-1-50, Corporate Office, Mint Compound,  
Hyderabad-500063, Telangana.
9. Northern Power Distribution Company of Telangana Limited, H.No.2-5-3 1/2,  
Vidyut Bhawan, Corporate Office, Nakkal Gutta,  
Hanamkonda, Warangal-506001, Telangana.
10. Bangalore Electricity Supply Company Limited,  
Corporate Office, K.R. Circle,  
Bangalore-560001, Karnataka.
11. Gulbarga Electricity Supply Company Limited,  
Station Main Road, Gulbarga, Karnataka.
12. Hubli Electricity Supply Company Limited,  
Navanagar, PB Road, Hubli, Karnataka.
13. MESCOM Corporate Office,  
Paradigm Plaza, AB Shetty Circle,  
Mangalore-575001, Karnataka.
14. Chamundeswari Electricity Supply Corporation Limited,  
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 Limited,  
Vidhyut Sudha, Khairatabad,  
Hyderabad-500082.
17. Tamil Nadu Transmission Corporation,  
NPKRR Maaligai, 800, Anna Salai  
Chennai- 600002.

.....Respondent(s)



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

**For Respondents** : None

### **ORDER**

The instant petition has been filed by Power Grid Corporation of India Limited, a deemed transmission licensee, for truing up of transmission tariff of 2014-19 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) and determination of tariff under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) of 2019-24 tariff period in respect of 400 kV Dharmapuri (Salem New) – Somanahalli 400 kV D/C Quad Line along with Bay Extensions at Dharmapuri (Salem New) and Somanahalli Sub-stations (hereinafter referred to as the “transmission asset”) under “Transmission System associated with “System Strengthening in Southern Region-XIV” (hereinafter referred to as the “transmission project).

2. The Petitioner has made the following prayers in the instant 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 8.1 and 9.0 above.*
  - 2) *Approve the Completion cost and additional capitalization incurred during 2014-19 and allow the projected additional capitalization during 2019-24.*
  - 3) *Allow the depreciation on the claim of IT equipment in the current true up petition as Bifurcation of Substation cost.*
  - 4) *Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided in Tariff Regulation 2014 and Tariff regulations 2019 as per para 8.1 and 9.0 above for respective block.*



- 5) *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.*
- 6) *Allow the petitioner to bill and recover Licensee fee and RLDC fees and charges, separately from the respondents in terms of Regulation 70 (3) and (4) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019.*
- 7) *Allow the petitioner to bill and adjust impact on Interest on Loan due to change in Interest rate on account of floating rate of interest applicable during 2019-24 period, if any, from the respondents.*
- 8) *Allow the petitioner to file a separate petition before Hon'ble Commission for claiming the overall security expenses and consequential IOWC on that security expenses as mentioned at para 9.6 above.*
- 9) *Allow the petitioner to claim the capital spares at the end of tariff block as per actual.*
- 10) *Allow the Petitioner to bill and recover GST on Transmission Charges separately from the respondents, if GST on transmission is levied at any rate in future. Further, any taxes including GST and duties including cess etc. imposed by any statutory/Govt./municipal authorities shall be allowed to be recovered from the beneficiaries.*

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

### **Background**

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

- a. The Investment Approval (IA) for implementation of the transmission assets under the transmission project was accorded by the Board of Directors of the Petitioner in its 265<sup>th</sup> meeting dated 27.12.2011 (vide Memorandum No. C/CP/SRSS-XIV dated 27.12.2011) with an estimated cost of ₹29733 lakh including IDC of ₹1647 lakh based on 3rd quarter 2011 price level.
- b. The Revised Cost Estimate-I (RCE-I) in respect of the transmission project was accorded by the Board of Directors of the Petitioner in its 309<sup>th</sup> meeting dated 29.1.2015 (vide Memorandum No. C/CP/RCE-SR dated 23.2.2015) with an estimated cost of ₹34679 lakh including IDC of ₹3690 lakh based on August, 2014 price level.
- c. Subsequently, Revised Cost Estimate-II (RCE-II) in respect of the transmission project was accorded by the Board of Directors of the Petitioner in its 351<sup>st</sup> meeting dated 16.3.2018 (vide Memorandum No. C/CP/PA1718-12-00-



RCE009 dated 28.3.2018) with an estimated cost of ₹53402 lakh including IDC of ₹10859 lakh based on October, 2017 price level.

d. The scope of the transmission project was discussed and agreed in the 30<sup>th</sup> meeting of the Standing Committee on Power System Planning of Southern Region held on 13.4.2010. The same was further agreed by Southern Regional Power Committee in its 13<sup>th</sup> meeting held on 11.5.2010. The Petitioner has been entrusted with implementation of the transmission project “System Strengthening- XIV in Southern Region”.

e. The scope of the transmission project is as follows:

**Transmission Line**

i. Dharmapuri (Salem New) – Somanhalli 400 kV D/C Quad line

**Sub-station**

i. Augmentation of Hosur Sub-station by 1x315 MVA 400/220 kV Transformer and associated bays

ii. Extension of 400/220 kV Sub-station at Somanhalli

iii. Extension of 400/220 kV Sub-station at Dharmapuri (Salem New)

f. The details of petitions filed by the Petitioner under the transmission project are as follows:

Sl. No.	Asset Name	Actual COD	Covered under Petition
1	Augmentation of Hosur Sub-station by 1x315MVA 400/220 kV Transformer and associated bays.	1.3.2014	496/TT/2019
2	400 kV Dharmapuri (Salem New)– Somanahalli 400 kV D/C Quad Line along with Bay Extensions at Dharmapuri (Salem New) and Somanahalli Sub-stations	30.3.2019	<b>Covered in the instant petition</b>

g. As per IA dated 27.12.2011, the scheduled date of commercial operation (SCOD) of the transmission project was 32 months from the date of IA. Accordingly, the scheduled COD was 27.8.2014 against which the transmission asset was put into commercial operation on 30.3.2019. The COD was approved as 30.3.2019 vide order dated 13.2.2021 in Petition No.



53/TT/2020. Thus, there was a time over-run of 1676 days and it has already been condoned by the Commission.

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

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

6. The hearing in this matter was held on 1.4.2022 through video conference and the order was reserved in the matter.

7. This order is issued considering the submissions made by the Petitioner in the petition and affidavit dated 1.4.2022.

8. Having heard the representatives of the Petitioner and after perusal of the materials on record, we proceed to dispose of the petition.

