

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 34/TT/2020

Coram:

**Shri I. S. Jha, Member
Shri Arun Goyal, Member**

Date of Order: 02.02.2021

In the matter of:

Approval under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and truing up of transmission tariff of the 2014-19 period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of the 2019-24 period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 of **Asset-1**:1 no. of 400 kV Bay along with 50 MVAR Line Reactor for Ckt-1 of 400 kV RAPP-Shujalpur Transmission Line and **Asset-2**:1 no. of 400 kV Bay along with 50 MVAR Line Reactor for Ckt-2 of 400 kV RAPP-Shujalpur Transmission Line under "Provision of 400 kV bays at Shujalpur for Part ATS of RAPP 7&8" in Western Region.

And in the matter of:

Power Grid Corporation of India Ltd.,
"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. MadhyaPradesh Audyogik Kendra Vikas Nigam (Indore) Ltd.,
3/54, Press Complex, Agra-Bombay Road,
Indore-452008.
4. Maharashtra State Electricity Distribution Co. Ltd.,
Hongkong Bank Building, 3rd Floor
M.G. Road, Fort,
Mumbai-400001.



5. Maharashtra State Electricity Transmission Co. Ltd.,
Prakashganga, 6th Floor, Plot No. C-19, E-Block,
Bandra Kurla Complex, Bandra (East)
Mumbai-400051.
6. Gujarat Urja Vikas Nigam Ltd.,
Sardar Patel Vidyut Bhawan,
Race Course Road,
Vadodara - 390007.
7. Electricity Department,
Government of Goa, Vidyut Bhawan, Panaji,
Near Mandvi Hotel,
Goa - 403001.
8. Electricity Department,
Administration of Daman & Diu
Daman - 396210.
9. DNH Power Distribution Corporation Ltd.,
Vidyut Bhawan, 66 kV Road, Near Secretariat Amla,
Silvassa - 396230.
10. Chhattisgarh State Power Transmission Co. Ltd.,
State Load Despatch Building,
Dangania, Raipur – 492013.
11. Chhattisgarh State Power Distribution Co. Ltd.,
P.O.Sunder Nagar, Dangania, Raipur
Chhattisgarh-492013.
12. Sterlite Technologies Ltd.,
C2, Mira Corporate Suits, 2nd Floor,
Okhla Crossing, Mathura Road, Ishwar Nagar,
New Delhi-110066

...Respondents

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

For Respondents : None

ORDER

The instant petition has been filed by Power Grid Corporation of India Ltd.
(hereinafter referred to as “the Petitioner”), a deemed transmission licensee, for



truing up of tariff from COD to 31.3.2019 under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) and for determination of tariff for the period from 1.4.2019 to 31.3.2024 under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) in respect of following assets (hereinafter referred to as “the transmission assets”) under “Provision of 400 kV bays at Shujalpur for Part ATS of RAPP 7&8” in Western Region (hereinafter referred to as “the transmission project”):

Asset-1: 1 no. of 400 kV Bay along with 50 MVAR Line Reactor for Ckt-1 of 400 kV RAPP-Shujalpur Transmission Line; and

Asset-2: 1 no. of 400 kV Bay along with 50 MVAR Line Reactor for Ckt-2 of 400 kV RAPP-Shujalpur Transmission Line.

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

“1) Allow the addcap for 2014-19 tariff block as claimed as per Para 5.8 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 5 and 6 above.

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

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

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

6) Allow the 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 9.6 above.

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

9) Allow the Petitioner to bill and recover GST on Transmission Charges separately from the respondents, if GST on transmission is 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 distribution licensees, electricity departments, and transmission utilities, who are procuring transmission services from the Petitioner, mainly beneficiaries of the 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/Shujlapur Bays dated 7.4.2015 with an estimated cost of ₹2371.00 lakh including IDC of ₹69.00 lakh based on December, 2014 price level.

5. The scheme was approved in the 29th meeting of the Standing Committee on Power System Planning of Northern Region held on 29.12.2010, which constitutes the associated transmission system for RAPP 7&8 (2X700 MW) Nuclear power plant in Rajasthan (with a commissioning schedule of June, 2016 and December, 2016). This transmission system agreed in the meeting of Standing Committee on Power System Planning of NR was also taken up for discussions in the 32nd meeting of the Standing Committee on Power System Planning of WR dated



13.5.2011 and the same was endorsed. The entire scope of the transmission project is covered in the instant petition. The transmission project was scheduled to be put into commercial operation within 11 months from the date of IA dated 7.4.2015 i.e. by 6.3.2016. Assets-1 and 2 were put into commercial operation on 4.2.2016 and 28.2.2016 respectively. Thus, there is no time over-run in case of the transmission assets.

6. The tariff for the transmission assets from their respective COD to 31.3.2019 was determined vide order dated 26.10.2016 in Petition No. 106/TT/2016 as per the 2014 Tariff Regulations. The tariff allowed in case of Assets-1 and 2 during the 2014-19 tariff period in order dated 26.10.2016 is trued up in the instant petition.

7. The Petitioner has served the petition on the Respondents and Public Notice regarding filing of this petition 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 by the Petitioner.

8. M.P. Power Management Company Ltd. (MPPMCL), i.e. Respondent No.1, has filed its reply vide affidavit dated 6.2.2020 and has raised issues like grossing up of Return on Equity and additional capital expenditure (ACE) claimed by the Petitioner with regard to 2014-19 period. Maharashtra State Electricity Distribution Company Limited (MSEDCL), i.e. Respondent No.4, has also filed its reply vide affidavit dated 19.3.2020 and has raised issues like grossing up of Return on Equity (RoE), effects of GST and additional taxes and interest on loan. The Petitioner vide affidavits dated 14.7.2020 and 13.7.2020 respectively has filed its rejoinder to the reply filed by MPPMCL and MSEDCL.



9. The hearing in this matter was held on 28.7.2020 through video conference and the order was reserved. This order is issued after considering the submissions made by the Petitioner in the petition dated 18.11.2019, the Petitioner's affidavits dated 12.3.2020 and 14.8.2020, reply affidavit of MPPMCL dated 6.2.2020, reply affidavit of MSEDCL dated 19.3.2020 and Petitioner's rejoinders thereto.

