

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 506/TT/2019

Coram:

**Shri P.K. Pujari, Chairperson
Shri I.S. Jha, Member**

Date of Order: 10.06.2020

In the matter of:

Approval under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and truing-up of transmission tariff of 2014-19 period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of 2019-24 period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 of Asset-I: 765 kV D/C Wardha-Aurangabad line-II alongwith 2 nos. 330 MVAR switchable line reactor at Wardha end and 1 no. 240 MVAR line reactor for Ckt.-III at Aurangabad end and associated bays and Asset-II: 1 no. 240 MVAR 765 kV line reactor for Wardha-Aurangabad Ckt.-IV at Aurangabad end under "Transmission System Strengthening in Wardha-Aurangabad corridor for IPP projects in Chhattisgarh (IPP-G)" in Western Region.

And in the matter of:

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

....Petitioner

Vs

1. Madhya Pradesh Power Management Company Ltd.
Shakti Bhawan, Rampur
Jabalpur-482 008
2. Madhya Pradesh Power Transmission Company Ltd
Shakti Bhawan, Rampur
Jabalpur-482 008
3. Madhya Pradesh Audyogik Kendra
Vikas Nigam (Indore) Ltd.
3/54, Press Complex, Agra-Bombay Road
Indore-452 008



4. Maharashtra State Electricity Distribution Co. Ltd.
Hongkong Bank Building, 3rdFloor
M.G. Road, Fort,
Mumbai-400 001.
5. Maharashtra State Electricity Transmission Co. Ltd.
Prakashganga, 6th Floor, Plot No. C-19, E-Block
Bandra Kurla Complex, Bandra (East)
Mumbai-400 051.
6. Gujarat Urja Vikas Nigam Ltd.
Sardar Patel Vidyut Bhawan,
Race Course Road
Vadodra - 390 007
7. Electricity Department
Government of Goa, Vidyut Bhawan, Panaji,
Near Mandvi Hotel
Goa- 403 001
8. Electricity Department
Administration of Daman & Diu
Daman - 396 210
9. DNH Power Distribution Corporation Limited
Vidyut Bhawan, 66kV Road, Near Secretariat Aml
Silvassa - 396 230
10. Chhattisgarh State Power Transmission Co. Ltd.
Office of the Executive Director (C&P)
State Load Despatch Building,
Dangania
Raipur – 492 013
11. Chhattisgarh State Power Distribution Co. Ltd.
P.O. Sunder Nagar, Dangania, Raipur
Chhattisgarh-492 013

For Petitioner : Shri S.S. Raju, PGCIL
Shri Zafrul Hasan, PGCIL
Shri B. Dash, PGCIL
Shri V.K. Singh, PGCIL
Shri Amit K. Jain, PGCIL
Shri Anshul Garg, PGCIL

For Respondents : None



ORDER

The present petition has been filed by Power Grid Corporation of India Ltd. (hereinafter referred to as “the Petitioner”) for trueing up of the transmission tariff of Asset-I: 765 kV D/C Wardha-Aurangabad line-II alongwith 2 nos. 330 MVAR switchable line reactor at Wardha end and 1 no. 240 MVAR line reactor for Ckt.-III at Aurangabad end and associated bays and Asset-II: 1 no. 240 MVAR 765 kV line reactor for Wardha-Aurangabad Ckt.-IV at Aurangabad end (hereinafter referred to as “transmission assets”) under Transmission System Strengthening in Wardha-Aurangabad corridor for IPP projects in Chhattisgarh (IPP-G) in Western Region (hereinafter referred to as “the transmission project”) for the 2014-19 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) and tariff determination of the 2019-24 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”).

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

“1) Allow the add cap for 2014-19 and 2019-24 tariff block as claimed as per Para 5 and 7 above.

2) 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 6 and 7 above.

3) Allow the additional ROE for 2014-19 tariff block.

4) Allow the Petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided in Tariff Regulation 2014 and Tariff regulations 2019 as per para 6 and 7 above for respective block.



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

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

7) Allow the Petitioner to bill and adjust impact on Interest on Loan due to change in Interest rate on account of floating rate of interest applicable during 2019-24 period, if any, from the beneficiaries.

8) Allow the Petitioner to file a separate petition before Hon'ble Commission for claiming the overall security expenses and consequential IOWC on that security expenses as mentioned at para 6.6 above.

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

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

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

3. The Respondents are the distribution licensees, who are procuring transmission services from the Petitioner, mainly beneficiaries of Western Region.

Background

4. The Investment Approval (IA) and expenditure sanction for the transmission project was accorded by the Board of Directors of the Petitioner vide Memorandum No. C/CP/Chhattisgarh-IPP dated 9.2.2012 with an estimated cost of ₹131085 lakh including an IDC of ₹8183 lakh based on 4th Quarter, 2011 price level. The scope of work covered under "Transmission System Strengthening in Wardha–Aurangabad corridor for IPP projects in Chhattisgarh (IPP-G) in Western Region" is as follows:-



- (i) Asset-I: 765 kV D/C Wardha-Aurangabad line-II alongwith 2 nos. 330 MVAR switchable line reactor at Wardha end and 1 no. 240 MVAR line reactor for Ckt.-III at Aurangabad end and associated bays, and
- (ii) Asset-II: 1 no. 240 MVAR 765 kV line reactor for Wardha-Aurangabad Ckt.-IV at Aurangabad end

5. The project was scheduled to be put into commercial operation within 36 months from the date of IA i.e. by 8.2.2015.

6. The dates of commercial operation of the assets covered in the instant petition are as follows:

Asset	COD
Asset-I	1.4.2015
Asset-II	19.4.2015

7. The transmission tariff of Assets-I and II from their respective COD to 31.3.2019 was determined in Petition No. 22/TT/2015 vide order dated 22.2.2016 as per the 2014 Tariff Regulations. There was a time over-run of approximately two months in case of Assets-I and II and the same was condoned by the Commission vide order dated 22.2.2016 in Petition No. 22/TT/2015.

8. The Petitioner has served the petition on the Respondents and notice of this petition has also been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003 (hereinafter referred to as "the Act"). No comments or suggestions have been received from the general public in response to the aforesaid notices published in the newspapers by the Petitioner. M.P. Power Management Company Limited ("MPPMCL") i.e. the Respondent No.1 has filed its reply vide affidavit dated 16.1.2020 and has raised issues like grossing up ROE, Additional Capital Expenditure (ACE), additional ROE and projected ACE



for 2019-24 period. The Petitioner vide affidavit dated 25.2.2020 has filed its rejoinder in response to the reply filed by MPPMCL.

9. The hearing in this matter was held on 26.2.2020 and the order was reserved. The Petitioner was directed to submit certain information and the same was filed by the Petitioner vide affidavit dated 9.3.2020.

10. This order is issued considering the submissions made by the Petitioner in the petition dated 26.9.2019, the Petitioner's affidavit dated 9.3.2020, MPPMCL reply filed vide affidavit dated 16.1.2020 and the Petitioner's rejoinder filed vide affidavit dated 25.2.2020.

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

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

12. The Petitioner has submitted the information as required under the 2014 Tariff Regulations for truing up of annual fixed charges for 2014-19 period. The tariff for 2014-19 period has been trued up as discussed in the subsequent paragraphs.

