

CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

Petition No. 249/TT/2020

Coram:

Shri P. K. Pujari, Chairperson

Shri I. S. Jha, Member

Shri Arun Goyal, Member

Date of Order: 23.03.2021

In the Matter of:

Approval under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and truing up of transmission tariff of the 2014-19 period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of the 2019-24 period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 of **Asset-I:** Wardha–Nizamabad 765 kV D/C line along with associated bays, Nizamabad– Dichpalli 400 kV D/C line along with associated bays, Establishment of 765/400 kV GIS at Nizamabad with 2x1500 MVA transformers, 1x240 MVA Bus Reactor, 2x240 MVA Switchable Line Reactors along with associated bays, Extension of 765/400 kV Wardha Sub-station with 2x240 MVA Switchable Line Reactors along with associated bays and Extension of Dichpalli 400 kV Sub-station of TSTRANSCO and **Asset-II:** Hyderabad (Maheshwaram)-Nizamabad 765 kV D/C Line and 2 nos. 765 kV bays along with 1 no. 240 MVAR switchable line reactor each at Hyderabad (Maheshwaram) and Nizamabad Sub-station each for both circuits of Hyderabad-Nizamabad 765 kV D/C Line under “Wardha-Hyderabad 765 kV link” in Southern Region.

And in the Matter of:

Power Grid Corporation of India Ltd.,
Saudamini, Plot No-2,
Sector-29, Gurgaon-122001 (Haryana).

.....Petitioner

Vs

1 Karnataka Power Transmission Corporation Ltd., (KPTCL),
Kaveri Bhavan,
Bangalore-560009

2 Transmission Corporation of Andhra Pradesh Ltd., (APTRANSCO),
Vidyut Soudha,
Hyderabad-500082.



- 3 Kerala State Electricity Board (KSEB),
Vaidyuthi Bhavanam, Pattom,
Thiruvananthapuram-695004.
- 4 Tamil Nadu Generation and Distribution Corporation Ltd.,
(Formerly Tamil Nadu Electricity Board -TNEB),
NPKRR Maaligai, 800, Anna Salai,
Chennai-600002.
- 5 Electricity Department,
Government of Pondicherry,
Pondicherry-605001.
- 6 Eastern Power Distribution Company of Andhra Pradesh Ltd. (APEPDCL),
P&T Colony,
Seethmmadhara, Vishakhapatnam,
Andhra Pradesh.
- 7 Southern Power Distribution Company of Andhra Pradesh Ltd. (APSPDCL),
Srinivasasa Kalyana Mandapam Backside,
Tiruchanoor Road, Kesavayana Gunta,
Tirupati-517501,
Chittoor District, Andhra Pradesh.
- 8 Central Power Distribution Company of Andhra Pradesh Ltd. (APCPDCL),
Corporate Office, Mint Compound,
Hyderabad-500063,
Telangana.
- 9 Northern Power Distribution Company of Andhra Pradesh Ltd. (APNPDCL),
Opp. NIT Petrol Pump, Chaitanyapuri, Kazipet,
Warangal- 506004,
Telangana.
- 10 Bangalore Electricity Supply Company Ltd. (BESCOM),
Corporate Office, K.R. Circle,
Bangalore-560001,
Karnataka.
- 11 Gulbarga Electricity Supply Company Ltd. (GESCOM),
Station Main Road, Gulbarga,
Karnataka.
- 12 Hubli Electricity Supply Company Ltd. (HESCOM),
Navanagar, P B Road, Hubli,
Karnataka.



- 13 MESCO Corporate Office,
Paradigm Plaza, AB Shetty Circle,
Mangalore-575001,
Karnataka.
- 14 Chamundeswari Electricity Supply Corporation Ltd. (CESC),
927, L J Avenue,
Ground Floor, New Kantharaj Urs Road,
Saraswatipuram,
Mysore-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.
- 18 Vizag Transmission Ltd.,
Saudamini, Plot no 2,
Sector-29, Gurgaon.

...Respondents

For Petitioner: Shri S. S. Raju, PGCIL
Shri A. K. Verma, PGCIL
Shri B. Dash, PGCIL

For Respondent: Shri S. Vallinayagam Advocate, TANGEDCO
Dr. R. Kathiravan, TANGEDCO
Smt. R. Ramalakshmi, TANGEDCO

ORDER

The instant petition is filed by the Petitioner, Power Grid Corporation of India Limited, a deemed transmission licensee, for truing up of the 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 for determination of the tariff for the period from 1.4.2019 to 31.3.2024 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) in respect of the following assets under “Wardha-Hyderabad 765 kV link” in Southern Region (hereinafter referred to as ‘the transmission project’):

Asset-I: Wardha–Nizamabad 765 kV D/C line along with associated bays, Nizamabad– Dichpalli 400 kV D/C line along with associated bays, Establishment of 765/400 kV GIS at Nizamabad with 2x1500 MVA transformers, 1x240 MVA Bus Reactor, 2x240 MVA Switchable Line Reactors along with associated bays, Extension of 765/400 kV Wardha Sub-station with 2x240 MVA Switchable Line Reactors along with associated bays and Extension of Dichpalli 400 kV Sub-station of TSTRANSCO; and

Asset-II: Hyderabad (Maheshwaram)-Nizamabad 765 kV D/C Line and 2 nos. 765 kV bays along with 1 no. 240 MVAR switchable line reactor each at Hyderabad (Maheshwaram) and Nizamabad Sub-station each for both circuits of Hyderabad-Nizamabad 765 kV D/C Line.

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

“1) Approve the trued up Transmission Tariff for 2014-19 block and transmission tariff for 2019-24 block for the assets covered under this petition, as per para 10.2 and 11.0 above.

2) Approve the Completion cost and additional capitalization incurred during 2014-19 and also projected additional capitalization during 2019-24 tariff block.

3) Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided in Tariff Regulation 2014 and Tariff regulations 2019 as per para 10.2 and 11.0 above for respective block.

4) Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 70 (1) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019, and other expenditure (if any) in relation to the filing of petition.



5) Allow the petitioner to bill and recover Licensee fee and RLDC fees and charges, separately from the respondents in terms of Regulation 70 (3) and (4) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019.

6) Allow the additional RoE of 0.5 % during 2014-19 period as per para 5.5 above.

7) Allow the Initial spares claimed as project as a whole.

8) 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.

9) 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.

10) Allow the petitioner to claim the capital spares at the end of tariff block as per actual.

11) Allow the Petitioner to bill and recover GST on Transmission Charges separately from the respondents, if GST on transmission is levied at any rate in future. Further, any taxes including GST and duties including cess etc. imposed by any statutory/Govt./municipal authorities shall be allowed to be recovered from the beneficiaries.

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

Background

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

a) Investment Approval (IA) for the transmission project was accorded by the Board of Directors of the Petitioner on 29.1.2015 vide Memorandum No. C/CP/Wardha-Hyderabad dated 3.2.2015 with an estimated cost of ₹366202 lakh including an IDC of ₹28326 lakh based on August 2014 price level.

b) The tariff from the date of commercial operation to 31.3.2019 for the transmission assets was allowed vide order dated 29.11.2017 in Petition No. 39/TT/2017 for Asset-I and vide order dated 20.9.2018 in Petition No. 208/TT/2017 for Asset-II in accordance with the 2014 Tariff Regulations.

c) The entire scope of the transmission project is covered in the instant petition. The details are as under:



Transmission Line

a) Wardha-Nizamabad (Maheshwaram) 765 kV D/C line with anchoring at Nizamabad 765/400 kV Sub-station.

b) Nizamabad-Dichpalli 400 kV D/C line.

Sub-station

a) Establishment of 765/400 kV GIS at Nizamabad with 2x1500 MVA transformers

- i) 4 nos. 765 kV bays at Nizamabad for anchoring of Wardha-Hyderabad (Maheshwaram) 765 kV D/C line
- ii) 2 number 765 kV transformer bays for 2X1500 MVA transformers
- iii) 1 number 765 kV reactor bay for 1X240 MVAr Bus reactor
- iv) 2 number 400 kV transformer bays for 2X1500 MVA transformers
- v) 2 number 400 kV line bays for terminating Nizamabad-Dichpalli 400 kV D/C line

b) Extension of Hyderabad (Maheshwaram) 765/400 kV Sub-station

- i) 2 nos. 765 kV bays for terminating Wardha-Hyderabad (Maheshwaram) 765 kV D/C line with anchoring at Nizamabad.

c) Extension of 765/400 kV Wardha Sub-station

- i) 2 nos. 765 kV bays for terminating Wardha-Hyderabad (Maheshwaram) 765 kV D/C line with anchoring at Nizamabad.

d) Extension of Dichpalli 400 kV Sub-station of TSTRANSCO

- i) 2 nos. 400 kV bays for terminating Nizamabad-Dichpalli 400 kV D/C line.

Reactive Compensation

a) Bus Reactors



i) 1 no. 240 MVAr 765 kV Bus Reactor at Nizamabad 765/400 kV Sub-station.

b) Line Reactors (765 kV)

i) 1 no. 240 MVAr switchable line reactor each at Hyderabad (Maheshwaram) for both circuits of Nizamabad-Hyderabad (Maheshwaram) 765 kV D/C line.

ii) 1 no. 240 MVAr switchable line reactor each at Nizamabad for both circuit of Nizamabad-Hyderabad (Maheshwaram) 765 kV D/C line.

iii) 1 no. 240 MVAr switchable line reactor each at Wardha for both circuits of Wardha-Nizamabad 765 kV D/C line.

iv) 1 no. 240 MVAr switchable line reactor each at Nizamabad for both circuits of Wardha-Nizamabad 765 kV D/C line.

d) The details of commercial operation of the transmission assets along with the time over-run are as under:

Assets	SCOD	COD	Time over-run
Asset-I	29.5.2018	24.4.2017	-
Asset-II	29.5.2018	31.8.2017	-

e) The transmission tariff based on truing up claimed by the Petitioner is as under:

Assets	Particulars	₹ in lakh	
		2017-18 (pro-rata)	2018-19
Asset-I	Annual Fixed Charges approved vide order dated 29.11.2017 in Petition No. 39/TT/2017	29483.07	34406.64
	AFC claimed by the Petitioner based on truing up in the instant petition	28360.51	31623.34
Asset-II	Annual Fixed Charges approved vide order dated 20.9.2018 in Petition No. 208/TT/2017	11267.75	20501.24
	AFC claimed by the Petitioner based on truing up in the instant petition	11131.84	19893.95

4. The Petitioner was directed, vide Technical Validation letter dated 20.3.2020, to indicate the completion status/ COD of other assets of the transmission project as



per the Investment Approval. In response, the Petitioner has submitted that all the assets under the said project have been put under commercial operation and are covered in the instant petition.