10. Having heard the representative 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

11. The details of the trued up transmission charges claimed by the Petitioner in respect of transmission assets are as follows:

(₹ in lakh)

Asset-1				
Particulars	2015-16 (Pro-rata for 57 days)	2016-17	2017-18	2018-19
Depreciation	3.39	48.96	75.04	80.91
Interest on Loan	3.89	49.09	66.97	65.02
Return on Equity	3.46	49.69	77.09	82.93
Interest on working capital	0.78	6.96	8.72	9.07
O & M Expenses	9.70	64.37	66.51	68.71
Total	21.22	219.07	294.33	306.64

(₹ in lakh)

Asset-2				
Particulars	2015-16 (Pro-rata for 33 days)	2016-17	2017-18	2018-19
Depreciation	1.96	47.82	72.75	78.62
Interest on Loan	2.26	46.80	62.17	60.48
Return on Equity	2.00	48.41	74.52	80.36
Interest on working capital	0.45	6.85	8.50	8.85
O & M Expenses	5.62	64.37	66.51	68.71
Total	12.29	214.25	284.45	297.02

12. The details of the trued up interest on Working Capital (IWC) claimed by the Petitioner in respect of Assets-1 and 2 are as under:



(₹ in lakh)

Asset-1				
Particulars	2015-16 (Pro-rata for 57 days)	2016-17	2017-18	2018-19
O&M expenses	5.19	5.36	5.54	5.73
Maintenance Spares	9.35	9.66	9.98	10.31
Receivables	22.72	36.51	49.06	51.11
Total	37.26	51.53	64.58	67.15
Rate of Interest	13.50	13.50	13.50	13.50
Interest on Working Capital	0.78	6.96	8.72	9.07

(₹ in lakh)

Asset-2				
Particulars	2015-16 (Pro-rata for 33 days)	2016-17	2017-18	2018-19
O&M expenses	5.19	5.36	5.54	5.73
Maintenance Spares	9.35	9.66	9.98	10.31
Receivables	22.72	35.71	47.41	49.50
Total	37.26	50.73	62.93	65.54
Rate of Interest	13.50	13.50	13.50	13.50
Interest on Working Capital	0.45	6.85	8.50	8.85

Capital Cost

13. The Commission vide order dated 26.10.2016 in Petition No. 106/TT/2016 had admitted the capital cost of ₹1185.27 lakh and ₹1176.63 lakh for Assets-1 and 2 respectively as on 31.3.2019 for determination of tariff for the 2014-19 period.

14. The Petitioner vide Auditor's Certificates dated 31.7.2019 has submitted the capital cost upto COD and ACE upto 31.3.2019. The details of approved apportioned capital cost, capital cost as on COD, ACE incurred upto 31.3.2019 as claimed by the Petitioner for Assets-1 and 2 are as under:

(₹ in lakh)

Assets	Approved Apportioned Cost (RCE)	Actual Capital Cost as on COD	Additional Capital Expenditure (Claimed)				Total Capital Cost as on 31.3 2019 (Claimed)
			2015-16	2016-17	2017-18	2018-19	
Asset-1	1424.00	282.74	189.27	737.19	189.59	0.65	1399.44
Asset-2	1424.00	282.74	189.27	693.84	189.59	0.65	1356.09



15. The Petitioner has claimed a capital cost of ₹282.74 lakh each for Assets-1 and 2 as on COD.

16. The total completion cost including ACE in respect of transmission assets is ₹2755.53 lakh and the approved FR cost is ₹2370.54 lakh. Therefore, there is cost over-run in respect to FR cost. However, the Petitioner has submitted Revised Cost Estimate (RCE) of the project approved by its Board of Directors vide Memorandum No. C/CP/PA1617-03-RCE dated 16.3.2017 with an estimated cost of ₹2848 lakh including an IDC of ₹10 lakh based on August 2016 price level. The completion cost including ACE is within the RCE approved apportioned capital cost.

Interest During Construction (IDC)

17. The Petitioner has claimed Interest During Construction (IDC) for the transmission 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.

18. 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.

19. Accordingly, based on the information furnished by the Petitioner, 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-1	4.96	1.74	3.22	1.59	0.15	0.15
Asset-2	4.96	2.97	1.99	1.59	1.38	1.38

Incidental Expenditure During Construction (IEDC)

20. The Petitioner has claimed IEDC of ₹6.10 lakh each for Assets-1 and 2 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 transmission assets. Hence, IEDC has been allowed as claimed.

Initial Spares

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

*“(d) Transmission System
Transmission line: 1.00%
Transmission sub-station (Green Field): 4.00%
Transmission sub-station (Brown Field): 6.00%
Gas Insulated sub-station:5.00%
Communication System: 3.5%”*

22. 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:

Assets	Plant & machinery cost up to cut-off date (excluding IDC and IEDC as per Auditor certificate) (₹ in lakh)	Initial Spares Claimed (₹ in lakh)
Asset-1	1388.38	63.18
Asset-2	1345.03	63.18



23. 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:

Assets	Plant & machinery cost up to cut-off date (excluding IDC and IEDC as per auditor certificate) (₹ in lakh)	Spares Claimed (₹ in lakh)	Ceiling Limit (%) (C)	Allowable Initial Spares Worked out D = $[(A-B)*C / (100-C)]$ (₹ in lakh)	Initial Spares Allowed as on COD (₹ in lakh)
	A	B	C	D	E
Asset-1	1388.38	63.18	6	84.58	63.18
Asset-2	1345.03	63.18	6	81.82	63.18

Capital Cost as on COD

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

Assets	Capital Cost as on COD as per Auditor Certificate	Less: IDC as on COD due to		Capital Cost considered as on COD (on cash basis)
		Computational difference	Undischarged	
	A	B	C	D=A-B-C
Asset-1	282.74	3.22	0.15	279.37
Asset-2	282.74	1.99	1.38	279.37

Additional Capital Expenditure (ACE)

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

Assets	Additional Capital Expenditure			
	2015-16	2016-17	2017-18	2018-19
Asset-1	189.27	737.19	189.59	0.65
Asset-2	189.27	693.84	189.59	0.65

26. The Petitioner vide affidavit dated 12.3.2020 has submitted that ACE incurred for the transmission assets is on account of unexecuted/ balance and balance and retention payments due to undischarged liability towards final payment/ withheld payment due to contractual exigencies for works executed within the cut-off date. ACE claimed during the years 2015-16, 2016-17, 2017-18 and 2018-19 for both 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.

27. The Petitioner has also submitted that ACE upto 31.3.2019 has been considered in the Auditor's certificate as per actuals. The details are as under:

(₹ in lakh)						
Assets	Party and LOA	ACE	2015-16	2016-17	2017-18	2018-19
Asset-1	Techno Electric & Engineering Co Ltd- LoA No CC-CS/415-WR2/SS-2489/3/G7/CA-I/5346 & 5347 Dated 24.4.2015	Unexecuted Work	189.28	737.99	81.38	0.00
		Balance and Retention	0.00	0.00	108.21	0.65
Asset-2	Techno Electric & Engineering Co Ltd- LoA No CC-CS/415-WR2/SS-2489/3/G7/CA-I/5346 & 5347 Dated 24.4.2015.	Unexecuted Work	189.27	646.97	128.25	0.00
		Balance and Retention	0.00	46.87	61.34	0.65

28. MPPMCL has submitted that the Petitioner has claimed actual ACE of ₹189.59 lakh each for Assets-1 and 2 during 2017-18. However, additional capital expenditure approved in the previous order dated 26.10.2016 in Petition No. 106/TT/2016 was ₹6.37 lakh for Asset-2. Further, as per MPPMCL, the same has



been claimed only on the basis of Auditor's Certificate. Therefore, MPPMCL has contended that merely the submission of Auditor's certificate is not sufficient in itself for claiming the amount as ACE. Further, MPPMCL has submitted that the competitive bidding rate with respect to unit rates envisaged in FR has become more than 1.5 times in case of reactor, PLCC and switchgear equipments as far as the sub-station equipment are concerned. Even after this huge increase, the Petitioner is claiming the tariff as on 31.3.2019 within the approved apportioned cost which clearly indicates faulty and over-estimation by the Petitioner.

