

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 163/TT/2020

Coram:

Shri P. K. Pujari, Chairperson

Shri I. S. Jha, Member

Shri P. K. Singh, Member

Date of Order : 17.1.2022

In the matter of:

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and truing up of transmission tariff of 2014-19 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of 2019-24 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 in respect of **Asset-I:** 765/400 kV 1500 MVA ICT-2 along with associated bays at Dharamjaygarh Sub-station and **Asset-II:** 765/400 kV 1500 MVA ICT-1 along with associated bays at Dharamjaygarh Sub-station under Supplementary Transmission Scheme of IPP Projects in Chhattisgarh in Western Region.

And in the matter of:

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

.....Petitioner

Versus

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 Kendra Vikas 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, Near Mandvi Hotel,
Panaji, 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,
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 D. K. Biswal, PGCIL
Shri A .K. Verma, PGCIL
Shri Ved Prakash Rastogi, PGCIL

For Respondents : Shri Anindya Khare, MPPMCL

ORDER

The Petitioner, Power Grid Corporation of India Limited, a deemed transmission licensee, has filed the instant petition for truing up of transmission tariff of the 2014-19 period 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 transmission 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 Supplementary Transmission Scheme of IPP Projects in Chhattisgarh in Western Region (hereinafter referred to as “the transmission project”):

Asset-I: 765/400 kV 1500 MVA ICT-2 along with associated bays at Dharamjaygarh Sub-station; and

Asset-II: 765/400 kV 1500 MVA ICT-1 along with associated bays at Dharamjaygarh Sub-station.

Asset-I and Asset-II have been hereinafter referred to as “the transmission assets” with reference to trueing up of tariff for 2014-19 period. Since Asset-I and Asset-II have been combined and combined tariff has been claimed for them for 2019-24 tariff period, they have been termed as “Combined Asset’ with reference to 2019-24 tariff period.

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

- “1) Approve the trued up Transmission Tariff for 2014-19 block and transmission tariff for 2019-24 block for the assets covered under this petition, as per para 11.4 and 12.1 above.
- 2) Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided in Tariff Regulation 2014 and Tariff regulations 2019 as per para 11.1 and 12.1 above for respective block.
- 3) Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 70 (1) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019, and other expenditure (if any) in relation to the filing of petition.
- 4) Allow the additional RoE of 0.5% during 2014-19 period as per para 5.0 above.
- 5) Allow the petitioner to bill and recover Licensee fee and RLDC fees and charges, separately from the respondents in terms of Regulation 70 (3) and (4) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019.
- 6) Allow the petitioner to bill and adjust impact on Interest on Loan due to change in Interest rate on account of floating rate of interest applicable during 2019-24 period, if any, from the respondents.
- 7) Allow the petitioner to file a separate petition before Hon’ble Commission for claiming the overall security expenses and consequential IOWC on that security expenses as mentioned at para 12.7 above.
- 8) Allow the petitioner to claim the capital spares at the end of tariff block as per actual.
- 9) Allow the Petitioner to bill and recover GST on Transmission Charges separately from the respondents, if GST on transmission is 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”

3. **Backdrop of the case**

a) The Investment Approval (I.A.) for the transmission project was accorded by the Board of Directors of the Petitioner Company vide Memorandum No. C/CP/WR-241 dated 22.3.2012 at an estimated cost of ₹13219 lakh including IDC of ₹716 lakh (based on 4th Quarter 2011, price level). Further, approval of RCE for the transmission project was accorded by the Board of Directors of the Petitioner Company, vide Memorandum No. C/CP/RCE- WR-241 dated 9.12.2014 at an estimated cost of ₹14460 lakh, which included IDC of ₹576 lakh. The revised approved apportioned cost for the instant asset is ₹5120.72 lakh.

b) The scope of work covered under the transmission project is as follows:

Sub-station

Extension of 765/400 kV Dharamjaygarh/ Korba Pooling Station:

765 kV

- a) 1500 MVA, 765/400 kV ICT: 2 numbers; and
- b) Transformer Bays: 2 numbers.

400 KV

Transformer bays: 2 numbers.

c) The scope of the transmission project was discussed and agreed in the 36th Standing Committee Meeting on Power System Planning in Western Region held on 29.8.2013. The entire scope of the transmission project is complete and is covered in the present petition.

d) As per IA, the transmission assets were scheduled to be commissioned within 24 months from the date of IA, i.e. by 21.3.2014. SCOD (scheduled date of commercial operation, date of commercial operation (COD) and time over-run in case of the transmission assets are as follows:

Assets	SCOD	COD	Time Over-run
Assets- I	21.3.2014	19.6.2014	2 months 29 days
Assets- II		9.7.2014	100 days (3 months)



e) The transmission tariff for Asset-I from COD to 31.3.2019 was determined vide order dated 17.3.2016 in Petition No. 305/TT/2013. The Petitioner filed Review Petition No. 40/RP/2016 against the order dated 17.3.2016 in Petition No. 305/TT/2013. The Commission vide order dated 11.7.2017 in Petition No. 40/RP/2016 condoned the delay of 2 months and 29 days, allowed IDC/IEDC of that was disallowed vide order dated 17.3.2016 in Petition No. 305/TT/2013 and also allowed additional RoE of 0.5% in respect of Asset-I.

f) Transmission tariff for Asset-II from COD to 31.3.2019 was determined vide order dated 23.3.2016 in Petition No. 40/TT/2014 as per the 2014 Tariff Regulations. The Commission vide order dated 23.3.2016 in Petition No. 40/TT/2014 condoned the delay of 100 days in commissioning of Asset-II and also allowed additional RoE of 0.5%.

g) The tariff allowed in respect of the transmission assets during 2014-19 period by way of aforesaid orders is being trued up in the instant petition.

h) AFC approved by the Commission vide orders dated 17.3.2016 in Petition No. 305/TT/2013 and dated 23.3.2016 in Petition No. 40/TT/2014 and the trued-up tariff claimed by the Petitioner in respect of the transmission assets for 2014-19 period are as follows:

		(₹ in lakh)				
Assets	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-I	Annual Fixed Charges (AFC) approved vide order dated 17.3.2016 in Petition No. 305/TT/2013	1207.32	1527.88	1492.34	1456.40	1422.69
	AFC claimed by the Petitioner based on truing up in the instant petition	1264.73	1627.79	1615.08	1570.70	1550.29
Asset-II	Annual Fixed Charges (AFC) approved vide order dated 23.3.2016 in Petition No. 40/TT/2014	593.07	938.56	1026.55	1032.43	1011.04
	AFC claimed by the Petitioner based on truing up in the instant petition	598.93	919.17	964.75	940.32	922.45

4. The Respondents are distribution licensees, power departments, power utilities and transmission licensees which are procuring transmission services and are



beneficiaries of Western Region. The Petitioner has served the petition on the Respondents and notice regarding filing of this application has also been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003. No comments or suggestions have been received from the general public in response to the aforesaid notices published in the newspapers. Madhya Pradesh Power Management Company Limited (MPPMCL), Respondent No. 1, has filed its reply vide affidavit dated 13.2.2020 and has raised the issues of grossing up of Return on Equity ("RoE") and Additional Capital Expenditure ("ACE") for 2014-19 tariff period and effect of CGST. The Petitioner vide affidavit dated 3.9.2020 has filed rejoinder to the reply of MPPMCL. The issues raised by MPPMCL and the response by the Petitioner have been discussed in the relevant portion of this order.

5. This order is issued considering the submissions made by the Petitioner in the petition vide affidavits dated 10.1.2020 and 8.6.2020, MPPMCL's reply filed vide affidavit dated 13.2.2020 and Petitioner's rejoinder affidavit dated 3.9.2020.