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

6. The Petitioner has served the petition on the Respondents and notice of this petition has been published in the newspaper in accordance with Section 64 of the Electricity Act, 2003. No comments/ objections 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 reply to the petition.

7. This order is issued after considering the submissions made by the Petitioner in the petition vide affidavit dated 13.1.2020, reply to TV letter vide affidavit dated 29.5.2020 and ROP reply vide affidavit dated 2.9.2020.

8. The hearing in this matter was held on 10.8.2020 through video conference and the order was reserved.

9. Having heard the representatives of the Petitioner and perused the material on record, we proceed to dispose of the petition.

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

10. The details of the transmission charges claimed by the Petitioner in respect of the transmission assets are as under:



(₹ in lakh)

Particulars	Asset-I		Asset-II	
	2017-18 (pro-rata for 342 days)	2018-19	2017-18 (pro-rata for 213 days)	2018-19
Depreciation	8208.72	9362.17	3241.57	5899.40
Interest on Loan	8351.08	8835.16	3296.90	5654.69
Return on Equity	9539.86	10925.62	3741.15	6827.14
Interest on Working Capital	643.13	716.54	251.43	449.05
O&M Expenses	1617.72	1783.85	600.79	1063.67
Total	28360.51	31623.34	11131.84	19893.95

11. The details of Interest on Working Capital (IWC) claimed by the Petitioner in respect of the transmission assets are as under:

(₹ in lakh)

Particulars	Asset-I		Asset-II	
	2017-18 (pro-rata for 342 days)	2018-19	2017-18 (pro-rata for 213 days)	2018-19
O&M Expenses	143.88	148.65	85.79	88.64
Maintenance Spares	258.98	267.58	154.42	159.55
Receivables	5044.63	5270.56	3179.27	3315.66
Total Working Capital	5447.49	5686.79	3419.48	3563.85
Rate of Interest (%)	12.60	12.60	12.60	12.60
Interest on Working Capital	686.38	716.54	430.85	449.05
Pro-rata interest on Working Capital	643.13	716.54	251.43	449.05

Capital Cost

12. The details of FR apportioned approved capital cost, actual expenditure upto COD and ACE during the 2014-19 period claimed by the Petitioner are as under:

(₹ in lakh)

Assets	Apportioned approved, cost as per FR	Expenditure up to COD	ACE (as per Auditor's certificate)		Capital Cost as on 31.03.2019
			2017-18	2018-19	
Asset-I	220912.72	164283.98	10732.28	7101.37	182117.63
Asset-II	145289.39	101046.26	9652.74	1965.61	112664.61
Total	366202.11	265330.24	20385.02	9066.98	294782.24



13. The estimated completion cost of the transmission assets as on 31.3.2019 including ACE is within the apportioned approved capital cost. Therefore, there is no cost over-run.

14. As per the Investment approval dated 29.1.2015, the scheduled date of commercial operation (SCOD) of the transmission assets under the instant petition was 29.5.2018. Against SCOD of 29.5.2018, COD of Asset-I was 24.4.2017 and that of Asset-II was 31.8.2017. Therefore, there is no time over-run.

Interest during construction (IDC) and Incidental expenditure during construction (IEDC)

15. The Petitioner has claimed Interest During Construction (IDC) of ₹7289.69 lakh for Asset-I and ₹6069.83 lakh for Asset-II and has submitted the Auditor's Certificates in support of the same. The Petitioner has submitted computation of IDC along with the year-wise details of the IDC discharged.

16. The allowable IDC has been worked out considering the information submitted by the Petitioner for the transmission asset on cash basis. The loan details submitted in Form-9C for 2014-19 tariff period and the IDC computation sheet have been considered for the purpose of IDC calculation on cash and accrued basis. The undischarged IDC as on COD has been considered as ACE during the year in which it has been discharged.

17. Accordingly, based on the information furnished by the Petitioner, IDC considered is summarized as under: -



(₹ in lakh)

Assets	IDC claimed by Petitioner (As per Auditor Certificate)	IDC Worked Out	IDC disallowed as on COD due to computation difference	IDC allowed on cash basis as on COD	Undischarged portion of IDC allowed in ACE	
					2017-18	2018-19
	A	B	C=A-B			
Asset-I	7289.69	7242.09	47.62	1681.10	5560.99	0.00
Asset-II	6069.83	6069.83	0.00	4638.20	1232.01	199.62
Total	13359.52	13311.92	47.62	6319.30	6793.00	199.62

18. The Petitioner has also claimed IEDC for the transmission assets as per the tabulation given below. The Petitioner has claimed IEDC as on COD, which is within the percentage of hard cost indicated in the abstract cost estimate. Further, the Petitioner has submitted that the entire IEDC claimed in Auditor Certificates is on cash basis and is paid up to COD of the transmission assets. Hence, the entire amount of IEDC has been allowed. Accordingly, IEDC considered for the purpose of tariff calculation are as under:

(₹ in lakh)

Assets	IEDC claimed as per Auditor Certificate	IEDC considered as on COD	IEDC discharged Up to COD
Asset-I	3297.98	3297.98	3297.98
Asset-II	2402.50	2402.50	2402.50
Total	5700.48	5700.48	5700.48

Initial Spares

19. The Petitioner has claimed the following Initial Spares for the transmission assets and prayed to revise the Initial Spares allowed earlier in light of the judgement of the Appellate Tribunal for Electricity (APTEL) dated 14.9.2019 in Appeal No. 74 of 2017:



Assets	Plant & Machinery cost up to the cut-off date (excluding IDC and IEDC) (A) (₹ in lakh)	Initial Spares claimed (B) (₹ in lakh)	Ceiling Limit (C) (in %)	Initial Spares worked out by the Petitioner (₹ in lakh)
Sub-station (GIS)				
Asset-I	60972.54	2495.99	5.0	3077.71
Asset-II	20927.58	1123.87	5.0	1042.30
Total	81900.12	3619.86		4120.01
Transmission Line				
Asset-I	107653.23	1125.00	1.0	1087.41
Asset-II	83507.01	789.84	1.0	843.51
Total	191160.24	1914.84		1930.91

20. APTEL vide judgement dated 14.9.2019 in Appeal No. 74 of 2017 held as under:-

“8.12 In view of these facts, it is relevant to note that the transmission projects due to their inherent nature are segregated into different assets or elements which are executed and commissioned progressively in stages. Keeping this in view, developer / licensee while planning estimates finalises, the requirement of spares on the basis of complete project which requires flexibility in deciding quantum of spares for different type of elements of a project along with commissioning of the particular asset so as to have better performance with high degree of reliability. The requirement of spares as such, may not be exactly in proportion to the cost of individual assets. In other words, a licensee might require large number of spares with a particular asset or assets Commissioned first based on technical requirement and lesser number of spares or nil spares in subsequent assets/ elements of similar nature. Admittedly, the break-up of initial spares for various assets may be percentage wise different subject to the overall initial spares requirement of the project within the overall limits / percentage provided in the Regulations.

18.13. We do not agree with this methodology of restricting initial spares asset / element wise as adopted by the Central Commission. The Central Commission to have a prudence check on the initial spares, being restricted based on the individual asset wise cost initially, but subsequently ought to have allowed as per the ceiling limits on the overall project cost basis during the true- up.”

21. As per APTEL's judgement dated 14.9.2019 in Appeal No. 74 of 2017, the Initial Spares are to be allowed as per the ceiling on the overall project cost. The transmission assets were put into commercial operation during the 2014-19 tariff



period. Therefore, the 2014 Tariff Regulations are applicable in the instant case.

Regulation 3(43) of the 2014 Tariff Regulations defines “project cost” as under:

“(43) ‘original project cost’ means the capital expenditure incurred by the generating company or the transmission licensee, as the case may be, within the original scope of the project up to the cut-off date as admitted by the Commission;”

22. Regulation 13(d) of the 2014 Tariff Regulations specifies the norms for the Initial Spares for the transmission systems as under:

“(d) Transmission system

- (i) Transmission line – 1.00%*
- (ii) Transmission Sub-station (Green Field) - 4.00%*
- (iii) Transmission Sub-station (Brown Field) - 6.00%*
- (iv) Series Compensation devices and HVDC Station - 4.00%*
- (v) Gas Insulated Sub-station (GIS) – 5.00%*
- (vi) Communication system – 3.5%”*

23. As per APTEL’s judgement, the Initial Spares are to be allowed individually on the basis of the asset-wise cost and subsequently as a percentage of the overall project cost at the time of truing up. In the present case, though the transmission assets were put into commercial operation during the 2014-19 tariff period, the overall project cost of the assets is arrived at only when the transmission assets are combined while claiming the tariff for the 2019-24 tariff period. Therefore, the Initial Spares are allowed on the basis of the cost of the individual assets in the 2014-19 tariff period and the Initial Spares are allowed on the basis of the overall project cost in the 2019-24 period when the transmission assets are combined and the overall project cost is arrived at. Accordingly, the details of Initial Spares allowed for the 2014-19 tariff period are as under:



Assets	Plant & Machinery cost up to cut-off date (excluding IDC and IEDC) (₹ in lakh)	Initial Spares claimed (₹ in lakh)	Norms as per the 2014 Tariff Regulations (in %)	Initial Spares as per the norms of the 2014 Tariff Regulations (₹ in lakh)	Initial Spares allowed (₹ in lakh)
Sub-station (GIS)					
Asset-I	61002.91	2495.99	5.0	3079.31	2495.99
Asset-II	20773.36	1123.87	5.0	1034.18	1034.18
Total	81776.27	3619.86		4113.49	3530.17
Transmission Line					
Asset-I	106986.00	1125.00	1.0	1069.30	1069.30
Asset-II	83626.24	789.84	1.0	836.73	789.84
Total	190612.24	1914.84		1906.03	1859.14

Capital Cost as on COD

24. The capital cost of the transmission assets has been calculated in accordance with Regulations 9(3) of the 2014 Tariff Regulations. The Commission vide order dated 29.11.2017 in Petition No. 39/TT/2017 for Asset-I and vide order dated 20.9.2018 in Petition No. 208/TT/2017 for Asset-II had approved the transmission tariff for the transmission assets for the 2014-19 period.