29. In response, the Petitioner in its rejoinder has stated that ACE approved by the Commission in the order dated 26.10.2016 in Petition No. 106/TT/2016 was based on projection basis. However, ACE claimed in the instant petition is based on actual payments made to the contractor after receipt of final invoices from the contractor and incorporating the amendments and compensation paid as per assessment/ demand finalized by revenue authorities. Further, the Petitioner has submitted that the competitive bidding process was followed for awarding the contract and contract was awarded on the basis of lowest evaluated eligible bidder. Further, the Petitioner has submitted that the item-wise unit prices in contracts and its variation over unit rate considered in FR estimates are beyond the control of the Petitioner.

30. We have considered the submissions of Petitioner and MPPMCL. It is observed that the total estimated completion cost including ACE from 2015-16 to 2018-19 in case of the transmission assets is within the RCE apportioned approved cost.



31. The cut-off date in case of the transmission assets is 31.3.2019. The actual audited ACE claimed by the Petitioner for 2014-19 tariff period is within 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, ACE claimed for the 2014-19 tariff period is allowed under Regulation 14(1)(i) and Regulation 14(1)(ii) of the 2014 Tariff Regulations.

32. The capital cost allowed as on 31.3.2019 after including ACE in respect of the transmission assets are as under:

Asset-1	Capital cost as on COD on cash basis	ACE				Total Capital cost including ACE as on 31.3.2019
		2015-16	2016-17	2017-18	2018-19	
Allowed earlier in order dated 26.10.2016 in Petition No. 106/TT/2016	282.63	189.38	713.26	0.00	0.00	1185.27
Claimed by the Petitioner in the instant petition	282.74	189.27	737.19	189.59	0.65	1399.44
Allowed after true-up in this order	279.37	189.42**	737.19	189.59	0.65	1396.22

**Includes IDC discharged

Asset-2	Capital cost as on COD on cash basis	ACE				Total Capital cost including ACE as on 31.3.2019
		2015-16	2016-17	2017-18	2018-19	
Allowed earlier in order dated 26.10.2016 in Petition No. 106/TT/2016	281.76	190.25	706.89	6.37	0.00	1185.27
Claimed by the Petitioner in the instant petition	282.74	189.27	693.84	189.59	0.65	1356.09
Allowed after true-	279.37	190.65**	693.84	189.59	0.65	1354.10



up in this order

**Includes IDC discharged

Debt-Equity Ratio

33. The Petitioner has considered debt-equity ratio of 70:30 as on 31.3.2014 and for ACE post 31.3.2014. The debt-equity ratio of 70:30 has been considered for capital cost as on 31.3.2014 and ACE during 2014-19 tariff period as provided under Regulation 19 of the 2014 Tariff Regulations. The same has been summarised as under:

Asset-1	Amount as on COD (₹ in lakh)	(%)	Amount as on 31.3.2019 (₹ in lakh)	(%)
Debt	195.56	70.00	977.36	70.00
Equity	83.81	30.00	418.85	30.00
Total	279.37	100.00	1396.22	100.00
Asset-2	Amount as on COD (₹ in lakh)	(%)	Amount as on 31.3.2019 (₹ in lakh)	(%)
Debt	195.56	70.00	947.88	70.00
Equity	83.81	30.00	406.22	30.00
Total	279.37	100.00	1354.10	100.00

Interest on Loan (IoL)

34. 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. Accordingly, IoL is calculated based on actual interest rate, in accordance with Regulation 26 of the 2014 Tariff Regulations. IoL has been worked out as under:

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



35. MSEDCL has submitted that for calculating IoL, weighted average rate of interest should be considered but the Petitioner has considered the rate of IoL on annual basis for the whole period under consideration. In response, the Petitioner in its rejoinder has stated that for computing IoL in Form 9E, the weighted average rate of IoL as computed in Form 9C has been used. The weighted average interest on loan is computed considering the sum total of interest on all the loans deployed during the particular year divided by the sum total of average loans deployed during that year. Therefore, the contention of the Respondent that the interest has been computed considering the rate of interest on loan on annual basis is incorrect and baseless.

36. We have considered the submissions of the Petitioner and MSEDCL. IoL is allowed in accordance with Regulation 26 of the 2014 Tariff Regulations as under:

(₹ in lakh)

Particular	Asset-1			
	2015-16 (Pro-rata for 57 days)	2016-17	2017-18	2018-19
Gross Normative Loan	195.56	328.16	844.19	976.90
Cumulative Repayments upto Previous Year	0.00	3.11	47.93	117.38
Net Loan-Opening	195.56	325.04	796.26	859.53
Addition due to Additional Capitalization	132.59	516.03	132.71	0.46
Repayment during the year	3.11	44.82	69.44	74.47
Net Loan-Closing	325.04	796.26	859.53	785.52
Average Loan	260.30	560.65	827.89	822.52
Weighted Average Rate of Interest on Loan (%)	9.55	8.75	8.14	8.01
Interest on Loan	3.87	49.07	67.37	65.90

(₹ in lakh)

Particular	Asset-2			
	2015-16 (Pro-rata for 33 days)	2016-17	2017-18	2018-19
Gross Normative Loan	195.56	329.02	814.71	947.42
Cumulative Repayments upto Previous Year	0.00	1.81	45.55	112.77
Net Loan-Opening	195.56	327.21	769.16	834.66
Addition due to Additional Capitalization	133.46	485.69	132.71	0.46
Repayment during the year	1.81	43.74	67.22	72.24
Net Loan-Closing	327.21	769.16	834.66	762.87
Average Loan	261.39	548.19	801.91	798.76
Weighted Average Rate of Interest on Loan (%)	9.55	8.54	7.81	7.68
Interest on Loan	2.25	46.84	62.60	61.37

37. Accordingly, IoL approved earlier vide order dated 26.10.2016 in Petition No. 106/TT/2016, claimed by the Petitioner in the instant petition and trued up vide this order is shown in the table as under:

Asset		Particulars				(₹ in lakh)			
Asset	Particulars	2015-16	2016-17	2017-18	2018-19				
Asset-1	Allowed earlier in order dated 26.10.2016 in Petition No. 106/TT/2016	3.92	52.98	71.68	65.63				
	Claimed by the Petitioner in the instant petition	3.89	49.09	66.97	65.02				
	Allowed after true-up in this order	3.87	49.07	67.37	65.90				
Asset-2	Allowed earlier in order dated 26.10.2016 in Petition No. 106/TT/2016	2.26	52.63	71.25	65.45				
	Claimed by the Petitioner in the instant petition	2.26	46.80	62.17	60.48				
	Allowed after true-up in this order	2.25	46.84	62.60	61.37				

Return on Equity (RoE)

38. The Petitioner is entitled to RoE for the transmission assets in terms of Regulations 24 and 25 of the 2014 Tariff Regulations. The Petitioner has submitted that it is liable to pay income tax at MAT rates and has claimed following effective tax rates for the 2014-19 tariff period:



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

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. In response, the Petitioner has submitted that the assessment orders for years 2014-15, 2015-16 and 2016-17 have been issued by the Income Tax Department and Income Tax returns for years 2017-18 and 2018-19 have been filed. The Petitioner has further submitted that the assessment order for the years 2014-15 and 2015-16 was submitted in Petition No. 20/TT/2020 and the copy of assessment order for the year 2016-17 has been filed alongwith the rejoinder.