6. The hearing in this matter was held on 8.6.2021 through video conference and order was reserved. Having heard the representatives of the Petitioner, MPPMCL and after perusal of the material on record, we proceed to dispose of the petition.

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

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

(₹ in lakh)					
Asset-I					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	325.98	431.89	442.76	448.72	453.63
Interest on Loan	414.96	498.23	455.84	393.11	354.87
Return on Equity	378.36	506.81	520.79	528.88	536.80
Interest on Working Capital	32.03	41.34	41.20	40.37	40.08



O&M Expenses	113.40	149.52	154.49	159.62	164.91
Total	1264.73	1627.79	1615.08	1570.70	1550.29

(₹ in lakh)

Asset-II					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	139.41	225.34	245.85	248.51	249.13
Interest on Loan	178.56	257.92	251.49	216.50	191.37
Return on Equity	158.70	261.00	286.35	289.51	291.09
Interest on Working Capital	16.80	25.39	26.57	26.18	25.95
O&M Expenses	105.46	149.52	154.49	159.62	164.91
Total	598.93	919.17	964.75	940.32	922.45

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

(₹ in lakh)

Asset-I					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	12.06	12.46	12.87	13.30	13.74
Maintenance Spares	21.71	22.43	23.17	23.94	24.74
Receivables	269.01	271.30	269.18	261.78	258.38
Total	302.78	306.18	305.23	299.03	296.86
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	40.87	41.34	41.20	40.37	40.08
Pro-rata Interest on Working Capital	32.03	41.34	41.20	40.37	40.08

(₹ in lakh)

Asset-II					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	12.06	12.46	12.87	13.30	13.74
Maintenance Spares	21.71	22.43	23.17	23.94	24.74
Receivables	136.98	153.20	160.79	156.72	153.74
Total	170.75	188.09	196.83	193.96	192.22
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	23.05	25.39	26.57	26.18	25.95
Pro-rata Interest on Working Capital	16.80	25.39	26.57	26.18	25.95

Capital Cost

9. The capital cost allowed vide order dated 17.3.2016 in Petition No. 305/TT/2013 was ₹7551.02 lakh as on COD and ₹7758.96 lakh as on 31.3.2019 for Asset-I. The capital cost allowed vide order dated 23.3.2016 in Petition No. 40/TT/2014 was ₹3261.24 lakh as on COD and ₹5072.60 lakh as on 31.3.2019 for



Asset-II.

10. The Petitioner in the instant true up petition has claimed ACE (additional capital expenditure) during 2014-19 period for the transmission assets. Based on the auditor certificates dated 31.7.2019, the details of capital cost claimed as on COD and ACE incurred up to 31.3.2019 as claimed by the Petitioner for the transmission assets are as follows:

(₹ in lakh)

Asset	Approved Cost (FR)	Approved Cost (RCE)	Actual Capital Cost as on COD	ACE					Total Capital Cost as on 31.3 2019
				2014-15	2015-16	2016-17	2017-18	2018-19	
Asset-I	7758.36	9339.48	7805.29	292.46	406.74	59.71	205.33	7.72	8777.25
Asset-II	5460.63	5120.72	3262.49	642.85	739.26	95.73	7.80	18.83	4766.96

11. In terms of the order dated 23.3.2016 in Petition No. 40/TT/2014, the Petitioner has submitted that EMD amount recovered from L1 bidder has been adjusted in the capital cost of Asset-II in this petition.

12. As per the abstract cost estimate submitted by the Petitioner, it is observed that IEDC amount of ₹1182 lakh is mentioned in FR while IEDC amount is ₹134 lakh as per RCE. It is further observed that cost as per FR in respect of Asset-II is ₹5460.63 lakh and cost as per RCE is ₹5120.72 lakh which shows that approximately an amount of ₹339.91 lakh is reduced. Further, as per the Auditor's Certificate dated 31.7.2019 in respect of Asset-II, capital cost other than IDC and IEDC is ₹4603.13 lakh and the Petitioner has claimed IEDC of ₹4.71 lakh (approx. 0.10% of the capital cost) which is much lower than IEDC normally claimed by the Petitioner.

13. In view of above, we are of the view that the Petitioner has adjusted EMD amount recovered from L1 bidder in the capital cost of Asset-II.



Cost Over-run

14. The completion cost including ACE in respect of transmission assets is ₹13544.22 lakh and the approved cost as per RCE is ₹14460.20 lakh. The completion cost in respect of the transmission assets is within the approved cost as per RCE and, as such, there is no cost over-run.

Time Over-run

15. As per I.A., the scheduled COD of the transmission assets was 21.3.2014 against which Asset-I and Asset-II were commissioned on 19.6.2014 and 9.7.2014 respectively. The Commission vide order dated 23.3.2016 in Petition No. 40/TT/2014 had condoned time over-run of 2 months and 29 days in the commissioning of Asset-II. The Commission vide order dated 11.7.2017 in Review Petition No. 40/RP/2016 in Petition No. 305/TT/2013 had condoned the time over-run of 100 days in the commissioning of Asset-I.

Interest During Construction (“IDC”)

16. The Petitioner has claimed IDC in respect of the transmission assets and has submitted Auditor’s Certificates dated 31.7.2019 in support of the same. The Petitioner has submitted computation of IDC along with year-wise details of IDC discharged.

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



18. Accordingly, based on the information furnished by the Petitioner, IDC considered is as follows:

Asset	(₹ in lakh)					
	IDC Claimed	IDC Admissible	IDC disallowed due to computational difference	IDC Discharged as on COD	IDC Undischarged as on COD	IDC Discharge during
	A	B	C=A-B	D	E=B-D	2014-15 F
Asset-I	359.33	359.33	0.00	346.91	12.42	12.42
Asset-II	159.12	159.12	0.00	157.87	1.25	1.25

Incidental Expenditure During Construction (“IEDC”)

19. The Petitioner has claimed IEDC of ₹18.39 lakh for Asset-I and ₹4.71 lakh for Asset-II and has submitted Auditor’s Certificate in support of the same. The Petitioner has also submitted that entire IEDC has been discharged as on COD in respect of the transmission assets. IEDC claimed is within the percentage of the hard cost. Hence, the same is allowed.

Initial Spares

20. The Initial Spares claimed by the Petitioner in respect of the transmission assets are as follows:

Asset	Particulars	Plant & Machinery Cost up to cut-off date (excluding IDC and IEDC) (₹ in lakh)	Initial Spares Claimed (₹ in lakh)	Ceiling Limit (in %)
Asset-I	Sub-station	7564.02	161.00	6
Asset-II	Sub-station	4205.60	101.31	6

21. We have considered the submissions of the Petitioner. The Initial Spares claimed by the Petitioner are within the ceiling specified under the 2014 Tariff Regulations. Accordingly, the same are allowed in respect of the transmission assets for 2014-19 tariff period as follows:

Asset	Particulars	P&M cost considered as on cut-off date (₹ in lakh)	Initial Spares Claimed (₹ in lakh)	Norms as per the 2014 Tariff Regulations (in %)	Initial Spares allowable as per the 2014 Tariff Regulations (₹ in lakh)	Initial Spares allowed (₹ in lakh)
Asset-I	Sub-station	7564.02	161.00	6	472.53	161.00
Asset-II	Sub-station	4205.60	101.31	6	261.98	101.31



Capital Cost allowed as on COD

22. The capital cost allowed as on COD in respect of the transmission assets is as follows:

Assets	Capital Cost as on COD as per Auditor's Certificates	Less: IDC as on COD due to		(₹ in lakh)
		Computational Difference	Un-discharged IDC	Capital Cost as on COD (on cash basis)
Asset-I	7805.29	0.00	12.42	7792.87
Asset-II	3262.49	0.00	1.25	3261.24

Additional Capital Expenditure ("ACE")

23. The Petitioner has claimed the following ACE in respect of the transmission assets for 2014-19 period:

Asset	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-I	292.46	406.74	59.71	205.33	7.72
Asset-II	642.85	739.26	95.73	7.80	18.83

24. The Petitioner has submitted that ACE for 2014-15, 2015-16 and 2016-17 has been claimed under Regulation 14(1)(i) and Regulation 14(1)(ii) of the 2014 Tariff Regulations and the same is within the cut-off date. Further, the Petitioner has submitted that ACE for 2017-18 and 2018-19 has been claimed under Regulation 14(2)(iv) of the 2014 Tariff Regulations and the same is beyond the cut-off date. The Petitioner has submitted Auditor's Certificate in support of the same. The Petitioner vide affidavit dated 8.6.2020 has submitted party-wise details of un-discharged liabilities.

