

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 22/TT/2020

Coram:

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

Date of Order: 20.07.2021

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 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of 2019-24 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 in respect of 2 Numbers 765 kV line Bays along with 2 Numbers 330 MVAR Line Reactor at Vindhyachal Pooling Station and 2 Numbers 765 kV line Bays along with 2 Numbers 330 MVAR Line Reactor at Jabalpur Pooling Station for 765 kV D/C Vindhyachal Pooling Station-Jabalpur Pooling Station Transmission Line (TBCB) under Sub-station Extensions for Transmission System associated with Vindhyachal-V Project of NTPC (Part-B) in the Western Region.

And in the matter of:

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

.....Petitioner

Versus

1. Madhya Pradesh Power Transmission Company Ltd.,
Shakti Bhawan, Rampur,
Jabalpur-482008.
2. Madhya Pradesh Power Transmission Company Ltd.,
Shakti Bhawan, Rampur,
Jabalpur-428008.
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, 6th Floor, Plot No. C-19, E-Block,
Bandra Kurla Complex, Bandra (East) Mumbai-400051.
6. Gujarat Urja Vikas Nigam Ltd.,
Sardar Patel Vidyut Bhawan,
Race Course Road, Vadodara-390007.
7. Electricity Department,
Govt. of Goa, Vidyut Bhawan, Panaji,
Near Mandvi Hotel, Goa-403001.
8. Electricity Department,
Administration of Daman & Diu,
Daman-396210.
9. DNH Power Distribution Corporation Ltd.,
Vidyut Bhawan, 66 kV Road, Near Secretariat Amla,
Silvassa-396230.
10. Chhattisgarh State Power Transmission Co. Ltd.,
State Load Despatch Building,
Dangania, Raipur-492013.
11. Chhattisgarh State Power Distribution Co. Ltd.
P. O. Sunder Nagar, Dangania, Raipur
Chhattisgarh-492013.

.....Respondent(s)

For Petitioner: Shri S. S. Raju, PGCIL
Shri A. K. Verma, PGCIL
Shri V. P. Rastogi, PGCIL
Shri B. Dash, PGCIL

For Respondent: Shri Anindya Kumar Khare, MPPMCL

ORDER

The instant petition has been filed by the Petitioner, 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 2 Numbers 765 kV line Bays along with 2 Numbers 330 MVAR Line Reactor at Vindhyachal Pooling Station and 2 Numbers 765 kV line Bays along with 2 Numbers 330 MVAR Line Reactor at Jabalpur Pooling Station for 765 kV D/C Vindhyachal Pooling Station-Jabalpur Pooling Station Transmission Line (TBCB) (hereinafter referred to as “the transmission assets”) under Sub-station Extensions for Transmission System associated with Vindhyachal-V Project of NTPC (Part-B) (hereinafter referred to as “the transmission system”) in Western Region.

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

- “1) Allow the addcap for 2014-19 and 2019-24 tariff block as claimed as per Para 5 and 7 above.*
- 2) Approve the trued up Transmission Tariff for 2014-19 block and transmission tariff for 2019-24 block for the assets covered under this petition, as per para 6 and 7 above.*
- 3) Allow the 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 Hon’ble Commission as provided in Tariff Regulation 2014 and Tariff regulations 2019 as per para 6 and 7 above for respective block.*
- 4) Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 70 (1) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019, and other expenditure (if any) in relation to the filing of petition.*
- 5) Allow the petitioner to bill and recover Licensee fee and RLDC fees and charges, separately from the beneficiaries in terms of Regulation 70 (3) and (4) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019.*
- 6) Allow the petitioner to bill and adjust impact on Interest on Loan due to change in Interest rate on account of floating rate of interest applicable during 2019-24 period, if any, from the beneficiaries.*
- 7) Allow the petitioner to file a separate petition before Hon’ble Commission for claiming the overall security expenses and consequential IOWC on that security expenses as mentioned at para 7.6 above.*



- 8) *Allow the petitioner to claim the capital spares at the end of tariff block as per actual.*
- 9) *Allow the Petitioner to bill and recover GST on Transmission Charges separately from the beneficiaries, if GST is levied at any time 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 (I.A.) for implementation of the transmission assets under the transmission system was accorded by the Board of Directors of the Petitioner company in its 327th meeting held on 2.4.2016 for ₹ 28799.00 lakh, including IDC of ₹ 1799.00 lakh (based on October 2015 price level) vide Memorandum Ref: C/CP/IA/Vin-V Part B dated 6.4.2016.

b) The scope of work as per I.A. is as follows:

(i) Extension of 765 kV Vindhyachal Pooling Sub-station:

- Line Bays: 2 Numbers;
- 330 MVAR Line reactor: 2 Numbers;
- Line reactor bay: 2 Numbers.

(ii) Extension of 765 kV Jabalpur Pooling Sub-station:

- Line Bays: 2 Numbers;
- 330 MVAR Line Reactor: 2 Numbers;
- Line Reactor bay: 2 Numbers.

c) As per I.A., the transmission system was scheduled to be commissioned on 1.7.2018 against which the commercial operation date was 1.1.2019. Thus, there was a time over-run of 184 days which was condoned vide order dated 12.7.2019 in Petition No. 235/TT/2018.

d) The transmission tariff of the transmission assets for 2014-19 tariff period was allowed vide order dated 12.7.2019 in Petition No. 235/TT/2018.

4. The Respondents are power departments and distribution 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 by the Petitioner. Madhya Pradesh Power Management Company Ltd. (MPPMCL), Respondent No. 1, has filed its reply vide affidavit dated 6.2.2020 and has raised the issues of grossing up of Return on Equity (RoE) and Additional Capital Expenditure (ACE) claimed in 2018-19 and 2019-20. The Petitioner has submitted its rejoinder vide affidavit dated 28.8.2020.

