

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 297/TT/2022

Coram:

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

Date of order: 29.04.2023

In the matter of:

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999, the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for revised petition, as directed vide order dated 24.12.2021 in Petition No. 135/TT/2020 for truing up of transmission tariff for the 2014-19 tariff period and determination of transmission tariff for the 2019-24 tariff period for combined asset associated with "Western Region Strengthening Scheme VI" in the Western Region.

And in the matter of:

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

.....Petitioner

Vs

1. Madhya Pradesh Power Management Company Limited,
Shakti Bhawan, Rampur
Jabalpur-482008.
2. Madhya Pradesh Power Transmission Company Limited,
Shakti Bhawan, Rampur,
Jabalpur-482008.
3. Madhya Pradesh Audyogik KendraVikas Nigam (Indore) Limited,
3/54, Press Complex, Agra-Bombay Road,
Indore-452008.
4. Maharashtra State Electricity Distribution Company Limited,
Hongkong Bank Building, 3rd Floor,
M.G. Road, Fort, Mumbai-400001.
5. Maharashtra State Electricity Transmission Company Limited,



Prakashganga, 6th Floor, Plot No. C-19, E-Block,
Bandra Kurla Complex, Bandra (East) Mumbai-400051.

6. Gujarat Urja Vikas Nigam Limited,
Sardar Patel Vidyut Bhawan,
Race Course Road, Vadodara-390007.
7. Electricity Department,
Government of Goa, Vidyut Bhawan, Panaji,
Near Mandvi Hotel, Goa-403001.
8. Electricity Department,
Administration of Daman & Diu,
Daman-396210.
9. DNH Power Distribution Corporation Limited,
Vidyut Bhawan, 66 kV Road, Near Secretariat Amli,
Silvassa-396230.
10. Chhattisgarh State Power Transmission Company Limited,
Office of the Executive Director (C&P),
State Load Despatch Building,
Dangania, Raipur-492013.
11. Chhattisgarh State Power Distribution Company Limited,
P.O. Sunder Nagar, Dangania, Raipur,
Chhattisgarh- 492013.

...Respondent(s)

For Petitioner : Shri S.S. Raju, PGCIL
Shri Zafrul Hasan, PGCIL
Shri Ashish Alankar, PGCIL
Shri Pankaj Sharma, PGCIL
Ms. Ashita Chauhan, PGCIL

For Respondents : None

ORDER

The Petitioner, Power Grid Corporation of India Limited, has filed the instant petition for truing up of transmission tariff for the period from COD to 31.3.2019 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) and determination of transmission tariff for the 2019-24 period 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 transmission asset under “Western Region Strengthening Scheme VI” (hereinafter referred to as the “the transmission project”) in the Western Region:

Asset-A1: 400 kV 315 MVA Transformer at Bina

Asset-B1: 400 kV D/C Pirana-Dehgam transmission line along with associated bays at Pirana and Dehgam Sub-station and 400 /220 kV Pirana Sub-station(New)

Asset-B2: ICT-I (1X315MVA) 400/220 kV at Pirana Sub-station along with associated bays

Asset-B3: ICT-II (1X315MVA) 400/220 kV at Pirana Sub-station alongwith associated Bays

Asset-B4: Bina Bay Extension with 1x315 MVA ICT along with associated 400 kV and 220 kV Bays

Asset-B5: 400/220kV Gwalior (Extension) Sub-station with 1x315MVA ICT along with associated 400/220kV Bays

Asset-C1: ICT III at Pune Sub-station along with bay extension

Asset-C2: ICT III at Wardha Sub-station along with bay extension

Asset-D: ICT III at Raipur Sub-station along with bay extension 400/220kV 315 MVA ICT

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 8 and 9 above.*
- 2) Allow the add cap for 2014-19 tariff block as claimed as per Para 6.7 above.*
- 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 8 and 9 above for respective block.*
- 4) Allow the petitioner to bill and recover Licensee fee and RLDC fees and charges, separately from the respondents in terms of Regulation 70 (3) and (4) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019.*



- 5) *Allow the petitioner to bill and adjust impact on Interest on Loan due to change in Interest rate on account of floating rate of interest applicable during 2019-24 period, if any, from the respondents.*
- 6) *Allow the petitioner to file a separate petition before Hon'ble Commission for claiming the overall security expenses and consequential IOWC on that security expenses as mentioned at para 12.1 above.*
- 7) *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 follows:

- a) The Investment Approval (hereinafter referred as "IA") for the scheme was accorded by Board of Directors of the Petitioner's company vide Memorandum Ref No. C/CP/WRSS-VI dated 25.2.2008 at an estimated cost of ₹34072 lakh including IDC of ₹2617 lakh (based on 3rd quarter, 2007 price level).
- b) The scope of work of transmission project, covered under the instant petition, includes construction of following sub-stations:

Transmission Line

Dehgam-Pirana line

Sub-stations

- a. Establishment of new 400/220 kV, 2X315 MVA sub-station at Pirana
- b. Augmentation of 400/220 kV POWERGRID Sub-stations at Wardha, Pune, Gwalior, Raipur and Bina each by 1X315 MVA transformer capacity along with associated bays.
- c. Extension of Dehgam (POWERGRID) Sub-station by 400kV line bays.



c) The transmission assets were put into commercial operation during 2009-14 period. The details of the petitions in which the tariff for the transmission assets from their respective COD to 31.3.2014 was granted are as follows:

Assets	Name of the Asset	Actual COD	Notional COD	Tariff Allowed
Asset-A1	400 kV 315 MVA Transformer at Bina	1.11.2010	NA	Order dated 21.7.2011 in Petition No. 336/TT/2010
Asset-B1	400 kV D/C Pirana-Dehgam Transmission Line along with associated bays at Pirana and Dehgam Sub-station and 400 /220 kV Pirana Sub-station (New)	1.3.2011	NA	Order dated 30.4.2013 in Petition No. 56/TT/2011
Asset-B2	ICT-I (1X315MVA) 400/220 kV at Pirana Sub-station along with associated bays	1.3.2011	1.4.2011	
Asset-B3	ICT-II (1X315MVA) 400/220 kV at Pirana Sub-station along with associated Bays	1.4.2011	1.4.2011	
Asset-B4	Bina Bay Extension with 1x315 MVA ICT along with associated 400 kV and 220 kV Bays	1.11.2010	1.4.2011	
Asset-B5	400/220kV Gwalior (Extension) Sub-station with 1x315MVA ICT along with associated 400/220kV Bays	1.4.2011	1.4.2011	
Asset-C1	ICT III at Pune Sub-station along with bay extension	1.11.2011	NA	Order dated 17.8.2015 in Petition No. 109/TT/2012
Asset-C2	ICT III at Wardha Sub-station along with bay extension	1.1.2012	NA	
Asset-D	ICT III at Raipur Sub-station along with bay extension 400/220kV 315 MVA ICT	1.7.2011	NA	Order dated 28.5.2012 in Petition No. 136/TT/2011

4. The aforementioned transmission assets were clubbed during 2014-19 period as Combined Asset and tariff was approved for 2014-19 tariff period vide order dated 2.11.2017 in Petition No. 47/TT/2017. The Petitioner filed Petition No. 135/TT/2020 for truing up of transmission tariff for 2014-19 tariff period and determination of transmission tariff for 2019-24 tariff period. The Commission vide order dated 24.12.2021 in Petition No. 135/TT/2020 observed that the Petitioner did not decapitalize the cost of Asset-C2 i.e. 500 MVA ICT at Wardha Sub-station and did not



submit the written down value of Asset-C2 to adjust the capital cost of the Combined Asset. Therefore, no tariff was granted for the Combined Asset and the Petitioner was directed to de-capitalize Asset-C2 and remove the same from the Combined Asset and file a fresh petition. The relevant portion of the order dated 24.12.2021 in Petition No. 135/TT/2020 is as follows:

“6. As per Form-5 submitted by the Petitioner, the capital cost of the 500 MVA ICT at Wardha sub-station (Asset-C2) is covered under present petition. The Petitioner has not claimed the cost of the 500 MVA ICT at Solapur sub-station (Asset-II) in Petition No. 167/TT/2020. The Commission vide order dated 11.2.2021 in Petition No. 167/TT/2020 granted tariff only for the ICT bays wherein the cost of the 500 MVA ICT is not included. As regards the O&M Expenses of 500 MVA ICT, the Petitioner has claimed O&M Expenses at Solapur sub-station and has not claimed any O&M Expenses for 500 MVA ICT at Wardha sub-station. Therefore, we are of the view that the Petitioner should de-capitalise the cost of 500 MVA ICT at Wardha sub-station and re-capitalise the cost of 500 MVA ICT at Solapur sub-station. The Petitioner has not submitted the written down value of Asset C2 to adjust the capital cost of the Combined Asset. Therefore, we are not inclined to grant tariff for the Combined Asset as prayed by the Petitioner in the present petition. The Petitioner is directed to de-capitalise Asset C2 and remove the same from the instant Combined Asset and file a fresh petition within 30 days from issue of this order.”

5. In view of the above direction, the Petitioner has submitted that the 500MVA ICT III at Wardha along with associated bays (covered under Asset-C2) has been decapitalized and removed from the Combined Asset. The cost of ICT and their bays will be re-capitalized in the project wherein it is utilized. The details of project areas follows:

Project WRSS VI Asset-C2 (*)	Transmission System for Solapur STPP (2x660 MW)	WRSS XXXIII
Decapitalisation: 500MVA,ICT III along with 400 kV and 220kV bay at Wardha Sub-station	Recapitalisation: 500 MVA ICT III at Solapur Sub-station	Recapitalisation: 400 kV & 220kV bays meant for ICT III at Wardha Sub- station
₹1440.03 lakh	₹1040.90 lakh	₹399.13 lakh
Covered under instant petition	Filed as revised Petition No. 288/TT/2022 linked with earlier Petition No. 167/TT/2020 and date of recapitalisation is 2.11.2015.	Filed under Petition No. 332/TT/2022. Date of utilisation: 19.2.2022.



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

7. The Petitioner has served the petition on the Respondents and notice regarding filing of this petition has been published in the newspapers 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 newspapers by the Petitioner. Madhya Pradesh Power Management Company Limited (MPPMCL), Respondent No. 11, has filed a reply to the instant petition vide affidavit dated 28.11.2022 in which it has raised the issues of Return on Equity (RoE) and CGST. The Petitioner, vide affidavit dated 12.9.2022, has filed rejoinder to the reply of MPPMCL.

8. It is observed that MPPMCL has raised the issue of grossing up of the RoE in the instant petition and few other petitions. The Commission in Petition No. 215/TT/2020 rejected the contentions of MPPMCL. As we have already rejected the contentions of MPPMCL, we are of the view that there is no need for us to deal with the same in this order.

9. The hearing in this matter was held on 1.12.2022 and the Commission reserved the order.

10. This order is issued considering the submissions made by the Petitioner vide affidavit dated 9.5.2022, Technical Validation's reply vide affidavit dated 4.8.2022, MPPMCL's reply vide affidavit dated 28.11.2022, the Petitioner's rejoinder vide affidavit dated 12.9.2022 thereto.

11. Having heard the representatives of the Petitioner and having perused the material on record, we proceed to dispose of the Petition.



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

12. The details of the trued-up transmission charges claimed by the Petitioner in respect of the Combined Asset are as follows:

(₹ in lakh)

Particulars	Combined Asset				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	1177.25	1188.61	1164.67	1165.56	1165.56
Interest on Loan	1204.49	1091.09	968.85	861.00	755.57
Return on Equity	1447.38	1434.67	1407.88	1408.87	1412.59
Interest on Working Capital	170.91	171.01	169.87	170.36	171.05
O&M Expenses	1498.27	1548.00	1599.44	1652.46	1707.31
Total	5498.30	5433.38	5310.71	5258.25	5212.08

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

(₹ in lakh)

Particular	Combined Asset				
	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	124.86	129.00	133.29	137.71	142.28
Maintenance Spares	224.74	232.20	239.92	247.87	256.10
Receivables	921.49	928.20	885.12	876.38	868.66
Total Working Capital	1271.09	1289.40	1258.33	1261.96	1267.04
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	171.60	174.07	169.87	170.36	171.05

Capital Cost

14. The capital cost of the transmission project has been calculated in accordance with the Regulation 9(3) and Regulation 9(6) of the 2014 Tariff Regulation.

15. The Commission vide order dated 2.11.2017 in Petition No.47/TT/2017 has approved the following capital cost for the capital cost as on 31.3.2014 and ACE in 2014-19 tariff period:

(₹ in lakh)

FR approved cost	Admitted cost as on 31.3.2014	Admitted ACE for 2014-19		Capital cost allowed as on 31.3.2019
		2014-15	2015-16	
34072.32	24531.36	35.30	49.01	24615.67



16. The Petitioner in the instant true-up petition, based on the revised Auditor certificate dated 26.7.2019 and 2.8.2019, has submitted asset-wise capital cost as on 31.3.2014 and actual additional capitalisation up to 31.3.2019 and the same is as follows:

Assets	FR apportioned approved cost	Admitted cost as on 31.3.2014	Admitted ACE for 2014-19			Capital cost allowed as on 31.3.2019
			2014-15	2015-16	2016-17	
Asset-B1	14465.35	9878.64	0.00	6.38	-	9885.02
Asset-B2+ Asset-B3	5477.71	3901.42	0.00	349.66	-	4251.08
Asset-B4+ Asset-B5	6142.38	5205.9	203.46	94.66	-	5504.02
Asset-C1	2671.54	1751.15	-	-	-	1751.15
Asset-C2(*)	2829.24	1743.39	35.3	49.01	33.83	456.80
Asset-D	2486.1	2243.59	34.4	-	-	2277.99

(*) The auditor certificate of Asset C2 which is a part of combined asset has been revised as per direction of order dated 24.12.2021 in Petition No.135/TT/2020 where the ICT-III at Wardha along with associated bays has been decapitalised.

17. We have considered the submissions of the Petitioner. The capital cost of the transmission assets has been calculated in accordance with Regulation 9(3) and Regulation 9(6) of 2014 Tariff Regulations. The Commission vide order dated 2.11.2017 in Petition No. 47/TT/2017 had approved the transmission tariff for the transmission assets for the 2014-19 period based on the admitted capital cost of ₹24531.36 lakh as on 1.4.2014 for the transmission assets. The Petitioner at para 8.6 of the pleading has inadvertently mentioned the capital cost as on 31.3.2014 of ₹24724.09 lakh. However, as per the Auditor Certificate dated 26.7.2019 and 2.8.2019 submitted by the Petitioner, the capital cost as on 31.3.2014 is ₹24531.36 lakh. Taking into consideration of the Auditor Certificate the capital cost of ₹24531.36 lakh as on 1.4.2014 has been considered for the purpose of trueing up of the tariff of the 2014-19 tariff period.