25. MPPMCL has submitted that as per the Commission's order dated 17.3.2016 in Petition No. 305/TT/2013, ACE of ₹207.94 lakh was admitted in respect of Asset-1. MPPMCL has further submitted that as per the Auditor's Certificate dated 31.7.2019, ACE is for all the five years of 2014-19 tariff period.

26. We have considered the submissions of the Petitioner and MPPMCL. The un-



discharged IDC as on COD has been allowed as ACE during the year of discharge. ACE claimed by the Petitioner has been allowed under Regulation 14(1)(i), Regulation 14(1)(ii) and Regulation 14(2)(iv) of the 2014 Tariff Regulations which pertain to un-discharged liabilities recognized to be payable at a future date and liabilities towards works deferred for execution respectively. Accordingly, ACE allowed in respect of the transmission assets for 2014-19 tariff period is as follows:

(₹ in lakh)

Particulars	Asset-I				
	ACE allowed				
	2014-15	2015-16	2016-17	2017-18	2018-19
Balance and Retention payments for liabilities	200.00	406.74	59.71	205.33	7.72
Works deferred for execution	92.47	0.00	0.00	0.00	0.00
IDC Discharge after COD	12.42	0.00	0.00	0.00	0.00
Total	304.89	406.74	59.71	205.33	7.72

(₹ in lakh)

Particulars	Asset-II				
	ACE allowed				
	2014-15	2015-16	2016-17	2017-18	2018-19
Balance and Retention payments for liabilities	152.67	24.90	95.73	7.80	18.83
Works deferred for execution	490.18	714.36	0.00	0.00	0.00
IDC Discharge after COD	1.25	0.00	0.00	0.00	0.00
Total	644.10	739.26	95.73	7.80	18.83

27. The capital cost allowed as on 31.3.2019 after inclusion of ACE in respect of the transmission assets are as follows:

(₹ in lakh)

Assets	Particulars	Capital cost as on COD on cash basis	ACE					Capital cost as on 31.3.2019
			2014-15	2015-16	2016-17	2017-18	2018-19	
Asset-I	Allowed vide order dated 17.3.2016 in Petition No. 305/TT/2013	7551.02	207.94	0.00	0.00	0.00	0.00	7758.96
	Claimed by the Petitioner in the instant petition	7792.86	304.89	406.74	59.71	205.33	7.72	8777.25
	Allowed after truing up in this order	7792.87	304.89	406.74	59.71	205.33	7.72	8777.26
Asset-II	Allowed vide order dated 23.3.2016 in Petition No.	3261.24	644.11	870.73	296.52	0.00	0.00	5072.60



40/TT/2014								
Claimed by the Petitioner in the instant petition	3261.25	644.10	739.26	95.73	7.80	18.83	4766.96	
Allowed after truing up in this order	3261.24	644.10	739.26	95.73	7.80	18.83	4766.96	

Debt-Equity Ratio

28. The Petitioner has claimed debt-equity ratio of 70:30 as on COD. The debt-equity ratio of 70:30 has been considered for capital cost as on COD and ACE during the 2014-19 tariff period as provided under Regulation 19 of the 2014 Tariff Regulations. The same has been summarised as follows:

Asset-I	Amount as on COD (₹ in lakh)	(in %)	Amount as on 31.3.2019 (₹ in lakh)	(in %)
Debt	5455.02	70.00	6144.10	70.00
Equity	2337.85	30.00	2633.16	30.00
Total	7792.87	100.00	8777.26	100.00
Asset-II	Amount as on COD (₹ in lakh)	(in %)	Amount as on 31.3.2019 (₹ in lakh)	(in %)
Debt	2282.87	70.00	3336.89	70.00
Equity	978.37	30.00	1430.07	30.00
Total	3261.24	100.00	4766.96	100.00

Depreciation

29. The Petitioner's claim towards depreciation in this petition was found higher than the depreciation allowed for the transmission assets vide order dated 17.3.2016 and 23.3.2016 in Petition No. 305/TT/2013 and Petition No. 40/TT/2014 respectively. The Petitioner has neither given any justification for claiming higher depreciation than what was allowed earlier nor made any specific prayer for allowing higher depreciation in this petition. It is observed that vide order dated 17.3.2016 and 23.3.2016 in Petition No. 305/TT/2013 and Petition No. 40/TT/2014 respectively, the depreciation for IT equipment was allowed @ 5.28%. The Petitioner now at the time of truing-up of tariff of the 2014-19 period has segregated the IT equipment cost from the sub-station cost and has considered depreciation rate for IT Equipment @15% and salvage value for IT Equipment is NIL as per the 2014 Tariff Regulations. A



similar issue had come up in Petition No. 19/TT/2020 which was dealt by the Commission vide order dated 9.5.2020.

30. In terms of the order dated 9.5.2020 in Petition No. 19/TT/2020, depreciation has been considered for IT Equipment @ 5.28% as part of the sub-station up to 31.3.2019 while truing up the capital expenditure for the 2014-19 tariff period. However, for the 2019-24 tariff period, IT Equipment has been considered separately and depreciation has been allowed @ 15% for balance depreciable value of IT equipment in accordance with Regulation 33 of the 2019 Tariff Regulations.

31. The Gross Block during 2014-19 tariff period has been depreciated at Weighted Average Rate of Depreciation ("WAROD"). WAROD at Annexure-I has been worked out after taking into consideration the depreciation rates of assets as specified in the 2014 Tariff Regulations and trued-up depreciation allowed for the transmission assets for 2014-19 tariff period is as follows:

(₹ in lakh)					
Particulars	Asset-I				
	2014-15 (Pro-rata for 286 days)	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	7792.87	8097.76	8504.50	8564.21	8769.54
Additional Capitalisation	304.89	406.74	59.71	205.33	7.72
Closing Gross Block	8097.76	8504.50	8564.21	8769.54	8777.26
Average Gross Block	7945.32	8301.13	8534.36	8666.88	8773.40
Weighted average rate of Depreciation (WAROD) (in %)	5.15	5.13	5.11	5.10	5.10
Elapsed useful life of the asset at the beginning of the year (Year)	0.00	0.00	1.00	2.00	3.00
Balance useful life of the asset at the beginning of the year (Year)	25.00	25.00	24.00	23.00	22.00
Aggregated Depreciable Value	7150.78	7471.02	7680.92	7800.19	7896.06
Depreciation during the year	320.93	425.44	436.31	442.28	447.18
Cumulative Depreciation at the end of the year	320.93	746.37	1182.68	1624.96	2072.14
Remaining Aggregated Depreciable Value at the end of the year	6829.86	6724.65	6498.24	6175.23	5823.92



(₹ in lakh)

