

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 348/TT/2019**

**Coram:**

**Shri P.K. Pujari, Chairperson  
Shri I.S. Jha, Member  
Shri Arun Goyal, Member  
Shri Pravas Kumar Singh, Member  
Shri Prakash Mhaske, Member, Ex-officio**

**Date of Order: 25.04.2021**

**In the matter of:**

Approval under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and truing up of transmission tariff of the 2014-19 period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of the 2019-24 period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 of Combined Asset of 1X125 MVAr Bus Reactor at Khandwa along with associated bays and 1X125 MVAr Bus Reactor at Dehgam along with associated bays under WRSS VII in Western Region.

**And in the matter of:**

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

**....Petitioner**

**Vs**

1. Madhya Pradesh Power Management Company Ltd.,  
Shakti Bhawan, Rampur,  
Jabalpur– 482 008.
2. Madhya Pradesh Power Transmission Company Ltd.,  
Shakti Bhawan, Rampur,  
Jabalpur – 482 008.
3. Madhya Pradesh Audyogik Kendra,  
Vikas Nigam (Indore) Ltd.,  
3/54, Press Complex, Agra-Bombay Road,  
Indore – 452 008.
4. Maharashtra State Electricity Distribution Co. Ltd.,  
Hongkong Bank Building, 3rd Floor,



- M.G. Road, Fort, Mumbai – 400 001.
5. Maharashtra State Electricity Transmission Co. Ltd.,  
Prakashganga, 6<sup>th</sup> Floor, Plot No. C-19, E-Block,  
Bandra Kurla Complex, Bandra (East),  
Mumbai – 400 051.
  6. Gujarat Urja Vikas Nigam Ltd.,  
Sardar Patel Vidyut Bhawan,  
Race Course Road,  
Vadodara – 390 007.
  7. Gujarat Energy Transmission Corporation Ltd.,  
Sardar Patel Vidyut Bhawan,  
Race Course Road,  
Vadodara – 390 007.
  8. Electricity Department,  
Govt. of Goa, Vidyut Bhawan, Panaji,  
Near Mandvi Hotel,  
Goa – 403 001.
  9. Electricity Department,  
Administration of Daman & Diu,  
Daman – 396 210.
  10. Electricity Department,  
Administration of Dadra Nagar Haveli,  
U.T., Silvassa– 396230.
  11. Chhattisgarh State Electricity Board,  
P.O.Sunder Nagar, Dangania, Raipur,  
Chhattisgarh – 492013.
  12. Chhattisgarh State Power Transmission Co. Ltd.,  
Office of The Executive Director (C&P),  
State Load Despatch Building,  
Dangania, Raipur – 492 013.
  13. Chhattisgarh State Power Distribution Co. Ltd.,  
P.O.Sunder Nagar, Dangania, Raipur,  
Chhattisgarh – 492013.

...Respondents

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



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

**ORDER**

The instant petition has been filed by the Petitioner, Power Grid Corporation of India Limited, a deemed transmission licensee, for trueing up of tariff for the period from 1.4.2014 to 31.3.2019 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) and for determination of 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 assets:

- (i) 1X125 MVAr Bus Reactor at Khandwa along with associated bays, and
- (ii) 1X125 MVAr Bus Reactor at Dehgam along with associated bays (hereinafter collectively referred to as “the Combined Asset”) associated with bays under WRSS VII in Western Region (hereinafter referred to as “the transmission project”):

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

*“1) Approve the trueed up Transmission Tariff for 2014-19 block and transmission tariff for 2019-24 block for the assets covered under this petition, as per para 5 and 6 above.*

*2) Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided in Tariff Regulation 2014 and Tariff regulations 2019 as per para 5 and 6 above for respective block.*

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

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



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

6) Allow the petitioner to file a separate petition before Hon'ble Commission for claiming the overall security expenses and consequential IOWC on that security expenses as mentioned at para 6.6 above.

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

8) Allow the Petitioner to bill and recover GST on Transmission Charges separately from the beneficiaries, if GST on transmission is withdrawn from negative list 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.”

