

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 650/TT/2020

Coram:

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

Date of Order: 26.07.2021

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 Asset-I: Extension of 765/400 kV Bilaspur Pooling Station (near Sipat) alongwith LILO of Sipat-Seoni Ckt 2 with 240 MVAR Line Reactor and Asset-II: Installation of 765/400 kV, 1500 MVA ICT-3 at Bilaspur Pooling Station under WRSS XI Scheme in 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 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, 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 Amli,
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 D. K. Biswal, PGCIL
Shri A. K. Verma, PGCIL
Shri Ved Prakash Rastogi, PGCIL

For Respondent : Shri Anindya 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 of 2014-19 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) and



for determination of 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 the following transmission assets forming part of the Combined Asset under WRSS XI Scheme in Western Region (hereinafter referred to as “the transmission project”):

Asset-I: Extension of 765/400 kV Bilaspur Pooling Station (near Sipat) along with LILO of Sipat-Seoni Ckt 2 with 240 MVAR Line Reactor, and

Asset-II: Installation of 765/400 kV, 1500 MVA ICT-3 at Bilaspur Pooling Station.

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

“1) Allow the add cap 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 the 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 6.6 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 on transmission is levied at any rate in future. Further, any taxes including GST and duties including cess etc. imposed by any statutory/Govt./municipal authorities shall be allowed to be recovered from the beneficiaries.

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

3. **Backdrop of the case**

a. The Investment Approval (IA) for the transmission project was accorded by Board of Directors of the Petitioner Company vide Memorandum dated 16.2.2009 at an estimated cost of ₹40950 lakh, including IDC of ₹3125 lakh (based on 4th Quarter, 2008 price level).

b. As per the IA, the scope of the transmission project is as follows:

Transmission Lines:

LILO of Sipat-Seoni 765 kV second S/C transmission line at Western Region Pooling Station near Sipat.

Sub-stations:

- i. Extension of Western Region Pooling Station near Sipat by installation of 765/400 kV, 1X1500 MVA 3rd transformer along with bays; and
- ii. Provision of 1X240 MVAR Switchable Line Reactor at 765/400 kV Western Region Pooling Station-Seoni 765 kV 2nd transmission line.

c. The transmission tariff of the transmission assets for the period from anticipated COD (1.3.2012) to 31.3.2014 in terms of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (2009 Tariff Regulations) was approved vide order dated 23.12.2013 in Petition No. 62/TT/2012.

d. Asset-I and Asset-II were actually put under commercial operation w.e.f. 1.4.2012 and 1.8.2012 respectively. There was time over-run of 1 month and 5 months in case of Asset-I and Asset-II respectively. The delay in case of Asset-I was condoned while delay in respect of Asset-II was disallowed by the Commission vide its order dated 23.12.2013 in Petition No. 62/TT/2012. However



subsequently, delay of only 35 days out of 5 months in the commissioning of Asset-II was disallowed vide order dated 8.12.2014 in Review Petition No. 8/RP/2014. The transmission tariff of Asset-II was revised vide order dated 21.1.2016 in Petition No. 62/TT/2012 pursuant to the Commission's order dated 8.12.2014 in Review Petition No. 8/RP/2014.

e. The trued-up transmission tariff of the transmission assets for 2009-14 period and transmission tariff of Combined Asset for 2014-19 period was allowed vide order dated 7.9.2017 in Petition No. 40/TT/2017. The scope of transmission project includes two assets that were combined into a single asset and tariff for the transmission project as a whole was worked out for 2014-19 tariff period.

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

5. The Petitioner has served the petition on the Respondents and notice regarding filing of this petition has been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003. No comments or suggestions have been received from the general public in response to the aforesaid notices published in the newspapers. Madhya Pradesh Power Management Company Ltd. (MPPMCL), Respondent No. 1, has filed its reply vide affidavit dated 3.11.2020 and has raised the issues of grossing up Return on Equity (RoE) and effect of CGST. The Petitioner has submitted its rejoinder vide affidavit dated 18.1.2021.

6. This order is issued considering the submissions made by the Petitioner in the petition vide affidavit dated 16.10.2019, Petitioner's affidavit dated 11.2.2021 filed in compliance of Technical Validation letter, MPPMCL's reply filed vide affidavit dated 3.11.2020 and Petitioner's rejoinder to MPPMCL's reply filed vide affidavit dated



18.1.2021. The issues raised by MPPMCL and the clarifications given by the Petitioner are considered in the relevant portions of this order.

