

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 659/TT/2020**

**Coram:**

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

**Date of Order: 30.06.2021**

**In the matter of:**

Approval under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and truing up of transmission tariff of 2014-19 period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of 2019-24 period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 of 63 MVAR, 400 kV Switchable Line Reactor along with 500 Ohms NGR at Rajgarh (POWERGRID) end of Khargone TPS-Rajgarh (POWERGRID) 400 kV line under "POWERGRID Works associated with Transmission System Strengthening in WR associated with Khargone TPS" in Western Region.

**And in the matter of:**

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

**....Petitioner**

**Vs.**

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



4. Maharashtra State Electricity Distribution Co. Ltd.,  
Hongkong Bank Building, 3rd Floor,  
M.G. Road, Fort, Mumbai – 400001.
5. Maharashtra State Electricity Transmission Co. Ltd.,  
Prakashganga, 6<sup>th</sup> Floor, Plot No. C-19, E-Block,  
BandraKurla Complex, Bandra (East),  
Mumbai – 400051.
6. Gujarat UrjaVikas Nigam Ltd.,  
Sardar Patel Vidyut Bhawan,  
Race Course Road,  
Vadodara – 390007.
7. Electricity Department,  
Government of Goa, Vidyut Bhawan, Panaji,  
Near Mandvi Hotel,  
Goa – 403001.
8. Electricity Department,  
Administration of Daman & Diu,  
Daman – 396210.
9. DNH Power Distribution Corporation Ltd.,  
VidyutBhawan, 66 kV Road, Near Secretariat Amla,  
Silvassa – 396230.
10. Chhattisgarh State Power Transmission Co. Ltd.,  
Office of The Executive Director (C&P),  
State Load Despatch Building,  
Dangania, Raipur – 492 013.
11. Chhattisgarh State Power Distribution Co. Ltd.,  
P.O.Sunder Nagar, Dangania, Raipur,  
Chhattisgarh – 492013.
12. NTPC Ltd.,  
NTPC Bhawan, Core-7, Scope Complex, 7,  
Institutional Area, Lodhi Road,  
New Delhi – 110065.
13. Khargone Transmission Ltd. (Sterlite Grid Ltd.),  
F-1 Mira Corporate Suits, 1 & 2 Floor,  
Mathura Road, Ishwar Nagar,  
New Delhi – 110 065.

...Respondent(s)



**For Petitioner** : Shri S.S. Raju, PGCIL  
Shri A.K. Verma, PGCIL  
Shri B. Dash, PGCIL  
Shri Ved Prakash Rastogi, PGCIL  
Shri D.K. Biswal, PGCIL

**For Respondents** : Shri Anindya Khare, MPPMCL

### **ORDER**

The instant petition has been filed by Power Grid Corporation of India Ltd., a deemed transmission licensee, for truing up of transmission tariff from COD 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 determination of tariff for the period from 1.4.2019 to 31.3.2024 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) in respect of 63 MVAR, 400 kV Switchable Line Reactor along with 500 Ohms NGR at Rajgarh (POWERGRID) end of Khargone TPS – Rajgarh (POWERGRID) 400 kV line (hereinafter referred to as ‘the transmission asset’) under “POWERGRID Works associated with Transmission System Strengthening in WR associated with Khargone TPS” in Western Region (hereinafter referred to as “the transmission project”).

2. The Petitioner has made the following prayers in the instant 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 7 & 8 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 7 & 8 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 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 follows:

a. The Investment Approval (IA) for the transmission project was accorded by Board of Directors of the Petitioner in 337<sup>th</sup> meeting held on 9.2.2017 (communicated vide Memorandum No. C/CP/PA1617-03-0Z-IA024 dated 21.3.2017) for ₹10953 lakh including IDC of ₹584 lakh based on October, 2016 price level.

b. The scope of the transmission project was discussed and agreed in the 38<sup>th</sup> and 39<sup>th</sup> meeting of the Standing Committee of Power System Planning of Western Region held on 17.7.2015 and 30.11.2015, respectively. The transmission project was also discussed during 35<sup>th</sup> meeting of the Empowered Committee on Transmission held on 14.9.2015. The transmission system was also discussed and agreed for implementation in the 31<sup>st</sup> meeting of WRPC held at Raipur on 31.3.2016.



c. The scope of work covered under the transmission project is as follows:

**Sub-station**

- i. 765 kV line bays at 765/400 kV Indore Substation of POWERGRID: 2 Numbers (for Khandwa PS ( TBCB) - Indore 765 kV D/C).
- ii. 240 MVAR, 765 kV Switchable Line Reactor along with 700 Ohms NGR at 765/400 kV Indore Substation end of each Circuit of Khandwa Pooling Station - Indore 765 kV D/C line (line being implemented under TBCB).
- iii. 63 MVAR, 400 kV Switchable Line Reactor along with 500 Ohms NGR at Rajgarh (POWERGRID) end of Khargone TPS – Rajgarh (POWERGRID) 400 kV line (Formed after LILO of one circuit of Khandwa - Rajgarh 400 kV D/C line at Khargone TPS, being implemented under TBCB).

d. The asset covered in the instant petition is 63 MVAR, 400 kV Switchable Line Reactor along with 500 Ohms NGR at Rajgarh (POWERGRID) end of Khargone TPS – Rajgarh (POWERGRID) 400 kV line.

e. The scope of work of the transmission project was completed on 1.8.2019 when the balance assets were put into commercial operation. A separate petition as per 2019 Tariff Regulations has been filed by the Petitioner.

f. The tariff of the transmission asset covered in the instant petition from COD to 31.3.2019 was allowed vide order dated 19.3.2020 in Petition No. 362/TT/2018 as per the 2014 Tariff Regulations.