Particulars	Asset-II				
	2014-15 (Pro-rata for 266 days)	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	3261.24	3905.34	4644.60	4740.33	4748.13
Additional Capitalisation	644.10	739.26	95.73	7.80	18.83
Closing Gross Block	3905.34	4644.60	4740.33	4748.13	4766.96
Average Gross Block	3583.29	4274.97	4692.46	4744.23	4757.54
Weighted average rate of Depreciation (WAROD) (in %)	5.18	5.14	5.12	5.12	5.12
Elapsed useful life of the asset at the beginning of the year (Year)	0.00	0.00	1.00	2.00	3.00
Balance useful life of the asset at the beginning of the year (Year)	25.00	25.00	24.00	23.00	22.00
Aggregated Depreciable Value	3224.96	3847.47	4223.22	4269.81	4281.79
Depreciation during the year	135.23	219.59	240.10	242.76	243.39
Cumulative Depreciation at the end of the year	135.23	354.82	594.92	837.69	1081.08
Remaining Aggregated Depreciable Value at the end of the year	3089.73	3492.65	3628.29	3432.12	3200.71

32. Depreciation for the transmission assets allowed vide orders dated 17.3.2016 and 23.3.2016 in Petition No. 305/TT/2013 and Petition No. 40/TT/2014 respectively, claimed by the Petitioner in the instant petition and trued up in the instant order is as follows:

(₹ in lakh)

Asset	Particulars	2014-15 (Pro-rata for 286 days)	2015-16	2016-17	2017-18	2018-19
Asset-I	Allowed vide order dated 17.3.2016 in Petition No. 305/TT/2013	310.15	400.83	400.83	400.83	400.83
	Claimed by the Petitioner in the instant petition	325.98	431.89	442.76	448.72	453.63
	Approved after true-up in this order	320.93	425.44	436.31	442.28	447.18

(₹ in lakh)

Asset	Particulars	2014-15 (Pro-rata for 266 days)	2015-16	2016-17	2017-18	2018-19
Asset-II	Allowed vide order dated 23.3.2016 in Petition No. 40/TT/2014	134.86	223.25	252.15	259.41	259.41
	Claimed by the Petitioner in the instant petition	139.41	225.34	245.85	248.51	249.13
	Approved after true-up in this order	135.23	219.59	240.10	242.76	243.39

Interest on Loan ("IoL")

33. The Petitioner has claimed Weighted Average Rate of IoL in respect of the transmission assets based on its actual loan portfolio and rate of interest.



Accordingly, IoL is calculated based on actual interest rate in accordance with Regulation 26 of the 2014 Tariff Regulations.

34. The details of IoL allowed in respect of the transmission assets are as follows:

(₹ in lakh)					
Asset-I					
Particulars	2014-15 (Pro-rata for 286 days)	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	5455.02	5668.44	5953.16	5994.96	6138.69
Cumulative Repayments up to Previous Year	0.00	320.93	746.37	1182.68	1624.96
Net Loan-Opening	5455.02	5347.51	5206.79	4812.28	4513.73
Addition due to Additional Capitalization	213.42	284.72	41.80	143.73	5.40
Repayment during the year	320.93	425.44	436.31	442.28	447.18
Net Loan-Closing	5347.51	5206.79	4812.28	4513.73	4071.96
Average Loan	5401.26	5277.15	5009.54	4663.01	4292.84
Weighted Average Rate of Interest on Loan (in %)	9.81	9.46	9.13	8.47	8.32
Interest on Loan	415.15	499.01	457.19	394.91	357.17

(₹ in lakh)					
Asset-II					
Particulars	2014-15 (Pro-rata for 266 days)	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	2282.87	2733.75	3251.23	3318.25	3323.71
Cumulative Repayments up to Previous Year	0.00	135.23	354.82	594.92	837.69
Net Loan-Opening	2282.87	2598.52	2896.41	2723.32	2486.02
Addition due to Additional Capitalization	450.88	517.48	67.01	5.46	13.18
Repayment during the year	135.23	219.59	240.10	242.76	243.39
Net Loan-Closing	2598.52	2896.41	2723.32	2486.02	2255.81
Average Loan	2440.70	2747.47	2809.87	2604.67	2370.91
Weighted Average Rate of Interest on Loan (in %)	10.05	9.41	8.99	8.37	8.16
Interest on Loan	178.71	258.58	252.64	218.05	193.36

35. IoL for the transmission assets allowed vide orders dated 17.3.2016 and 23.3.2016 in Petition No. 305/TT/2013 and Petition No. 40/TT/2014 respectively, claimed by the Petitioner in the instant petition and true-up in the instant order is as follows:

(₹ in lakh)						
Asset	Particulars	2014-15 (Pro-rata for 286 days)	2015-16	2016-17	2017-18	2018-19
Asset-I	Allowed vide order dated 17.3.2016 in Petition No. 305/TT/2013	400.20	481.98	442.11	401.69	363.28
	Claimed by the Petitioner in the instant petition	414.96	498.23	455.84	393.11	354.87
	Approved after true-up in this order	415.15	499.01	457.19	394.91	357.17



(₹ in lakh)						
Asset	Particulars	2014-15 (Pro-rata for 266 days)	2015-16	2016-17	2017-18	2018-19
Asset-II	Allowed vide order dated 23.3.2016 in Petition No. 40/TT/2014	178.22	276.36	292.90	277.10	250.73
	Claimed by the Petitioner in the instant petition	178.56	257.92	251.49	216.50	191.37
	Approved after true-up in this order	178.71	258.58	252.64	218.05	193.36

Return on Equity ("RoE")

36. 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 Minimum Alternate Tax (MAT) rates and has claimed the effective tax rates for 2014-19 tariff period as follows:

Year	Claimed effective tax (in %)	Grossed up RoE (in %) [(Base Rate)/(1-t)]
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

37. The Petitioner has submitted that with respect to Asset-I, additional RoE of 0.5% was allowed by the Commission vide order dated 11.7.2017 in Review Petition No. 40/RP/2016 in Petition No. 305/TT/2013 which is trued up in this petition. With respect to Asset-II also, additional RoE of 0.5% was allowed vide order dated 23.3.2016 in Petition No. 40/TT/2014.

38. MPPMCL has submitted that the Petitioner has grossed up RoE on the basis of actual taxes paid during 2016-17 and 2017-18. MPPMCL has further submitted that for 2018-19, the Petitioner has grossed up RoE on the basis of applicable rate of MAT, surcharge and cess. MPPMCL has submitted that the Petitioner has not placed on record the assessment orders for 2016-17 and 2017-18. For 2018-19, the Petitioner has not claimed grossed up RoE on the basis of actual taxes paid. MPPMCL has further submitted that the Petitioner has neither submitted copy of



assessment orders for 2014-15 and 2015-16 nor the audited accounts in respect of actual taxes paid during 2016-17 and 2017-18. In the absence of these essential documents, it is not possible to scrutinize the claim of the Petitioner properly.

39. In response, the Petitioner has submitted that income tax assessment orders have been issued by the Income Tax Department for 2014-15, 2015-16 and 2016-17 and that the Income Tax returns have been filed with the Income Tax Department for the years 2017-18 and 2018-19. The basis of year-wise effective tax rate has been mentioned in the petition and grossed up RoE has been trued up accordingly for 2014-19 tariff period. The Petitioner has further submitted that assessment orders of 2014-15, 2015-16 and 2016-17 have already been submitted in Petition No. 20/TT/2020 and a copy of the assessment order for year 2016-17 has also been submitted vide affidavit dated 3.9.2020.

40. The Petitioner has further submitted that during 2014-19 period, the Commission has allowed tariff in several petitions wherein effective tax rate for 2014-19 tariff period based on notified MAT rates has been considered for grossing-up of rate of RoE.

