# CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

#### Petition No. 669/TT/2020

#### Coram:

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

Date of Order: 31.10.2021

#### In the matter of:

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 for truing up of transmission tariff of the 2014-19 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of 2019-24 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for transmission assets under "Installation of Bus reactors at Cuddapah, Nellore PS, Kurnool, Raichur and Thiruvalam" in Southern Region.

#### And in the matter of:

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

....Petitioner

## Vs.

- Karnataka Power Transmission Corporation Limited, Kaveri Bhawan, Bangalore - 560009.
- Transmission Corporation of Andhra Pradesh Limited, Vidyut Soudha, Gunadala, Eluru Road, Vijayawada - 520004.
- Kerala State Electricity Board, Vaidyuthi Bhavanam, Pattom, Thiruvananthapuram - 695004.



- Tamil Nadu Generation and Distribution Corporation Limited, (Formerly Tamil Nadu Electricity Board -TNEB) NPKRR Maaligai, 800, Anna Salai, Chennai - 600002.
- 5. Electricity Department, Government of Pondicherry, Pondicherry - 605001.
- Eastern Power Distribution Company of Andhra Pradesh Limited, P&T Colony, Seethmmadhara, Vishakhapatanam, Andhra Pradesh.
- Southern Power Distribution Company of Andhra Pradesh Limited, D. No. 19-13-65/A, Srinivasapuram Corporate Office, Tiruchanoor Road, Chittoor District, Tirupati – 517503, Andhra Pradesh.
- Southern Power Distribution Company of Telangana Limited, 6-1-50, Corporate Office, Mint Compound, Hyderabad - 500063, Telangana.
- Northern Power Distribution Company of Telangana Limited, H. No. 2-5-3 1/2, Vidyut Bhawan, Corporate Office, Nakkal Gutta, Hanamkonda, Warangal - 506001, Telangana.
- 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
- Transmission Corporation of Telangana Limited, Vidhyut Sudha, Khairatabad, Hyderabad - 500082
- 17. Tamil Nadu Transmission Corporation, NPKRR Maaligai, 800, Anna Salai, Chennai - 600002

## ... Respondents

- For Petitioner: Shri S. S. Raju, PGCIL Shri Amit Yadav, PGCIL Shri D. K. Biswal, PGCIL Shri V. P. Rastogi, PGCIL
- For Respondents: Shri S. Vallinyagam, Advocate, TANGEDCO Dr. R. Kathiravan, TANGEDCO Shri R. Ramalakshmi, TANGEDCO Shri R. Srinivasan, TANGEDCO

## <u>ORDER</u>

The instant petition has been filed by Power Grid Corporation of India Limited, a deemed transmission licensee, for truing of transmission tariff for the period from COD to 31.3.2019 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as "the 2014 Tariff Regulations") and determination of transmission tariff under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations (Terms and Conditions of Tariff) Regulations (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as "the 2019 Tariff Regulations") for the period from 1.4.2019 to 31.3.2024 in respect of 1X125 MVAR 400 kV Bus reactor along with associated



bays at Cuddapah Sub-station, 1X240 MVAR 765 kV Bus reactor along with associated bays at Kurnool Sub-station, 1X240 MVAR 765 kV Bus reactor along with associated bays at Nellore PS Sub-station and 1X240 MVAR 765 kV Bus reactor along with associated bays at Raichur Sub-station (hereinafter referred to as "the transmission asset") under "Installation of Bus reactors at Cuddapah, Nellore PS, Kurnool, Raichur and Thiruvalam" in the Southern Region" (hereinafter referred to as "the transmission system").

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

- "1) Approve the trued up Transmission Tariff for 2014-19 block and transmission tariff for 2019-24 block for the assets covered under this petition, as per para 11.2 and 12.0 above.
- 2) Approve the Completion cost and additional capitalization incurred during 2014-19 and allow the actual/projected additional capitalization during 2019-24.
- 3) Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided in Tariff Regulation 2014 and Tariff regulations 2019 as per para 11.2 and 12.0 above for respective block.
- 4) Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 70 (1) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019, and other expenditure ( if any) in relation to the filing of petition.
- 5) Allow the petitioner to bill and recover Licensee fee and RLDC fees and charges, separately from the respondents in terms of Regulation 70 (3) and (4) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019.
- 6) Allow the petitioner to bill and adjust impact on Interest on Loan due to change in Interest rate on account of floating rate of interest applicable during 2019-24 period, if any, from the respondents.
- 7) Allow the petitioner to file a separate petition before Hon'ble Commission for claiming the overall security expenses and consequential IOWC on that security expenses as mentioned at para 11.6 above.
- 8) Allow the Petitioner to claim the capital spares at the end of tariff block as per actual.



9) Allow the Petitioner to bill and recover GST on Transmission Charges separately from the respondents, if GST on transmission is 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 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) of the transmission system was accorded by the Board of Directors of the Petitioner Company in 338<sup>th</sup> meeting held on 10.3.2017 for ₹25160 lakh including IDC of ₹1565 lakh based on October, 2016 price level (communicated *vide* Memorandum No. C/CP/PA 1617-03-0AC-IA028 dated 11.4.2017).

b) The scope of the scheme was discussed and agreed upon in 39<sup>th</sup> Standing Committee Meeting (SCM) of the Southern Region (SR) held on 28.12.2015 & 29.12.2015 and 29<sup>th</sup> meeting of SRPC held on 5.3.2016 at Vishakhapatnam. The scheme was further ratified in 36<sup>th</sup> Empowered Committee meeting held on 26.7.2016. The scope of work covered under the transmission system is as follows:

## **Reactive Compensation**

- (i) Cuddapah 400/220 kV (PGCIL) Sub-station (Extension):
- 400 kV Bus Reactor Bay: 1 number
- 400 kV Bus Reactor: 1 number of 125 MVAR bus reactor

(ii) Kurnool 765/400 kV (PGCIL) Sub-station (Extension):