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

5. The Petitioner has served the petition on the Respondents and notice of this application has also been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003. No comments or suggestions have been received from the general public in response to the aforesaid notices published in the newspapers



by the Petitioner. M.P. Power Management Company Ltd. (MPPMCL), i.e. Respondent No. 1, has filed its reply vide affidavit dated 3.11.2020 and has raised issues of grossing up of Return on Equity (RoE), Additional Capital Expenditure (ACE) and effects of GST. The Petitioner vide affidavit dated 7.4.2021 has filed its rejoinder to the reply of MPPMCL. The issues raised by MPPMCL and the clarifications submitted by the Petitioner are dealt in the relevant paragraphs of the order.

6. The hearing in this matter was held on 20.4.2021 through video conference and order was reserved.

7. This order is being issued taking into consideration the submissions made by the Petitioner in the petition dated 22.6.2020, the Petitioner's affidavit dated 10.4.2021, reply of MPPMCL vide affidavit dated 3.11.2020 and Petitioner's rejoinder thereto dated 7.4.2021.

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

**Truing Up of Annual Fixed Charges for 2014-19 Tariff Period**

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

Particulars	(₹ in lakh)	
	2017-18 (Pro-rata for 31 days)	2018-19
Depreciation	2.91	45.45
Interest on Loan	2.87	43.60
Return on Equity	3.22	50.35
Interest on working capital	0.48	6.53
O & M Expenses	5.65	68.71
<b>Total</b>	<b>15.13</b>	<b>214.64</b>



10. The details of the trued-up Interest on Working Capital (IWC) claimed by the Petitioner in respect of the transmission asset for 2014-19 tariff period are as follows:

Particulars	(₹ in lakh)	
	2017-18 (Pro-rata for 31 days)	2018-19
O&M expenses	5.54	5.73
Maintenance Spares	9.98	10.31
Receivables	29.70	35.77
<b>Total</b>	<b>45.22</b>	<b>51.81</b>
Rate of Interest (in %)	12.60	12.60
<b>Interest on Working Capital</b>	<b>0.48</b>	<b>6.53</b>

### Capital Cost

11. The Commission vide order dated 19.3.2020 in Petition No. 362/TT/2018 allowed the capital cost of ₹556.14 lakh as on COD and ₹1071.36 lakh as on 31.3.2019 of the transmission asset.

12. The Petitioner in the instant true up petition as per Auditor's Certificate dated 13.4.2020 has submitted the capital cost as on COD and ACE up to 31.3.2021 in respect of the transmission asset. The details of FR approved capital cost, capital cost as on COD and ACE incurred up to 31.3.2019 as claimed by the Petitioner in respect of the transmission asset are as follows:

Apportioned Approved Cost (FR)	Actual Capital Cost as on COD (As per Auditor's Certificate)	ACE		Total Capital Cost as on 31.3 2019
		2017-18	2018-19	
		1231.07	567.99	

### Cost Over-run

13. The apportioned approved FR cost is ₹1231.07 lakh and the total capital cost up to 31.3.2019 including ACE in respect of the transmission asset is ₹973.95 lakh. Hence, the capital cost in respect of the transmission asset is within the approved FR cost and, therefore, there is no cost over-run with regard to the transmission asset.



### Time Over-run

14. As per the Investment Approval, the transmission assets under the transmission project were scheduled to be put into commercial operation by February 2018. The transmission asset was put into commercial operation on 1.3.2018. Thus, there was a time over-run of 1 day. The Commission vide order dated 19.3.2020 in Petition No. 362/TT/2018 condoned the time over-run of 1 day.

### Interest During Construction (IDC) and Incidental Expenditure During Construction (IEDC)

15. The Petitioner has claimed IDC for the transmission asset and has submitted Auditor's Certificate in support of the same. The Petitioner has submitted the computation of IDC along with year-wise details of the IDC discharged.

16. We have considered the submissions made by the Petitioner. The allowable IDC has been worked out considering the information submitted by the Petitioner for the transmission asset on cash basis. The loan details submitted in Form-9C for the 2014-19 tariff period and the IDC computation sheet have been considered for the purpose of IDC calculation on cash and accrued basis. The un-discharged IDC as on COD has been considered as ACE during the year in which it has been discharged. Accordingly, based on the information furnished by the Petitioner, the IDC considered, is as follows:

IDC as per Auditor's Certificate	IDC Admissible / Worked out	Computational difference	IDC discharged as on COD	IDC Undischarged as on COD	IDC Discharged during	
					2017-18	2018-19
A	B	C=A-B	D	E=B-D		
11.85	11.71	0.14	0.00	11.71	0.00	11.71

17. The Petitioner has claimed IEDC of ₹20.71 lakh for the transmission asset and has submitted Auditor's certificate in support of the same. The Petitioner has also



submitted that the entire IEDC has been discharged as on COD in respect of the transmission asset. IEDC claimed is within the estimated expenditure of IEDC as indicated in the Abstract Cost Estimate. Hence, IEDC claimed has been allowed.