7. The hearing in this matter was held on 8.6.2021 through video conference and 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 the 2014-19 Tariff Period

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

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	927.22	935.72	936.82	936.82	936.82
Interest on Loan	967.47	890.42	803.53	714.16	626.09
Return on Equity	1037.77	1052.92	1054.29	1054.29	1057.12
Interest on Working Capital	89.75	89.26	88.08	86.81	85.66
O&M Expenses	402.76	416.12	429.95	444.23	458.96
Total	3424.97	3384.44	3312.67	3236.31	3164.65

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

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	33.56	34.68	35.83	37.02	38.25
Maintenance Spares	60.41	62.42	64.49	66.63	68.84
Receivables	570.83	564.07	552.11	539.39	527.44
Total Working Capital	664.80	661.17	652.43	643.04	634.53
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	89.75	89.26	88.08	86.81	85.66

Effective Date of Commercial Operation (E-COD)

10. The Petitioner in the instant Petition has considered the first day of the calendar month as E-COD of the Combined Asset i.e. 1.6.2012 claiming that these transmission assets were commissioned during 2009-14 tariff period. The Commission vide order



dated 7.9.2017 in Petition No. 40/TT/2017 had already approved E-COD as 26.5.2012 for the Combined Asset. Accordingly, E-COD for the Combined Asset has been considered as 26.5.2012.

Capital Cost

11. The Petitioner has claimed the capital cost of ₹17483.32 lakh as on 1.4.2014 for the Combined Asset. The Commission vide order dated 7.9.2017 in Petition No. 40/TT/2017 had admitted the capital cost of ₹17483.34 lakh as on 31.3.2014. Accordingly, the admitted capital cost of ₹17483.34 lakh has been considered as the opening capital as on 1.4.2014 for Combined Asset for determination of transmission tariff of the 2014-19 tariff period. The capital cost of the Combined Asset has been calculated in accordance with Regulation 9(3) of 2014 Tariff Regulations.

Additional Capital Expenditure (ACE)

12. The Commission vide order dated 7.9.2017 in Petition No. 40/TT/2017 allowed Additional Capital Expenditure (ACE) of ₹286.71 lakh during 2014-15, ₹64.55 lakh during 2015-16 and ₹39.58 lakh during 2017-18 for the Combined Asset. Against the projected ACE, the Petitioner has claimed the following ACE for the Combined Asset based on actual expenditure:

(₹ in lakh)				
Particulars	2014-15	2015-16	2017-18	Total
ACE claimed for Combined Asset	286.71	64.55	-	351.26

13. The Petitioner has submitted that ACE incurred during 2015-16 is after the cut-off date of 31.3.2015 and the same is on account of balance and retention payments due to un-discharged liability for works executed within cut-off date. The Petitioner has claimed ACE under Regulation 14(3)(v) of the 2014 Tariff Regulations.



14. We have considered the submissions made by the Petitioner. Assets-I and II were commissioned on 1.4.2012 and 1.8.2012 respectively. The cut-off date works out to be 31.3.2015. Actual ACE claimed has been verified from the Auditor's Certificate. ACE claimed by the Petitioner for 2014-15 period is within cut-off date and has been allowed under Regulation 14(1)(i) and Regulation 14(1)(ii) of the 2014 Tariff Regulations. ACE claimed by the Petitioner for 2015-16 period is beyond the cut-off date and the same has been allowed under Regulation 14(3)(v) of the 2014 Tariff Regulations as it pertains to un-discharged liabilities recognized to be payable at a future date. ACE allowed in respect of the Combined Asset for 2014-19 tariff period is as follows:

(₹ in lakh)

Particulars	Apportioned Approved Capital Cost	Admitted Capital Cost as on 31.3.2014	2014-15	2015-16	Total Capital Cost as on 31.3.2019
Combined Asset	40949.50	17483.34	286.71	64.55	17834.60

15. The capital cost of ₹17834.60 lakh as on 31.3.2019 for the Combined Asset is within the apportioned approved capital cost of ₹40949.50 lakh. Therefore, there is no cost over-run in the instant case.

Debt-Equity Ratio

16. The debt-equity ratio has been allowed in accordance with Regulation 19(3) of the 2014 Tariff Regulations. As per Regulation 19(3) of the 2014 Tariff Regulations, the debt-equity ratio allowed by the Commission for determination of tariff for the period ending on 31.3.2014 shall be considered. Accordingly, the details of the debt-equity ratio as on 1.4.2014 and 31.3.2019 for the Combined Asset are as follows:

Particulars	Capital Cost as on 1.4.2014 (₹ in lakh)	(%)	Total Capital Cost as on 31.3.2019 (₹ in lakh)	(%)
Debt	12238.35	70.00	12484.24	70.00
Equity	5244.99	30.00	5350.36	30.00
Total	17483.34	100.00	17834.60	100.00



Depreciation

17. The depreciation claimed by the Petitioner was found to be higher than that allowed in order dated 7.9.2017 in Petition No. 40/TT/2017. The Petitioner has not explained any reason for claiming higher depreciation nor made any specific prayer in this regard. It is observed that the Petitioner has segregated the IT equipment cost from sub-station cost and claimed separate depreciation for IT equipment. The Petitioner had not claimed any capital expenditure towards "IT Equipment" in the Petition No. 40/TT/2017 where tariff for the Combined Asset for the 2014-19 period was allowed even though there was a clear provision in the 2014 Tariff Regulations. Similar issue had come up in Petition No. 19/TT/2020 wherein the Commission vide order dated 9.5.2020 has dealt with this issue.

