CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

Petition No. 48/TT/2020

Coram:

Shri P.K. Pujari, Chairperson Shri I.S. Jha, Member Shri Arun Goyal, Member

Date of Order : 05.08.2020

In the Matter of:

Approval under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations 1999 and truing up of transmission tariff of 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 the Combined Asset consisting of Asset A1:Combined Asset-(1) 400 kV D/C Mauda II-Betul (Quad) Transmission Line along with associated bays and 2X50 MVAr Line Reactors at Betul GIS, (2) 315 MVA, 400/220 kV ICT-I & ICT-II along with associated bays and 4 nos. 220 kV line bays & 125 MVAr, 420 kV Bus Reactor alongwith associated bays at Betul GIS & (3) 400 kV D/C Betul-Khandwa (Quad) line along with associated bays at both ends and 2X50 MVAr Switchable Line Reactors at Betul GIS & 2X50 MVAr line reactors at Khandwa Sub-station; Asset A2:Khandwa-Indore 400 kV D/C Transmission Line along with associated bays under "Transmission System associated with Mauda Stage-II (2x660 MW) Generation Project" in the Western Region.

And in the Matter of:

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

.....Petitioner

Versus

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- Madhya Pradesh Power Management Company Ltd. Shakti Bhawan, Rampur, Jabalpur - 482008.
- Madhya Pradesh Power Transmission Company Ltd. Shakti Bhawan, Rampur, Jabalpur - 482008.
- Madhya Pradesh Audyogik Kendra, Vikas Nigam (Indore) Ltd., 3/54, Press Complex, Agra-Bombay Road, Indore-452008.
- Maharashtra State Electricity Distribution Co. Ltd. Hongkong Bank Building, 3rd Floor, M.G. Road, Fort, Mumbai-400001.
- Maharashtra State Electricity Transmission Co. Ltd. Prakashganga, 6th Floor, Plot No. C-19, E-Block, Bandra Kurla Complex, Bandra (East) Mumbai-400 051.
- Gujarat Urja Vikas Nigam Ltd. Sardar Patel Vidyut Bhawan, Racecourse Road, Vadodara - 390 007
- Electricity Department Government of Goa, Vidyut Bhawan, Panaji, Near Mandvi Hotel, Goa - 403001.
- Electricity Department, Administration of Daman & Diu, Daman - 396210.
- DNH Power Distribution Corporation Limited. Vidyut Bhawan, 66 kV Road, Near Secretariat Amli, Silvassa - 396230.
- Chhattisgarh State Power Transmission Co. Ltd. State Load Despacth Building, Dangania, Raipur – 492013.



 Chhattisgarh State Power Distribution Co. Ltd. P.O. Sunder Nagar, Dangania, Raipur, Chhattisgarh-492013.

...Respondent(s)

Parties present:

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

For Respondent: None

<u>ORDER</u>

The instant petition has been filed by Power Grid Corporation of India Limited (hereinafter referred to as "the Petitioner"), a deemed transmission licensee, for truing up of the tariff for the period from COD to 31.3.2019 under Regulation 8 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as "the 2014 Tariff Regulations") and for determination of the tariff for the period from 1.4.2019 to 31.3.2024 under Regulation 8 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as "the 2019 Tariff Regulations") in respect of the following assets (herein after referred to as "the 2019 Tariff Regulations") in respect of the following assets (herein after referred to as 'the transmission assets/ Combined Asset') under "Transmission System associated with Mauda Stage-II (2x660 MW) Generation Project" in the Western Region (hereinafter referred to as the 'transmission project'). consisting of the following:



Asset A1(Combined Asset):

(1) 400 kV D/C Mauda II-Betul (Quad) Transmission Line along with associated bays and 2X50 MVAr Line Reactors at Betul GIS;

(2) 315 MVA, 400/220 kV ICT-I & ICT-II along with associated bays and 4 nos. 220 kV line bays & 125 MVAr, 420 kV Bus Reactor alongwith associated bays at Betul GIS &

(3) 400 kV D/C Betul-Khandwa (Quad) line along with associated bays at both ends

and 2X50 MVAr Switchable Line Reactors at Betul GIS & 2X50 MVAr line reactors

at Khandwa Sub-station;

Asset A2:

Khandwa-Indore 400 kV D/C Transmission Line along with associated bays

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

"1) Approve the trued up Transmission Tariff for 2014-19 block and transmission tariff for 2019-24 block for the assets covered under this petition, as per para 9 above

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

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



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

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

6). Allow the Petitioner to file a separate petition before Hon'ble Commission for claiming the overall security expenses and consequential IOWC on that security expenses as mentioned at para 9 above.

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

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

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

Background

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

a) The Investment Approval for the said system was accorded by the Board of Directors of the Petitioner Company on 19.9.2013 vide the Memorandum Ref: C/CP/Investment/Mauda-II dated 24.9.2013 at an estimated cost of ₹157529.54 lakh including an IDC of ₹99992.00 lakh (based on April 2013 price level). Further, Revised Cost Estimate (RCE) of the instant assets was approved by the Board of Directors of the Petitioner Company vide Memorandum dated 21.4.2017 for ₹165615.00 lakh including an IDC of ₹15069.00 lakh (based on May 2017 price level).

b) The tariff from the date of commercial operation to 31.3.2019 for the instant assets was allowed vide order dated 3.10.2018 in Petition No. 191/TT/2017 in accordance with the 2014 Tariff Regulations. The scope of work

covered under "Transmission System associated with Mauda Stage-II (2x660 MW) Generation Project" is as under: -

SI. No.	Asset Description	Asset nomenclature in order dated 3.10.2018 in Petition No. 191/TT/2017	Asset nomenclature in instant petition
1	 400 kV D/C Mauda II-Betul (Quad) Transmission Line along with associated bays and 2X50 MVAr Line Reactors at Betul GIS 315 MVA, 400/220 kV ICT-I & ICT-II along with associated bays and 4 nos. 220 kV line bays & 125 MVAr, 420 kV Bus Reactor alongwith associated bays at Betul GIS 400 kV D/C Betul-Khandwa (Quad) line along with associated bays at both ends and 2X50 MVAr Switchable Line Reactors at Betul GIS & 2X50 MVAr line reactors at Khandwa Sub-station 	Asset-A	Asset-A1
2	Khandwa-Indore 400 kV D/C Transmission Line along with associated bays	Asset-B	Asset-A2

c) The details of commercial operation of the assets along with the time

over-run covered in the instant petition are as under:

Assets	Asset Description	SCOD	COD	Time over-run
Asset- A1	 (1) 400 kV D/C Mauda II- Betul (Quad) Transmission Line along with associated bays and 2X50 MVAr Line Reactors at Betul GIS (2) 315 MVA, 400/220 kV ICT-I & ICT-II along with associated bays and 4 nos. 220 kV line bays & 125 MVAr, 420 kV Bus Reactor alongwith 	19.5.2016	24.8.2017	15 months 6 days



Assets	Asset Description	SCOD	COD	Time over-run
	associated bays at Betul GIS			
	(3) 400 kV D/C Betul- Khandwa (Quad) line along with associated bays at both ends and 2X50 MVAr Switchable Line Reactors at Betul GIS & 2X50 MVAr line reactors at Khandwa Sub- station			
Asset- A2	Khandwa – Indore 400 kV D/C Transmission Line along with associated bays	19.5.2016	1.1.2017	7 months 13 days

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

			(₹ in lakh)
Assets	Particulars	2017-18 (pro-rata)	2018-19
Accest A1	Annual Fixed Charges approved vide order dated 3.10.2018		22180.79
Asset-A1	AFC claimed by the Petitioner based on truing up in the instant petition	12713.11	21599.73
Annual Fixed Charges approved vide order dated 3.10.2018 5809 .21		5878 .34	
Asset-A2	AFC claimed by the Petitioner based on truing up in the instant petition	5805.34	5862.58

4. The Respondents are distribution licensees and power departments, who are procuring transmission service from the Petitioner, mainly beneficiaries of the Western Region.