- 765 kV Bus Reactor Bay: 1 number
- 765 kV Bus Reactor: 1 number of 240 MVAR bus reactor

(iii) Nellore PS 765/400 kV (PGCIL) Sub-station (Extension):

- 765 kV Bus Reactor Bay: 1 number
- 765 kV Bus Reactor: 1 number of 240 MVAR bus reactor

(iv) Raichur 765/400 kV (PGCIL) Sub-station (Extension):

- 765 kV Bus Reactor Bay: 1 number
- 765 kV Bus Reactor: 1 number of 240 MVAR bus reactor

(v) Thiruvalam 765/400 kV (PGCIL) Sub-station (Extension):

- 765 kV Bus Reactor Bays: 2 numbers
- 765 kV Bus Reactors: 2 numbers of 240 MVAR bus reactors

c) The complete scope of work as per IA is not covered in the instant petition. The details of the transmission assets under the transmission system covered in various petitions are as follows:

SI. No.	Name of Asset	Petition No.
1	1X125 MVAR 400 kV Bus reactor along with associated bays at Cuddapah Sub-station, 1X240 MVAR 765 kV Bus reactor along with associated bays at Kurnool Sub-station, 1X240 MVAR 765 kV Bus reactor along with associated bays at Nellore Sub-station, 1X240 MVAR 765 kV Bus Reactor along with associated bays at Raichur Sub-station.	Covered in the instant petition
2	2X240 MVAR 765 kV Bus Reactor along with associated bays at Thiruvalam Sub-station	49/TT/2020*

\*A separate petition has been filed as directed by the Commission vide order dated 28.1.2020 in Petition No. 29/TT/2019.

d) The scheduled date of commercial operation (SCOD) of the transmission asset was 10.6.2019 against which it was put commercial operation on 31.10.2018 and as such there is no time over-run.

e) The transmission tariff in respect of the transmission asset for 2014-19 period was approved *vide* order dated 28.1.2020 in Petition No. 29/TT/2019.

f) The Petitioner has claimed the following trued-up tariff in respect of the transmission asset for 2014-19 period compared to the tariff approved vide order dated 28.1.2020 in Petition No. 29/TT/2019:

	(₹ in lakh)
Particulars	2018-19 (Pro-rata 152 days)
Annual Fixed Charges (AFC) approved <i>vide</i> order dated 28.1.2020 in Petition No. 29/TT/2019	854.16
AFC claimed by the Petitioner based on truing up in the instant petition	867.67



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

5. The Petitioner has served the petition on Respondents and public notice regarding filing of this petition was published in the newspapers in accordance with Section 64 of the Electricity Act, 2003. No comments or suggestions have been received from the general public in response to the aforesaid notice published in the newspapers by the Petitioner. Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO), Respondent No. 4, has filed its reply *vide* affidavit dated 25.8.2021 and has raised issues of Initial Spares and sharing of transmission charges. The Petitioner, *vide* affidavit dated 2.9.2021, has filed rejoinder to the reply of TANGEDCO. The issues raised by TANGEDCO and clarifications given by the Petitioner are considered in the relevant portions of this order.

6. The hearing in this matter was held on 3.8.2021 through video conference and order was reserved.

7. This order is issued considering the submissions made by the Petitioner in the petition *vide* affidavit dated 17.6.2020 and affidavit dated 15.2.2021, TANGEDCO's reply affidavit dated 25.8.2021 and Petitioner's rejoinder affidavit dated 2.9.2021 to the reply of TANGEDCO.

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



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

9. The details of the trued-up transmission charges claimed by the Petitioner in

respect of the transmission asset are as follows:

	(₹ in lakh)
Particulars	2018-19 (Pro-rata 152 days)
Depreciation	221.64
Interest on Loan	233.27
Return on Equity	242.09
O&M Expenses	148.79
Interest on Working Capital	21.88
Total	867.67

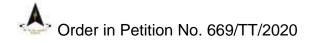
10. The details of the trued-up Interest on Working Capital (IWC) claimed by the Petitioner in respect of the transmission asset are as follows:

	(₹ in lakh)
Particulars	2018-19 (Pro-rata 152 days)
O&M Expenses	29.78
Maintenance Spares	53.60
Receivables	347.26
Total Working Capital	430.64
Rate of Interest (%)	12.20
Interest on Working Capital	21.88

# Capital Cost

11. Capital cost of the transmission asset has been calculated in accordance with Regulation 9(3) of the 2014 Tariff Regulations. The Commission *vide* order dated 28.1.2020 in Petition No. 29/TT/2019 had allowed the following capital cost as on COD and projected Additional Capital Expenditure (ACE) in respect of transmission asset for 2014-19 period:

			(₹ in lakh)
Apportioned	Capital Cost	ACE	Estimated Completion
approved Capital Cost as per FR	allowed as on COD	2018-19	Capital Cost as on 31.3.2019 (as allowed)
14218.49	7984.15	3647.15	11631.30



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12. The details of apportioned approved cost, capital cost as on COD and estimated ACE incurred or projected to be incurred during 2014-19 and 2019-2024 tariff periods along with estimated completion cost as claimed by the Petitioner in the Auditor's Certificate in respect of the transmission asset are as follows:

(₹ in lakh)

Apportioned Approved Capital Cost (as per FR)	Actual Capital Cost as on COD	ACE for 2018-19	ACE for 2019-2020	ACE for 2020-2021	Total Capital Cost as on 31.3.2024
14218.49	8021.37	3609.93	1234.66	325.99	13191.95

13. We have considered the submissions of the Petitioner. It is observed that estimated completion cost of the transmission asset as on 31.3.2019 including ACE, is within FR approved apportioned capital cost. Therefore, there is no cost over-run.

14. The transmission asset was scheduled to be put into commercial operation within 27 months from the date of IA i.e.10.6.2019 while the transmission asset was put into commercial operation on 31.10.2018. Hence, there is no time over-run.