18. In terms of the order dated 9.5.2020, depreciation has been considered @5.28% for IT equipment as part of the sub-station upto 31.3.2019 while truing-up the capital expenditure for 2014-19 period. During 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.

19. The depreciation has been worked out as per the methodology provided in Regulation 27 of the 2014 Tariff Regulations. Depreciation has been allowed considering capital expenditure as on 1.4.2014 and approved ACE during the 2014-19 tariff period. The Gross Block during the 2014-19 tariff period has been depreciated at Weighted Average Rate of Depreciation (WAROD) and working of WAROD is given at Annexure-1. WAROD has been worked out after taking into account the depreciation rates of assets as prescribed in the 2014 Tariff Regulations and depreciation allowed during 2014-19 period is as follows:



(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	17483.34	17770.05	17834.60	17834.60	17834.60
Additional Capitalisation	286.71	64.55	0.00	0.00	0.00
Closing Gross Block	17770.05	17834.60	17834.60	17834.60	17834.60
Average Gross Block	17626.70	17802.33	17834.60	17834.60	17834.60
Weighted Average Rate of Depreciation (WAROD) (%)	5.17%	5.17%	5.16%	5.16%	5.16%
Balance useful life of the asset (years)	25	24	23	22	21
Lapsed Life of the asset at the beginning of the year (Year)	1	2	3	4	5
Depreciable Value	15864.03	16022.09	16051.14	16051.14	16051.14
Depreciation during the year	911.51	920.00	921.10	921.10	921.10
Cumulative depreciation	2469.32	3389.32	4310.42	5231.51	6152.61
Remaining Depreciable Value	13394.71	12632.77	11740.72	10819.63	9898.53

20. Accordingly, the depreciation allowed vide order dated 7.9.2017 in Petition No. 40/TT/2017, as claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 7.9.2017 in Petition No. 40/TT/2017	911.51	920.00	922.14	923.19	923.19
Claimed by the Petitioner in the instant petition	927.22	935.72	936.82	936.82	936.82
Approved after true-up in this order	911.51	920.00	921.10	921.10	921.10

Interest on Loan (IoL)

21. The Petitioner has claimed the Weighted Average Rate of IoL based on actual interest rates for each year during 2014-19 tariff period. Accordingly, IoL has been calculated based on actual interest rate submitted by the Petitioner in accordance with Regulation 26 of the 2014 Tariff Regulations. Trued-up IoL allowed in respect of the Combined Asset is as follows:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	12238.35	12439.05	12484.23	12484.23	12484.23
Cumulative Repayments up to Previous Year	1557.81	2469.32	3389.32	4310.42	5231.51



Net Loan-Opening	10680.54	9969.73	9094.91	8173.82	7252.72
Additions due to ACE	200.70	45.19	0.00	0.00	0.00
Repayment during the year	911.51	920.00	921.10	921.10	921.10
Net Loan-Closing	9969.73	9094.91	8173.82	7252.72	6331.62
Average Loan	10325.14	9532.32	8634.36	7713.27	6792.17
Weighted Average Rate of Interest on Loan (%)	9.3772	9.3642	9.3488	9.3254	9.3149
Interest on Loan	968.21	892.62	807.21	719.30	632.68

22. The details of IoL allowed vide order dated 7.9.2017 in Petition No. 40/TT/2017, as claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 7.9.2017 in Petition No. 40/TT/2017	968.21	893.53	810.13	724.66	637.95
Claimed by the Petitioner in the instant petition	967.47	890.42	803.53	714.16	626.09
Approved after true-up in this order	968.21	892.62	807.21	719.30	632.68

Return on Equity (RoE)

23. The Petitioner has claimed RoE for the Combined 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 Minimum Alternate Tax (MAT) rates and has claimed following effective tax rates for the 2014-19 tariff period:

Year	Claimed effective tax rate (in %)	Grossed up RoE [(Base Rate)/(1-t)] (in %)
2014-15	21.018	19.625
2015-16	21.382	19.715
2016-17	21.338	19.705
2017-18	21.337	19.705
2018-19	21.549	19.758

24. 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 orders for the years 2016-17, 2017-18 and 2018-19. The Petitioner has not provided copy 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.