Additional Capital Expenditure (ACE)

18. The Commission vide order dated 2.11.2017 in Petition No. 47/TT/2017 made the following observations with regard to ACE:

“64. Accordingly, the ACE claimed for 2014-15 for the asset B1, B2, B3 B4 and D are not pertaining to the discharge of liability as claimed by the petitioner. Instead these claims are the expenditure incurred for fresh capitalisation and these fresh capitalisation are incurred after “cut-off” date. Therefore, the ACE claimed for Asset B1, B2, B3, B4 and D for the year 2014-15 amounting ₹465.30 lakh are disallowed. However, the petitioner is given the liberty to submit the details at the time of true up with proper justification and proper regulation. The admissibility shall be reviewed at the time of true up. In case of Asset C2, the entire claim for the year 2014-15 and 2015-16 are identified as the discharge of liability. Hence, the amount of ₹35.30 lakh for the year 2014-15 has been admitted under Regulation 14(1)(i) and ₹49.01 lakh has been admitted under Regulation 14(2)(iv). Therefore, the additional capitalization allowed for 2014-19 tariff period in the respective financial year is as under:

(₹ in lakh)

Particulars	2014-15	2015-16
Additional Capital Expenditure claimed	500.60	49.01
Dis-allowed Additional capital Expenditure	465.30	0.00
Additional Capital Expenditure allowed	35.30	49.01

19. The Petitioner in the instant true-up petition has made the following submissions with regard to ACE in respect of the transmission assets :

Assets	Asset details	COD	Cut-off date	Remarks
Asset-B1	400kV D/C Pirana-Dehgam transmission line along with associated bays at Pirana and Dehgam Sub-station and 400 /220 kV Pirana Sub-station (New)	1.3.2011	31.3.2014	Add cap in 2015-16 is beyond cut-off which is claimed under Regulation 14(3)(v) of the 2014 Tariff Regulations.
Asset-B2	ICT-I (1X315MVA) 400/220 kV at Pirana Sub-station along with associated bays	1.3.2011	31.3.2014	Add cap in 2015-16 is beyond cut-off which is claimed under Regulation 14(3)(v) of 2014 Tariff Regulations.
Asset- B3	ICT-II (1X315MVA) 400/220 kV at Pirana Sub-station alongwith associated Bays	1.4.2011	31.3.2014	
Asset-B4	Bina Bay Extension with 1x315 MVA ICT along	1.11.2010	31.3.2013	Add cap in 2014-15 and 15-16 is beyond cut-off



Assets	Asset details	COD	Cut-off date	Remarks
	with associated 400 kV and 220 kV Bays			date and is claimed under Regulation 14(3)(v) of the 2014 Tariff Regulations
Asset- B5	400/220kV Gwalior (Extension) Sub-station with 1x315MVA ICT along with associated 400/220kV Bays	1.4.2011	31.3.2014	
Asset- C1	ICT III at Pune Sub-station along with bay extension	1.11.2011	31.3.2014	No add cap in 2014-19
Asset- C2	ICT III at Wardha Sub-station along with bay extension	1.1.2012	31.3.2015	Add cap in 2014-15 is within cut-off date and is claimed under Regulation 14(1)(i) and add cap in 2015-16 and 2016-17 is beyond cut-off date and is claimed under Regulation 14(2)(iv)of the 2014 Tariff Regulations.
Asset-D	ICT III at Raipur Sub-station along with bay extension	1.7.2011	31.3.2014	Add cap for 2015-16 is beyond cut-off and is claimed under Regulation 14(3)(v) of the 2014 Tariff Regulations.

20. The Petitioner has submitted that ACE during the years 2014-15, 2015-16 and 2016-17 in case of the Combined Asset is on account of balance and retention payments due to un-discharged liability for works executed within cut-off date and has been claimed under Regulation 14(3)(v) of the 2014 Tariff Regulations. The details of balance and retention payments made in respect of the transmission assets covered under Combined Asset are as follows:

Assets	Financial Year	Party	Amount (₹ in lakh)	Nature
Asset-B1	2015-16	Crop compensation	6.38	Transmission Line
Asset-B2+ Asset-B3	2015-16	GE T&D India Limited	154.60	Sub-station
	2015-16	Alstom T& D India Limited	195.06	Sub-station
Asset-B4+ Asset-B5	2014-15	Alstom T&D India Limited	191.34	Sub-station
	2014-15	G.E.T. Power Private Ltd.	12.12	Sub-station
	2014-15	Alstom T&D India Limited	94.66	Sub-station



Assets	Financial Year	Party	Amount (₹ in lakh)	Nature
Asset-C2	2015-16	AREVA	49.01	Sub-station
	2016-17	GET Power	33.83	Sub-station
Asset-D	2014-15	GET Power	34.40	Sub-station

De-capitalisation

21. The apportioned approved capital cost, capital cost as on COD and actual ACE during the 2014-19 period claimed by the Petitioner in Form-10 are as follows:

(₹ in lakh)

FR apportioned approved Capital Cost	Capital cost as on COD	ACE			Capital cost as on 31.3.2019
		2014-15	2015-16	2016-17	
34072.30	24531.35	273.16	(940.32)*	33.83	23898.02

*ACE of ₹493.33 lakh net of decapitalisation of ₹1440.03 lakh

22. In respect of the proposed decapitalisation, the Petitioner has submitted as follows:

Asset and Year	Amount (₹ in lakh)	Reason(s)
Asset-C2 2014-15	1440.03	500 MVA ICT III at Wardha along with associated bays was decapitalised from Combined Asset of WRSS-VI project and was shifted to Solapur Sub-station under Transmission System for Solapur STPP. This was done as MSETCL intimated that due to many generation projects coming up around Wardha area, they would not be able to draw additional power from Wardha at 220 kV level which would result in non-utilisation of the ICTIII.

23. We have considered the submission of the Petitioner. The Petitioner initially in the petition has claimed the following de-capitalisation:

Equipment/ Asset	Year of de-capitalisation of asset/ equipment	Original book value of the asset being decapitalised (₹ in lakh)	Debt-Equity ratio at the time of capitalisation (in %)	Cumulative depreciation corresponding to decapitalisation date (₹ in lakh)	Cumulative repayment of loan corresponding to decapitalisation (₹ in lakh)	Date of de-capitalisation claimed in the instant petition
500 MVAR ICT and associated bays	2015-16	1440.03	70:30	297.93	297.93	1.11.2015



24. Later, in response to the Commission's query regarding the actual date of decapitalisation and the date of recapitalization considered in the respective petitions, the Petitioner vide affidavit dated 19.12.2022 has submitted the following information:

Equip-ment/ Asset	Year of capitalisation of asset/ equip-ment being de-capitalised	Actual date of decapitalisation claimed in the instant petition	Original book value of the asset being decapitalised (₹ in lakh)	Debt-Equity ratio at the time of capitalisation (in %)	Cumulative depreciation corresponding to actual date of decapitalisation (₹ in lakh)	Cumulative repayment of loan corresponding to actual date of decapitalisation (₹ in lakh)	Date of recapitalisation claimed in the respective petitions
A	B	C	D	E	F	G	H
500 MVAR ICT and associated bays	2011-12	20.11.2014	1440.03	70:30	222.96	222.96	2.11.2015

25. The Petitioner has further submitted that as per the originally agreed scheme of WRSS-VI, the Petitioner commissioned and capitalized the 500MVA ICT-III along with associated bays at Wardha Sub-station with w.e.f. 1.1.2012.