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

15. The Petitioner has claimed IDC in respect of transmission asset and has submitted statement showing claim of IDC, discharge of IDC liability as on COD and thereafter which are as follows:

(₹ in lakh)

IDC as per Auditor's Certificate	IDC discharged up to COD	IDC discharged
Continuato		2018-19
126.57	89.35	37.22

16. The Petitioner has submitted IDC computation statement which contains name of the loan, drawl date, loan amount and interest claimed. IDC has been worked out

based on the details given in the IDC statement and compendium of floating rates of interest of various loans during 2014-19 tariff period as submitted by the Petitioner along with the truing-up petition with respect to 400 kV D/C Korba-Raipur Transmission Line in Petition No. 244/TT/2019. Further, loan amount as on COD has been mentioned in Forms-6 and 9C. On scrutiny of the documents, certain discrepancies have been noticed such as mismatch in loan amount of IDC statement and Forms-6 and 9C. The allowable IDC is worked out based on the information available on record and relying on loan amount as per tariff Form-9C. IDC claimed and 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:

IDC as per Auditor's Certificate			IDC discharged
			2010-19
126.57	126.57	89.35	37.22

17. The Petitioner has submitted that entire IEDC amount mentioned in the Auditor's Certificate is on cash basis and has been paid upto COD. IEDC details considered for the purpose of tariff calculation is as follows:

(₹ in lakh)

/**≆** in lakh)

IEDC as per Auditor's Certificate	IEDC allowed in the instant order	IEDC considered up to COD
226.96	226.96	226.96

## Initial Spares

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

"(d) Transmission System

- (i) Transmission line: 1.00%
- (ii) Transmission sub-station (Green Field): 4.00%
- (iii) Transmission sub-station (Brown Field): 6.00%
- (iv) Series Compensation devices and HVDC Station: 4.00%
- (v) Gas Insulated sub-station: 5.00%
- (vi) Communication System: 3.5%"

#### 19. The Petitioner has claimed the following Initial Spares:

					(₹ in lakh)
Particulars	Plant & Machinery cost up to cut-off date (excluding IDC and IEDC)	Spare Claimed	Ceiling	Initial Spares worked out	Initial spares allowed in
	A	В	С	D=(A- B)*C/(100- C)	this order
Sub-station (Brownfield)	12631.05	370.87	6.00%	782.56	370.87

20. The Petitioner has submitted the discharge summary of Initial Spares and the same is as follows:

	(₹ in lakh)
Particulars	
Total Value of Initial Spares	370.87
Actual Expenditure up to COD	111.12
Expenditure from COD to 31.3.2019	228.35
Estimated Expenditure during 2019-20	31.40

21. TANGEDCO has submitted that the Petitioner has claimed Initial Spares of ₹370.87 lakh in terms of norms of the transmission sub-station (brown field). Norms set for the transmission sub-station includes elements like transformers, buses, bays, associated civil works, communication equipment, etc, as a whole. TANGEDCO has further submitted that transmission asset has been installed to facilitate reactive power compensation for the transmission lines to enhance power efficiency of the transmission system. TANGEDCO has submitted that reactors are compensation device and, hence, Initial Spares norms considered in respect of the transmission

asset will not fit into the norms set for transmission sub-station. TANGEDCO has further submitted that as per the 2014 Tariff Regulations, Initial Spares for series compensation have been given under separate head limiting to 4% and similar norms may be considered for compensating devices like shunt reactors also. TANGEDCO has submitted that the Petitioner may be directed to furnish the details of actually procured Initial Spares and also inventory of Initial Spares available.

22. In response, the Petitioner has submitted that the type of compensating device covered in instant petition is of shunt i.e. bus reactor and executed under brownfield sub-station (existing sub-station). The Petitioner has submitted that the norms as per Regulation 13(d)(iv) of the 2014 Tariff Regulations are applicable for series compensation devices and HVDC sub-station. Hence, Initial Spares in respect of the transmission asset has been claimed under sub-station (brownfield) and are within the specified limit as per Regulation 13(d)(iii) of the 2014 Tariff Regulations.

23. We have considered the submissions of the Petitioner and TANGEDCO. The transmission asset is part of the existing sub-station. Therefore, Initial Spares in respect of the transmission asset is allowed under brownfield sub-station. The details of Initial Spares allowed are as follows:

				(₹ in lakh)	
Plant & Machinery cost up to cut-off date (excluding	Initial Spares claimed by the Petitioner	Ceiling limit (C)	Initial Spares worked out (D)	Initial Spares allowed in this order	
IDC and IEDC) (A)	(B)	(in %)	D = [(A-B)*C /(100-C)]	(E)	
12631.05	370.87	6.00	782.56	370.87	

24. Further, we have considered Initial Spares discharge summary as submitted by the Petitioner.

25. The details of capital cost as on COD approved after adjustment of IDC, IEDC and Initial Spares are as follows:

		(₹ in lakh)
Capital Cost as per Auditor's Certificate (A)	Un-discharged IDC (B)	Capital Cost allowed as on COD (C) = (A-B)
8021.37	37.22	7984.15

# Additional Capital Expenditure ("ACE")

26. The Commission *vide* order dated 28.1.2020 in Petition No. 29/TT/2019 has allowed ACE of ₹3647.15 lakh for 2014-19 tariff period towards balance and retention payments. The Petitioner in the instant petition has claimed ACE of ₹3647.15 lakh for 2014-19 tariff period.

27. The cut-off date in respect of the transmission asset is 31.3.2021 as per Regulation 3(13) of the 2014 Tariff Regulations. The Petitioner has submitted that ACE in the year 2018-19 has been claimed under Regulation 14(1)(i) (un-discharged liabilities) and 14(1)(ii) (unexecuted works) of the 2014 Tariff Regulations on account of balance and retention payments and balance work deferred for execution.