13. The details of the transmission charges claimed by the Petitioner in respect of Asset-I and Asset-II are as under:

(₹ in lakh)

Asset-I				
Particulars	2015-16	2016-17	2017-18	2018-19
Depreciation	6645.18	7102.41	7178.57	7203.05
Interest on Loan	7627.92	7464.33	6791.19	6155.62
Return on Equity	7685.91	8214.61	8305.48	8357.96
Interest on working capital	555.87	576.47	566.56	555.49
O & M Expenses	912.76	942.94	974.37	1006.75
Total	23427.64	24300.76	23816.17	23278.87



(₹ in lakh)

Asset-II				
Particulars	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Depreciation	98.45	121.03	125.28	128.19
Interest on Loan	111.44	127.45	122.03	114.66
Return on Equity	116.57	143.32	149.26	154.06
Interest on working capital	7.51	9.02	9.13	9.14
O & M Expenses	0.00	0.00	0.00	0.00
Total	333.97	400.82	405.70	406.05

14. The details of interest on working capital claimed by the Petitioner in respect of Asset-I and Asset-I are as under:-

(₹ in lakh)

Asset-I				
Particulars	2015-16	2016-17	2017-18	2018-19
O & M Expenses	76.06	78.58	81.20	83.90
Maintenance Spares	136.91	141.44	146.16	151.01
Receivables	3904.61	4050.13	3969.36	3879.81
Total	4117.58	4270.15	4196.72	4114.72
Rate of Interest (%)	13.50	13.50	13.50	13.50
Interest on Working Capital	555.87	576.47	566.56	555.49

(₹ in lakh)

Asset-II				
Particulars	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
O & M Expenses	0.00	0.00	0.00	0.00
Maintenance Spares	0.00	0.00	0.00	0.00
Receivables	58.59	66.80	67.62	67.68
Total	58.59	66.80	67.62	67.68
Rate of Interest (%)	13.50	13.50	13.50	13.50
Interest on Working Capital	7.51	9.02	9.13	9.14

Capital Cost

15. The Commission vide order dated 22.2.2016 in Petition No. 22/TT/2015 admitted the capital cost as on 31.3.2014 of ₹135416.24 lakh and ₹2996.59 lakh for Asset-I and Asset-II respectively for determination of tariff for the 2014-19 period.



16. The Petitioner vide Auditor's Certificates dated 31.7.2019 has submitted the capital cost upto COD, ACE upto 31.3.2019 and estimated ACE during the period from 1.4.2019 to 31.3.2020. The details of approved apportioned capital cost, capital cost as on COD, ACE incurred upto 31.3.2019 as claimed by the Petitioner for instant transmission assets are as under:

(₹ in lakh)

Assets	FR Apportioned Approved Capital Cost	RCE Apportioned Approved Capital Cost	Capital cost as on COD	Additional Capitalisation (claimed)				Total Capital Cost as on 31.3.2019 (claimed)
				2015-16	2016-17	2017-18	2018-19	
Asset-I		144439.20	119937.56	13414.30	2526.33	451.80	543.05	136873.08
Asset-II	131085.00	3101.68	1780.64	544.30	49.31	143.75	0.00	2518.00
Total	131085.00	147540.88	121718.20	13958.60	2575.64	595.55	543.05	139391.04

17. The Petitioner has claimed capital cost of ₹119937.56 lakh and ₹1780.64 lakh for Assets-I and II respectively as on COD.

Cost Over-run

18. The completion cost including ACE is within the RCE approved apportioned capital cost as mentioned in Table under paragraph 16 above, in respect of assets covered under the instant petition. Therefore, there is no cost over-run in respect of the instant assets.

Interest During Construction (IDC)

19. The Petitioner has claimed Interest During Construction (IDC) for the instant assets and has submitted the Auditor's Certificates in support of the same. The Petitioner has submitted computation of IDC along with the year-wise details of the IDC discharged.



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

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

(₹ in lakh)

Assets	IDC as per Auditor's Certificate	IDC Admissible	Computational difference in IDC	IDC Discharged as on COD	IDC Undischarged as on COD	IDC Discharged in 2015-16
A	B	C	D=B-C	E	F=C-E	G
Asset-I	9683.37	9677.94	5.43	8172.38	1505.56	1505.56
Asset-II	192.83	181.98	10.85	103.30	78.68	78.68

Incidental Expenditure During Construction (IEDC)

22. The Petitioner has claimed IEDC of (₹325.69) lakh and ₹17.66 lakh for Assets-I and II respectively and has submitted Auditor's certificate in support of the same. The Petitioner has also submitted that the entire IEDC has been discharged as on COD in respect of the instant assets. Hence, the IEDC claimed has been allowed.

Initial Spares

23. The Petitioner has claimed the following Initial Spares for the transmission assets and submitted Auditor's certificate in support of the same. The details of Initial Spares claimed by the Petitioner are as follows:-



(₹ in lakh)

Asset	Plant & Machinery Cost upto cut-off date (excluding IDC and IEDC)	Initial Spares Claimed
Asset-I	8640.53	407.44
Total	8640.53	407.44

24. We have considered the submissions of the Petitioner. The Initial Spares are allowable subject to ceiling specified in Regulation 13(d) of the 2014 Tariff Regulations. The Petitioner's claim of Initial Spares is within the ceiling limit specified in Regulation 13(d) of the 2014 Tariff Regulations and is accordingly allowed as under:-

Asset	Plant & Machinery Cost upto cut-off date (excluding IDC and IEDC) (₹ in lakh)	Initial Spares Claimed (₹ in lakh)	Ceiling Limit (%)	Initial Spares as per ceiling limit (₹ in lakh)	Initial Spares Allowed as on COD (₹ in lakh)
Asset-I	8640.53	407.44	6.00	525.52	407.44
Total	8640.53	407.44	6.00	525.52	407.44

Capital cost as on COD

25. Accordingly, the capital cost allowed as on COD is summarized as under:-

(₹ in lakh)

Assets	Capital cost as on COD as per Auditor Certificate	Less: IDC as on COD due to		Capital cost considered as on COD
		Computational difference	Un-discharged	
	1	2	3	4=1-2-3
Asset-I	119937.56	5.43	1505.56	118426.57
Asset-II	1780.64	10.85	78.68	1691.09



Additional Capital Expenditure (ACE)

26. The Petitioner has claimed the following ACE for the assets covered in the instant petition and submitted the Auditor's Certificates in support of the same:-

(₹ in lakh)

Assets	Additional Capitalisation (claimed)			
	2015-16	2016-17	2017-18	2018-19
Asset-I	13414.30	2526.33	451.80	543.05
Asset-II	544.30	49.31	143.75	0.00

27. The Petitioner vide affidavit dated 25.2.2020 has submitted that the ACE incurred for the instant assets is on account of balance and retention payments due to undischarged liability towards final payment/ withheld payment due to contractual exigencies for works executed within the cut-off date. The Additional Capitalization for all the assets covered in the instant petition during the years 2015-16, 2016-17 and 2017-18 for the assets has been claimed under Regulation 14(1)(i) (undischarged liabilities) and Regulation 14(1)(ii) (unexecuted works) of the 2014 Tariff Regulations and is within the cut-off date and Additional Capitalization for the year 2018-19 is beyond cut-off date for both the assets covered in the instant petition and has been claimed under Regulation 14(2)(iv) (liabilities for work executed prior cut-off date) of the 2014 Tariff Regulations.

28. The Petitioner in the instant petition has also submitted that ACE upto 31.3.2019 has been considered in the Auditor's certificate as per actuals, whereas the ACE claimed for the period from 1.4.2019 to 31.3.2020 is on estimated basis and may vary due to final claim/ reconciliation at the time of contract closing. The details for balance and retention payments incurred after cut-off date are as under:-



(₹ in lakh)

Assets	Work Description	Agency	Add-cap in 2018-19	Reasons for expenditure beyond cut-off date
I	Compensation paid in case of Transmission Line	Farmers	4.14	As per GR of Maharashtra State 2010 later revised in 2017, Land Compensation for Tower base (and for corridor also as per revised GR 2017) has to be paid in all the transmission lines. For payment of Land Compensation, revenue department has to verify the land details and ownership details for each and every tower as per their records and they have to finalize the compensation amount for each farmer as per total area of land and type of land involved. However, Land Compensation assessment from revenue department not received till date, hence payments could not be made earlier. Presently rigorous follow-ups are being made with revenue department for finalization of Land Compensation and are expected to complete in 2019-20.
	Additional Cable trench	Shri Krupa	26.02	Site Civil packages retained for some minor repair works and security deposit
	Dry stone pitching at Aurangabad Sub-station	Shri Syed Ismail	0.00	
	Sub-station Package	TBEA	48.19	Though Agency has supplied materials and work done before commissioning, agency could not produce documents like Original LR, CIP/MICC etc. in time. Hence, there was a delay in release of payments to agency.
	Sub-station Package	JV of CGL & ZTR	271.58	After COD 01 No 110 MVAR reactor at Wardha Sub-station t failed due to technical reasons. The same was taken back to works of CGL for repairs. Hence, final retention payments were released in 2018-19 after repair works got completed.
	Circuit breaker package	Alstom T&D	69.77	There were repeated operational issues in circuit breaker interrupter supplied by ALSTOM which was resolved in 2018-19 through replacement of earlier CB's Interrupters supplied by Alstom. Hence. there was a delay in payments.