### Initial Spares

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

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

19. The Petitioner has claimed the following Initial Spares for the transmission asset and submitted Auditor’s certificate in support of the same. The details of Initial Spares claimed by the Petitioner are as follows:

Particulars	Plant and Machinery Cost (excluding IDC/IEDC, Land cost and cost of civil works) (₹ in lakh)	Initial Spares claimed (₹ in lakh)	Ceiling Limit (in %)	Initial Spares worked out (₹ in lakh)
	A	B	C	D= [(A-B)*C/(100-C)]
Sub-station	1001.57	59.56	6.00	60.13

20. We have considered the submissions of the Petitioner. The initial spares claimed by the Petitioner is within ceiling norms specified in Regulation 13(d) of the 2014 Tariff Regulations and is allowed as follows:

Particulars	Plant & Machinery Cost up to cut-off date (excluding IDC and IEDC) (₹ in lakh)	Initial Spares claimed (₹ in lakh)	Ceiling Limit (in %)	Initial Spares as per ceiling limit (₹ in lakh)	Initial Spares allowed (₹ in lakh)	Discharge of Initial Spares		
	A	B	C	D= [(A-B)*C/(100-C)]		As on COD	2017-18	2018-19
Sub-station	1001.56	59.56	6.00	60.13	59.56	0.00	50.29	9.27



### **Capital Cost as on COD**

21. Accordingly, the capital cost allowed for the transmission asset as on COD is as follows:

(₹ in lakh)			
Capital Cost as on COD as per Auditor Certificate	IDC Disallowed	Un-discharge IDC	Capital Cost considered as on COD
A	B	C	E=A-B-C
567.99	0.14	11.71	556.14

### **Additional Capital Expenditure (ACE)**

22. The Petitioner has claimed the following ACE for the transmission asset and submitted the Auditor's Certificates in support of the same:

ACE	
2017-18	2018-19
168.82	237.14

23. The Petitioner has submitted that ACE in 2017-18 and 2018-19 has been claimed on account of balance and retention payments due to un-discharged liabilities and unexecuted works within the cut-off date and has been claimed under Regulations 14(1)(i) and 14(1)(ii) of the 2014 Tariff Regulations. The Petitioner has submitted Auditor's Certificate in support of the same. The Petitioner vide affidavit dated 15.4.2021 has submitted party-wise details of balance and retention payments.

24. We have considered the submissions of the petitioner. The capital cost including ACE as on 31.3.2019 allowed vide order dated 19.3.2020 in Petition No. 362/TT/2018, claimed in the instant petition and trued-up in this order in respect of the transmission asset is as follows:



(₹ in lakh)

Particulars	Capital Cost as on COD on cash basis	ACE		Total Capital Cost including ACE as on 31.3.2019
		2017-18	2018-19	
Allowed vide order dated 19.3.2020 in Petition No. 362/TT/2018	556.14	168.82	346.40	1071.36
As claimed by the Petitioner in the instant petition	556.14	168.82	248.99	973.95
Approved after truing up in this order	556.14	168.82	248.85	973.81

### **Debt-Equity Ratio**

25. The Petitioner has claimed debt-equity ratio of 70:30 as on COD and for ACE post 31.3.2014. The debt-equity ratio of 70:30 has been considered for capital cost as on COD and ACE during 2014-19 tariff period as provided under Regulation 19 of the 2014 Tariff Regulations. The details of debt-equity ratio in respect of the transmission asset as on COD and 31.3.2019 are as follows:

Particulars	Amount as on COD (₹ in lakh)	(in %)	Amount as on 31.3.2019 (₹ in lakh)	(in %)
Debt	389.30	70.00	681.67	70.00
Equity	166.84	30.00	292.14	30.00
<b>Total</b>	<b>556.14</b>	<b>100.00</b>	<b>973.81</b>	<b>100.00</b>

### **Depreciation**

26. The Petitioner's claim towards depreciation in this petition is found to be higher than the depreciation allowed in order dated 19.3.2020 in Petition No. 362/TT/2018. The Petitioner has neither given any justification for claiming higher depreciation than that allowed earlier nor made any specific prayer for allowing higher depreciation in this petition. It is observed that vide order dated 19.3.2020 in Petition No. 362/TT/2018, the depreciation for IT equipment was allowed @5.28%. The Petitioner now at the time of truing-up of the tariff of the 2014-19 period has segregated the IT equipment cost from the sub-station cost and has considered depreciation rate for IT



equipment @15% and the salvage value for IT equipment as NIL as per the 2014 Tariff Regulations.