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

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

Particulars	(₹ in lakh)
	2018-19 (Pro-rata for 2 days)
Depreciation	12.74
Interest on Loan	14.13
Return on Equity	14.31



Particulars	2018-19 (Pro-rata for 2 days)
O&M Expenses	2.31
Interest on Working Capital	0.97
<b>Total</b>	<b>44.46</b>

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

Particulars	(₹ in lakh)
	2018-19 (Pro-rata 2 days)
O&M Expenses	35.15
Maintenance Spares	63.27
Receivables	1352.37
<b>Total Working Capital</b>	<b>1450.79</b>
Rate of Interest (%)	12.20
<b>Interest on Working Capital</b>	<b>0.97</b>

#### **Date of Commercial Operation (“COD”)**

11. The Commission vide order dated 13.2.2021 in Petition No. 53/TT/2020 has held as follows:

#### ***“Date of Commercial Operation (COD)***

*16. The Petitioner has claimed the actual COD for the instant asset as 30.3.2019. In support of COD, the Petitioner has submitted CEA energisation certificate dated 19.8.2016 under Regulation 43 of CEA (Measures Related to Safety & Electricity Supply) Regulations, 2010; RLDC charging certificate dated 11.4.2019 in accordance with Regulation 5(2) of CERC (Terms and Condition of Tariff) Regulations, 2014; self-declaration of COD letter dated 30.3.2019; and CMD certificate in accordance with Grid Code.*

*17. We have considered the submissions of Petitioner. It is observed that the Petitioner has not submitted CEA energisation certificate for 400 kV Dharmapuri (Salem New) – Somanhalli 400 kV D/C Quad Line, whereas, the Petitioner has submitted CEA energization certificate for bays at Dharmapuri and Somanhalli Substations. Therefore, the Petitioner is directed to submit the CEA energization certificate for 400 kV Dharmapuri (Salem New) – Somanhalli 400 kV D/C Quad Line at the time of truing up.”*

12. The Petitioner has claimed the date of commercial operation of transmission asset as 30.3.2019. The Commission vide order dated 13.2.2021 in Petition No. 53/TT/2020 approved the COD of instant asset as 30.3.2019 subject to submission of



CEA energization certificate for 400 kV Dharmapuri (Salem New)-Somanhalli 400 kV D/C Quad Line at the time of truing up. However, the Petitioner has not submitted the CEA Energization Certificate for 400 kV Dharmapuri (Salem New) - Somanhalli 400 kV D/C Quad Line. The Petitioner is directed to submit the CEA Energization Certificate at the time of truing up of 2019-24 tariff period. Accordingly, this truing up is subject to filing of CEA Energization Certificate by the Petitioner.

### **Capital Cost**

13. The Commission vide order dated 13.2.2021 in Petition No. 53/TT/2020 had allowed capital cost of ₹43968.47 lakh as on COD and no Additional Capital Expenditure (ACE) has been allowed for 2014-19 tariff period. The details are as follows:

(₹ in lakh)					
FR AppORTIONED Approved Cost (FR)	RCE-I AppORTIONED Approved Cost	RCE-II AppORTIONED Approved Cost	Capital Cost allowed as on COD	Estimated Expenditure in 2018-19	Capital Cost allowed as on 31.3.2019
27652.50	32515.00	51003.59	43968.47*	0.00	43968.47

\* After adjustment of IDC from COD and excess Initial Spares disallowed.

14. The Petitioner in the instant true-up petition has submitted the capital cost as on COD and actual ACE during 2014-19 tariff period as claimed vide Auditor's Certificates as follows:

(₹ in lakh)					
FR AppORTIONED Approved Cost (FR)	AppORTIONED Approved Cost (RCE-I)	AppORTIONED Approved Cost (RCE-II)	Capital Cost as on COD	Actual Expenditure in 2018-19	Capital Cost as on 31.3.2019
27652.50	32515.00	51003.59	44712.83	0.00	44712.83

15. The capital cost as on COD and actual ACE during 2014-19 period claimed by the Petitioner after adjusting IDC and IEDC on cash discharge basis are as follows:





(₹ in lakh)					
FR Apporportioned Approved Cost (FR)	RCE-I Apporportioned Approved Cost	RCE-II Apporportioned Approved Cost	Capital Cost as on COD	Actual Expenditure in 2018-19	Capital Cost as on 31.3.2019
27652.50	32515.00	51003.59	44052.23	0.00	44052.23

### **Cost Over-run**

16. The Commission vide order dated 13.2.2021 in Petition No. 53/TT/2020 has already taken cognizance of RCE-I and RCE-II and approved the cost variation with respect to the transmission asset.

### **Time Over-run**

17. As per the IA, SCOD of the transmission assets under the transmission project was 27.8.2014 against which the actual COD with respect to the transmission asset is 30.3.2019. Accordingly, there is a delay of 1676 days in respect of transmission asset. The Commission vide order dated 13.2.2021 in Petition No. 53/TT/2020 has condoned the entire time over-run of 1676 days and we have considered the same in the instant order.

### **Interest During Construction (“IDC”)**

18. The Commission vide order dated 13.2.2021 in Petition No. 53/TT/2020 had allowed IDC as follows:

(₹ in lakh)			
IDC as per Auditor Certificate dated 30.7.2019	IDC Admissible	IDC Discharged as on COD	IDC undischarged as on COD
10216.53	10216.53	9472.91	743.62

19. The Petitioner vide order dated 13.2.2021 in Petition No. 53/TT/2020 was directed to submit the detailed IDC statement including date and amount of repayment, applicable rate of interest as on various dates with resets as well as the copy of loan



agreement at the time of true up. The Petitioner has submitted the cash IDC statement along with the instant petition. The Petitioner has submitted that the repayment of all the loans (bonds and other loans) is duly accounted for in the calculation of IDC in the cash IDC statement, i.e. the impact of loans repaid upto COD is duly considered while computing the IDC of the respective loan. The total IDC as shown in the certificate has been bifurcated into two parts i.e. IDC discharged upto COD and IDC discharged subsequently. The statement showing IDC discharged upto COD consists of loans with respect to IDC discharged during subsequent years, which have been considered in tariff forms as part of ACE. The loan considered in Form 6 and Form 9C with respect to COD cost plus ACE loan for accrual IDC shall match with total of loans shown in statement showing IDC discharged upto COD.

20. The Petitioner has further submitted that as per Auditor's Certificate, out of the total IDC claimed, some IDC has been discharged up to COD and the remaining amount has been discharged during 2019-20. The same has been considered as part of ACE for 2019-20 in respect of the transmission asset, and therefore, for the purpose of tariff calculation, the corresponding loan has been reduced from COD loan and added in ACE loan.

21. Accordingly, the cash IDC statement was made after the consideration of the total loan as on COD (including ACE loan for accrual IDC). Accordingly, the Petitioner has prayed to allow claimed IDC as per cash IDC statement.

22. With regard to the Commission's query about the methodology adopted and applicable rate of interest used for computation of IDC in case of loans obtained with 'floating rate' with respect to the transmission asset, the Petitioner vide affidavit dated 1.4.2022 has submitted that IDC is calculated for the loan with floating rate of interest



by multiplying the loan amount with prevailing interest rate for a particular time period. Changed rate of interest is applied for the next particular time period for which rate of interest is changed. Such calculation is done from the date of drawl of the loan to COD. The Petitioner has further submitted that supporting documents for rate of interest, a compendium of floating rates of interest of various loans during 2014-19 tariff period has been submitted with Petition No. 244/TT/2019 and these documents/details are also available on its website. Hence, the same may be allowed as claimed.

23. We have considered the submissions of the Petitioner. The Petitioner has submitted IDC computation statement which contains the name of loan, drawl date, loan amount, interest rate and interest claimed. IDC is worked out based on the details given in the IDC statement. Further, the allowable IDC has been worked out based on the information available on record and relying on loan amount as per Form 9C. IDC considered as on COD and summary of discharge of IDC liability up to COD and thereafter for the purpose of tariff determination is as follows:

(₹ in lakh)

IDC as per Auditor's Certificate dated 30.7.2019	IDC Admissible	IDC discharged as on COD	IDC Undischarged as on COD
10216.53	10216.53	9555.93	660.60

**Incidental Expenditure During Construction (“IEDC”)**

24. The Petitioner has claimed IEDC and has submitted Auditor's Certificate in support of the same. Further, the Petitioner has submitted that IEDC was fully discharged as on COD.