5. The Petitioner has served the petition on the Respondents and notice of this petition has been published in the newspaper in accordance with Section 64 of the Electricity Act, 2003. No comments/ objections have been received from the general public in response to the aforesaid notice published in the newspaper by the Petitioner. Madhya Pradesh Power Management Company Limited (MPPMCL), Respondent No.1, has filed its reply vide affidavit dated 6.2.2020, in which issues of grossing up of RoE and proposed ACE (additional capital expenditure) for 2018-19 and 2019-20 have been raised. Maharashtra State Electricity Distribution Company Ltd. (MSEDCL), Respondent No. 4, has filed its reply vide affidavit dated 7.2.2020, in which the issues of grossing up of RoE, proposed ACE for 2019-24, calculation of loL and the effect of GST and additional taxes have been raised. The Petitioner, vide separate affidavits dated 18.3.2020, has filed rejoinder to the reply of MPPMCL and MSEDCL. The issues raised by MPPMCL, MSEDCL and the clarifications given by the Petitioner are dealt with in the relevant portions of this order.

6. This order is issued considering the submissions made in the Petition; Petitioner's affidavits dated 12.3.2020, and 11.5.2020; MPPMCL's reply vide affidavit dated 6.2.2020; Petitioner's rejoinder vide affidavit dated 18.3.2020; MSEDCL's reply vide affidavit dated 7.2.2020 and Petitioner's rejoinder vide affidavit dated 18.3.2020.

7. The hearing in this matter was held on 22.5.2020 through video conference and the order was reserved.



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

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

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

		(₹ in lakh)
Particulars	Asset-A	\1
Faiticulais	2017-18 (pro-rata)	2018-19
Depreciation	3640.04	6307.54
Interest on Loan	3888.11	6312.00
Return on Equity	4079.08	7088.51
Interest on Working Capital	290.94	494.67
O&M Expenses	814.94	1397.01
Total	12713.11	21599.73

(₹ in lakh)

	Asset-A2			
Particulars	2016-17 (pro-rata)	2017-18	2018-19	
Depreciation	376.56	1623.35	1679.57	
Interest on Loan	417.47	1683.20	1594.00	
Return on Equity	421.76	1821.91	1892.58	
Interest on Working Capital	33.21	139.89	141.64	
O&M Expenses	128.15	536.99	554.79	
Total	1377.15	5805.34	5862.58	

10. The details of Interest on Working Capital (IWC) claimed by the Petitioner in

respect of the instant assets are as under: -

		(₹ in lakh)
	A	Asset-A1
Particulars	2017-18 (pro- rata)	2018-19
O&M Expenses	112.67	116.42
Maintenance Spares	202.81	209.55

	Asset-A1		
Particulars	2017-18 (pro- rata)	2018-19	
Receivables	3515.37	3594.40	
Total Working Capital	3830.85	3920.37	
Rate of Interest (%)	12.60	12.60	
Interest on Working Capital	482.69	494.67	
Pro-rata interest on Working Capital	290.94	494.67	

(₹ in lakh)

	Asset-A2			
Particulars	2016-17 (pro-rata)	2017-18	2018-19	
O&M Expenses	43.31	44.75	46.23	
Maintenance Spares	77.96	80.55	83.22	
Receivables	930.85	967.56	977.10	
Total Working Capital	1052.12	1092.86	1106.55	
Rate of Interest (%)	12.80	12.80	12.80	
Interest on Working Capital	134.67	139.89	141.64	
Pro-rata interest on Working Capital	33.21	139.89	141.64	

Capital Cost

11. The details of FR apportioned approved capital cost, actual expenditure upto COD, ACE incurred during the 2014-19 period and the 2019-24 period as claimed by the Petitioner are as under:

							(₹ in lakh)
	Apportioned Approved	Actual Capital		Actua			Total Capital
Assets	Capital Cost (RCE)	Cost as on COD	2016-17	2017-18	2018-19	2019-20	Cost as on 31.3.2024
Asset-A1	130150	113728.70	0.00	4908.25	2565.71	401.83	121604.49
Asset-A2	35465	28445.44	1767.68	1594.2	244.12	37.32	32088.76
Total	165615	142174.14	1767.68	6502.45	2809.83	439.15	153693.25



12. We have considered the submissions of the Petitioner and it is observed that the estimated completion cost of the instant assets as on 31.3.2024 including ACE is within the apportioned approved capital cost. Therefore, there is no cost over-run.

Time over-run

13. The scheduled date of commercial operation (SCOD) of the assets under the instant petition was 19.5.2016. Against SCOD, the actual COD of the instant assets were as under:

Assets	SCOD	COD	Time over-run
Asset-A1	19.5.2016	24.8.2017	15 Months 6 days
Asset-A2	19.3.2010	1.1.2017	7 months 13 days

14. The Commission vide order dated 3.10.2018 in Petition No. 191/TT/2017 held that the time over-run in respect of Asset-A1 and Asset-A2 was beyond the control of the Petitioner and the same was condoned. The details of time over-run condoned are as under:

Assets	Time over-run condoned
Asset-A1	15 Months 6 days
Asset-A2	7 months 13 days

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

15. There was time over-run in case of both the instant assets and the same was condoned in order dated 3.10.2018 in Petition No. 191/TT/2017. The Petitioner has claimed IDC for the instant assets as approved by Commission in order dated



3.10.2018 and has submitted the statement showing IDC claim, discharge of IDC liability as on COD and thereafter as under:

Assets	IDC as per Auditor Certificate	IDC discharged upto COD	IDC discharged during 2016- 17	IDC discharged during 2017- 18	(₹ in lakh) IDC discharged during 2018- 19
Asset-A1	12618.51	9877.51	0.00	2079.15	661.85
Asset-A2	2246.84	1837.88	28.13	380.83	0.00
Total	14865.35	11715.39	28.13	2459.98	661.85

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

(₹ in lakh) IEDC **IEDC IEDC** claimed as per discharged Assets considered as on **Auditor Certificate** COD Up to COD Asset-A1 3386.09 3386.09 3386.09 Asset-A2 352.91 352.91 352.91 Total 3739.00 3739.00 3739.00



Initial Spares

17. 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 following ceiling norms: -

"(d) Transmission System Transmission line: 1.00% Transmission sub-station (Green Field): 4.00% Transmission sub-station (Brown Field): 6.00% GIS Sub-station: 5.00%"

18. The Initial Spares claimed by the Petitioner are as under:

Assets	Particulars	P&M cost as on cut-off date (₹ in lakh)	Initial Spares claimed (₹ in lakh)	Initial Spares worked out by the Petitioner (₹ in lakh)	Ceiling Limit
	Transmission Line	78348.08	770.61	783.61	1%
	Sub-station (GIS)	23613.42	1180.00	1180.71	5%
Asset-A1	Brownfield Sub-station	2274.52	136.47	136.47	6%
	Total		2087.08	2100.79	
	Transmission Line	24662.58	24.83	248.87	1%
Asset-A2	Brownfield Sub-station	4273.88	154.37	216.82	5%
	Total		179.20	465.68	

19. The Petitioner has submitted that the Initial Spares claimed for the assets under instant petition are within the ceiling for individual elements. Further, the Petitioner has submitted that the capital cost as on COD includes only the discharged portion of Initial Spares and un-discharged portion is shown as ACE under Balance and Retention payment in the future periods.