27. A similar issue had come up in some earlier petitions, including Petition No. 19/TT/2020 filed by the Petitioner. In terms of the order dated 9.5.2020 in Petition No. 19/TT/2020, the depreciation has been considered for IT Equipment @5.28% as part of the Sub-station up to 31.3.2019 while truing up the capital expenditure for the 2014-19 tariff period. However, for the 2019-24 tariff period, IT Equipment has been considered separately and depreciation has been allowed @15% for the balance depreciable value of IT Equipment in accordance with Regulation 33 of the 2019 Tariff Regulations. The Gross Block during the 2014-19 tariff period has been depreciated at weighted average rate of depreciation (WAROD) and working of WAROD is at Annexure-I. WAROD has been worked out after taking into account the depreciation rates of assets as prescribed in the 2014 Tariff Regulations and depreciation allowed during tariff period 2014-19 is as follows:

Particulars	(₹ in lakh)	
	2017-18 (Pro-rata for 31 days)	2018-19
Opening Gross Block	556.14	724.96
ACE	168.82	248.85
Closing Gross Block	724.96	973.81
Average Gross Block	640.55	849.38
Weighted average rate of Depreciation (WAROD) (in %)	5.28	5.28
Balance useful life of the asset at the beginning of the year (Year)	25.00	25.00
Aggregated Depreciable Value	576.50	764.45
<b>Depreciation during the year</b>	<b>2.87</b>	<b>44.85</b>
Cumulative Depreciation at the end of the year	2.87	47.72
Remaining Aggregated Depreciable Value at the end of the year	573.62	716.73

28. The details of the depreciation allowed in respect of the transmission asset in the order dated 19.3.2020 in Petition No. 362/TT/2018, claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:



Particulars	(₹ in lakh)	
	2017-18 (Pro-rata for 31 days)	2018-19
Allowed vide order dated 19.3.2020 in Petition No. 362/TT/2018	2.87	47.23
Claimed by the Petitioner in the instant petition	2.91	45.45
Approved after true-up in this order	2.87	44.85

### **Interest on Loan (IoL)**

29. The Petitioner has claimed the weighted average rate of IoL based on its actual loan portfolio and rate of interest. Accordingly, IoL is calculated based on the actual interest rate in accordance with Regulation 26 of the 2014 Tariff Regulations.

30. The details of trued-up IoL allowed for the transmission assets for the 2014-19 period are as follows:

Particular	(₹ in lakh)	
	2017-18 (Pro-rata for 31 days)	2018-19
Gross Normative Loan	389.30	507.47
Cumulative Repayments up to Previous Year	0.00	2.87
Net Loan-Opening	389.30	504.60
Addition due to ACE	118.17	174.19
Repayment during the year	2.87	44.85
Net Loan-Closing	504.60	633.95
Average Loan	446.95	569.27
Weighted Average Rate of Interest on Loan (in %)	7.55	7.66
<b>Interest on Loan</b>	<b>2.87</b>	<b>43.63</b>

31. Accordingly, IoL approved vide order dated 19.3.2020 in Petition No. 362/TT/2018, claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:

Particulars	(₹ in lakh)	
	2017-18 (Pro-rata for 31 days)	2018-19
Allowed vide order dated 19.3.2020 in Petition No. 362/TT/2018	2.87	45.58
Claimed by the Petitioner in the instant petition	2.87	43.60
Approved after true-up in this order	2.87	43.63



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

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

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

33. 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. MPPMCL has submitted that the Petitioner has neither submitted copy of assessment order for the 2014-15 and 2015-16 nor the Audited accounts in respect of actual taxes paid for 2016-17 and 2017-18 has been enclosed in the instant petition. MPPMCL has further submitted that in the absence of these essential documents, it is not possible to scrutinize the claim of the Petitioner in a proper way.

34. In response, the Petitioner has submitted that the Income Tax assessment of the Petitioner has been completed and assessment orders have been issued by the Income Tax Department in case of 2014-15, 2015-16 and 2016-17 and the Income Tax returns have been filed with the Income Tax Department for the years 2017-18 and 2018-19. The Petitioner has submitted that on the basis of the effective tax rate and grossed-up RoE tried-up accordingly for the 2014-19 tariff period has already



been mentioned in the instant petition for prudence check. The Petitioner has further submitted that the assessment order for the 2014-15 and 2015-16 have already been submitted in Technical Validation reply in Petition No. 20/TT/2020 and it has also placed on record a copy of the assessment order for the year 2016-17 vide affidavit dated 17.8.2020.

35. We have considered the submissions of the Petitioner and MPPMCL. As regards MPPMCL's contentions that the grossed-up rate of RoE for the period 2016-17 and 2017-18 is not based on the MAT rates approved by the Income Tax Authorities, it is observed that effective rate of tax considered for 2014-15, 2015-16 and 2016-17 are based on Assessment Orders issued by Income Tax Authorities and effective rate of tax considered for 2017-18 and 2018-19 are based on the Income Tax returns filed for the purpose of grossing up the RoE rate of respective years. In view of the clarification given by the Petitioner, we are of the view that there is no merit in the contentions of MPPMCL.

36. 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 as follows:

<b>Year</b>	<b>Notified MAT rates (in %) (inclusive of surcharge &amp; cess)</b>	<b>Effective tax (in %)</b>
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

37. The 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 the rate of RoE for truing up of the tariff of the 2014-19 tariff period in terms of the provisions of the 2014 Tariff Regulations, as follows:



Year	Notified MAT rates (in %) (inclusive of surcharge & cess)	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

38. Accordingly, the trued-up RoE allowed for the transmission asset for the 2014-19 period is as follows:

Particulars	₹ in lakh	
	2017-18 (Pro-rata for 31 days)	2018-19
Opening Equity	166.84	217.49
Addition due to ACE	50.65	74.65
Closing Equity	217.49	292.14
Average Equity	192.16	254.81
Return on Equity(Base Rate) (in %)	15.500	15.500
Tax Rate applicable (in %)	21.342	21.549
Rate of Return on Equity(Pre-tax)	19.705	19.758
<b>Return on Equity (Pre-tax)</b>	<b>3.22</b>	<b>50.35</b>