25. The Commission vide TV (technical validation) letter dated 20.3.2020 directed the Petitioner to clarify variation in the capital cost as on COD claimed in the instant petition vis-à-vis allowed vide order dated 29.11.2017 in Petition No. 39/TT/2017 and order dated 20.9.2018 in Petition No. 208/TT/2017. In response, the Petitioner has submitted that the details as tabulated below:

(₹ in lakh)

As per Petition No. 39/TT/2017			
COD Cost claimed as per certificate	Less Accrual IDC	COD Cost claimed for tariff calculation	Capital Cost allowed as on COD
164283.99	4217.92	160066.07	160046.54

(₹ in lakh)

Claimed in instant truing up petition		
COD Cost claimed as per Certificate	Less Accrual IDC	COD Cost for tariff calculation
164283.99	5608.61	158675.38



26. The Petitioner has submitted that the difference in COD cost is due to adjustments on account of difference in accrual IDC. The difference in accrual IDC is due to the change in the loan portfolio with respect to the loan deployed in Petition No.39/TT/2017. The Petitioner has submitted that, however, there is no change in capital cost as on COD as per Auditor Certificate and requested to admit the actual loan deployed and interest thereon in place of previously approved loan portfolio.

27. The details of capital cost claimed and allowed in Petition No. 208/TT/2017 and claimed in instant truing up petition for Asset-2 are as under:

(₹ in lakh)

As per Petition No. 208/TT/2017			
COD Cost Claimed as per Certificate	Less Accrual IDC	COD Cost claimed for Tariff Calculation	Capital Cost Allowed as on COD
101046.27	1431.63	99614.63	99083.83

(₹ in lakh)

Claimed in instant Truing up petition		
COD Cost Claimed as per Certificate	Less Accrual IDC	COD Cost for Tariff Calculation
101046.26	1431.63	99614.63

28. The Commission in the order dated 20.9.2018 in Petition No. 208/TT/2017 had restricted the allowed capital cost as on COD at ₹99083.83 lakh (in place of claimed amount of ₹99614.63 lakh) due to computational difference. The relevant portion of the order dated 20.9.2018 in Petition No. 208/TT/2017 is extracted hereunder:

“27. The petitioner has further submitted the statement showing IDC discharged up to COD for the asset in which the loan wise drawl date has also been mentioned. For the purpose of determining the IDC, the loan wise drawl date as provided by the petitioner has been assumed as date of infusion of debt fund for the concerned loan. IDC amounting to Rs. 4107.40 lakh have been worked out and allowed as on COD on cash basis. The balance IDC discharged after COD (i.e. in 2017-18 and 2018-19) is included in the add cap expenditure for FY 2017-18 and 2018-19.”

29. Aggrieved by the order dated 20.9.2018 in Petition No. 208/TT/2017, the Petitioner filed Review Petition No. 49/RP/2018 against the disallowance of IDC due



to computational difference. The Commission vide order dated 7.2.2019 in Review Petition No. 49/RP/2018 observed that the same shall be reviewed at the time of truing up. Accordingly, the same has been claimed in instant petition.

30. The details of the capital cost as on COD now worked out after adjustment of IDC, IEDC, and Initial Spares are as under:

(₹ in lakh)

Assets	Capital Cost claimed as on COD (A)	Un-discharged IDC as on COD (B)	Excess Initial Spares disallowed (D)	IDC disallowed (E)	Capital Cost allowed as on COD (F) = (A-B-C-D-E)
Asset-I	164283.98	5560.99	55.70	47.62	158619.69
Asset-II	101046.26	1431.63	89.69	0.00	99524.94
Total	265330.24	6992.62	145.39	47.62	258144.63

Additional Capital Expenditure (ACE)

31. The Petitioner has claimed the following ACE based on the actual expenditure:

(₹ in lakh)

Assets	ACE (as per auditor's certificate)	
	2017-18	2018-19
Asset-I	10732.28	7101.37
Asset-II	9652.74	1965.61
Total	20385.02	9066.98

32. The Petitioner has submitted that ACE incurred for the transmission assets is on account of balance and retention payments due to undischarged liability towards final payment/ withheld payment due to contractual exigencies for works executed within the cut-off date. ACE for the transmission asset in 2017-18 and 2018-19 has been claimed under Regulation 14(1)(i) (undischarged liabilities) and Regulation 14(1)(ii) (unexecuted works) of the 2014 Tariff Regulations.



33. The Petitioner has also submitted that ACE up to 31.3.2019 has been considered in the Auditor's certificate as per actuals. Further, the Petitioner vide affidavit dated 29.5.2020 has submitted Form 5 for the transmission assets. The contract-wise details submitted by the Petitioner are as follows:

(₹ in lakh)

Party	Particulars	Asset-I			
		Outstanding Liability as on COD	Discharge of Outstanding Payment		
			2017-18	2018-19	Total (2014-19)
A.K. GUPTA & CO	NZM Sub-station	44.29	20.10	24.19	44.29
Alpasso	NZM Sub-station	40.04	0.00	40.04	40.04
BHEL	Transmission Line	438.86	236.66	202.20	438.86
Galaxy Transformation	Transmission Line	3.89	3.89	0.00	3.89
Gupta Power	Transmission Line	18.87	18.87	0.00	18.87
HUIL	Transmission Line	362.22	0.00	362.22	362.22
Hyosung	NZM Sub-station	4350.15	2299.95	1360.52	3660.47
JSPL	Transmission Line	134.88	134.88	0.00	134.88
KPTL	Transmission Line	618.45	213.22	405.23	618.45
L&T	NZM Sub-station	1581.10	1256.11	206.44	1462.55
OSWAL	Transmission Line	20.73	20.73	0.00	20.73
SIEMENS	NZM Sub-station	1310.26	1305.26	5.00	1310.26
Site PO	NZM Sub-station	607.49	229.26	1.71	230.97
Sterlite	Transmission Line	187.55	187.55	0.00	187.55
TATA PROJECTS	Transmission Line	535.71	222.67	313.04	535.71
TBEA	NZM Sub-station	916.98	608.36	302.55	910.91
Yuzhnouralsk	Transmission Line	89.12	89.12	0.00	89.12
ZTT	Transmission Line	52.53	52.53	0.00	52.53
M/s CG Power & Industrial solutions	Wardha Sub-station	112.55	0.00	112.55	112.55
STERLITE	Transmission Line	39.87	0.00	39.87	39.87
Ramelex Pvt Ltd.	Transmission Line	9.57	0.00	9.57	9.57
Alstom	Wardha Sub-station	513.02	0.00	513.02	513.02
TBEA	Wardha Sub-station	274.85	0.00	274.85	274.85
ABB	Wardha Sub-station	34.31	0.00	34.31	34.31
Girish R. Malani	Wardha Sub-station	11.82	0.00	11.82	11.82
A.K. Gupta & CO	Wardha Sub-station	44.00	0.00	44.00	44.00
Girish R. Malani	Wardha Sub-station	40.37	0.00	40.37	40.37
Total		12393.45	6899.14	4303.49	11202.63



(₹ in lakh)

Asset-II					
Party	Particulars	Outstanding Liability as on COD	Discharge of Outstanding Payment		
			2017-18	2018-19	Total (14-19)
Addl Site PO	Transmission Line	85.32	5.46	79.86	85.32
ALPASSO	Sub-station	40.04	40.04	0.00	40.04
APAR	Transmission Line	15.23	15.23	0.00	15.23
BHEL	Transmission Line	824.59	819.61	4.98	824.59
EMCO	Transmission Line	3040.73	3024.29	16.44	3040.73
Galaxy	Transmission Line	1.39	1.39	0.00	1.39
GUPTA Power	Transmission Line	429.29	429.29	0.00	429.29
HUIL	Transmission Line	130.18	0.00	130.18	130.18
Hyosung	Sub-station	195.30	14.05	12.18	26.33
JSPL	Transmission Line	218.68	56.13	162.55	218.68
L&T	Sub-station	347.98	104.08	240.00	344.07
L&T	Transmission Line	3024.16	2574.16	450.00	3024.16
OSWAL	Transmission Line	738.25	729.80	8.45	738.25
Sterlite	Transmission Line	526.40	422.81	77.02	499.83
TBEA	Sub-station	172.16	48.00	88.83	136.84
Youzhnouralsk	Transmission Line	44.40	44.40	0.00	44.40
ZTT	Transmission Line	314.04	119.04	195.00	314.04
Total		10148.14	8447.78	1465.50	9913.28

34. It is observed that the total estimated completion cost including ACE from COD to 2018-19 for the transmission assets is within the apportioned approved cost. The ACE approved from COD to 31.3.2019 in respect of the transmission assets is summarized as under:

(₹ in lakh)				
Assets	Particulars	2017-18	2018-19	Total
Asset-I	ACE	10732.27	7101.37	17833.64
	Un-discharged IDC	5560.99	0.00	5560.99
	Total ACE	16293.26	7101.37	23394.63
Asset-II	ACE	9652.74	1965.61	11618.35
	Un-discharged IDC	1232.01	199.62	1431.63
	Total ACE	10884.75	2165.23	13049.98

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



(₹ in lakh)

Asset-I	Capital cost as on COD	ACE		Total capital cost including ACE as on 31.3.2019
		2017-18	2018-19	
Approved vide order dated 29.11.2017 in Petition No. 39/TT/2017	160046.54	26643.42	15772.57	202462.53
Claimed by the Petitioner in the instant petition	164283.98	10732.28	7101.37	182117.63
Allowed after true-up in this order	158619.69	16293.26	7101.37	182014.32

(₹ in lakh)

Asset -II	Capital cost as on COD	ACE		Total capital cost including ACE as on 31.3.2019
		2017-18	2018-19	
Approved vide order dated 20.9.2018 in Petition No. 208/TT/2017	99083.83	12125.04	5644.87	116853.74
Claimed by the Petitioner in the instant petition	101046.26	9652.74	1965.61	112664.61
Allowed after true-up in this order	99524.94	10884.75	2165.23	112574.92

Capital Cost for the 2014-19 Tariff Period

36. Accordingly, the capital cost as on COD, ACE for the 2014-19 period and capital cost as on 31.3.2019 considered for trueing up of the tariff of the 2014-19 period is as under:

(₹ in lakh)

Assets	Admitted Capital Cost as on COD	ACE		Total Capital Cost as on 31.3.2019
		2017-18	2018-19	
Asset-I	158619.69	16293.26	7101.37	182014.32
Asset-II	99524.94	10884.75	2165.23	112574.92

Debt-Equity ratio

37. The Petitioner has claimed the debt-equity ratio of 70:30 as on COD. Debt-equity ratio of 70:30 is considered as provided in Regulation 19 of the 2014 Tariff



Regulations. The details of debt-equity ratio in respect of the transmission assets as on COD and as on 31.3.2019 are as under:-

(₹ in lakh)

Asset-I	As on COD		As on 31.3.2019	
	Amount (₹ in lakh)	(%)	Amount (₹ in lakh)	(%)
Debt	111033.79	70.00	127410.04	70.00
Equity	47585.91	30.00	54604.28	30.00
Total	158619.69	100.00	182014.32	100.00

Asset-II	As on COD		As on 31.3.2019	
	Amount (₹ in lakh)	(%)	Amount (₹ in lakh)	(%)
Debt	69667.46	70.00	78802.47	70.00
Equity	29857.48	30.00	33772.45	30.00
Total	99524.94	100.00	112574.92	100.00

Depreciation

38. The Petitioner's claim towards depreciation for Asset-II in this petition was found to be higher than the depreciation allowed in order dated 20.9.2018 in Petition No. 208/TT/2017. The Petitioner has neither given any justification for claiming higher depreciation than that allowed earlier in order dated 20.9.2018 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 decided as under:

"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 upto 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 upto 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 separately 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."