25. In response, the Petitioner has submitted that the assessment orders for years 2014-15, 2015-16 and 2016-17 have been issued by the Income Tax Department and Income Tax returns for years 2017-18 and 2018-19 have been filed. The Petitioner has further submitted that the assessment order for the years 2014-15 and 2015-16 have already been filed in response to Technical Validation letter in Petition No. 20/TT/2020 and copy of the assessment order for the year 2016-17 has been placed on record vide rejoinder affidavit dated 18.1.2021.

26. In view of the above, 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.

27. We have considered the submissions of 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.



28. The Commission vide order dated 27.4.2020 in Petition No. 274/TT/2019 has arrived at the effective tax rate for the Petitioner based on the notified MAT rates and the same is given in the table as follows:

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

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

Year	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

30. RoE is trued-up on the basis of MAT rate applicable in the respective years and is allowed for the Combined Asset as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	5244.99	5330.99	5350.36	5350.36	5350.36
Addition due to ACE	86.01	19.37	0.00	0.00	0.00
Closing Equity	5331.00	5350.37	5350.37	5350.37	5350.37
Average Equity	5288.00	5340.69	5350.37	5350.37	5350.37
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
Tax Rate applicable (%)	20.961	21.342	21.342	21.342	21.549
Rate of Return on Equity (Pre-tax)	19.610	19.705	19.705	19.705	19.758
Return on Equity (Pre-tax)	1036.98	1052.38	1054.29	1054.29	1057.13



31. The details of RoE approved vide order dated 7.9.2017 in Petition No. 40/TT/2017, as claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 7.9.2017 in Petition No. 40/TT/2017	1036.98	1047.31	1050.37	1051.53	1051.53
Claimed by the Petitioner in the instant petition	1037.77	1052.92	1054.29	1054.29	1057.12
Approved after true-up in this order	1036.98	1052.38	1054.29	1054.29	1057.13

Operation & Maintenance Expenses (O&M Expenses)

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

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Sub-station Bays (Number)					
400 kV: Bilaspur: ICT-III Bay	1	1	1	1	1
765 kV: Bilaspur: Seoni II Bay	1	1	1	1	1
765 kV: Bilaspur: ICT-III Bay	1	1	1	1	1
765 kV: Sipat II Bay	2	2	2	2	2
Norm (₹ lakh/bay)					
400 kV	60.30	62.30	64.37	66.51	68.71
765 kV	84.42	87.22	90.12	93.11	96.2
Total Sub-station O&M Expenses	397.98	411.18	424.85	438.95	453.51
Transmission Line					
LILO of Sipat Seoni-II (kms)	7.886	7.886	7.886	7.886	7.886
Norm (₹ lakh/KM)					
S/C (Bundle Conductor- 4 sub-c)	0.606	0.627	0.647	0.669	0.691
Total Transmission Line O&M Expenses	4.78	4.94	5.10	5.28	5.45
Total O&M Expenses	402.76	416.12	429.95	444.23	458.96

33. The details of O&M Expenses approved vide order dated 7.9.2017 in Petition No. 40/TT/2017, as claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:



(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 7.9.2017 in Petition No. 40/TT/2017	402.76	416.12	429.95	444.23	458.96
Claimed by the Petitioner in the instant petition	402.76	416.12	429.95	444.23	458.96
Approved after true-up in this order	402.76	416.12	429.95	444.23	458.96

Interest on Working Capital (IWC)

34. 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 Combined Asset for the 2014-19 tariff period are as follows:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses (O&M Expenses for one Month)	33.56	34.68	35.83	37.02	38.25
Maintenance Spares (15% of O&M)	60.41	62.42	64.49	66.63	68.84
Receivables (Equivalent to two months of annual transmission charges)	568.14	561.68	550.06	537.58	525.89
Total Working Capital	662.12	658.77	650.38	641.23	632.98
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest of working capital	89.39	88.93	87.80	86.57	85.45

35. The details of IWC approved vide order dated 7.9.2017 in Petition No. 40/TT/2017, as claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 7.9.2017 in Petition No. 40/TT/2017	89.39	88.84	87.80	86.67	85.49
Claimed by the Petitioner in the instant petition	89.75	89.26	88.08	86.81	85.66
Approved after true-up in this order	89.39	88.93	87.80	86.57	85.45

Approved Annual Fixed Charges for 2014-19 Tariff Period

36. The trued-up Annual Fixed Charges (AFC) approved in respect of the Combined Asset for 2014-19 tariff period are as follows:



(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	911.51	920.00	921.10	921.10	921.10
Interest on Loan	968.21	892.62	807.21	719.30	632.68
Return on Equity	1036.98	1052.38	1054.29	1054.29	1057.13
Interest on Working Capital	89.39	88.93	87.80	86.57	85.45
O&M Expenses	402.76	416.12	429.95	444.23	458.96
Total	3408.84	3370.07	3300.35	3225.47	3155.32

37. Accordingly, the Annual Transmission Charges approved vide order dated 7.9.2017 in Petition No. 40/TT/2017, as claimed by the Petitioner in the instant petition and approved after truing up in the instant order is as follows:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 7.9.2017 in Petition No. 40/TT/2017	3408.84	3365.80	3300.40	3230.28	3157.12
Claimed by the Petitioner in the instant petition	3424.97	3384.44	3312.67	3236.31	3164.65
Allowed after true-up in this order	3408.84	3370.07	3300.35	3225.47	3155.32

Determination of Annual Fixed Charges for 2019-24 Tariff Period

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

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	937.09	913.59	913.08	913.08	913.08
Interest on Loan	539.23	453.18	367.88	283.49	199.04
Return on Equity	1005.20	1005.49	1005.49	1005.49	1005.49
Interest on Working Capital	79.01	78.96	79.19	79.52	79.72
O&M Expenses	956.74	989.94	1,024.85	1,061.58	1,098.57
Total	3517.27	3441.16	3390.49	3343.16	3295.90

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

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	79.73	82.50	85.40	88.47	91.55
Maintenance Spares	143.51	148.49	153.73	159.24	164.79
Receivables	432.45	424.25	418.01	412.17	405.23
Total Working Capital	655.69	655.24	657.14	659.88	661.57
Rate of Interest (%)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	79.01	78.96	79.19	79.52	79.72



Capital Cost

40. Regulation 19 of the 2019 Tariff Regulations provide 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 trued up by excluding liability, if any, as on 1.4.2019;*



- (b) Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;
- (c) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
- (d) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
- (e) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal up to the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and
- (f) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.

(4) The capital cost in case of existing or new hydro generating station shall also include:

- (a) cost of approved rehabilitation and resettlement (R&R) plan of the project in conformity with National R&R Policy and R&R package as approved; and
- (b) cost of the developer's 10% contribution towards Rajiv Gandhi Grameen Viduytikaran 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.”

41. The Petitioner has claimed capital cost of ₹17834.58 lakh as on 31.3.2019 for the Combined Asset. The Commission has admitted the capital cost of ₹17834.60 lakh as on 31.3.2019 and the same capital cost is considered as the opening capital cost as on



1.4.2019 for determination of tariff in accordance with Regulation 19 of the 2019 Tariff Regulations.

Additional Capital Expenditure (ACE)

42. Regulations 24 and 25 of the 2019 Tariff Regulations provides as under:

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

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

- (a) Undischarged liabilities recognized to be payable at a future date;*
- (b) Works deferred for execution;*
- (c) Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 23 of these regulations;*
- (d) Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority or order or decree of any court of law;*
- (e) Change in law or compliance of any existing law; and*
- (f) Force Majeure events:*

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

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

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

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

- (a) Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority, or order or decree of any court of law;*
- (b) Change in law or compliance of any existing law;*
- (c) Deferred works relating to ash pond or ash handling system in the original scope of work;*
- (d) Liability for works executed prior to the cut-off date;*
- (e) Force Majeure events;*



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

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

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

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

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

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

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

43. The Petitioner has claimed net ACE of ₹10.40 lakh during the 2019-24 tariff period for the Combined Asset under Regulation 25(1)(d) of the 2019 Tariff Regulations.

44. The Petitioner has submitted that ACE incurred during the 2019-24 tariff period is after the cut-off date of 31.3.2015 and is on account of un-discharged liability towards final payment/ withheld payment due to contractual exigencies for works executed within the cut-off date.

45. We have considered the submissions made by the Petitioner. The estimated ACE claimed has been verified from the Auditor's Certificate. ACE claimed by the Petitioner has been allowed under Regulation 25(1)(d) of the 2019 Tariff Regulations as it pertains to liability for works executed prior to the cut-off date. Accordingly, the capital cost considered in respect of the Combined Asset for 2019-24 tariff period is as follows:

(₹ in lakh)			
Particulars	Admitted Capital Cost as on 31.3.2019	2019-20	Total Capital Cost as on 31.3.2024
Combined Asset	17834.60	10.40	17845.00



Debt-Equity Ratio

46. 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.”