Assets	Work Description	Agency	Add-cap in 2018-19	Reasons for expenditure beyond cut-off date
	Sub-station Package	TBEA	93.60	Though Agency has supplied materials and work done before COD, agency could not produce documents like Original LR, CIP/MICC etc. in time. Hence, there was a delay in release of payments to agency.
	Insulator package	Shandong	29.74	Few retentions payments were withheld due to pending reconciliation and pending documents. Agency being off-shore party, there was a delay in submission of Income Tax Order. Hence, due to pending income tax order payments got delayed.

29. MPPMCL has submitted that the Petitioner has claimed actual Additional Capitalization of ₹595.55 and ₹543.05 lakh for instant assets during 2017-18 and 2018-19. However, the same was neither proposed nor approved in the previous order dated 22.2.2016 in Petition No. 22/TT/2015. MPPMCL has also raised the issue of claiming expenditure on PLCC/Communication system as ACE.

30. In response, the Petitioner in its rejoinder has stated that the ACE has been incurred on account of balance and retention payments due to undischarged liability for work executed within the cut-off date. Further, ACE claimed for the year 2018-19 has been on account of balance and retention payment due to undischarged liability for works executed within the cut-off date.

31. It is observed that total estimated completion cost including Additional Capitalization from 2015-16 to 2018-19 period for Assets-I and II is within the RCE apportioned approved cost.

32. The cut-off date for Assets-I and II is 31.3.2018. The actual audited ACE claimed by the Petitioner upto 31.3.2018 is within the cut-off date and for 2018-19 the same is beyond the cut-off date. Based on the submissions made by the



Petitioner, the same has been considered for computation of total capital cost as on 31.3.2019. The undischarged IDC as on COD has been allowed as ACE in its respective year of discharge. Accordingly, the ACE claimed for the period 2015-16 to 2017-18 is allowed under Regulation 14(1)(i) and Regulation 14(1)(ii) of the 2014 Tariff Regulations. The ACE claimed for the period 2018-19 is allowed under Regulation 14(2)(iv) of the 2014 Tariff Regulations.

33. The capital cost allowed as on 31.3.2019 after including ACE in respect of the instant assets is as under:-

Asset-I	Capital cost as on COD on cash basis	Additional Capitalization				Total capital cost including additional capitalization as on 31.3.2019
		2015-16	2016-17	2017-18	2018-19	
Allowed earlier in order dated- 22.2.2016 in Petition No. 22/TT/2015	119356.00	13279.50	2780.33	0.00	0.00	135416.24
As claimed	118426.61	14925.29	2526.33	451.80	543.05	136873.08
Approved in this order	118426.57	14919.86**	2526.33	451.80	543.05	136867.61

**Includes IDC discharged

Asset-II	Capital cost as on COD on cash basis	Additional Capitalization				Total capital cost including Additional Capitalization as on 31.3.2019
		2015-16	2016-17	2017-18	2018-19	
Allowed earlier in order dated 22.2.2016 in Petition No. 22/TT/2015	1705.55	1023.36	267.68	0.00	0.00	2996.59
As claimed	1698.05	626.89	49.31	143.75	0.00	2518.00



Approved in this order	1691.09	622.98**	49.31	143.75	0.00	2507.13
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**Includes IDC discharged

34. The difference between the total capital cost allowed earlier including Additional Capitalization as on 31.3.2019 and that approved in this order is on account of increase in actual audited ACE in respect of Asset-I and decrease in actual audited ACE in respect of Asset-II. The difference in total capital cost claimed, including Additional Capitalization as on 31.3.2019 and approved in this order is on account of IDC disallowed partly in the instant order.

Debt-Equity Ratio

35. The Petitioner has considered debt-equity ratio of 70:30 as on COD and for Additional Capitalization post COD. The debt-equity ratio of 70:30 has been considered for capital cost as on COD and Additional Capitalization during 2014-19 period as provided under Regulation 19 of the 2014 Tariff Regulations. The same has been summarised as under:-

Asset-I	As on COD		As on 31.3.2019	
	Amount (₹ in lakh)	(%)	Amount (₹ in lakh)	(%)
Debt	82898.60	70.00	95807.32	70.00
Equity	35527.97	30.00	41060.29	30.00
Total	118426.57	100.00	136867.61	100.00
Asset-II	As on COD		As on 31.3.2019	
	Amount (₹ in lakh)	(%)	Amount (₹ in lakh)	(%)
Debt	1183.76	70.00	1754.99	70.14
Equity	507.33	30.00	752.14	29.86
Total	1691.09	100.00	2507.13	100.00

Interest on Loan (IOL)

36. The Petitioner has claimed IOL based on actual interest rates for each year during the 2014-19 period. The Petitioner has prayed for change in interest



rates prevailing as on 1.4.2019 for respective loans. We have considered the submissions of the Petitioner and accordingly calculated the IOL based on actual interest rate, in accordance with Regulation 26 of the 2014 Tariff Regulations.

The IOL has been worked out as detailed below: -

(i) Gross amount of loan, repayment of instalments and weighted average rate of interest on actual average loan have been considered as per the petition.

(ii) The repayment for the tariff period 2014-19 has been considered to be equal to the depreciation allowed for that period.

37. The details of IOL calculated for Asset-I and Asset-II are as follows:-

A. Asset-I

	(₹ in lakh)			
Particular	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	82898.60	93342.50	95110.93	95427.19
Cumulative Repayments upto Previous Year	0.00	6630.78	13718.54	20882.49
Net Loan-Opening	82898.60	86711.73	81392.39	74544.71
Addition due to Additional Capitalization	10443.90	1768.43	316.26	380.14
Repayment during the year	6630.78	7087.77	7163.94	7188.41
Net Loan-Closing	86711.73	81392.39	74544.71	67736.43
Average Loan	84805.16	84052.06	77968.55	71140.57
Weighted Average Rate of Interest on Loan (%)	8.993	8.882	8.713	8.658
Interest on Loan	7626.11	7465.57	6793.70	6159.04

Accordingly, the IOL claimed by the Petitioner, allowed and trued up in respect of Asset-I is shown in the table below:-

	(₹ in lakh)			
Particulars	2015-16	2016-17	2017-18	2018-19
Allowed earlier vide order dated 22.2.2016 in Petition No. 22/TT/2015	7705.26	7588.98	7023.69	6373.76
As claimed by the Petitioner	7627.92	7464.33	6791.19	6155.62
Allowed after Truing Up	7626.11	7465.57	6793.70	6159.04

The IOL allowed in this order is less than the IOL allowed earlier vide order dated 22.6.2016 on account of decrease in weighted average rate of interest on loan.