39. In line with the above decision, the Gross Block during the 2014-19 tariff period has been depreciated at weighted average Rate of depreciation (WAROD) (as placed in Annexure-1). WAROD has been worked out after taking into account the depreciation rates of assets as prescribed in the 2014 Tariff Regulations and depreciation allowed during the 2014-19 period is as under: -

(₹ in lakh)

Particulars	Asset-I		Asset-II	
	2017-18 (pro-rata for 342 days)	2018-19	2017-18 (pro-rata for 213 days)	2018-19
Opening Gross Block	158619.69	174912.95	99524.94	110409.69
Additional Capitalisation	16293.26	7101.37	10884.75	2165.23
Closing Gross Block	174912.95	182014.32	110409.69	112574.92
Average Gross Block	166766.32	178463.64	104967.32	111492.31
Weighted Average Rate of Depreciation (WAROD) (%)	5.23	5.22	5.28	5.28
Balance useful life of the asset at the beginning of the year	32	32	33	33
Aggregated Depreciable Value	149278.30	159805.89	94470.59	100343.08
Combined Depreciation during the year	8165.92	9313.85	3235.62	5889.15
Remaining Depreciable value at the end of the year	141112.38	142326.12	91234.97	91218.31

40. The details of the depreciation allowed for the transmission assets vide order dated 29.11.2017 in Petition No. 39/TT/2017 for Asset-I and vide order dated



20.9.2018 in Petition No. 208/TT/2017 for Asset-II, claimed by the Petitioner in the instant petition and trued up depreciation in the instant order is shown in the table as under:-

(₹ in lakh)			
Assets	Particulars	2017-18 (pro-rata)	2018-19
Asset-I	Approved vide order dated 29.11.2017 in Petition No. 39/TT/2017	8487.59	10146.02
	Claimed by the Petitioner in the instant petition	8208.72	9362.17
	Allowed after true-up in this order	8165.92	9313.85
Asset-II	Approved vide order dated 20.9.2018 in Petition No. 208/TT/2017	3241.18	6023.35
	Claimed by the Petitioner in the instant petition	3241.57	5899.40
	Allowed after true-up in this order	3235.62	5889.15

Interest on Loan (IoL)

41. The Petitioner has claimed the weighted average rate of IoL based on its actual loan portfolio and rate of interest.

42. It is observed that the Petitioner has considered WAROI for claiming IoL as provided in Regulation 26 of the 2014 Tariff Regulations. IoL has been calculated based on actual interest rate, in accordance with Regulation 26 of the 2014 Tariff Regulations. IoL allowed is as under:

(₹ in lakh)				
Particulars	Asset-I		Asset-II	
	2017-18 (pro-rata for 342 days)	2018-19	2017-18 (pro-rata for 213 days)	2018-19
Gross Normative Loan	111033.79	122439.07	69667.46	77286.80
Cumulative Repayments upto Previous Year	0.00	8165.92	0.00	3235.62
Net Loan-Opening	111033.79	114273.16	69667.46	74051.18
Additions	11405.29	4970.97	7619.34	1515.67
Repayment during the year	8165.92	9313.85	3235.62	5889.15
Net Loan-Closing	114273.16	109930.27	74051.18	69677.70
Average Loan	112653.47	112101.72	71859.32	71864.44



Weighted Average Rate of Interest on Loan (%)	7.909	7.881	7.856	7.863
Interest on Loan	8348.58	8834.73	3294.16	5650.61

43. Accordingly, IoL approved earlier vide order dated 29.11.2017 in Petition No. 39/TT/2017 for Asset-I and vide order dated 20.9.2018 in Petition No. 208/TT/2017 for Asset-II, claimed by the Petitioner in the instant petition and true up Io in this order is shown in the table as under:-

		(₹ in lakh)	
Assets	Particulars	2017-18 (pro-rata)	2018-19
Asset-I	Approved vide order dated 29.11.2017 in Petition No. 39/TT/2017	8835.46	9873.06
	Claimed by the Petitioner in the instant petition	8351.08	8835.16
	Allowed after true-up in this order	8348.58	8834.73
Asset-II	Approved vide order dated 20.9.2018 in Petition No. 208/TT/2017	3445.23	6027.42
	Claimed by the Petitioner in the instant petition	3296.90	5654.69
	Allowed after true-up in this order	3294.16	5650.61

Return on Equity (RoE)

44. The Petitioner is entitled to RoE for the transmission assets 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 the 2014-19 period:

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

45. The Petitioner has claimed additional RoE of 0.50% for Assets-I and II in accordance with the timeline specified for claiming additional RoE under Regulation



24 of the 2014 Tariff Regulations. The Commission in order dated 29.11.2017 in Petition No. 39/TT/2017 for Asset-I and order dated 20.9.2018 in Petition No. 208/TT/2017 for Asset-II has observed that the transmission assets have been executed within 27 months and within 31 months respectively against the qualifying time schedule of 40 months and, thus, additional RoE is allowed.

46. The Commission in order dated 27.4.2020 in Petition No. 274/TT/2019 has arrived at the effective tax rate for the Petitioner based on the notified MAT rates and the same is given in the table below. The relevant portion of the order dated 27.4.2020 is as under:-

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

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

Year	Notified MAT rates (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

”



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

Year	Notified MAT rates (inclusive of surcharge & cess) (in %)	Base rate of RoE (in %)	Grossed up RoE (Base Rate/1-t) (in %)
2014-15	20.961	16.00	20.243
2015-16	21.342	16.00	20.341
2016-17	21.342	16.00	20.341
2017-18	21.342	16.00	20.341
2018-19	21.549	16.00	21.395

48. The Petitioner has claimed RoE for the 2014-19 period after grossing up the RoE of 16.00% with effective Tax rates (based on MAT rates) each year as per the above said Regulation. RoE is trued up on the basis of the MAT rate applicable in the respective years and is allowed as under:-

(₹ in lakh)

Particulars	Asset-I		Asset-II	
	2017-18 (pro-rata for 342 days)	2018-19	2017-18 (pro-rata for 213 days)	2018-19
Opening Equity	47585.91	52473.88	29857.48	33122.89
Additions	4887.97	2130.40	3265.41	649.56
Closing Equity	52473.88	54604.28	33122.89	33772.45
Average Equity	50029.89	53539.08	31490.19	33447.67
Return on Equity (Base Rate) (%)	16.000	16.000	16.000	16.000
MAT Rate for respective year (%)	21.342	21.549	21.342	21.549
Rate of Return on Equity (%)	20.341	20.395	20.341	20.395
Return on Equity	9535.32	10919.30	3737.96	6821.65

49. Accordingly, RoE allowed in order dated 29.11.2017 in Petition No. 39/TT/2017 for Asset-I and order dated 20.9.2018 in Petition No. 208/TT/2017 for Asset-II, claimed by the Petitioner in the instant petition and trued up RoE in the instant order is shown in the table as under:-



(₹ in lakh)

Assets	Particulars	2017-18 (pro-rata)	2018-19
Asset-I	Approved vide order dated 29.11.2017 in Petition No. 39/TT/2017	9865.04	11816.42
	Claimed by the Petitioner in the instant petition	9539.86	10925.62
	Allowed after true-up in this order	9535.32	10919.30
Asset-II	Approved vide order dated 20.9.2018 in Petition No. 208/TT/2017	3726.29	6925.01
	Claimed by the Petitioner in the instant petition	3741.15	6827.14
	Allowed after true-up in this order	3737.96	6821.65

Operation & Maintenance Expenses (O&M Expenses)

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

(₹ in lakh)

Asset – I		
Particulars	2017-18 (Pro-Rata For 342 Days)	2018-19
Sub-Station Bays		
Nizamabad: ICT I AND II	1	1
Wardha: NIZAMABAD BAY-I WITH SLR_WARDHA_WARDHA (765 Kv)	2	2
Wardha: NIZAMABAD BAY-II WITH SLR_WARDHA_WARDHA (765 Kv)	2	2
Dichpally: NIZAMABAD-I_DICHPALLI (TS TRANSCO)_NIZAMABAD (765 Kv) GIS	1	1
Dichpally: NIZAMABAD-II_DICHPALLI (TS TRANSCO)_NIZAMABAD (765 Kv) GIS	1	1
Nizamabad: DICHPALLY BAY I_NIZAMABAD (GIS)_NIZAMABAD (765 Kv) GIS	1	1
Nizamabad: DICHPALLY BAY II_NIZAMABAD (GIS)_NIZAMABAD (765 Kv) GIS	1	1
Nizamabad: ICT I BAY (765/400 Kv)_NIZAMABAD (GIS)_NIZAMABAD (765 KV) GIS	1	1
Nizamabad: ICT II BAY (765/400 Kv)_NIZAMABAD (GIS)_NIZAMABAD (765 KV) GIS	1	1
Nizamabad: BUS REACTOR_NIZAMABAD (GIS)_NIZAMABAD (765 KV) GIS	1	1
Nizamabad: ICT I BAY (765/400 Kv)_NIZAMABAD (GIS)_NIZAMABAD (765 KV)	1	1



