#### CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

#### Petition No. 418/TT/2019

#### Coram:

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

Date of Order : 20.09.2021

#### In the matter of:

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and truing up of transmission tariff of 2014-19 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of 2019-24 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for **Combined Asset I & II** comprising of **Asset-I (a)** 765 kV S/C Seoni-Wardha Transmission Line with associated bays and Assset-I (b) 400 kV D/C Wardha-Akola Transmission Line with associated bays **Asset-II**: 400 kV D/C Akola-Aurangabad Transmission Line with associated bays at Akola and Aurangabad and 400 kV Bus Reactor at Wardha-Sub-station; and **Combined Asset-IIII & IV** comprising of **Asset-III**: 400/220 kV ICT-I at Wardha Sub-station with associated bays and **Asset-IV**: 400/220 kV ICT-II at Wardha Sub-station under Sipat-II Supplementary Transmission System in Western Region.

#### And in the matter of:

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

.....Petitioner

#### Versus

- 1. Madhya Pradesh Power Management Company Limited, Shakti Bhawan, Rampur, Jabalpur-482008.
- 2. Madhya Pradesh Power Transmission Company Limited, Shakti Bhawan, Rampur, Jabalpur-482008.
- Madhya Pradesh Audyogik Kendra Vikas Nigam (Indore) Limited, 3/54, Press Complex, Agra-Bombay Road, Indore-452008.

- Maharashtra State Electricity Distribution Company Limited, Hongkong Bank Building, 3<sup>rd</sup> Floor, M.G. Road, Fort, Mumbai-400001.
- Maharashtra State Electricity Transmission Company Limited, Prakashganga, 6<sup>th</sup> Floor, Plot No. C-19, E-Block, Bandra Kurla Complex, Bandra (East) Mumbai-400051.
- Gujarat Urja Vikas Nigam Limited, Sardar Patel Vidyut Bhawan, Race Course Road, Vadodara-390007.
- Gujarat Energy Transmission Corporation Limited, Sardar Patel Vidyut Bhawan, Race Course Road, Vadodara-390007.
- Electricity Department, Govt. of Goa, Vidyut Bhawan, Panaji, Near Mandvi Hotel, Goa-403001.
- 9 Electricity Department, Administration of Daman & Diu, Daman-396210.
- 10. Electricity Department, Administration of Dadra Nagar Haveli, U.T., Silvassa-396230.
- Chhattisgarh State Electricity Board, P.O. Sunder Nagar, Dangania, Raipur, Chhattisgarh-492013.
- 12. Chhattisgarh State Power Transmission Company Limited, State Load Despatch Building, Dangania, Raipur-492 013.
- Chhattisgarh State Power Distribution Company Limited, P.O. Sunder Nagar, Dangania, Raipur, Chhattisgarh-492013.
   .....Respondent(s)
- For Petitioner:Shri S. S. Raju, PGCIL<br/>Shri B. Dash, PGCIL<br/>Shri A. K. Verma, PGCIL<br/>Shri Ved Prakash Rastogi, PGCILFor Respondents:Shri Anindya Kumar Khare, MPPMCL

#### **ORDER**

The Petitioner, Power Grid Corporation of India Limited, a deemed transmission licensee, has filed the instant petition for truing up of the transmission tariff for the period from 1.4.2014 to 31.3.2019 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as "the 2014 Tariff Regulations") and for determination of the transmission tariff for the period from 1.4.2019 to 31.3.2024 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations of Tariff) Regulations, 2019 (hereinafter referred to as "the 2019 Tariff Regulations") in respect of the following transmission assets forming part of the Combined Asset under Sipat-II Supplementary Transmission System in Western Region (hereinafter referred to as "the transmission system"):

#### Combined Asset-I & II consisting of

- Asset-I(a): 765 kV S/C Seoni-Wardha Transmission Line with associated bays;
- **Asset-I(b):** 400 kV D/C Wardha-Akola Transmission Line with associated bays; and
- Asset-II: 400 kV D/C Akola-Aurangabad Transmission Line with associated bays at Akola and Aurangabad and 400 kV Bus Reactor at Wardha Sub-station.

# Combined Asset-III & IV consist of

<u>Asset-III</u>: 400/220 kV ICT-I at Wardha Sub-station with associated bays; and

Asset-IV: 400/220 kV ICT-II at Wardha Sub-station.

- 2. The Petitioner has made the following prayers in this petition:
  - "1) Approve the trued up Transmission Tariff for 2014-19 block and transmission tariff for 2019-24 block for the assets covered under this petition, as per para 8 and 9 above.
  - 2) Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided in Tariff Regulation 2014 and Tariff regulations 2019 as per para 8 and 9 above for respective block.
  - 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 9.6 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"

# 3. Backdrop of the case

(a) The Investment Approval for the transmission system was accorded by Government of India vide letter no. 12/24/2009-PG dated 24.6.2005 at an estimated cost of ₹81367.00 lakh, including IDC of ₹3504.00 lakh (based on 4<sup>th</sup> quarter 2004 price level). Approval of Revised Cost Estimate was accorded by the Board of Directors of the Petitioner Company vide letter no. C/CP/RCE/Sipat II dated 3.9.2010 at an estimated cost of ₹98224.00 lakh, including IDC of ₹7357.00 lakh (based on 2<sup>nd</sup> Quarter, 2010 price level).

(b) The transmission tariff of the transmission assets allowed for 2009-14 period was revised based on truing up of capital expenditure for the period from their respective COD to 31.3.2014 and tariff for the period from 1.4.2014 to 31.3.2019 was determined vide order dated 29.3.2016 in Petition No. 6/TT/2015.

(c) The date of commercial operation of Asset-I(a) and Asset-I(b) is 1.4.2009 and that of Asset-II is 1.12.2009. Asset-I(a), Asset-I(b) and Asset-II have now been combined into Combined Asset-I & II with notional COD as 1.12.2009. COD of Asset-III is 1.4.2009 and of Asset-IV is 1.2.2011. Asset-III and Asset-IV have now been combined into Combined Asset-III & IV with notional COD as 1.2.2011.

(d) The entire scope of work under the transmission system is complete and is covered in the present petition.

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

5. The Petitioner has served the petition on the Respondents and notice regarding filing of this petition has been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003. No comments or suggestions have been received from the general public in response to the aforesaid notices published in the newspapers. Madhya Pradesh Power Management Company Limited (MPPMCL), Respondent No. 1, has filed its reply vide affidavit dated 16.1.2020 and has raised the issues of grossing up of Return on Equity (RoE) and GST. Maharashtra State Electricity Distribution Company

Limited (MSEDCL), Respondent No. 4 has filed its reply vide affidavit dated 7.2.2020 and has raised the issues of grossing up of RoE, GST and additional taxes, calculation of RoE and Interest on Loan (IoL). The Petitioner vide separate affidavits dated 20.4.2021 has filed rejoinders to the reply of MPPMCL and MSEDCL. The issues raised by the Respondents and clarifications thereto given by the Petitioner are considered in the relevant portions of this order.

6. The hearing in this matter was held on 27.4.2021 through video conference and the order was reserved.

7. This order is issued considering the submissions made by the Petitioner in the petition vide affidavit dated 19.9.2019, reply of MPPMCL filed vide affidavit dated 16.1.2020, reply of MSEDCL filed vide affidavit dated 7.2.2020 and the Petitioner's rejoinders dated 20.4.2021.