25. We have considered the submissions of the Petitioner. The Commission vide dated 13.2.2021 in Petition No. 53/TT/2020 stated as follows:



*“39. IEDC allowed for the subject asset will be reconsidered in the light of the directions of Appellate Tribunal for Electricity (APTEL) in judgment dated 2.12.2019 in Appeal Nos. 95 of 2018 and 140 of 2018, at the time of truing up.*

*The Petitioner is directed to furnish the details of IEDC of all the assets of the transmission project at the time of true-up of capital cost.”*

26. It is observed that all the transmission assets of the transmission project have been put into commercial operation during 2014-19 period. As regards restricting IEDC on the basis of capital cost of individual asset, the Commission (on the basis of APTEL’s judgement dated 2.12.2019 in Appeal No. 95 of 2018 and Appeal No. 140 of 2018) made the following observations vide order dated 4.2.2020 in Petition No. 1/TT/2019:

*“24. The Appellate Tribunal for Electricity (APTEL), vide its judgment dated 2nd December 2019 in Appeal Nos. 95 of 2018 and 140 of 2018 on the issue of “IEDC to be considered in tariff” has held that IEDC should be computed only on actual basis after due prudence check based on the data submitted by the Appellant in accordance with the Tariff Regulations. Further, vide para 7.12 of the judgment, ATE has, inter alia, observed that “.....without prejudice to the contention that hard costs should not be considered, even if hard cost is to be seen then, at least IEDC including contingencies should be applied”.*

*25. As per the APTEL judgment, computation of IEDC of the Project is to be made on actual basis after applying due prudence. The Petitioner files tariff petitions for individual assets and Commission decides tariff for these assets, which are subsequently combined when all the assets of the Project are brought under commercial operation. Thus, prudence can only be applied with reference to the combined IEDC as per FR Cost /RCE on completion of the Project. The present petition is a true up (2009-14) petition, and as mentioned in para 23, all the assets of the Project have been commissioned and their tariff determined on individual basis. As a part of prudence exercise, the IEDC allowed as per respective tariff orders for all the assets of the Project has been compared with the IEDC (including contingencies) for the Project as per RCE. We observe that the IEDC allowed for the Project, except that for the eight assets of the present petition, is Rs 7424.85 lakh which is well within the IEDC limit of Rs 13959.00 lakh as per RCE. The actual IEDC (as claimed) against the eight assets of the present petition is Rs 2604.12 lakh. After disallowing an amount of ₹4.50 lakh, ₹3.13 lakh and ₹33.03 lakh, in case of Asset-3, Asset-7 and Asset 8 respectively due to time over run, ₹2563.56 lakh is being allowed as IEDC.*

*26. We reiterate that Commission has applied prudence in the above manner in the present case as all the assets of the Project have been commissioned. For asset- wise tariff determination, Commission intends to continue with the existing practice of IEDC and prudence shall be applied on IEDC, once the Project is fully commissioned.”*

27. All the transmission assets of the transmission project have been executed.

Accordingly, IEDC of ₹1563.24 lakh claimed by the Petitioner is allowed as follows:



<b>IEDC claimed (as per Auditor's Certificates)</b>	<b>IEDC disallowed due to time over-run not condoned</b>	<b>IEDC allowed</b>
1563.23	0.00	1563.23

### **Initial Spares**

28. 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 cut-off date, subject to the following ceiling norms:

*“(d) Transmission System  
Transmission line: 1.00%  
Transmission sub-station (Green Field): 4.00%  
Transmission sub-station (Brown Field): 6.00%  
Series Compensation devices and HVDC Station – 4.00%  
Gas Insulated sub-station :5.00%  
Communication System: 3.5%”*

29. Initial Spares claimed by the Petitioner are as follows:

(₹ in lakh)				
<b>Elements</b>	<b>Plant and Machinery cost excluding IDC, IEDC, land cost and cost of Civil works as on cut-off date (A)</b>	<b>Initial Spares Claimed by the Petitioner (B)</b>	<b>Ceiling limit (in %) (C)</b>	<b>Initial Spares worked out by the Petitioner  D = [(A- B)*C/(100-C)]</b>
<b>For Sub-station (Brown Field)</b>				
	1120.09	62.73	6.00	67.49
<b>For Transmission System</b>				
	25686.20	251.72	1.00	256.91
<b>Total</b>	<b>26806.29</b>	<b>314.45</b>		<b>324.41</b>

30. The Petitioner has submitted that the discharge of Initial Spares has been considered on cash basis in the Auditor's Certificates. The discharge statement of Initial Spares submitted is as follows:

(₹ in lakh)			
<b>Particulars</b>	<b>Total Spares Claimed</b>	<b>Initial Spares discharged up to COD</b>	<b>Initial Spares discharged in 2019-20</b>
Sub-station	62.73	62.73	0.00
Transmission Lines	251.72	175.00	76.72



31. We have considered the submissions of the Petitioner. Initial Spares claimed by the Petitioner are within ceiling limit of 6 % under Brown Field Sub-station and 1 % towards transmission line. The Initial Spares claimed by the Petitioner are within the norms. Accordingly, Initial Spares allowed as per the 2014 Tariff Regulations are as follows:

(₹ in lakh)

Element	Plant and Machinery excluding IDC, IEDC, land cost and cost of civil works as on cut-off date (A)	Initial Spares claimed by the Petitioner (B)	Ceiling limit (in %) (C)	Initial Spares worked out by the Petitioner	Initial Spares allowed (E)
				$D = [(A-B)*C/(100-C)]$	
	1120.09	62.73	6.00	67.49	62.73
	25686.20	251.72	1.00	256.91	251.72

#### Capital Cost as on COD

32. The capital cost of the transmission asset has been calculated in accordance with the Regulation 9(3) of the 2014 Tariff Regulation. The details of the capital cost now approved as on COD after adjustment of IDC and IEDC are as follows:

(₹ in lakh)

Capital Cost claimed as on COD as per Auditors Certificate (A)	Un-discharged IDC (B)	Capital Cost allowed as on COD on cash basis (C) = (A-B)
44712.83	660.00	44052.23

33. The Petitioner, in the instant true-up petition, has not claimed any ACE based on actual expenditure.

34. We have considered the submissions of the Petitioner. Accordingly, the capital cost considered for trueing up of transmission tariff for 2014-19 period is as follows:

(₹ in lakh)

RCE-II Apportioned Approved Cost	Capital Cost allowed as on 1.4.2014	ACE	Capital Cost allowed as on 31.3.2019
		2018-19	
51003.59	44052.23	0.00	44052.23



### Debt-Equity Ratio

35. The Petitioner has claimed debt-equity ratio of 70:30 as on COD of the transmission asset. Debt-equity ratio of 70:30 is considered as provided under Regulation 19 of the 2014 Tariff Regulations.