41. The Petitioner has prayed to allow its claim for differential tariff on account of the trued-up RoE based on effective tax rate calculated on completion of income-tax assessment/ re-assessment for 2014-15, 2015-16, 2016-17, 2017-18 and 2018-19 on receipt of the respective assessment orders.

42. We have considered the submissions of the Petitioner and MPPMCL. The Commission vide order dated 2.2.2021 in Petition No. 312/TT/2020 has already dealt with the issues raised by MPPMCL. In terms of our findings in order dated 2.2.2021 in



Petition No. 312/TT/2020, we do not find any merits in the submissions of MPPMCL. Accordingly, the submissions of MPPMCL are rejected.

43. Vide order dated 11.7.2017 in Review Petition No. 40/RP/2016 in Petition No. 305/TT/2013 and vide order dated 23.3.2016 in Petition No. 40/TT/2014, the Commission allowed additional RoE of 0.5% for Asset-I and Asset-II respectively.

44. Further, the Commission in order dated 27.4.2020 in Petition No. 274/TT/2019 has arrived at the effective tax rates based on the notified MAT rates for the Petitioner which are 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

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

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

46. Accordingly, RoE allowed in respect of the transmission assets is as follows:

(₹ in lakh)					
Asset-I					
Particulars	2014-15 (Pro-rata for 286 days)	2015-16	2016-17	2017-18	2018-19
Opening Equity	2337.85	2429.32	2551.34	2569.25	2630.85
Addition due to Additional	91.47	122.02	17.91	61.60	2.32



Capitalization					
Closing Equity	2429.32	2551.34	2569.25	2630.85	2633.16
Average Equity	2383.59	2490.33	2560.29	2600.05	2632.01
Return on Equity (Base Rate) (in %)	16.000	16.000	16.000	16.000	16.000
Tax Rate applicable (in %)	20.961	21.342	21.342	21.342	21.549
Rate of Return on Equity (Pre-tax)	20.243	20.341	20.341	20.341	20.395
Return on Equity (Pre-tax)	378.08	506.56	520.79	528.88	536.80

(₹ in lakh)

Asset-II					
Particulars	2014-15 (Pro-rata for 266 days)	2015-16	2016-17	2017-18	2018-19
Opening Equity	978.37	1171.59	1393.36	1422.08	1424.42
Addition due to Additional Capitalization	193.22	221.78	28.72	2.34	5.65
Closing Equity	1171.59	1393.36	1422.08	1424.42	1430.07
Average Equity	1074.98	1282.48	1407.72	1423.25	1427.25
Return on Equity (Base Rate) (in %)	16.000	16.000	16.000	16.000	16.000
Tax Rate applicable (in %)	20.961	21.342	21.342	21.342	21.549
Rate of Return on Equity (Pre-tax)	20.243	20.341	20.341	20.341	20.395
Return on Equity (Pre-tax)	158.59	260.87	286.35	289.50	291.09

47. RoE for the transmission assets allowed vide order dated 11.7.2017 in Review Petition No. 40/RP/2016 read with order dated 17.3.2016 in Petition No. 305/TT/2013 and order dated 23.3.2016 in Petition No. 40/TT/2014 respectively, claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:

(₹ in lakh)						
Asset	Particulars	2014-15 (Pro-rata for 286 days)	2015-16	2016-17	2017-18	2018-19
Asset-I	Allowed vide order dated 11.7.2017 in RP No. 40/RP/2016 read with order dated 17.3.2016 in Petition No. 305/TT/2013	352.87	456.46	456.46	456.46	456.46
	Claimed by the Petitioner in the instant petition	378.36	506.81	520.79	528.88	536.80
	Approved after true-up in this order	378.08	506.56	520.79	528.88	536.80



(₹ in lakh)						
Asset	Particulars	2014-15 (Pro-rata for 266 days)	2015-16	2016-17	2017-18	2018-19
Asset-II	Allowed earlier in order dated 23.3.2016 in Petition No. 40/TT/2014	158.15	263.61	299.05	308.05	308.05
	Claimed by the Petitioner in the instant petition	158.70	261.00	286.35	289.51	291.09
	Approved after true-up in this order	158.59	260.87	286.35	289.50	291.09

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

48. The O&M Expenses as claimed by the Petitioner in respect of the transmission assets are in line with the norms specified under the 2014 Tariff Regulations and are allowed under Regulation 29(4)(a) of the 2014 Tariff Regulations as follows:

(₹ in lakh)					
Asset-I					
Particulars	2014-15 (Pro-rata for 286 days)	2015-16	2016-17	2017-18	2018-19
Sub-station Bays (Numbers)					
765 kV Dharamjaigarh: ICT-2 Bay	1	1	1	1	1
400 kV Dharamjaigarh: ICT-2 Bay	1	1	1	1	1
Norm (₹ lakh/bay)					
765 kV	84.42	87.22	90.12	93.11	96.20
400 kV	60.30	62.30	64.37	66.51	68.71
Total sub-station O&M Expenses	113.40	149.52	154.49	159.62	164.91
Total O&M Expenses	113.40	149.52	154.49	159.62	164.91

(₹ in lakh)					
Asset-II					
Particulars	2014-15 (Pro-rata for 266 days)	2015-16	2016-17	2017-18	2018-19
Sub-station Bays (Numbers)					
765 kV Dharamjaigarh: 3X500MVA ICT-1 Bay	1	1	1	1	1
400 kV Dharamjaigarh: 3X500MVA ICT-1 Bay	1	1	1	1	1
Norm (₹ lakh/bay)					
765 kV	84.42	87.22	90.12	93.11	96.20
400 kV	60.30	62.30	64.37	66.51	68.71
Total sub-station O&M Expenses	105.47	149.52	154.49	159.62	164.91
Total O&M Expenses	105.47	149.52	154.49	159.62	164.91



49. O&M Expenses for the transmission assets allowed vide orders dated 17.3.2016 and 23.3.2016 in Petition No. 305/TT/2013 and Petition No. 40/TT/2014 respectively, claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:

(₹ in lakh)						
Asset	Particulars	2014-15 (Pro-rata for 286 days)	2015-16	2016-17	2017-18	2018-19
Asset-I	Allowed vide order dated 17.3.2016 in Petition No. 305/TT/2013	113.36	149.52	154.49	159.62	164.91
	Claimed by the Petitioner in the instant petition	113.40	149.52	154.49	159.62	164.91
	Approved after true-up in this order	113.40	149.52	154.49	159.62	164.91

(₹ in lakh)						
Asset	Particulars	2014-15 (Pro-rata for 266 days)	2015-16	2016-17	2017-18	2018-19
Asset-II	Allowed vide order dated 23.3.2016 in Petition No. 40/TT/2014	105.18	149.52	154.49	159.62	164.91
	Claimed by the Petitioner in the instant petition	105.46	149.52	154.49	159.62	164.91
	Approved after true-up in this order	105.47	149.52	154.49	159.62	164.91

Interest on Working Capital (“IWC”)

50. IWC has been worked out as per the methodology provided in Regulation 28(1)(c) of the 2014 Tariff Regulations and the trued-up IWC allowed for the transmission assets for 2014-19 tariff period is as follows:

(₹ in lakh)					
Asset-I					
Particulars	2014-15 (Pro-rata for 286 days)	2015-16	2016-17	2017-18	2018-19
Working Capital for O&M Expenses (O&M expenses for 1 month)	12.06	12.46	12.87	13.30	13.74
Working Capital for Maintenance Spares (15% of O&M expenses)	21.71	22.43	23.17	23.94	24.74
Working Capital for Receivables (Equivalent to 2 months of	267.89	270.29	268.31	260.99	257.67



annual fixed cost / annual transmission charges)					
Total of Working Capital	301.66	305.18	304.36	298.23	296.15
Rate of Interest on Working Capital (in %)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	31.91	41.20	41.09	40.26	39.98