47. We have considered the debt-equity ratio as on 31.3.2019 as provided in Regulation 18(3) of the 2019 Tariff Regulations for the transmission asset for the 2019-24 tariff period. Accordingly, the debt-equity considered for the purpose of computation of tariff for the 2019-24 tariff period is as follows:

Particulars	Capital cost as on 1.4.2019 (₹ in lakh)	(%)	Capital cost as on 31.3.2024 (₹ in lakh)	(%)
Debt	12484.23	70.00	12491.51	70.00
Equity	5350.37	30.00	5353.49	30.00
Total	17834.60	100.00	17845.00	100.00

Depreciation

48. 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.”

49. We have considered the submissions of the Petitioner. WAROD has been worked out and placed at Annexure-2. The depreciation allowed for the Combined Asset is as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	17834.60	17845.00	17845.00	17845.00	17845.00
Projected Additional Capitalisation	10.40	0.00	0.00	0.00	0.00
Closing Gross Block	17845.00	17845.00	17845.00	17845.00	17845.00
Average Gross Block	17677.94	17683.14	17683.14	17683.14	17683.14
Weighted Average Rate of	5.25%	5.25%	5.25%	5.25%	5.25%



Depreciation (WAROD) (%)					
Balance useful life of the asset (Year)	20	19	18	17	16
Lapsed life at the beginning of the year (Year)	6	7	8	9	10
Aggregated Depreciable Value	16072.01	16076.69	16076.69	16076.69	16076.69
Depreciation during the year	937.10	937.38	937.38	937.38	937.38
Cumulative Depreciation at the end of the year	7089.71	8027.09	8964.47	9901.85	10839.23
Remaining Depreciable Value at the end of the year	8982.29	8049.59	7112.21	6174.84	5237.46

Interest on Loan (IoL)

50. Regulation 32 of the 2019 Tariff Regulations provides as under:

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

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

(3) *The repayment for each of the year of the tariff period 2019-24 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of de-capitalization of assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered upto the date of de-capitalisation of such asset.*

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

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

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

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

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



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

51. 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 change in interest rate due to floating rates of interest applicable, if any, during the 2019-24 tariff period will be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of true up. Therefore, IoL has been allowed in accordance with Regulation 32 of the 2019 Tariff Regulations. IoL approved in respect of the Combined Asset for 2019-24 tariff period is as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	12484.23	12491.51	12491.51	12491.51	12491.51
Cumulative Repayments up to Previous Year	6152.61	7089.71	8027.09	8964.47	9901.85
Net Loan-Opening	6331.62	5401.80	4464.42	3527.04	2589.66
Additions	7.28	0.00	0.00	0.00	0.00
Repayment during the year	937.10	937.38	937.38	937.38	937.38
Net Loan-Closing	5401.80	4464.42	3527.04	2589.66	1652.28
Average Loan	5866.71	4933.11	3995.73	3058.35	2120.97
Weighted Average Rate of Interest on Loan (%)	9.3161	9.3125	9.3061	9.3255	9.3580
Interest on Loan	546.55	459.40	371.85	285.21	198.48

Return on Equity (RoE)

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

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

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

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



Provided further that:

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

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

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

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

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

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

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

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

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

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



Illustration-

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

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

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

(a) Estimated Gross Income from generation or transmission business for FY 2019-20 is Rs 1,000 crore;

(b) Estimated Advance Tax for the year on above is Rs 240 crore;

(c) Effective Tax Rate for the year 2019-20 = Rs 240 Crore/Rs 1000 Crore = 24%;

(d) Rate of return on equity = $15.50/(1-0.24) = 20.395\%$.

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

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

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	5350.37	5353.49	5353.49	5353.49	5353.49
Additions	3.12	0.00	0.00	0.00	0.00
Closing Equity	5353.49	5353.49	5353.49	5353.49	5353.49
Average Equity	5351.93	5353.49	5353.49	5353.49	5353.49
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50
MAT Rate for respective year (%)	17.472	17.472	17.472	17.472	17.472
Rate of Return on Equity (%)	18.782	18.782	18.782	18.782	18.782
Return on Equity	1005.20	1005.49	1005.49	1005.49	1005.49



Operation & Maintenance Expenses (O&M Expenses)

54. The O&M Expenses claimed by the Petitioner for the Combined Asset for the 2019-24 tariff period are as follows:

Name of the Asset	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
4 Numbers of 765 kV Sub-stations	180.04	186.40	192.92	199.72	206.72
1 Number of 400 kV Sub-station	32.15	33.28	34.45	35.66	36.91
1 Number of 765 kV ICT (1500 MVA)	736.50	762.00	789.00	817.50	846.00
LILO of Sipat-Seoni-II (7.886 km)	5.95	6.16	6.38	6.60	6.84
O&M for PLCC (2% of ₹104.88 lakh)	2.10	2.10	2.10	2.10	2.10
Total O&M Expenses	956.74	989.94	1024.85	1061.58	1098.57