GIS		
Nizamabad: ICT II BAY (765/400 Kv)_NIZAMABAD (GIS)_NIZAMABAD (765 KV) GIS	1	1
Nizamabad: MAHESHWARAM BAY I _NIZAMABAD (GIS)_NIZAMABAD (765 KV) GIS	1	1
Nizamabad: MAHESHWARAM BAY II _NIZAMABAD (GIS)_NIZAMABAD (765 KV) GIS	1	1
Nizamabad: WARDHA BAY I _NIZAMABAD (GIS)_NIZAMABAD (765 KV) GIS	1	1
Nizamabad: WARDHA BAY II _NIZAMABAD (GIS)_NIZAMABAD (765 KV) GIS	1	1
Norm (₹ Lakh/Bay)		
765 Kv Sub-Station Bays (AIS)	93.11	96.20
400 Kv Sub-Station Bays (AIS)	66.51	68.71
400 Kv Sub-Station Bays (GIS)	56.84	58.73
Total Sub-Station O&M	1384.59	1430.54
Transmission Line (Line Length In Km)		
WARDHA- NIZAMABAD 765 KV D/C LINE, NIZAMABAD-DICHPALLY 400 KV D/C LINE	289.04	289.04
WARDHA- NIZAMABAD 765 KV D/C LINE, NIZAMABAD-DICHPALLY 400 KV D/C LINE	4.43	4.43
Norm (₹ Lakh/Km)		
D/C Bundled With 4 Or More Sub-Conductor	1.17	1.21
D/C Twin Conductor	0.78	0.81
Total Transmission Line O&M	341.92	353.31
Total O&M Expenses	1617.72	1783.85

(₹ in lakh)

Asset – II		
Particulars	2017-18 (pro-rata for 213 days)	2018-19
Sub-station Bays		
Maheshwaram: BR BAY I _MAHESHWARAM GIS _MAHESHWARAM (765 GIS)	1	1
Maheshwaram: BR BAY II _MAHESHWARAM GIS _MAHESHWARAM (765 GIS)	1	1
Maheshwaram: NIZAMABAD SLR BAY I _MAHESHWARAM GIS _MAHESHWARAM (765 GIS)	1	1
Maheshwaram: NIZAMABAD SLR BAY II _MAHESHWARAM GIS _MAHESHWARAM (765 GIS)	1	1
Nizamabad: MAHESHWARAM SLR BAY I _NIZAMABAD (GIS)_NIZAMABAD (765 KV) GIS	1	1
Nizamabad: MAHESHWARAM SLR BAY II _NIZAMABAD (GIS)_NIZAMABAD (765 KV) GIS	1	1



Nizamabad: WARDHA SLR BAY I_NIZAMABAD (GIS)_NIZAMABAD (765 KV) GIS	1	1
Nizamabad: WARDHA SLR BAY II_NIZAMABAD (GIS)_NIZAMABAD (765 KV) GIS	1	1
Norm (₹ lakh/bay)		
765 kV Sub-station Bays (AIS)	93.11	96.20
Total Sub-station O&M	744.88	769.60
Transmission Line (Line length in Km)		
HYDERABAD-NIZAMABAD	243.03	243.03
Norm (₹ lakh/km)		
D/C Bundled with 4 or more sub-conductor	1.17	1.21
Total transmission Line O&M	284.59	294.07
Total O&M Expenses	600.76	1063.67

51. The details of O&M Expenses approved vide order dated 29.11.2017 in Petition No. 39/TT/2017 for Asset-I and vide order dated 20.9.2018 in Petition No. 208/TT/2017 for Asset-II, trued up O&M Expenses claimed by the Petitioner and trued up O&M Expenses allowed in the instant order are shown in the table below:-

(₹ in lakh)			
Assets	Particulars	2017-18 (pro-rata)	2018-19
Asset-I	Approved vide order dated 29.11.2017 in Petition No. 39/TT/2017	1617.69	1783.85
	Claimed by the Petitioner in the instant petition	1617.72	1783.85
	Allowed after true-up in this order	1617.72	1783.85
Asset-II	Approved vide order dated 20.9.2018 in Petition No. 208/TT/2017	600.76	1063.67
	Claimed by the Petitioner in the instant petition	600.79	1063.67
	Allowed after true-up in this order	600.76	1063.67

Interest on Working Capital (IWC)

52. The Petitioner has claimed interest on working capital as per Regulation 28(1)(c) of the 2014 Tariff Regulations. The components of the working capital and the interest thereon are discussed hereinafter:



i. Maintenance spares:

Maintenance spares have been worked out based on 15% of Operation and Maintenance Expenses.

ii. O & M Expenses:

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

iii. Receivables:

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

iv. Rate of interest on working capital:

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

53. The Interest on Working Capital allowed for the transmission assets is as under:

(₹ in lakh)

Particulars	Asset-I		Asset-II	
	2017-18 (pro-rata for 342 days)	2018-19	2017-18 (pro-rata for 213 days)	2018-19
O&M Expenses	143.88	148.65	85.79	88.64
Maintenance Spares	258.98	267.58	154.42	159.55
Receivables	5035.58	5261.18	3175.80	3312.28
Total Working Capital	5438.43	5677.41	3416.01	3560.47
Rate of Interest (%)	12.60	12.60	12.60	12.60
Interest of Working Capital	642.06	715.35	251.18	448.62

54. The details of IWC approved vide order dated 29.11.2017 in Petition No. 39/TT/2017 for Asset-I and vide order dated 20.9.2018 in Petition No. 208/TT/2017 for Asset-II, trued up IWC claimed by the Petitioner and trued up IWC allowed in the instant order is shown in the table below:-

(₹ in lakh)

Assets	Particulars	2017-18 (pro-rata)	2018-19
Asset-I	Approved vide order dated 29.11.2017 in Petition No. 39/TT/2017	677.29	787.29



	Claimed by the Petitioner in the instant petition	643.13	716.54
	Allowed after true-up in this order	642.06	715.35
Asset-II	Approved vide order dated 20.9.2018 in Petition No. 208/TT/2017	254.28	461.80
	Claimed by the Petitioner in the instant petition	251.43	449.05
	Allowed after true-up in this order	251.18	448.62

Approved Annual Fixed Charges for the 2014-19 Tariff Period

55. The trued up annual fixed charges for the transmission assets for the 2014-19 tariff period are as under:

Particulars	(₹ in lakh)			
	Asset-I		Asset-II	
	2017-18 (pro-rata for 342 days)	2018-19	2017-18 (pro-rata for 213 days)	2018-19
Depreciation	8165.92	9313.85	3235.62	5889.15
Interest on Loan	8348.58	8834.73	3294.16	5650.61
Return on Equity	9535.32	10919.30	3737.96	6821.65
Interest on Working Capital	642.06	715.35	251.18	448.62
O&M Expenses	1617.72	1783.85	600.76	1063.67
Total	28309.59	31567.08	11119.67	19873.70

56. Accordingly, the Annual Transmission Charges approved vide order dated 29.11.2017 in Petition No. 39/TT/2017 for Asset-I and vide order dated 20.9.2018 in Petition No. 208/TT/2017 for Asset-II, trued up AFC claimed by the Petitioner in the instant petition and trued up AFC allowed in the instant order are shown in the table below:

Assets	Particulars	(₹ in lakh)	
		2017-18 (pro-rata)	2018-19
Asset-I	Approved vide order dated 29.11.2017 in Petition No. 39/TT/2017	29483.07	34406.64
	Claimed by the Petitioner in the instant petition	28360.51	31623.34
	Allowed after true-up in this order	28309.59	31567.08
Asset-II	Approved vide order dated 20.9.2018 in Petition No. 208/TT/2017	11267.74	20501.25
	Claimed by the Petitioner in the instant petition	11131.84	19893.95
	Allowed after true-up in this order	11119.67	19873.70



Determination of Annual Fixed Charges for the 2019-24 Tariff Period

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

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	15558.84	15616.75	15616.75	15616.75	15602.66
Interest on Loan	13713.07	12530.86	11286.09	10039.23	8781.82
Return on Equity	16680.44	16751.09	16751.09	16751.09	16751.09
Interest on Working Capital	821.87	812.57	798.55	784.73	768.73
O&M Expenses	3002.01	3106.06	3214.97	3329.15	3444.91
Total	49776.23	48817.33	47667.45	46520.95	45349.21

58. The Petitioner has claimed the following IWC for the Combined Asset for the 2019-24 tariff period:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	250.17	258.84	267.91	277.43	287.08
Maintenance Spares	450.30	465.91	482.25	499.37	516.74
Receivables	6120.03	6018.57	5876.81	5735.46	5575.72
Total Working Capital	6820.50	6743.32	6626.97	6512.26	6379.54
Rate of Interest (%)	12.05	12.05	12.05	12.05	12.05
Interest of Working Capital	821.87	812.57	798.55	784.73	768.73

Effective Date of Commercial Operation (E-COD)

59. The Petitioner has stated that E-COD of the Combined Asset works out to be 12.6.2017 and the same has been worked out based on the Capital Cost as on 31.3.2019 of the two individual assets as under:

Assets	Trued-up Capital Cost as on 31.3.2019 (₹ in lakh)	COD	No. of days from COD of Asset from COD of Project	Weight of cost (%)	Weighted days
Asset-I	182014.32	24.4.2017	129.00	61.79	79.70
Asset-II	112574.92	31.8.2017	0.00	38.21	0.00



Total	294589.25			100.00	79.70
Effective COD 12.6.2017					

60. E-COD is used to determine the lapsed life of the project as a whole, which works out as one (1) year as on 1.4.2019 (i.e. the number of completed years as on 1.4.2019 from E-COD).

Weighted Average Life (WAL) of the transmission assets

61. The life as defined in Regulation 33 of the 2019 Tariff Regulations has been considered for determination of Weighted Average Life.

62. The asset may have multiple elements such as land, building, transmission line, Sub-station and PLCC and each element may have different span of life. Therefore, the concept of Weighted Average Life (WAL) has been used as the useful life of the project as a whole.