36. The details of debt-equity ratio as on COD and 31.3.2019 in respect of the transmission asset considered for the purpose of tariff for 2014-19 tariff period are as follows:

Funding	Capital Cost (as on COD) (₹ in lakh)	(in %)	Capital Cost (as on 31.3.2019) (₹ in lakh)	(in %)
Debt	30836.56	70.00	30836.56	70.00
Equity	13215.67	30.00	13215.67	30.00
<b>Total</b>	<b>44052.23</b>	<b>100.00</b>	<b>44052.23</b>	<b>100.00</b>

### Depreciation

37. The Petitioner's claim towards depreciation in respect of the transmission asset was found to be higher than the depreciation allowed for the transmission asset vide order dated 13.2.2021 in Petition No. 53/TT/2020. The Petitioner has neither given any justification for claiming higher depreciation than that allowed in earlier order nor made any specific prayer for allowing higher depreciation in this petition. Similar issue had come up in Petition No. 19/TT/2020, wherein the Commission vide order dated 9.5.2020 held as follows:

*"31. We have considered the submissions of the Petitioner. The instant assets were put into commercial operation during the 2009-14 period and the tariff from the respective CODs to 31.3.2014 was allowed vide orders dated 30.8.2012 and 9.5.2013 in Petition No.343/2010 and Petition No. 147/TT/2011 respectively. Further, the tariff of the 2009- 14 period was trued up and tariff for the 2014-19 period was allowed vide order dated 25.2.2016 in Petition No.10/TT/2015. The Petitioner did not claim any capital expenditure towards "IT Equipment" in the above said three petitions where tariff for the instant assets for the 2009-14 period was allowed, tariff of the 2009-14 period was trued up and tariff for 2014-19 period was allowed even though there was a clear provision in the 2009 Tariff Regulations and 2014 Tariff Regulations providing depreciation @15% for IT Equipment. Having failed to make a claim as per the 2009 Tariff Regulations (the period during which COD of assets was achieved), the Petitioner has now, at the time of truing up of the tariff allowed for the 2014-19 period has apportioned a part of the capital expenditure to "IT Equipment". The Petitioner has adopted similar methodology not only in this but in some of the other petitions listed*





along with the instant petition on 26.2.2020. It is observed that the Petitioner has for the first time apportioned a part of the capital expenditure towards IT Equipment and has claimed depreciation under the head "IT Equipment" @15% at the time of truing up of the tariff of 2014-19 period. Regulation 8(1) of the 2014 Tariff Regulations provides for truing up of the capital expenditure including the additional capital expenditure, incurred up to 31.3.2019, admitted by the Commission after prudence check. We are of the view that scope of truing up exercise is restricted to truing up of the capital expenditure already admitted and apportionment or reapportionment of the capital expenditure cannot be allowed at the time of truing up. Therefore, we are not inclined to consider the Petitioner's prayer for apportionment of capital expenditure towards IT Equipment and allowing depreciation @ 15% from 1.4.2014 onwards. Accordingly, the depreciation @ 5.28% has been considered for IT Equipment as part of the sub-station up to 31.3.2019 while truing up the capital expenditure for the 2014-19 period. During the 2019-24 tariff period, the IT Equipment has been considered separate and depreciation has been allowed @ 15% for the balance depreciable value of IT Equipment in accordance with Regulation 33 read with Sr. No. (p) of the Appendix-I (Depreciation Schedule) of the 2019 Tariff Regulations."

38. In line with the above decision, depreciation @ 5.28% has been considered for IT Equipment as part of sub-station up to 31.3.2019 while truing up the capital expenditure for 2014-19 period in respect of the transmission asset. The Gross Block during 2014-19 tariff period has been depreciated at Weighted Average Rate of Depreciation (WAROD). WAROD at Annexure-I has been worked out after taking into account the depreciation rates of asset as prescribed in the 2014 Tariff Regulations. Asset-wise trued-up depreciation allowed is as follows:

		(₹ in lakh)
	Particulars	2018-19 (pro-rata 2 days)
	<b>Depreciation</b>	
A	Opening Gross Block	44052.23
B	ACE	0.00
C	Closing Gross Block (A+B)	44052.23
D	Average Gross Block (A+C)/2	44052.23
E	Freehold land	0.00
F	Weighted Average Rate of Depreciation (in %)	5.28
G	Balance useful life of the asset (Year)	35
H	Lapsed life at the beginning of the year (Year)	0
I	Aggregate Depreciable Value	39647.01
J	<b>Combined Depreciation during the year</b>	<b>12.75</b>
K	Aggregate Cumulative Depreciation	12.75
L	Remaining Depreciable Value (I-K)	39634.25





39. The details of depreciation allowed vide order dated 13.2.2021 in Petition No. 53/TT/2020, claimed by the Petitioner in the instant petition and trued-up in the instant order in respect of the transmission asset are as follows:

Particulars	(₹ in lakh)
	2018-19 (pro-rata for 2 days)
Allowed vide order dated 13.2.2021 in Petition No. 53/TT/2020	12.73
Claimed by Petitioner in the instant petition	12.74
Approved after true-up in this order	12.75

### **Interest on Loan (“IoL”)**

40. The Petitioner has claimed the weighted average rate of IoL based on its actual loan portfolio and rate of interest. We have considered the submissions of the Petitioner. IoL has been calculated based on actual interest rate submitted by the Petitioner in accordance with Regulation 26 of the 2014 Tariff Regulations. The trued-up IoL allowed in respect of the transmission asset is as follows:

		(₹ in lakh)
	Particulars	2018-19 (pro-rata 2 days)
A	Gross Normative Loan	30836.56
B	Cumulative Repayments upto Previous Year	0.00
C	Net Loan-Opening (A-B)	30836.56
D	Additions	0.00
E	Repayment during the year	12.75
F	Net Loan-Closing (C+D-E)	30823.81
G	Average Loan (C+F)/2	30830.18
H	Weighted Average Rate of Interest on Loan (in %)	8.3640
I	<b>Interest on Loan (G*H)</b>	<b>14.13</b>

41. The details of IoL allowed vide order dated 13.2.2021 in Petition No. 53/TT/2020, claimed by the Petitioner in the instant petition and trued-up in the instant order in respect of the transmission asset are as follows:



Particulars	(₹ in lakh)
	2018-19 (pro-rata 2 days)
Allowed <i>vide</i> order dated 13.2.2021 in Petition No. 53/TT/2020	14.10
Claimed by Petitioner in the instant petition	14.13
Approved after true-up in this order	14.13

### **Return on Equity (“RoE”)**

42. The Petitioner has claimed RoE in respect of the transmission asset in terms of Regulations 24 and 25 of the 2014 Tariff Regulations. The Petitioner has submitted that it is liable to pay income tax at MAT rates and has claimed the following effective tax rates for 2014-19 tariff period:

Year	Claimed effective tax rate (in %)	Grossed-up RoE [(Base Rate)/(1-t)] (in %)
2014-15	21.018	19.624
2015-16	21.382	19.716
2016-17	21.338	19.705
2017-18	21.337	19.704
2018-19	21.549	19.758

43. The Commission, *vide* order dated 27.4.2020 in Petition No.274/TT/2019, had arrived at the effective tax rate for the Petitioner based on the notified MAT rates and the same is as follows:

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

44. MAT rates allowed *vide* order dated 27.4.2020 in Petition No. 274/TT/2019 are considered for the purpose of grossing up of rate of RoE for trueing up of the tariff of 2014-19 period in terms of the provisions of the 2014 Tariff Regulations and the same are as follows:



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

45. The Petitioner has claimed RoE for 2014-19 tariff period after grossing up the RoE@15.50% with Effective Tax rates (based on MAT rates) each year as per the above said Regulation. RoE is trued-up on the basis of MAT rates applicable in the respective years and is allowed in respect of the transmission asset as follows:

(₹ in lakh)

	Particulars	2018-19 (pro-rata 2 days)
A	Opening Equity	13215.67
B	Additions	0.00
C	Closing Equity (A+B)	13215.67
D	Average Equity (A+C)/2	13215.67
E	Return on Equity (Base Rate) (in %)	15.500
F	MAT Rate for respective year (in %)	21.549
G	Rate of Return on Equity (in %)	19.758
H	<b>Return on Equity (D*G)</b>	<b>14.31</b>

46. The details of RoE allowed vide order dated 13.2.2021 in Petition No. 53/TT/2020, claimed by the Petitioner in the instant petition and trued-up in the instant order in respect of the transmission asset are as follows:

(₹ in lakh)

Particulars	2018-19 (pro-rata 2 days)
Allowed vide order dated 13.2.2021 in Petition No. 53/TT/2020	14.28
Claimed by Petitioner in the instant petition	14.31
Approved after true-up in this order	14.31



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

47. O&M Expenses claimed by the Petitioner in respect of the transmission asset are as follows:

Particulars	2018-19 (pro-rata 2 days)
<b>Transmission line</b>	
(i) 400 kV D/C Dharmapuri- Somanhalli line (4 Sub-conductors)	
D/C Bundled (4 or more Sub-conductor (km)	121.45
Norms (₹ lakh/km)	1.21
<b>O&amp;M Expenses (₹ in lakh)</b>	<b>146.95</b>
<b>400 kV bays of:</b>	
(i) Dharmapuri - Somanhalli Bay 1 and 2 (400 kV)	
(ii) Somanhalli - Dharmapuri Bay 1 and 2 (400 kV)	
400 kV Bays	4
Norms (₹ lakh/Bay)	68.71
<b>O&amp;M Expenses (₹ in lakh)</b>	<b>274.84</b>
<b>Total O&amp;M Expenses (₹ in lakh)</b>	<b>2.31</b>

48. We have considered the submissions of the Petitioner. O&M Expenses allowed in respect of the transmission asset as per norms specified in the 2014 Tariff Regulations are as follows:

Particulars	2018-19 (pro-rata 2 days)
<b>Transmission line</b>	
(i) 400 kV D/C Dharmapuri-Somanhalli line (4 Sub-conductors)	
D/C Bundled (4 or more Sub-conductor (km)	121.45
Norms (₹ lakh/km)	1.21
<b>O&amp;M Expenses (₹ in lakh)</b>	<b>146.95</b>
<b>400 kV bays of:</b>	
(ii) Dharmapuri – Somanhalli Bay 1 and 2 (400 kV)	
(ii) Somanhalli - Dharmapuri Bay 1 and 2 (400 kV)	
400 kV Bays	4
Norms (₹ lakh/Bay)	68.71
<b>O&amp;M Expenses (₹ in lakh)</b>	<b>274.84</b>
<b>Total O&amp;M Expenses (₹ in lakh)</b>	<b>2.31</b>

49. The details of O&M Expenses allowed vide order dated 13.2.2021 in Petition No. 53/TT/2020, claimed by the Petitioner in the instant petition and trued-up in the instant order for the transmission asset are as follows:



Particulars	(₹ in lakh)
	2018-19 (pro-rata 2 days)
Allowed vide order dated 13.2.2021 in Petition No. 53/TT/2020	2.30
Claimed by Petitioner in the instant petition	2.31
Approved after true-up in this order	2.31

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

50. IWC has been worked out as per the methodology provided in Regulation 28 of the 2014 Tariff Regulations and is allowed in respect of the transmission asset as follows:

		(₹ in lakh)
	Particulars	2018-19 (pro-rata 2 days)
A	Working Capital for O&M Expenses (one month of O&M Expenses)	35.15
B	Working Capital for Maintenance Spares (Maintenance Spares @15% of O&M expenses)	63.27
C	Working Capital for Receivables (Receivable equivalent to two months of fixed cost)	1352.68
<b>D</b>	<b>Total Working Capital (A+B+C)</b>	<b>1451.10</b>
E	Rate of Interest (in %)	12.20
<b>F</b>	<b>Interest of working capital (D*E)</b>	<b>0.97</b>

51. The details of IWC allowed vide order dated 13.2.2021 in Petition No. 53/TT/2020, claimed by the Petitioner in the instant petition and true-up in the instant order in respect of the transmission asset are as follows:

Particulars	(₹ in lakh)
	2018-19 (pro-rata 2 days)
Allowed vide order dated 13.2.2021 in Petition No. 53/TT/2020	0.97
Claimed by Petitioner in the instant petition	0.97
Approved after true-up in this order	0.97

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

52. The true-up AFC approved in respect of the transmission asset for 2014-19 tariff period are as follows:



(₹ in lakh)

	Particulars	2018-19 (pro-rata 2 days)
A	Depreciation	12.75
B	Interest on Loan	14.13
C	Return on Equity	14.31
D	O&M Expenses	2.31
E	Interest on Working Capital	0.97
F	<b>Total (A+B+C+D+E)</b>	<b>44.47</b>

53. The details of AFC allowed vide order dated 13.2.2021 in Petition No. 53/TT/2020, claimed by the Petitioner in the instant petition and trued-up in the instant order in respect of the transmission asset are as follows:

(₹ in lakh)

Particulars	2018-19 (pro-rata 237 days)
Allowed vide order dated 13.2.2021 in Petition No. 53/TT/2020	44.38
Claimed by Petitioner in the instant petition	44.46
Approved after true-up in this order	44.47

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

54. The Petitioner has claimed the transmission charges in respect of the transmission assets for 2019-24 tariff period as follows:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	2384.96	2456.84	2506.34	2541.48	2541.48
Interest on Loan	2535.84	2405.82	2255.21	2085.32	1871.00
Return on Equity	2543.74	2620.72	2673.64	2711.13	2711.13
O&M Expenses	289.16	299.26	309.77	320.69	331.88
Interest on Working Capital	124.86	125.91	125.64	124.65	121.59
<b>Total</b>	<b>7878.56</b>	<b>7908.55</b>	<b>7870.60</b>	<b>7783.27</b>	<b>7577.08</b>

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

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	24.10	24.94	25.81	26.72	27.66
Maintenance Spares	43.37	44.89	46.47	48.10	49.78



(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Receivables	968.68	975.03	970.35	959.58	931.61
<b>Total Working Capital</b>	<b>1036.15</b>	<b>1044.86</b>	<b>1042.63</b>	<b>1034.40</b>	<b>1009.05</b>
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
<b>Interest on Working Capital</b>	<b>124.86</b>	<b>125.91</b>	<b>125.64</b>	<b>124.65</b>	<b>121.59</b>

### **Capital Cost**

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

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

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

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



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

- (3) *The Capital cost of an existing project shall include the following:*
- (a) *Capital cost admitted by the Commission prior to 1.4.2019 duly tried 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."*





57. The capital cost of ₹44052.23 lakh is as on 31.3.2019 and the same has been worked out by the Commission 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”)**

58. Regulation 24 and Regulation 25 of the 2019 Tariff Regulations provides as follows:

#### **“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) The replacement of such asset or equipment has otherwise been allowed by the Commission.”