### **Background**

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

(a) The Investment Approval (IA) and expenditure sanction for the transmission project was accorded by the Board of Directors of the Petitioner vide letter dated 25.2.2008 with estimated cost of ₹3205 lakh, including IDC of ₹169 lakh based on 3<sup>rd</sup> Quarter, 2007 price level. The scope of the transmission project and the dates of commercial operation of transmission assets under the transmission project are as under:

<b>Name of Asset</b>	<b>COD</b>
1X125 MVAr Bus Reactor at Khandwa along with associated bays	1.10.2010
1X125 MVAr Bus Reactor at Dehgam along with associated bays	1.11.2010

(b) The transmission tariff in respect of transmission asset 1x125 MVAr Bus Reactor at Khandwa along with associated bays from its COD i.e. 1.10.2010 to 31.10.2010 and tariff of Combined Asset from 1.11.2010 to 31.3.2014 was determined vide order dated 13.5.2011 in Petition No. 309/2010 as per the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as “the 2009 Tariff Regulations”). Transmission tariff determined vide order dated 13.5.2011 in Petition No. 309/2010 was trued up for 2009-14 period and tariff for 2014-19 period was determined for the Combined Asset vide order dated 14.3.2016 in Petition No. 501/TT/2014. There was no delay in execution of the transmission assets.



(c) Complete scope of the transmission project as per Investment Approval is covered in the instant petition.

(d) Annual Fixed Charges approved by the Commission vide order dated 14.3.2016 in Petition No. 501/TT/2014 and trued up transmission tariff as claimed by the Petitioner in respect of Combined Asset for 2014-19 period are as under:

(₹ in lakh)

<b>Combined Asset</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Annual Fixed Charges (AFC) approved vide order dated 14.3.2016 in Petition No. 501/TT/2014	352.56	352.30	352.29	352.54	353.03
AFC claimed based on truing up in the instant petition	352.81	354.04	357.67	359.49	362.82

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

5. The Petitioner has served the petition on Respondents and public notice regarding filing of the present petition has also been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003. No comments or suggestions have been received from the general public in response to the aforesaid notice published in the newspapers by the Petitioner. M.P. Power Management Company Limited (MPPMCL) i.e. Respondent No.1 has filed its reply vide affidavit dated 16.1.2020 and has raised issues of grossing up of RoE and effects of CGST. The Petitioner vide affidavit dated 23.7.2020 has filed its rejoinder to the reply of MPPMCL.

6. The hearing in this matter was held on 10.3.2021 through video conference and order was reserved.



7. Having heard the representatives of the Petitioner and perused the material on record, we proceed to dispose of the petition. This order is issued considering the submissions made by the Petitioner vide affidavits dated 29.7.2019, 27.7.2020, 9.3.2021 and reply filed by MPPMCL vide affidavit dated 16.1.2020 and Petitioner's rejoinder affidavit dated 23.7.2020.

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

8. The Petitioner has submitted that transmission assets were put into commercial operation prior to 1.4.2014 and as such their tariff is claimed by combining all the assets in the instant petition. Tariff for 2014-19 period has been trued up as discussed in the subsequent paragraphs.

9. The details of the trued up transmission charges claimed by the Petitioner in respect of the Combined Asset are as under:

(₹ in lakh)					
<b>Combined Asset</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	89.76	89.76	89.76	89.76	89.76
Interest on Loan	39.95	36.61	35.94	33.30	31.77
Return on Equity	90.76	91.18	91.13	91.13	91.38
Interest on working capital	11.74	11.89	12.10	12.28	12.49
O & M Expenses	120.60	124.60	128.74	133.02	137.42
<b>Total</b>	<b>352.81</b>	<b>354.04</b>	<b>357.67</b>	<b>359.49</b>	<b>362.82</b>

10. The details of the trued up Interest on Working Capital (IWC) claimed by the Petitioner in respect of the Combined Asset are as under:

(₹ in lakh)					
<b>Combined Asset</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
O&M expenses	10.05	10.38	10.73	11.09	11.45
Maintenance Spares	18.09	18.69	19.31	19.95	20.61
Receivables	58.80	59.01	59.61	59.92	60.47
<b>Total</b>	<b>86.94</b>	<b>88.08</b>	<b>89.65</b>	<b>90.96</b>	<b>92.53</b>
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
<b>Interest on Working Capital</b>	<b>11.74</b>	<b>11.89</b>	<b>12.10</b>	<b>12.28</b>	<b>12.49</b>



### **Capital Cost as on 1.4.2014**

11. The Commission vide order dated 14.3.2016 in Petition No. 501/TT/2014 admitted the capital cost as on 31.3.2014 of ₹1699.92 lakh for Combined Asset for determination of tariff for 2014-19 period.