63. WAL has been determined based on the admitted capital cost of individual elements as on 31.3.2019 and their respective life as stipulated in the 2019 Tariff Regulations. The element-wise life as defined in the 2014 Tariff Regulations prevailing at the time of actual COD of individual assets has been ignored for this purpose. The life as defined in 2019 Tariff Regulations has been considered for determination of WAL. Accordingly, the WAL of the Combined Asset has been worked out as 32 years as shown below:

(₹ in lakh)

Admitted Capital Cost as on 31.03.2019				
Particulars	Combined Cost (₹ in lakh) (a)	Life as per 2019 Regulation (Years) (b)	Weight (a) x (b)	WAL = Total Weight/ Capital cost of the project
Building & Other Civil Works	3748.65	25	93716.22	
Transmission	204183.72	35	7146430.14	



Line				
Sub-Station Equipment	84499.27	25	2112481.85	
PLCC	733.39	15	11000.78	
IT Equipment and Software	522.68	7	3484.52	
Total	293687.70		9367113.50	31.89 Years (Rounded off to 32 years)

64. WAL as on 1.4.2019 as determined above is applicable prospectively (i.e. for 2019-24 tariff period onwards) and no retrospective adjustment of depreciation in previous tariff period is required to be done. As discussed at para 59, the Effective COD of the asset is 12.6.2017 and the lapsed life of the project as a whole, works out as one year as on 1.4.2019 (i.e. the number of completed years as on 1.4.2019 from Effective COD). Accordingly, WAL has been used to determine the remaining useful life as on 31.3.2019 to be 31 years.

Capital Cost as on 1.4.2019

65. Regulation 19 of the 2019 Tariff Regulations provides as under:

“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 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 inconformity 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. “*

66. The Petitioner has claimed the capital cost of the individual assets which has been added to arrive at the capital cost claimed during the 2019-24 period for consolidated assets as per the following details:-

Asset Details	Apportioned approved, cost as per FR	Expenditure as on 31.3.2019	Projected ACE/De-Cap in 2019-24		Cost as on 31.3.2024
			(as per auditor's certificate)		
			2019-20 (ACE)	2019-20 (De-Cap)	
Asset-I	220912.72	182117.63	2493.29	- 248.19	184362.73
Asset-II	145289.39	112664.61	420.41	- 158.07	112926.95
Total	366202.11	294782.24	2913.70	- 406.26	297289.68

67. Against the overall apportioned approved capital cost of ₹366202.11 lakh, the estimated completion cost including ACE is ₹297289.68 lakh. The cost of each transmission asset is also within the respective approved apportioned cost.

68. The capital cost has been dealt in line with clause (3) of Regulation 19 of the 2019 Tariff Regulations. The element-wise capital cost (i.e. land, building,



transmission line, Sub-station and PLCC) as admitted by the Commission as on 31.3.2019 for the transmission assets are clubbed together and the combined capital cost has been considered as capital cost for the Combined Asset, as per the following details:-

(₹ in lakh)			
Particulars	Asset-I	Asset-II	Combined Cost
Free hold Land	901.54	0.00	901.54
Building	3727.00	21.65	3748.65
Transmission Line	113811.24	90372.48	204183.72
Sub Station	62640.15	21859.12	84499.27
PLCC	468.43	264.96	733.39
Leasehold Land	0.00	0.00	0.00
IT Equipment and Software	465.96	56.72	522.68
Total	182014.32	112574.92	294589.25

Initial Spares

69. As stated in paragraph 23 above of this order, Initial Spares are allowed for the 2014-19 period on the basis of the cost of individual assets. The assets covered in the transmission Line project are combined and the overall project cost is arrived at in the 2019-24 tariff period and, therefore, Initial Spares are allowed during the 2019-24 tariff period on the basis of the overall project cost as per APTEL's judgement dated 14.9.2019 in Appeal No.74 of 2017.

70. Accordingly, Initial Spares allowed for the transmission assets for the 2019-24 tariff period are as under:

Assets	Plant & Machinery cost up to cut-off date (excluding IDC and IEDC) (₹ in lakh)	Initial Spares claimed (₹ in lakh)	Norms as per the 2014 Tariff Regulations (in %)	Initial Spares allowable as per the norms of the 2014 Tariff Regulations (₹ in lakh)	Initial Spares allowed during 2014-19 period (₹ in lakh)	Additional Initial Spares allowed during 2019-24 period (₹ in lakh)
Sub-station						
Asset-I	61002.91	2495.99	5.0	3079.31	2495.99	



Asset-II	20773.36	1123.87	5.0	1034.18	1034.18	
Total	81776.27	3619.86		4113.49	3530.17	86.69
Transmission Line						
Asset-I	106986.00	1125.00	1.0	1069.30	1069.30	
Asset-II	83626.24	789.84	1.0	836.73	789.84	
Total	190612.24	1914.84		1906.03	1859.14	46.89

71. Accordingly, additional Initial Spares of ₹86.69 lakh for sub-station and ₹46.89 for transmission line are being allowed as part of the combined capital cost as on 1.4.2019 in line with APTEL's judgement dated 14.9.2019 in Appeal No. 74 of 2017.

72. The Petitioner has claimed a de-capitalization of ₹248.19 lakh and ₹158.07 lakh towards cost of transmission line in transmission Asset-I and II respectively in the year 2019-20. It has been submitted that the reduction in cost of transmission line is due to expenditure transfer to telecom towards 50% of 24 fiber cable OPGW cost used by telecom w.e.f. 1.4.2019. We have considered the date of de-capitalization as 1.4.2019 and tariff has been allowed accordingly. The details of de-capitalization considered in the instant petition are as under:

(₹ in lakh)

Asset	COD	Date of de-capitalization considered in the instant petition	Book value of assets transferred to telecom	Cumulative depreciation corresponding to the date of de-capitalisation	Cumulative repayment of loan corresponding to the date of de-capitalisation
Asset-I	24.4.2017	1.4.2019	248.19	25.11	25.11
Asset-I	31.8.2017	1.4.2019	158.07	13.22	13.22
Total			406.26	38.33	38.33

73. Accordingly, the capital cost as on 1.4.2019 is worked out as under:

(₹ in lakh)

Combined Capital Cost as on 31.3.2019 (A)	Additional Initial Spares allowed as per APTEL judgement dated 14.9.2019 (B)	Decapitalization as on 1.4.2019 (C)	Combined Capital Cost as on 1.4.2019 (D)=A+B-C
294589.25	136.58	406.26	294319.57



74. The trued-up capital cost of ₹294319.57 lakh for the Combined Asset is considered as admitted capital cost as on 1.4.2019 for working out tariff for the 2019-24 tariff period.

Additional Capital Expenditure (ACE)

75. Regulations 24 and 25 of the 2019 Tariff Regulations provide as under:-

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

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

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

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

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

25. Additional Capitalization 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 obsolescence of technology; and

(d) The replacement of such asset or equipment has otherwise been allowed by the Commission.”

76. The Petitioner has claimed projected ACE in 2019-24 period and submitted Auditor’s Certificates in support of the same. The Petitioner has submitted that ACE claimed for the period 1.4.2019 to 31.3.2021 is on estimated basis and may vary due to final claim/ reconciliation at the time of contract closing. The details of projected ACE in respect of the transmission assets are shown as under: -

Assets	(₹ in lakh)	
	Estimated ACE	
	2019-20	
Asset-I	2493.29	
Asset-II	420.41	
Total	2913.70	

77. It is observed that entire ACE claimed in the 2019-24 period falls within the cut-off date in the instant petition. ACE allowed is summarized below which is subject to true-up:

Particulars	Regulation	(₹ in lakh)	
		Combined Asset	
		2019-20	
ACE to the extent of Balance & Retention Payments and work deferred for execution before cut-off date	Regulation 24(1)(a) and Regulation 24(1)(b) of the 2019 Tariff Regulations	2913.70	

78. Accordingly, the capital cost as on 31.3.2024 is considered as under:



(₹ in lakh)

Assets	Admitted Capital Cost as on 1.4.2019	Admitted ACE	Total Capital Cost as on 31.3.2024
		2019-24	
Combined Asset	294319.57	2913.70	297233.27

Debt-Equity ratio

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

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

Provided that:

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

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

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

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

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

Provided further that in case of projects owned by Damodar Valley Corporation, the debt: equity ratio shall be governed as per sub-clause(ii) of clause (2) of Regulation 72 of these regulations.



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

(5) Any expenditure incurred or projected to be incurred on or after 1.4.2019 as may be admitted by the Commission as 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.”

80. The details of the debt and equity considered for the purpose of computation of tariff for the 2019-24 tariff period for the Combined Asset are as under:-

Particulars	Capital Cost as on 1.4.2019 (₹ in lakh)	%	Capital Cost as on 31.3.2024 (₹ in lakh)	%
Debt	206023.74	70.00	208063.33	70.00
Equity	88295.83	30.00	89169.94	30.00
Total	294319.57	100.00	297233.27	100.00

Depreciation

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

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

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

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

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



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

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

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

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

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

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

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

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

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

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

82. The IT equipment has been considered as a part of the Gross Block and depreciated using weighted average rate of depreciation (WAROD) (as placed in Annexure-2). 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 nil, i.e. IT asset has been considered as 100 per cent depreciable. The depreciation has been worked out considering the admitted capital expenditure as on 31.3.2019 and accumulated depreciation up to 31.3.2019. The depreciation allowed for the Combined Asset is as under:-

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	294319.57	297233.27	297233.27	297233.27	297233.27
Addition during the year 2019-24 due to projected ACE	2913.70	0.00	0.00	0.00	0.00
Closing Gross Block	297233.27	297233.27	297233.27	297233.27	297233.27
Average Gross Block	295776.42	297233.27	297233.27	297233.27	297233.27
Weighted average rate of Depreciation (WAROD) (%)	5.26	5.25	5.25	5.25	5.25
Balance useful life at the beginning of the year	31	30	29	28	27
Aggregated Depreciable Value	265439.65	266750.82	266750.82	266750.82	266750.82
Combined Depreciation during the year	15546.89	15615.53	15615.53	15615.53	15615.53
Aggregate Cumulative Depreciation at the end of the year	42113.10	57728.63	73344.16	88959.69	104575.22
Remaining Aggregate Depreciable Value at the end of the year	223326.55	209022.19	193406.66	177791.13	162175.60

Interest on Loan (IoL)

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

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

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

(3) *The repayment for each of the year of the tariff period 2019-24 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of de-capitalization of assets, the repayment shall be adjusted by taking into account*



cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered upto the date of de-capitalisation of such asset.