55. 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
Norms for sub-station Bays (₹ Lakh per bay)					
765 kV	45.01	46.60	48.23	49.93	51.68
400 kV	32.15	33.28	34.45	35.66	36.91
220 kV	22.51	23.30	24.12	24.96	25.84
132 kV and below	16.08	16.64	17.23	17.83	18.46
Norms for Transformers (₹ Lakh per MVA)					
765 kV	0.491	0.508	0.526	0.545	0.564
400 kV	0.358	0.371	0.384	0.398	0.411
220 kV	0.245	0.254	0.263	0.272	0.282
132 kV and below	0.245	0.254	0.263	0.272	0.282
Norms for AC and HVDC lines (₹ Lakh per km)					
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.881	0.912	0.944	0.977	1.011
Single Circuit (Bundled conductor with four sub-conductors)	0.755	0.781	0.809	0.837	0.867
Single Circuit (Twin & Triple Conductor)	0.503	0.521	0.539	0.558	0.578
Single Circuit (Single Conductor)	0.252	0.260	0.270	0.279	0.289



<i>Double Circuit (Bundled conductor with four or more sub-conductors)</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
Norms for HVDC stations					
<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 heme (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 year

(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."*

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



57. The O&M Expenses have been worked out as per the norms specified in the 2019 Tariff Regulations and are as follows:

	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses					
1 Number of 400 kV bays					
Norms (₹ lakh/Bay)	32.15	33.28	34.45	35.66	36.91
Total	32.15	33.28	34.45	35.66	36.91
4 Number of 765 kV bays					
Norms (₹ lakh/Bay)	45.01	46.6	48.23	49.93	51.68
Total	180.04	186.40	192.92	199.72	206.72
7.886 km S/C (Bundle Conductor- 4 sub-conductor)					
Norms (₹ lakh/km)	0.755	0.781	0.809	0.837	0.867
Total	5.95	6.16	6.38	6.60	6.84
1 Number of 765 kV Sub-station ICT (1500 MVA)					
Norms (₹ lakh/MVA)	0.358	0.371	0.384	0.398	0.411
Total	736.50	762.00	789.00	817.50	846.00
Total O&M Expenses allowed (₹ in lakh)	954.64	987.84	1022.75	1059.48	1096.47

Interest on Working Capital (IWC)

58. Regulation 34(1)(c), Regulation 34(3), Regulation 34(4) and Regulation 3(7) of the 2019 Tariff Regulations specify as under:

“34. Interest on Working Capital

(1)...

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

- i. Receivables equivalent to 45 days of fixed cost;*
- ii. Maintenance spares @ 15% of operation and maintenance expenses including security expenses; and*
- iii. Operation and maintenance expenses, including security expenses for one month”*

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



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

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

“3.Definitions ...

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

59. The Petitioner has submitted that it has computed IWC for the 2019-24 tariff period considering the SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of IWC as 12.05%. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. Rate of Interest considered is 12.05% (SBI 1 year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for 2019-20, 11.25% (SBI 1 year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points) for 2020-21 and 10.50% (SBI 1 year MCLR applicable as on 1.4.2021 of 7.00% plus 350 basis points) for 2021-22 onwards. The components of the working capital and interest allowed thereon are as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses (O&M Expenses for 1 month)	79.55	82.32	85.23	88.29	91.37
Maintenance Spares (15% of O&M Expenses)	143.20	148.18	153.41	158.92	164.47
Receivables (Equivalent to 45 days of annual transmission charges)	433.10	427.08	419.99	413.87	406.64
Total Working Capital	655.85	657.57	658.64	661.09	662.49
Rate of Interest (%)	12.05	11.25	10.50	10.50	10.50
Interest on Working Capital	79.03	73.98	69.16	69.41	69.56

Annual Fixed Charges of the 2019-24 Tariff Period

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



(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	937.10	937.38	937.38	937.38	937.38
Interest on Loan	546.55	459.40	371.85	285.21	198.48
Return on Equity	1005.20	1005.49	1005.49	1005.49	1005.49
Interest on Working Capital	79.03	73.98	69.16	69.41	69.56
O&M Expenses	954.64	987.84	1022.75	1059.48	1096.47
Total	3522.52	3464.08	3406.63	3356.97	3307.38

Filing Fee and the Publication Expenses

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

Licence Fee & RLDC Fees and Charges

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

Goods and Services Tax

63. The Petitioner has submitted that if GST is levied at any rate and at any point of time in future on 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, the same may be allowed to be recovered from the beneficiaries.