28. We have considered the submissions of the Petitioner. ACE claimed by the Petitioner has been allowed under Regulation 14(1)(i) and Regulation 14(1)(ii) of the 2014 Tariff Regulations as they are towards balance and retention payments and balance works deferred for execution respectively. The un-discharged IDC liability as on COD has been allowed as ACE during the year of its discharge. ACE allowed in respect of the transmission asset from COD to 31.3.2019 is as follows:

		(* 111 iakii)
ACE (as per Auditor's Certificate) (A) 2018-19	IDC Discharged during 2018-19 after COD (B)	ACE during 2018-19 (C=A+B)
3609.93	37.22	3647.15

29. The details of capital cost allowed as on COD, ACE during 2014-19 tariff period

and capital cost as on 31.3.2019 in respect of the transmission asset is as follows:

		(₹ in lakh)
Capital Cost as on	ACE (including IDC discharged)	Capital Cost as on
COD	2018-19	31.3.2019
7984.15	3647.15	11631.30

# Debt-Equity Ratio

30. Debt-equity ratio of 70:30 has been considered for ACE allowed during 2014-19

tariff period in accordance with Regulation 19(3) of the 2014 Tariff Regulations.

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

(₹ in lakh) ACE Total cost **Capital cost Particulars** (in %) during (in %) as on (in %) as on COD 2014-19 31.3.2019 Debt 5588.90 70.00 2553.01 70.00 8141.91 70.00 Equity 2395.24 30.00 1094.15 30.00 3489.39 30.00 Total 7984.15 100.00 3647.15 100.00 11631.30 100.00

# **Depreciation**

32. The Petitioner's claim towards depreciation in respect of the transmission asset is found higher than the depreciation allowed vide order dated 28.1.2020 in Petition No. 29/TT/2019. The Petitioner has not given any justification for claiming higher depreciation than what was allowed earlier vide order dated 28.1.2020 in Petition No. 29/TT/2019 nor has made any specific prayer for allowing higher depreciation in this

/∓ in lakh)

petition. Similar issue had come up in Petition No. 19/TT/2020. The Commission vide order dated 9.5.2020 in Petition No. 19/TT/2020, has considered depreciation for IT equipment @ 5.28% as part of the sub-station up to 31.3.2019 while truing up the capital expenditure for 2014-19 period. However, for 2019-24 tariff period, IT equipment has been considered separately and depreciation has been allowed @15% for 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. The Gross Block during 2014-19 tariff period has been depreciated at Weighted Average Rate of Depreciation (WAROD) (as placed in Annexure-I). WAROD has been worked out after taking into account the depreciation rates of transmission asset as prescribed in the 2014 Tariff Regulations and depreciation allowed during 2014-19 period is as follows:

	(₹ in lakh)
Particulars	2018-19 (Pro-rata 152 days)
Opening Gross Block	7984.15
ACE	3647.15
Closing Gross Block	11631.30
Average Gross Block	9807.72
Weighted average rate of Depreciation (WAROD) (in %)	5.28
Balance useful life of the asset beginning of the year (Year)	25
Lapsed life at the beginning of the year (Year)	0
Depreciable Value	8826.95
Combined Depreciation during the year	215.65
Cumulative depreciation at the end of the year	215.65
Remaining Depreciable Value at the end of the year	8611.30

33. The details of depreciation approved *vide* order dated 28.1.2020 in Petition No. 29/TT/2019, as claimed by the Petitioner in the instant petition and trued-up depreciation allowed in the instant order is as follows:

	(₹ in lakh)
Particulars	2018-19 (Pro-rata 152 days)
Approved vide order dated 28.1.2020 in Petition No. 29/TT/2019	215.65
Claimed by the Petitioner in the instant petition	221.64
Allowed after true-up in this order	215.65

#### Interest on Loan ("IoL")

34. The Petitioner has claimed weighted average rate of IoL based on its actual loan portfolio and rate of interest. We have considered the submissions of the Petitioner and accordingly calculated IoL based on actual interest rate, in accordance with Regulation 26 of the 2014 Tariff Regulations. Trued-up IoL allowed in respect of the transmission asset for 2014-19 tariff period is as follows:

	(₹ in lakh)
Particulars	2018-19 (Pro-rata 152 days)
Gross Normative Loan	5588.90
Cumulative Repayments up to Previous Year	0.00
Net Loan-Opening	5588.90
Additions due to ACE	2553.01
Repayment during the year	215.65
Net Loan-Closing	7926.25
Average Loan	6757.58
Weighted Average Rate of IoL (in %)	8.2928
Interest on Loan	233.37

35. The details of IoL approved *vide* order dated 28.1.2020 in Petition No. 29/TT/2019, as claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

	(₹ in lakh)
Particulars	2018-19 (Pro-rata 152 days)
Approved vide order dated 28.1.2020 in Petition No. 29/TT/2019	228.83
Claimed by the Petitioner in the instant petition	233.27
Allowed after true-up in this order	233.37



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# Return on Equity ("RoE")

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

Year	Claimed effective tax rate (in %)	Grossed up RoE [(Base Rate)/(1-t)] (in %)
2014-15	21.018	19.625
2015-16	21.382	19.716
2016-17	21.338	19.705
2017-18	21.337	19.704
2018-19	21.549	19.758

37. We have considered the submissions of the Petitioner. The Commission vide order dated 27.4.2020 in Petition No. 274/TT/2019 has arrived at the effective tax rate based on the notified MAT rates for the Petitioner 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

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

Year	Notified MAT rates (in %)	Base rate of	Grossed up RoE
	(inclusive of surcharge & cess)	RoE (in %)	[(Base Rate)/(1-t)] (in %)
2018-19	21.549	15.50	19.758



39. Accordingly, RoE is trued up on the basis of the MAT rate applicable in the respective years and the same is allowed as follows:

	(₹ in lakh)
Particulars	2018-19 (Pro-rata 152 days)
Opening Equity	2395.24
Additions due to ACE	1094.15
Closing Equity	3489.39
Average Equity	2942.32
Return on Equity (Base Rate) (in %)	15.500
MAT Rate for respective year (in %)	21.549
Rate of Return on Equity (in %)	19.758
Return on Equity	242.09