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

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

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

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

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

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

84. The weighted average rate of IoL has been considered on the basis of rate prevailing as on 1.4.2019. The Petitioner has prayed that the change in interest rate due to floating rate of interest applicable, if any, during the 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 for the Combined Asset is as under:-

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	206023.74	208063.33	208063.33	208063.33	208063.33
Cumulative Repayments upto Previous Year	26566.21	42113.10	57728.63	73344.16	88959.69
Net Loan-Opening	179457.52	165950.23	150334.70	134719.17	119103.64
Additions	2039.59	0.00	0.00	0.00	0.00
Repayment during the year	15546.89	15615.53	15615.53	15615.53	15615.53
Net Loan-Closing	165950.23	150334.70	134719.17	119103.64	103488.11
Average Loan	172703.87	158142.46	142526.93	126911.40	111295.88
Weighted Average Rate of Interest on Loan (%)	7.938	7.928	7.923	7.916	7.896
Interest on Loan	13709.24	12537.37	11292.73	10045.88	8788.07



Return on Equity (RoE)

85. Regulations 30 and 31 of the 2019 Tariff Regulations provide as under:

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

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

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

Provided further that:

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

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

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

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

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

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

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



including deferred tax liability (i.e. income from business other than business of generation or transmission, as the case may be) shall be excluded for the calculation of effective tax rate.

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

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

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

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."

86. The Petitioner has submitted that MAT rate is applicable to the Petitioner's company. Accordingly, the MAT rate applicable in 2019-20 has been considered for



the purpose of RoE for the 2019-24 tariff period, which shall be trued up with actual tax rate in accordance with Regulation 31(3) of the 2019 Tariff Regulations. RoE allowed for the Combined Asset is as under:-

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	88295.83	89169.94	89169.94	89169.94	89169.94
Additions	874.11	0.00	0.00	0.00	0.00
Closing Equity	89169.94	89169.94	89169.94	89169.94	89169.94
Average Equity	88732.88	89169.94	89169.94	89169.94	89169.94
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	17.472	17.472	17.472	17.472	17.472
Rate of Return on Equity (%)	18.782	18.782	18.782	18.782	18.782
Return on Equity	16665.81	16747.90	16747.90	16747.90	16747.90

Operation & Maintenance Expenses (O&M Expenses)

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

“35(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
<i>Norms for sub-station Bays (₹ Lakh per bay)</i>					
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
<i>Norms for Transformers (₹ Lakh per MVA)</i>					
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
<i>Norms for AC and HVDC lines (₹ Lakh per km)</i>					
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



<i>Double Circuit (Bundled conductor with four or more sub-</i>	1.322	1.368	1.416	1.466	1.517
<i>Double Circuit (Twin & Triple Conductor)</i>	0.881	0.912	0.944	0.977	1.011
<i>Double Circuit (Single Conductor)</i>	0.377	0.391	0.404	0.419	0.433
<i>Multi Circuit (Bundled Conductor with four or more sub-conductor)</i>	2.319	2.401	2.485	2.572	2.662
<i>Multi Circuit (Twin & Triple Conductor)</i>	1.544	1.598	1.654	1.713	1.773
<i>Norms for HVDC stations</i>					
<i>HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)</i>	834	864	894	925	958
<i>Gazuwaka HVDC Back-to-Back station (₹ Lakh per 500 MW)</i>	1,666	1,725	1,785	1,848	1,913
<i>500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)</i>	2,252	2,331	2,413	2,498	2,586
<i>±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)</i>	2,468	2,555	2,645	2,738	2,834
<i>±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)</i>	1,696	1,756	1,817	1,881	1,947
<i>±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW)</i>	2,563	2,653	2,746	2,842	2,942

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

Provided further that:

- i. the operation and maintenance expenses for new HVDC bi-pole schemes commissioned after 1.4.2019 for a particular year shall be allowed pro-rata on the basis of normative rate of operation and maintenance expenses of similar HVDC bi-pole scheme for the corresponding year of the tariff period;*
- ii. the O&M expenses norms for HVDC bi-pole line shall be considered as Double Circuit quad AC line;*
- iii. the O&M expenses of ±500 kV Mundra-Mohindergarh HVDC bipole scheme (2000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±500 kV Talchar-Kolar HVDC bi-pole scheme (2000 MW);*
- iv. the O&M expenses of ±800 kV Champa-Kurukshetra HVDC bi-pole scheme (3000 MW) shall be on the basis of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme;*
- v. the O&M expenses of ±800 kV, Alipurduar-Agra HVDC bi-pole scheme*



(3000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ± 800 kV, Bishwanath-Agra HVDC bi-pole scheme; and

- vi. the O&M expenses of Static Synchronous Compensator and Static Var Compensator shall be worked at 1.5% of original project cost as on commercial operation which shall be escalated at the rate of 3.51% to work out the O&M expenses during the tariff period. The O&M expenses of Static Synchronous Compensator and Static Var Compensator, if required, may be reviewed after three years.

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

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

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

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

88. The total O&M Expenses claimed by the Petitioner in respect of the Combined

Asset are as under:

		(₹ in lakh)				
Particulars		2019-20	2020-21	2021-22	2022-23	2023-24
Actual line length (km)	Double Circuit (4 or more Conductor)	532.07	532.07	532.07	532.07	532.07
	Double Circuit (Twin Conductor)	4.43	4.43	4.43	4.43	4.43
Actual (No. of Bays)	765 kV Bays (AIS)	4	4	4	4	4
	400 kV Bays (AIS)	2	2	2	2	2
	765 kV Bays (GIS)	15	15	15	15	15
	400 kV Bays (GIS)	4	4	4	4	4
Transformer	765 kV MVA	3000	3000	3000	3000	3000



Communication system/PLCC	Original Capital Cost (₹ in lakh)	734.18	734.18	734.18	734.18	734.18
Norms as per Regulation	Double Circuit (4 or more Conductor)	1.32	1.37	1.42	1.47	1.52
	Double Circuit (Twin Conductor)	0.88	0.91	0.94	0.98	1.01
	765 kV Bays (AIS)	45.01	46.60	48.23	49.93	51.68
	400 kV Bays (AIS)	32.15	33.28	34.45	35.66	36.91
	765 kV Bays (GIS)	31.51	32.62	33.76	34.95	36.18
	400 kV Bays (GIS)	22.51	23.30	24.12	24.96	25.84
	₹ lakh per MVA	0.49	0.51	0.53	0.55	0.56
	PLCC	2% of Original Capital Cost				
Total O&M Expense (Claimed)	3002.01	3106.06	3214.97	3329.15	3444.91	

89. The Petitioner has claimed O&M Expenses separately for the PLCC under Regulation 35(4) of the 2019 Tariff Regulations @2% of its original project cost in the instant petition. The Petitioner has made a similar claim in several other petitions as well. Though PLCC is a communication system, it has been considered as part of the sub-station in the 2014 Tariff Regulations and the 2019 Tariff Regulations and the norms for sub-station have been specified accordingly. Accordingly, the Commission vide order dated 24.1.2021 in Petition No. 126/TT/2020 has already concluded that no separate O&M Expenses can be allowed for PLCC under Regulation 35(4) of the 2019 Tariff Regulations even though PLCC is a communication system. Therefore, the Petitioner's claim for separate O&M Expenses for PLCC @2% is not allowed. The relevant portions of the order dated 24.1.2021 in Petition No.126/TT/2020 are extracted hereunder.

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



Regulations have been specified for communication system such as PMU, RMU, OPGW etc. and not for PLCC equipment.”

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

106. The principle adopted in this petition that PLCC is part of sub-station and accordingly no separate O&M Expenses is admissible for PLCC equipment in the 2019-24 tariff period under Regulation 35(4) of the 2019 Tariff Regulations shall be applicable in case of all petitions where similar claim is made by the Petitioner. As already mentioned, the Commission, however, on the basis of the claim made by the Petitioner has inadvertently allowed O&M Expenses for PLCC equipment @2% of its original project cost, which is applicable for other “communication system”, for 2019-24 period in 31 petitions given in Annexure-3 of this order. Therefore, the decision in this order shall also be applicable to all the petitions given in Annexure-3. Therefore, PGCIL is directed to bring this decision to the notice of all the stakeholders in the 31 petitions given in Annexure-3 and also make revised claim of O&M Expenses for PLCC as part of the sub-station at the time of truing up of the tariff allowed for 2019-24 period in respective petitions.”

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

90. The total O&M Expenses admitted under the instant petition for the Combined Asset are as follows: -

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Sub-station Bays					
Wardha: NIZAMABAD BAY-I WITH SLR_WARDHA_WARDHA (765 kV)	2	2	2	2	2
Wardha: NIZAMABAD BAY-II WITH SLR_WARDHA_WARDHA (765 kV)	2	2	2	2	2
Dichpally: NIZAMABAD-I_DICHPALLI (TS TRANSCO)_NIZAMABAD (765 kV) GIS	1	1	1	1	1
Dichpally: NIZAMABAD-II_DICHPALLI (TS	1	1	1	1	1



TRANSCO)_NIZAMABAD (765 kV) GIS					
Nizamabad: DICHPALLY BAY I_NIZAMABAD (GIS)_NIZAMABAD (765 kV) GIS	1	1	1	1	1
Nizamabad: DICHPALLY BAY II_NIZAMABAD (GIS)_NIZAMABAD (765 kV) GIS	1	1	1	1	1
Nizamabad: ICT I BAY (765/400 kV)_NIZAMABAD (GIS)_NIZAMABAD (765 KV) GIS	1	1	1	1	1
Nizamabad: ICT II BAY (765/400 kV)_NIZAMABAD (GIS)_NIZAMABAD (765 KV) GIS	1	1	1	1	1
Nizamabad: BUS REACTOR_NIZAMABAD (GIS)_NIZAMABAD (765 KV) GIS	1	1	1	1	1
Nizamabad: ICT I BAY (765/400 kV)_NIZAMABAD (GIS)_NIZAMABAD (765 KV) GIS	1	1	1	1	1
Nizamabad: ICT II BAY (765/400 kV)_NIZAMABAD (GIS)_NIZAMABAD (765 KV) GIS	1	1	1	1	1
Nizamabad: MAHESHWARAM BAY I_NIZAMABAD (GIS)_NIZAMABAD (765 KV) GIS	1	1	1	1	1
Nizamabad: MAHESHWARAM BAY II_NIZAMABAD (GIS)_NIZAMABAD (765 KV) GIS	1	1	1	1	1
Nizamabad: WARDHA BAY I_NIZAMABAD (GIS)_NIZAMABAD (765 KV) GIS	1	1	1	1	1
Nizamabad:	1	1	1	1	1