59. The Petitioner has claimed ACE for 2019-24 tariff period under Regulations 24(1)(a) and 24(1)(b) of the 2019 Tariff Regulations on account of un-discharged liability towards final payment/withheld payment for works executed within cut-off date and works deferred for execution as follows:

(₹ in lakh)

Apportioned Approved Cost (as per RCE-II)	Capital Cost (as on 31.3.2019)	ACE claimed as per Auditor Certificate			Capital Cost (as on 31.3.2024)
		2019-20	2020-21	2021-22	
51003.59	44052.23	2185.48	547.13	1330.97	48115.81

60. We have considered the submissions of the Petitioner. The Petitioner has submitted Form-7 wherein the Petitioner has mentioned the details of the proposed ACE for 2019-24 period. ACE claimed by the Petitioner has been allowed under Regulation 24(1)(a) and 24(1)(b) of the 2019 Tariff Regulations as the same is towards un-discharged liabilities recognised to be payable at a future date and towards works deferred for execution. The un-discharged IDC of ₹660.60 lakh as on COD have been allowed as ACE during the year of its discharge i.e. 2019-20 and the same is as follows:

(₹ in lakh)

ACE claimed for 2019-20	ACE claimed for 2020-21	ACE claimed for 2021-22
2185.48	547.13	1330.97



61. Accordingly, ACE allowed for 2019-24 tariff period and the capital cost as on 31.3.2024 in respect of the transmission asset are as follows:

Apportioned Approved Cost (as per RCE-II)	Capital Cost admitted as on 1.4.2019	ACE allowed for 2019-24 tariff period			Capital Cost allowed as on 31.3.2024
		2019-20	2020-21	2021-22	
51003.59	44052.23	2185.48	547.13	1330.97	48115.81

(₹ in lakh)

### Debt-Equity Ratio

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

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

*Provided that:*

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

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

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

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

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

*Provided further that in case of projects owned by Damodar Valley Corporation,*



*the debt: equity ratio shall be governed as per sub-clause (ii) of clause (2) of Regulation 72 of these regulations.*

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

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

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

63. Debt-equity ratio considered for the purpose of computation of tariff for 2019-24 tariff period is allowed as per Regulation 18(3) of the 2019 Tariff Regulations. Debt-equity ratio considered for the purpose of computation of tariff in respect of the transmission asset for 2019-24 tariff period is as follows:

#### **Asset-1**

(₹ in lakh)				
Funding	Capital Cost (as on 1.4.2019) (₹ in lakh)	(in %)	Capital Cost (as on 31.3.2024) (₹ in lakh)	(in %)
Debt	30836.56	70.00	33681.07	70.00
Equity	13215.67	30.00	14434.74	30.00
<b>Total</b>	<b>44052.23</b>	<b>100.00</b>	<b>48115.81</b>	<b>100.00</b>

#### **Depreciation**

64. Regulation 33 of the 2019 Tariff Regulations provides as follows:

**“33. Depreciation:** (1) *Depreciation shall be computed from the date of commercial operation of a generating station or unit thereof or a transmission 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.

(9) Where the emission control system is implemented within the original scope of the generating station and the date of commercial operation of the generating station or



unit thereof and the date of operation of the emission control system are the same, depreciation of the generating station or unit thereof including the emission control system shall be computed in accordance with Clauses (1) to (8) of this Regulation.

(10) Depreciation of the emission control system of an existing or a new generating station or unit thereof where the date of operation of the emission control system is subsequent to the date of commercial operation of the generating station or unit thereof, shall be computed annually from the date of operation of such emission control system based on straight line method, with salvage value of 10%, over a period of-

a) twenty five years, in case the generating station or unit thereof is in operation for fifteen years or less as on the date of operation of the emission control system; or

b) balance useful life of the generating station or unit thereof plus fifteen years, in case the generating station or unit thereof is in operation for more than fifteen years as on the date of operation of the emission control system; or

c) ten years or a period mutually agreed by the generating company and the beneficiaries, whichever is higher, in case the generating station or unit thereof has completed its useful life.”

65. The IT equipment has been considered as part of the Gross Block and depreciated using WAROD (as placed at Annexure-II). WAROD has been worked out after taking into account the depreciation rates of IT and non-IT assets as prescribed in the 2019 Tariff Regulations. The salvage value of IT equipment has been considered as NIL, i.e. IT asset has been considered as 100 per cent depreciable. Depreciation has been worked out considering ACE as on 31.3.2019 and accumulated depreciation up to 31.3.2019. Depreciation allowed in respect of the transmission asset is as follows:

#### Asset-1

(₹ in lakh)						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	<b>Depreciation</b>					
A	Opening Gross Block	44052.23	46237.71	46784.84	48115.81	48115.81
B	ACE	2185.48	547.13	1330.97	0.00	0.00
C	Closing Gross Block (A+B)	46237.71	46784.84	48115.81	48115.81	48115.81
E	Average Gross Block (A+C)/2	45144.97	46511.28	47450.33	48115.81	48115.81
D	Freehold Land	0.00	0.00	0.00	0.00	0.00
F	Weighted average rate of Depreciation (WAROD) (in %)	5.28	5.28	5.28	5.28	5.28
G	Balance useful life of the asset (Year)	35	34	33	32	31





	<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
H	Aggregate Depreciable Value	40632.87	41862.57	42707.71	43306.65	43306.65
I	<b>Depreciation during the year</b>	<b>2384.96</b>	<b>2456.84</b>	<b>2506.35</b>	<b>2541.48</b>	<b>2541.48</b>
J	Cumulative Depreciation	2397.71	4854.55	7360.90	9902.38	12443.86
K	Remaining Depreciable Value (H-J)	38235.16	37008.01	35346.81	33404.27	30862.78

### **Interest on Loan**

66. Regulation 32 of the 2019 Tariff Regulations provides as follows:

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

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

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

(5a) *The rate of interest on loan for installation of emission control system shall be the weighted average rate of interest of actual loan portfolio of the emission control system or in the absence of actual loan portfolio, the weighted average rate of interest of the generating company 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.”*



67. The Petitioner has prayed that the change in interest rate due to floating rate of interest applicable, if any, during 2019-24 tariff period may be adjusted.