40. The details of RoE approved *vide* order dated 28.1.2020 in Petition No. 29/TT/2019, as claimed in the instant petition and trued-up in the instant order is as follows:

	(₹ in lakh)
Particulars	2018-19 (Pro-rata 152 days)
Approved vide order dated 28.1.2020 in Petition No. 29/TT/2019	240.28
Claimed by the Petitioner in the instant petition	242.09
Allowed after true-up in this order	242.09

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

41. O&M Expenses claimed by the Petitioner in respect of the transmission asset

are as follows:

Particulars	2018-19 (Pro-rata 152 days)		
Sub-station			
400 kV			
Cuddapah:125 MVAR Bus Reactor Bay			
Number of Bays	1		
765 kV			
Kurnool: 240 MVAR Bus Reactor Bay			
Nellore: 240 MVAR Bus Reactor Bay			
Raichur: 240 MVAR Bus Reactor Bay			
Number of Bays	3		



Total O&M Expenses claimed (₹ in lakh)	148.79
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42. Regulation 29(4) of the 2014 Tariff Regulations specifies the norms for O&M

Expenses for the transmission system which are as follows:

Particulars	2018-19	
Sub-station		
400 kV		
Norms (₹ lakh/bay)	68.71	
765 kV		
Norms (₹ lakh/bay)	96.20	

43. O&M Expenses claimed by the Petitioner are within the norms specified under

the 2014 Tariff Regulations. The allowed O&M Expenses are as follows:

Particulars	2018-19 (Pro-rata 152 days)		
Sub-station			
400 kV			
Cuddapah:125 MVAR Bus Reactor Bay			
O&M Expenses claimed (₹ in lakh) (A)	28.61		
765 kV			
Kurnool: 240 MVAR Bus Reactor Bay			
Nellore: 240 MVAR Bus Reactor Bay			
Raichur: 240 MVAR Bus Reactor Bay			
O&M Expenses claimed (₹ in lakh) (B)	120.18		
Total O&M Expenses claimed (₹ in lakh) (A+B)	148.80		

44. The details of O&M Expenses approved *vide* order dated 28.1.2020 in Petition

No. 29/TT/2019, as claimed in the instant petition and trued-up in the instant order are

as follows:

(₹ ii			
Particulars	2018-19 (Pro-rata 152 days)		
Approved vide order dated 28.1.2020 in Petition No. 29/TT/2019	147.82		
Claimed by the Petitioner in the instant petition	148.79		
Allowed after true-up in this order	148.80		



# Interest on Working Capital ("IWC")

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

	(₹ in lakh)
Particulars	2018-19 (Pro-rata 152 days)
Working Capital for O&M Expenses	29.78
(Equivalent to annualized O&M Expenses for one month)	20.10
Working Capital for Maintenance Spares	53.60
(Equivalent to 15% of O&M Expenses)	33:00
Working Capital for Receivables	244.96
(Equivalent to two months of annual transmission charges)	344.86
Total Working Capital	428.23
Rate of Interest on Working Capital (in %)	12.20
Interest on Working Capital	21.76

46. The details of IWC approved vide order dated 28.1.2020 in Petition No. 29/TT/2019, as claimed by the Petitioner in the instant petition and trued up IWC in the instant order is as follows:

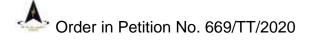
	(₹ in lakh <u>)</u>
Particulars	2018-19 (Pro-rata 152 days)
Approved vide order dated 28.1.2020 in Petition No. 29/TT/2019	21.58
Claimed by the Petitioner in the instant petition	21.88
Allowed after true-up in this order	21.76

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

47. The trued-up AFC approved in respect of the transmission asset for 2014-19

tariff period are as follows:

	(₹ in lakh)
Particulars	2018-19 (Pro-rata 152 days)
Depreciation	215.65
Interest on Loan	233.37
Return on Equity	242.09
O&M Expenses	148.80



Interest on Working Capital	21.76
Total	861.67

48. The details of Annual Transmission Charges allowed approved vide order dated 28.1.2020 in Petition No. 29/TT/2019, as claimed by the Petitioner in the instant petition and as approved after truing up in the instant order is as follows:

	(₹ in lakh)
Particulars	2018-19 (Pro-rata 152 days)
Approved vide order dated 28.1.2020 in Petition No. 29/TT/2019	854.16
Claimed by the Petitioner in the instant petition	867.67
Allowed after true-up in this order	861.67

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

49. The Petitioner has claimed the following transmission charges in respect of the

transmission asset for 2019-24 tariff period:

					(₹ in lakh)
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	666.03	708.60	717.20	717.20	717.20
Interest on Loan	668.59	656.82	606.90	547.11	487.33
Return on Equity	690.16	734.13	743.31	743.31	743.31
O&M Expenses	167.18	173.08	179.14	185.45	191.95
Interest on Working Capital	37.73	39.21	38.99	38.36	37.66
Total	2229.69	2311.84	2285.54	2231.43	2177.45

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

					(₹ in lakh)
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	13.93	14.42	14.93	15.45	16.00
Maintenance Spares	25.08	25.96	26.87	27.82	28.79
Receivables	274.14	285.02	281.78	275.11	267.72
Total Working Capital	313.15	325.40	323.58	318.38	312.51
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	37.73	39.21	38.99	38.36	37.66



# Capital Cost

51. 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;

(I) 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:



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(a) Capital cost admitted by the Commission prior to 1.4.2019 duly trued up by excluding liability, if any, as on 1.4.2019;

(b) Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;

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

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

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

(f) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries."