B. Asset-II

(₹ in lakh)

Particular	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Gross Normative Loan	1183.76	1619.85	1654.36	1754.99
Cumulative Repayments upto Previous Year	0.00	96.90	216.01	339.32
Net Loan-Opening	1183.76	1522.95	1438.36	1415.67
Addition due to Additional Capitalization	436.08	34.52	100.63	0.00
Repayment during the year	96.90	119.11	123.32	126.22
Net Loan-Closing	1522.95	1438.36	1415.67	1289.44
Average Loan	1353.36	1480.65	1427.01	1352.55
Weighted Average Rate of Interest on Loan (%)	8.640	8.582	8.532	8.470
Interest on Loan	111.18	127.07	121.76	114.56

Accordingly, the IOL claimed by the Petitioner, allowed and trued up in respect of Asset-II is shown in the table below:-

(₹ in lakh)

Particulars	2015-16	2016-17	2017-18	2018-19
Allowed earlier vide order dated 22.2.2016 in Petition No. 22/TT/2015	124.35	158.94	154.45	141.51
As claimed by the Petitioner	111.44	127.45	122.03	114.66
Allowed after Truing Up	111.18	127.07	121.76	114.56

The IOL has decreased in comparison to that allowed earlier vide order dated 22.2.2016 on account of decrease in weighted average rate of interest on loan.

Return on Equity (ROE)

38. The Petitioner is entitled to ROE for the instant assets in terms of Regulation 24 and Regulation 25 of the 2014 Tariff Regulations. The Petitioner has also claimed additional ROE of 0.50% for the instant assets. The Petitioner has submitted that they are liable to pay income tax at MAT rates and has claimed following effective tax rates for the 2014-19 tariff period:-



Year	Claimed effective tax (%)	Grossed up ROE [Base Rate/(1-t)] (%)
2015-16	21.382	20.351
2016-17	21.338	20.341
2017-18	21.337	20.341
2018-19	21.549	20.395

39. MPPMCL in its reply has submitted that the Petitioner has claimed grossed up ROE on the basis of actual taxes paid during the years 2016-17 and 2017-18 and for the year 2018-19, ROE has been grossed up on the basis of applicable MAT rate, surcharge and cess and not on the basis of actual taxes paid for the year 2018-19. MPPMCL has submitted that the Petitioner has not placed on record the assessment order for the years 2014-15, 2015-16, 2016-17 and 2017-18. The Petitioner has not enclosed the audited accounts in respect of actual taxes paid for 2016-17 and 2017-18. MPPMCL has submitted that additional ROE of 0.50% can be allowed only if the whole project is completed within 40 months. In response, the Petitioner in its rejoinder has stated that the assessment orders for years 2014-15 and 2015-16 and the MAT rate certificate duly certified by the Auditor for 2014-19 period has been submitted. The Petitioner has further submitted that the Commission vide order dated 22.2.2016 in Petition No. 22/TT/2015, has already allowed additional ROE of 0.50% after prudence check.

40. We have considered the submissions of the Petitioner and MPPMCL. The Commission in order dated 27.4.2020 in Petition No. 274/TT/2019 has arrived at the effective tax rate based on the notified MAT rates for the Petitioner and the same is given in the table below. The same MAT rates are considered for the purpose of grossing up of rate of ROE for truing up of the tariff of the 2014-19 tariff period in terms of the provisions of the 2014 Tariff Regulations. As regards



the additional RoE of 0.5%, it was allowed for the instant assets in order dated 22.2.2016 in Petition No. 22/TT/2015 as they were put into commercial operation within 40 months as specified in the 2014 Tariff Regulations.

Year	MAT Rate (%)	Grossed up ROE [Base Rate/(1-t)] (%)
2014-15	20.961	20.243
2015-16	21.342	20.341
2016-17	21.342	20.341
2017-18	21.342	20.341
2018-19	21.549	20.395

41. Accordingly, the ROE allowed for the instant assets is as follows:-

A. Asset-I

(₹ in lakh)

Particulars	2015-16	2016-17	2017-18	2018-19
Opening Equity	35527.97	40003.93	40761.83	40897.37
Addition due to Additional Capitalization	4475.96	757.90	135.54	162.92
Closing Equity	40003.93	40761.83	40897.37	41060.28
Average Equity	37765.95	40382.88	40829.60	40978.82
Return on Equity (Base Rate) (%)	16.00	16.00	16.00	16.00
Tax Rate applicable (%)	21.342	21.342	21.342	21.549
Rate of Return on Equity (Pre-tax)	20.341	20.341	20.341	20.395
Return on Equity (Pre-tax)	7681.97	8214.28	8305.15	8357.63

Accordingly, the ROE claimed by the Petitioner, allowed and trued up in respect of Asset-I is shown in the table below:-

(₹ in lakh)

Particulars	2015-16	2016-17	2017-18	2018-19
Allowed earlier vide order dated 22.2.2016 in Petition No. 22/TT/2015	7651.62	8139.27	8223.69	8223.69
As claimed by the Petitioner	7685.91	8214.61	8305.48	8357.96
Allowed after Truing Up	7681.97	8214.28	8305.15	8357.63

The ROE allowed is higher than that allowed earlier vide order dated 22.2.2016 on account of change in the applicable tax rate for the purpose of grossing up of base rate of return on equity.



B. Asset-II

(₹ in lakh)

Particulars	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Opening Equity	507.33	694.22	709.01	752.14
Addition due to Additional Capitalization	186.89	14.79	43.13	0.00
Closing Equity	694.22	709.01	752.14	752.14
Average Equity	600.77	701.62	730.58	752.14
Return on Equity (Base Rate) (%)	16.00	16.00	16.00	16.00
Tax Rate applicable (%)	21.342	21.342	21.342	21.549
Rate of Return on Equity (Pre-tax)	20.341	20.341	20.341	20.395
Return on Equity (Pre-tax)	116.19	142.72	148.61	153.40

Accordingly, the ROE claimed by the Petitioner, allowed and trued up in respect of Asset-II is shown in the table below:-

(₹ in lakh)

Particulars	2015-16	2016-17	2017-18	2018-19
Allowed earlier vide order dated 22.2.2016 in Petition No. 22/TT/2015	128.38	173.85	181.98	181.98
As claimed by the Petitioner	116.57	143.32	149.26	154.06
Allowed after Truing Up	116.19	142.72	148.61	153.40

ROE has increased in comparison to that allowed earlier vide order 22.2.2016 on account of change in the applicable tax rate for the purpose of grossing up of base rate of RoE.

Depreciation

42. The Petitioner's claim towards depreciation in this petition was found to be higher than the depreciation allowed for the Asset-I in order dated 22.2.2016 in Petition No. 22/TT/2015. The Petitioner has neither given any justification for claiming higher depreciation than that allowed earlier in order dated 22.2.2016 nor made any specific prayer for allowing higher depreciation in this petition.

43. Subsequently, it was identified that in Petition No.22/TT/2015 during tariff determination of the instant assets for the 2014-19 tariff period, Petitioner



submitted capital cost of IT equipment in sub-station cost and therefore depreciation for IT equipment was allowed @5.28% of corresponding capital cost.

44. The Petitioner now at the time of truing up of the tariff of the 2014-19 period has segregated the IT equipment cost from sub-station cost and has considered depreciation rate for IT Equipment @15% and the salvage value for IT Equipment is NIL as per the 2014 Tariff Regulations.

45. We have considered the submissions of the Petitioner. The instant assets were put into commercial operation during the 2014-19 period and the tariff from the respective CODs to 31.3.2019 was allowed vide order dated 22.2.2016 in Petition No. 22/TT/2015. It is pertinent to point out that the Petitioner did not claim any Capital Expenditure towards "IT Equipment" in the above said petition where tariff for the instant assets for the 2014-19 period was allowed even though there was a clear provision in the 2014 Tariff Regulations providing depreciation @15% for IT Equipment. Having failed to make a claim as per the 2014 Tariff Regulations, the Petitioner has now, at the time of truing up, apportioned a part of the capital expenditure as "IT Equipment". The Petitioner has adopted similar methodology not only in this but in some of the other Petitions listed along with the instant petition on 26.2.2020. Regulation 8(1) of the 2014 Tariff Regulations provides for truing up of the capital expenditure including the Additional Capital Expenditure, incurred upto 31.3.2019, admitted by the Commission after prudence check. We are of the view that the scope of truing up exercise is restricted to truing up of the capital expenditure already admitted and apportionment or reapportionment of the capital expenditure cannot be allowed at the time of truing up. Therefore, we are not inclined to consider the Petitioner's



approach for apportionment of capital expenditure towards IT Equipment and allowing depreciation @15% from 1.4.2014 onwards. Accordingly, the depreciation @5.28% has been considered for IT Equipment as part of the sub-station upto 31.3.2019 while truing up the capital expenditure for the 2014-19 period. During the 2019-24 tariff period, the IT Equipment has been considered separately and depreciation has been allowed @15% for the balance depreciable value of IT Equipment in accordance with Regulation 33 read with Sr. No. (p) of the Appendix-I (Depreciation Schedule) of the 2019 Tariff Regulations.