39. The details of RoE allowed vide order dated 19.3.2020 in Petition No. 362/TT/2018, claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:

Particulars	₹ in lakh	
	2017-18 (Pro-rata for 31 days)	2018-19
Allowed vide order dated 19.3.2020 in Petition No. 362/TT/2018	3.20	52.84
Claimed by the Petitioner in the instant petition	3.22	50.35
Approved after true-up in this order	3.22	50.35

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

40. The details of the O&M Expenses claimed by the Petitioner in respect of the transmission asset and approved under Regulation 29(4)(a) of the 2014 Tariff Regulations are as follows:



(₹ in lakh)		
Particulars	2017-18 (Pro-rata for 31 days)	2018-19
<b>Sub-station Bays (Number)</b>		
400 kV Rajgarh: Khargone SLR Bay	1	1
<b>Norm (₹ lakh/bay)</b>		
400 kV	66.51	68.71
<b>Total Sub-station O&amp;M Expenses (₹ in lakh)</b>	<b>66.51</b>	<b>68.71</b>
<b>Total O&amp;M Expenses</b>	<b>5.65</b>	<b>68.71</b>

41. The details of the O&M Expenses allowed in order dated 19.3.2020 in Petition No. 362/TT/2018, O&M Expenses claimed by the Petitioner in the instant petition and trued-up O&M Expenses allowed in the instant order are as follows:

(₹ in lakh)		
Particulars	2017-18 (Pro-rata for 31 days)	2018-19
Allowed vide order dated 19.3.2020 in Petition No. 362/TT/2018	5.54	68.71
Claimed by the Petitioner in the instant petition	5.65	68.71
Approved after true-up in this order	5.65	68.71

### **Interest on Working Capital (IWC)**

42. The Petitioner is entitled to claim IWC as per Regulation 28(1)(c) of the 2014 Tariff Regulations as follows:

#### **i. Maintenance spares:**

Maintenance spares have been worked out based on 15% of Operation and Maintenance Expenses.

#### **ii. O & M Expenses:**

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

#### **iii. Receivables:**

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

#### **iv. Rate of interest on working capital:**

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



43. Accordingly, the trued-up IWC approved for the transmission asset is as follows:

(₹ in lakh)		
Particulars	2017-18 (Pro-rata for 31 days)	2018-19
O & M Expenses(O&M expenses for1 month)	5.54	5.73
Maintenance Spares(15% of O&M expenses)	9.98	10.31
Receivables(Equivalent to 2 months of annual fixed cost / annual transmission charges)	29.61	35.67
<b>Total</b>	<b>45.12</b>	<b>51.71</b>
Rate of Interest on working capital (in %)	12.60	12.60
<b>Interest of working Capital</b>	<b>0.48</b>	<b>6.52</b>

44. The details of IWC allowed vide order dated 19.3.2020 in Petition No. 362/TT/2018, IWC claimed by the Petitioner and trued-up IWC approved in the instant order are as follows:

(₹ in lakh)		
Particulars	2017-18 (Pro-rata for 31 days)	2018-19
Allowed vide order dated 19.3.2020 in Petition No. 362/TT/2018	0.48	6.66
Claimed by the Petitioner in the instant petition	0.48	6.53
Approved after true-up in this order	0.48	6.52

#### **Approved Annual Fixed Charges for the 2014-19 Tariff Period**

45. The trued-up annual fixed charges approved for the transmission asset for 2014-19 tariff period are as follows:

(₹ in lakh)		
Particulars	2017-18 (Pro-rata for 31 days)	2018-19
Depreciation	2.87	44.85
Interest on Loan	2.87	43.63
Return on Equity	3.22	50.35
Int. on Working Capital	0.48	6.52
Op. and Maintenance	5.65	68.71
<b>Total</b>	<b>15.09</b>	<b>214.05</b>

46. Accordingly, the annual transmission charges allowed vide order dated 19.3.2020 in Petition No. 362/TT/2018, AFC claimed by the Petitioner in the instant petition and trued-up AFC approved in the instant order are as follows:

Particulars	(₹ in lakh)	
	2017-18 (Pro-rata for 31 days)	2018-19
Allowed vide order dated 19.3.2020 in Petition No. 362/TT/2018	14.96	221.02
Claimed by the Petitioner in the instant petition	15.13	214.64
Approved after true-up in this order	15.09	214.05

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

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

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	53.38	55.30	55.97	55.97	55.97
Interest on Loan	48.40	46.35	42.92	38.57	34.22
Return on Equity	56.22	58.48	59.40	59.40	59.40
Interest on Working Capital	3.78	3.87	3.89	3.88	3.86
Operation and Maintenance	32.15	33.28	34.45	35.66	36.91
<b>Total</b>	<b>193.93</b>	<b>197.28</b>	<b>196.63</b>	<b>193.48</b>	<b>190.36</b>