(4) The Capital Cost in case of existing or new hydro generating station shall also include:

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

(5) The following shall be excluded from the Capital Cost of the existing and new projects:

(a) The assets forming part of the project, but not in use, as declared in the tariff petition;

(b) De-capitalised Assets after the date of commercial operation on account of replacement or removal on account of obsolescence or shifting from one project to another project:

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

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

(c) In case of hydro generating stations, any expenditure incurred or committed to be incurred by a project developer for getting the project site allotted by the State Government by following a transparent process;

(d) Proportionate cost of land of the existing project which is being used for generating power from generating station based on renewable energy; and

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



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52. The Petitioner has claimed capital cost of ₹11631.30 lakh as on 31.3.2019 in respect of the transmission asset. Capital cost worked out by the Commission as on 31.3.2019 is ₹11631.30 lakh and the same has been considered as the opening capital cost as on 1.4.2019 for determination of tariff in accordance with Regulation 19 of the 2019 Tariff Regulations.

# Additional Capital Expenditure ("ACE")

53. Regulation 24 and Regulation 25 of the 2019 Tariff Regulations provide as

follows:

#### *"24. Additional Capitalisation within the original scope and up to 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;



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(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 Asset 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 Asset and the cumulative depreciation, subject to prudence check on the following grounds:

(a) The useful life of the Asset is not commensurate with the useful life of the project and such Asset 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.

54. The Petitioner has claimed capital cost for 2019-24 tariff period as follows:

				(₹ in lakh)	
Apportioned approved	proved Expenditure		ed ACE	Capital Cost	
cost as per FR	as on 31.3.2019	2019-20	2020-21	as on 31.3.2024	
14218.49	11631.30	1234.66	325.99	13191.95	

55. The Petitioner *vide* affidavit dated 15.2.2021, has submitted the details of ACE projected during 2019-24 period in respect of the transmission asset which are as follows:

#### (₹ in lakh)

SI.			201	9-20	2020-21		
No.	Vendor	Package	Works executed	Liabilities discharged	Works executed	Liabilities discharged	
1	KEC International Limited	Sub-station	361.28	253.42	73.52	65.81	
2	KEC International	I.T.	0.00	28.16	0.00	0.00	



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	Grand total		123	4.66	325.99		
	Total		704.40	530.26	160.37	165.62	
4	Site packages	Sub-station	193.02	15.26	86.85	99.81	
3	TBEA Energy Limited	Sub-station	150.10	233.42	0.00	0.00	
	Limited						

56. The Petitioner has claimed ACE on account of balance and retention payment for works already executed and unexecuted work for the approved scope executed within the cut-off date, in accordance with Regulation 24(1)(a) and Regulation 24(1)(b) of the 2019 Tariff Regulations.

57. We have considered the submissions of the Petitioner. ACE claimed on account of balance and retention payments is allowed under Regulation 24(1)(a) of the 2019 Tariff Regulations and unexecuted work of the approved scope executed within the cut-off date under Regulation 24(1)(b) of the 2019 Tariff Regulations. Accordingly, capital cost allowed as on 1.4.2019 and as on 31.3.2024 considered for determination of tariff for 2019-24 period is as follows:

_				(₹ in lakh)
	Capital Cost	ACE		Capital Cost
	as on 1.4.2019	2019-20 2020-21		as on 31.3.2024
	11631.30	1234.66	325.99	13191.95

58. It is observed that the estimated completion cost in respect of the transmission asset as on 31.3.2024 including ACE is within the FR approved apportioned capital cost of ₹14218.49 lakh. Therefore, there is no cost over-run.

# Debt-Equity Ratio

59. Regulation 18 of the 2019 Tariff Regulations provide 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:



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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 ACE for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this Regulation."

60. Debt-equity ratio considered for the purpose of computation of tariff for 2019-24

period are as follows:



(₹ in lakh)
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Particulars	Capital Cost as on 1.4.2019	(in %)	ACE during 2019-24	(in %)	Capital Cost as on 31.3.2024	(in %)
Debt	8141.91	70.00	1092.46	70.00	9234.36	70.00
Equity	3489.39	30.00	468.20	30.00	3957.58	30.00
Total	11631.30	100.00	1560.65	100.00	13191.95	100.00

#### **Depreciation**

61. 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 project or element thereof including communication project. In case of the tariff of all the units of a generating station or all elements of a transmission project including communication project 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 project 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 project, 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 project, weighted average life for the generating station of the transmission project 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.



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(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 up to 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."

62. WAROD has been worked out and placed as Annexure-II to this order and the

same is based on the rates of depreciation specified in the 2019 Tariff Regulations.

Depreciation is approved considering the admitted capital expenditure as on

31.3.2019 and accumulated depreciation up to 31.3.2019. Depreciation allowed in

respect of the transmission asset for 2019-24 tariff period is as follows:

					(₹ in lakh)
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	11631.30	12865.96	13191.95	13191.95	13191.95
ACE	1234.66	325.99	0.00	0.00	0.00
Closing Gross Block	12865.96	13191.95	13191.95	13191.95	13191.95
Average Gross Block	12248.63	13028.95	13191.95	13191.95	13191.95
Weighted average rate of Depreciation (WAROD) (in %)	5.44	5.44	5.44	5.44	5.44
Balance useful life at the beginning of the year (Year)	25	24	23	22	21
Lapsed life of the asset at the beginning of the year (Year)	0	1	2	3	4
Depreciable Value	11043.62	11747.32	11894.02	11894.02	11894.02
Depreciation during the year	666.03	708.60	717.21	717.21	717.21
Cumulative Depreciation	881.68	1590.29	2307.50	3024.70	3741.91
Remaining Depreciable Value	10161.94	10157.04	9586.52	8869.32	8152.11



#### Interest on Loan ("IoL")

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

**"32. Interest on Ioan 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 decapitalization 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."