12. The details of approved capital cost, capital cost as on 31.3.2014, Additional Capital Expenditure (ACE) incurred upto 31.3.2019 as claimed by the Petitioner for Combined Asset are as under:

Asset	FR Approved Capital Cost	Capital cost as on 31.3.2014	(₹ in lakh)	
			ACE 2014-19	Total Capital Cost as on 31.3.2019
Combined Asset	3204.95	1699.92	0.00	1699.92

13. The Petitioner has claimed capital cost of ₹1699.92 lakh for the Combined Asset as on 31.3.2014.

### **Cost Over-run**

14. The completion cost including ACE of the Combined Asset is within the FR approved capital cost as mentioned above. Therefore, there is no cost over-run in respect of the Combined Asset.

15. The capital cost of ₹1699.92 lakh admitted by the Commission as on 31.3.2014 has been considered as opening capital cost as on 1.4.2014 for determination of tariff in accordance with Regulation 9 of the 2014 Tariff Regulations.

### **Initial Spares**

16. The Petitioner has not claimed any adjustment of Initial Spares for the Combined Asset covered in the instant petition. Initial Spares claimed by the Petitioner were allowed vide order dated 13.5.2011 in Petition No. 309/2010 and further tried up vide order dated 14.3.2016 in Petition No. 501/TT/2014. The



Petitioner had earlier claimed excess Initial Spares and the same were disallowed by the Commission in the said orders.

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

17. The Petitioner has not claimed any ACE for the Combined Asset covered in the instant petition for 2014-19 tariff period. Hence, the completion cost of ₹1699.92 lakh had been considered for truing up of tariff for the 2014-19 tariff period.

18. The capital cost allowed as on 31.3.2019 including ACE in respect of the Combined Asset is as under:

Combined Asset	Capital cost as on 31.3.2014	(₹ in lakh)	
		ACE 2014-19	Total capital cost including Additional Capital Expenditure as on 31.3.2019
Allowed earlier in order dated 14.3.2016 in Petition No. 501/TT/2014	1699.92	0.00	1699.92
As claimed by the Petitioner	1699.92	0.00	1699.92
Approved in the instant order	1699.92	0.00	1699.92

### **Debt-Equity Ratio**

19. The Petitioner has claimed debt-equity ratio of 72.79:27.21 as on 31.3.2014. The debt-equity ratio of 72.79:27.21 has been considered for capital cost as on 31.3.2014 for 2014-19 tariff period as provided under Regulation 19 of the 2014 Tariff Regulations. The same has been summarised as under:

Combined Asset	Amount as on 31.3.2014 (₹ in lakh)	(%)	Amount as on 31.3.2019 (₹ in lakh)	(%)
Debt	1237.43	72.79	1237.43	72.79
Equity	462.49	27.21	462.49	27.21
<b>Total</b>	<b>1699.92</b>	<b>100.00</b>	<b>1699.92</b>	<b>100.00</b>



## Depreciation

20. The Petitioner has claimed depreciation considering capital expenditure of ₹1699.92 lakh as on 1.4.2014 for Combined Asset.

21. We have considered the submission of the Petitioner. 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-1. WAROD has been worked out after taking into account the depreciation rates of assets as prescribed in the 2014 Tariff Regulations and depreciation allowed during the 2014-19 tariff period is as under:

(₹ in lakh)					
<b>Combined Asset</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Opening Gross Block	1699.92	1699.92	1699.92	1699.92	1699.92
Additional Capital Expenditure	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	1699.92	1699.92	1699.92	1699.92	1699.92
Average Gross Block	1699.92	1699.92	1699.92	1699.92	1699.92
Weighted average rate of Depreciation (WAROD) (%)	5.28	5.28	5.28	5.28	5.28
Balance useful life of the asset at the beginning of the year	22.00	21.00	20.00	19.00	18.00
Aggregated Depreciable Value	1529.93	1529.93	1529.93	1529.93	1529.93
Remaining Depreciable value at the end of the year	1146.17	1056.42	966.66	876.90	787.15
<b>Combined depreciation during the year</b>	<b>89.76</b>	<b>89.76</b>	<b>89.76</b>	<b>89.76</b>	<b>89.76</b>