6. This order is issued considering the submissions made by the Petitioner in the petition vide affidavit dated 21.11.2019, Petitioner's affidavit dated 8.6.2020 filed in compliance of Technical Validation (TV) letter, MPPMCL's reply vide affidavit dated 6.2.2020 and Petitioner's rejoinder to MPPMCL's reply filed vide affidavit dated 28.8.2020. The issues raised by MPPMCL and clarifications given by the Petitioner are dealt in the relevant portions of this order.

7. The hearing in this matter was held on 18.5.2021 through video conference and the order was reserved. Having heard the representatives of the Petitioner, MPPMCL and after perusal of the materials on record, we proceed to dispose of the petition.

Truing up of Annual Fixed Charges for 2014-19 Tariff Period

8. The details of the trued-up transmission charges claimed by the Petitioner in respect of the transmission assets for 2014-19 tariff period is as follows:

Particulars	(₹ in lakh)
	2018-19 (Pro-rata 90 days)
Depreciation	253.94
Interest on Loan	255.04



Return on Equity	281.34
Interest on Working Capital	21.13
O&M Expenses	94.88
Total	906.33

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

(₹ in lakh)	
Particulars	2018-19 (Pro-rata 90 days)
O&M Expenses	32.07
Maintenance Spares	57.72
Receivables	612.61
Total Working Capital	702.40
Rate of Interest (in %)	12.20
Interest on working capital	21.13

Capital Cost

10. The Commission vide order dated 12.7.2019 in Petition No. 235/TT/2018 had allowed capital cost as on COD of ₹18497.74 lakh and capital cost as on 31.3.2019 of ₹19125.71 lakh including projected ACE of ₹627.97 lakh for determination of transmission tariff of 2014-19 tariff period. The capital cost of the transmission assets has been calculated in accordance with Regulation 9(3) of the 2014 Tariff Regulation and it is as follows:

(₹ in lakh)		
Admitted Capital Cost as on COD	ACE	Admitted Capital Cost as on 31.3.2019
	2018-19	
18497.74	627.97	19125.71

11. The Petitioner vide Auditor's Certificates has claimed the capital cost incurred up to COD and ACE up to 31.3.2019. The details of approved apportioned capital cost, capital cost as on COD and ACE up to 31.3.2019 claimed by the Petitioner in respect of the transmission assets are as follows:



(₹ in lakh)

Approved Apportioned Capital Cost	Capital Cost as on COD	Actual ACE	Capital Cost as on 31.3.2019
		2018-19	
28798.68	18497.74	1502.98	20000.72

Cost over-run

12. The capital cost as on 31.3.2019 including ACE is within the approved capital cost as per FR and, therefore, there is no cost over-run.

Time over-run

13. As per I.A., the transmission system was scheduled to be commissioned on 1.7.2018 against which the transmission asset was put into commercial operation on 1.1.2019. Thus, there was a time over-run of 184 days which was condoned by the Commission vide order dated 12.7.2019 in Petition No. 235/TT/2018.

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

14. The Petitioner has claimed IDC in respect of the transmission assets and has submitted the statement showing IDC claim, discharge of IDC liability as on COD and thereafter as follows:

(₹ in lakh)

IDC as per Auditor Certificate	IDC Discharged up to COD	IDC discharged during 2019-20
1054.55	950.98	103.57

15. The Petitioner vide affidavit dated 8.6.2020 has submitted IDC discharge statement. The Petitioner has further submitted that for the purpose of the supporting documents for rate of interest, a compendium of floating rates of interest of various loans during 2014-19 tariff period has been submitted along with the truing up petition of 400 kV D/C Korba-Raipur Transmission Line with Petition No. 244/TT/2019. The Petitioner has computed the actual IDC based on the rate applicable for



corresponding period as rate of interest notified from time to time wherever the rates are floating.

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 assets on cash basis. The loan details submitted in Form-9C for 2014-19 tariff period and 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, IDC considered, is summarized as follows:

(₹ in lakh)				
IDC claimed as per Auditor Certificate	IDC Admissible	IDC discharged as on COD	Un-discharged IDC as on COD	IDC discharged during 2019-20
1054.55	1054.55	950.98	103.57	103.57

17. The Petitioner has claimed IEDC of ₹312.95 lakh for the transmission assets and has submitted Auditor Certificate in support of the same. IEDC claimed is within the percentage on hard cost as indicated in the abstract cost estimate. Accordingly, IEDC considered for the purpose of tariff calculation are as follows:

(₹ in lakh)	
IEDC claimed	IEDC allowed
312.95	312.95

Initial Spares

18. The Petitioner in the instant petition has claimed Initial Spares of ₹374.59 lakh.

19. We have considered the submissions of the Petitioner. The Commission vide order dated 23.7.2018 in Petition No. 235/TT/2019 had allowed Initial Spares as claimed by the Petitioner. Initial Spares are allowed subject to the ceiling specified in Regulation 13(d) of the 2014 Tariff Regulations. The Petitioner's claim of Initial Spares



is within the ceiling specified in Regulation 13(d) of the 2014 Tariff Regulations. Accordingly, Initial Spares allowed for 2014-19 period are as follows:

Asset	Capital Cost (₹ in lakh)	Initial Spares claimed (₹ in lakh)	Ceiling (in %)	Initial Spares Allowable (₹ in lakh)	Initial Spares allowed (₹ in lakh)
Sub-station	19126.15	374.59	6	1196.91	374.59

Capital Cost as on COD

20. Accordingly, the capital cost allowed as on COD is summarized as follows:

(₹ in lakh)		
Capital Cost claimed as on COD (A)	Less: Un-discharged IDC as on COD (B)	Capital Cost allowed as on COD (C) = (A-B)
18601.31	103.57	18497.74

Additional Capital Expenditure (ACE)

21. The Commission had allowed ACE of ₹627.97 lakh for the transmission assets in 2014-19 period vide order dated 12.7.2019 in Petition No. 235/TT/2018. The Petitioner has claimed ACE of ₹1502.98 lakh based on actual expenditure during 2014-19 tariff period which is on account of balance and retention payments due to un-discharged liability for works executed within cut-off date under Regulation 14(1)(i) of the 2014 Tariff Regulations.