46. The depreciation for the 2014-19 period is trued up for the instant assets as per the methodology provided in Regulation 27 of the 2014 Tariff Regulations and the same is as follows:-

A. Asset-I

(₹ in lakh)				
Particulars	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	118426.57	133346.43	135872.76	136324.56
Additional Capitalisation	14919.86	2526.33	451.80	543.05
Closing Gross Block	133346.43	135872.76	136324.56	136867.61
Average Gross Block	125886.50	134609.60	136098.66	136596.09
Average Gross Block (90% depreciable assets)	125739.84	134462.02	135951.08	136448.51
Average Gross Block (100% depreciable assets)	146.66	147.58	147.58	147.58
Rate of Depreciation (%)	5.27	5.27	5.26	5.26
Depreciable Value (excluding IT equipment and software) - 90%	113165.86	121015.81	122355.97	122803.65
Depreciable value of IT equipment and software - 100%	146.66	147.58	147.58	147.58
Total Depreciable Value	113312.52	121163.39	122503.55	122951.23
Remaining Depreciable Value	113312.52	114532.62	108785.01	102068.75
Depreciation	6630.78	7087.77	7163.94	7188.41

Accordingly, the depreciation claimed by the Petitioner, allowed and trued up in respect of Asset-I is shown in the table below:-



(₹ in lakh)

Particulars	2015-16	2016-17	2017-18	2018-19
Allowed earlier vide order dated 22.2.2016 in Petition No. 22/TT/2015	6636.01	7055.92	7128.32	7128.32
As claimed by the Petitioner	6645.18	7102.41	7178.57	7203.05
Allowed after Truing Up	6630.78	7087.77	7163.94	7188.41

The depreciation is in different from that allowed earlier vide order dated 22.2.2016 in Petition No. 22/TT/2015 on account of variation in Additional Capital Expenditure.

B. Asset-II

(₹ in lakh)

Particulars	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Opening Gross Block	1691.10	2314.08	2363.39	2507.14
Additional Capitalisation	622.98	49.31	143.75	0.00
Closing Gross Block	2314.08	2363.39	2507.14	2507.14
Average Gross Block	2002.59	2338.74	2435.27	2507.14
Average Gross Block (90% depreciable assets)	1988.49	2324.32	2420.85	2492.72
Average Gross Block (100% depreciable assets)	14.10	14.42	14.42	14.42
Rate of Depreciation (%)	5.09	5.09	5.06	5.03
Depreciable Value (excluding IT equipment and software) - 90%	1789.64	2091.89	2178.76	2243.45
Depreciable value of IT equipment and software - 100%	14.10	14.42	14.42	14.42
Total Depreciable Value	1803.74	2106.30	2193.18	2257.87
Remaining Depreciable Value	1803.74	2009.41	1977.18	1918.55
Depreciation	96.90	119.11	123.32	126.22

Accordingly, the depreciation claimed by the Petitioner, allowed and trued up in respect of Asset-II is shown in the table below:-

(₹ in lakh)

Particulars	2015-16	2016-17	2017-18	2018-19
Allowed earlier vide order dated 22.2.2016 in Petition No. 22/TT/2015	105.95	142.09	148.67	148.67
As claimed by the Petitioner	98.45	121.03	125.28	128.19
Allowed after Truing Up	96.90	119.11	123.32	126.22



The depreciation has decreased in comparison to that allowed earlier vide order dated 22.2.2016 on account of decrease in ACE.

Operation & Maintenance Expenses (O&M Expenses)

47. The Petitioner has not claimed O&M Expenses for Asset-II. The details of the O&M Expenses claimed by the Petitioner for Asset-I and allowed under Regulation 29(4)(a) of the 2014 Tariff Regulations for purpose of tariff are as under:

(₹ in lakh)				
Asset-I				
Particulars	2015-16	2016-17	2017-18	2018-19
Norm (₹ lakh/bay)				
765 kV Bay (AIS)	523.32	540.72	558.66	577.20
AC & HVDC Lines				
D/C Bundled with 4 or more sub-conductor)	389.44	402.22	415.71	429.55
Total O&M Expense (Claimed)	912.76	942.94	974.37	1006.75
Total O&M Expense (Approved)	912.76	942.94	974.37	1006.75

Interest on Working Capital (IWC)

48. The Petitioner is entitled to claim interest on working capital as per Regulation 28(1)(c) of the 2014 Tariff Regulations as under:-

i. Maintenance spares:

Maintenance spares have been worked out based on 15% of Operation and Maintenance Expenses specified in Regulation 28.

ii. O & M Expenses:

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

iii. Receivables:

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

iv. Rate of interest on working capital:



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

49. The Interest on Working capital allowed for the assets is shown is as under:-

(A) Asset-I

(₹ in lakh)				
Particulars	2015-16	2016-17	2017-18	2018-19
O & M Expenses	76.06	78.58	81.20	83.90
Maintenance Spares	136.91	141.44	146.15	151.01
Receivables	3901.19	4047.79	3967.24	3877.84
Total	4114.16	4267.82	4194.60	4112.74
Rate of Interest on working capital (%)	13.50	13.50	13.50	13.50
Interest of Working Capital	555.41	576.15	566.27	555.22

Accordingly, IWC claimed by the Petitioner, allowed and trued up in respect of Asset-I is shown in the table below:-

(₹ in lakh)				
Particulars	2015-16	2016-17	2017-18	2018-19
Allowed earlier vide order dated 22.2.2016 in Petition No. 22/TT/2015	556.24	576.11	568.43	555.24
As claimed by the Petitioner	555.87	576.47	566.56	555.49
Allowed after Truing Up	555.41	576.16	566.27	555.22

IWC is different from that allowed earlier vide order dated 22.2.2016 in Petition No. 22/TT/2015 on account of decrease in receivables due to variation in components of tariff.

(B) Asset-II

(₹ in lakh)				
Particulars	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
O & M Expenses	0.00	0.00	0.00	0.00
Maintenance Spares	0.00	0.00	0.00	0.00
Receivables	58.15	66.31	67.12	67.21
Total	58.15	66.31	67.12	67.21
Rate of Interest on working capital (%)	13.50	13.50	13.50	13.50
Interest of Working Capital	7.46	8.95	9.06	9.07



Accordingly, IWC claimed by the Petitioner, allowed and trued up in respect of Asset-II is shown in the table below:-

(₹ in lakh)				
Particulars	2015-16	2016-17	2017-18	2018-19
Allowed earlier vide order dated 22.2.2016 in Petition No. 22/TT/2015	7.86	10.93	11.17	10.87
As claimed by the Petitioner	7.51	9.02	9.13	9.14
Allowed after Truing Up	7.46	8.95	9.06	9.07

IWC has decreased in comparison to that allowed earlier vide order dated 22.2.2016 in Petition No. 22/TT/2015 on account of decrease in receivables due to IOL, ROE and depreciation.