26. The ICT was taken out of service from Wardha on 20.11.2014, shifted to Solapur and was put into commercial operation at Solapur on 2.11.2015 and bays has been utilized under project WRSS XXIII.

27. We have considered the submissions of the Petitioner. Regulation 14(4) of the 2014 Tariff Regulations provides as under:

“(4) In case of de-capitalisation of assets of a generating company or the transmission licensee, as the case may be, the original cost of such asset as on the date of decapitalization shall be deducted from the value of gross fixed asset and corresponding loan as well as equity shall be deducted from outstanding loan and the equity respectively in the year such de-capitalisation takes place, duly taking into consideration the year in which it was capitalised.”

28. As per the Regulation 14(4) of the 2014 Tariff Regulations, the ICT-III along with bays was decapitalized from 20.11.2014 and accordingly it is being removed from the gross block from the actual date of decapitalisation. The details of de-capitalisation and re-capitalisation of the said ICT-III along with bays is as follows:



Project WRSS VI Asset-C2 (*)	Transmission System for Solapur STPP (2x660 MW)	WRSS XXXIII
Decapitalisation: 500MVA,ICT III along with 400 kV and 220 kV bay at Wardha Sub-station	Recapitalisation: 500 MVA ICT III at Solapur Sub-station	Recapitalisation: 400 kV & 220 kV bays meant for ICT III at Wardha Sub-station
₹1440.03 lakh	₹1040.90 lakh	₹399.13 lakh
Covered under instant petition	Filed as revised Petition No. 288/TT/2022 linked with earlier Petition No. 167/TT/2020 and date of recapitalisation is 2.11.2015.	Filed under Petition No. 332/TT/2022. Date of utilisation: 19.2.2022.

29. ACE during the years 2014-15,2015-16 and 2016-17 for Combined Asset is allowed on account of balance and retention payments due to un-discharged liability for works executed beyond cut-off date is allowed under Regulation 14(3)(v) of the 2014 Tariff Regulations. Decapitalisation has been considered based on the details submitted by the Petitioner. The details of the approved capital cost as on 31.3.2019 is as follows:

(₹ in lakh)

FR approved cost	Capital cost as on 31.3.2014	2014-15	2014-15 (De-cap)	2015-16	2016-17	2017-18	2018-19	Capital cost as on 31.3.2019
34072.30	24531.35	273.16	(1440.03)*	499.71	33.83	0.00	0.00	23898.02

*Decapitalisation of ₹1440.03 lakh

Debt-Equity ratio

30. The debt-equity ratio has been allowed in accordance with Regulation 19(3) of the 2014 Tariff Regulations. As per Regulation 19(3) of the 2014 Tariff Regulations, the debt-equity ratio allowed by the Commission for determination of tariff for the period ending on 31.3.2014 for transmission assets. The details of the debt-equity ratio as on 1.4.2014 and 31.3.2019 are as follows:

(₹ in lakh)

Combined Asset						
Particulars	Capital Cost as on 1.4.2014	(in %)	ACE 2014-19	(in %)	Capital Cost as on 31.3.2019	(in %)
	(₹ in lakh)		(₹ in lakh)		(₹ in lakh)	
Debt	17171.95	70.00	(443.33)	70.00	16728.61	70.00



Combined Asset						
Particulars	Capital Cost as on 1.4.2014	(in %)	ACE 2014-19	(in %)	Capital Cost as on 31.3.2019	(in %)
	(₹ in lakh)		(₹ in lakh)		(₹ in lakh)	
Equity	7359.41	30.00	(190.00)	30.00	7169.41	30.00
Total	24531.35	100.00	(633.33)	100.00	23898.02	100.00

Depreciation

31. The Gross Block during the tariff period 2014-19 has been depreciated at weighted average of depreciation (WAROD). The WAROD at Annexure-I has been worked out after taking into account the depreciation rates of assets as prescribed in the 2014 Tariff Regulations and the depreciation allowed is as follows:

(₹ in lakh)							
	Particulars	1.4.2014 to 20.11.2014 (pro-rata 234 days)	21.11.2014 to 31.3.2015 (pro-rata 131 days)	2015-16	2016-17	2017-18	2018-19
A	Opening Gross Block	24531.35	23091.32	23364.48	23864.19	23898.02	23898.02
B	ACE	273.16	273.16	499.71	33.83	0.00	0.00
C	Closing Gross Block(A+B)	24804.51	23364.48	23864.19	23898.02	23898.02	23898.02
D	Average Gross Block (A+C)/2	24667.93	23227.90	23614.34	23881.11	23898.02	23898.02
E	Freehold land	1407.42	1407.42	1407.42	1407.42	1407.42	1407.42
F	Weighted Average Rate of Depreciation (in %)	4.89	4.87	4.87	4.88	4.88	4.88
G	Depreciable Value	20934.46	19638.43	19986.22	20226.32	20241.54	20241.54
H	Balance useful life of the asset (year)	24	24	23	22	21	20
I	Elapsed life (year)	2	2	3	4	5	6
J	Pro-rata depreciation during the year	773.47	405.97	1150.75	1164.67	1165.56	1165.56
K	Depreciation upto previous year	3288.05	3838.56	4244.53	5395.28	6559.95	7725.52
L	Less: Adjustment of Cumulative Depreciation for De-Capitalised Asset	222.96					
M	Cumulative depreciation	3838.56	4244.53	5395.28	6559.95	7725.52	8891.08
N	Remaining Depreciable Value	17095.90	15393.90	14590.94	13666.36	12516.02	11350.46



32. The details of depreciation approved vide order dated 2.11.2017 in Petition No. 47/TT/2017 for Combined Asset, claimed by the Petitioner in the instant petition and trued up in the instant order are as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Combined Asset					
Approved vide order dated 2.11.2017 in Petition No. 47/TT/2017	1200.44	1202.65	1203.94	1203.94	1203.94
Claimed by the Petitioner in the instant petition	1177.25	1188.61	1164.67	1165.56	1165.56
Allowed after true-up in this order	1179.44	1150.75	1164.67	1165.56	1165.56

Interest on Loan (“IoL”)

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

(₹ in lakh)						
Combined Asset						
Particulars	1.4.2014 to 20.11.2014 (pro-rata 234 days)	21.11.2014 to 31.3.2015 (pro-rata 131 days)	2015-16	2016-17	2017-18	2018-19
Interest on Loan						
Gross Normative Loan	17171.95	16163.92	16355.14	16704.93	16728.61	16728.61
Cumulative Repayments upto Previous Year	3288.05	3838.56	4244.53	5395.28	6559.95	7725.52
Net Loan-Opening	13883.90	12325.37	12110.61	11309.65	10168.66	9003.10
Additions	191.21	191.21	349.80	23.68	0.00	0.00
Repayment during the year	773.47	405.97	1150.75	1164.67	1165.56	1165.56
Net Loan-Closing	13301.64	12110.61	11309.65	10168.66	9003.10	7837.53
Average Loan	13592.77	12217.99	11710.13	10739.16	9585.88	8420.32
Weighted Average Rate of Interest on Loan (in %)	8.9815	8.9836	8.9836	8.9729	8.9276	8.9102