22. MPPMCL has submitted that ACE amounting to ₹1502.98 lakh for 2018-19 is on the basis of Auditor Certificate. It is evident from the record that the Petitioner has not given sufficient information in support of its claim. Further, the expenditure on PLCC/ Communication system has also been considered as ACE, which does not come under the instant transmission assets and is always being installed for the communication of Petitioner from one end to another end. Hence, the expenditure on PLCC/ communication system may be disallowed while computing the capital cost as on 31.3.2019. In response, the Petitioner has submitted that the PLCC/



communication system installed under this transmission system has been used for telemetry and protection purpose only and not meant for optical fibre communication. Accordingly, the same have been claimed under the PLCC head in the Auditor Certificate.

23. The Petitioner vide affidavit dated has submitted the liabilities flow statement and Form 5. ACE claimed has been allowed under Regulation 14(1)(i) of the 2014 Tariff Regulations. The capital cost considered for truing-up of transmission tariff of 2014-19 tariff period after including ACE in respect of the transmission assets is as follows:

(₹ in lakh)		
Admitted Capital Cost as on COD	Admitted ACE	Capital Cost as on 31.3.2019
	2018-19	
18497.74	1502.98	20000.72

Debt-Equity Ratio

24. The Petitioner has claimed debt-equity ratio of 70:30 as on COD. The debt-equity ratio of 70:30 has been considered as provided under Regulation 19 of the 2014 Tariff Regulations. The details of debt-equity as on COD and 31.3.2019 considered for the purpose of tariff computation for 2014-19 tariff period are as follows:

Funding	Capital Cost as on COD (₹ in lakh)	(in %)	Capital Cost as on 31.3.2019 (₹ in lakh)	(in %)
Debt	12948.42	70.00	14000.50	70.00
Equity	5549.32	30.00	6000.22	30.00
Total	18497.74	100.00	20000.72	100.00

Depreciation

25. The Petitioner’s claim towards depreciation in this petition was found to be higher than the depreciation allowed vide order dated 12.7.2019 in Petition No. 235/TT/2018. The Petitioner has neither given any justification for claiming higher



depreciation than that was allowed earlier nor made any specific prayer for allowing higher depreciation in this petition. The transmission assets were put into commercial operation during the 2014-19 period and the tariff from COD to 31.3.2019 was allowed vide order dated 12.7.2019 in Petition No.235/TT/2018. The Petitioner did not claim any capital expenditure towards “IT Equipment” in the above-said petition where tariff for the transmission assets for the 2014-19 period was allowed though there was a clear provision in the 2014 Tariff Regulations providing depreciation @15% for IT Equipment. A similar issue had come up in Petition No. 19/TT/2020 wherein the Commission vide order dated 9.5.2020 has dealt with the issue.

26. In terms of the order dated 9.5.2020 in Petition No. 19/TT/2020, depreciation has been considered for IT Equipment @5.28% as part of the sub-station up to 31.3.2019 while truing up the capital expenditure for 2014-19 period. However, for 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 2014-19 tariff period has been depreciated at Weighted Average Rate of Depreciation (WAROD) and working of WAROD is given at Annexure-I. WAROD has been worked out after taking into account the depreciation rates of asset as prescribed in the 2014 Tariff Regulations and depreciation allowed during 2014-19 tariff period is as follows:

Particulars	(₹ in lakh)
	2018-19 (Pro-rata 90 days)
Opening Gross Block	18497.74
ACE	1502.98
Closing Gross Block	20000.72
Average Gross Block	19249.23
Freehold Land	51.12
Weighted average rate of Depreciation (WAROD) (in %)	5.28
Balance useful life of the asset (Year)	25



Lapsed life (Year)	0
Aggregate Depreciable Value	17278.30
Depreciation during the year	250.79
Cumulative depreciation at the end of the year	250.79
Remaining Depreciable Value at the end of the year	17027.51

27. The details of depreciation allowed vide order dated 12.7.2019 in Petition No. 235/TT/2018, as claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

Particulars	(₹ in lakh)
	2018-19 (Pro-rata 90 days)
Allowed vide order dated 12.7.2019 in Petition No. 235/TT/2018	244.62
Claimed by the Petitioner	253.94
Approved after true-up in this order	250.79

Interest on Loan (IoL)

28. The Petitioner has claimed the Weighted Average Rate of IoL (WAROI) based on its actual loan portfolio and rate of interest. Accordingly, IoL is calculated based on actual interest rate in accordance with Regulation 26 of the 2014 Tariff Regulations. The details of the trued-up IoL allowed in respect of the transmission assets for 2014-19 tariff period are as follows:

Particulars	(₹ in lakh)
	2018-19 (Pro-rata 90 days)
Gross Normative Loan	12948.42
Cumulative Repayments upto Previous Year	0.00
Net Loan-Opening	12948.42
Additions	1052.09
Repayment during the year	250.79
Net Loan-Closing	13749.72
Average Loan	13349.07
Weighted Average Rate of Interest on Loan (in %)	7.7493
Interest on Loan	255.07



29. The details of IoL allowed vide order dated 12.7.2019 in Petition No. 235/TT/2018, claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

Particulars	(₹ in lakh)
	2018-19 (Pro-rata 90 days)
Allowed vide order dated 12.7.2019 in Petition No. 235/TT/2018	247.10
Claimed by the Petitioner	255.04
Approved after true-up in this order	255.07

Return on Equity (RoE)

30. The Petitioner has claimed RoE in respect of 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 following effective tax rates for 2014-19 tariff period:

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

31. MPPMCL has submitted that the Petitioner has grossed-up RoE on the basis of actual taxes paid during 2016-17 and 2017-18. For 2018-19, it has been grossed up on the basis of applicable rate of MAT, surcharge and cess. The Petitioner has not placed on record the assessment orders for 2016-17 and 2017-18. The Petitioner has not claimed the grossed-up RoE on the basis of actual taxes paid for the year 2018-19. MPPMCL has further submitted that the Petitioner has not finalized its income tax assessment order for the years 2016-17, 2017-18 and 2018-19 yet and has not placed on record the copies of assessment orders for 2014-15 and 2015-16. The Petitioner



has also not submitted audited accounts in respect of actual taxes paid for 2016-17 and 2017-18.

32. In response, the Petitioner has submitted that the assessment orders for years 2014-15, 2015-16 and 2016-17 have been issued by the Income Tax Department and the Income Tax returns for the years 2017-18 and 2018-19 have been filed. The Petitioner has further submitted that basis of year-wise effective tax rate and grossed-up RoE trued-up for the 2014-19 tariff period has been mentioned in the instant petition. The Petitioner has further submitted that the assessment order for the 2014-15 and 2015-16 have already been filed in response to technical validation letter in Petition No. 20/TT/2020 which may be considered in the instant petition and has also placed on record a copy of the assessment order for the year 2016-17 along with the rejoinder.

33. The Petitioner has further submitted that so far it has been granted trued-up tariff of 2014-19 period by the Commission in various matters vide orders dated 18.4.2020, 27.4.2020, 23.4.2020 and 16.4.2020 in Petition No. 247/TT/2019, Petition No. 274/TT/2019, Petition No. 245/TT/2019 and Petition No. 307/TT/2019 respectively for the 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.

34. In view of the above orders, the Petitioner has submitted that grossed-up RoE (in %) and effective tax rate for 2014-19 tariff period has already been allowed by the Commission. Further, the Petitioner requested the Commission to allow its claim of the differential tariff on account of the trued-up RoE based on effective tax rate calculated as above and Income-tax assessment/ re-assessment for 2014-15, 2015-16, 2016-17, 2017-18 and 2018-19 on receipt of the respective assessment orders.



35. We have considered the submissions made by the Petitioner and MPPMCL. The Commission vide order dated 2.2.2021 in Petition No. 312/TT/2020 has already dealt with the issue raised by MPPMCL. In terms of our findings in Petition No. 312/TT/2020, we do not find merit in the submissions by MPPMCL and the same are accordingly rejected.

36. The Commission vide order dated 27.4.2020 in Petition No. 247/TT/2019 has arrived at the effective tax rate based on the notified MAT rates and the same is given in the table as follows:

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

37. The MAT rates considered in order dated 27.4.2020 for the purpose of grossing up of rate of RoE for truing up of the tariff of 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	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. The Petitioner has claimed RoE for 2014-19 tariff period after grossing up RoE of 15.50% with Effective Tax rates (based on MAT rates) each year as per Regulation 25(3) of the 2014 Tariff Regulations. RoE is trued-up on the basis of the MAT rates



applicable in the respective years and is allowed for the transmission assets as follows:

(₹ in lakh)	
Particulars	2018-19 (Pro-rata 90 days)
Opening Equity	5549.32
Additions	450.89
Closing Equity	6000.22
Average Equity	5774.77
Return on Equity (Base Rate) (in %)	15.500
MAT Rate for respective year (in %)	21.549
Rate of Return on Equity (in %)	19.758
Return on Equity	281.34

39. The details of RoE allowed vide order dated 12.7.2019 in Petition No. 235/TT/2018, claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:

(₹ in lakh)	
Particulars	2018-19 (Pro-rata 90 days)
Allowed vide order dated 12.7.2019 in Petition No. 235/TT/2018	272.88
Claimed by the Petitioner	281.34
Approved after true-up in this order	281.34

Operation & Maintenance Expenses (O&M Expenses)

40. The total O&M Expenses claimed by the Petitioner for the transmission assets are as follows:

(₹ in lakh)	
Particulars	2018-19
2 Numbers of 765 kV Bays at Jabalpur Pooling Station and 2 Numbers of 765 kV Bays at Vindhayachal	
Total O&M Expenses Claimed	94.88

41. Regulation 29(3) of the 2014 Tariff Regulations specifies the norms for O&M Expenses for the transmission system. The norms specified in respect of the elements covered in the transmission assets are as follows:



Element	Norms for 2018-19
765 kV sub-station Bays	₹96.20 lakh/bay

42. The O&M Expenses are allowed for the transmission assets as per norms specified in Regulation 29(3) of the 2014 Tariff Regulations and are as follows:

(₹ in lakh)	
2018-19 (Pro-rata 90 days)	
	94.88

43. The details of O&M Expenses allowed vide order dated 12.7.2019 in Petition No. 235/TT/2018, claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:

(₹ in lakh)	
Particulars	2018-19 (Pro-rata 90 days)
Allowed vide order dated 12.7.2019 in Petition No. 235/TT/2018	94.88
Claimed by the Petitioner	94.88
Approved after true-up in this order	94.88

Interest on Working Capital (IWC)

44. IWC has been worked out as per the methodology provided in Regulation 28 of the 2014 Tariff Regulations and the trued-up IWC allowed for the transmission assets for 2014-19 tariff period are as follows:

(₹ in lakh)	
Particulars	2018-19 (Pro-rata 90 days)
O & M Expenses (O&M Expenses for one Month)	32.07
Maintenance Spares (15% of O&M Expenses)	57.72
Receivables (Equivalent to two months of annual transmission charges)	610.46
Total Working Capital	700.24
Rate of Interest (in %)	12.20
Interest of working capital	21.06



45. The details of IWC allowed vide order dated 12.7.2019 in Petition No. 235/TT/2018, claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:

Particulars	(₹ in lakh)
	2018-19 (Pro-rata 90 days)
Allowed vide order dated 12.7.2019 in Petition No. 235/TT/2018	20.60
Claimed by the Petitioner	21.13
Approved after true-up in this order	21.06

Approved Annual Fixed Charges for the 2014-19 Tariff Period

46. The trued-up Annual Fixed Charges (AFC) approved for the transmission assets for 2014-19 tariff period are as follows:

Particulars	(₹ in lakh)
	2018-19 (Pro-rata 90 days)
Depreciation	250.79
Interest on Loan	255.07
Return on Equity	281.34
Interest on Working Capital	21.06
O&M Expenses	94.88
Total	903.14

47. Accordingly, the Annual Transmission Charges allowed vide order dated 12.7.2019 in Petition No. 235/TT/2018, claimed by the Petitioner in the instant petition and approved after truing up in the instant order is as follows:

Particulars	(₹ in lakh)
	2018-19 (Pro-rata 90 days)
Allowed vide order dated 12.7.2019 in Petition No. 235/TT/2018	880.08
Claimed by the Petitioner in the instant petition	906.33
Approved after true-up in this order	903.14



Determination of Annual Fixed Charges for 2019-24 Tariff Period

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

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	1091.59	1113.04	1113.04	1113.04	1113.04
Interest on Loan	1051.68	988.39	908.85	829.15	739.87
Return on Equity	1150.17	1173.37	1173.37	1173.37	1173.37
Interest on Working Capital	57.83	57.97	57.06	56.16	54.98
O&M Expenses	190.60	196.96	203.48	210.28	217.28
Total	3541.87	3529.73	3455.80	3382.00	3298.54

49. The details of IWC claimed by the Petitioner for 2019-24 tariff period are as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	15.88	16.41	16.96	17.52	18.11
Maintenance Spares	28.59	29.54	30.52	31.54	32.59
Receivables	435.48	435.17	426.06	416.96	405.56
Total Working Capital	479.95	481.12	473.54	466.02	456.26
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	57.83	57.97	57.06	56.16	54.98

Capital Cost

50. 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 assets before the date of commercial operation;*
 - (i) *Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*
 - (j) *Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of the generating station but does not include the transportation cost and any other appurtenant cost paid to the railway;*
 - (k) *Capital expenditure on account of biomass handling equipment and facilities, for co-firing;*
 - (l) *Capital expenditure on account of emission control system necessary to meet the revised emission standards and sewage treatment plant;*
 - (m) *Expenditure on account of fulfilment of any conditions for obtaining environment clearance for the project;*
 - (n) *Expenditure on account of change in law and force majeure events; and*
 - (o) *Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.*
- (3) *The Capital cost of an existing project shall include the following:*
- (a) *Capital cost admitted by the Commission prior to 1.4.2019 duly 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 renovation and modernisation as admitted by this Commission in accordance with these regulations;*
 - (d) *Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*
 - (e) *Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and*
 - (f) *Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.*
- (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 de-capitalised only after its redeployment;

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

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

51. The trued-up capital cost of ₹20000.72 lakh in respect of the transmission assets is considered as the capital cost as on 1.4.2019 for the purpose of determination of tariff for 2019-24 period.

Additional Capital Expenditure (ACE)

52. Regulation 24 of the 2019 Tariff Regulations provides as follows:

“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.”

53. The Petitioner has claimed the following projected ACE for the transmission assets. The Petitioner has submitted that projected ACE in 2019-20 has been claimed under Regulations 24(1)(a) and 24(1)(b) of the 2019 Tariff Regulations. The Petitioner has claimed capital cost as on 31.3.2024 as follows:

(₹ in lakh)		
Capital cost as on 31.3.2019	Projected ACE	Capital cost as on 31.3.2024
	2019-20	
20000.72	823.75*	20824.47

*Includes un-discharged IDC of ₹103.57 lakh to be discharged in 2019-20

54. MPPMCL has submitted that the ACE has been proposed for 2019-20 without giving proper details and justification, the reasoning given the Petitioner is not sufficient. In response, the Petitioner vide affidavit dated 8.6.2020 has submitted the details of ACE to be incurred during 2019-20 as follows:

(₹ in lakh)					
Year	Party	Particulars	Balance and Retention payment	Works deferred for execution	Total
2019-20	Techno Electric & Engg. Company Ltd.	Substation Package	57.20	483.12	540.32
	GE T&D	Substation Package	69.59		69.59
	CGL	Substation Package	33.61		33.61
	Techno Electric & Engg. Company Ltd.	PLCC	46.57	30.09	76.66
Total			206.97	513.21	720.18

55. The Petitioner has further submitted that projected ACE during 2019-20 is within cut-off date and is claimed on account of balance and retention payments due



to un-discharged liability for works executed within cut-off date as per Regulation 24(1)(a) of the 2019 Tariff Regulations.