APPROVED ANNUAL FIXED CHARGES FOR 2014-19 TARIFF PERIOD

50. Accordingly, the annual fixed charges in respect of Asset-I and Asset-II after truing up for the 2014-19 tariff period are as under:-

A. Asset-I

(₹ in lakh)				
Particulars	2015-16	2016-17	2017-18	2018-19
Depreciation	6630.78	7087.77	7163.94	7188.41
Interest on Loan	7626.11	7465.57	6793.70	6159.04
Return on Equity	7681.97	8214.28	8305.15	8357.63
Interest on Working Capital	555.41	576.15	566.27	555.22
O & M Expenses	912.76	942.94	974.37	1006.75
Total	23407.03	24286.72	23803.43	23267.02

The annual fixed charges in respect of Asset-I as approved earlier vide order dated 22.2.2016, as claimed by the Petitioner and as trued up in respect of Asset-I are shown in the table below:-

(₹ in lakh)				
Particulars	2015-16	2016-17	2017-18	2018-19
Allowed earlier vide order dated 22.2.2016 in Petition No. 22/TT/2015	23454.43	24295.51	23910.53	23279.53
As claimed by the Petitioner	23427.64	24300.76	23816.17	23278.87
Allowed after Truing Up	23407.03	24286.72	23803.43	23267.02



The difference in the annual transmission charges claimed by the Petitioner and allowed after truing up is due to the difference in weighted average rate of interest on loan, rate of tax and variation in ACE claimed by the Petitioner and allowed by the Commission.

B. Asset-II

(₹ in lakh)

Particulars	2015-16	2016-17	2017-18	2018-19
Depreciation	96.90	119.11	123.32	126.22
Interest on Loan	111.18	127.07	121.76	114.56
Return on Equity	116.19	142.72	148.61	153.40
Int. on Working Capital	7.46	8.95	9.06	9.07
Op. and Maintenance	0.00	0.00	0.00	0.00
Total	331.74	397.84	402.74	403.26

The annual fixed charges in respect of Asset-II approved earlier vide order dated 22.2.2016, as claimed by the Petitioner and as trued up are shown in the table below:-

(₹ in lakh)

Particulars	2015-16	2016-17	2017-18	2018-19
Allowed earlier vide order dated 22.2.2016 in Petition No. 22/TT/2015	366.54	485.82	496.26	483.03
As claimed by the Petitioner	333.97	400.82	405.70	406.05
Allowed after Truing Up	331.74	397.84	402.74	403.26

The difference in the annual transmission charges claimed by the Petitioner and allowed after truing up is due to the difference in weighted average rate of interest on loan, rate of tax and ACE claimed by the Petitioner and allowed by the Commission.

DETERMINATION OF ANNUAL FIXED CHARGES FOR 2019-24 TARIFF PERIOD

51. The Petitioner has submitted the tariff forms combining Asset-I and Asset-II, wherein the COD has been achieved prior to 1.4.2019, as a single asset.



Accordingly, as per proviso (i) of Regulation 8(1) of the 2019 Tariff Regulations, single tariff for the combined asset has been worked out for the 2019-24 tariff period.

52. The Petitioner has claimed the following transmission charges for the combined asset for the 2019-24 tariff period:-

(₹ in lakh)

Particulars	2019-20	2020-21	201-22	2022-23	2023-24
Depreciation	7349.34	7353.41	7345.58	7329.09	7329.09
Interest on Loan	5675.06	5042.94	4411.23	3777.00	3137.88
Return on Equity	8266.95	8271.64	8271.64	8271.64	8271.64
Interest on Working Capital	352.54	345.19	336.72	328.12	318.91
Operation and Maintenance	742.42	768.29	795.11	823.06	851.67
Total	22386.31	21781.47	21160.28	20528.91	19909.19

53. The Petitioner has claimed the following 'Interest on Working Capital' for the combined asset for the 2019-24 tariff period:-

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M expenses	61.87	64.02	66.26	68.59	70.97
Maintenance Spares	111.36	115.24	119.27	123.46	127.75
Receivables	2752.42	2685.39	2608.80	2530.96	2447.85
Total	2925.65	2864.65	2794.33	2723.01	2646.57
Rate of Interest	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	352.54	345.19	336.72	328.12	318.91

Effective Date of Commercial Operation (E-COD)

54. The Petitioner has claimed E-COD of the combined asset as 1.4.2015. Accordingly, based on the trued up admitted capital cost and actual COD of all the assets, the E-COD has been worked out as follows:-



(₹ in lakh)

Computation of Effective COD						
Asset	Actual COD	Admitted Capital Cost as on 31.3.2019	Weight of the cost	No. of Days from last COD	Weighted Days	Effective COD (Latest COD – Total weighted Days)
Asset-I	1.4.2015	136867.61	0.982	18.00	17.68	1.4.2015
Asset-II	19.4.2015	2507.14	0.018	0.00	0.00	
Total		31.50	1.00		17.68	

55. The 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)

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

57. 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 Weighted Average Life (WAL) has been used as the useful life of the project as a whole.

58. The WAL has been determined based on the admitted capital cost of individual elements as on 31.3.2019 and their respective life as stipulated in the 2019 Tariff Regulations. The element-wise life as defined in the 2014 Tariff Regulations prevailing at the time of actual COD of individual assets has been ignored for this purpose. The life as defined in the 2019 Tariff Regulations has been considered for determination of WAL. Accordingly, WAL of the combined asset has been worked out as 34 years as shown below:-



(₹ in lakh)

Admitted Capital Cost as on 31.03.2019			
Particulars	Combined Cost (₹ in lakh) (a)	Life as per 2019 Regulation (Years) (b)	Weight (a) x (b)
Freehold Land	0.00	0.00	0.00
Leasehold Land	0.00	0.00	0.00
Building & Other Civil Works	1645.64	25.00	41140.94
Transmission Line	125810.95	35.00	4403383.25
Sub-Station Equipment	11603.48	25.00	290086.89
PLCC	152.69	15.00	2290.35
IT Equipment and Software	162.00	6.67	1079.99
Total	139374.75		4737981.42
WAL = Total Weight/ Capital cost of the project		34 Years	

59. The WAL as on 1.4.2019 as determined above is applicable prospectively (i.e. for 2019-24 tariff period onwards) and no retrospective adjustment of depreciation in previous tariff period is required to be done. As discussed at para 54 and para 55, the Effective COD of the assets is 1.4.2015 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 Effective COD). Accordingly, WAL has been used to determine the remaining useful life as on 31.3.2019 to be 30 years.

Capital Cost

60. Regulation 19(3) and 19(5) of the 2019 Tariff Regulations provide as follows:-

“19 Additional Capitalization

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

- (a) Capital cost admitted by the Commission prior to 1.4.2019 duly trued up by excluding liability, if any, as on 1.4.2019;*
- (b) Additional Capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;*
- (c) Capital expenditure on account of renovation and modernisation as admitted by this Commission in accordance with these regulations;*



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

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

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

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

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

- (c) In case of hydro generating stations, any expenditure incurred or committed to be incurred by a project developer for getting the project site allotted by the State Government by following a transparent process;*
- (d) Proportionate cost of land of the existing project which is being used for generating power from generating station based on renewable energy; and*
- (e) Any grant received from the Central or State Government or any statutory body or authority for the execution of the project which does not carry any liability of repayment.”*

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



(₹ in lakh)

Assets	FR AppORTIONED Approved Capital Cost	RCE AppORTIONED Approved Capital Cost	Capital Cost claimed as on 31.3.2019	Additional Capitalisation Claimed 2019-20	Estimated Completion Cost
Asset-I	131085.00	144439.20	136867.61	158.14	137025.75
Asset-II		3101.68	2507.13	0.00	2507.13

62. Against the overall apportioned approved capital cost (as per RCE) of ₹147540.88 lakh, the estimated completion cost including ACE is ₹139532.88 lakh. The individual capital cost of each asset is also within the respective RCE apportioned capital cost. Therefore, there is no cost over-run in respect of the instant assets.