20. We have considered the submission of Petitioner. As per APTEL's judgement dated 14.9.2019 in Appeal No. 74 of 2017, the Initial Spares are to be allowed as a percentage of the project cost as a whole as on the cut-off date. As per the 2014 Tariff Regulations, the allowable limit for Initial Spares for transmission line, brownfield substation and GIS sub-stations is 1%, 6% and 5% respectively. The Initial Spares allowed for the instant assets are as under:

Assets	Particulars	P&M cost as on cut- off date (₹ in lakh)	Initial Spares claimed (₹ in lakh)	Ceilin g Limit	Initial Spares worked out (₹ in lakh)	Excess Initial Spares (₹ in Iakh)	Initial Spares allowe d (₹ in Iakh)
		Α	В	С	D=(A- B)*C/(100- C)	E=B-D	F
	Transmission Line	78348.08	770.61	1%	783.61	-	770.61
Asset-	Sub-station (GIS)	23613.42	1180.00	5%	1180.71	-	1180.00
A1	Brownfield Sub-station	2274.52	136.47	6%	136.47	-	136.47
	Total		2087.08		2100.79		2087.08
0 1	Transmission Line	24662.58	24.83	1%	248.87	-	24.83
Asset- A2	Brownfield Sub-station	4273.88	154.37	6%	262.95	-	154.37
	Total		179.20		465.68		179.20

Capital Cost as on COD

21. The capital cost of the instant assets has been calculated in accordance with Regulations 9(3) and 9(6) of the 2014 Tariff Regulations. The Commission vide order dated 3.10.2018 in Petition No. 191/TT/2017 had approved the transmission tariff for the instant assets for the 2014-19 period based on the admitted capital cost as on



COD and projected ACE during the 2014-19 tariff period for the transmission assets as shown under:

(₹ in lakh)

Assets	Capital Cost claimed as on COD (A)	Un- discharged IDC (B)	Un- discharged Initial Spares (C)	Excess Initial Spares disallowed (D)	Capital Cost allowed as on COD (E) = (A-B- C-D)
Asset- A1	113728.70	2741.01	401.75	0.00	110585.94
Asset- A2	28445.44	408.96	110.17	0.00	27926.31
Total	142174.14	3149.96	511.92	0.00	138512.25

22. The Petitioner was allowed the following ACE during the 2014-19 period vide order

dated 3.10.2018 in Petition No.191/TT/2017:

Assets	Apportioned Approved Capital Cost	Admitted Capital Cost as on COD*	Admitted ACE for 2016-17	Admitted ACE for 2017-18	Admitted ACE for 2018-19	(₹ in lakh) Total admitted Capital Cost as on 31.3.2019
Asset- A1	130150.00	110585.94	0.00	9036.41	6045.22	125667.57
Asset- A2	35465.00	27926.31	1682.06	1830.84	568.99	32008.20
Total	165615.00	138512.25	1682.06	10867.25	6614.21	157675.77

*After adjustment of accrued IDC discharged after COD.

23. The details of the capital cost as on COD now approved after adjustment of

IDC, IEDC, and Initial Spares is as under:

(₹ in lakh)

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Assets	Capital Cost claimed as on COD* (A)	Un- discharged IDC as on COD (B)	Un- discharged Initial Spares as on COD (C)**	Excess Initial Spares disallowed (D)	Capital Cost allowed as on COD (E) = (A-B- C-D)
Asset- A1	113728.69	2741.00	0.00	-	110987.69
Asset- A2	28445.44	408.96	0.00	-	28036.48
Total	142174.13	3149.96	0.00	0.00	139024.17

* Includes discharged portion of Initial Spares only

**Undischarged Initial Spares as on COD has been claimed in ACE

Additional Capital Expenditure (ACE)

24. The Commission had allowed ACE of ₹19163.52 lakh for the instant transmission assets during the 2014-19 period towards discharge of IDC liability, Initial Spares liability, and balance and retention payments vide order dated 3.10.2018 in Petition No.191/TT/2017.

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

						(₹ in lakh)
Assets	Apportioned Approved Capital Cost	Admitted Capital Cost as on COD	ACE for 2016-17	ACE for 2017-18	ACE for 2018-19	Total Capital Cost as on 31.3.2019
Asset- A1	130150.00	110987.70	0.00	6987.40	3227.56	121202.66
Asset- A2	35465.00	28036.48	1795.81	1975.03	244.12	32051.44
Total	165615.00	139024.18	1795.81	8962.43	3471.68	153254.10

26. The Petitioner has submitted that the ACE pertains to balance and retention payments and discharge of IDC liability and Initial Spares liability. The Petitioner has claimed ACE of ₹14229.92 lakh during the 2014-19 period against the approved ACE

of ₹19163.52 lakh. In response to a specific query of the Commission, the Petitioner, vide affidavit dated 12.3.2020, has submitted that the capital cost as on COD includes Initial Spares on cash basis only and ACE includes un-discharged portion of Initial Spares.

27. The Petitioner has shown the reversal of ₹2151.93 lakh under crop, tree and land compensation in liability flow statement for 2018-19. In response to the Commission's query in this regard, the Petitioner, vide affidavit dated 8.6.2020, has submitted that the above amount has already been adjusted in the ACE for 2018-19.

28. MPPMCL has submitted that the Petitioner has claimed the ACE amounting to ₹439.15 lakh for 2018-2019. However, the Petitioner has failed to justify its claim for ACE with supporting documents. Therefore, the claim of ACE may be disallowed. In response, the Petitioner has submitted that the claim for 2014-19 period has been duly certified by the Auditor.

29. We have considered the submissions made by the Petitioner and MPPMCL. The ACE claimed by the Petitioner has been allowed under Regulation 14(1)(i) and 14(1)(ii) of the 2014 Tariff Regulations as it is towards balance and retention payments. The un-discharged IDC liability as on COD have been allowed as ACE during the year of its discharge. The allowed ACE from COD to 31.3.2019 in respect of the instant assets covered in the instant petition is summarized as under:

					(₹ in lakh)
Assets	Particulars	2016-17	2017-18	2018-19	Total
Order	in Petition No. 48/TT/2	2020			

Assets	Particulars	2016-17	2017-18	2018-19	Total
	ACE	-	4908.25	2565.71	7473.96
Asset-A1	Un-discharged IDC	-	2079.15	661.85	2741.00
	Total ACE	-	6987.40	3227.56	10214.96
	ACE	1767.68	1594.18	244.12	3605.98
Asset-A2	Un-discharged IDC	28.13	380.83	0.00	408.96
	Total ACE	1795.81	1975.01	244.12	4014.94

30. Accordingly, the Capital Cost as on COD, ACE for the 2014-19 period and Capital cost as on 31.3.2019 considered for truing up of the tariff for the 2014-19 period is as under: -

					(₹ in lakh)
Assets	Admitted Capital Cost		Total Capital Cost as on		
	as on COD	2016-17	2017-18	2018-19	31.3.2019
Asset-A1	110987.69	0.00	6987.40	3227.56	121202.65
Asset-A2	28036.48	1795.81	1975.01	244.12	32051.42
Total	139024.17	1795.81	8962.43	3471.68	153254.07

Debt-Equity ratio

31. The Petitioner has claimed the Debt-Equity ratio of 70:30 as on the date of commercial operation. Debt-Equity ratio of 70:30 is considered as provided in Regulation 19 of the 2014 Tariff Regulations. The details of Debt-Equity ratio in respect of the instant assets as on the date of commercial operation and as on 31.3.2019 are as under: -

(₹ in lakh) **Capital Cost as on COD** Capital Cost as on 31.3.2019 Assets Debt Equity Total Debt Equity Total 70% 30% 100% 70% 30% 100% Asset-A1 77691.38 33296.31 110987.69 84841.85 121202.65 36360.80

	Capital Cost as on COD			Capital Cost as on 31.3.2019		
Assets	Debt	Equity	Total	Debt	Equity	Total
	70%	30%	100%	70%	30%	100%
Asset-A2	19625.54	8410.94	28036.48	22435.99	9615.43	32051.42
Total	97316.92	41707.25	139024.17	107277.87	45976.23	153254.07

Interest on Loan (IoL)

32. The Petitioner has claimed that the weighted average rate of IoL, based on its actual loan portfolio and rate of interest. MSEDCL submitted that while calculating the interest on loan, weighted average rate of interest (WAROI) should be considered but the Petitioner has considered the rate of interest on loan on annual basis for the period under consideration. In response, the Petitioner has submitted that WAROI is only considered for calculating the tariff as mentioned in Form 9E on annual basis. The Petitioner has further submitted that the methodology for computation of WAROI has already been submitted in Petition No. 435/TT/2019.