56. We have considered the submissions made by the Petitioner and MPPMCL. ACE claimed by the Petitioner has been allowed under Regulations 24(1)(a) and 24(1)(b) of the 2019 Tariff Regulations on account of balance and retention payments for works already executed and on account of unexecuted work within the cut-off date. Accordingly, the capital cost of the transmission assets, considered for 2019-24 tariff period, subject to truing-up, is as follows:

(₹ in lakh)

Capital Cost as on 31.3.2019	ACE	Capital Cost as on 31.3.2024
	2019-20	
20000.72	823.75*	20824.47

*Includes un-discharged IDC of ₹103.57 lakh to be discharged in 2019-20

Debt-Equity Ratio

57. 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.”

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

Funding	Capital Cost as on 1.4.2019 (₹ in lakh)	(in %)	Capital Cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	14000.50	70.00	14577.13	70.00
Equity	6000.22	30.00	6247.34	30.00
Total	20000.72	100.00	20824.47	100.00

Depreciation

59. Regulation 33 of the 2019 Tariff Regulations provides 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.

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

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

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

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

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

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

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

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

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

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

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



60. The IT equipment has been considered as a part of the Gross Block and depreciated using WAROD. WAROD has been worked out at Annexure-II after taking into account the depreciation rates of IT and non-IT assets as prescribed in the 2019 Tariff Regulations. The salvage value of IT equipment has been considered nil, i.e. IT asset has been considered as 100 per cent depreciable. 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 in respect of the transmission assets is as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	20000.72	20824.47	20824.47	20824.47	20824.47
ACE	823.75	0.00	0.00	0.00	0.00
Closing Gross Block	20824.47	20824.47	20824.47	20824.47	20824.47
Average Gross Block	20412.60	20824.47	20824.47	20824.47	20824.47
Freehold Land	51.12	51.12	51.12	51.12	51.12
Weighted average rate of Depreciation (WAROD)	5.35	5.34	5.34	5.34	5.34
Balance useful life of the asset (Year)	25.00	24.00	23.00	22.00	21.00
Lapsed life of the asset at beginning of year (Year)	0.00	1.00	2.00	3.00	4.00
Aggregated Depreciable Value	18339.17	18709.89	18709.89	18709.89	18709.89
Depreciation during the year	1091.58	1113.03	1113.03	1113.03	1113.03
Cumulative depreciation at the end of the year	1342.36	2455.40	3568.43	4681.46	5794.49
Remaining Depreciable Value at the end of the year	16996.80	16254.49	15141.46	14028.43	12915.40

Interest on Loan (IoL)

61. 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 assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered upto the date of de-capitalisation of such asset.

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

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

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

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

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

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

62. The Weighted Average Rate of IoL 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 2019-24 tariff period will be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of truing up of tariff. By considering above, IoL has been worked out in accordance with Regulation 32 of the 2019 Tariff Regulations. IoL allowed in respect of the transmission assets is as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	14000.50	14577.13	14577.13	14577.13	14577.13
Cumulative Repayments up to Previous Year	250.79	1342.36	2455.40	3568.43	4681.46
Net Loan-Opening	13749.72	13234.76	12121.73	11008.70	9895.67
Additions	576.63	0.00	0.00	0.00	0.00
Repayment during the year	1091.58	1113.03	1113.03	1113.03	1113.03
Net Loan-Closing	13234.76	12121.73	11008.70	9895.67	8782.63
Average Loan	13492.24	12678.25	11565.22	10452.18	9339.15



Weighted Average Rate of Interest on Loan (in %)	7.7965	7.7979	7.8606	7.9352	7.9249
Interest on Loan	1051.92	988.64	909.09	829.40	740.12

Return on Equity (RoE)

63. Regulation 30 and Regulation 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 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 shall be computed at the weighted average rate of interest on actual loan portfolio of the generating station or the transmission system

Provided further that:

- i. *In case of a new project, the rate of return on equity shall be reduced by 1.00% for such period as may be decided by the Commission, if the generating station or transmission system is found to be declared under commercial operation without commissioning of any of the Restricted Governor Mode Operation (RGMO) or Free Governor Mode Operation (FGMO), data telemetry, communication system up to load dispatch centre or protection system based on the report submitted by the respective RLDC;*
- ii. *in case of existing generating station, as and when any of the requirements under (i) above of this Regulation are found lacking based on the report submitted by the concerned RLDC, rate of return on equity shall be reduced by 1.00% for the period for which the deficiency continues;*
- iii. *in case of a thermal generating station, with effect from 1.4.2020:*
 - a) *rate of return on equity shall be reduced by 0.25% in case of failure to achieve the ramp rate of 1% per minute;*
 - b) *an additional rate of return on equity of 0.25% shall be allowed for every incremental ramp rate of 1% per minute achieved over and above the ramp rate of 1% per minute, subject to ceiling of additional rate of return on equity of 1.00%:*

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

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



business of generation or transmission, as the case may be) shall be excluded for the calculation of effective tax rate.