63. The capital cost has been dealt in line with clause (3) of Regulation 19 of the 2019 Tariff Regulations. The element-wise capital cost (i.e. land, building, transmission line, sub-station and PLCC) as admitted by the Commission as on 31.3.2019 for the instant assets are clubbed together and the capital cost has been considered as capital cost for combined asset as on 1.4.2019, as per following details:-

(₹ in lakh)

Element	Asset-I	Asset-II
Free hold Land	0.00	0.00
Leasehold Land	0.00	0.00
Building & Other Civil Works	1328.39	317.25
Transmission Line	125810.95	0.00
Sub-Station Equipment	9428.00	2175.48
PLCC	152.69	0.00
IT Equipment and Software	147.58	14.42
Total	136867.61	2507.13

(₹ in lakh)

Particulars	Capital Cost for combined asset as on 1.4.2019
Freehold Land	0.00
Leasehold Land	0.00
Building & Other Civil Works	1645.64



Transmission Line	125810.95
Sub-Station Equipment	11603.48
PLCC	152.69
IT Equipment and Software	162.00
TOTAL	139374.75

64. The true up capital cost of ₹139374.75 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 of the 2019 Tariff Regulations provides as under:-

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

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

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

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

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

66. The Petitioner has claimed projected ACE for the 2019-24 period as under:-

(₹ in lakh)

Assets	Projected ACE 2019-24
	2019-20
Asset-I	158.14
Asset-II	0.00
Total	158.14



67. It is observed that the projected ACE falls after the cut-off date in the instant petition. The Petitioner vide Auditor's certificate dated 31.7.2019 has submitted that ACE claimed for the period 1.4.2019 to 31.3.2020 is on estimated basis and is on account of undischarged liability towards final payment/ withheld payment due to contractual exigencies for works executed within the cut-off date. The details of ACE projected to be incurred after cut-off date is as under:-

Asset	Work Description	Agency	Undischarged Liabilities/ Balance and Retention payment	Reasons for expenditure beyond cut-off
			2019-20	
I	Compensation in Transmission Line	Farmers/ Land owners	147.49	As per GR of Maharashtra State 2010 later revised in 2017, Land Compensation for Tower base (and for corridor also as per revised GR 2017) has to be paid in all the transmission lines. For payment of Land Compensation, revenue department has to verify the land details and ownership details for each and every tower as per their records and they have to finalize the compensation amount for each farmer as per total area of land and type of land involved. However, Land Compensation assessment from revenue department not received till date, hence payments could not be made earlier. Presently rigorous follow-ups are being made with revenue department for finalization of Land Compensation and is expected to complete in 2019-20
	Civil Works	Various Agencies	10.65	Payments against minor repair works were withheld. Later, after completion of punch points payments released in 2018-19. Presently security deposits and few withheld payments against minor punch points pending which are expected to be disbursed in 2019-20

68. MPPMCL has submitted that the Petitioner's claim of projected ACE of ₹158.14 lakh for Asset-I during 2019-20 may be admitted at the time of truing up. The Petitioner has filed rejoinder vide affidavit dated 25.2.2020 and cited that out of total estimated ACE of ₹158.14 lakh, an amount of ₹10.65 lakh is on account of



balance and retention payment against works executed within cut-off date and balance of ₹147.49 lakh is on account of compensation to be paid to the farmers as per GR of Maharashtra State 2010, later revised in 2017.

69. We have considered the submissions of the Petitioner and MPPMCL. It is observed that ACE projected after the cut-off date is towards the compensation to be paid to the farmers and amount to be paid to civil contractor. The Petitioner can pay compensation to the farmers only after revenue department determines the amount of compensation. The Petitioner has submitted that the revenue department is yet to determine the amount of compensation to be paid to the farmers. The Petitioner has also submitted that contract with the civil contractor is yet to be finalised. Thus, ACE projected after cut-off date is due to the delay in finalisation of the amount to be paid by the Petitioner and is towards the liabilities to be met by Petitioner after finalisation of the amount. Accordingly, ACE claimed by the Petitioner is allowed. However, the Petitioner is directed to submit details of contracts, scope, original liability and undischarged liability as on 31.3.2019 and the Regulation under which such ACE is claimed at the time of true up for 2019-24 period. The allowed ACE is summarized below which is subject to true up:-

Particulars	Regulation	(₹ in lakh)
		Combined Asset 2019-20
ACE to the extent of Balance & Retention Payments & work deferred for execution before cut-off date	Regulation 25(1)(d) of the 2019 Tariff Regulations	158.14



Capital cost for the tariff period 2019-24

70. Accordingly, the capital cost of the combined asset considered for the tariff period 2019-24, subject to truing up, is as follows:-

(₹ in lakh)

Capital Cost allowed as on 1.4.2019	ACE allowed for the year 2019-20	Total Estimated Completion Cost up to 31.3.2024
139374.75	158.14	139532.89

Debt-Equity Ratio

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

“18. Debt-Equity Ratio: (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.”

72. The details of the debt-equity considered for the purpose of tariff for 2019-24 tariff period is as follows:-



(₹ in lakh)

Combined Assets	Capital Cost as on 1.4.2019 (₹ in lakh)	(%)	Total Capital Cost as on 31.3.2024 (₹ in lakh)	(%)
Debt	97562.31	70.00	97562.31	70.00
Equity	41812.44	30.00	41970.58	30.00
Total	139374.75	100.00	139532.89	100.00

Return on Equity (ROE)

73. Regulation 30 and Regulation 31 of the 2019 Tariff Regulations provide as under:-

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

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

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

Provided further that:

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

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

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

- a) rate of return on equity shall be reduced by 0.25% in case of failure to achieve the ramp rate of 1% per minute;*
- b) an additional rate of return on equity of 0.25% shall be allowed for every incremental ramp rate of 1% per minute achieved over and*



above the ramp rate of 1% per minute, subject to ceiling of additional rate of return on equity of 1.00%:

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

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

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

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

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

(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."

74. The Petitioner has submitted that MAT rate is applicable to the Petitioner's Company. Accordingly, the MAT rate applicable during the 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. However, in the instant petition, the Petitioner has claimed the ROE on the basis



of MAT rate of 21.55% whereas the Petitioner in Petition No. 244/TT/2019 has claimed the ROE based on the MAT rate of 17.472% on account of taxation laws (Amendment) ordinance 2019 published in the Gazette dated 20.9.2019. Accordingly, based on the submissions made by the Petitioner in Petition No. 244/TT/2019, the ROE has been allowed for the instant transmission assets considering the applicable MAT rate of 17.472% as under:-

(₹ in lakh)

Combined Assets					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	41812.42	41859.86	41859.86	41859.86	41859.86
Addition due to Additional Capitalization	47.44	0.00	0.00	0.00	0.00
Closing Equity	41859.86	41859.86	41859.86	41859.86	41859.86
Average Equity	41836.14	41859.86	41859.86	41859.86	41859.86
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50
Tax Rate applicable (%)	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)	7857.67	7862.12	7862.12	7862.12	7862.12

Interest on Loan (IOL)

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

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

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

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

(4) Notwithstanding any moratorium period availed by the generating company or the transmission licensee, as the case may be, the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the depreciation allowed for the year or part of the year. (5) The rate of



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

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

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

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

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

76. The weighted average rate of IOL has been considered on the basis of the rate prevailing as on 1.4.2019. The Petitioner has prayed that the change in interest rate due to floating rate of interest applicable, if any, during 2019-24 tariff period will be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of true up. In view of above, IOL has been worked out in accordance with Regulation 32 of the 2019 Tariff Regulations. IOL allowed is as follows:-

(₹ in lakh)

Combined Assets					
Particular	2019-20	2020-21	201-22	2022-23	2023-24
Gross Normative Loan	97562.32	97673.01	97673.01	97673.01	97673.01
Cumulative Repayments upto Previous Year	28536.45	35884.93	43237.48	50590.04	57942.59
Net Loan-Opening	69025.87	61788.08	54435.53	47082.98	39730.42
Addition due to Additional Capitalization	110.70	0.00	0.00	0.00	0.00
Repayment during the year	7348.48	7352.55	7352.55	7352.55	7352.55
Net Loan-Closing	61788.08	54435.53	47082.98	39730.42	32377.87
Average Loan	65406.98	58111.81	50759.25	43406.70	36054.14
Weighted Average Rate of Interest on Loan (%)	8.684	8.686	8.699	8.709	8.707
Interest on Loan	5679.82	5047.75	4415.80	3780.23	3139.11



Depreciation

77. Regulation 33(1), (2) and (5) of the 2019 Tariff Regulations provide as under:-

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

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

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

(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.”