22. The details of depreciation approved vide order dated 14.3.2016 in Petition No. 501/TT/2014, trued up depreciation claimed by the Petitioner in the instant petition and trued up depreciation allowed in the instant order is shown in the table below:

(₹ in lakh)					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Approved vide order dated 14.3.2016 in Petition No. 501/TT/2014	89.76	89.76	89.76	89.76	89.76
Claimed by the Petitioner in the instant petition	89.76	89.76	89.76	89.76	89.76
Allowed after true-up in the instant order	89.76	89.76	89.76	89.76	89.76



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

23. The Petitioner has claimed IoL based on actual interest rates for each year during the 2014-19 period. The Petitioner has prayed for change in interest rates prevailing as on 1.4.2019 for respective loans.

24. We have considered the submission of the Petitioner. IoL has been calculated based on the actual interest rate, in accordance with Regulation 26 of the 2014 Tariff Regulations. IoL has been worked out as detailed below:

(i) Gross amount of loan, repayment of instalments and rate of interest and weighted average rate of interest on actual average loan have been considered as per the petition.

(ii) The repayment for the tariff period 2014-19 has been considered to be equal to the depreciation allowed for that period.

25. The details of IoL allowed are as follows:

(₹ in lakh)					
<b>Combined Asset</b>					
<b>Particular</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Gross Normative Loan	1237.43	1237.43	1237.43	1237.43	1237.43
Cumulative Repayments upto Previous Year	294.00	383.76	473.51	563.27	653.02
Net Loan-Opening	943.43	853.67	763.92	674.16	584.41
Addition due to Additional Capitalization	0.00	0.00	0.00	0.00	0.00
Repayment during the year	89.76	89.76	89.76	89.76	89.76
Net Loan-Closing	853.67	763.92	674.16	584.41	494.65
Average Loan	898.55	808.80	719.04	629.28	539.53
Weighted Average Rate of Interest on Loan (%)	4.446	4.526	4.999	5.292	5.890
<b>Interest on Loan</b>	<b>39.95</b>	<b>36.61</b>	<b>35.94</b>	<b>33.30</b>	<b>31.77</b>

26. The details of IoL approved vide order dated 14.3.2016 in Petition No. 501/TT/2014, trued up IoL claimed by the Petitioner in the instant petition and trued up IoL allowed in the instant order is shown in the following table:



(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 14.3.2016 in Petition No. 501/TT/2014	39.78	35.39	31.12	26.95	22.89
Claimed by the Petitioner in the instant petition	39.95	36.61	35.94	33.30	31.77
Allowed after true-up in the instant order	39.95	36.61	35.94	33.30	31.77

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

27. The Petitioner is entitled to RoE for the Combined Asset in terms of Regulations 24 and 25 of the 2014 Tariff Regulations. The Petitioner has submitted that they are liable to pay income tax at MAT rates and has claimed following effective tax rates for the 2014-19 tariff period:

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

28. MPPMCL has submitted that the Petitioner has grossed up RoE on the basis of actual taxes paid during 2016-17 and 2017-18 and has not placed on record the assessment orders for 2016-17 and 2017-18. For 2018-19, it has grossed up RoE and has not claimed the effective tax rate based on actual taxes paid for 2018-19. MPPMCL further submitted that the Petitioner 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.

29. In response, the Petitioner has submitted that effective rates of tax considered for 2014-15 and 2015-16 are based on Assessment Order issued by Income Tax authorities for the purpose of grossing up of RoE rate. The effective rate of tax considered for 2016-17 and 2017-18 are based on the Income-tax returns filed for the



purpose of grossing up of ROE rate of the respective years. Further, for 2018-19, effective tax rate is calculated based on the applicable MAT rate (i.e. MAT 18.50% + Surcharge 12.00% + Cess 4%) for the purpose of grossing up of RoE rate. The Petitioner has already submitted copy of the Assessment orders for 2014-15 to 2016-17 in reply to the Technical Validation letter in Petition No. 20/TT/2020. Further, the Petitioner has submitted copy of the assessment order for 2016-17 along with its rejoinder.