64. MPPMCL has submitted that demand of the Petitioner at this juncture is premature and need not be considered.



65. In response, the Petitioner has submitted that under CGST Act, 2017 has been implemented w.e.f. 1.7.2017. The Govt. of India has exempted the charges of transmission of electricity vide Notification No. 12/2017-Central Tax (Rate) dated 28.6.2017 at Sl. No. 25 under the heading 9969 "Transmission or distribution of electricity by an electric transmission or distribution utility" by giving applicable GST rate Nil. Hence, the transmission charges as indicated at para 4 and 5 of the instant petition are exclusive of GST. Further, if GST is levied at any rate and at any point of time in future on charge of transmission of electricity, the same shall be borne and additional 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 the same may be allowed to be recovered from the beneficiaries.

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

Security Expenses

67. The Petitioner has submitted that security expenses for 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 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.

68. We have considered the submissions of the Petitioner. We are of the view that the Petitioner should claim security expenses for all the transmission asset in one petition. It is observed that the Petitioner has already filed the Petition No. 260/MP/2020 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

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

Sharing of Transmission Charges

70. With effect from 1.7.2011, sharing of transmission charges for inter-State transmission systems was governed by the 2010 Sharing Regulations. However, with effect from 1.11.2020, the 2010 Sharing Regulations has been repealed and sharing of transmission charges is governed by the provisions of the 2020 Sharing Regulations. Accordingly, the liabilities of DICs for arrears of transmission charges determined through this order shall be computed DIC-wise in accordance with the provisions of respective Tariff Regulations and shall be recovered from the concerned DICs through Bill 2 under Regulation 15(2)(b) of the 2020 Sharing Regulations. Billing, collection and disbursement of transmission charges for subsequent period shall be recovered in terms



of provisions of the 2020 Sharing Regulations as provided in Regulation 57 of the 2019 Tariff Regulations.

71. To summarise:

a) The trued-up AFC approved for the Combined Asset for 2014-19 tariff period are:

(₹ in lakh)				
2014-15	2015-16	2016-17	2017-18	2018-19
3408.84	3370.07	3300.35	3225.47	3155.32

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

(₹ in lakh)				
2019-20	2020-21	2021-22	2022-23	2023-24
3522.52	3464.08	3406.63	3356.97	3307.38

72. Annexure-1 and Annexure-2 given hereinafter shall form part of the order.

73. This order disposes of Petition No. 650/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-1

Petition No.:	650/TT/2020
Period	2019-24 Tariff

ANNEXURE-1

2019-24 Capital Expenditure	Combined Admitted Capital Cost as on 1.4.2014 / 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)				
		Total			2014-15	2015-16	2016-17	2017-18	2018-19
Land - Freehold	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00
Land - Leasehold	0.00	0.00	0.00	3.34	0.00	0.00	0.00	0.00	0.00
Building Civil Works & Colony	1038.34	79.80	1118.14	3.34	34.92	36.26	37.31	37.31	37.31
Transmission Line	1256.22	111.18	1367.40	5.28	69.26	72.20	72.20	72.20	72.20
Sub Station	14922.02	160.28	15082.30	5.28	792.13	796.36	796.40	796.40	796.40
PLCC	104.88	0.00	104.88	6.33	6.64	6.64	6.64	6.64	6.64
IT Equipment (Incl. Software)	161.86	0.00	161.86	5.28	8.55	8.55	8.55	8.55	8.55
Total	17483.32	351.26	17834.58	Total	911.51	920.00	921.10	921.10	921.10
Average Gross Block (₹ in lakh)					17626.70	17802.33	17834.60	17834.60	17834.60
Weighted Average Rate of Depreciation					5.17%	5.17%	5.16%	5.16%	5.16%



ANNEXURE-2

2019-24 Capital Expenditure	Combined Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	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)				
		Total			2019-20	2020-21	2021-22	2022-23	2023-24
Land - Freehold	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00
Land - Leasehold	0.00	0.00	0.00	3.34	0.00	0.00	0.00	0.00	0.00
Building Civil Works & Colony	1118.14	0.00	1118.14	3.34	37.31	37.31	37.31	37.31	37.31
Transmission Line	1367.40	0.00	1367.40	5.28	72.20	72.20	72.20	72.20	72.20
Sub Station	15082.30	10.40	15092.70	5.28	796.68	796.95	796.95	796.95	796.95
PLCC	104.88	0.00	104.88	6.33	6.64	6.64	6.64	6.64	6.64
IT Equipment (Incl. Software)	161.86	0.00	161.86	15.00	24.28	24.28	24.28	24.28	24.28
Total	17834.58	10.40	17844.98	Total	937.10	937.38	937.38	937.38	937.38
Average Gross Block (₹ in lakh)					17839.80	17845.00	17845.00	17845.00	17845.00
Weighted Average Rate of Depreciation					5.25%	5.25%	5.25%	5.25%	5.25%