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

(₹ in lakh)

Asset – A1				
Particulars	2017-18 (pro-rata)	2018-19		
Gross Normative Loan	77691.38	82582.56		
Cumulative Repayments upto Previous Year	0.00	3629.80		



Asset – A1				
Particulars	2017-18 (pro-rata)	2018-19		
Net Loan-Opening	77691.38	78952.77		
Additions	4891.18	2259.29		
Repayment during the year	3629.80	6289.21		
Net Loan-Closing	78952.77	74922.85		
Average Loan	78322.08	76937.81		
Weighted Average Rate of Interest on Loan (%)	8.2367	8.2061		
Interest on Loan	3888.36	6313.56		

			(₹ in lakh)			
Asset – A2						
Particulars	2016-17 (pro-rata)	2017-18	2018-19			
Gross Normative Loan	19625.54	20882.60	22265.11			
Cumulative Repayments upto Previous Year	0.00	375.69	1995.30			
Net Loan-Opening	19625.54	20506.92	20269.81			
Additions	1257.07	1382.51	170.88			
Repayment during the year	375.69	1619.61	1675.64			
Net Loan-Closing	20506.92	20269.81	18765.06			
Average Loan	20066.23	20388.36	19517.43			
Weighted Average Rate of Interest on Loan (%)	8.4376	8.2568	8.1698			
Interest on Loan	417.48	1683.44	1594.54			

				(₹ in lakh)
Assets	Particulars	2016-17	2017-18	2018-19
Asset - A1	Approved vide order dated 3.10.2018 in Petition No. 191/TT/2017	-	3976.99	6608.51
	Claimed by the Petitioner in the instant petition	-	3888.11	6312.00
	Allowed after true-up in this order	-	3888.36	6313.56
Asset – A2	Approved vide order dated 3.10.2018 in Petition No. 191/TT/2017	416.50	1727.87	1657.91

Assets	Particulars	2016-17	2017-18	2018-19
	Claimed by the Petitioner in the instant petition	417.47	1683.20	1594.00
	Allowed after true-up in this order	417.48	1683.44	1594.54

Return on Equity (RoE)

34. The Petitioner is entitled to RoE for the instant assets in accordance with Regulation 24 and Regulation 25 of the 2014 Tariff Regulations. The Petitioner has submitted that they are liable to pay income tax at MAT rates and has claimed the following effective tax rates for the 2014-19 period:

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

35. MPPMCL has submitted that the Petitioner has grossed up RoE on the basis of actual taxes paid during 2016-17 and 2017-18 and has not placed on record the assessment orders for 2016-17 and 2017-18. For 2018-19, it has grossed up RoE and has not claimed the effective tax rate based on actual taxes paid for 2018-19. In response, the Petitioner vide affidavit dated 18.3.2020 has submitted that effective rates of tax considered for 2014-15 and 2015-16 are based on assessment orders issued by Income Tax authorities, for the purpose of grossing up of RoE rate and that the effective rate of tax considered for 2016-17 and 2017-18 are based on the Incometax returns filed, for the purpose of grossing up of ROE rate of respective years.

Further, for 2018-19, effective tax rate is calculated based the applicable MAT rate (i.e. MAT 18.50% + Surcharge 12.00% + Cess 4%), for the purpose of grossing up of RoE rate. The Petitioner also submitted a copy of the Assessment orders for 2014-15 to 2016-17.

36. MSEDCL submitted that the Petitioner had submitted grossed up RoE on the basis of actual taxes paid during 2016-17 and 2017-18 and the Petitioner had not submitted the assessment order for 2014-15, 2015-16, 2016-17 and 2017-18. For 2018-19 the claimed grossed up RoE is not on the basis of actual taxes paid for the year.

37. In response, the Petitioner vide affidavit dated 18.3.2020 has clarified that it had submitted effective tax rates for all the years during the 2014-19 period. Further, the Petitioner submitted that during 2014-15 to 2018-19, the Company/ Petitioner was liable to pay tax under the provisions of section 115JB of the Income tax Act, 1961, i.e., the entire income of the company was liable to be taxed at Minimum Alternate Tax ('MAT') rate. Therefore, all the income from all streams of business were taxable at a uniform tax rate. The Petitioner further submitted 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. Hence, inclusion/ exclusion of non-transmission income does not impact the computation of effective tax rate used for the purpose of grossing up of ROE. The Petitioner further submitted the Income Tax assessment of the

Petitioner had been completed and assessment orders have been issued by the Income Tax Department in case of 2014-15, 2015-16 and 2016-17 and that the Income Tax returns have been filed with the Income Tax Department for the years 2017-18 & 2016-17. Basis of year wise effective tax rate and grossed up RoE for 2014-19 period had already been mentioned as a part of the instant petition. Further, assessment order of 2014-15 and 2015-16 had already been submitted in TV reply for Petition No. 20/TT/2020 and copy of assessment order of financial year 2016-17 was submitted along with the instant rejoinder.

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

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

after truing up, shall be recovered or refunded to beneficiaries or the long term transmission customers/ DICs as the case may be on year to year basis.

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

Year	Notified MAT rates (inclusive of	Effective tax	
	surcharge & cess)	(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	

39. The same MAT rates as considered in order dated 27.4.2020 in Petition No. 274/TT/2019 are considered for the purpose of grossing up of 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.

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



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40. The Petitioner has claimed RoE for the 2014-19 period after grossing up the RoE of 15.50% with Effective Tax rates (based on MAT rates) each year as per the above said Regulation. The RoE is trued up on the basis of the MAT rate applicable in the respective years and is allowed as under: -

		(₹ in lakh)		
Asset – A1				
Particulars	2017-18 (pro-rata)	2018-19		
Opening Equity	33296.31	35392.53		
Additions	2096.22	968.27		
Closing Equity	35392.53	36360.80		
Average Equity	34344.42	35876.66		
Return on Equity (Base Rate) (%)	15.500	15.500		
MAT Rate for respective year (%)	21.342	21.549		
Rate of Return on Equity (%)	19.705	19.758		
Return on Equity	4079.18	7088.33		

(₹ in lakh)

Asset – A2						
Particulars	2016-17 (pro-rata)	2017-18	2018-19			
Opening Equity	8410.94	8949.69	9542.19			
Additions	538.74	592.50	73.24			
Closing Equity	8949.69	9542.19	9615.43			
Average Equity	8680.32	9245.94	9578.81			
Return on Equity (Base Rate) (%)	15.500	15.500	15.500			
MAT Rate for respective year (%)	21.342	21.342	21.549			
Rate of Return on Equity (%)	19.705	19.705	19.758			
Return on Equity	421.77	1821.95	1892.53			

(₹ in lakh)



Assets	Particulars	2016-17	2017-18	2018-19
	Approved vide order dated 3.10.2018 in Petition No. 191/TT/2017	-	4081.50	7215.20
Asset - A1	Claimed by the Petitioner in the instant petition	-	4079.08	7088.51
	Allowed after true-up in this order	-	4079.18	7088.33
	Approved vide order dated 3.10.2018 in Petition No. 191/TT/2017	417.30	1795.71	1866.31
Asset – A2	Claimed by the Petitioner in the instant petition	421.76	1821.91	1892.58
	Allowed after true-up in this order	421.77	1821.95	1892.53

Depreciation

41. The Petitioner's claim towards depreciation for Asset-A2 in this petition was found to be higher than the depreciation allowed in order dated 3.10.2018 in Petition No. 191/TT/2017. The Petitioner has neither given any justification for claiming higher depreciation than that allowed earlier in order dated 3.10.2018 nor made any specific prayer for allowing higher depreciation in this petition. Similar issue had come up in Petition No. 19/TT/2020 wherein the Commission vide order dated 9.5.2020 decided as under:

"31. We have considered the submissions of the Petitioner. The instant assets were put into commercial operation during the 2009-14 period and the tariff from the respective CODs to 31.3.2014 was allowed vide orders dated 30.8.2012and 9.5.2013in 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

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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."