30. 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. The relevant paragraph of the order is extracted as under:

*“39. We have considered the submissions of the Petitioner and MPPMCL. As regards MPPMCL’s contention, it is observed that the Petitioner has submitted the assessment orders issued by the Income Tax Department for the years 2014-15, 2015-16 and 2016- 17 and the Income Tax returns filed by the Petitioner for years 2017-18 and 2018-19. The Petitioner has submitted the documents pointed out by MPPMCL.”*

31. 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. The relevant portion of the order dated 27.4.2020 is as under:

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

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

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

Year	Notified MAT rates (inclusive of 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

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

Year	Notified MAT rates (inclusive of surcharge & cess) (in %)	Base rate of RoE (in %)	Grossed up RoE (Base Rate/1-t) (in %)
2014-15	20.9605	15.50	19.610
2015-16	21.3416	15.50	19.705
2016-17	21.3416	15.50	19.705
2017-18	21.3416	15.50	19.705
2018-19	21.5488	15.50	19.758

33. Accordingly, RoE allowed for the Combined Asset is as follows:

(₹ in lakh)					
Particulars	Combined Asset				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	462.49	462.49	462.49	462.49	462.49
Addition due to ACE	0.00	0.00	0.00	0.00	0.00
Closing Equity	462.49	462.49	462.49	462.49	462.49
Average Equity	462.49	462.49	462.49	462.49	462.49
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
<b>Return on Equity (Pre-tax)</b>	<b>90.69</b>	<b>91.13</b>	<b>91.13</b>	<b>91.13</b>	<b>91.38</b>

34. The details of RoE approved vide order dated 14.3.2016 in Petition No. 501/TT/2014, trued up RoE claimed by the Petitioner in the instant petition and trued up RoE allowed in the instant order is shown in the following table:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 14.3.2016 in Petition No. 501/TT/2014	90.70	90.70	90.70	90.70	90.70
Claimed by the Petitioner in the instant petition	90.76	91.18	91.13	91.13	91.38
Allowed after true-up in the instant order	90.69	91.13	91.13	91.13	91.38

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

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

**i. Maintenance spares:**

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

**ii. O & M Expenses:**

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

**iii. Receivables:**

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

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

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

36. IWC allowed for the Combined Asset is as under:

(₹ in lakh)					
Combined Asset					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O & M Expenses (O&M expenses for 1 month)	10.05	10.38	10.73	11.09	11.45
Maintenance Spares (15% of O&M expenses)	18.09	18.69	19.31	19.95	20.61
Receivables (Equivalent to 2 months of annual fixed cost / annual transmission charges)	58.79	59.00	59.61	59.92	60.47
<b>Total</b>	<b>86.93</b>	<b>88.07</b>	<b>89.65</b>	<b>90.95</b>	<b>92.53</b>
Rate of Interest on working	13.50	13.50	13.50	13.50	13.50



capital (%)					
<b>Interest of working Capital</b>	<b>11.74</b>	<b>11.89</b>	<b>12.10</b>	<b>12.28</b>	<b>12.49</b>

37. IWC approved vide order dated 14.3.2016 in Petition No. 501/TT/2014, trued up IWC claimed by the Petitioner and trued up IWC allowed in the instant order is shown in the table below:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 14.3.2016 in Petition No. 501/TT/2014	11.73	11.85	11.98	12.12	12.27
Claimed by the Petitioner in the instant petition	11.74	11.89	12.10	12.28	12.49
Allowed after true-up in this order	11.74	11.89	12.10	12.28	12.49