(₹ in lakh)

Asset-II					
Particulars	2014-15 (Pro-rata for 266 days)	2015-16	2016-17	2017-18	2018-19
Working Capital for O&M Expenses (O&M expenses for 1 month)	12.06	12.46	12.87	13.30	13.74
Working Capital for Maintenance Spares (15% of O&M expenses)	21.71	22.43	23.17	23.94	24.74
Working Capital for Receivables (Equivalent to 2 months of annual fixed cost / annual transmission charges)	136.00	152.31	160.01	156.00	153.10
Total of Working Capital	169.77	187.19	196.06	193.25	191.58
Rate of Interest on Working Capital (in %)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	16.70	25.27	26.47	26.09	25.86

51. IWC for the transmission assets allowed vide orders dated 17.3.2016 and 23.3.2016 in Petition No. 305/TT/2013 and Petition No. 40/TT/2014 respectively, claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

(₹ in lakh)

Asset	Particulars	2014-15 (Pro-rata for 286 days)	2015-16	2016-17	2017-18	2018-19
Asset-I	Allowed vide order dated 17.3.2016 in Petition No. 305/TT/2013	30.74	39.09	38.44	37.80	37.21
	Claimed by the Petitioner in the instant petition	32.03	41.34	41.20	40.37	40.08
	Approved after true-up in this order	31.91	41.20	41.09	40.26	39.98

(₹ in lakh)

Asset	Particulars	2014-15 (Pro-rata for 266 days)	2015-16	2016-17	2017-18	2018-19
Asset-II	Allowed vide order dated 23.3.2016 in Petition No. 40/TT/2014	16.66	25.83	27.96	28.26	27.94



	Claimed by the Petitioner in the instant petition	16.80	25.39	26.57	26.18	25.95
	Approved after true-up in this order	16.70	25.27	26.47	26.09	25.86

Approved Annual Fixed Charges for the 2014-19 Tariff Period

52. The trued-up Annual Fixed Charges approved for the transmission assets for 2014-19 tariff period are as follows:

(₹ in lakh)

Asset-I					
Particulars	2014-15 (Pro-rata for 286 days)	2015-16	2016-17	2017-18	2018-19
Depreciation	320.93	425.44	436.31	442.28	447.18
Interest on Loan	415.15	499.01	457.19	394.91	357.17
Return on Equity	378.08	506.56	520.79	528.88	536.80
O&M Expenses	113.40	149.52	154.49	159.62	164.91
Interest on Working Capital	31.91	41.20	41.09	40.26	39.98
Total	1259.46	1621.73	1609.87	1565.94	1546.04

(₹ in lakh)

Asset-II					
Particulars	2014-15 (Pro-rata for 286 days)	2015-16	2016-17	2017-18	2018-19
Depreciation	135.23	219.59	240.10	242.76	243.39
Interest on Loan	178.71	258.58	252.64	218.05	193.36
Return on Equity	158.59	260.87	286.35	289.50	291.09
O&M Expenses	105.47	149.52	154.49	159.62	164.91
Interest on Working Capital	16.70	25.27	26.47	26.09	25.86
Total	594.69	913.83	960.05	936.03	918.61

53. Accordingly, the Annual Transmission Charges allowed for the transmission assets vide order dated 17.3.2016 and 23.3.2016 in Petition No. 305/TT/2013 and Petition No. 40/TT/2014 respectively, claimed by the Petitioner in the instant petition and approved after truing up in the instant order are as follows:

(₹ in lakh)

Asset	Particulars	2014-15 (Pro-rata for 286 days)	2015-16	2016-17	2017-18	2018-19
Asset-I	Allowed vide order dated 17.3.2016 in Petition No. 305/TT/2013	1207.32	1527.88	1492.34	1456.40	1422.69
	Claimed by the Petitioner in the instant petition	1264.73	1627.79	1615.08	1570.70	1550.29



	Allowed after true-up in this order	1259.46	1621.73	1609.87	1565.94	1546.04
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(₹ in lakh)

Asset	Particulars	2014-15 (Pro-rata for 266 days)	2015-16	2016-17	2017-18	2018-19
Asset-II	Allowed vide order dated 23.3.2016 in Petition No. 40/TT/2014	593.07	938.56	1026.55	1032.43	1011.04
	Claimed by the Petitioner in the instant petition	598.93	919.17	964.75	940.32	922.45
	Allowed after true-up in this order	594.69	913.83	960.05	936.03	918.61

Determination of Annual Fixed Charges for 2019-24 Tariff Period

54. The details of the transmission charges claimed by the Petitioner for Combined Asset for 2019-24 tariff period are as follows:

(₹ in lakh)

Particulars	2019-20	2020-21	201-22	2022-23	2023-24
Depreciation	704.07	702.98	685.86	685.86	685.86
Interest on Loan	496.25	438.20	380.84	324.16	266.47
Return on Equity	763.82	764.48	764.48	764.48	764.48
Interest on Working Capital	100.45	102.18	103.66	105.55	107.27
O&M Expenses	1627.32	1683.76	1743.36	1806.18	1869.18
Total	3691.91	3691.60	3678.20	3686.23	3693.26

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

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	135.61	140.31	145.28	150.52	155.77
Maintenance Spares	244.10	252.56	261.50	270.93	280.38
Receivables	453.92	455.13	453.48	454.47	454.09
Total Working Capital	833.63	848.00	860.26	875.92	890.24
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	100.45	102.18	103.66	105.55	107.27

Effective Date of Commercial Operation (“E-COD”)

56. The Petitioner has claimed E-COD of Combined Asset as 26.6.2014. Based on the trued-up admitted capital cost and actual COD of the transmission assets, E-COD has been worked out as follows:



Computation of E-COD					
Assets	Actual COD	Admitted Capital Cost as on 31.3.2019 (₹in lakh)	Weight of the cost (in %)	Number of days from last COD	Weighted Days
Asset-I	19.6.2014	8777.26	64.80	20.00	12.96
Asset-II	9.7.2014	4766.96	35.20	0.00	0.00
Total		13544.22	100.00	20.00	12.96
E-COD (Latest COD – Total weighted Days) 26.6.2014					

57. E-COD is used to determine the lapsed life of the project as a whole which works out as four (4) years as on 1.4.2019 (i.e. the number of completed years as on 1.4.2019 from E-COD).

Weighted Average Life (“WAL”)

58. Regulation 33 of the 2019 Tariff Regulations has been considered for determination of WAL. The Combined 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 WAL has been used as the useful life of the project as a whole.

59. 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 asset has been ignored for this purpose. The life as defined in the 2019 Tariff Regulations has been considered for determination of WAL. Accordingly, WAL of Combined Asset has been worked out as 25 years and the same is as follows:

Admitted Capital Cost as on 31.3.2019				
Particulars	Combined Asset Cost (₹ in lakh) (1)	Life in Years (2)	Weighted Cost (3)=(1) x (2)	WAL (in years) (4)=(3)/(1)
Building & Other Civil Works	1230.06	25.00	30751.46	



Sub-Station Equipment	12188.69	25.00	304717.24	
IT Equipment and Software	125.47	6.67	836.48	
Total	13544.22		336305.17	24.83 years, rounded off to 25 years

60. WAL as on 1.4.2019 as determined above is applicable prospectively i.e. for 2019-24 tariff period and no retrospective adjustment of depreciation in previous tariff period is required to be done. As discussed, E-COD of Combined Asset is 26.6.2014 and the lapsed life of the project as a whole, works out as four (4) years as on 1.4.2019 (i.e. the number of completed years as on 1.4.2019 from E-COD). Accordingly, WAL has been used to determine the remaining useful life as on 31.3.2019 to be 21 years.