48. The Petitioner has claimed the following IWC for the transmission asset for 2019-24 tariff period:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
O&M expenses	2.68	2.77	2.87	2.97	3.08
Maintenance Spares	4.82	4.99	5.17	5.35	5.54
Receivables	23.84	24.32	24.24	23.85	23.41
<b>Total</b>	<b>31.34</b>	<b>32.08</b>	<b>32.28</b>	<b>32.17</b>	<b>32.03</b>
Rate of Interest	12.05	12.05	12.05	12.05	12.05
<b>Interest on Working Capital</b>	<b>3.78</b>	<b>3.87</b>	<b>3.89</b>	<b>3.88</b>	<b>3.86</b>

### **Capital Cost**

49. 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 up to the receiving end of the generating station but does not include the transportation cost and any other appurtenant cost paid to the railway;*

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

*(l) Capital expenditure on account of emission control system necessary to meet the revised emission standards and sewage treatment plant;*

*(m) Expenditure on account of fulfilment of any conditions for obtaining environment clearance for the project;*

*(n) Expenditure on account of change in law and force majeure events; and*

*(o) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.*

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

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

50. The admitted capital cost of ₹973.81 lakh as on 31.3.2019 as trued-up in above paragraphs is considered as the capital cost as on 1.4.2019 for the purpose of determination of tariff for 2019-24 tariff period.

### **Additional Capital Expenditure (ACE)**

51. Regulation 24 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.”

52. The Petitioner has claimed the following projected ACE for the transmission asset and submitted the Auditor’s Certificate in support of the same:

ACE	
2019-20	2020-21
47.51	32.67

53. The Petitioner has submitted that projected ACE in 2019-20 and 2020-21 has been claimed on account of un-discharged liability towards final payment/ withheld payment due to contractual exigencies for works executed within the cut-off date under Regulation 24(1)(a) of the 2019 Tariff Regulations.

54. MPPMCL in its reply has submitted that the Petitioner has claimed projected ACE of ₹47.51 lakh for 2019-20 and ₹32.67 lakh for 2020-21 but has not submitted proper details in Form-7. MPPMCL has also submitted that ₹47.51 lakh and ₹12.67 lakh has been shown as ACE on cash basis for tariff purpose. Further, MPPMCL has submitted that projected ACE claimed by the Petitioner may be disallowed and same may be allowed after prudence check at the time of truing up.

55. In response, the Petitioner has submitted that the estimated completion cost as on 31.3.2024 is within RCE cost. Further, the Petitioner has submitted that the projected ACE in 2019-20 and 2020-21 has been claimed on account of un-discharged liability towards final payment/ withheld payment due to contractual exigencies for works executed within the cut-off date under Regulation 24(1)(a) and Regulation 24(1)(b) of the 2019 Tariff Regulations.



56. We have considered the submission of the Petitioner and MPPMCL. Subject to true-up, ACE allowed is as follows:

Particulars	Regulation	₹ in lakh	
		ACE	
		2019-20	2020-21
ACE to the extent of un-discharged liability towards final payment/ withheld payment due to contractual exigencies for works executed within the cut-off date	Regulation 24 (1)(a) and Regulation 24 (1)(b) of the 2019 Tariff Regulations	47.51	32.67

### **Capital Cost for the 2019-24 tariff period**

57. The capital cost of the transmission asset, considered for the 2019-24 tariff period, subject to truing-up, is as follows:

Capital Cost allowed as on 1.4.2019	ACE allowed		Total Estimated Completion Cost up to 31.3.2024
	2019-20	2020-21	
973.81	47.51	32.67	1053.99

### **Debt-Equity Ratio**

58. Regulations 18(3), 18(4) and 18(5) of the 2019 Tariff Regulations provide 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.”

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

Particulars	Capital Cost as on 1.4.2019 (₹ in lakh)	(in %)	Total Capital Cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	681.67	70.00	737.80	70.00
Equity	292.14	30.00	316.19	30.00
<b>Total</b>	<b>973.81</b>	<b>100.00</b>	<b>1053.99</b>	<b>100.00</b>

### **Depreciation**

60. Regulations 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 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.*

*(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.*

*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 de-capitalized asset during its useful services.”*

61. We have considered the submissions of the Petitioner. The IT equipment has been considered as a part of the Gross Block and depreciated using weighted average rate of depreciation (WAROD). WAROD has been worked out at Annexure II after taking into account the depreciation rates of IT and non-IT assets as specified in the 2019 Tariff Regulations. The salvage value of IT equipment has been considered nil, i.e. IT asset has been considered as 100% depreciable. The depreciation has been worked out considering the admitted capital expenditure as on 31.3.2019 and accumulated depreciation up to 31.3.2019. The depreciation allowed for the transmission asset for the 2019-24 tariff period is as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	973.81	1021.32	1053.99	1053.99	1053.99
Addition during the year 2019-24 due to projected ACE	47.51	32.67	0.00	0.00	0.00
Closing Gross Block	1021.32	1053.99	1053.99	1053.99	1053.99
Average Gross Block	997.56	1037.65	1053.99	1053.99	1053.99
Weighted average rate of Depreciation (WAROD) (in %)	5.35	5.33	5.31	5.31	5.31
Balance useful life at the beginning (Year)	24.00	23.00	22.00	21.00	20.00
Aggregated Depreciable Value	898.52	934.60	949.31	949.31	949.31
<b>Combined Depreciation during the year</b>	<b>53.37</b>	<b>55.29</b>	<b>55.96</b>	<b>55.96</b>	<b>55.96</b>
Aggregate Cumulative Depreciation at the end of the year	101.09	156.38	212.34	268.30	324.26
Remaining Aggregate Depreciable Value at the end of the year	797.44	778.23	736.97	681.01	625.05

### **Interest on Loan (IoL)**

62. 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 up to the date of de-capitalisation of such asset.