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

38. The details of the O&M Expenses claimed by the Petitioner for the Combined Asset and allowed under Regulation 29(4)(a) of the 2014 Tariff Regulations for purpose of tariff are as under:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
<b>Combined Asset</b>					
<b>Sub-station Bays</b>					
400 kV–Khandwa:1X125 MVAR Bus Reactor	1	1	1	1	1
400 kV – Dehgam:1X125 MVAR Bus Reactor	1	1	1	1	1
<b>Norm (₹ lakh/bay)</b>					
400 kV	60.30	62.30	64.37	66.51	68.71
<b>Total Sub-station O&amp;M</b>	<b>120.60</b>	<b>124.60</b>	<b>128.74</b>	<b>133.02</b>	<b>137.42</b>
<b>Total O&amp;M Expenses</b>	<b>120.60</b>	<b>124.60</b>	<b>128.74</b>	<b>133.02</b>	<b>137.42</b>

39. The details of the O&M Expenses approved vide order dated 14.3.2016 in Petition No. 501/TT/2014, O&M Expenses claimed by the Petitioner in the instant petition and trued up O&M Expenses allowed in the instant order is shown in the following table:



(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 14.3.2016 in Petition No. 501/TT/2014	120.60	124.60	128.74	133.02	137.42
Claimed by the Petitioner in the instant petition	120.60	124.60	128.74	133.02	137.42
Allowed after true-up in the instant order	120.60	124.60	128.74	133.02	137.42

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

40. The trued up annual fixed charges allowed for the Combined Asset for 2014-19 tariff period are as under:

(₹ in lakh)

Combined Asset					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	89.76	89.76	89.76	89.76	89.76
Interest on Loan	39.95	36.61	35.94	33.30	31.77
Return on Equity	90.69	91.13	91.13	91.13	91.38
Interest on Working Capital	11.74	11.89	12.10	12.28	12.49
Operation and Maintenance	120.60	124.60	128.74	133.02	137.42
<b>Total</b>	<b>352.74</b>	<b>353.99</b>	<b>357.68</b>	<b>359.49</b>	<b>362.82</b>

41. Accordingly, the Annual Transmission Charges approved vide order dated 14.3.2016 in Petition No. 501/TT/2014, trued up AFC claimed by the Petitioner in the instant petition and trued up AFC allowed in the instant order is shown in the table below:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 14.3.2016 in Petition No. 501/TT/2014	352.56	352.30	352.29	352.54	353.03
Claimed by the Petitioner in the instant petition	352.81	354.04	357.67	359.49	362.82
Allowed after true-up in the instant order	352.74	353.99	357.68	359.49	362.81



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

42. The Petitioner has submitted tariff forms for Combined Asset. Accordingly, in terms of proviso (i) of Regulation 8(1) of the 2019 Tariff Regulations, single tariff for the Combined Asset has been worked out for 2019-24 tariff period.

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

Particulars	(₹ in lakh)				
	2019-20	2020-21	201-22	2022-23	2023-24
Depreciation	89.76	89.76	89.76	89.76	32.93
Interest on Loan	27.10	21.67	16.30	11.00	7.53
Return on Equity	86.86	86.86	86.86	86.86	86.86
Interest on Working Capital	5.87	5.89	5.92	5.94	5.13
Operation and Maintenance	64.30	66.56	68.90	71.32	73.82
<b>Total</b>	<b>273.89</b>	<b>270.74</b>	<b>267.74</b>	<b>264.88</b>	<b>206.27</b>

44. The Petitioner has claimed the following IWC for the Combined Asset for 2019-24 tariff period:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
O&M expenses	5.36	5.55	5.74	5.94	6.15
Maintenance Spares	9.65	9.98	10.34	10.70	11.07
Receivables	33.68	33.38	33.01	32.66	25.36
<b>Total</b>	<b>48.69</b>	<b>48.91</b>	<b>49.09</b>	<b>49.30</b>	<b>42.58</b>
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
<b>Interest on Working Capital</b>	<b>5.87</b>	<b>5.89</b>	<b>5.92</b>	<b>5.94</b>	<b>5.13</b>

### Capital Cost

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

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

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

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

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



or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;

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

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

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

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

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

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

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

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

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

(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 Vidyutikaran Yojana (RGGVY) and Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) project in the affected area.