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

					(* 111 iakii)
	Asset-A1		Asset-A2		
Particulars	2017-18 (pro-rata)	2018-19	2016-17 (pro-rata)	2017-18	2018-19
Depreciation					
Opening Gross Block	110987.69	117975.09	28036.48	29832.29	31807.30
Additional Capitalisation	6987.40	3227.56	1795.81	1975.01	244.12
Closing Gross Block	117975.09	121202.65	29832.29	31807.30	32051.42
Average Gross Block	114481.39	119588.87	28934.39	30819.80	31929.36
Freehold Land	88.85	88.85	-	-	-



(**≆** in lakh)

	Asse	t-A1	Asset-A2		
Particulars	2017-18 (pro-rata)	2018-19	2016-17 (pro-rata)	2017-18	2018-19
Weighted Average Rate of Depreciation (WAROD) (%)	5.26	5.26	5.27	5.26	5.25
Balance useful life of the asset	32	31	34	33	32
Elapsed life	0	1	0	1	2
Aggregated Depreciable Value	102953.29	107550.02	26040.95	27737.82	28736.42
Combined Depreciation during the year	3629.80	6289.21	375.69	1619.61	1675.64
Cumulative Depreciation	3629.80	9919.00	375.69	1995.30	3670.94
Remaining Aggregate Depreciable Value	99323.49	97631.02	25665.26	25742.51	25065.49

				(₹ in lakh)
Assets	Particulars	2016-17	2017-18	2018-19
	Approved vide order dated 3.10.2018 in Petition No. 191/TT/2017	-	3650.18	6453.14
Asset – A1	Claimed by the Petitioner in the instant petition	-	3640.04	6307.54
	Allowed after true-up in this order	-	3629.80	6289.21
	Approved vide order dated 3.10.2018 in Petition No. 191/TT/2017	373.83	1608.66	1667.66
Asset – A2	Claimed by the Petitioner in the instant petition	376.56	1623.35	1679.57
	Allowed after true-up in this order	375.69	1619.61	1675.64

Operation & Maintenance Expenses (O&M Expenses)

43. Regulation 29(3) of the 2014 Tariff Regulations specifies the norms for O&M Expenses for the transmission system. Norms specified in respect of the elements covered in the instant asset are as under:

Element	Norms for	Norms for	Norms for	Number	of bays
Liement	2016-17	2017-18	2018-19	Asset-A1	Asset-A2
400 kV Sub-station	₹64.37 lakh/	₹66.51 lakh/	₹68.71 lakh/	2	6
	bay	bay	bay	2	0
220 kV GIS Sub-	₹45.06 lakh/	₹46.55 lakh/	₹48.10 lakh/	6	0
station	bay	bay	bay	0	0



Element	Norms for			Number	of bays
	2016-17	2016-17 2017-18	2018-19	Asset-A1	Asset-A2
400 kV GIS Sub- station	₹55.02 lakh/ bay	₹56.84 lakh/ bay	₹58.73 lakh/ bay	9	0

Element	Norms for	Norms for	Norms for	Line Len	gth (km)
Liement	2016-17	5-17 2017-18 2018-19		Asset-A1	Asset-A2
D/C Bundled (4 or more sub- conductor)	₹1.133 lakh/ km	₹1.171 lakh/ km	₹1.210 lakh/ km	365.64	0.54
D/C Twin/Triple Conductor	₹ 0.755 lakh/ km	₹ 0.780 lakh/ km	₹ 0.806 lakh/ km	0.00	176.03

44. The total O&M Expenses claimed by the Petitioner for the instant assets are as

under:

			(₹ in lakh)
Assets	2016-17	2017-18	2018-19
Asset – A1	0.00	814.94	1397.01
Asset – A2	128.15	536.99	554.79

45. The O&M Expenses allowed for the instant assets are as under:

			(₹ in lakh)
Assets	2016-17	2017-18	2018-19
Asset – A1	0.00	814.93	1397.01
Asset – A2	128.15	537.00	554.79

(₹	in	lakh)

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Assets	Particulars	2016-17	2017-18	2018-19
	Approved vide order dated 3.10.2018 in Petition No. 191/TT/2017	-	814.93	1397.07
Asset – A1	Claimed by the Petitioner in the instant petition	-	814.94	1397.01
	Allowed after true-up in this order	-	814.93	1397.01
Accet A2	Approved vide order dated 3.10.2018 in Petition No. 191/TT/2017	128.15	537.00	554.79
Asset – A2	Claimed by the Petitioner in the instant petition	128.15	536.99	554.79

Assets	Particulars	2016-17	2017-18	2018-19
	Allowed after true-up in this order	128.15	537.00	554.79

Interest on Working Capital (IWC)

46. The IWC has been worked out as per the methodology provided in Regulation

28 of the 2014 Tariff Regulations and allowed as under: -

		(₹ in lakh)			
Asset-A1					
Particulars	2017-18 (pro-rata)	2018-19			
O&M Expenses	112.67	116.42			
Maintenance Spares	202.81	209.55			
Receivables	3512.57	3597.07			
Total Working Capital	3828.04	3923.04			
Rate of Interest (%)	12.60	12.60			
Interest of Working Capital	290.72	494.30			

(₹ in lakh)

Asset-A2					
Particulars	2016-17 (pro-rata)	2017-18	2018-19		
O&M Expenses	43.31	44.75	46.23		
Maintenance Spares	77.96	80.55	83.22		
Receivables	930.26	966.97	976.51		
Total Working Capital	1051.53	1092.27	1105.96		
Rate of Interest (%)	12.80	12.80	12.80		
Interest of Working Capital	33.19	139.81	141.56		

(₹ in lakh)

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Assets	Particulars	2016-17	2017-18	2018-19
Asset – A1	Approved vide order dated 3.10.2018 in Petition No. 191/TT/2017	-	293.11	506.87
	Claimed by the Petitioner in the instant petition	-	290.94	494.67
	Allowed after true-up in this order	-	290.72	494.30
Asset – A2	Approved vide order dated 3.10.2018 in Petition No. 191/TT/2017	33.03	139.97	141.68

Assets	Particulars	2016-17	2017-18	2018-19
	Claimed by the Petitioner in the instant petition	33.21	139.89	141.64
	Allowed after true-up in this order	33.19	139.81	141.56

Approved Annual Fixed Charges for the 2014-19 Tariff Period

47. The trued up annual fixed charges for the instant transmission assets for the

2014-19 tariff period are as under:-

		(₹ in lakh)					
	Asset-A1						
Particulars	2017-18 (pro-rata)	2018-19					
Depreciation	3629.80	6289.21					
Interest on Loan	3888.36	6313.56					
Return on Equity	4079.18	7088.33					
Interest on Working Capital	290.72	494.30					
O&M Expenses	814.93	1397.01					
Total	12702.98	21582.41					

(₹ in lakh)

Asset-A2							
Particulars	2016-17 (pro-rata)	2017-18	2018-19				
Depreciation	375.69	1619.62	1675.64				
Interest on Loan	417.48	1683.44	1594.54				
Return on Equity	421.77	1821.95	1892.53				
Interest on Working Capital	33.19	139.81	141.56				
O&M Expenses	128.15	537.00	554.79				
Total	1376.27	5801.81	5859.07				

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

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

(₹ in lakh)

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Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	8088.42	8099.08	8099.08	8099.08	8099.08
Interest on Loan	7373.68	6704.93	6034.38	5366.09	4693.28
Return on Equity	8647.63	8660.00	8660.00	8660.00	8660.00
Interest on Working Capital	424.98	418.49	410.63	402.90	394.16
O&M Expenses	1432.12	1482.10	1533.66	1587.43	1641.87
Total	25966.83	25364.60	24737.75	24115.50	23488.39