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

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

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

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

(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”.

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

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	681.67	714.93	737.80	737.80	737.80
Cumulative Repayments up to Previous Year	47.72	101.09	156.38	212.34	268.30
Net Loan-Opening	633.95	613.84	581.42	525.46	469.50
Addition due to ACE	33.26	22.87	0.00	0.00	0.00
Repayment during the year	53.37	55.29	55.96	55.96	55.96
Net Loan-Closing	613.84	581.42	525.46	469.50	413.54
Average Loan	623.89	597.63	553.44	497.48	441.52
Weighted Average Rate	7.766	7.766	7.766	7.766	7.766



of Interest on Loan (in %)					
<b>Interest on Loan</b>	<b>48.45</b>	<b>46.41</b>	<b>42.98</b>	<b>38.63</b>	<b>34.29</b>

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

64. Regulations 30 and 31 of the 2019 Tariff Regulations provides as under:

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

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

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

*Provided further that:*

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

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

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

*a) rate of return on equity shall be reduced by 0.25% in case of failure to achieve the ramp rate of 1% per minute;*

*b) an additional rate of return on equity of 0.25% shall be allowed for every incremental ramp rate of 1% per minute achieved over and above the ramp rate of 1% per minute, subject to ceiling of additional rate of return on equity of 1.00%:*

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

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



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

*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.”*

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



(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	292.14	306.39	316.19	316.19	316.19
Addition due to ACE	14.25	9.80	0.00	0.00	0.00
Closing Equity	306.39	316.19	316.19	316.19	316.19
Average Equity	299.27	311.29	316.19	316.19	316.19
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
Tax Rate applicable (in %)	17.472	17.472	17.472	17.472	17.472
Rate of Return on Equity (Pre-tax)	18.782	18.782	18.782	18.782	18.782
<b>Return on Equity (Pre-tax)</b>	<b>56.21</b>	<b>58.47</b>	<b>59.39</b>	<b>59.39</b>	<b>59.39</b>

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

66. Regulation 35(3)(a) and 35(4) 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
<i>Norms for sub-station Bays (₹ Lakh per bay)</i>					
765 Kv	45.01	46.60	48.23	49.93	51.68
400 kV	32.15	33.28	34.45	35.66	36.91
220 kV	22.51	23.30	24.12	24.96	25.84
132 kV and below	16.08	16.64	17.23	17.83	18.46
<i>Norms for Transformers (₹ Lakh per MVA)</i>					
765 kV	0.491	0.508	0.526	0.545	0.564
400 kV	0.358	0.371	0.384	0.398	0.411
220 kV	0.245	0.254	0.263	0.272	0.282
132 kV and below	0.245	0.254	0.263	0.272	0.282
<i>Norms for AC and HVDC lines (₹ Lakh per km)</i>					
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.881	0.912	0.944	0.977	1.011
Single Circuit (Bundled conductor with four sub-conductors)	0.755	0.781	0.809	0.837	0.867
Single Circuit (Twin & Triple Conductor)	0.503	0.521	0.539	0.558	0.578
Single Circuit (Single Conductor)	0.252	0.260	0.270	0.279	0.289
Double Circuit (Bundled conductor with four or more sub-conductors)	1.322	1.368	1.416	1.466	1.517
Double Circuit (Twin & Triple Conductor)	0.881	0.912	0.944	0.977	1.011
Double Circuit (Single Conductor)	0.377	0.391	0.404	0.419	0.433
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.319	2.401	2.485	2.572	2.662
Multi Circuit (Twin & Triple Conductor)	1.544	1.598	1.654	1.713	1.773
<i>Norms for HVDC stations</i>					



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. The O&M Expenses claimed in terms of Regulation 35(3) by the Petitioner and the same are allowed in respect of the transmission asset are as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Sub-station Bays (Number)</b>					
400 kV Rajgarh: Khargone SLR Bay	1	1	1	1	1
<b>Norm (₹ lakh/bay)</b>					
400 kV	32.15	33.28	34.45	35.66	36.91
<b>Total Sub-station O&amp;M</b>	<b>32.15</b>	<b>33.28</b>	<b>34.45</b>	<b>35.66</b>	<b>36.91</b>
<b>Total O&amp;M Expenses</b>	<b>32.15</b>	<b>33.28</b>	<b>34.45</b>	<b>35.66</b>	<b>36.91</b>

### **Interest on Working Capital (IWC)**

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

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

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

(i) Receivables equivalent to 45 days of annual fixed cost;

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

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

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

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





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

**“3. Definition** - In these regulations, unless the context otherwise requires:-

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

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

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O & M Expenses (O&M expenses for 1 month)	2.68	2.77	2.87	2.97	3.08
Maintenance Spares (15% of O&M expenses)	4.82	4.99	5.17	5.35	5.54
Receivables (Equivalent to 45 days of annual fixed cost / annual transmission charges)	23.85	24.29	24.21	23.83	23.38
<b>Total</b>	<b>31.35</b>	<b>32.06</b>	<b>32.25</b>	<b>32.15</b>	<b>31.99</b>
Rate of Interest (in %)	12.05	11.25	11.25	11.25	11.25
<b>Interest of working capital</b>	<b>3.78</b>	<b>3.61</b>	<b>3.63</b>	<b>3.62</b>	<b>3.60</b>