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

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

9. The details of the trued-up transmission charges claimed by the Petitioner in respect of Combined Asset-I & II and Combined Asset-III & IV for 2014-19 tariff period are as follows:

					(₹ in lakn)				
Combined Asset-I & II									
Particulars 2014-15 2015-16 2016-17 2017-18 2018-									
Depreciation	4689.93	4689.93	4689.93	4689.93	4689.93				
Interest on Loan	1061.75	981.92	1066.98	975.67	959.78				
Return on Equity	5289.70	5313.96	5311.26	5311.26	5325.55				
Interest on Working Capital	315.50	316.29	320.27	320.35	322.55				
O&M Expenses	1110.63	1147.93	1185.74	1225.24	1265.81				
Total	12467.51	12450.03	12574.18	12522.45	12563.62				

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Combined Asset-III & IV									
Particulars 2014-15 2015-16 2016-17 2017-18									
Depreciation	281.35	281.35	281.35	281.35	281.35				
Interest on Loan	58.79	55.62	63.64	59.88	61.53				
Return on Equity	313.38	314.82	314.66	314.66	315.51				
Interest on Working Capital	35.70	36.34	37.23	37.88	38.69				
O&M Expenses	373.86	386.26	399.10	412.32	426.02				
Total	1063.08	1074.39	1095.98	1106.09	1123.10				

10. The details of the trued-up Interest on Working Capital (IWC) claimed by the Petitioner in respect of Combined Asset-I & II and Combined Asset-III & IV for the 2014-19 tariff period are as follows:

(₹ in lakh) Combined Asset-I & II 2015-16 **Particulars** 2016-17 2017-18 2018-19 2014-15 **O&M** Expenses 95.66 102.10 105.48 92.55 98.81 166.59 172.19 177.86 189.87 Maintenance Spares 183.79 2077.92 2075.01 2095.70 2087.08 2093.94 Receivables Total 2342.86 2372.37 2372.97 2389.29 2337.06 Rate of Interest (%) 13.50 13.50 13.50 13.50 13.50 **Interest on Working** 315.50 316.29 320.27 320.35 322.55 Capital

(₹ in lakh)

/**≆** in lakh)

Combined Asset- III & IV									
Particulars	2016-17	2017-18	2018-19						
O&M Expenses	31.16	32.19	33.26	34.36	35.50				
Maintenance Spares	56.08	57.94	59.87	61.85	63.90				
Receivables	177.18	179.07	182.66	184.35	187.18				
Total	264.42	269.20	275.79	280.56	286.58				
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50				
Interest on Working Capital	35.70	36.34	37.23	37.88	38.69				

# **Capital Cost**

11. The details of FR approved capital cost, capital cost as on 31.3.2014, Additional Capital Expenditure (ACE) incurred during 2014-19 tariff period and capital cost as on 31.3.2019 as claimed by the Petitioner are as follows:

				(₹ in lakh)
Particulars	Approved	Capital Cost admitted	ACE	Total Capital Cost
	Cost (FR)	as on 31.3.2014	2014-19	as on 31.3.2019
Combined	92392.49	89846.51	0.00	89846.51
Asset-I & II				
Combined	5831.98	5323.15	0.00	5323.15
Asset-III & IV				

12. The Commission vide order dated 29.3.2016 in Petition No. 6/TT/2015 admitted capital cost as on 31.3.2014 of ₹89846.51 lakh and ₹5323.15 lakh for Combined Asset-I & II and Combined Asset-III & IV respectively. The Petitioner has claimed the same capital costs in this petition. Accordingly, the capital cost of ₹89846.51 lakh and ₹5323.15 lakh for Combined Asset-I & II and Combined Asset-III & IV has been considered as opening capital cost for determination of tariff in accordance with Regulation 9 of the 2014 Tariff Regulations.

# Additional Capital Expenditure (ACE)

13. The Petitioner has not claimed any ACE for 2014-19 period. Accordingly, the capital cost allowed for 2014-19 tariff period is as follows:

			(₹ in lakh)
Particulars	Capital Cost allowed as	ACE	Capital Cost allowed
	on 1.4.2014	2014-19	as on 31.3.2019
Combined	89846.51	0.00	89846.51
Asset-I & II			
Combined	5323.15	0.00	5323.15
Asset-III & IV			

# Debt-Equity Ratio

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

15. The details of the debt-equity ratio allowed in respect of Combined Asset-I & II and Combined Asset-III & IV as on 1.4.2014 and as on 31.3.2019 are as follows:

Combined Asset-I & II							
Particulars	Capital Cost allowed as on 1.4.2014 (₹ in lakh)	(in %)	Capital Cost as on 31.3.2019 (₹ in lakh)	(in %)			
Debt	62892.62	70.00	62892.62	70.00			
Equity	26953.88	30.00	26953.88	30.00			
Total	89846.51	100.00	89846.51	100.00			

Combined Asset-III & IV							
Particulars	Capital Cost allowed as on 1.4.2014 (₹ in lakh)	(in %)	Capital Cost as on 31.3.2019 (₹ in lakh)	(in %)			
Debt	3726.21	70.00	3726.21	70.00			
Equity	1596.95	30.00	1596.95	30.00			
Total	5323.15	100.00	5323.15	100.00			

# **Depreciation**

16. The depreciation has been allowed as per the methodology provided in Regulation 27 of the 2014 Tariff Regulations. Depreciation has been allowed considering capital expenditure as on 1.4.2014 and approved ACE during the 2014-19 tariff period. The Gross Block during the 2014-19 tariff period has been depreciated at Weighted Average Rate of Depreciation (WAROD). WAROD at Annexure-1 has been worked out after taking into account the depreciation rates of assets as specified in the 2014 Tariff Regulations. The trued-up depreciation allowed for the Combined Asset-I & II and Combined Asset-III & IV during the 2014-19 tariff period is as follows:

	(₹ ir	n lakh)					
Combined Asset-I & II							
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19		
Opening Gross Block	89846.51	89846.51	89846.51	89846.51	89846.51		
Additional Capitalisation	0.00	0.00	0.00	0.00	0.00		
Closing Gross Block	89846.51	89846.51	89846.51	89846.51	89846.51		

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Average Gross Block	89846.51	89846.51	89846.51	89846.51	89846.51
Weighted average rate of	5.22	5.22	5.22	5.22	5.22
Depreciation (WAROD) (%)					
Elapsed useful life of the	4.00	5.00	6.00	7.00	8.00
asset at the beginning of					
the year (Year)					
Balance useful life of the	30.00	29.00	28.00	27.00	26.00
asset at the beginning of					
the year (Year)					
Aggregated Depreciable	80758.66	80758.66	80758.66	80758.66	80758.66
Value					
Combined Depreciation	4689.93	4689.93	4689.93	4689.93	4689.93
during the year					
Cumulative depreciation	26776.69	31466.62	36156.56	40846.49	45536.42
at the end of the year					
Remaining Aggregated	53981.96	49292.03	44602.10	39912.17	35222.24
Depreciable Value at the					
end of the year					

					(₹ in lakh)				
Combined Asset-III & IV									
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19				
Opening Gross Block	5323.15	5323.15	5323.15	5323.15	5323.15				
Additional Capitalisation	0.00	0.00	0.00	0.00	0.00				
Closing Gross Block	5323.15	5323.15	5323.15	5323.15	5323.15				
Average Gross Block	5323.15	5323.15	5323.15	5323.15	5323.15				
Weighted average rate of Depreciation (WAROD) (%)	5.29	5.29	5.29	5.29	5.29				
Elapsed useful life of the asset at the beginning of the year (Year)	3.00	4.00	5.00	6.00	7.00				
Balance useful life of the asset at the beginning of the year (Year)	22.00	21.00	20.00	19.00	18.00				
Aggregated Depreciable Value	4790.84	4790.84	4790.84	4790.84	4790.84				
Combined Depreciation during the year	281.36	281.36	281.36	281.36	281.36				
Cumulative depreciation at the end of the year	1422.17	1703.53	1984.88	2266.24	2547.60				
Remaining Aggregated Depreciable Value at the end of the year	3368.67	3087.31	2805.95	2524.59	2243.23				

17. The details of the depreciation allowed vide order dated 29.3.2016 in Petition No. 6/TT/2015, as claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:

						(₹ in lakh)
Asset	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Combined Asset-I & II	Allowed vide order dated 29.3.2016 in Petition No. 6/TT/2015	4689.93	4689.93	4689.93	4689.93	4689.93
	Claimed by the Petitioner in the instant petition	4689.93	4689.93	4689.93	4689.93	4689.93
	Allowed after true-up in this order	4689.93	4689.93	4689.93	4689.93	4689.93
Combined Asset-III & IV	Allowed vide order dated 29.3.2016 in Petition No. 6/TT/2015	281.36	281.36	281.36	281.36	281.36
	Claimed by the Petitioner in the instant petition	281.35	281.35	281.35	281.35	281.35
	Allowed after true-up in this order	281.36	281.36	281.36	281.36	281.36

# Interest on Loan (IOL)

18. MSEDCL has submitted that while calculating IoL, Weighted Average Rate of Interest (WAROI) should be considered but the Petitioner has considered the rate of interest on Ioan on annual basis for the tariff periods under consideration. In response, the Petitioner has submitted that while calculating tariff, WAROI is considered for calculating the tariff on annual basis as mentioned in Form-9E. The Petitioner has further submitted that detailed calculation of WAROI is given in Form 9C. The Petitioner has submitted that comprehensive calculation for WAROI has already been submitted in Petition No. 435/TT/2019.

19. We have considered the submissions of the Petitioner and MSEDCL. IoL has been calculated based on actual interest rate, in accordance with Regulation 26 of the 2014 Tariff Regulations. IoL allowed in respect of Combined Asset-I & II and Combined Asset-III & IV for 2014-19 tariff period is as follows:

(₹ in lakh)

Combined Asset-I & II									
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19				
Gross Normative Loan	62892.62	62892.62	62892.62	62892.62	62892.62				
Cumulative Repayments upto	22086.76	26776.69	31466.62	36156.56	40846.49				
Previous Year									
Net Loan-Opening	40805.86	36115.93	31426.00	26736.06	22046.13				
Addition due to Additional	0.00	0.00	0.00	0.00	0.00				
Capitalization									
Repayment during the year	4689.93	4689.93	4689.93	4689.93	4689.93				
Net Loan-Closing	36115.93	31426.00	26736.06	22046.13	17356.20				
Average Loan	38460.89	33770.96	29081.03	24391.10	19701.17				
Weighted Average Rate of	2.761	2.908	3.669	4.000	4.872				
Interest on Loan (%)									
Interest on Loan	1061.75	981.92	1066.98	975.67	959.79				

(₹ in lakh)							
	Combined	Asset-III &	IV				
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19		
Gross Normative Loan	3726.21	3726.21	3726.21	3726.21	3726.21		
Cumulative Repayments upto	1140.81	1422.17	1703.53	1984.88	2266.24		
Previous Year							
Net Loan-Opening	2585.40	2304.04	2022.68	1741.32	1459.96		
Addition due to Additional	0.00	0.00	0.00	0.00	0.00		
Capitalization							
Repayment during the year	281.36	281.36	281.36	281.36	281.36		
Net Loan-Closing	2304.04	2022.68	1741.32	1459.96	1178.60		
Average Loan	2444.72	2163.36	1882.00	1600.64	1319.28		
Weighted Average Rate of	2.405	2.571	3.382	3.741	4.664		
Interest on Loan (%)							
Interest on Loan	58.79	55.62	63.64	59.87	61.53		

20. The details of IoL allowed earlier vide order dated 29.3.2016 in Petition No.

6/TT/2015, claimed by the Petitioner in the instant petition and trued-up in the

instant order are as follows:

					<b>(</b> ₹ in	lakh)
Assets	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Combined Asset-I & II	Allowed earlier vide order dated 29.3.2016 in Petition No. 6/TT/2015	1059.14	916.26	775.92	638.33	503.83
	Claimed by the Petitioner in the instant petition	1061.75	981.92	1066.98	975.67	959.78
	Allowed after true-up in this order	1061.75	981.92	1066.98	975.67	959.79
Combined Asset-III & IV	Allowed earlier vide order dated 29.3.2016 in Petition	59.09	51.61	44.24	36.99	29.87

N	No. 6/TT/2015					
P	Claimed by the Petitioner in the nstant petition	58.79	55.62	63.64	59.88	61.53
	Allowed after true-up n this order	58.79	55.62	63.64	59.87	61.53

#### **Return on Equity (RoE)**

21. The Petitioner is entitled to RoE for the transmission assets in terms of Regulations 24 and 25 of the 2014 Tariff Regulations. The Petitioner has submitted that it is liable to pay income tax at Minimum Alternate Tax (MAT) rates and has claimed the effective tax rates for the 2014-19 tariff period as follows:

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

22. MPPMCL has submitted that the Petitioner has grossed up RoE on the basis of actual taxes paid during 2016-17 and 2017-18. MPPMCL has further stated that for 2018-19, the Petitioner has grossed up RoE on the basis of applicable rate of MAT, surcharge and cell. MPPMCL has submitted that the Petitioner has not placed on record the assessment orders for 2016-17 and 2017-18. For 2018-19, the Petitioner has not claimed grossed up RoE on the basis of actual taxes paid. MPPMCL has further submitted that the Petitioner has neither submitted copy of assessment orders for 2014-15 and 2015-16 nor the audited accounts in respect of actual taxes paid during 2016-17 and 2017-18. In the absence of these essential documents, it is not possible to scrutinize the claim of the Petitioner properly.

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

24. The Petitioner has further submitted that so far it has been granted trued up tariff of 2014-19 by the Commission in various matters vide orders dated 18.4.2020 in Petition No. 247/TT/2019, 27.4.2020 in Petition No. 274/TT/2019, 23.4.2020 in Petition No. 245/TT/2019 and 16.4.2020 in Petition No. 307/TT/2019 for transmission asset(s) wherein effective tax rate for 2014-19 tariff period based on notified MAT rates has been considered for grossing-up of rate of RoE.

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

26. MSEDCL has submitted that the Petitioner had submitted grossed up RoE on the basis of actual taxes paid during 2016-17 and 2017-18. MSEDCL has further submitted that the Petitioner did not submit the assessment order for 2016-17 and 2017-18. For 2018-19, the claimed grossed up RoE of the Petitioner is not on the basis of actual taxes paid for the year. MSEDCL has submitted that the Petitioner has neither submitted the copy of the assessment orders for 2014-15, 2015-16 nor the audited accounts in respect of actual taxes paid for 2016-17 and 2017-18.

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

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

29. We have considered the submissions of the Petitioner, MPPMCL and MSEDCL. The Commission vide order dated 2.2.2021 in Petition No. 312/TT/2020 has already dealt with the issues raised by MPPMCL and MSEDCL. In terms of our findings in order dated 2.2.2021 in Petition No. 312/TT/2020, we do not find any merits in the submissions of MPPMCL and MSEDCL.