68. The weighted average rate of IoL has been considered on the basis of rate prevailing as on 1.4.2019. Accordingly, the floating rate of interest, if any, shall be considered at the time of true up. IoL has been allowed in accordance with Regulation 32 of the 2019 Tariff Regulations. IoL allowed for 2019-24 tariff period is as follows:

(₹ in lakh)						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	<b>Interest on Loan</b>					
A	Gross Normative Loan	30836.56	32366.40	32749.39	33681.07	33681.07
B	Cumulative Repayments upto Previous Year	12.75	2397.71	4854.55	7360.90	9902.38
C	Net Loan-Opening (A-B)	30823.81	29968.68	27894.84	26320.17	23778.69
D	Additions	1529.84	382.99	931.68	0.00	0.00
E	Repayment during the year	2384.96	2456.84	2506.35	2541.48	2541.48
F	Net Loan-Closing (C+D-E)	29968.68	27894.84	26320.17	23778.69	21237.20
G	Average Loan (C+F)/2	30396.25	28931.76	27107.50	25049.43	22507.95
H	Weighted Average Rate of Interest on Loan (in %)	8.3426	8.3155	8.3195	8.3248	8.3126
I	<b>Interest on Loan (G*H)</b>	<b>2535.84</b>	<b>2405.81</b>	<b>2255.21</b>	<b>2085.31</b>	<b>1871.00</b>

### **Return on Equity (“RoE”)**

69. Regulation 30 and Regulation 31 of the 2019 Tariff Regulations provides as follows:

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

(2) Return on equity shall be computed at the base rate of 15.50% for thermal generating station, transmission system including communication system and run-of-river hydro generating station, and at the base rate of 16.50% for the storage 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 cutoff date beyond the original scope, excluding additional capitalization on 7 account of emission control system, shall be computed at the weighted average rate of*





interest on actual loan portfolio of the generating station or the transmission system or in the absence of actual loan portfolio of the generating station or the transmission system, the weighted average rate of interest of the generating company or the transmission licensee, as the case may be, as a whole shall be considered, subject to ceiling of 14%.

Provided further that:

- i. In case of a new project, the rate of return on equity shall be reduced by 1.00% for such period as may be decided by the Commission, if the generating station or transmission system is found to be declared under commercial operation without commissioning of any of the 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.”

(3) The return on equity in respect of additional capitalization on account of emission control system shall be computed at the base rate of one year marginal cost of lending rate (MCLR) of the State Bank of India as on 1st April of the year in which the date of operation (ODe) occurs plus 350 basis point, subject to ceiling of 14%.”

**“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.”

70. The Petitioner has submitted that MAT rate is applicable to it. Accordingly, MAT rate applicable in 2019-20 has been considered for the purpose of RoE, which shall be trued-up with actual tax rate in accordance with Regulation 31(3) of the 2019 Tariff Regulations. RoE allowed in respect of the transmission asset has been worked out and allowed as follows:

**Asset-1**

		(₹ in lakh)				
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	<b>Return on Equity</b>					
A	Opening Equity	13215.67	13871.31	14035.45	14434.74	14434.74
B	Additions	655.64	164.14	399.29	0.00	0.00
C	Closing Equity (A+B)	13871.31	14035.45	14434.74	14434.74	14434.74



	<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
D	Average Equity (A+C)/2	13543.49	13953.38	14235.10	14434.74	14434.74
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (in%)	17.472	17.472	17.472	17.472	17.472
G	Rate of Return on Equity (in %)	18.782	18.782	18.782	18.782	18.782
H	<b>Return on Equity (D*G)</b>	<b>2543.74</b>	<b>2620.72</b>	<b>2673.64</b>	<b>2711.13</b>	<b>2711.13</b>

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

71. O&M Expenses claimed by the Petitioner in respect of the transmission asset for 2019-24 period are as follows:

	(₹ 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>
<b>400 kV bays of:</b>					
(i) Dharmapuri - Somanhalli Bay 1 and 2 (400 kV)					
(ii) Somanhalli - Dharmapuri Bay 1 and 2 (400 kV)					
Norms (₹ lakh/Bay)	32.15	33.28	34.45	35.66	36.91
400 kV Bays	4.00	4.00	4.00	4.00	4.00
<b>O&amp;M Expenses (i)</b>	<b>128.60</b>	<b>133.12</b>	<b>137.80</b>	<b>142.64</b>	<b>147.64</b>
<b>Transmission line</b>					
(i) 400 kV D/C Dharmapuri- Somanhalliline (4 Sub-conductors)					
D/C Bundled (4 or more Sub-Conductor (km))	121.45	121.45	121.45	121.45	121.45
Norms (₹ lakh/km)	1.322	1.368	1.416	1.466	1.517
<b>O&amp;M Expenses (ii)</b>	<b>160.56</b>	<b>166.14</b>	<b>171.97</b>	<b>178.05</b>	<b>184.24</b>
<b>Total O&amp;M Expenses (i + ii)</b>	<b>289.16</b>	<b>299.26</b>	<b>309.77</b>	<b>320.69</b>	<b>331.88</b>

72. The Regulation 35(3)(a) of the 2019 Tariff Regulations provide as follows:

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

- (4) **Transmission system:** (a) The following normative operation and maintenance expenses shall be admissible for the transmission system:
- (5)

<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 (Rs 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



Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
132 kV and below	16.08	16.64	17.23	17.83	18.46
<b>Norms for Transformers (Rs 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 (Rs Lakh per km)</b>					
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.881	0.912	0.944	0.977	1.011
Single Circuit (Bundled conductor with four sub-conductors)	0.755	0.781	0.809	0.837	0.867
Single Circuit (Twin & Triple Conductor)	0.503	0.521	0.539	0.558	0.578
Single Circuit (Single Conductor)	0.252	0.260	0.270	0.279	0.289
Double Circuit (Bundled conductor with four or more sub-conductors)	1.322	1.368	1.416	1.466	1.517
Double Circuit (Twin & Triple Conductor)	0.881	0.912	0.944	0.977	1.011
Double Circuit (Single Conductor)	0.377	0.391	0.404	0.419	0.433
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.319	2.401	2.485	2.572	2.662
Multi Circuit (Twin & Triple Conductor)	1.544	1.598	1.654	1.713	1.773
<b>Norms for HVDC stations</b>					
HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)	834	864	894	925	958
Gazuwaka HVDC Back-to-Back station (Rs. 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
±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh)(3000 MW)	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 (2500 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  $\pm 800$  kV Champa-Kurukshetra HVDC bi-pole scheme (3000 MW) shall be on the basis of the normative O&M expenses for  $\pm 800$  kV, Bishwanath-Agra HVDC bi-pole scheme;
- (v) the O&M expenses of  $\pm 800$  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  $\pm 800$  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.”

73. The Petitioner has claimed O&M Expenses in respect of the transmission asset as per the normative O&M Expenses rates provided in Regulation 35(3)(a) of the 2019 Tariff Regulations.

74. We have considered the submission of the Petitioner. O&M Expenses have been worked out in respect of the transmission asset in accordance with Regulation 35(3)(a) of the 2019 Tariff Regulations and the same are as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>400 kV bays of:</b>					
(iii) Dharmapuri - Somanhalli Bay 1 and 2 (400 kV)					
(iv) Somanhalli - Dharmapuri Bay 1 and 2 (400 kV)					
Norms (₹ lakh/Bay)	32.15	33.28	34.45	35.66	36.91



Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
400 kV Bays	4.00	4.00	4.00	4.00	4.00
<b>O&amp;M Expenses (i)</b>	<b>128.60</b>	<b>133.12</b>	<b>137.80</b>	<b>142.64</b>	<b>147.64</b>
<b>Transmission line</b>					
(ii) Dharmapuri- Somanhalli line (4 Sub-conductors)					
D/C Bundled (4 or more Sub-Conductor (km))	121.45	121.45	121.45	121.45	121.45
Norms (₹ lakh/km)	1.322	1.368	1.416	1.466	1.517
<b>O&amp;M Expenses (ii)</b>	<b>160.56</b>	<b>166.14</b>	<b>171.97</b>	<b>178.05</b>	<b>184.24</b>
<b>Total O&amp;M Expenses (i + ii)</b>	<b>289.16</b>	<b>299.26</b>	<b>309.77</b>	<b>320.69</b>	<b>331.88</b>

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

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

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

.....