Combined Asset						
Particulars	1.4.2014 to 20.11.2014 (pro-rata 234 days)	21.11.2014 to 31.3.2015 (pro-rata 131 days)	2015-16	2016-17	2017-18	2018-19
Interest on Loan	782.67	393.84	1051.99	963.62	855.79	750.27

34. The details of IoL approved *vide* order dated 2.11.2017 in Petition No. 47/TT/2017 claimed by the Petitioner in the instant petition and trued up in the instant order are as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Combined Asset					
Approved <i>vide</i> order dated 2.11.2017 in Petition No. 47/TT/2017	1193.26	1088.42	981.96	873.86	765.81
Claimed by the Petitioner in the instant petition	1204.49	1091.09	968.85	861.00	755.57
Allowed after true-up in this order	1176.51	1051.99	963.62	855.79	750.27

Return on Equity (“RoE”)

35. The Petitioner has claimed RoE for the transmission assets in terms of Regulation 24 and Regulation 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 tariff period:

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

36. 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 as follows:



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

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

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

38. Trued-up RoE is allowed on the basis of the MAT rate applicable in the respective years for the 2014-19 tariff period and is as follows:

(₹ in lakh)							
Combined Asset							
	Particulars	1.4.2014 to 20.11.2014 (pro-rata 234 days)	21.11.2014 to 31.3.2015 (pro-rata 131 days)	2015-16	2016-17	2017-18	2018-19
	Return on Equity						
A	Opening Equity	7359.41	6927.40	7009.34	7159.26	7169.41	7169.41
B	Additions	81.95	81.95	149.91	10.15	0.00	0.00
C	Closing Equity (A+B)	7441.35	7009.34	7159.26	7169.41	7169.41	7169.41
D	Average Equity (A+C)/2	7400.38	6968.37	7084.30	7164.33	7169.41	7169.41
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	20.961	21.342	21.342	21.342	21.342	21.549
G	Rate of Return on Equity (in %)	19.610	19.705	19.705	19.705	19.705	19.758
H	Return on Equity(D*G)	930.37	490.44	1395.96	1411.73	1412.73	1416.53



39. The details of RoE allowed vide order dated 2.11.2017 in Petition No.47/TT/2017 for Combined Asset, claimed by the Petitioner in the instant petition and trued up in the instant order are as follows:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Combined Asset					
Approved vide order dated 2.11.2017 in Petition No. 47/TT/2017	1444.29	1446.77	1448.21	1448.21	1448.21
Claimed by the Petitioner in the instant petition	1447.38	1434.67	1407.88	1408.87	1412.59
Allowed after true-up in this order	1420.81	1395.96	1411.73	1412.73	1416.53

Operation & Maintenance Expenses (O&M Expenses)

40. The O&M Expenses claimed by the Petitioner for the transmission asset are as follows:

Particulars	Combined Asset				
	2014-15	2015-16	2016-17	2017-18	2018-19
Transmission line					
(i) D/C 400 kV Dehgam-PiranaCkt-I and II (Multi Tower Portion) (2.635 km)					
(ii) D/C 400 kV Dehgam-PiranaCkt-I and II (D/C Portion) (44.021 km)					
Bay(s)					
(i) 400 kV Bays: 11 numbers					
(ii) 220 kV Bays: 19 numbers					
220 kV Bays	19	19	19	19	19
400 kV Bays	11	11	11	11	11
D/C 2 conductors (km)	46.656	46.656	46.656	46.656	46.656
Total O&M Expenses (₹ in lakh)	1498.27	1548.00	1599.44	1652.46	1707.31

41. The applicable norms for the O&M Expenses for the transmission assets as per the 2014 Tariff Regulations is as follows:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
D/C Bundled Conductor with four or more sub conductors					
Norms (₹ lakh/km)	1.062	1.097	1.133	1.171	1.21
D/C Twin/Triple Conductor					



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Norms (₹ lakh/km)	0.707	0.731	0.755	0.78	0.806
D/C Single Conductor					
Norms (₹ lakh/km)	0.303	0.313	0.324	0.334	0.346
S/C Bundled Conductor with four sub conductors					
Norms (₹ lakh/km)	0.606	0.627	0.647	0.669	0.691
765 kV Bays					
Norms (₹ lakh/Bay)	84.42	87.22	90.12	93.11	96.20
400 kV Bays					
Norms (₹ lakh/Bay)	60.3	62.30	64.37	66.51	68.71
220 kV Bays					
Norms (₹ lakh/Bay)	42.21	43.61	45.06	46.55	48.1

42. We have considered the submission of the Petitioner. As discussed earlier in this order, the 500 MVA ICT and associated bays have been de-capitalized from this system. Hence, O&M Expenses related to 1 number of 400 kV Bay and 1 number of 220 kV Bay have been allowed till the date of de-capitalization i.e. 1.11.2015.

43. The O&M Expenses allowed for the Combined Asset as per norms specified in the 2014 Tariff Regulations are as follows:

Particulars	Combined Asset					
	1.4.2014 to 20.11.2014 (pro-rata 234 days)	21.11.2014 to 31.3.2015 (pro-rata 131 days)	2015-16	2016-17	2017-18	2018-19
Transmission line						
(i) D/C 400 kV Dehgam-PiranaCkt-I and II (Multi Tower Portion)						
(ii) D/C 400 kV Dehgam-PiranaCkt-I and II (D/C Portion)						
Bay(s)						
(i) 400 kV Bays						
(ii) 220 kV Bays						
220 kV Bays	19	18	18	18	18	18
Norms (₹ lakh/Bay)	42.21	42.21	43.61	45.06	46.55	48.10
400 kV Bays	11	10	10	10	10	10
Norms (₹ lakh/Bay)	60.30	60.30	62.30	64.37	66.51	68.71
D/C 2 conductors (km)	46.656	46.656	46.656	46.656	46.656	46.656
Norms (₹ lakh/km)	0.707	0.707	0.731	0.755	0.78	0.806
Total O&M Expenses (₹ in lakh)	960.54	500.95	1442.09	1490.01	1539.39	1590.50



44. The details of O&M Expenses allowed *vide* order dated 2.11.2017 in Petition No.47/TT/2017 for Combined Asset, claimed by the Petitioner in the instant petition and trued up in the instant order are as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
	Combined Asset				
Approved <i>vide</i> order dated 2.11.2017 in Petition No. 47/TT/2017	1498.28	1548.00	1599.44	1652.45	1707.31
Claimed by the Petitioner in the instant petition	1498.27	1548.00	1599.44	1652.46	1707.31
Allowed after true-up in this order	1461.48	1442.09	1490.01	1539.39	1590.50

Interest on Working Capital (IWC)

45. The IWC has been worked out as per the methodology provided in Regulation 28 of the 2014 Tariff Regulations and is allowed as follows:

	Particulars	(₹ in lakh)					
		Combined Asset					
		1.4.2014 to 20.11.2014 (pro-rata 234 days)	21.11.2014 to 31.3.2015 (pro-rata 131 days)	2015-16	2016-17	2017-18	2018-19
A	Working Capital for O&M Expenses (O&M Expenses for 1 month)	124.86	116.31	120.17	124.17	128.28	132.54
B	Working Capital for Maintenance Spares (15% of O&M Expenses)	224.74	209.36	216.31	223.50	230.91	238.58
C	Working Capital for Receivables (equivalent to two months of Annual Fixed Charges/Annual Transmission Charges)	924.81	858.44	867.22	865.64	856.26	847.91
D	Total Working Capital (A+B+C)	1274.40	1184.11	1203.70	1213.30	1215.45	1219.02
E	Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50	13.50
F	Interest of Working Capital (D*E)	110.30	57.37	162.50	163.80	164.09	164.57