49. The Petitioner has claimed the following IWC 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	119.34	123.51	127.81	132.29	136.82
Maintenance Spares	214.82	222.32	230.05	238.11	246.28
Receivables	3192.64	3127.14	3049.86	2973.14	2887.92
Total Working Capital	3526.80	3472.97	3407.72	3343.54	3271.02
Rate of Interest (%)	12.05	12.05	12.05	12.05	12.05
Interest of Working Capital	424.98	418.49	410.63	402.90	394.16

Effective Date of Commercial Operation (E-COD)

50. The Petitioner has stated that E-COD of the Combined Asset works out to be 6.7.2017 and the same has been worked out based on the Capital Cost as on 31.3.2019 of the 2 individual assets as under:

Assets	Trued-up Capital Cost as on 31.3.2019 (₹ in lakh)	COD	No. of days from COD of Asset from COD of Project	Weight of cost (%)	Weighted days	
Asset-A1	121202.65	24.8.2017	0	79.09%	0.00000	
Asset-A2	32051.42	1.1.2017	235	20.91%	49.14769	
Total	153254.07			100.00%	49.14769	
Effective COD - 6.7.2017						



Weighted Average Life (WAL) of the instant assets

51. The WAL has been determined based on the admitted Capital Cost of individual elements as on 31.3.2019 and their respective life as specified in the 2019 Tariff Regulations. Accordingly, WAL of the instant assets put into commercial operation during 2014-19 period has been worked out as 32 years as under: -

Particulars (1)	Combined Asset (₹ in lakh) (2)	Life in Years (3)	Weighted Cost (₹ in lakh) (4) = (2)x(3)	Weighted Avg. Life of Asset (in years) (5) = (4)/ (2)
Land – Freehold	Not Defined		0.00	
Land – Leasehold	0	0.00	0.00	
Building Civil Works & Colony	25	2005.22	50130.57	
Transmission Line	35	115041.44	4026450.40	
Sub Station	25	35229.17	880729.25	
PLCC	15	656.54	9848.10	
IT Equipment (Incl. Software)	6	232.85	1397.10	
Total		153165.22	4968555.42	32.43 years, rounded off to 32 years

* Total Capital Cost as on 31.3.2019 is ₹153254.07 lakh which includes land of ₹88.85 lakh which is not considered for weighted average life of the assets.

Capital Cost as on 1.4.2019

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

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

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

(a) The expenditure incurred or projected to be incurred up to the date of commercial operation of the project;



(b) Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;

(c) Any gain or loss on account of foreign exchange risk variation pertaining to the loan amount availed during the construction period;

(d) Interest during construction and incidental expenditure during construction as computed in accordance with these regulations;

(e) Capitalised initial spares subject to the ceiling rates in accordance with these regulations;

(f) Expenditure on account of additional capitalization and de-capitalisation determined in accordance with these regulations;

(g) Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the date of commercial operation as specified under Regulation 7 of these regulations;

(h) Adjustment of revenue earned by the transmission licensee by using the assets before the date of commercial operation;

(i) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;

(*j*) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of the generating station but does not include the transportation cost and any other appurtenant cost paid to the railway;

(*k*) Capital expenditure on account of biomass handling equipment and facilities, for co-firing;

(*I*) 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."

53. The Petitioner vide Auditor's Certificates dated 2.8.2019 has claimed Capital

Cost of ₹153254.07 lakh as on 31.3.2019 for the Combined Asset. The Capital Cost of

₹153254.07 lakh as on 31.3.2019 for Combined Asset has been worked out and the

same has been considered as the opening Capital Cost as on 1.4.2019 for determination of tariff in accordance with Regulation 19 of the 2019 Tariff Regulations.

Additional Capital Expenditure (ACE)

54. Regulation 24 and Regulation 25 of the 2019 Tariff Regulations provide as

under: -

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

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

(a) Undischarged liabilities recognized to be payable at a future date;

(b) Works deferred for execution;

(c) Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 23 of these regulations;

(d) Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority or order or decree of any court of law;

(e) Change in law or compliance of any existing law; and

(f) Force Majeure events:

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

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

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

(1) The ACE incurred or projected to be incurred in respect of an existing project or a new project on the following counts within the original scope of work and after the cutoff date may be admitted by the Commission, subject to prudence check:

a) Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority, or order or decree of any court of law;
b) Change in law or compliance of any existing law;

c) Deferred works relating to ash pond or ash handling system in the original scope of work;



d) Liability for works executed prior to the cut-off date;

e) Force Majeure events;

f) Liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments; and

a) Raising of ash dyke as a part of ash disposal system.

(2) In case of replacement of assets deployed under the original scope of the existing project after cut-off date, the additional capitalization may be admitted by the Commission, after making necessary adjustments in the gross fixed assets and the cumulative depreciation, subject to prudence check on the following grounds:

(a) The useful life of the assets is not commensurate with the useful life of the project and such assets have been fully depreciated in accordance with the provisions of these regulations;

(b) The replacement of the asset or equipment is necessary on account of change in law or Force Majeure conditions;

(c) The replacement of such asset or equipment is necessary on account of obsolescence of technology; and

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

55. As per the Auditor's Certificates, the Petitioner has claimed ₹439.15 lakh for the

Combined Asset (₹401.83 lakh for Asset-A1 and ₹37.32 lakh for Asset-A2) as ACE for

2019-20 during the 2019-24 period. The Petitioner has claimed the following capital

cost as on 31.3.2024: -

				(₹ in lakh)
	Apportioned	Total Capital	Estimated ACE	Total Capital
Assets	Approved Capital Cost	Cost as on 31.3.2019	2019-20	Cost as on 31.3.2024
Asset-A1	130150.00	121202.65	401.83	121604.48
Asset-A2	35465.00	32051.42	37.32	32088.74
Total	165615.00	153254.07	439.15	153693.22

56. MPPMCL has submitted that the proposed ACE for 2019-20 is not supported by proper documents and details. In response, the Petitioner vide affidavit dated 18.3.2020 has submitted that the estimated ACE is to be incurred for balance and

retention payment and works deferred for execution for building and civil works, substation, PLCC and IT equipment, and is claimed under Regulation 24(1)(a) of the 2019 Tariff Regulations.

57. MSEDCL has submitted that the proposed ACE of ₹439.15 lakh has been proposed for 2019-20 without proper details and justification for the same. It further submitted that it has been only mentioned that it is within the cut off date and it is not sufficient for allowing the Petitioner's claim and accordingly, it may be considered in the next truing up petition. In response, the Petitioner vide affidavit dated 18.3.2020 has submitted that an estimated ACE for ₹439.15 lakh has been claimed for 2019-20 under Regulation 24(1)(a) of the 2019 Tariff Regulations.

58. We have considered the submission made by the Petitioner, MPPMCL and MSEDCL. The ACE claimed by the Petitioner has been allowed under Regulation 24(1)(a) and 24(1)(b) of the 2019 Tariff Regulations as it is towards un-discharged liabilities recognised to be payable at a future date and balance work deferred for execution. Accordingly, the projected ACE allowed during the 2019-24 period in respect of the instant Combined Asset is summarized as under:

		(₹ in lakh)
Assets	ACE for 2020-21	Total ACE for 2019-24
Asset-A1	401.83	401.83
Asset-A2	37.32	37.32
Total	439.15	439.15

59. Accordingly, the Capital Cost as on 31.3.2024 is considered as under:

(₹ in lakh)

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Assets	Admitted Capital	Admitted ACE	Total Capital Cost as on 31.3.2024	
	Cost as on 1.4.2019	2019-24		
Combined Asset	153254.07	439.15	153693.22	

Debt-Equity ratio

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

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

Provided that:

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

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

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

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

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

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

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

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

61. The details of the debt and equity considered for the purpose of computation of

tariff for the 2019-24 tariff period for the Combined Asset is as under: -

Particulars	Capital Cost as on 1.4.2019 (₹ in lakh)	%	ACE during 2019-24 (₹ in lakh)	%	Capital Cost as on 31.3.2024 (₹ in lakh)	%
Debt	107277.85	70.00	307.41	70.00	107585.26	70.00
Equity	45976.22	30.00	131.75	30.00	46107.97	30.00
Total	153254.07	100.00	439.15	100.00	153693.22	100.00

Return on Equity (RoE)

62. 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 runof 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

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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:

Rate of pre-tax return on equity = 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:

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."