**Annual Fixed Charges for the 2019-24 Tariff Period**

70. The transmission charges allowed for the transmission asset for the 2019-24 tariff period are as under:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	53.37	55.29	55.96	55.96	55.96
Interest on Loan	48.45	46.41	42.98	38.63	34.29
Return on Equity	56.21	58.47	59.39	59.39	59.39
Interest on Working Capital	3.78	3.61	3.63	3.62	3.60
Operation and Maintenance	32.15	33.28	34.45	35.66	36.91
<b>Total</b>	<b>193.95</b>	<b>197.05</b>	<b>196.40</b>	<b>193.26</b>	<b>190.14</b>

### **Filing Fee and Publication Expenses**

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

### **Licence Fee and RLDC Fees and Charges**

72. The Petitioner has claimed reimbursement of licence fee in terms of Regulation 70(4) of the 2019 Tariff Regulations for the 2019-24 tariff period. The same is allowed. The Petitioner has claimed recovery of RLDC fee and charges in terms of Regulations 70(3) of the 2019 Tariff Regulations for the 2019-24 tariff period. The same is allowed.

### **Goods and Services Tax**

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

74. MPPMCL has submitted that the demand of the Petitioner is premature. In response, the Petitioner has submitted that if GST is levied in future on Charges of Transmission of Electricity at any rate and any point of time, the same shall be borne and additionally paid by the Respondent(s) to the Petitioner and the same shall be charged and billed separately by the Petitioner. Further, the Petitioner has submitted that the 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. We have considered the submissions of the Petitioner and MPPMCL and are of the opinion that GST is not levied on transmission service at present and the Petitioner's prayer is premature.

### **Security Expenses**

76. The Petitioner has submitted that security expenses in respect of the transmission asset 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 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 difference, if any, between the estimated security expenses and actual security expenses as the audited accounts may be allowed to be recovered from the beneficiaries on a yearly basis.

77. 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. It is observed 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**

78. 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**

79. We have considered that with effect from 1.11.2020, sharing of transmission charges is governed by provisions of 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 recovered through Bill 2 under Regulation 15(2)(b) of the 2020 Sharing Regulations. For subsequent period, the billing, collection and disbursement of the transmission charges approved in this order shall be governed by the provisions of the 2020 Sharing Regulations as provided in Regulation 57 of the 2019 Tariff Regulations.

80. To summarise:

(a) The trued-up Annual Fixed Charges approved for the transmission asset for 2014-19 tariff period are as follows:

Particulars	(₹ in lakh)	
	2017-18 (Pro-rata for 31 days)	2018-19
AFC	15.09	214.05

(b) The Annual Fixed Charges allowed in respect of the transmission asset for 2019-24 tariff period are as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
AFC	193.95	197.05	196.40	193.26	190.14



81. Annexure-I and Annexure-II to this order shall form part of the order.

82. This order disposes of Petition No. 659/TT/2020 in terms of the above discussion and findings.

**sd/-**  
**(Pravas Kumar Singh)**  
**Member**

**sd/-**  
**(Arun Goyal)**  
**Member**

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

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



**Annexure-I**

2014-19 Capital Expenditure as on COD	Admitted Capital Cost as on COD (₹ in lakh)	ACE (₹ in lakh)		Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations	
		2017-18	2018-19			2017-18 (₹ in lakh)	2018-19 (₹ in lakh)
Sub Station	551.12	168.82	246.70	966.64	5.28	33.56	44.53
IT Equipment and Software	5.02	0.00	2.15	7.17	5.28	0.27	0.32
<b>TOTAL</b>	<b>556.14</b>	<b>168.82</b>	<b>248.85</b>	<b>973.81</b>		<b>33.82</b>	<b>44.85</b>
<b>Average Gross Block (₹ in lakh)</b>						640.55	849.38
<b>Weighted Average Rate of Depreciation (in %)</b>						<b>5.28</b>	<b>5.28</b>



2019-24  Capital Expenditure as on 1.4.2019	Combined admitted Capital Cost as on 1.4.2019 (₹ in lakh)	ACE		Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations				
		2019-20	2020-21			2019-20 (₹ in lakh)	2020-21 (₹ in lakh)	2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)
Building	0.00	0.00	20.00	20.00	3.34	0.00	0.33	0.67	0.67	0.67
Sub Station	966.64	47.51	12.67	1026.82	5.28	52.29	53.88	54.22	54.22	54.22
IT Equipment and Software	7.17	0.00	0.00	7.17	15.00	1.08	1.08	1.08	1.08	1.08
<b>TOTAL</b>	<b>973.81</b>	<b>47.51</b>	<b>32.67</b>	<b>1053.99</b>		<b>53.37</b>	<b>55.29</b>	<b>55.96</b>	<b>55.96</b>	<b>55.96</b>
				<b>Average Gross Block (₹ in lakh)</b>		997.56	1037.65	1053.99	1053.99	1053.99
				<b>Weighted Average Rate of Depreciation (in %)</b>		<b>5.35</b>	<b>5.33</b>	<b>5.31</b>	<b>5.31</b>	<b>5.31</b>