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

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

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

Illustration-

(i) In case of a generating company or a transmission licensee paying Minimum Alternate Tax (MAT) @ 21.55% including surcharge and cess:

$$\text{Rate of return on equity} = 15.50 / (1 - 0.2155) = 19.758\%$$

(ii) In case of a generating company or a transmission licensee paying normal corporate tax including surcharge and cess:

- (a) Estimated Gross Income from generation or transmission business for FY 2019-20 is Rs 1,000 crore;
- (b) Estimated Advance Tax for the year on above is Rs 240 crore;
- (c) Effective Tax Rate for the year 2019-20 = Rs 240 Crore / Rs 1000 Crore = 24%;
- (d) Rate of return on equity = $15.50 / (1 - 0.24) = 20.395\%$.

(3) The generating company or the transmission licensee, as the case may be, shall true up the grossed up rate of return on equity at the end of every financial year based on actual tax paid together with any additional tax demand including interest thereon, duly adjusted for any refund of tax including interest received from the income tax authorities pertaining to the tariff period 2019-24 on actual gross income of any financial year. However, penalty, if any, arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the generating company or the transmission licensee, as the case may be. Any under-recovery or over-recovery of grossed up rate on return on equity after truing up, shall be recovered or refunded to beneficiaries or the long term customers, as the case may be, on year to year basis."

64. The Petitioner has submitted that MAT rate is applicable to the Petitioner's company. Accordingly, MAT rate applicable during 2019-20 has been considered for the purpose of RoE for 2019-24 period, which shall be trued-up with actual tax rate in



accordance with Regulation 31(3) of the 2019 Tariff Regulations. RoE allowed in respect of the transmission assets for 2019-24 tariff period is as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	6000.22	6247.34	6247.34	6247.34	6247.34
Additions	247.13	0.00	0.00	0.00	0.00
Closing Equity	6247.34	6247.34	6247.34	6247.34	6247.34
Average Equity	6123.78	6247.34	6247.34	6247.34	6247.34
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (in %)	17.472	17.472	17.472	17.472	17.472
Rate of Return on Equity (in %)	18.782	18.782	18.782	18.782	18.782
Return on Equity	1150.17	1173.38	1173.38	1173.38	1173.38

Operation & Maintenance Expenses (O&M Expenses)

65. The O&M Expenses claimed by the Petitioner for the transmission assets for 2019-24 tariff period are as follows:

(₹ in lakh)					
Name of the Asset	2019-20	2020-21	2021-22	2022-23	2023-24
4 Numbers of 765 kV sub-station Bays	180.04	186.4	192.92	199.72	206.72
PLCC (2% of ₹528.13 lakh)	10.56	10.56	10.56	10.56	10.56
Total O&M Expenses	190.60	196.96	203.48	210.28	217.28

66. Regulations 35(3)(a) and 33(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
<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>					
<i>Single Circuit (Bundled Conductor with six or more sub-conductors)</i>	0.881	0.912	0.944	0.977	1.011
<i>Single Circuit (Bundled conductor with four sub-conductors)</i>	0.755	0.781	0.809	0.837	0.867
<i>Single Circuit (Twin & Triple Conductor)</i>	0.503	0.521	0.539	0.558	0.578
<i>Single Circuit (Single Conductor)</i>	0.252	0.260	0.270	0.279	0.289
<i>Double Circuit (Bundled conductor with four or more sub-</i>	1.322	1.368	1.416	1.466	1.517
<i>Double Circuit (Twin & Triple Conductor)</i>	0.881	0.912	0.944	0.977	1.011
<i>Double Circuit (Single Conductor)</i>	0.377	0.391	0.404	0.419	0.433
<i>Multi Circuit (Bundled Conductor with four or more sub-conductor)</i>	2.319	2.401	2.485	2.572	2.662
<i>Multi Circuit (Twin & Triple Conductor)</i>	1.544	1.598	1.654	1.713	1.773
<i>Norms for HVDC stations</i>					
<i>HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)</i>	834	864	894	925	958
<i>Gazuwaka HVDC Back-to-Back station (₹ Lakh per 500 MW)</i>	1,666	1,725	1,785	1,848	1,913
<i>500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)</i>	2,252	2,331	2,413	2,498	2,586
<i>±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)</i>	2,468	2,555	2,645	2,738	2,834
<i>±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)</i>	1,696	1,756	1,817	1,881	1,947
<i>±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW)</i>	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 submission of the Petitioner. The Petitioner has claimed O&M Expenses separately for the PLCC under Regulation 35(4) of the 2019 Tariff Regulation @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 Regulation and 2019 Tariff Regulations and the norms for sub-station has been specified accordingly. Accordingly, the Commission vide order dated 24.1.2021 in Petition No.126/TT/2020 has already concluded that no separate O&M Expenses can be



allowed for PLCC under Regulation 35(4) of the 2019 Tariff Regulations even though PLCC is a communication system. Therefore, the Petitioner's claim for separate O&M Expenses for PLCC @2% is not allowed.

68. The total O&M Expenses allowed in respect of the transmission assets for 2019-24 tariff period are as follows:

(₹ in lakh)					
	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses					
4 Numbers of 765 kV sub-station Bays					
Norms (₹ lakh/km)	45.01	46.6	48.23	49.93	51.68
Total	180.04	186.40	192.92	199.72	206.72
Total O&M Expenses allowed (₹ in lakh)	180.04	186.40	192.92	199.72	206.72

Interest on Working Capital (IWC)