63. The Petitioner has submitted that MAT rate is applicable to the Petitioner's company. MSEDCL has submitted that the Petitioner has calculated the ROE considering the MAT @18.5% for the whole period under consideration but it has been already declared that for FY 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 has submitted that the ROE has been calculated @18.782% after grossing up ROE with MAT rate of 17.472% (15% plus applicable Surcharge and Health and Education Cess) based on the formula given in Regulation 31(2) of the 2019 Tariff Regulations. As per Regulation 31(3) of the 2019 Tariff Regulations, the grossed up rate of ROE at the end of every financial year shall be trued up 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 IT 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 ROE 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.

64. We have considered the submissions of the Petitioner and MSEDCL. Accordingly, the MAT rate applicable in 2019-20 has been considered for the purpose of RoE for the tariff period 2019-24, which shall be trued up with actual tax rate in accordance with Regulation 31(3) of the 2019 Tariff Regulations. RoE allowed for the Combined Asset is as under:-

				(₹ in lakh)
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
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Return on Equity	8647.40	8659.77	8659.77	8659.77	8659.77
Rate of Return on Equity (%)	18.782	18.782	18.782	18.782	18.782
MAT Rate for respective year (%)	17.472	17.472	17.472	17.472	17.472
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
Average Equity	46042.09	46107.97	46107.97	46107.97	46107.97
Closing Equity	46107.97	46107.97	46107.97	46107.97	46107.97
Additions	131.75	-	-	-	-
Opening Equity	45976.22	46107.97	46107.97	46107.97	46107.97

Interest on Loan (IoL)

65. 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."

66. MSEDCL has submitted that while calculating the interest on loan, Weighted Average Rate of interest shall be considered but the Petitioner has considered the Rate of interest on Loan on Annual Basis for the whole period under consideration. This has led to major burden on the tariff in this control period. Hence, prudence check must be done for determining interest on loan for the period under consideration. The Petitioner in response, has submitted that while calculating the tariff, the weighted Average rate of interest on loan is used mentioned in Form 9E on annual basis for the whole period under consideration. Extensive calculation for weighted rate of interest has already been submitted in Petition no. 435/TT/2019. Therefore, the Petitioner requested to allow the cost and tariff as claimed in the instant petition.

67. 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 the 2019-24 tariff period will be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of true up. Therefore, IoL has been allowed in accordance with Regulation 32 of the 2019 Tariff Regulations. IoL allowed for the Combined Asset is as under: -

					(₹ in lakh)
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	107277.85	107585.26	107585.26	107585.26	107585.26
Cumulative Repayments upto Previous Year	13589.94	21678.35	29777.43	37876.51	45975.59
Net Loan-Opening	93687.91	85906.90	77807.82	69708.74	61609.66
Additions	307.41	0.00	0.00	0.00	0.00
Repayment during the year	8088.41	8099.08	8099.08	8099.08	8099.08
Net Loan-Closing	85906.90	77807.82	69708.74	61609.66	53510.58
Average Loan	89797.41	81857.36	73758.28	65659.20	57560.12
Weighted Average Rate of Interest on Loan (%)	8.2165	8.1965	8.1874	8.1795	8.1615
Interest on Loan	7378.22	6709.43	6038.90	5370.60	4697.76

Depreciation

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

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

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

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

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



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

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

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

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

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

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

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

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

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

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

69. The IT equipment has been considered as a part of the Gross Block and

depreciated using weighted average rate of depreciation (WAROD) (as placed in

Annexure-2). WAROD has been worked out after taking into account the depreciation rates of IT and non-IT assets as prescribed in the 2019 Tariff Regulations. The salvage value of IT equipment has been considered nil, i.e. IT asset has been considered as 100 per cent depreciable. The depreciation has been worked out considering the admitted capital expenditure as on 31.3.2019 and accumulated depreciation up to 31.3.2019. The depreciation allowed for the instant asset is as under: -

					(₹ in lakh)
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation					
Opening Gross Block	153254.07	153693.22	153693.22	153693.22	153693.22
Additional Capitalisation	439.15	0.00	0.00	0.00	0.00
Closing Gross Block	153693.22	153693.22	153693.22	153693.22	153693.22
Average Gross Block	153473.65	153693.22	153693.22	153693.22	153693.22
Freehold Land	88.85	88.85	88.85	88.85	88.85
Rate of Depreciation	5.27	5.27	5.27	5.27	5.27
Balance useful life of the asset	31	30	29	28	27
Elapsed life	1	2	3	4	5
Aggregate Depreciable value	138069.60	138267.22	138267.22	138267.22	138267.22
Depreciation during the year	8088.41	8099.08	8099.08	8099.08	8099.08
Aggregate Cumulative Depreciation	21678.35	29777.43	37876.51	45975.59	54074.67
Remaining Aggregate Depreciable Value	116391.25	108489.79	100390.71	92291.63	84192.55

Operation & Maintenance Expenses (O&M Expenses)

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

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



Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Norms for sub-station Bays (₹ Lakh per	· bav)				
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 M					I
765 kV	0.491	0.508	0.526	0.545	0.564
400 kV	0.358	0.371	0.384	0.398	0.411
220 kV	0.245	0.254	0.263	0.272	0.282
132 kV and below	0.245	0.254	0.263	0.272	0.282
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-	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 bipole 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 substation 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."

71. The O&M expenses claimed by the Petitioner for the Combined Asset for the

2019-24 period are as under: -

					(₹ in lakh)
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses (₹ in lakh)	1432.12	1482.10	1533.66	1587.43	1641.87

72. The O&M Expenses allowed as per the norms specified in the 2019 Tariff

Regulations for the Combined Asset are as under:

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses					
400 kV					
No. of bays	8	8	8	8	8
Norms (₹ lakh/Bay)	32.15	33.28	34.45	35.66	36.91
400 kV GIS	-				
No. of bays	9	9	9	9	9
Norms (₹ lakh/Bay)	22.505	23.296	24.115	24.962	25.837
220 kV GIS					
No. of bays	6	6	6	6	6
Norms (₹ lakh/Bay)	15.757	16.31	16.884	17.472	18.088
Transformer(s)					
400 kV					

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses					
Capacity MVA	630	630	630	630	630
Norms (₹ lakh/MVA)	0.358	0.371	0.384	0.398	0.411
Transmission Line					
D/C Bundled (4 or more sub-conductor)					
Line Length (km)	366.18	366.18	366.18	366.18	366.18
Norms (₹ lakh/km)	1.322	1.368	1.416	1.466	1.517
D/C Twin/Triple Conductor					
Line Length (km)	176.03	176.03	176.03	176.03	176.03
Norms (₹ lakh/km)	0.881	0.912	0.944	0.977	1.011
Total O&M expense (₹ in lakh)	1432.13	1482.10	1533.67	1587.44	1641.86

Interest on Working Capital (IWC)

73. Regulation 34(1)(c), Regulation 34(3), Regulation 34(4) and Regulation 3(7) of

the 2019 Tariff Regulations provide as under:

"34. Interest on Working Capital

(1) ...