30. The Commission vide 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 as follows:

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

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

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

32. The details of trued-up RoE allowed in respect of Combined Asset-I & II and Combined Asset-III & IV are as follows:

				(₹	in lakh)
	Combine	d Asset-I &	11		
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	26953.88	26953.88	26953.88	26953.88	26953.88
Addition due to	0.00	0.00	0.00	0.00	0.00
Additional Capitalization					
Closing Equity	26953.88	26953.88	26953.88	26953.88	26953.88
Average Equity	26953.88	26953.88	26953.88	26953.88	26953.88
Return on Equity	15.500	15.500	15.500	15.500	15.500
(Base Rate) (%)					
Tax Rate applicable (%)	20.961	21.342	21.342	21.342	21.549
Rate of Return on Equity	19.610	19.705	19.705	19.705	19.758
(Pre-tax)					
Return on Equity (Pre-tax)	5285.66	5311.26	5311.26	5311.26	5325.55

(₹ in lakh)

Combined Asset-III & IV								
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19			
Opening Equity	1596.95	1596.95	1596.95	1596.95	1596.95			
Addition due to	0.00	0.00	0.00	0.00	0.00			
Additional Capitalization								
Closing Equity	1596.95	1596.95	1596.95	1596.95	1596.95			
Average Equity	1596.95	1596.95	1596.95	1596.95	1596.95			
Return on Equity	15.500	15.500	15.500	15.500	15.500			
(Base Rate) (%)								
Tax Rate applicable (%)	20.961	21.342	21.342	21.342	21.549			
Rate of Return on Equity	19.610	19.705	19.705	19.705	19.758			
(Pre-tax)								
Return on Equity (Pre-tax)	313.16	314.68	314.68	314.68	315.52			

33. The details of the RoE allowed vide order 29.3.2016 in Petition No. 6/TT/2015, claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:

					(	₹ in lakh)
Assets	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Combined Asset-I & II	Allowed vide order dated 29.3.2016 in Petition No. 6/TT/2015	5285.78	5285.78	5285.78	5285.78	5285.78
	Claimed by the Petitioner in the instant petition	5289.70	5313.96	5311.26	5311.26	5325.55
	Allowed after true-up in this order	5285.66	5311.26	5311.26	5311.26	5325.55
Combined Asset-III & IV	Allowed vide order dated 29.3.2016 in Petition No. 6/TT/2015	313.17	313.17	313.17	313.17	313.17
	Claimed by the Petitioner in the instant petition	313.38	314.82	314.66	314.66	315.51
	Allowed after true-up in this order	313.16	314.68	314.68	314.68	315.52

# **Operation & Maintenance Expenses (O&M Expenses)**

34. The total O&M Expenses claimed by the Petitioner and allowed as per Regulation 29(4)(a) of the 2014 Tariff Regulations for the purpose of computation of tariff are as follows:

Combined Asset-I & II								
Particulars 2014-15 2015-16 2016-17 2017-18 2018-19								
Sub-station Bays								
(in Numbers)								
400 kV : Wardha-I	1	1	1	1	1			

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400 kV : Wardha-II Bay	1	1	1	1	1
400 kV : Aurangabad - I Bay	1	1	1	1	1
400 kV : Aurangabad - I Bay	1	1	1	1	1
400 kV : Seoni Bay	1	1	1	1	1
400 kV : Akola - I Bay	1	1	1	1	1
400 kV : Akola - II Bay	1	1	1	1	1
400 kV : Bus Reactor Bay	1	1	1	1	1
400 kV : Wardha Bay	1	1	1	1	1
400 kV : Akola-I Bay	1	1	1	1	1
400 kV : Akola-II Bay	1	1	1	1	1
Norm (₹ lakh/bay)					
400 kV	60.30	62.30	64.37	66.51	68.71
Total Sub-station O&M	663.30	685.30	708.07	731.61	755.81
Expenses					
AC Lines (in kms)					
400 kV : Single Circuit (Bundle	267.894	267.894	267.894	267.894	267.894
with 4 or more sub-conductor)					
400 kV : Double Circuit	403.095	403.095	403.095	403.095	403.095
(Twin/Triple Conductor)					
Norm (₹ lakh/kms)					
Single Circuit (Bundle with 4	0.606	0.627	0.647	0.669	0.691
or more sub-conductor)					
Double Circuit Line	0.707	0.731	0.755	0.780	0.806
(Twin/ Triple Conductor)					
Total Transmission Line	447.33	462.63	477.66	493.64	510.01
Total O&M Expenses	1110.63	1147.93	1185.73	1225.25	1265.82

(₹ in lakh)

Combined Asset-III & IV									
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19				
Sub-station Bays									
(in Numbers)									
400 kV : ICT-I Bay	1	1	1	1	1				
400 kV : ICT-II Bay	1	1	1	1	1				
220 kV : Line-II Bays	1	1	1	1	1				
220 kV : ICT-I Bay	1	1	1	1	1				
220 kV : Line I Bay	1	1	1	1	1				
220 kV : Line IV Bay	1	1	1	1	1				
220 kV : ICT-II Bay	1	1	1	1	1				
220 kV : Line-III Bay	1	1	1	1	1				
Norm (₹ lakh/bay)									
400 kV	60.30	62.30	64.37	66.51	68.71				
220 kV	42.21	43.61	45.06	46.55	48.10				
Total Sub-station O&M	373.86	386.26	399.10	412.32	426.02				
Expenses									
Total O&M Expenses	373.86	386.26	399.10	412.32	426.02				

35. The details of O&M Expenses approved vide order dated 29.3.2016 in Petition No. 6/TT/2015, claimed by the Petitioner in the instant petition and truedup in the instant order are as follows:

					(₹ ir	n lakh)
Assets	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Combined Asset-I & II	Allowed vide order dated 29.3.2016 in Petition No. 6/TT/2015	1110.63	1147.93	1185.73	1225.25	1265.82
	Claimed by the Petitioner in the instant petition	1110.63	1147.93	1185.74	1225.24	1265.81
	Allowed after true-up in this order	1110.63	1147.93	1185.73	1225.25	1265.82
Combined Asset-III & IV	Allowed earlier in order dated 29.3.2016 in Petition No. 6/TT/2015	373.86	386.26	399.10	412.32	426.02
	Claimed by the Petitioner in the instant petition	373.86	386.26	399.10	412.32	426.02
	Allowed after true-up in this order	373.86	386.26	399.10	412.32	426.02

# Interest on Working Capital (IWC)

36. IWC has been worked out as per the methodology provided in Regulation 28(1)(c) of the 2014 Tariff Regulations and the trued-up IWC allowed for Combined Asset-I & II and Combined Asset-III & IV for the 2014-19 tariff period are as follows:

(₹ in lakh) Combined Asset-I & II Particulars 2014-15 2015-16 2016-17 2017-18 2018-19 WC for O&M Expenses 92.55 98.81 102.10 105.48 95.66 (O&M expenses for 1 month) WC for Maintenance 166.59 172.19 177.86 183.79 189.87 Spares (15% of O&M expenses) WC for Receivables 2077.23 2074.54 2095.70 2087.08 2093.94 (Equivalent to 2 months of annual fixed cost / annual transmission charges) **Total Working Capital** 2336.38 2342.40 2372.37 2372.97 2389.30 Rate of Interest on working 13.50 13.50 13.50 13.50 13.50

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capital (%)					
Interest of Working	315.41	316.22	320.27	320.35	322.56
Capital					

Combined Asset-III & IV									
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19				
WC for O & M Expenses	31.16	32.19	33.26	34.36	35.50				
(O&M expenses for 1									
month)									
WC for Maintenance Spares	56.08	57.94	59.87	61.85	63.90				
(15% of O&M expenses)									
WC for Receivables	177.14	179.04	182.67	184.35	187.19				
(Equivalent to 2 months of									
annual fixed cost / annual									
transmission charges)									
Total Working Capital	264.38	269.17	275.79	280.56	286.59				
Rate of Interest on working	13.50	13.50	13.50	13.50	13.50				
capital (%)									
Interest of Working	35.69	36.34	37.23	37.88	38.69				
Capital									

37. The details of IWC allowed vide order dated 29.3.2016 in Petition No.

6/TT/2015, claimed by the Petitioner in the instant petition and trued-up in the

instant order are as follows:

						(₹ in lakh)
Assets	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Combined Asset-I & II	Allowed vide order dated 29.3.2016 in Petition No. 6/TT/2015	315.35	314.13	312.98	312.00	311.14
	Claimed by the Petitioner in the instant petition	315.50	316.29	320.27	320.35	322.55
	Allowed after true-up in this order	315.41	316.22	320.27	320.35	322.56
Combined Asset-III & IV	Allowed vide order dated 29.3.2016 in Petition No. 6/TT/2015	35.70	36.21	36.75	37.31	37.91
	Claimed by the Petitioner in the instant petition	35.70	36.34	37.23	37.88	38.69
	Allowed after true-up in this order	35.69	36.34	37.23	37.88	38.69