Capital Cost

61. 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 ash disposal and utilization including handling and transportation facility;
- (d) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
- (e) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal up to the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and
- (f) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.

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

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

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

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

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



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

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

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

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

62. The Petitioner has claimed capital cost of ₹8777.26 lakh and ₹4766.96 lakh for Asset-I and Asset-II respectively. Against the overall apportioned approved capital cost (as per RCE) of ₹14460.20 lakh, the estimated completion cost including ACE is ₹13567.58 lakh for Combined Asset. The individual capital cost of each asset is also within the respective RCE apportioned capital cost.

63. The capital cost has been dealt in line with Regulation 19(3) of the 2019 Tariff Regulations. The element-wise capital cost (i.e. land, building, transmission line, Sub-station and PLCC) admitted by the Commission as on 31.3.2019 for the transmission assets are clubbed together and capital cost considered for the Combined Asset as on 1.4.2019 is as follows:

(₹ in lakh)		
Element	Asset-I	Asset-II
Building & Other Civil Works	827.55	402.51
Sub-station Equipment	7883.39	4305.30
IT Equipment and Software	66.31	59.16
Total	8777.26	4766.96

(₹ in lakh)	
Particulars	Capital Cost for Combined Asset as on 1.4.2019
Building & Other Civil Works	125.47
Sub-station Equipment	13544.22
IT Equipment and Software	125.47
Total	13544.22

64. The trued-up capital cost of ₹13544.22 lakh for Combined Asset is considered as admitted capital cost as on 1.4.2019 for working out tariff for 2019-24 tariff period.



Additional Capital Expenditure (“ACE”)

65. Regulation 24 and Regulation 25 of the 2019 Tariff Regulations provide as follows:

“24. Additional Capitalization within the original scope and up to the cut-off date:

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

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

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

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

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

(1) The 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."*

66. The Petitioner has claimed projected ACE for 2019-24 period and submitted Auditor certificates in support of the same. The Petitioner has submitted that ACE claimed for the period from 1.4.2019 to 31.3.2020 is on projected basis. The Petitioner has projected ACE of ₹23.36 lakh in respect of Combined Asset during 2019-20.

67. The Petitioner has submitted that ACE incurred in the transmission assets is on account of un-discharged liability towards final payment/ withheld payment due to contractual exigencies for works executed within the cut-off date and expenditure towards the work to be executed within cut-off date. ACE for 2019-20 for Combined Asset has been claimed under Regulation 25(1)(d) of the 2019 Tariff Regulations.

68. We have considered the submission of the Petitioner. ACE of ₹23.36 lakh in respect of the Combined Asset is allowed during 2019-20 is allowed subject to truing-up.

Capital cost for the 2019-24 tariff period

69. The capital cost of Combined Asset considered for 2019-24 tariff period is as follows:

(₹ in lakh)		
Capital Cost allowed (as on 1.4.2019)	ACE allowed in 2019-20	Total Estimated Completion Cost up to 31.3.2024
13544.22	23.36	13567.58



Debt-Equity Ratio

70. 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.”

71. The debt-equity ratio considered in respect of the Combined Asset for the purpose of computation of tariff for 2019-24 tariff period is as follows:

Particulars	Capital Cost as on 1.4.2019 (₹ in lakh)	(in %)	Total Capital Cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	9480.98	70.00	9497.33	70.00
Equity	4063.24	30.00	4070.25	30.00
Total	13544.22	100.00	13567.58	100.00

Depreciation

72. Regulation 33(1), Regulation 33(2) and Regulation 33(5) of the 2019 Tariff Regulations provide as follows:

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

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

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

“(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.”

73. We have considered the submissions of the Petitioner. The IT equipment has been considered as a part of the Gross Block and depreciated using Weighted Average Rate of Depreciation (WAROD). WAROD in Annexure-II 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% 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 Combined Asset is as follows:

	(₹ in lakh)				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	13544.22	13567.58	13567.58	13567.58	13567.58
Addition during the year 2019-24 due to projected Additional Capitalisation	23.36	0.00	0.00	0.00	0.00
Closing Gross Block	13567.58	13567.58	13567.58	13567.58	13567.58
Average Gross Block	13555.90	13567.58	13567.58	13567.58	13567.58
Weighted average rate of Depreciation (WAROD) (in %)	5.19	5.19	5.19	5.19	5.19
Elapsed life at the beginning of the year (Year)	4.00	5.00	6.00	7.00	8.00
Balance useful life at the beginning of the year (Year)	21.00	20.00	19.00	18.00	17.00
Aggregated Depreciable Value	12212.86	12223.37	12223.37	12223.37	12223.37
Depreciation during the year	704.07	704.68	704.68	704.68	704.53
Cumulative Depreciation at the end of the year	3857.29	4561.97	5266.65	5971.33	6675.87
Remaining Aggregate Depreciable Value at the end of the year	8355.57	7661.40	6956.72	6252.03	5547.50

Interest on Loan ("IOL")

74. 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 up to 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.”

75. The Weighted Average Rate of IOL has been considered on the basis of rate prevailing as on 1.4.2019. The Petitioner has prayed that change in interest rate due to floating rate of interest applicable, if any, during 2019-24 tariff period may be adjusted. 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 Combined Asset for 2019-24 tariff period is as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	9480.98	9497.33	9497.33	9497.33	9497.33
Cumulative Repayments up to Previous Year	3153.22	3857.29	4561.97	5266.65	5971.33
Net Loan-Opening	6327.77	5640.04	4935.36	4230.68	3526.00
Addition due to Additional Capitalization	16.35	0.00	0.00	0.00	0.00
Repayment during the year	704.07	704.68	704.68	704.68	704.53
Net Loan-Closing	5640.04	4935.36	4230.68	3526.00	2821.47
Average Loan	5983.90	5287.70	4583.02	3878.34	3173.73
Weighted Average Rate of Interest on Loan (in %)	8.37	8.38	8.40	8.42	8.42
Interest on Loan	501.11	442.99	384.78	326.53	267.26



Return on Equity (“RoE”)

76. 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 cutoff 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.”

“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.”

77. The Petitioner has submitted that MAT rate is applicable to it. Accordingly, MAT rate applicable during the year 2019-20 has been considered for the purpose of RoE, which shall be trued up with actual tax rate in accordance with Clause (3) of Regulation 31 of the 2019 Tariff Regulations. The RoE allowed for Combined Asset for 2019-24 tariff period is as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	4063.24	4070.25	4070.25	4070.25	4070.25
Addition due to Additional	7.01	0.00	0.00	0.00	0.00



Capitalization					
Closing Equity	4070.25	4070.25	4070.25	4070.25	4070.25
Average Equity	4066.74	4070.25	4070.25	4070.25	4070.25
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
Tax Rate applicable (in %)	17.472	17.472	17.472	17.472	17.472
Rate of Return on Equity (Pre-tax)	18.782	18.782	18.782	18.782	18.782
Return on Equity (Pre-tax)	763.82	764.47	764.47	764.47	764.47

Operation & Maintenance Expenses “O&M Expenses”

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

“35. Operation and Maintenance Expense (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
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



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

”