64. The weighted average rate of IoL has been considered on the basis of rate prevailing as on 1.4.2019. The Petitioner has prayed that change in interest rate due to floating rate of interest applicable, if any, during 2019-24 tariff period will be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the

time of true up. Therefore, IoL has been allowed in accordance with Regulation 32 of

the 2019 Tariff Regulations. IoL allowed in respect of the transmission asset for 2019-

24 tariff period is as follows:

					(₹ in lakh)
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	8141.91	9006.17	9234.36	9234.36	9234.36
Cumulative Repayments up to Previous Year	215.65	881.68	1590.29	2307.50	3024.70
Net Loan-Opening	7926.25	8124.48	7644.07	6926.87	6209.66
Additions due to ACE	864.26	228.19	0.00	0.00	0.00
Repayment during the year	666.03	708.60	717.21	717.21	717.21
Net Loan-Closing	8124.48	7644.07	6926.87	6209.66	5492.45
Average Loan	8025.37	7884.28	7285.47	6568.26	5851.05
Weighted Average Rate of Interest on Loan (in %)	8.3371	8.3371	8.3371	8.3371	8.3374
Interest on Loan	669.09	657.32	607.40	547.61	487.83

#### Return on Equity ("RoE")

65. Regulation 30 and Regulation 31 of the 2019 Tariff Regulations provide as

follows:

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

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

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

Provided further that:

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

*ii. in case of existing generating station, as and when any of the requirements under (i) above of this Regulation are found lacking based on the report submitted* 



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by the concerned RLDC, rate of return on equity shall be reduced by 1.00% for the period for which the deficiency continues;

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

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

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

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

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

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

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

Where "t" is the effective tax rate in accordance with clause (1) of this Regulation and shall be calculated at the beginning of every financial year based on the estimated profit and tax to be paid estimated in line with the provisions of the relevant Finance Act applicable for that financial year to the company on pro-rata basis by excluding the income of non-generation or non-transmission business, as the case may be, and the corresponding tax thereon. In case of generating company or transmission licensee paying Minimum Alternate Tax (MAT), "t" shall be considered as MAT rate including surcharge and cess.

#### Illustration-

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

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."

66. The Petitioner has submitted that MAT rate is applicable to it. We have considered the submissions of the Petitioner. 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 for 2019-24 tariff period is as follows:

					(₹ in lakh)
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	3489.39	3859.79	3957.58	3957.58	3957.58
Additions due to ACE	370.40	97.80	0.00	0.00	0.00
Closing Equity	3859.79	3957.58	3957.58	3957.58	3957.58
Average Equity	3674.59	3908.69	3957.58	3957.58	3957.58
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (in %)	17.472	17.472	17.472	17.472	17.472
Rate of Return on Equity (in %)	18.782	18.782	18.782	18.782	18.782
Return on Equity	690.16	734.13	743.31	743.31	743.31

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

67. O&M Expenses claimed by the Petitioner in respect of the transmission asset

for 2019-24 tariff period are as follows:

					(₹ in lakh)
O&M Expenses	2019-20	2020-21	2021-22	2022-23	2023-24
Sub-station					
400 kV					

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Cuddapah:125 MVAR Bus Reactor Bay						
Number of bay(s)	1	1	1	1	1	
Norms (₹ lakh/Bay)	32.15	33.28	34.45	35.66	36.91	
<b>765 kV</b> Kurnool: 240 MVAR Bus Reactor Bay Nellore: 240 MVAR Bus Reactor Bay Raichur: 240 MVAR Bus Reactor Bay						
Number of bay(s)	3	3	3	3	3	
Norms (₹ lakh/Bay)	45.01	46.60	48.23	49.93	51.68	
Total O&M Expenses (₹ in lakh)	167.18	173.08	179.14	185.45	191.95	

68. Regulation 35(3) and Regulation 35(4) of the 2019 Tariff Regulations provide

for the O&M Expenses for the transmission system as follows:

#### "35. Operation and Maintenance Expenses

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

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24				
Norms for sub-station Bays (₹ Lakh per bay)									
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				
Norms for Transformers (₹ Lakh per M	VA)	-	-						
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				
Norms for AC and HVDC lines (₹ Lakh	per km)								
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
Norms for HVDC stations					
HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)	834	864	894	925	958
Gazuwaka HVDC Back-to-Back station (₹ Lakh per 500 MW)	1,666	1,725	1,785	1,848	1,913
500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)	2,252	2,331	2,413	2,498	2,586
±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)	2,468	2,555	2,645	2,738	2,834
±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)	1,696	1,756	1,817	1,881	1,947
±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 (2000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±500 kV Talchar-Kolar HVDC bipole 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 yearwise 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."

69. We have considered the submissions of the Petitioner. O&M Expenses have

been worked out as per the norms specified in the 2019 Tariff Regulations and the

same is allowed in respect of the transmission asset as follows:

				(	₹ in lakh)			
O&M Expenses	2019-20	2020-21	2021-22	2022-23	2023-24			
Sub-station								
<b>400 kV</b> Cuddapah:125 MVAR Bus Reactor Bay								
Number of bay(s)	1	1	1	1	1			
O&M Expenses (₹ in lakh) (A)	32.15	33.28	34.45	35.66	36.91			
<b>765 kV</b> Kurnool: 240 MVAR Bus Reactor Bay Nellore: 240 MVAR Bus Reactor Bay Raichur: 240 MVAR Bus Reactor Bay								
Number of bay(s)	3	3	3	3	3			
O&M Expenses (₹ in lakh) (B)	135.03	139.80	144.69	149.79	155.04			
Total O&M Expenses (₹ in lakh) (A+B)	167.18	173.08	179.14	185.45	191.95			

\* The Petitioner has not claimed any O&M Expenses for PLCC/Communication System.

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

70. 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:

# (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 IWC 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 IWC shall be considered at bank rate as on 1st April of each of the financial year during the tariff period 2019-24."

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

"3. Definitions ...