- (c) For Hydro Generating Station (including Pumped Storage Hydro Generating Station) and Transmission System:
 - i. Receivables equivalent to 45 days of fixed cost;
 - *ii. Maintenance spares @ 15% of operation and maintenance expenses including security expenses; and*
 - *iii.* Operation and maintenance expenses, including security expenses for one month"

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

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



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

"3. Definitions ...

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

74. The Petitioner has submitted that it has computed IWC for the 2019-24 period considering the SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of IWC as 12.05%.

75. The IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The rate of IWC considered is 12.05% (SBI 1-year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points). The components of the working capital and interest allowed thereon are as under: -

					(₹ in lakh)
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	119.34	123.51	127.81	132.29	136.82
Maintenance Spares	214.82	222.31	230.05	238.12	246.28
Receivables	3193.18	3127.68	3050.40	2973.68	2888.45
Total Working Capital	3527.34	3473.50	3408.25	3344.08	3271.55
Rate of Interest (%)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	425.05	418.56	410.69	402.96	394.22

Annual Fixed Charges of the 2019-24 Tariff Period

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

					(₹ in lakh)
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	8088.41	8099.08	8099.08	8099.08	8099.08
Interest on Loan	7378.22	6709.43	6038.90	5370.60	4697.76
Return on Equity	8647.40	8659.77	8659.77	8659.77	8659.77
Interest on Working Capital	425.05	418.56	410.69	402.96	394.22
O&M Expenses	1432.13	1482.10	1533.67	1587.44	1641.86
Total	25971.20	25368.94	24742.11	24119.86	23492.69

Filing Fee and the Publication Expenses

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

Licence Fee & RLDC Fees and Charges

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

Goods and Services Tax

79. The Petitioner has submitted that, if GST is levied at any rate and at any point of time in future on charges of transmission of electricity, the same shall be borne and additionally paid by the Respondents to the Petitioner and the same shall be charged and billed separately by the Petitioner. Further additional taxes, if any, are to be paid

by the Petitioner on account of demand from Government / Statutory authorities, the same may be allowed to be recovered from the beneficiaries.

80. 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 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. It further submitted that the Petitioner has already raised such demand in Petition No. 40/TT/2018 and the Commission vide order dated15.11.2018 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.

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

Security Expenses

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

83. 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

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

Sharing of Transmission Charges

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

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

			(₹ in lak
Particulars	2016-17 (pro-rata)	2017-18	2018-19
Asset-A1	-	12702.98	21582.41
Asset-A2	1376.27	5801.81	5859.07
Total	1376.27	18504.79	27441.48

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

					(₹ in lakh)
Combined Asset	2019-20	2020-21	2021-22	2022-23	2023-24
Annual Fixed Charges	25971.20	25368.94	24742.11	24119.86	23492.69

87. This order disposes of Petition No. 48/TT/2020.

sd/-(Arun Goyal) Member sd/-(I.S.Jha) Member sd/-(P.K.Pujari) Chairperson



Petition No.:	48/TT/2020	
Period	2014-19 True-up	ANNEXURE-1
		Annual Depreciation as ne

2014-19	Admitted Capital Cost as on 1.4.2014 / COD	Additional C (₹ in I	-	Rate of Depreciation as per	Annual Depreciation as per Regulations (₹ in lakh)						
Capital Expenditure	(₹ in lakh)	2017-18	2018-19	Regulations	2017-18	2018-19					
Land - Freehold	88.85	0.00	0.00	0.00%	0.00	0.00					
Land - Leasehold	0.00	0.00	0.00	3.34%	0.00	0.00					
Building Civil Works & Colony	1121.45	.45 191.53 106.05 3.34% 40.65	21.45 191.53 106.05 3.34%	1121.45 191.53 106.05 3.34% 4		1.45 191.53 106.05 3.34% 40	5 191.53	191.53 106.05 3.34% 40.6	3.05 3.34% 40.65	40.65	45.62
Transmission Line	82436.52	4436.29	1402.85	5.28%	4469.77	4623.92					
Sub Station	26636.41	26636.41	2304.75	1697.14	5.28%	1467.25	1572.90				
PLCC	539.53	35.09	13.72	6.33%	35.26	36.81					
IT Equipment (Incl. Software)	164.93	19.74	7.80	5.28%	9.23	9.96					
Total	110987.69	6987.40	3227.56	Total	6022.16	6289.21					
	,		Avera	ge Gross Block (₹ in lakh)	114481.39	119588.87					
		Weighted A	verage Rate	of Depreciation	5.26%	5.26%					

Petition No.:	48/TT/2020								
Period	2014-19 True-up						1	ANNEXURE	-1
2014-19	Capital Cost as on 1.4.2014 / COD	Additio	onal Capitaliz (₹ in lakh)	zation	Admitted Capital Cost	Rate of Depreciation as per		Annual Depreciation a Regulations (₹ in lakh)	
Capital Expenditure	(₹ in lakh)	2016-17	2017-18	2018-19	as on 31.3.2019 (₹ in lakh)	Regulations	2016-17	2017-18	2018-19
Land - Freehold	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00	0.00
Land - Leasehold	0.00	0.00	0.00	0.00	0.00	3.34%	0.00	0.00	0.00
Building Civil Works & Colony	172.29	145.19	225.20	43.51	586.19	3.34%	8.18	14.36	18.85
Transmission Line	24826.96	778.59	1153.87	6.36	26765.78	5.28%	1331.42	1382.44	1413.07
Sub Station	2940.90	871.93	583.79	194.25	4590.87	5.28%	178.30	216.73	237.27
PLCC	59.99	0.06	8.15	0.00	68.20	6.33%	3.80	4.06	4.32
IT Equipment (Incl. Software)	36.34	0.04	4.00	0.00	40.38	5.28%	1.92	2.03	2.13
Total	28036.48	1795.81	1975.01	244.12	32051.42	Total	1523.61	1619.61	1675.64
	· · · · ·			Ave	rage Gross Bl	ock (₹ in lakh)	28934.39	30819.80	31929.36
				Weighted A	verage Rate o	f Depreciation	5.27%	5.26%	5.25%



Petition No.:	48/TT/2020	1											
Period	2019-24 Tariff											ANNEXURE	-2
2019-24	Combined Admitted Capital			onal Capita (₹ in lakh)	ization		Admitted Capital Cost	Rate of Depreciation	,	Annual Depre	ciation as pe (₹ in lakh)	r Regulations	i
Capital Expenditure	Cost as on 1.4.2019	2019-20	2020-21	2021-22	2022-23	2023-24	as on 31.3.2024 (≹ in lakh)	as per Regulations	2019-20	2020-21	2021-22	2022-23	2023-24
Land - Freehold	88.85	0.00	0.00	0.00	0.00	0.00	88.85	-	0.00	0.00	0.00	0.00	0.00
Land - Leasehold	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.34%	0.00	0.00	0.00	0.00	0.00
Building Civil Works & Colony	2005.22	95.67	0.00	0.00	0.00	0.00	2100.89	3.34%	68.57	70.17	70.17	70.17	70.17
Transmission Line	115041.44	213.19	0.00	0.00	0.00	0.00	115254.63	5.28%	6079.82	6085.44	6085.44	6085.44	6085.44
Sub Station	35229.17	130.29	0.00	0.00	0.00	0.00	35359.46	5.28%	1863.54	1866.98	1866.98	1866.98	1866.98
PLCC	656.54	0.00	0.00	0.00	0.00	0.00	656.54	6.33%	41.56	41.56	41.56	41.56	41.56
IT Equipment (Incl. Software)	232.85	0.00	0.00	0.00	0.00	0.00	232.85	15.00%	34.93	34.93	34.93	34.93	34.93
Total	153254.07	439.15	0.00	0.00	0.00	0.00	153693.22	Total	8088.41	8099.08	8099.08	8099.08	8099.08
						Ave	erage Gross Blo	ock (₹ in lakh)	153473.65	153693.22	153693.22	153693.22	153693.22
						Weighted /	Average Rate of	f Depreciation	5.27%	5.27%	5.27%	5.27%	5.27%