79. We have considered the submissions of the Petitioner. The O&M Expenses in respect of the various elements covered under Combined Asset have been worked out as per Regulation 35(3)(a) of the 2019 Tariff Regulations and the same are allowed as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Sub-station Bays (Numbers)					
765 kV Dharamjaigarh : ICT-2 Bay	1	1	1	1	1
400 kV Dharamjaigarh : ICT-2 Bay	1	1	1	1	1
765 kV Dharamjaigarh: 3X500 MVA ICT-1 Bay	1	1	1	1	1
400 kV Dharamjaigarh: 3X500 MVA ICT-1 Bay	1	1	1	1	1
Norm (₹ lakh/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
Total sub-station O&M Expenses	154.32	159.76	165.36	171.18	177.18
Transformers/Reactors (in MVA)					
Dharamjaigarh:2 No of 1500 MVA 765/400 kV ICT	3000	3000	3000	3000	3000
Norm (₹ lakh/MVA)					
765 kV	0.491	0.508	0.526	0.545	0.564
Total Transformer O&M Expenses	1473.00	1524.00	1578.00	1635.00	1692.00
Total O&M Expenses	1627.32	1683.76	1743.36	1806.18	1869.18

Interest on Working Capital (“IWC”)

80. 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. **Definition** - 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;”

81. The Petitioner has submitted that it has computed the IWC for 2019-24 period considering the SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of IWC as 12.05%.The IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The rate of IWC considered is 12.05% (SBI 1 year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for 2019-20, 11.25% (SBI 1 year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points) for 2020-21 and 10.50% (SBI 1 year MCLR applicable as on 1.4.2021 of 7.00% plus 350 basis points) for 2021-24. The components of the working capital and interest allowed thereon in respect of the Combined Asset is as follows:

	(₹ in lakh)				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Working Capital for O&M Expenses (O&M expenses for 1 month)	135.61	140.31	145.28	150.52	155.77
Working Capital for Maintenance Spares	244.10	252.56	261.50	270.93	280.38



(15% of O&M expenses)					
Working Capital for Receivables (Equivalent to 45 days of annual fixed cost / annual transmission charges)	454.53	455.09	454.65	455.42	454.79
Total of Working Capital	834.24	847.97	861.44	876.86	890.94
Rate of Interest of Working Capital (in %)	12.05	11.25	10.50	10.50	10.50
Interest on Working Capital	100.53	95.40	90.45	92.07	93.55

Annual Fixed Charges of the 2019-24 Tariff Period

82. The transmission charges allowed for Combined Asset for 2019-24 tariff period are as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	704.07	704.68	704.68	704.68	704.53
Interest on Loan	501.11	442.99	384.78	326.53	267.26
Return on Equity	763.82	764.47	764.47	764.47	764.47
O&M Expenses	1627.32	1683.76	1743.36	1806.18	1869.18
Interest on Working Capital	100.53	95.40	90.45	92.07	93.55
Total	3696.85	3691.30	3687.74	3693.93	3698.99

Filing Fee and Publication Expenses

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

Licence Fee and RLDC Fees and Charges

84. 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

85. The Petitioner has submitted that if GST is levied at any rate and at any 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.

86. MPPMCL has submitted that demand of the Petitioner for CGST is pre-mature and need not be considered.

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

Security Expenses

88. 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.

89. We have considered the submissions of the Petitioner. The Petitioner has claimed consolidated security expenses for all the transmission assets owned by it 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, 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

90. 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

91. With effect from 1.7.2011, sharing of transmission charges for inter-State transmission systems was governed by the 2010 Sharing Regulations and with effect from 1.11.2020 (after repeal of the 2010 Sharing Regulations), sharing of transmission charges is governed by the 2020 Sharing Regulations. Accordingly, the liabilities of DICs for arrears of transmission charges determined through this order shall be computed DIC-wise in accordance with the provisions of respective Tariff Regulations and Sharing Regulations and shall be recovered from the concerned DICs through Bills under Regulation 15(2)(b) of the 2020 Sharing Regulations. Billing, collection and disbursement of the transmission charges for subsequent period shall be recovered in terms of provisions of the 2020 Sharing Regulations as provided in Regulation 57 of the 2019 Tariff Regulations.

92. To summarise:

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

(₹ in lakh)					
Asset-I	2014-15 (Pro-rata for 286 days)	2015-16	2016-17	2017-18	2018-19
		1259.46	1621.73	1609.87	1565.94
Asset-II	2014-15 (Pro-rata for 266 days)	2015-16	2016-17	2017-18	2018-19
	594.69	913.83	960.05	936.03	918.61

- b) AFC allowed in respect of Combined Asset for 2019-24 tariff period in this order are as follows:



(₹ in lakh)				
2019-20	2020-21	2021-22	2022-23	2023-24
3696.85	3691.30	3687.74	3693.93	3698.99

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

94. This order disposes of Petition No. 163/TT/2020 in terms of the above discussions and findings.

sd/-
(P. K. Singh)
Member

sd/-
(I. S. Jha)
Member

sd/-
(P. K. Pujari)
Chairperson



Annexure-I

Asset-I													
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 (in %)	Annual Depreciation as per the 2014 Tariff Regulations				
		2014-15	2015-16	2016-17	2017-18	2018-19			2014-15 (₹ in lakh)	2015-16 (₹ in lakh)	2016-17 (₹ in lakh)	2017-18 (₹ in lakh)	2018-19 (₹ in lakh)
Capital Expenditure as on COD													
Building	419.64	185.20	116.02	32.49	74.20	0.00	827.55	3.34	17.11	22.14	24.62	26.40	27.64
Sub-station	7307.02	119.58	290.72	27.22	131.13	7.72	7883.39	5.28	388.97	399.80	408.19	412.37	416.04
IT Equipment and Software	66.20	0.11	0.00	0.00	0.00	0.00	66.31	5.28	3.50	3.50	3.50	3.50	3.50
TOTAL	7792.87	304.89	406.74	59.71	205.33	7.72	8777.26		409.58	425.44	436.31	442.28	447.18
							Average Gross Block (₹ in lakh)		7945.32	8301.13	8534.36	8666.88	8773.40
							Weighted Average Rate of Depreciation (in %)		5.15	5.13	5.11	5.10	5.10



Asset-II													
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 (in %)	Annual Depreciation as per the 2014 Tariff Regulations				
Capital Expenditure as on COD		2014-15	2015-16	2016-17	2017-18	2018-19			2014-15 (₹ in lakh)	2015-16 (₹ in lakh)	2016-17 (₹ in lakh)	2017-18 (₹ in lakh)	2018-19 (₹ in lakh)
Building	138.10	98.94	157.67	0.00	7.80	0.00	402.51	3.34	6.26	10.55	13.18	13.31	13.44
Sub-station	3064.01	545.14	581.59	95.73	0.00	18.83	4305.30	5.28	176.17	205.92	223.80	226.33	226.82
IT Equipment and software	59.14	0.02	0.00	0.00	0.00	0.00	59.16	5.28	3.12	3.12	3.12	3.12	3.12
TOTAL	3261.24	644.10	739.26	95.73	7.80	18.83	4766.96		185.56	219.59	240.10	242.76	243.39
Average Gross Block (₹ in lakh)									3583.29	4274.97	4692.46	4744.23	4757.54
Weighted Average Rate of Depreciation (in %)									5.18	5.14	5.12	5.12	5.12



Annexure-II

2019-24	Combined admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per the 2019 Tariff Regulations				
				Capital Expenditure as on 1.4.2019	2019-20 (₹ in lakh)	2020-21 (₹ in lakh)	2021-22 (₹ in lakh)	2022-23 (₹ in lakh)
Building	1230.06	1230.06	3.34	41.10	41.12	41.12	41.12	41.12
Sub-station	12188.69	12188.69	5.28	644.15	644.74	644.74	644.74	644.74
IT Equipment and software	125.47	125.47	15.00	18.82	18.82	18.82	18.82	18.67
TOTAL	13544.22	13544.22		704.07	704.68	704.68	704.68	704.53
		Average Gross Block (₹ in lakh)		13555.90	13567.58	13567.58	13567.58	13567.58
		Weighted Average Rate of Depreciation (in %)		5.19	5.19	5.19	5.19	5.19