# Approved Annual Fixed Charges for 2014-19 Tariff Period

38. The trued-up Annual Fixed Charges (AFC) allowed for Combined Asset-I &

II and Combined Asset-III & IV for the 2014-19 tariff period are as follows:

(₹ in lakh)

Combined Asset-I & II									
Particulars 2014-15 2015-16 2016-17 2017-18 2018-19									
Depreciation	4689.93	4689.93	4689.93	4689.93	4689.93				
Interest on Loan	1061.75	981.92	1066.98	975.67	959.79				
Return on Equity	5285.66	5311.26	5311.26	5311.26	5325.55				
O&M Expenses	1110.63	1147.93	1185.73	1225.25	1265.82				
Interest on Working Capital	315.41	316.22	320.27	320.35	322.56				
Total	12463.39	12447.27	12574.17	12522.46	12563.64				

(₹ in lakh)

Combined Asset-III & IV								
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19			
Depreciation	281.36	281.36	281.36	281.36	281.36			
Interest on Loan	58.79	55.62	63.64	59.87	61.53			
Return on Equity	313.16	314.68	314.68	314.68	315.52			
O&M Expenses	373.86	386.26	399.10	412.32	426.02			
Interest on Working Capital	35.69	36.34	37.23	37.88	38.69			
Total	1062.86	1074.26	1096.01	1106.10	1123.12			

39. Accordingly, the Annual Transmission Charges approved vide order dated 29.3.2016 in Petition No. 6/TT/2015, claimed by the Petitioner in the instant petition and approved after truing up in the instant order are as follows:

						(₹ in lakh)
Assets	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Combined Asset-I & II	Allowed vide order dated 29.3.2016 in	12460.84	12354.03	12250.35	12151.28	12056.50
A3561-1 & 11	Petition No. 6/TT/2015					
	Claimed by the Petitioner in the instant petition	12467.51	12450.03	12574.18	12522.45	12563.62
	Allowed after true-up in this order	12463.39	12447.27	12574.17	12522.46	12563.64
Combined Asset-III & IV	Allowed vide order dated 29.3.2016 in Petition No. 6/TT/2015	1063.18	1068.61	1074.62	1081.15	1088.33
	Claimed by the Petitioner in the instant petition	1063.08	1074.39	1095.98	1106.09	1123.10
	Allowed after true-up in this order	1062.86	1074.26	1096.01	1106.10	1123.12

# **DETERMINATION OF ANNUAL FIXED CHARGES FOR 2019-24 TARIFF PERIOD**

40. The Petitioner has consolidated Combined Asset-I and II and Combined Asset-III and IV into Combined Asset for 2019-24 period and claimed the following tariff:

					(e in iakn)
Particulars	2019-20	2020-21	201-22	2022-23	2023-24
Depreciation	4971.28	4971.28	4971.28	1073.89	1073.89
Interest on Loan	804.74	548.94	297.64	146.78	93.44
Return on Equity	5641.08	5641.08	5641.08	5641.08	5641.08
Interest on Working Capital	230.22	228.96	227.29	168.44	169.53
O&M Expenses	1343.09	1390.18	1438.90	1489.29	1540.75
Total	12990.41	12780.44	12576.19	8519.48	8518.69

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

					(₹ in lakh)
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	111.92	115.85	119.91	124.11	128.40
Maintenance Spares	201.46	208.53	215.84	223.39	231.11
Receivables	1597.18	1575.67	1550.49	1050.35	1047.38
Total Working Capital	1910.56	1900.05	1886.24	1397.85	1406.89
Rate of Interest	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	230.22	228.96	227.29	168.44	169.53

# Effective Date of Commercial Operation (E-COD)

42. The Petitioner has claimed E-COD of the Combined Asset as 25.12.2009. Based on the trued-up admitted capital cost and actual COD of all the transmission assets, E-COD has been worked out as follows:

Computation of Effective COD									
Asset	COD	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Weight of the cost (%)	Number of Days from last COD	Weighted Days	Effective COD (Latest COD – Total weighted Days)			
Combined Asset-I & II	1.12.2009	89846.51	94.41	427.00	403.12	25.12.2009			
Combined Asset-III & IV	1.02.2011	5323.15	5.59	0.00	0.00				
Total		95169.66	100.00	427.00	403.12				



(∓ in lakh)

43. E-COD is used to determine the lapsed life of the transmission system as a whole, which works out as nine (9) year as on 1.4.2019 (i.e. the number of completed years as on 1.4.2019 from E-COD).

#### Weighted Average Life (WAL)

44. The life as defined in Regulation 33 of the 2019 Tariff Regulations has been considered for determination of WAL.

45. The Combined Asset may have multiple elements such as land, building, transmission line, sub-station and PLCC and each element may have different span of life. Therefore, the concept of WAL has been used as the useful life of the transmission system as a whole.

46. WAL has been determined based on the admitted capital cost of individual elements as on 31.3.2019 and their respective life as stipulated in the 2019 Tariff Regulations. The element-wise life as defined in the 2009 Tariff Regulations prevailing at the time of actual COD of individual transmission assets has been ignored for this purpose. The life as defined in the 2019 Tariff Regulations has been considered for determination of WAL. Accordingly, WAL of the Combined Asset has been worked out as 33 years as follows:

	Admitted Capital Cost as on 31.3.2019									
Particulars	Combined Asset Cost (₹ in lakh) (1)	Life in Years (2)	Weight (3)=(1) x(2)	Weighted Average Life of Asset (in years) (4)=(3)/(1)						
Building	2648.04	25.00	66201.00	33.16 years						
Transmission Line	77960.62	35.00	2728621.70	(rounded off to						
Sub-Station	14088.34	25.00	352208.50	33 years)						
Equipment										
PLCC	357.99	15.00	5369.85							
Total	95054.99		3152401.05							

47. WAL as on 1.4.2019 as determined above is applicable prospectively i.e.

from the 2019-24 tariff period and no retrospective adjustment of depreciation in

previous tariff period is required to be done. As discussed above, E-COD of the

Combined Asset is 25.12.2009 and the lapsed life of the transmission system as

a whole, works out as nine (9) year as on 1.4.2019 (i.e. the number of completed

years as on 1.4.2019 from Effective COD). Accordingly, WAL has been used to

determine the remaining useful life as on 31.3.2019 to be 24 years.

# Capital Cost

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

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

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

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

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

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

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

(e) Capitalised Initial Spares subject to the ceiling rates in accordance with these regulations;

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

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

(h) Adjustment of revenue earned by the transmission licensee by using the asset 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 asset forming part of the project, but not in use, as declared in the tariff petition;

(b) De-capitalised Asset 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 asset.

(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."

49. The Petitioner has claimed capital cost of ₹95169.66 lakh as on 31.3.2019 for the Combined Asset. Against the overall approved capital cost (as per FR) of ₹98224.47 lakh, the estimated completion cost including ACE is ₹95169.66 lakh

as on 31.3.2024.

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

		(₹ in lakh)
Elements	Combined Asset-I & II	Combined Asset-III & IV
Free hold Land	114.67	0.00
Building & Other Civil Works	2648.04	0.00
Transmission Line	77960.62	0.00
Sub-station Equipment	8793.38	5294.96
PLCC	329.80	28.19
Total	89846.51	5323.15

(₹ in lakh)

Elements	Capital Cost for Combined Asset as on 1.4.2019
Free hold Land	114.67
Building & Other Civil Works	2648.04
Transmission Line	77960.62
Sub-Station Equipment	14088.34
PLCC	357.99
Total	95169.66

51. The Petitioner has not projected any ACE during 2019-24 period for Combined Asset. The capital cost of ₹95169.66 lakh as on 31.3.2019, as trued up for the 2014-19 period, is considered as capital cost as on 1.4.2019 for the purpose of determination of tariff for 2019-24 tariff period.