40. MSEDCL has submitted that the Petitioner has mentioned the effective tax rate for the years 2014-15 and 2015-16. MSEDCL has submitted that the actual tax paid on income from other business activities of the Petitioner are required to be excluded for the computation of the effective tax rate which has not been done by the Petitioner. The Petitioner has claimed grossed up RoE on the basis of actual taxes paid during the years 2016-17 and 2017-18, whereas, for the year 2018-19,



RoE has not been grossed up on the basis of actual tax paid. MSEDCL has further submitted that the Petitioner has not placed on record assessment orders for years 2014-15, 2015-16, 2016-17 and 2017-18 as well as audited accounts in respect of actual taxes paid for 2016-17 and 2017-18. In response to the reply of MSEDCL, the Petitioner has submitted that the effective tax rates for years during the 2014-19 tariff has been submitted in the instant petition. The Petitioner has stated that during 2014-19 period, the Petitioner was liable to pay tax under the provisions of section 115JB of the Income Tax Act, 1961. Therefore, income from all streams of business were taxable at a uniform tax rate. The Petitioner has further clarified that while computing the adjusted book profits liable to be taxed as income under the MAT provisions, no specific deduction/ exemption/ relief was claimed/ allowable for any specific stream of income. Therefore, inclusion/ exclusion of non-transmission income does not impact the computation of effective tax rate used for the purpose of grossing up RoE.

41. We have considered the submissions of the Petitioner and the Respondents. The Commission in order dated 27.4.2020 in Petition No. 274/TT/2019 has arrived at the effective tax rate for the Petitioner based on the notified MAT rates. The relevant portion of the order dated 27.4.2020 is as under:

26. We are conscious that the entities covered under MAT regime are paying Income Tax as per MAT rate notified for respective financial year under IT Act, 1961, which is levied on the book profit of the entity computed as per the Section 115JB of the IT Act, 1961. The Section 115JB(2) defines book profit as net profit in the statement of Profit & Loss prepared in accordance with Schedule-III of the Companies Act, 2013, subject to some additions and deductions as mentioned in the IT Act, 1961. Since the Petitioner has been paying income tax on income computed under Section 115JB of the IT Act, 1961 as per the MAT rates of the respective financial year, the notified MAT rate for respective financial year shall be considered as effective tax rate for the purpose of grossing up of RoE for truing up of the tariff of the 2014-19 tariff period in terms of the provisions of the 2014 Tariff Regulations. Interest imposed on any additional income tax demand as per the Assessment Order of the Income Tax authorities shall be considered on actual payment. However, penalty (for default on the part of the Assessee) if any imposed

shall not be taken into account for the purpose of grossing up of rate of return on equity. Any under-recovery or over-recovery of grossed up rate on return on equity after truing up, shall be recovered or refunded to beneficiaries or the long term transmission customers/ DICs as the case may be on year to year basis. 27. Accordingly, following effective tax rates based on notified MAT rates are considered for the purpose of grossing up of rate of return on equity:

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

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

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

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

43. Accordingly, RoE allowed for the transmission assets are as follows:

(₹ in lakh)				
Particulars	Asset-1			
	2015-16 (Pro-rata for 57 days)	2016-17	2017-18	2018-19
Opening Equity	83.81	140.63	361.79	418.67
Addition due to Additional Capitalization	56.83	221.16	56.88	0.19
Closing Equity	140.63	361.79	418.67	418.86
Average Equity	112.22	251.21	390.23	418.76
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500
Tax Rate applicable (%)	21.342	21.342	21.342	21.549

Rate of Return on Equity (Pre-tax)	19.705	19.705	19.705	19.758
Return on Equity (Pre-tax)	3.44	49.50	76.89	82.74

(₹ in lakh)

Asset-2				
Particulars	2015-16 (Pro-rata for 33 days)	2016-17	2017-18	2018-19
Opening Equity	83.81	141.00	349.15	406.03
Addition due to Additional Capitalization	57.20	208.15	56.88	0.19
Closing Equity	141.00	349.15	406.03	406.22
Average Equity	112.40	245.08	377.59	406.12
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500
Tax Rate applicable (%)	21.342	21.342	21.342	21.549
Rate of Return on Equity (Pre-tax)	19.705	19.705	19.705	19.758
Return on Equity (Pre-tax)	2.00	48.29	74.40	80.24

44. The details of RoE allowed in order dated 26.10.2016 in Petition No. 106/TT/2016, claimed by the Petitioner in the instant petition and trued up in the instant order is shown in the table as under:

(₹ in lakh)

Asset	Particulars	2015-16	2016-17	2017-18	2018-19
Asset-1	Allowed earlier in order dated 26.10.2016 in Petition No. 106/TT/2016	3.48	48.99	70.07	70.07
	Claimed by the Petitioner in the instant petition	3.46	49.69	77.09	82.93
	Allowed after true-up in this order	3.44	49.50	76.89	82.74
Asset-2	Allowed earlier in order dated 26.10.2016 in Petition No. 106/TT/2016	2.01	48.80	69.88	70.07
	As claimed by the Petitioner in the instant petition	2.00	48.41	74.52	80.36
	Allowed after true-up in this order	2.00	48.29	74.40	80.24

Depreciation

45. The Petitioner's claim towards depreciation in this petition was found to be higher than the depreciation allowed in order dated 26.10.2016 in Petition No. 106/TT/2016. The Petitioner has neither given any justification for claiming higher depreciation than that allowed earlier in order dated 26.10.2016 nor made any



specific prayer for allowing higher depreciation in this petition. It is observed that in Petition No. 106/TT/2016, the depreciation for IT equipment was allowed @5.28% vide order dated 26.10.2016. The Petitioner now at the time of truing up of the 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 the salvage value for IT Equipment is NIL as per the 2014 Tariff Regulations. Similar issue had come up in some earlier petitions filed by the Petitioner. In this regard, the Commission in order dated 9.5.2020 in Petition No. 19/TT/2020 held as under:

“31. We have considered the submissions of the Petitioner. The instant assets were put into commercial operation during the 2009-14 period and the tariff from the respective CODs to 31.3.2014 was allowed vide orders dated 30.8.2012 and 9.5.2013 in Petition No.343/2010 and Petition No. 147/TT/2011 respectively. Further, the tariff of the 2009-14 period was trued up and tariff for the 2014-19 period was allowed vide order dated 25.2.2016 in Petition No.10/TT/2015. The Petitioner did not claim any capital expenditure towards “IT Equipment” in the above said three petitions where tariff for the instant assets for the 2009-14 period was allowed, tariff of the 2009-14 period was trued up and tariff for 2014- 19 period was allowed even though there was a clear provision in the 2009 Tariff Regulations and 2014 Tariff Regulations providing depreciation @15% for IT Equipment. Having failed to make a claim as per the 2009 Tariff Regulations (the period during which COD of assets was achieved), the Petitioner has now, at the time of truing up of the tariff allowed for the 2014-19 period has apportioned a part of the capital expenditure to “IT Equipment”. The Petitioner has adopted similar methodology not only in this but in some of the other petitions listed along with the instant petition on 26.2.2020. It is observed that the Petitioner has for the first time apportioned a part of the capital expenditure towards IT Equipment and has claimed depreciation under the head “IT Equipment” @15% at the time of truing up of the tariff of 2014-19 period. Regulation 8(1) of the 2014 Tariff Regulations provides for truing up of the capital expenditure including the additional capital expenditure, incurred upto 31.3.2019, admitted by the Commission after prudence check. We are of the view that scope of truing up exercise is restricted to truing up of the capital expenditure already admitted and apportionment or reapportionment of the capital expenditure cannot be allowed at the time of truing up. Therefore, we are not inclined to consider the Petitioner’s prayer for apportionment of capital expenditure towards IT Equipment and allowing depreciation @ 15% from 1.4.2014 onwards. Accordingly, the depreciation @ 5.28% has been considered for IT Equipment as part of the substation 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. In line with above decision in 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 upto 31.3.2019 while truing up the capital expenditure for the 2014-19 period. However, for 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. The Gross Block during the 2014-19 tariff period has been depreciated at weighted average rate of depreciation (WAROD) and working of WAROD is at Annexure-I(a) and (b). WAROD has been worked out after taking into account the depreciation rates of assets as prescribed in the 2014 Tariff Regulations and depreciation allowed during tariff period 2014-19 is as under:

(₹ in lakh)

Particulars	Asset-1			
	2015-16 (Pro-rata for 57 days)	2016-17	2017-18	2018-19
Opening Gross Block	279.37	468.79	1205.98	1395.57
Additional Capitalisation	189.42	737.19	189.59	0.65
Closing Gross Block	468.79	1205.98	1395.57	1396.22
Average Gross Block	374.08	837.39	1300.78	1395.90
Weighted average rate of Depreciation (WAROD) (%)	5.34	5.35	5.34	5.33
Balance useful life of the asset at the beginning of the year	25	25	24	23
Aggregated Depreciable Value	336.67	753.65	1170.70	1256.31
Combined Depreciation during the year	3.11	44.82	69.44	74.47
Remaining Aggregated Depreciable Value	333.56	705.71	1053.32	1064.46

(₹ in lakh)

Particulars	Asset-2			
	2015-16 (Pro-rata for 33 days)	2016-17	2017-18	2018-19
Opening Gross Block	279.37	470.02	1163.86	1353.45
Additional Capitalisation	190.65	693.84	189.59	0.65
Closing Gross Block	470.02	1163.86	1353.45	1354.10
Average Gross Block	374.70	816.94	1258.66	1353.78
Weighted average rate of Depreciation (WAROD) (%)	5.34	5.35	5.34	5.34



Balance useful life of the asset at the beginning of the year	25	25	24	23
Aggregated Depreciable Value	337.23	735.25	1132.79	1218.40
Combined Depreciation during the year	1.81	43.74	67.22	72.24
Remaining Aggregated Depreciable Value	335.42	689.70	1020.02	1033.39

47. The details of depreciation allowed for the transmission assets vide order dated 26.10.2016 in Petition No. 106/TT/2016, claimed by the Petitioner in the instant petition and trued up in the instant order is shown in the table as under:

(₹ in lakh)					
Asset	Particulars	2015-16	2016-17	2017-18	2018-19
Asset-1	Allowed earlier in order dated 26.10.2016 in Petition No. 106/TT/2016	3.15	44.35	63.33	63.33
	Claimed by the Petitioner in the instant petition	3.39	48.96	75.04	80.91
	Allowed after true-up in this order	3.11	44.82	69.44	74.47
Asset-2	Allowed earlier in order dated 26.10.2016 in Petition No. 106/TT/2016	1.82	44.19	63.18	63.35
	Claimed by the Petitioner in the instant petition	1.96	47.82	72.75	78.62
	Allowed after true-up in this order	1.81	43.74	67.22	72.24

Operation & Maintenance Expenses (O&M Expenses)

48. The details of the O&M Expenses claimed by the Petitioner and allowed under Regulation 29(4)(a) of the 2014 Tariff Regulations are the same and are as under:

(₹ in lakh)				
Asset-1				
Particulars	2015-16 (Pro-rata for 57 days)	2016-17	2017-18	2018-19
Norm (₹ lakh/bay)				
1 No of 400 kV line Bay at Shujalpur	9.70	64.37	66.51	68.71
Total O&M Expenses	9.70	64.37	66.51	68.71

(₹ in lakh)

Asset-2				
Particulars	2015-16 (Pro-rata for 33 days)	2016-17	2017-18	2018-19
Norm (₹ lakh/bay)				
1 No of 400 kV line Bay at Shujalpur	5.62	64.37	66.51	68.71
Total O&M Expenses	5.62	64.37	66.51	68.71

49. The O&M Expenses allowed vide order dated 26.10.2016 in Petition No. 106/TT/2016, claimed by the Petitioner in the instant petition and trued up in the instant order is shown in the table as under:

(₹ in lakh)					
Assets	Particulars	2015-16	2016-17	2017-18	2018-19
Asset-1	Allowed earlier in order dated 26.10.2016 in Petition No. 106/TT/2016	9.73	64.37	66.51	68.71
	Claimed by the Petitioner in the instant petition	9.70	64.37	66.51	68.71
	Allowed after true-up in this order	9.70	64.37	66.51	68.71
Asset-2	Allowed earlier in order dated 26.10.2016 in Petition No. 106/TT/2016	5.63	64.37	66.51	68.71
	Claimed by the Petitioner in the instant petition	5.62	64.37	66.51	68.71
	Allowed after true-up in this order	5.62	64.37	66.51	68.71

Interest on Working Capital (IWC)

50. The Petitioner is entitled to claim IWC 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.

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

51. The trued up IWC allowed for the transmission assets are as under:

(₹ in lakh)

Asset-1				
Particulars	2015-16 (Pro-rata for 57 days)	2016-17	2017-18	2018-19
O & M Expenses	5.19	5.36	5.54	5.73
Maintenance Spares	9.35	9.66	9.98	10.31
Receivables	22.37	35.77	48.14	50.13
Total	36.91	50.79	63.65	66.16
Rate of Interest on working capital(%)	13.50	13.50	13.50	13.50
Interest of working Capital	0.78	6.86	8.59	8.93

(₹ in lakh)

Asset-2				
Particulars	2015-16 (Pro-rata for 33 days)	2016-17	2017-18	2018-19
O & M Expenses	5.19	5.36	5.54	5.73
Maintenance Spares	9.35	9.66	9.98	10.31
Receivables	22.40	35.00	46.52	48.55
Total	36.94	50.02	62.04	64.58
Rate of Interest on working capital(%)	13.50	13.50	13.50	13.50
Interest of working Capital	0.45	6.75	8.38	8.72

52. The details of IWC allowed for the transmission assets in order dated 26.10.2016 in Petition No. 106/TT/2016, claimed by the Petitioner in the instant petition and trued up in the instant order is shown in the table as under:

(₹ in lakh)