46. The details of IWC allowed *vide* order dated 2.11.2017 in Petition No. 47/TT/2017 for Combined Asset, claimed by the Petitioner in the instant petition and trued up in the instant order are as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Combined Asset					
Approved <i>vide</i> order dated 2.11.2017 in Petition No. 47/TT/2017	171.11	171.55	172.01	172.45	172.99
Claimed by the Petitioner in the instant petition	170.91	171.01	169.87	170.36	171.05
Allowed after true-up in this order	167.67	162.50	163.80	164.09	164.57

Approved Annual Fixed Charges for 2014-19 Tariff Period

47. The trued-up AFC approved for the Combined Asset for 2014-19tariff period are as follows:

(₹ in lakh)						
Combined Asset						
Particulars	1.4.2014 to 20.11.2014 (pro-rata 234 days)	21.11.2014 to 31.3.2015 (pro-rata 131 days)	2015-16	2016-17	2017-18	2018-19
Depreciation	773.47	405.97	1150.75	1164.67	1165.56	1165.56
Interest on Loan	782.67	393.84	1051.99	963.62	855.79	750.27
Return on Equity	930.37	490.44	1395.96	1411.73	1412.73	1416.53
O&M Expenses	960.54	500.95	1442.09	1490.01	1539.39	1590.50
Interest on Working Capital	110.30	57.37	162.50	163.80	164.09	164.57
Total	3557.35	1848.57	5203.29	5193.83	5137.56	5087.43

48. The details of AFC allowed *vide* order dated 2.11.2017 in Petition No. 47/TT/2017 for Combined Asset, claimed by the Petitioner in the instant petition and trued up in the instant order are as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Combined Asset					
Approved <i>vide</i> order	5507.37	5457.38	5405.55	5350.91	5298.26



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
dated 2.11.2017 in Petition No.47/TT/2017					
Claimed by the Petitioner in the instant petition	5498.30	5433.38	5310.71	5258.25	5212.08
Allowed after true-up in this order	5405.91	5203.29	5193.83	5137.56	5087.43

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

49. 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	1165.56	1165.56	1165.56	1165.56	1165.56
Interest on Loan	652.20	548.24	444.24	340.39	236.54
Return on Equity	1342.81	1342.81	1342.81	1342.81	1342.81
Interest on Working Capital	113.02	113.98	114.79	115.72	116.44
O&M Expenses	1502.79	1556.25	1610.77	1668.03	1724.66
Total	4776.38	4726.84	4678.17	4632.51	4586.01

50. The details of the IWC claimed by the Petitioner for the Combined Asset for the 2019-24 period are as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	125.23	129.69	134.23	139.00	143.72
Maintenance Spares	225.42	233.44	241.62	250.20	258.70
Receivables	507.20	502.70	470.70	571.13	563.85
Total Working Capital	937.91	945.89	952.61	960.33	966.27
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	113.02	113.98	114.79	115.72	116.44

Capital Cost

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

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

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



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

(3) *The Capital cost of an existing project shall include the following:*

- (a) *Capital cost admitted by the Commission prior to 1.4.2019 duly trued up by excluding liability, if any, as on 1.4.2019;*
- (b) *Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;*
- (c) *Capital expenditure on account of renovation and modernisation as admitted by this Commission in accordance with these regulations;*
- (d) *Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*
- (e) *Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal up to the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and*
- (f) *Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the*



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

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

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

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

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

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

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

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

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

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

52. The Petitioner has claimed the capital cost of the Combined Asset during 2019-24 period as follows:

(₹ in lakh)

FR apportioned approved capital cost	Capital cost claimed as on 31.3.2019	ACE claimed in 2019-24	Capital cost claimed as on 31.3.2024
34072.30	23898.02	0.00	23898.02

53. The capital cost of ₹23898.02 lakh as on 31.3.2019 has been worked out by the Commission and considered as the opening capital cost as on 1.4.2019 for determination of tariff in accordance with Regulation 19 of the 2019 Tariff Regulations.



54. The Petitioner has not projected any ACE during 2019-24 for the Combined Asset. Accordingly, the capital cost considered for the 2019-24 tariff period is as follows:

(₹ in lakh)		
Capital Cost as on 1.4.2019	ACE for the 2019-24 period	Capital Cost as on 31.3.2024
23898.02	0.00	23898.02

Debt-Equity ratio

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

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

Provided that:

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

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

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

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

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



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

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

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

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

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

Particulars	Capital Cost as on 1.4.2019 (₹ in lakh)	(in %)	Capital Cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	16728.61	70.00	16728.61	70.00
Equity	7169.41	30.00	7169.41	30.00
Total	23898.02	100.00	23898.02	100.00

Depreciation

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

“33. Depreciation: (1) *Depreciation shall be computed from the date of commercial operation of a generating station or unit thereof or a transmission system or element there of 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 de-capitalized asset during its useful services.



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

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

- a) twenty five years, in case the generating station or unit thereof is in operation for fifteen years or less as on the date of operation of the emission control system; or
- b) balance useful life of the generating station or unit thereof plus fifteen years, in case the generating station or unit thereof is in operation for more than fifteen years as on the date of operation of the emission control system; or
- c) ten years or a period mutually agreed by the generating company and the beneficiaries, whichever is higher, in case the generating station or unit thereof has completed its useful life.”

58. The IT equipment has been considered as part of the Gross Block and depreciated using WAROD (as placed at Annexure-II). WAROD has been worked out after taking into account the depreciation rates of IT and non-IT assets as prescribed in the 2019 Tariff Regulations. The salvage value of IT equipment has been considered as NIL, i.e. IT asset has been considered as 100 per cent depreciable. 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 for the 2019-24 tariff period is as follows:

		(₹ in lakh)				
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Depreciation					
A	Opening Gross Block	23898.02	23898.02	23898.02	23898.02	23898.02
B	Additional Capitalisation	0.00	0.00	0.00	0.00	0.00
C	Closing Gross Block (A+B)	23898.02	23898.02	23898.02	23898.02	23898.02
D	Average Gross Block (A+C)/2	23898.02	23898.02	23898.02	23898.02	23898.02
E	Freehold Land	1407.42	1407.42	1407.42	1407.42	1407.42



	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
F	Weighted average rate of Depreciation (WAROD) (in %)	4.96	4.96	4.96	4.96	4.96
G	Balance useful life of the asset at the beginning of the year (Year)	19	18	17	16	15
H	Elapsed life at the beginning of the year (Year)	7	8	9	10	11
I	Aggregate Depreciable Value	20262.24	20262.24	20262.24	20262.24	20262.24
J	Depreciation during the year	1185.69	1185.69	1185.69	1185.69	1185.69
K	Cumulative Depreciation	10076.77	11262.45	12448.14	13633.82	14819.51
L	Remaining Depreciable Value (I-K)	10185.48	8999.79	7814.10	6628.42	5442.73

Interest on Loan (IoL)

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

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

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

(3) *The repayment for each of the year of the tariff period 2019-24 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of de-capitalization of assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered upto the date of de-capitalisation of such asset.*