78. The IT equipment has been considered as a part of the Gross Block and depreciated using weighted average rate of depreciation (WAROD). 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 worked out for the Combined Asset is as follows:-



(₹ in lakh)

Combined Assets					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	139374.75	139532.89	139532.89	139532.89	139532.89
Addition during 2019-24 due to Projected Additional Capitalisation	158.14	0.00	0.00	0.00	0.00
Closing Gross Block	139532.89	139532.89	139532.89	139532.89	139532.89
Average Gross Block	139453.82	139532.89	139532.89	139532.89	139532.89
Average Gross Block Other Assets (90% depreciable assets)	139291.82	139370.89	139370.89	139370.89	139370.89
Average Gross Block IT Assets (100% depreciable assets)	162.00	162.00	162.00	162.00	162.00
Rate of Depreciation	5.27	5.27	5.27	5.27	5.27
Elapsed Life	4	5	6	7	8
Balance Useful life of the asset	30	29	28	27	26
Depreciable Value (excluding IT equipment and software) - 90%	125362.64	125433.80	125433.80	125433.80	125433.80
Depreciable value of IT equipment and software - 100%	162.00	162.00	162.00	162.00	162.00
Depreciation during the year	7348.48	7352.55	7352.55	7352.55	7352.55
Remaining Depreciable Value Other Assets	96860.31	89591.52	82247.51	74903.49	67559.47
Remaining Depreciable Value IT Assets	127.89	119.35	110.81	102.28	93.74
Remaining Depreciable Value Total	96988.19	89710.87	82358.32	75005.76	67653.21

Operation & Maintenance Expenses (O&M Expenses)

79. Regulation 35(3) and (4) of the 2019 Tariff Regulations provide as under:

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

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<i>Norms for sub-station Bays (₹ Lakh per bay)</i>					
765 kV	45.01	46.60	48.23	49.93	51.68
400 kV	32.15	33.28	34.45	35.66	36.91
220 kV	22.51	23.30	24.12	24.96	25.84
132 kV and below	16.08	16.64	17.23	17.83	18.46
<i>Norms for Transformers (₹ Lakh per MVA)</i>					
765 kV	0.491	0.508	0.526	0.545	0.564
400 kV	0.358	0.371	0.384	0.398	0.411
220 kV	0.245	0.254	0.263	0.272	0.282
132 kV and below	0.245	0.254	0.263	0.272	0.282
<i>Norms for AC and HVDC lines (₹ Lakh per km)</i>					
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.881	0.912	0.944	0.977	1.011
Single Circuit (Bundled conductor with four sub-conductors)	0.755	0.781	0.809	0.837	0.867



Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Single Circuit (Twin & Triple Conductor)	0.503	0.521	0.539	0.558	0.578
Single Circuit (Single Conductor)	0.252	0.260	0.270	0.279	0.289
Double Circuit (Bundled conductor with four or more sub-conductors)	1.322	1.368	1.416	1.466	1.517
Double Circuit (Twin & Triple Conductor)	0.881	0.912	0.944	0.977	1.011
Double Circuit (Single Conductor)	0.377	0.391	0.404	0.419	0.433
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.319	2.401	2.485	2.572	2.662
Multi Circuit (Twin & Triple Conductor)	1.544	1.598	1.654	1.713	1.773
Norms for HVDC stations					
HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)	834	864	894	925	958
Gazuwaka HVDC Back-to-Back station (₹ Lakh per 500 MW)	1,666	1,725	1,785	1,848	1,913
500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)	2,252	2,331	2,413	2,498	2,586
±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)	2,468	2,555	2,645	2,738	2,834
±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)	1,696	1,756	1,817	1,881	1,947
±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW)	2,563	2,653	2,746	2,842	2,942

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

Provided further that:

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

80. The O&M Expenses claimed by the Petitioner for the instant assets are as follows:-

(₹ in lakh)					
Particulars	2019-20	2020-21	201-22	2022-23	2023-24
Norm (₹ lakh/bay)					
765 kV Bay (AIS)	270.06	279.60	289.38	299.58	310.08
AC & HVDC Lines					
D/C Bundled with 4 or more sub-conductor)	469.31	485.64	502.68	520.43	538.54
Communication System					
PLCC	3.05	3.05	3.05	3.05	3.05
Total O&M Expenses	742.42	768.29	795.11	823.06	851.67

81. The O&M Expenses claimed by the Petitioner are in accordance with Regulation 35(3) of the 2019 Tariff Regulations. Hence, they are allowed as claimed.



Interest on Working Capital (IWC)

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

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

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

(i) Receivables equivalent to 45 days of 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;”

83. The Petitioner has submitted that it has computed IWC for the 2019-24 period considering the bank rate as on 1.4.2019.

84. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The rate of interest on working capital considered is 12.05%. The components of working capital and interest thereon have been worked out as follows:-



(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O & M Expenses	61.87	64.02	66.26	68.59	70.97
Maintenance Spares	111.36	115.24	119.27	123.46	127.75
Receivables	2701.80	2634.61	2558.97	2483.03	2399.80
Total	2875.03	2813.87	2744.50	2675.07	2598.52
Rate of Interest (%)	12.05	12.05	12.05	12.05	12.05
Interest of working capital	346.44	339.07	330.71	322.35	313.12

ANNUAL FIXED CHARGES FOR THE 2019-24 TARIFF PERIOD

85. The various components of the annual fixed charges for the combined transmission asset for the tariff period 2019-24 is summarized below: -

(₹ in lakh)

Particulars	2019-20	2020-21	201-22	2022-23	2023-24
Depreciation	7348.48	7352.55	7352.55	7352.55	7352.55
Interest on Loan	5679.82	5047.75	4415.80	3780.23	3139.11
Return on Equity	7857.67	7862.12	7862.12	7862.12	7862.12
Interest on Working Capital	346.44	339.07	330.71	322.35	313.12
Operation and Maintenance	742.42	768.29	795.11	823.06	851.67
Total	21974.84	21369.78	20756.29	20140.31	19518.57

Filing Fee and Publication Expenses

86. The Petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses, in terms of Clause (1) of Regulation 70 of the 2019 Tariff Regulations. 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 Clause (1) of Regulation 70 of the 2019 Tariff Regulations.

Licence Fee and RLDC Fees and Charges

87. The Petitioner has requested to allow it to bill and recover License fee and RLDC fees and charges, separately from the Respondents. The Petitioner shall be entitled for reimbursement of licence fee and RLDC fees and charges in



accordance with Clause (4) and (3), respectively, of Regulation 70 of the 2019 Tariff Regulations.

Goods and Services Tax

88. The Petitioner has sought to recover GST on transmission charges separately from the Respondents, if at any time GST on transmission is withdrawn from negative list in future. We have considered the submission of the Petitioner. GST is not levied on transmission service at present and we are of the view that Petitioner's prayer is premature and the Petitioner is at liberty to approach the Commission if GST is levied subsequently.

Security Expenses

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



the Petitioner in this regard will be dealt with in accordance with the appropriate provisions of the 2019 Tariff Regulations.

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

92. This order disposes of Petition No. 506/TT/2019.

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

**sd/-
(P. K. Pujari)
Chairperson**