#### Debt-Equity Ratio

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

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

Provided that:

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

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

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

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

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

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

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

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

53. The debt-equity ratio considered for the purpose of computation of tariff for

Particulars	Capital Cost as on 1.4.2019 (₹ in lakh)	(in %)	Total Capital Cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	66618.83	70.00	66618.83	70.00
Equity	28550.83	30.00	28550.83	30.00
Total	95169.66	100.00	95169.66	100.00

the 2019-24 tariff period in respect of Combined Asset is as follows:

# **Depreciation**

54. Regulations 33(1), 33(2) and 33(5) of the 2019 Tariff Regulations provide

as follows:

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

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

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

operation of the asset for part of the year, depreciation shall be charged on pro rata basis."

"(5) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix-I to these regulations for the asset 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 asset."

55. 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 Gross Block during the 2019-24 tariff period has been depreciated at WAROD. WAROD at Annexure-II till 2019-22 has been worked out after taking into account the depreciation rates as specified in the 2019 Tariff Regulations. As the Combined Asset shall complete 12 years of life on 31.3.2022, the remaining depreciable value (up to 90% of existing gross block of assets) is spread over the balance useful life as mentioned in Regulation 33(5) of the 2019 Tariff Regulations. The depreciation allowed in respect of Combined Asset for 2019-24 tariff period is as follows:

(₹ in lakh) **Combined Asset** 2021-22 2023-24 Particulars 2019-20 2020-21 2022-23 Opening Gross Block 95169.66 95169.66 95169.66 95169.66 95169.66 Addition during the year 2019-0.00 0.00 0.00 0.00 0.00 24 due to projected Additional **Capitalisation** Closing Gross Block 95169.66 95169.66 95169.66 95169.66 95169.66 Average Gross Block 95169.66 95169.66 95169.66 95169.66 95169.66 Weighted average rate of 5.22 5.22 5.22 1.13 1.13 Depreciation (WAROD) (%) Elapsed useful life at the 9.00 10.00 11.00 12.00 13.00 beginning of the year (Year) Balance useful life at the 24.00 23.00 21.00 22.00 20.00 beginning of the year (Year) Aggregated Depreciable Value 85549.49 85549.49 85549.49 85549.49 85549.49 **Combined Depreciation** 4971.29 4971.29 4971.29 1073.89 1073.89 during the year Aggregate Cumulative 53055.31 58026.60 62997.89 64071.78 65145.66 Depreciation at the end of the

year					
Remaining Aggregate Depreciable Value at the end of the year	32494.18	27522.89	22551.60	21477.71	20403.83

#### Interest on Loan (IoL)

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

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

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

(3) The repayment for each of the year of the tariff period 2019-24 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of de-capitalization of asset, 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."

57. MSEDCL has submitted that while calculating IoL, Weighted Average Rate

of Interest (WAROI) is to 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.

58. In response, the Petitioner has submitted that while calculating the tariff, WAROI is used as mentioned in Form 9E on annual basis for the whole period under consideration. The Petitioner has further submitted that the methodology for computation of WAROI 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.

59. We have considered the submissions of the Petitioner and MSEDCL. WAROI has been considered on the basis of rates 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 for the 2019-24 tariff period is as follows:

					(₹ in lakh)				
Combined Asset									
Particulars	2019-20 2020-21 2021-22 2022-23 2023-								
Gross Normative Loan	66618.83	66618.83	66618.83	66618.83	66618.83				
Cumulative Repayments up	48084.02	53055.31	58026.60	62997.89	64071.78				
to Previous Year									
Net Loan-Opening	18534.80	13563.51	8592.22	3620.93	2547.05				
Addition due to Additional	0.00	0.00	0.00	0.00	0.00				
Capitalization									
Repayment during the year	4971.29	4971.29	4971.29	1073.89	1073.89				
Net Loan-Closing	13563.51	8592.22	3620.93	2547.05	1473.16				
Average Loan	16049.16	11077.87	6106.58	3083.99	2010.10				
Weighted Average Rate of	5.014	4.955	4.874	4.759	4.649				
Interest on Loan (%)									
Interest on Loan	804.73	548.94	297.63	146.78	93.44				



#### Return on Equity (RoE)

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

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

(2) Return on equity shall be computed at the base rate of 15.50% for thermal generating station, transmission system including communication system and 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 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."

61. The Petitioner has submitted that MAT rate is applicable to the Petitioner

Company.

62. MSEDCL has submitted that the Petitioner has calculated RoE considering

the MAT @18.5% for the whole period under consideration but it has been

already declared that for 2019-20, the MAT rate is 15%. Thus, it would change the effective tax rate. This would in turn affect the grossed-up ROE rate and thereby the entire truing-up for the period under consideration.

63. In response, the Petitioner has submitted that 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. Therefore, the Petitioner prayed to allow the cost and tariff as claimed in the instant petition.

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

					(₹ in lakh)				
Combined Asset									
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24				
Opening Equity	28550.83	28550.83	28550.83	28550.83	28550.83				
Addition due to Additional	0.00	0.00	0.00	0.00	0.00				
Capitalization									
Closing Equity	28550.83	28550.83	28550.83	28550.83	28550.83				
Average Equity	28550.83	28550.83	28550.83	28550.83	28550.83				
Return on Equity	15.500	15.500	15.500	15.500	15.500				
(Base Rate) (%)									
Tax Rate applicable (%)	17.472	17.472	17.472	17.472	17.472				
Rate of Return on Equity	18.782	18.782	18.782	18.782	18.782				
(Pre-tax)									
Return on Equity (Pre-tax)	5362.42	5362.42	5362.42	5362.42	5362.42				

# **Operation & Maintenance Expenses (O & M Expenses)**

65. The O&M Expenses claimed by the Petitioner for various elements included in the Combined Asset for 2019-24 tariff period are as follows:

(₹ in lakh)

	Combined Asset					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24	
Sub-station Bays						
(in Numbers)						
400 kV : Wardha-I	1	1	1	1	1	
400 kV : Wardha-II Bay	1	1	1	1	1	
400 kV : Aurangabad - I Bay	1	1	1	1	1	
400 kV : Aurangabad - I Bay	1	1	1	1	1	
400 kV : Seoni Bay	1	1	1	1	1	
400 kV : Akola - I Bay	1	1	1	1	1	
400 kV : Akola - II Bay	1	1	1	1	1	
400 kV : Bus Reactor Bay	1	1	1	1	1	
400 kV : Wardha Bay	1	1	1	1	1	
400 kV : Akola-I Bay	1	1	1	1	1	
400 kV : Akola-I Bay	1	1	1	1	1	
400 kV : ICT-I Bay	1	1	1	1	1	
400 kV : ICT-II Bay	1	1	1	1	1	
220 kV : Line-II Bays	1	1	1	1	1	
220 kV : Line-II Bays 220 kV : ICT-I Bay	1	1	1	1	1	
220 kV : Ici - Bay 220 kV : Line I Bay	1	1	1	1	1	
220 kV : Line IV Bay	1	1	1	1	1	
	1	1	1	1	1	
220 kV : ICT-II Bay	1	1	1	1	1	
220 kV : Line-III Bay	I	I	<u> </u>	I	I	
Norm (₹ lakh/bay)	20.45	22.20	24.45	25.00	20.04	
400 kV 220 kV	32.15 22.51	33.28	34.45 24.12	35.66	36.91	
Total Sub-station O&M Expenses	553.01	23.30 <b>572.44</b>	592.57	24.96 613.34	25.84 634.87	
Transformers/Reactors	555.01	572.44	592.57	013.34	034.07	
(in MVA) 400 kV : Wardha : ICT I and II at	630	630	630	630	630	
Wardha Sub-station (2X315 MVA)	030	030	030	030	030	
Norm (₹ lakh/MVA)						
400 kV	0.358	0.371	0.384	0.398	0.411	
Total Transformer O&M	225.54	<b>233.73</b>	<b>241.92</b>	<b>250.74</b>	<b>258.93</b>	
	223.34	233.73	241.92	230.74	200.93	
Expenses AC Lines (in km)						
400 kV : Single Circuit (Bundle with	267.894	267.894	267.894	267.894	267.894	
4 or more sub-conductor)	201.094	201.094	201.094	201.094	207.094	
400 kV : Double Circuit (Twin/Triple	403.095	403.095	403.095	403.095	403.095	
Conductor)	403.095	403.095	403.095	403.095	403.095	
Norm (₹ lakh/km)						
Single Circuit (Bundle with 4 or	0.755	0.781	0.809	0.837	0.867	
0	0.755	0.701	0.609	0.037	0.007	
more sub-conductor) Double Circuit Line (Twin/ Triple						
Conductor)	0.881	0.912	0.944	0.977	1.011	
Total Transmission Line	557.39	576.85	597.25	618.05	639.79	
Communication System	331.39	510.05	JJ1.2J	010.03	039.79	
PLCC (₹ in lakh)	357.99	357.99	357.99	357.99	357.99	
Norms (%)	<u> </u>	357.99	<u> </u>	<u> </u>		
	∠ 7.16	∠ 7.16	∠ 7.16	∠ 7.16	2 7.16	
Total Communication System		7				