(7) 'Bank Rate' means the one year marginal cost of lending rate (MCLR) of the State Bank of India issued from time to time plus 350 basis points;"

71. The Petitioner has submitted that it has computed IWC for 2019-24 period considering the SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of IWC as 12.05%. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The rate of IWC 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 for 2021-22 onwards, same 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 in respect of the transmission asset is as follows:

					(₹ in lakh)
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Working Capital for O&M Expenses (Equivalent to annualized O&M Expenses for	13.93	14.42	14.93	15.45	16.00



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one month)					
Working Capital for Maintenance Spares (Equivalent to 15% of O&M Expenses)	25.08	25.96	26.87	27.82	28.79
Working Capital for Receivables (Equivalent to 45 days of annual transmission charges)	274.21	284.76	281.22	274.56	267.18
Total Working Capital	313.21	325.14	323.02	317.83	311.97
Rate of Interest on Working Capital (in %)	12.05	11.25	10.50	10.50	10.50
Interest on Working Capital	37.74	36.58	33.92	33.37	32.76

# Annual Fixed Charges for 2019-24 Tariff Period

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

					(₹ in lakh)
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	666.03	708.60	717.21	717.21	717.21
Interest on Loan	669.09	657.32	607.40	547.61	487.83
Return on Equity	690.16	734.13	743.31	743.31	743.31
O&M Expenses	167.18	173.08	179.14	185.45	191.95
Interest on Working Capital	37.74	36.58	33.92	33.37	32.76
Total	2230.20	2309.71	2280.98	2226.95	2173.06

## Filing Fee and Publication Expenses

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

## Licence Fee & RLDC Fees and Charges

74. The Petitioner has sought reimbursement of licence fee and RLDC fee and charges separately from the Respondents in accordance with the 2019 Tariff Regulations. The Petitioner shall be entitled for reimbursement of licence fee in

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

## Goods and Services Tax ("GST")

75. The Petitioner has submitted that if GST is levied at any rate and at any point of time in future on charges of transmission of electricity, the same shall be borne and additionally paid by the Respondent(s) to the Petitioner and the same shall be charged and billed separately by the Petitioner. Further, additional taxes, if any, are to be paid by the Petitioner on account of demand from Government/ Statutory authorities, the same may be allowed to be recovered from the beneficiaries.

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

## Security Expenses

77. The Petitioner has submitted that security expenses for the transmission asset are not claimed in the instant petition and it would file a separate petition for claiming the overall security expenses and the consequential IWC.

78. 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. 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

79. 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

80. TANGEDCO has submitted that after coming into force of the 2020 Sharing Regulations, it has become inevitable to segregate capital cost of the transmission asset between 2010 Sharing Regulations and 2020 Sharing Regulations. TANGEDCO has further submitted that the Commission in Petition No.102/TT/2016 had directed to split the capital cost under two heads viz. pre-PoC and post-PoC i.e. upto 30.6.2011 and beyond 30.6.2011 respectively. TANGEDCO has further submitted that components of tariff had also been re-worked based on the splitting of capital cost premised on pre-PoC and post-PoC regimes. TANGEDCO has submitted that YTC details up to 31.12.2020 and from 1.1.2021 onwards are required to be split and tariff components for the same need to be worked out accordingly.

81. In response, the Petitioner has submitted that after truing up and determination of transmission tariff, sharing of transmission charges for 2014-19 and 2019-24 tariff periods up to 31.10.2020 shall be done as per the 2010 Sharing Regulations and thereafter from 1.11.2020 onwards it shall be done as per the new Sharing Regulations, 2020. The Petitioner has further submitted that after determination of tariff of the transmission asset by the Commission, the aspects of YTC bifurcation as raised by TANGEDCO shall be taken care of at the time of billing.

82. We have considered the submissions of the Petitioner and TANGEDCO. With effect from 1.11.2020, sharing of transmission charges is governed by the provisions of the 2020 Sharing Regulations. Accordingly, the liabilities of the DICs for arrears of transmission charges determined through this order shall be computed DIC-wise in accordance with the provisions of respective Tariff Regulations and shall be recovered from the concerned DICs through Bills under Regulation 15(2)(b) of the 2020 Sharing Regulations. 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.

83. To summarise:

a) The trued-up AFC allowed in respect of the transmission asset for 2014-19 tariff period are as follows:

	(₹ in lakh)
Particulars	2018-19 (Pro-rata 152 days)
AFC	861.67

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

_						(₹ in lakh)
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	AFC	2230.20	2309.71	2280.98	2226.95	2173.06

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

85. This order disposes of Petition No. 669/TT/2020 in terms of the above discussions and findings.

sd/- (P.K. Singh) Member	sd/- (Arun Goyal) Member	sd/- (I. S. Jha) Member	sd/- (P.K. Pujari) Chairperson
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#### Annexure-I

2014-19	Admitted Capital Cost as on 1.4.2014/COD	ost as on (₹ in lakh) Capital Cos 2014/COD (₹ in lakh) on 31.3.20		Rate of Depreciation as per	Annual Depreciation as per Regulations (₹ in lakh)
Capital Expenditure	(₹ in lakh)	2018-19	(₹ in lakh)	Regulations	2018-19
Sub-station	7872.71	3574.05	11446.76	5.28%	510.03
IT Equipment (Incl. Software)	111.43	73.10	184.53	5.28%	7.81
Total	7984.15	3647.15	11631.30		517.85
				e Gross Block in lakh)	9807.72
			Weightee of De	5.28%	

#### Annexure-II

2019-24	Admitted Capital Cost as on	Projecte (₹ in I		Admitted Capital Cost as on	Rate of Depreciation as per			ciation as per (₹ in lakh)	ation as per Regulations (₹ in lakh)			
Capital Expenditure	1.4.2019 (₹ in lakh)	2019-20	2020-21	31.3.2024 (₹ in lakh)	31.3.2024 Populations	2019-20	2020-21	2021-22	2022-23	2023-24		
Sub-station	11446.76	1206.50	325.99	12979.25	5.28%	636.24	676.70	685.30	685.30	685.30		
IT Equipment (Incl. Software)	184.53	28.16	0.00	212.69	15.00%	29.79	31.90	31.90	31.90	31.90		
Total	11631.30	1234.66	325.99	13191.95		666.03	708.60	717.21	717.21	717.21		
				Average Gross Block (₹ in lakh)		12248.63	13028.96	13191.95	13191.95	13191.95		
					Weighted Average Rate of Depreciation		5.44%	5.44%	5.44%	5.44%		