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

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

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

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



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

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

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

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

		(₹ in lakh)				
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Interest on Loan					
A	Gross Normative Loan	16728.61	16728.61	16728.61	16728.61	16728.61
B	Cumulative Repayments upto Previous Year	8891.08	10076.77	11262.45	12448.14	13633.82
C	Net Loan-Opening (A-B)	7837.53	6651.85	5466.16	4280.48	3094.79
D	Additions	0.00	0.00	0.00	0.00	0.00
E	Repayment during the year	1185.69	1185.69	1185.69	1185.69	1185.69
F	Net Loan-Closing (C+D-E)	6651.85	5466.16	4280.48	3094.79	1909.10
G	Average Loan (C+F)/2	7244.69	6059.01	4873.32	3687.63	2501.95
H	Weighted Average Rate of Interest on Loan (in %)	8.9183	8.9181	8.9169	8.9151	8.9233
I	Interest on Loan (G*H)	646.11	540.35	434.55	328.76	223.26

Return on Equity (RoE)

61. Regulation 30 and Regulation 31 of the 2019 Tariff Regulations provide as follows:

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

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



Provided that return on equity in respect of additional capitalization after cut-off date beyond the original scope, excluding additional capitalization on account of emission control system, shall be computed at the weighted average rate of interest on actual loan portfolio of the generating station or the transmission system or in the absence of actual loan portfolio of the generating station or the transmission system, the weighted average rate of interest of the generating company or the transmission licensee, as the case may be, as a whole shall be considered, subject to ceiling of 14%.

Provided further that:

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

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

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

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

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

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

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

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

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

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



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

Illustration-

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

$$\text{Rate of return on equity} = 15.50 / (1 - 0.2155) = 19.758\%$$

(ii) In case of a generating company or a transmission licensee paying normal corporate tax including surcharge and cess:

(a) Estimated Gross Income from generation or transmission business for FY 2019-20 is Rs 1,000 crore;

(b) Estimated Advance Tax for the year on above is Rs 240 crore;

(c) Effective Tax Rate for the year 2019-20 = Rs 240 Crore / Rs 1000 Crore = 24%;

(d) Rate of return on equity = $15.50 / (1 - 0.24) = 20.395\%$.

(3) The generating company or the transmission licensee, as the case may be, shall true up the grossed up rate of return on equity at the end of every financial year based on actual tax paid together with any additional tax demand including interest thereon, duly adjusted for any refund of tax including interest received from the income tax authorities pertaining to the tariff period 2019-24 on actual gross income of any financial year. However, penalty, if any, arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the generating company or the transmission licensee, as the case may be. Any under-recovery or over-recovery of grossed up rate on return on equity after truing up, shall be recovered or refunded to beneficiaries or the long term customers, as the case may be, on year to year basis.”

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

						(₹ in lakh)
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Return on Equity					
A	Opening Equity	7169.41	7169.41	7169.41	7169.41	7169.41



	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
B	Additions	0.00	0.00	0.00	0.00	0.00
C	Closing Equity (A+B)	7169.41	7169.41	7169.41	7169.41	7169.41
D	Average Equity (A+C)/2	7169.41	7169.41	7169.41	7169.41	7169.41
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	17.472	17.472	17.472	17.472	17.472
G	Rate of Return on Equity (in %)	18.782	18.782	18.782	18.782	18.782
H	Return on Equity (D*G)	1346.56	1346.56	1346.56	1346.56	1346.56

Operation & Maintenance Expenses (O&M Expenses)

63. The O&M Expenses claimed by the Petitioner for the Combined Asset for the 2019-24 tariff period are as follows:

Particulars	Combined Asset				
	2019-20	2020-21	2021-22	2022-23	2023-24
Transmission line					
(i) D/C 400 kV Dehgam-PiranaCkt-I and II (Multi Tower Portion)					
(ii) D/C 400 kV Dehgam-PiranaCkt-I and II (D/C Portion)					
Bay(s)					
(i) 400 kV Bays: 11 numbers					
(ii) 220 kV Bays: 19 numbers					
(iii) 315 MVA ICT at Pirana(2), Bina, Gwalior, Pune and Raipur Sub-station					
220 kV Bays	19	19	19	19	19
Norms (₹ lakh/Bay)	42.21	43.61	45.06	46.55	48.1
400 kV Bays	11	11	11	11	11
Norms (₹ lakh/Bay)	60.3	62.3	64.37	66.51	68.71
D/C 2 conductors (km)	46.656	46.656	46.656	46.656	46.656
Norms (₹ lakh/km)	0.707	0.731	0.755	0.78	0.806
400 kV ICT (6)	1890	1890	1890	1890	1890
Norms (₹ lakh/MVA)	0.358	0.371	0.384	0.398	0.411
PLCC (2% of capital cost)	3.73	3.73	3.73	3.73	3.73
Total O&M Expenses claimed (₹ in lakh)	1502.79	1556.25	1610.77	1668.03	1724.66

64. Regulation 35(3)(a) and Regulation 33(4) of the 2019 Tariff Regulations provides as follows:

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



Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Norms for sub-station Bays (₹ Lakh per bay)					
765 kV	45.01	46.60	48.23	49.93	51.68
400 kV	32.15	33.28	34.45	35.66	36.91
220 kV	22.51	23.30	24.12	24.96	25.84
132 kV and below	16.08	16.64	17.23	17.83	18.46
Norms for Transformers (₹ Lakh per MVA)					
765 kV	0.491	0.508	0.526	0.545	0.564
400 kV	0.358	0.371	0.384	0.398	0.411
220 kV	0.245	0.254	0.263	0.272	0.282
132 kV and below	0.245	0.254	0.263	0.272	0.282
Norms for AC and HVDC lines (₹ Lakh per km)					
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.881	0.912	0.944	0.977	1.011
Single Circuit (Bundled conductor with four sub-conductors)	0.755	0.781	0.809	0.837	0.867
Single Circuit (Twin & Triple Conductor)	0.503	0.521	0.539	0.558	0.578
Single Circuit (Single Conductor)	0.252	0.260	0.270	0.279	0.289
Double Circuit (Bundled conductor with four or more sub-conductors)	1.322	1.368	1.416	1.466	1.517
Double Circuit (Twin & Triple Conductor)	0.881	0.912	0.944	0.977	1.011
Double Circuit (Single Conductor)	0.377	0.391	0.404	0.419	0.433
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.319	2.401	2.485	2.572	2.662
Multi Circuit (Twin & Triple Conductor)	1.544	1.598	1.654	1.713	1.773
Norms for HVDC stations					
HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)	834	864	894	925	958
Gazuwaka HVDC Back-to-Back station (₹ Lakh per 500 MW)	1,666	1,725	1,785	1,848	1,913
500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)	2,252	2,331	2,413	2,498	2,586



<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 year*

(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.”

65. We have considered the submission of the Petitioner. The Petitioner has claimed O&M Expenses separately for PLCC under Regulation 35(4) of the 2019 Tariff Regulations for Stage-I Combined Assets @2% of its cost. The Petitioner has made similar claim in other petitions as well. Though PLCC is a communication system, it has been considered as part of the substation 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 O&M expenses for 1 number of 400 kV bay and 1 number of 220 kV bay is disallowed due to de-capitalization of the same on 1.11.2015.