**i. 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:-**

**‘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;”





76. The Petitioner has submitted that it has computed IWC for 2019-24 period considering the SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of IWC as 12.05%. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. 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, 11.25% (SBI 1-year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points) for 2020-21 and from 2021-22 onwards has been considered as 10.50% (SBI 1-year MCLR applicable as on 1.4.2021 of 7.00% plus 350 basis points). The components of the working capital and interest allowed thereon is as follows:

		(₹ in lakh)				
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	<b>Interest on Working Capital</b>					
A	Working Capital for O&M Expenses (Equivalent to annualized O&M Expenses for one month)	24.10	24.94	25.81	26.72	27.66
B	Working Capital for Maintenance Spares (Equivalent to 15% of O&M Expenses)	43.37	44.89	46.47	48.10	49.78
C	Working Capital for Receivables (Equivalent to 45 days of annual transmission charges)	968.67	973.98	968.33	957.58	929.66
<b>D</b>	<b>Total Working Capital (A+B+C)</b>	<b>1036.14</b>	<b>1043.81</b>	<b>1040.61</b>	<b>1032.40</b>	<b>1007.10</b>
E	Rate of Interest (in %)	12.05	11.25	10.50	10.50	10.50
<b>F</b>	<b>Interest on working capital (D*E)</b>	<b>124.86</b>	<b>117.43</b>	<b>109.26</b>	<b>108.40</b>	<b>105.75</b>

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

77. The transmission charges allowed in respect of the transmission asset for 2019-24 tariff period are as follows:

#### **Asset-1**

		(₹ in lakh)				
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Depreciation	2384.96	2456.84	2506.35	2541.48	2541.48
	Interest on Loan	2535.84	2405.81	2255.21	2085.31	1871.00
	Return on Equity	2543.74	2620.72	2673.64	2711.13	2711.13
	O&M Expenses	289.16	299.26	309.77	320.69	331.88
	Interest on Working Capital	124.86	117.43	109.26	108.40	105.75
	<b>Total</b>	<b>7878.56</b>	<b>7900.06</b>	<b>7854.23</b>	<b>7767.01</b>	<b>7561.24</b>



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

78. 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**

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

### **Goods and Services Tax**

80. 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.

81. 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**

82. The Petitioner has submitted that security expenses in respect of 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.

83. We have considered the submissions of the Petitioner. The Petitioner has claimed consolidated security expenses on projected basis for 2019-24 tariff period on the basis of actual security expenses incurred in 2018-19 in Petition No. 260/MP/2020. The said petition has already been disposed of by the Commission vide order dated 3.8.2021. The Commission vide order dated 3.8.2021 in Petition No. 260/MP/2020 approved security expenses from 1.4.2019 to 31.3.2024. Therefore, security expenses will be shared in terms of the order dated 3.8.2021 in Petition No. 260/MP/2020. Therefore, the Petitioner's prayer in the instant petition for allowing it to file a separate petition for claiming the overall security expenses and consequential IWC has become infructuous.

### **Capital Spares**

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

### **Sharing of Transmission Charges**

85. With effect from 1.7.2011, sharing of transmission charges for inter-State transmission system was governed by the Central Electricity Regulatory Commission (Sharing of Transmission Charges and Losses) Regulations, 2010. However, after repeal of the 2010 Sharing Regulations, with effect from 1.11.2020, sharing of transmission charges is governed by the Central Electricity Regulatory Commission



(Sharing of Transmission Charges and Losses) Regulations, 2020 ( “the 2020 Sharing Regulations”). Accordingly, the liabilities of the DICs for arrears of transmission charges determined through this order shall be computed DIC-wise in accordance with the provisions of respective Sharing Regulations and shall be recovered from the concerned DICs through bill under Regulation 15(2)(b) of the 2020 Sharing Regulations. For subsequent period, the billing, collection and disbursement of the transmission charges approved in this order shall be governed by the provisions of the 2020 Sharing Regulations as provided in Regulation 57 of the 2019 Tariff Regulations.

86. To summarize:

- a) The trued-up Annual Fixed Charges (AFC) approved in respect of the transmission asset for 2014-19 tariff period are as follows:

(₹ in lakh)	
<b>Asset-1</b>	
<b>2018-19</b>	
<b>(Pro-rata for 2 days)</b>	
<b>44.47</b>	

- b) AFC allowed in respect of the transmission asset for 2019-24 tariff period in this order is as follows:

**Asset-1**

(₹ in lakh)				
2019-20	2020-21	2021-22	2022-23	2023-24
<b>7878.56</b>	<b>7900.06</b>	<b>7854.23</b>	<b>7767.01</b>	<b>7561.24</b>

87. Annexure-I and Annexure-II given hereinafter shall form part of the order.

88. This order disposes of Petition No.16/TT/2022 in terms of the above discussions and findings.

**sd/-**  
**(P. K. Singh)**  
**Member**

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

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



## Asset-1

2014-19	Admitted Capital Cost as on 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)
Capital Expenditure		Total			2018-19
Building Civil Works & Colony	122.65	-	122.65	3.34%	4.10
Transmission Line	42585.02	-	42585.02	5.28%	2248.49
Sub-station	1172.74	-	1172.74	5.28%	61.92
PLCC	147.99	-	147.99	6.33%	9.37
IT Equipment (Incl. Software)	23.82	-	23.82	15.00%	3.57
<b>Total</b>	<b>44052.23</b>	<b>-</b>	<b>44052.23</b>		<b>2327.45</b>
<b>Average Gross Block (₹ in lakh)</b>					<b>44052.23</b>
<b>Weighted Average Rate of Depreciation (in %)</b>					<b>5.28%</b>



## Asset-1

2019-24	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	2020-21	2021-22	Total			2019-20	2020-21	2021-22	2022-23	2023-24
Building Civil Works & Colony	122.65	22.10	7.79	-	29.89	152.54	3.34%	4.47	4.96	5.09	5.09	8.06
Transmission Line	42585.02	2097.82	503.40	1330.97	3932.19	46517.21	5.28%	2303.87	2372.54	2420.97	2456.11	2457.04
Sub-station	1172.74	62.99	35.94	-	98.93	1271.67	5.28%	63.58	66.20	67.14	67.14	67.17
PLCC	147.99	2.22	-	-	2.22	150.21	6.33%	9.44	9.51	9.51	9.51	7.93
IT Equipment (Incl. Software)	23.82	0.36	-	-	0.36	24.18	15.00%	3.60	3.63	3.63	3.63	3.63
<b>Total</b>	<b>44052.23</b>	<b>2185.48</b>	<b>547.13</b>	<b>1330.97</b>	<b>4063.58</b>	<b>48115.81</b>		<b>2384.96</b>	<b>2456.84</b>	<b>2506.35</b>	<b>2541.48</b>	<b>2541.48</b>
							<b>Average Gross Block (₹ in lakh)</b>	<b>45144.97</b>	<b>46511.28</b>	<b>47450.33</b>	<b>48115.81</b>	<b>48115.81</b>
							<b>Weighted Average Rate of Depreciation (in %)</b>	<b>5.28%</b>	<b>5.28%</b>	<b>5.28%</b>	<b>5.28%</b>	<b>5.28%</b>