Assets	Particulars	2015-16	2016-17	2017-18	2018-19
Asset-1	Allowed earlier in order dated 26.10.2016 in Petition No. 106/TT/2016	0.78	6.92	8.39	8.38
	Claimed by the Petitioner in the instant petition	0.78	6.96	8.72	9.07
	Allowed after true-up in this order	0.78	6.86	8.59	8.93
Asset-2	Allowed earlier in order dated 26.10.2016 in Petition No. 106/TT/2016	0.45	6.91	8.38	8.37
	Claimed by the Petitioner in the instant petition	0.45	6.85	8.50	8.85
	Allowed after true-up in this order	0.45	6.75	8.38	8.72

Approved Annual Fixed Charges For 2014-19 Tariff Period

53. Accordingly, the annual fixed charges allowed for the transmission assets after truing up for the 2014-19 tariff period are as under:

(₹ in lakh)

Asset-1				
Particulars	2015-16 (Pro-rata for 57 days)	2016-17	2017-18	2018-19
Depreciation	3.11	44.82	69.44	74.47
Interest on Loan	3.87	49.07	67.37	65.90
Return on Equity	3.44	49.50	76.89	82.74
Int. on Working Capital	0.78	6.86	8.59	8.93
Op. and Maintenance	9.70	64.37	66.51	68.71
Total	20.91	214.62	288.81	300.75

(₹ in lakh)

Asset-2				
Particulars	2015-16 (Pro-rata for 33 days)	2016-17	2017-18	2018-19
Depreciation	1.81	43.74	67.22	72.24
Interest on Loan	2.25	46.84	62.60	61.37
Return on Equity	2.00	48.29	74.40	80.24
Int. on Working Capital	0.45	6.75	8.38	8.72
Op. and Maintenance	5.62	64.37	66.51	68.71
Total	12.12	210.00	279.11	291.28



54. The annual fixed charges approved vide order dated 26.10.2016 in Petition No. 106/TT/2016, claimed by the Petitioner in the instant petition and trued up in the instant order is shown in the table as under:

(₹ in lakh)					
Asset	Particulars	2015-16	2016-17	2017-18	2018-19
Asset-1	Allowed earlier in order dated 26.10.2016 in Petition No. 106/TT/2016	21.06	217.61	279.98	276.12
	Claimed by the Petitioner in the instant petition	21.22	219.07	294.33	306.64
	Allowed after true-up in this order	20.91	214.62	288.81	300.75
Asset-2	Allowed earlier in order dated 26.10.2016 in Petition No. 106/TT/2016	12.17	216.90	279.20	275.95
	Claimed by the Petitioner in the instant petition	12.29	214.25	284.45	297.02
	Allowed after true-up in this order	12.12	210.00	279.11	291.28

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

55. The Petitioner has submitted the tariff forms for the Combined Asset 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.

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

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	159.58	159.58	159.58	159.58	142.94
Interest on Loan	114.00	101.17	89.07	77.07	64.78
Return on Equity	155.26	155.26	155.26	155.26	155.26
Interest on Working Capital	9.38	9.30	9.22	9.15	8.80
Operation and Maintenance	67.21	69.47	71.81	74.23	76.73
Total	505.43	494.78	484.94	475.29	448.51

57. 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	5.60	5.79	5.98	6.19	6.39
Maintenance Spares	10.08	10.42	10.77	11.13	11.51
Receivables	62.14	61.00	59.79	58.60	55.15
Total	77.82	77.21	76.54	75.92	73.05
Rate of Interest	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	9.38	9.30	9.22	9.15	8.80

Effective Date of Commercial Operation (E-COD)

58. The Petitioner has claimed E-COD of the Combined Asset as 16.2.2016. Based on the trued up admitted capital cost and actual COD of all the assets, the E-COD has been worked out as follows:

Computation of Effective COD						
Asset	Actual COD	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Weight of the cost (%)	No. of Days from last COD	Weighted Days	Effective COD (Latest COD – Total weighted Days)
Asset-I	4.2.2016	1396.22	50.77	24.00	12.18	16.2.2016
Asset-II	28.2.2016	1354.10	49.23	0.00	0.00	
Total		2750.32	100.00			

59. The E-COD is used to determine the lapsed life of the project as a whole, which works out as three (3) 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)

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

61. 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.

62. 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 24 years as shown below:

Admitted Capital Cost as on 31.03.2019				
Particulars	Combined Asset Cost (₹ in lakh) (1)	Life in Years (2)	Weighted Cost (3)=(1) x (2)	Weighted Avg. Life of Asset (in years) (4)=(3)/(1)
Leasehold Land	0.00	25.00	0.00	
Building & Other Civil Works	0.00	25.00	0.00	
Transmission Line	0.00	35.00	0.00	
Sub-Station Equipment	2475.57	25.00	61889.25	
PLCC	145.45	15.00	2181.75	
IT Equipment and Software	129.30	6.67	862.00	
Total	2750.32		64933.00	23.61 years, rounded to 24 years

63. 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, the Effective COD of the assets is 16.2.2016 and the lapsed life of the project as a whole, works out as three (3) 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 21 years.

Capital Cost

64. Regulation 19 of the 2019 Tariff Regulations provide as under:

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

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

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



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

- (a) *Capital cost admitted by the Commission prior to 1.4.2019 duly 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.”*

65. The Petitioner has claimed capital cost of ₹1399.44 lakh and ₹1356.09 lakh for the Assets-1 and 2. Against the overall apportioned approved capital cost (as per RCE) of ₹2848.00 lakh, the estimated completion cost including ACE is ₹2755.53 lakh. The individual capital cost of each asset is also within the respective RCE apportioned capital cost.

66. 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) admitted by the Commission as on 31.3.2019 for the transmission assets are clubbed together and the capital cost considered for the Combined Asset as on 1.4.2019 are as under:

(₹ in lakh)		
Element	Asset-1	Asset-2
Free hold Land	0.00	0.00
Leasehold Land	0.00	0.00
Building & Other Civil Works	0.00	0.00
Transmission Line	0.00	0.00
Sub-Station Equipment	1258.86	1216.71
PLCC	72.72	72.73
IT Equipment and Software	64.64	64.66
Total	1396.22	1354.10

(₹ 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	0.00
Transmission Line	0.00
Sub-Station Equipment	2475.57
PLCC	145.45
IT Equipment and Software	129.30
TOTAL	2750.32

67. The trued up capital cost of ₹2750.32 lakh for Combined Asset is considered as admitted capital cost as on 1.4.2019 for working out tariff for 2019-24 tariff period.

68. The Petitioner has not claimed any ACE during 2019-24 period.

Debt-Equity Ratio

69. Regulations 18(3), (4) and (5) of the 2019 Tariff Regulations provide as under:

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

Provided that:

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

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

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

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

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

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



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

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

70. The details of the debt-equity considered for the purpose of computation of tariff for the 2019-24 tariff period are as follows:

Particulars	Capital Cost as on 1.4.2019 (₹ in lakh)	(%)	Total Capital Cost as on 31.3.2024 (₹ in lakh)	(%)
Debt	1925.24	70.00	1925.24	70.00
Equity	825.07	30.00	825.07	30.00
Total	2750.32	100.00	2750.32	100.00

Return on Equity (RoE)

71. 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.

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.”