66. The O&M Expenses have been worked out as per the norms specified in the 2019 Tariff Regulations and are as follows:

Particulars	Combined Asset				
	2019-20	2020-21	2021-22	2022-23	2023-24
Transmission line					
(i) D/C 400 kV Dehgam-PiranaCkt-I and II (Multi Tower Portion)					
(ii) D/C 400 kV Dehgam-PiranaCkt-I and II (D/C Portion)					
Bay(s)					
(i) 400 kV Bays: 11 numbers					
(ii) 220 kV Bays: 19 numbers					
(iii) 315 MVA ICT at Pirana(2), Bina, Gwalior, Pune and Raipur Sub-station					
220 kV Bays	18	18	18	18	18
Norms (₹ lakh/Bay)	42.21	43.61	45.06	46.55	48.10
400 kV Bays	10	10	10	10	10
Norms (₹ lakh/Bay)	60.3	62.3	64.37	66.51	68.71
D/C 2 conductors (km)	46.656	46.656	46.656	46.656	46.656



Particulars	Combined Asset				
	2019-20	2020-21	2021-22	2022-23	2023-24
Norms (₹ lakh/km)	0.707	0.731	0.755	0.78	0.806
400 kV ICT (6 numbers) (MVA)	1890	1890	1890	1890	1890
Norms (₹ lakh/MVA)	0.358	0.371	0.384	0.398	0.411
Total O&M Expenses claimed (₹ in lakh)	1444.40	1495.94	1548.46	1603.68	1658.18

Interest on Working Capital (IWC)

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

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

.....

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

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

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

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

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

“3. Definitions. - In these regulations, unless the context otherwise requires:-

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

68. 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%. The IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The Rate of Interest (RoI) considered is 12.05% (SBI 1-year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for 2019-20, 11.25% (SBI 1-year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points) for 2020-21 and from 2021-22 onwards has been considered as 10.50% (SBI 1-year MCLR applicable as on 1.4.2020 of 7.00% plus 350 basis points). The components of the working capital and interest thereon allowed is as follows:

		(₹ in lakh)				
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Interest on Working Capital					
A	Working Capital for O&M Expenses (O&M expenses for one month)	120.37	124.66	129.04	133.64	138.18
B	Working Capital for Maintenance Spares (15% of O&M expenses)	216.66	224.39	232.27	240.55	248.73
C	Working Capital for Receivables (Equivalent to 45 days of annual fixed cost / annual transmission charges)	581.99	576.07	568.71	562.57	554.82
D	Total Working Capital (A+B+C)	919.01	925.13	930.02	936.76	941.73
E	Rate of Interest (in %)	12.05	11.25	10.50	10.50	10.50
F	Interest on working capital (D*E)	110.74	104.08	97.65	98.36	98.88

Annual Fixed Charges of the 2019-24 Tariff Period

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

		(₹ in lakh)				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24	
Depreciation	1185.69	1185.69	1185.69	1185.69	1185.69	
Interest on Loan	646.11	540.35	434.55	328.76	223.26	
Return on Equity	1346.56	1346.56	1346.56	1346.56	1346.56	
O & M Expenses	1444.40	1495.94	1548.46	1603.68	1658.18	
Interest on Working Capital	110.74	104.08	97.65	98.36	98.88	
Total	4733.50	4672.62	4612.91	4563.05	4512.57	

Filing Fee and Publication Expenses

70. The Petitioner has prayed reimbursement of fee paid by it for filing the Petition and publication expenses. We have considered the submissions of the Petitioner. The



Petitioner shall be entitled for reimbursement of the filing fees and publication expenses in connection with the present Petition, directly from the beneficiaries on pro-rata basis in accordance with Regulation 70(1) of the 2019 Tariff Regulations.

License Fee and RLDC Fees and Charges

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

Goods and Services Tax

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

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



Security Expenses

74. 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 consequential IWC.

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

Capital Spares

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

Sharing of Transmission Charges

77. With effect from 1.7.2011, sharing of transmission charges for inter-State transmission systems was governed by the Central Electricity Regulatory Commission (Sharing of Transmission Charges and Losses) Regulations, 2010 and from 1.11.2020 by the Central Electricity Regulatory Commission (Sharing of Transmission Charges and Losses) Regulations, 2020. The billing, collection and disbursement of the transmission charges approved for the Combined Asset in this order shall be



governed by the applicable Sharing Regulations 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.

78. To summarise:

a) The trued-up Annual Fixed Charges (AFC) allowed for 2014-19 tariff period are:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
AFC	5405.91	5203.29	5193.83	5137.56	5087.43

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

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
AFC	4733.50	4672.62	4612.91	4563.05	4512.57

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

80. This order disposes of Petition No. 297/TT/2022 in terms of above discussions and findings.

sd/
(P.K. Singh)
Member

sd/
(Arun Goyal)
Member

sd/
(I.S. Jha)
Member



Annexure-I

2014-19	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	ACE (₹ in lakh)				Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)						
		2014-15	2014-15 (De-cap)	2015-16	2016-17			1.4.2014 to 20.11.2014 (pro-rata 234 days)	21.11.2014 to 31.3.2015 (pro-rata 131 days)	2015-16	2016-17	2017-18	2018-19	
Land - Freehold	1407.42	0.00				1407.42	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	
Land - Leasehold	0.00	0.00				0.00	3.34%	0.00	0.00	0.00	0.00	0.00	0.00	
Building Civil Works & Colony	1203.97	27.93				1231.90	3.34%	40.68	41.15	41.15	41.15	41.15	41.15	
Transmission Line	5354.13	0.00		6.38		5360.51	5.28%	282.70	282.87	283.03	283.03	283.03	283.03	
Sub Station	16174.32	243.15	(1440.03)	493.33	33.83	15504.60	5.28%	860.42	784.39	803.83	817.75	818.64	818.64	
PLCC	184.49	2.08				186.57	6.33%	11.74	11.81	11.81	11.81	11.81	11.81	
IT Equipment (Incl. Software)	207.02	0.00	0.00			207.02	5.28%	10.93	10.93	10.93	10.93	10.93	10.93	
Total	24531.35	273.16	273.16	499.71	33.83	23898.02	Total	1206.48	1131.14	1150.75	1164.67	1165.56	1165.56	
			Average Gross Block (₹ in lakh)						24667.93	23227.90	23614.34	23881.11	23898.02	23898.02
			Weighted Average Rate of Depreciation						4.89%	4.87%	4.87%	4.88%	4.88%	4.88%



Annexure-II

2019-24 Capital Expenditure	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Projected ACE (₹ in lakh)		Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)				
		2019-24	Total			2019-20	2020-21	2021-22	2022-23	2023-24
Land - Freehold	1407.42	0.00	0.00	1407.42	-	0.00	0.00	0.00	0.00	0.00
Land - Leasehold	0.00	0.00	0.00	0.00	3.34%	0.00	0.00	0.00	0.00	0.00
Building Civil Works & Colony	1231.90	0.00	0.00	1231.90	3.34%	41.15	41.15	41.15	41.15	41.15
Transmission Line	5360.51	0.00	0.00	5360.51	5.28%	283.03	283.03	283.03	283.03	283.03
Sub Station	15504.60	0.00	0.00	15504.60	5.28%	818.64	818.64	818.64	818.64	818.64
PLCC	186.57	0.00	0.00	186.57	6.33%	11.81	11.81	11.81	11.81	11.81
IT Equipment (Incl. Software)	207.02	0.00	0.00	207.02	15.00%	31.05	31.05	31.05	31.05	31.05
Total	23898.02	0.00	0.00	23898.02		1185.69	1185.69	1185.69	1185.69	1185.69
				Average Gross Block (₹ in lakh)		23898.02	23898.02	23898.02	23898.02	23898.02
				Weighted Average Rate of Depreciation		4.96%	4.96%	4.96%	4.96%	4.96%