WARDHA BAY II_NIZAMABAD (GIS)_NIZAMABAD (765 KV) GIS					
Maheswaram: BR BAY I_MAHESHWARAM GIS_MAHESHWARA M (765 GIS)	1	1	1	1	1
Maheswaram: BR BAY II_MAHESHWARAM GIS_MAHESHWARA M (765 GIS)	1	1	1	1	1
Maheswaram: NIZAMABAD SLR BAY I_MAHESHWARAM GIS_MAHESHWARA M (765 GIS)	1	1	1	1	1
Maheswaram: NIZAMABAD SLR BAY II_MAHESHWARAM GIS_MAHESHWARA M (765 GIS)	1	1	1	1	1
Nizamabad: MAHESHWARAM SLR BAY I_NIZAMABAD (GIS)_NIZAMABAD (765 KV) GIS	1	1	1	1	1
Nizamabad: MAHESHWARAM SLR BAY II_NIZAMABAD (GIS)_NIZAMABAD (765 KV) GIS	1	1	1	1	1
Nizamabad: WARDHA SLR BAY I_NIZAMABAD (GIS)_NIZAMABAD (765 KV) GIS	1	1	1	1	1
Nizamabad: WARDHA SLR BAY II_NIZAMABAD (GIS)_NIZAMABAD (765 KV) GIS	1	1	1	1	1
Norm (₹ lakh/bay)					
765 kV Sub-station Bays (AIS)	45.01	46.60	48.23	49.93	51.68
400 kV Sub-station Bays (AIS)	32.15	33.28	34.45	35.66	36.91



765 kV Sub-station Bays (GIS)	31.51	32.62	33.76	34.95	36.18
400 kV Sub-station Bays (GIS)	22.51	23.30	24.12	24.96	25.84
Total Sub-station O&M	806.97	835.44	864.70	895.15	926.53
Transmission Line (Line length in KM)					
WARDHA-NIZAMABAD 765 KV D/C LINE, NIZAMABAD-DICHPALLY 400 KV D/C LINE	289.04	289.04	289.04	289.04	289.04
WARDHA-NIZAMABAD 765 KV D/C LINE, NIZAMABAD-DICHPALLY 400 KV D/C LINE	4.43	4.43	4.43	4.43	4.43
HYDERABAD-NIZAMABAD	243.03	243.03	243.03	243.03	243.03
Norm (₹ lakh/km)					
D/C Bundled with 4 or more sub-conductor	1.32	1.37	1.42	1.47	1.52
D/C Twin Conductor	0.88	0.91	0.94	0.98	1.01
Total transmission Line O&M	707.30	731.91	757.59	784.34	811.63
Transformer					
Nizamabad: ICT I AND II	3000	3000	3000	3000	3000
Norm (₹ lakh/MVA)					
765 kV transformer	0.49	0.51	0.53	0.55	0.56
Total transformer O&M	1473.00	1524.00	1578.00	1635.00	1692.00
Total O&M Expenses	2987.26	3091.36	3200.29	3314.50	3430.16

Interest on Working Capital (IWC)

91. Regulations 34(1)(c), 34(3), 34(4) and 3(7) of the 2019 Tariff Regulations provide as under:

“34. Interest on Working Capital

(1)...

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



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

(3)Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2019 or as on 1st April of the year during the tariff period 2019-24 in which the generating station or a unit thereof or the transmission system including communication system or element thereof, as the case may be, is declared under commercial operation, whichever is later:

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

(4) Interest on working capital shall be payable on normative basis not with standing 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;”

92. The Petitioner has submitted that it has computed IWC for the 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%.

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

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	248.94	257.61	266.69	276.21	285.85
Maintenance Spares	448.09	463.70	480.04	497.17	514.52
Receivables	6114.34	6010.21	5868.58	5727.34	5569.46
Total Working Capital	6811.37	6731.52	6615.31	6500.73	6369.83
Rate of Interest (%)	12.05	11.25	11.25	11.25	11.25



Interest on Working Capital	820.77	757.30	744.22	731.33	716.61
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Annual Fixed Charges of the 2019-24 Tariff Period

94. The transmission charges allowed for the Combined Asset for the 2019-24 tariff period are as under:-

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	15546.89	15615.53	15615.53	15615.53	15615.53
Interest on Loan	13709.24	12537.37	11292.73	10045.88	8788.07
Return on Equity	16665.81	16747.90	16747.90	16747.90	16747.90
Interest on Working Capital	820.77	757.30	744.22	731.33	716.61
O&M Expenses	2987.26	3091.36	3200.29	3314.50	3430.16
Total	49729.97	48749.44	47600.67	46455.13	45298.26

Filing Fee and the Publication Expenses

95. 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 & RLDC Fees and Charges

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

Goods and Services Tax

97. 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 Respondents 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. Since, GST is not levied on transmission service at present we are of the view that the Petitioner's prayer is premature.

Security Expenses

98. The Petitioner has submitted that security expenses for the transmission assets are not claimed in the instant petition and it would file a separate petition for claiming the overall security expenses and the consequential IWC. The Petitioner has requested to consider the actual security expenses incurred during 2018-19 for claiming estimated security expenses for 2019-20 which shall be subject to true up at the end of the year based on the actuals. The Petitioner has submitted that similar petition for security expenses for 2020-21, 2021-22, 2022-23 and 2023-24 will be filed on a yearly basis on the basis of the actual expenses of previous year subject to true up at the end of the year on actual expenses. The Petitioner has submitted that the difference, if any, between the estimated security expenses and actual security expenses as per the audited accounts may be allowed to be recovered from the beneficiaries on a yearly basis.

99. We have considered the submissions of the Petitioner. We are of the view that the Petitioner should claim security expenses for all the transmission assets in one petition. It is observed that the Petitioner has already filed the Petition No. 260/MP/2020 claiming consolidated security expenses on projected basis for the 2019-24 tariff period on the basis of actual security expenses incurred in 2018-19. Therefore, security expenses will be dealt with in Petition No. 260/MP/2020 in accordance with the applicable provisions of the 2019 Tariff Regulations.



Capital Spares

100. 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

101. The billing, collection and disbursement of the transmission charges approved shall be governed by the provisions of the Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010 or the Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2020, as applicable, as provided in Regulation 43 of the 2014 Tariff Regulations for the 2014-19 tariff period and Regulation 57 of the 2019 Tariff Regulations for the 2019-24 tariff period.

102. To summarise, the trued-up Annual Fixed Charges allowed for the transmission assets for the 2014-19 tariff period are as under:

(₹ in lakh)

Particulars	2017-18 (pro-rata for 342 days)	2018-19
Asset-I	28309.59	31567.08
Particulars	2017-18 (pro-rata for 213 days)	2018-19
Asset-II	11119.67	19873.70

103. The Annual Fixed Charges allowed for the Combined Asset for the 2019-24 tariff period in the instant order are as under:

(₹ in lakh)

Combined Asset	2019-20	2020-21	2021-22	2022-23	2023-24
Annual Fixed Charges	49729.97	48749.44	47600.67	46455.13	45298.26



104. This order disposes of Petition No. 249/TT/2020.

sd/-

(Arun Goyal)
Member

sd/-

(I. S. Jha)
Member

sd/-

(P. K. Pujari)
Chairperson



Petition No:	249/TT/2020
Period:	2014-19 True Up

Annexure -1

Asset	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 (%)	Annual Depreciation as per Regulations	
			2017-18	2018-19			2017-18 (₹ in lakh)	2018-19 (₹ in lakh)
Asset-I	Land	901.54	0.00	0.00	901.54	0.00	0.00	0.00
	Building	1631.95	1480.84	614.21	3727.00	3.34	79.24	114.22
	Transmission Line	106992.39	5426.47	1392.38	113811.24	5.28	5792.46	5972.47
	Sub-station	48468.00	9091.22	5080.93	62640.15	5.28	2799.12	3173.26
	PLCC	189.17	279.25	0.00	468.43	6.33	20.81	29.65
	Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00	0.00
	IT Equipment and software	436.64	15.47	13.85	465.96	5.28	23.46	24.24
	TOTAL	158619.69	16293.26	7101.37	182014.32		8715.09	9313.85
					Average Gross Block (₹ in lakh)		166766.32	178463.64
					Weighted Average Rate of Depreciation (%)		5.23	5.22

Petition No:	249/TT/2020
Period:	2014-19 True Up

Annexure -1

Asset	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 (%)	Annual Depreciation as per Regulations	
			2017-18	2018-19			2017-18 (₹ in lakh)	2018-19 (₹ in lakh)
Asset-II	Land	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Building	0.00	21.65	0.00	21.65	3.34	0.36	0.72
	Transmission Line	78235.79	10339.51	1797.18	90372.48	5.28	4403.81	4724.22
	Sub-station	21014.61	477.01	367.50	21859.12	5.28	1122.16	1144.46
	PLCC	218.63	45.89	0.44	264.96	6.33	15.29	16.76
	Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00	0.00
	IT Equipment and software	55.92	0.69	0.11	56.72	5.28	2.97	2.99
	TOTAL	99524.94	10884.75	2165.23	112574.92		5544.60	5889.15
					Average Gross Block (₹ in lakh)		104967.32	111492.31
					Weighted Average Rate of Depreciation (%)		5.28	5.28

Petition No:	249/TT/2020
Period:	2019-24

Annexure -2

Asset	2019-24	Admitted Capital cost as 1.4.2019 (₹ in lakh)	ACE (₹ in lakh)	Admitted Capital cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation (%)	Annual Depreciation as per Regulations				
			2019-20			2019-20 (₹ in lakh)	2020-21 (₹ in lakh)	2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)
Combined Asset	Land	901.54	0.00	901.54	0.00	0.00	0.00	0.00	0.00	0.00
	Building	3748.65	853.98	4602.63	3.34	139.47	153.73	153.73	153.73	153.73
	Transmission Line	203824.35	581.75	204406.10	5.28	10777.28	10792.64	10792.64	10792.64	10792.64
	Sub-station	84588.96	1477.97	86066.93	5.28	4505.32	4544.33	4544.33	4544.33	4544.33
	PLCC	733.39	0.00	733.39	6.33	46.42	46.42	46.42	46.42	46.42
	Leasehold Land	0.00	0.00	0.00	3.34	0.00	0.00	0.00	0.00	0.00
	IT Equipment and software	522.68	0.00	522.68	5.28	78.40	78.40	78.40	78.40	78.40
	TOTAL	294319.57	2913.70	297233.27		15546.89	15615.53	15615.53	15615.53	15615.53
				Average Gross Block (₹ in lakh)		295776.42	297233.27	297233.27	297233.27	297233.27
				Weighted Average Rate of Depreciation (%)		5.26	5.25	5.25	5.25	5.25