72. MSEDCL has contended that the Petitioner while calculating Return on Equity (RoE), has considered MAT at the rate of 18.5% for the whole period under consideration but it has been already declared that for 2019-20, the MAT rate is 15%. Thus, it would change the Effective Tax Rate. This would in turn affect the Grossed up ROE rate and thereby the entire truing up for the period under consideration. In response, the Petitioner vide affidavit dated 13.7.2020 has submitted that from Form-8 submitted along with the instant petition for 2019-24 tariff period, ROE has been correctly calculated @18.782% after grossing up the ROE with MAT rate of 17.472% (i.e. using the reduced Base MAT Rate of 15% + Surcharge 12% + Cess 4%) based on the formula given at Regulation 31(2) of the 2019 Tariff Regulations. Therefore, the contention of the Respondent that ROE has been computed for the whole period under consideration at the MAT rate of 18.5% is incorrect.

73. We have considered the submissions of the Petitioner and MSEDCL. The Petitioner has submitted that MAT rate is applicable to the Petitioner's Company. Accordingly, the MAT rate applicable during the year 2019-20 has been considered for the purpose of RoE, which shall be tried up with actual tax rate in accordance with Clause (3) of Regulation 31 of the 2019 Tariff Regulations. RoE allowed for the Combined Asset is as follows:

(₹ in lakh)

Combined Asset					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	825.07	825.07	825.07	825.07	825.07
Addition due to Additional Capitalization	0.00	0.00	0.00	0.00	0.00
Closing Equity	825.07	825.07	825.07	825.07	825.07
Average Equity	825.07	825.07	825.07	825.07	825.07
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
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)	154.96	154.96	154.96	154.96	154.96

Interest on Loan (IoL)

74. 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”.

75. MSEDCL has submitted that while calculating the interest on loan, Weighted Average Rate of interest should be considered but the Petitioner has considered the rate of Interest on Loan on annual basis for the whole period under consideration. This has increased the tariff during 2019-24 tariff period. Hence, IoL may be allowed after prudence check. The Petitioner in response has submitted that for computing IoL, the weighted average rate of interest on loan as computed in Form 9C has been used. The weighted average interest on loan is computed considering the sum total of interest on all the loans deployed during the particular year divided by the sum total of average loans deployed during that year. Therefore, the argument of MSEDCL that interest has been computed considering the rate of interest on loan on annual basis is incorrect.

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



up. Accordingly, IoL has been worked out in accordance with Regulation 32 of the 2019 Tariff Regulations. IoL allowed for the Combined Asset is as under:

(₹ in lakh)

Combined Asset					
Particular	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	1925.24	1925.24	1925.24	1925.24	1925.24
Cumulative Repayments upto Previous Year	376.85	536.17	695.48	854.79	1014.10
Net Loan-Opening	1548.39	1389.08	1229.77	1070.45	911.14
Addition due to Additional Capitalization	0.00	0.00	0.00	0.00	0.00
Repayment during the year	159.31	159.31	159.31	159.31	159.31
Net Loan-Closing	1389.08	1229.77	1070.45	911.14	751.83
Average Loan	1468.73	1309.42	1150.11	990.80	831.49
Weighted Average Rate of Interest on Loan (%)	7.919	7.903	7.949	8.020	8.002
Interest on Loan	116.30	103.49	91.42	79.46	66.53

Depreciation

77. Regulations 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. 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). The weighted average rate of depreciation (WAROD) has been worked out (Annexure-II) after taking into account the depreciation rates of IT and non-IT assets as prescribed in the 2019 Tariff Regulations. The salvage value of IT equipment has been considered nil, i.e. IT asset has been considered as 100 per cent depreciable. The depreciation has been worked out considering the admitted capital expenditure as on 31.3.2019 and accumulated depreciation up to 31.3.2019. The depreciation allowed for the transmission assets is as follows:

(₹ in lakh)					
Combined Asset					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	2750.32	2750.32	2750.32	2750.32	2750.32
Addition during the year 2019-24 due to projected Additional Capitalisation	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	2750.32	2750.32	2750.32	2750.32	2750.32
Average Gross Block	2750.32	2750.32	2750.32	2750.32	2750.32
Weighted average rate of Depreciation (WAROD) (%)	5.79	5.79	5.79	5.79	5.79
Balance useful life at the beginning	21	20	19	18	17
Aggregated Depreciable Value	2488.22	2488.22	2488.22	2488.22	2488.22
Combined Depreciation during the year	159.31	159.31	159.31	159.31	159.31
Remaining Aggregate Depreciable Value	1952.05	1792.74	1633.43	1474.12	1314.80

Operation & Maintenance Expenses (O&M Expenses)

79. Regulation 35(3)(a) and 35(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
Norms for sub-station Bays (₹ Lakh per bay)					
765 kV	45.01	46.60	48.23	49.93	51.68
400 kV	32.15	33.28	34.45	35.66	36.91
220 kV	22.51	23.30	24.12	24.96	25.84
132 kV and below	16.08	16.64	17.23	17.83	18.46
Norms for Transformers (₹ Lakh per MVA)					
765 kV	0.491	0.508	0.526	0.545	0.564
400 kV	0.358	0.371	0.384	0.398	0.411
220 kV	0.245	0.254	0.263	0.272	0.282
132 kV and below	0.245	0.254	0.263	0.272	0.282
Norms for AC and HVDC lines (₹ Lakh per km)					
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.881	0.912	0.944	0.977	1.011
Single Circuit (Bundled conductor with four sub-conductors)	0.755	0.781	0.809	0.837	0.867
Single Circuit (Twin & Triple Conductor)	0.503	0.521	0.539	0.558	0.578
Single Circuit (Single Conductor)	0.252	0.260	0.270	0.279	0.289
Double Circuit (Bundled conductor with four or more sub-conductors)	1.322	1.368	1.416	1.466	1.517
Double Circuit (Twin & Triple Conductor)	0.881	0.912	0.944	0.977	1.011
Double Circuit (Single Conductor)	0.377	0.391	0.404	0.419	0.433
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.319	2.401	2.485	2.572	2.662
Multi Circuit (Twin & Triple Conductor)	1.544	1.598	1.654	1.713	1.773
Norms for HVDC stations					
HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)	834	864	894	925	958
Gazuwaka HVDC Back-to-Back station (₹ Lakh per 500 MW)	1,666	1,725	1,785	1,848	1,913
500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)	2,252	2,331	2,413	2,498	2,586
±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 Petitioner has claimed O&M Expenses separately for the PLCC under Regulation 35(4) of the 2019 Tariff Regulations @2% of its original project cost in the instant petition. The Petitioner has made similar claim in other petitions as well. Though PLCC is a communication system, it has been considered as part of the



sub-station in the 2014 Tariff Regulations and the 2019 Tariff Regulations and the norms for sub-station has been specified accordingly. Accordingly, the Commission vide order dated 24.1.2021 in Petition No. 126/TT/2020 has already concluded that no separate O&M Expenses can be allowed for PLCC under Regulation 35(4) of the 2019 Tariff Regulations even though PLCC is a communication system. Therefore, the Petitioner's claim for separate O&M Expenses for PLCC @2% is not allowed. The relevant portions of the order dated 24.1.2021 in Petition No.126/TT/2020 are extracted hereunder:

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

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

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

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



81. We have considered the submissions of the Petitioner. The O&M Expenses are allowed for the transmission assets in accordance with Regulation 35(3)(a) of the 2019 Tariff Regulations as under:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Norm (₹ lakh/bay)					
2 No of 400 kV Bays at Shujalpur	64.30	66.56	68.90	71.32	73.82
	64.30	66.56	68.90	71.32	73.82

Interest on Working Capital (IWC)

82. Regulations 34(1)(c), (3) and (4) and Regulation 3(7) of the 2019 Tariff Regulations provides 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 tariff period considering the SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of IWC as 12.05%. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The rate of IWC considered is 12.05% (SBI 1 year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for 2019-20 and 11.25% (SBI 1 year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points) for 2020-24. The components of the working capital and interest allowed thereon is as follows:

(₹ in lakh)

Combined Asset					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O & M Expenses	5.36	5.55	5.74	5.94	6.15
Maintenance Spares	9.65	9.98	10.34	10.70	11.07
Receivables	61.99	60.77	59.56	58.38	56.92
Total	76.99	76.30	75.64	75.02	74.15
Rate of Interest (%)	12.05	11.25	11.25	11.25	11.25
Interest of working capital	9.28	8.58	8.51	8.44	8.34

Annual Fixed Charges for the 2019-24 Tariff Period

84. The various components of the annual fixed charges allowed for the Combined Asset for the 2019-24 tariff period is summarized below:

(₹ in lakh)

Combined Asset					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	159.31	159.31	159.31	159.31	159.31
Interest on Loan	116.30	103.49	91.42	79.46	66.53
Return on Equity	154.96	154.96	154.96	154.96	154.96
Interest on Working Capital	9.28	8.58	8.51	8.44	8.34
Operation and Maintenance	64.30	66.56	68.90	71.32	73.82
Total	504.16	492.91	483.11	473.50	462.97

Filing Fee and Publication Expenses



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

Licence Fee and RLDC Fees and Charges

86. The Petitioner has requested to allow it to bill and recover license fee and RLDC fees and charges, separately from the Respondents. We have considered the submissions of Petitioner. We are of the view that the Petitioner shall be entitled for reimbursement of licence fee and RLDC fees and charges in accordance with Regulation 70(3) and Regulation 70(4) of the 2019 Tariff Regulations.

Goods and Services Tax

87. The Petitioner has sought to recover GST on transmission charges separately from the Respondents, if GST on transmission service is withdrawn from negative list in future.

88. MSEDCL has submitted that the Petitioner has demanded to bill and recover GST on Transmission Charges separately from the respondents, if GST on transmission is levied at any rate in future. Further, Petitioner has also demanded that 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. MSEDCL has submitted that the demand of the Petitioner at this stage is pre-mature. Further, if GST is levied at any rate and at any point of time in future, the same may be claimed in the next truing-up petition. MSEDCL has



further submitted that the Petitioner already raised such demand in Petition No. 40/TT/2018 and the Commission vide order dated 15.11.2018 rightly held that the Petitioner's prayer is premature and accordingly rejected the said prayer. In response, the Petitioner has submitted that currently transmission of electricity by an electric transmission utility is exempt from GST, hence, the transmission charges currently charged are exclusive of GST. Further, if GST is levied at any rate and at any point of time in future, the same shall be borne and additionally paid by the Respondent(s) to the Petitioner and the same shall be charged and billed separately.

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

Security Expenses

90. 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 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 a yearly basis.

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

Capital Spares

92. 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

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

Summary

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

Particulars	(₹ in lakh)			
	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Asset-1	20.91	214.62	288.81	300.75
Asset-2	12.12	210.00	279.11	291.28

95. The Annual Fixed Charges allowed for the Combined Asset for the 2019-24 tariff period in this order are as follows:

Combined Asset	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Annual Fixed Cost	504.16	492.91	483.11	473.50	462.97

96. This order disposes of Petition No. 34/TT/2020.

**Sd/
(Arun Goyal)
Member**

**Sd/
(I. S. Jha)
Member**



Asset-1

Annexure –I(a)

2014-19 Capital Expenditure as on 1.4.2014	Admitted Capital Cost as on COD (₹ in lakh)	ACE (₹ in lakh)				Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (%)	Annual Depreciation as per Regulations			
		2015-16	2016-17	2017-18	2018-19			2015-16 (₹ in lakh)	2016-17 (₹ in lakh)	2017-18 (₹ in lakh)	2018-19 (₹ in lakh)
Sub Station	276.05	115.69	694.25	172.56	0.31	1,258.86	5.28	2.75	39.01	61.90	66.46
PLCC	3.32	39.26	30.14	0.00	0.00	72.72	6.33	0.23	3.65	4.60	4.60
IT Equipment and software	0.00	34.47	12.80	17.03	0.34	64.64	5.28	3.11	44.82	69.44	74.47
TOTAL	279.37	189.42	737.19	189.59	0.65	1,396.22		3.11	44.82	69.44	74.47
Average Gross Block (₹ in lakh)								374.08	837.39	1300.78	1395.90
Weighted Average Rate of Depreciation (₹ in lakh)								5.34%	5.35%	5.34%	5.33%



Asset-2

Annexure –I(b)

2014-19 Capital Expenditure as on 1.4.2014	Admitted Capital Cost as on COD(₹ in lakh)	ACE (₹ in lakh)				Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (%)	Annual Depreciation as per Regulations			
		2015-16	2016-17	2017-18	2018-19			2015-16 (₹ in lakh)	2016-17 (₹ in lakh)	2017-18 (₹ in lakh)	2018-19 (₹ in lakh)
Sub Station	276.05	116.90	650.89	172.56	0.31	1,216.71	5.28	1.59	37.93	59.67	64.23
PLCC	3.32	39.26	30.15	0.00	0.00	72.73	6.33	0.13	3.65	4.60	4.60
IT Equipment and software	0.00	34.49	12.80	17.03	0.34	64.66	5.28	0.08	2.16	2.95	3.41
TOTAL	279.37	190.65	693.84	189.59	0.65	1,354.10		1.81	43.74	67.22	72.24
Average Gross Block (₹ in lakh)								374.70	816.94	1258.66	1353.78
Weighted Average Rate of Depreciation (₹ in lakh)								5.34%	5.35%	5.34%	5.34%



Annexure - II

Asset	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 (%)	Annual Depreciation as per Regulations				
	Capital Expenditure as on 1.4.2019				2019-20 (₹ in lakh)	2020-21 (₹ in lakh)	2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)
Combined Asset	Sub Station	2475.57	2475.57	5.28	130.71	130.71	130.71	130.71	130.71
	PLCC	145.45	145.45	6.33	9.21	9.21	9.21	9.21	9.21
	IT Equipment and software	129.30	129.30	15.00	19.40	19.40	19.40	19.40	19.40
	TOTAL	2750.32	2750.32		159.31	159.31	159.31	159.31	159.31
			Average Gross Block (₹ in lakh)		2750.32	2750.32	2750.32	2750.32	2750.32
			Weighted Average Rate of Depreciation (₹ in lakh)		5.79%	5.79%	5.79%	5.79%	5.79%