# 66. Regulations 35(3)(a) and 35(4) of the 2019 Tariff Regulations provide as

follows:

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

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Norms for sub-station Bays (₹ Lakh per bay)	_	-		_	
765 kV	45.01	46.60	48.23	49.93	51.68
400 kV	32.15	33.28	34.45	35.66	36.91
220 kV	22.51	23.30	24.12	24.96	25.84
132 kV and below	16.08	16.64	17.23	17.83	18.46
Norms for Transformers (₹ Lakh per MVA)					
765 kV	0.491	0.508	0.526	0.545	0.564
400 kV	0.358	0.371	0.384	0.398	0.411
220 kV	0.245	0.254	0.263	0.272	0.282
132 kV and below	0.245	0.254	0.263	0.272	0.282
Norms for AC and HVDC lines (₹ Lakh per kn	ו)				
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.881	0.912	0.944	0.977	1.011
Single Circuit (Bundled conductor with four sub-conductors)	0.755	0.781	0.809	0.837	0.867
Single Circuit (Twin & Triple Conductor)	0.503	0.521	0.539	0.558	0.578
Single Circuit (Single Conductor)	0.252	0.260	0.270	0.279	0.289
Double Circuit (Bundled conductor with four or more sub-conductors)	1.322	1.368	1.416	1.466	1.517
Double Circuit (Twin & Triple Conductor)	0.881	0.912	0.944	0.977	1.011
Double Circuit (Single Conductor)	0.377	0.391	0.404	0.419	0.433
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.319	2.401	2.485	2.572	2.662
Multi Circuit (Twin & Triple Conductor)	1.544	1.598	1.654	1.713	1.773
Norms for HVDC stations					
HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)	834	864	894	925	958
Gazuwaka HVDC Back-to-Back station (₹ Lakh per 500 MW)	1,666	1,725	1,785	1,848	1,913
500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)	2,252	2,331	2,413	2,498	2,586
±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)	2,468	2,555	2,645	2,738	2,834
±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)	1,696	1,756	1,817	1,881	1,947
±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW)	2,563	2,653	2,746	2,842	2,942

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

Provided further that:

- i. the operation and maintenance expenses for new HVDC bi-pole schemes commissioned after 1.4.2019 for a particular year shall be allowed pro-rata on the basis of normative rate of operation and maintenance expenses of similar HVDC bi-pole scheme for the corresponding year of the tariff period;
- *ii.* the O&M expenses norms for HVDC bi-pole line shall be considered as Double Circuit quad AC line;
- iii. the O&M expenses of ±500 kV Mundra-Mohindergarh HVDC bipole scheme (2000 MW)shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±500 kV Talchar-Kolar HVDC bi-pole scheme (2000 MW);
- iv. the O&M expenses of ±800 kV Champa-Kurukshetra HVDC bi-pole scheme (3000 MW) shall be on the basis of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme;
- v. the O&M expenses of ±800 kV, Alipurduar-Agra HVDC bi-pole scheme (3000 MW)shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme; and
- vi. the O&M expenses of Static Synchronous Compensator and Static Var Compensator shall be worked at 1.5% of original project cost as on commercial operation which shall be escalated at the rate of 3.51% to work out the O&M expenses during the tariff period. The O&M expenses of Static Synchronous Compensator and Static Var Compensator, if required, may be reviewed after three years.

(b) The total allowable operation and maintenance expenses for the transmission system shall be calculated by multiplying the number of sub-station bays, transformer capacity of the transformer (in MVA) and km of line length with the applicable norms for the operation and maintenance expenses per bay, per MVA and per km respectively.

(c) The Security Expenses and Capital Spares for transmission system shall be allowed separately after prudence check:

Provided that the transmission licensee shall submit the assessment of the security requirement and estimated security expenses, the details of year-wise actual capital spares consumed at the time of truing up with appropriate justification.

**"(4) Communication system**: The operation and maintenance expenses for the communication system shall be worked out at 2.0% of the original project cost related to such communication system. The transmission licensee shall submit the actual operation and maintenance expenses for truing up."

67. We have considered the submissions of the Petitioner. The Petitioner has claimed O&M Expenses separately for PLCC under Regulation 35(4) of the 2019 Tariff Regulations @2% of its original project cost in the instant petition. The Petitioner has made similar claim in other petitions as well. Though PLCC is a communication system, it has been considered as part of the sub-station in the 2014 Tariff Regulations and the 2019 Tariff Regulations and the norms for sub-station have been specified accordingly. Accordingly, the Commission vide order dated 24.1.2021 in Petition No.126/TT/2020 has already concluded that no separate O&M Expenses can be allowed for PLCC under Regulation 35(4) of the 2019 Tariff Regulations even though PLCC is a communication system. Therefore, the Petitioner's claim for separate O&M Expenses for PLCC @2% is not allowed.

68. The O&M Expenses allowed in respect of Combined Asset for 2019-24 tariff period are as follows:

				(1	₹ in lakh)
	Combin	ed Asset			
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Sub-station Bays					
(in Numbers)					
400 kV : Wardha-I	1	1	1	1	1
400 kV : Wardha-II Bay	1	1	1	1	1
400 kV : Aurangabad - I Bay	1	1	1	1	1
400 kV : Aurangabad - I Bay	1	1	1	1	1
400 kV : Seoni Bay	1	1	1	1	1
400 kV : Akola - I Bay	1	1	1	1	1
400 kV : Akola - II Bay	1	1	1	1	1
400 kV : Bus Reactor Bay	1	1	1	1	1
400 kV : Wardha Bay	1	1	1	1	1
400 kV : Akola-I Bay	1	1	1	1	1
400 kV : Akola-II Bay	1	1	1	1	1
400 kV : ICT-I Bay	1	1	1	1	1
400 kV : ICT-II Bay	1	1	1	1	1
220 kV : Line-II Bays	1	1	1	1	1
220 kV : ICT-I Bay	1	1	1	1	1
220 kV : Line I Bay	1	1	1	1	1
220 kV : Line IV Bay	1	1	1	1	1