69. Regulations 34(1)(c), 34(3), 34(4) and Regulation 3(7) of the 2019 Tariff Regulations specify 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 tariff period considering the SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of IWC as 12.05%. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. 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, ROI for 2020-21 onwards has been considered as 11.25% (SBI 1 year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points) and from 2021-22 onwards as 10.50% (SBI 1 year MCLR applicable as on 1.4.2021 of 7.00% plus 350 basis points). The components of the working capital and interest allowed thereon is as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses (O&M Expenses for 1 month)	15.00	15.53	16.08	16.64	17.23
Maintenance Spares (15% of O&M Expenses)	27.01	27.96	28.94	29.96	31.01
Receivables (Equivalent to 45 days of annual fixed cost)	434.15	433.37	423.82	414.74	403.36
Total Working Capital	476.16	476.86	468.83	461.34	451.59
Rate of Interest (in %)	12.05	11.25	10.50	10.50	10.50
Interest on Working Capital	57.38	53.65	49.23	48.44	47.42

Annual Fixed Charges for 2019-24 Tariff Period

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

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	1091.58	1113.03	1113.03	1113.03	1113.03
Interest on Loan	1051.92	988.64	909.09	829.40	740.12



Return on Equity	1150.17	1173.38	1173.38	1173.38	1173.38
Interest on Working Capital	57.38	53.65	49.23	48.44	47.42
O&M Expenses	180.04	186.40	192.92	199.72	206.72
Total	3531.09	3515.09	3437.65	3363.97	3280.66

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 the filing fees and publication expenses in connection with the present petition, directly from the beneficiaries on pro-rata basis in accordance with Regulation 70(1) of the 2019 Tariff Regulations.

Licence Fee & RLDC Fees and Charges

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

Goods and Services Tax

74. The Petitioner has submitted that, if GST is levied at any rate and at any point of time in future on Charges of Transmission of Electricity, the same shall be borne and additionally paid by the Respondent(s) 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 may also be allowed to be recovered from the beneficiaries.



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

Security Expenses

76. The Petitioner has submitted that security expenses for the transmission assets are not claimed in the instant petition and it would file a separate petition for claiming the overall security expenses and the consequential 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 shall be filed on a yearly basis on the basis of the actual expenses of previous year subject to true up at the end of the year on actual expenses. The Petitioner has submitted that the difference, if any, between the estimated security expenses and actual security expenses as per the audited accounts may be allowed to be recovered from the beneficiaries on a yearly basis.

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 Petition No. 260/MP/2020 claiming consolidated security expenses on projected basis for 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 2019 Tariff Regulations.



Capital Spares

78. The Petitioner has prayed for 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. During the tariff periods 2001-04, 2004-09 and 2009-14 (up to 30.6.2011), the transmission charges for inter-State transmission systems were being shared in accordance with the Tariff Regulations for the respective tariff periods. With effect from 1.7.2011, sharing of transmission charges for inter-State transmission systems was governed by the 2010 Sharing Regulations. With effect from 1.11.2020, sharing is governed by the 2020 Sharing Regulations. Accordingly, the liabilities of the 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 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 AFC approved for the transmission assets for 2014-19 tariff period are:

(₹ in lakh)	
2018-19 (Pro-rata 90 days)	
	903.14



b) AFC allowed for the transmission assets for 2019-24 tariff period in this order are:

(₹ in lakh)				
2019-20	2020-21	2021-22	2022-23	2023-24
3531.09	3515.09	3437.65	3363.97	3280.66

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

82. This order disposes of Petition No. 22/TT/2020 in terms of the above discussions and findings.

sd/-
(Pravas Kumar Singh)
Member

sd/-
(I. S. Jha)
Member

sd/-
(P. K. Pujari)
Chairperson



ANNEXURE-I

2014-19	Admitted Capital Cost as on COD (₹ in lakh)	ACE (₹ in lakh)	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)
Capital Expenditure		2018-19			2018-19
Land - Freehold	51.12	0.00	51.12	-	-
Land - Leasehold	0.00	0.00	0.00	3.34%	-
Building Civil Works & Colony	0.00	69.77	69.77	3.34%	1.17
Transmission Line	0.00	0.00	0.00	5.28%	-
Sub Station	17991.93	1300.21	19292.14	5.28%	984.30
PLCC	329.51	120.11	449.62	6.33%	24.66
IT Equipment (Incl. Software)	125.18	12.89	138.07	5.28%	6.95
Total	18497.74	1502.98	20000.72	Total	1017.07
			Average Gross Block (₹ in lakh)		19249.23
			Weighted Average Rate of Depreciation		5.28%

ANNEXURE-II

2019-24	Combined Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Projected ACE (₹ in lakh)					Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)					
		2019-20	2020-21	2021-22	2022-23	2023-24			2019-20	2020-21	2021-22	2022-23	2023-24	
Land - Freehold	51.12	0.00	0.00	0.00	0.00	0.00	51.12	-	-	-	-	-	-	
Land - Leasehold	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.34%	-	-	-	-	-	
Building Civil Works & Colony	69.77	76.33	0.00	0.00	0.00	0.00	146.10	3.34%	3.61	4.88	4.88	4.88	4.88	
Transmission Line	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.28%	-	-	-	-	-	
Sub Station	19292.14	668.21	0.00	0.00	0.00	0.00	19960.35	5.28%	1036.27	1053.91	1053.91	1053.91	1053.91	
PLCC	449.62	78.51	0.00	0.00	0.00	0.00	528.13	6.33%	30.95	33.43	33.43	33.43	33.43	
IT Equipment (Incl. Software)	138.07	0.70	0.00	0.00	0.00	0.00	138.77	15.00%	20.76	20.82	20.82	20.82	20.82	
Total	20000.72	823.75	0.00	0.00	0.00	0.00	20824.47	Total	1091.58	1113.03	1113.03	1113.03	1113.03	
								Average Gross Block (₹ in lakh)		20412.60	20824.47	20824.47	20824.47	20824.47
								Weighted Average Rate of Depreciation		5.35%	5.34%	5.34%	5.34%	5.34%