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220 kV : ICT-II Bay	1	1	1	1	1
220 kV : Line-III Bay	1	1	1	1	1
Norm (₹ lakh/bay)					
400 kV	32.15	33.28	34.45	35.66	36.91
220 kV	22.51	23.30	24.12	24.96	25.84
Total Sub-station O&M	553.01	572.44	592.57	613.34	634.87
Expenses					
Transformers/Reactors					
(in MVA)					
400 kV : Wardha : ICT I and II at	630	630	630	630	630
Wardha Sub-station					
Norm (₹ lakh/MVA)					
400 kV	0.358	0.371	0.384	0.398	0.411
Total Transformer O&M	225.54	233.73	241.92	250.74	258.93
Expenses					
AC Lines (in km)					
400 kV : Single Circuit (Bundle	267.894	267.894	267.894	267.894	267.894
with 4 or more sub-conductor)					
400 kV : Double Circuit	403.095	403.095	403.095	403.095	403.095
(Twin/Triple Conductor)					
Norm (₹ lakh/km)					
Single Circuit (Bundle with 4 or	0.755	0.781	0.809	0.837	0.867
more sub-conductor)					
Double Circuit Line (Twin/ Triple	0.881	0.912	0.944	0.977	1.011
Conductor)					
Total Transmission Line	557.39	576.85	597.25	618.05	639.79
Total O&M Expenses	1335.94	1383.02	1431.74	1482.13	1533.59

#### Interest on Working Capital (IWC)

69. Regulations 34(1)(c), 34(3) and 34(4) and Regulation 3(7) of the 2019

Tariff Regulations provide as follows:

*"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 annual fixed cost;

(ii) Maintenance spares @ 15% of operation and maintenance expenses including security expenses; and

*(iii)* Operation and maintenance expenses, including security expenses for one month."

"(3) Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2019 or as on 1st April of the year during the tariff period 2019-24 in which the generating station or a unit thereof or the



transmission system including communication system or element thereof, as the case may be, is declared under commercial operation, whichever is later:

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

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

"3. Definitions ...

(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;"

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

					(₹ in lakh)
	Combine	d Asset			
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Working Capital for O & M	111.33	115.25	119.31	123.51	127.80
Expenses (O&M Expenses for 1					
month)					
Working Capital for Maintenance	200.39	207.45	214.76	222.32	230.04
Spares (15% of O&M expenses)					
Working Capital for Receivables	1561.49	1538.01	1512.85	1013.19	1010.32
(Equivalent to 45 days of annual					
fixed cost / annual transmission					
charges)					
Total Working Capital	1873.21	1860.72	1846.92	1359.02	1368.16
Rate of Interest on working capital	12.05	11.25	11.25	11.25	11.25
(%)					
Interest of Working Capital	225.72	209.33	207.78	152.89	153.92

# Annual Fixed Charges for 2019-24 Tariff Period

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

					(₹ in lakh)					
Combined Asset										
Particulars 2019-20 2020-21 2021-22 2022-23 2023-24										
Depreciation	4971.29	4971.29	4971.29	1073.89	1073.89					
Interest on Loan	804.73	548.94	297.63	146.78	93.44					
Return on Equity	5362.42	5362.42	5362.42	5362.42	5362.42					
O&M Expenses	1335.94	1383.02	1431.74	1482.13	1533.59					
Interest on Working Capital	225.72	209.33	207.78	152.89	153.92					
Total	12700.10	12474.99	12270.86	8218.10	8217.26					

# Filing Fee and the Publication Expenses

72. The Petitioner has prayed for reimbursement of fee paid by it for filing the petition and publication expenses. The Petitioner shall be entitled for reimbursement of 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

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

# **Goods and Services Tax**

74. The Petitioner has submitted that if GST is levied at any rate and at any time in future on charges of transmission of electricity, the same shall be borne and additionally paid by the 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.

75. MPPMCL and MSEDCL have submitted that the demand of the Petitioner is premature and need not be considered at this juncture. MSEDCL further submitted that the Petitioner has already raised same prayer in Petition No. 40/TT/2018 and the Commission vide order dated 15.11.2018 observed that the Petitioner's prayer is pre-mature and accordingly rejected the said prayer.

76. In response, the Petitioner has submitted that currently transmission of electricity by an electric transmission utility is exempted 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 Respondents to the Petitioner and the same shall be charged and billed separately.

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

#### Security Expenses

78. The Petitioner has submitted that security expenses in respect of the transmission system are not claimed in the instant petition and it would file a separate petition for claiming the overall security expenses and the consequential IWC.

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

#### **Capital Spares**

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

# Sharing of Transmission Charges

81. With effect from 1.11.2020, sharing of transmission charges is governed by the Central Electricity Regulatory Commission (Sharing of Transmission Charges and Losses) Regulations, 2020 (in short, "the 2020 Sharing Regulations"). Accordingly, the liabilities of DICs for arrears of transmission charges determined through this order shall be computed DIC-wise in accordance with the provisions of respective Tariff Regulations and shall be recovered from the concerned DICs through Bills under Regulation 15(2)(b) of the 2020 Sharing Regulations. Billing, collection and disbursement of transmission charges for subsequent period shall be recovered in terms of provisions of the 2020 Sharing Regulations as provided in Regulation 57 of the 2019 Tariff Regulations.

#### 82. To summarise:

(a) The trued-up AFC allowed for Combined Asset-I & II and Combined Asset-III & IV for 2014-19 tariff period are as follows:

					(₹ in lakh)
Assets	2014-15	2015-16	2016-17	2017-18	2018-19
Combined Asset- I & II	12463.39	12447.27	12574.17	12522.46	12563.64
Combined Asset- III & IV	1062.86	1074.26	1096.01	1106.10	1123.12

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

				(₹ in lakh)
2019-20	2020-21	2021-22	2022-23	2023-24
12700.10	12474.99	12270.86	8218.10	8217.26

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

84. This order disposes of Petition No. 418/TT/2019 in terms of the above discussions and findings.

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



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#### Annexure-I

2014-19	Admitted Capital Cost as on 1.4.2014	ACE (₹ in lakh)	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depre- ciation (%)		Annual Depre	eciation as pe	r Regulations	
Capital Expenditure as on 1.4.2014	(₹ in lakh)	2014-19			2014-15 (₹ in lakh)	2015-16 (₹ in lakh)	2016-17 (₹ in lakh)	2017-18 (₹ in lakh)	2018-19 (₹ in lakh)
Freehold Land	114.67	0.00	114.67	0.00	0.00	0.00	0.00	0.00	0.00
Building	2648.04	0.00	2648.04	3.34	88.44	88.44	88.44	88.44	88.44
Transmission Line	77960.62	0.00	77960.62	5.28	4116.32	4116.32	4116.32	4116.32	4116.32
Sub Station	8793.38	0.00	8793.38	5.28	464.29	464.29	464.29	464.29	464.29
PLCC	329.80	0.00	329.80	6.33	20.88	20.88	20.88	20.88	20.88
TOTAL	89846.51	0.00	89846.51		4689.93	4689.93	4689.93	4689.93	4689.93
		Average Gr (₹ in lakh)	oss Block	89846.51	89846.51	89846.51	89846.51	89846.51	
			Weighted Average Rate of Depreciation (%)		5.22	5.22	5.22	5.22	5.22

#### Annexure-II

2014-19	Admitted Capital Cost as on	ACE (₹ in lakh)	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depre- ciation (%)	Annual Depreciation as per Regulations				
Capital Expenditure	1.4.2014 (₹ in lakh)	2014-19			2014-15	2015-16	2016-17	2017-18	2018-19
as on 1.4.2014		2014-19			(₹ in lakh)	(₹ in lakh)	(₹ in lakh)	(₹ in lakh)	(₹ in lakh)
Sub Station	5294.96	0.00	5294.96	5.28	279.57	279.57	279.57	279.57	279.57
PLCC	28.19	0.00	28.19	6.33	1.78	1.78	1.78	1.78	1.78
TOTAL	5323.15	0.00	5323.15		281.36	281.36	281.36	281.36	281.36
			Average Gr (₹ in lakh)	oss Block	5323.15	5323.15	5323.15	5323.15	5323.15
			Weighted Average Rate of Depreciation (%)		5.29	5.29	5.29	5.29	5.29