(5) The following shall be excluded from the capital cost of the existing and new projects:

- (a) The assets forming part of the project, but not in use, as declared in the tariff petition;
- (b) De-capitalised Assets after the date of commercial operation on account of replacement or removal on account of obsolescence or shifting from one project to another project:

*Provided that in case replacement of transmission asset is recommended by Regional Power Committee, such asset shall be decapitalised only after its redeployment;*

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

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

46. The Petitioner has claimed capital cost of the Combined Asset as ₹1699.92 lakh as on 31.3.2019.

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

47. The Petitioner has not claimed any ACE during the 2019-24 period for the Combined Asset.

#### **Debt-Equity Ratio**

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

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



*Provided that:*

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

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

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

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

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

*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.”*

49. The details of the debt-equity considered for the purpose of computation of tariff for 2019-24 tariff period of the Combined Asset are as under:



Particulars	Capital Cost as on 1.4.2019 (₹ in lakh)	(%)	Total Capital Cost as on 31.3.2024 (₹ in lakh)	(%)
Debt	1237.43	72.79	1237.43	72.79
Equity	462.49	27.21	462.49	27.21
<b>Total</b>	<b>1699.92</b>	<b>100.00</b>	<b>1699.92</b>	<b>100.00</b>

### Depreciation

50. Regulations 33(1), (2) and (5) of the 2019 Tariff Regulations provide as under:

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

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

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

*“(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.”*

51. We have considered the submissions of the Petitioner. The Weighted Average Rate of Depreciation (WAROD) has been worked out and given in Annexure-2 after taking into account the depreciation rates as prescribed in the 2019 Tariff Regulations. The depreciation has been worked out considering the admitted capital expenditure as on 31.3.2019 and accumulated depreciation up to 31.3.2019. The depreciation allowed for the Combined Asset is as follows:



(₹ in lakh)

Combined Asset					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	1699.92	1699.92	1699.92	1699.92	1699.92
Addition during the year 2019-24 due to projected ACE	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	1699.92	1699.92	1699.92	1699.92	1699.92
Average Gross Block	1699.92	1699.92	1699.92	1699.92	1699.92
Weighted average rate of Depreciation (WAROD) (%)	5.28	5.28	5.28	5.28	Spreading
Balance useful life at the beginning	17.00	16.00	15.00	14.00	13.00
Aggregated Depreciable Value	1529.93	1529.93	1529.93	1529.93	1529.93
<b>Combined Depreciation during the year</b>	<b>89.76</b>	<b>89.76</b>	<b>89.76</b>	<b>89.76</b>	<b>32.93</b>
Aggregate Cumulative Depreciation	832.53	922.29	1012.05	1101.80	1134.73
Remaining Aggregate Depreciable Value at the end of the year	697.39	607.64	517.88	428.13	395.19

### Interest on Loan (IoL)

52. 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”.*

53. The Petitioner vide affidavit dated 27.7.2020 has submitted revised tariff forms- 1, 3, 8 and 11. The Petitioner has not submitted revised tariff forms-9C, 9D and 9E but has revised the claim of IoL. We have considered the submissions of the Petitioner. The weighted average rates of interest have been applied on the basis of rates prevailing as on 1.4.2019. The Petitioner has prayed that 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. In view of above, IoL has been worked out in accordance with Regulation 32 of the 2019 Tariff Regulations. IoL allowed is follows:

(₹ in lakh)

<b>Combined Asset</b>					
<b>Particular</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Gross Normative Loan	1237.43	1237.43	1237.43	1237.43	1237.43
Cumulative Repayments upto Previous Year	742.78	832.53	922.29	1012.05	1101.80
Net Loan-Opening	494.65	404.90	315.14	225.38	135.63
Addition due to ACE	0.00	0.00	0.00	0.00	0.00
Repayment during the year	89.76	89.76	89.76	89.76	32.93
Net Loan-Closing	404.90	315.14	225.38	135.63	102.70
Average Loan	449.77	360.02	270.26	180.51	119.16
Weighted Average Rate of Interest on Loan (%)	6.026	6.020	6.034	6.095	6.318
<b>Interest on Loan</b>	<b>27.10</b>	<b>21.67</b>	<b>16.31</b>	<b>11.00</b>	<b>7.53</b>

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

54. Regulation 30 and Regulation 31 of the 2019 Tariff Regulations provide as under:



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

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

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



(₹ in lakh)

Particulars	Combined Asset				
	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	462.49	462.49	462.49	462.49	462.49
Addition due to ACE	0.00	0.00	0.00	0.00	0.00
Closing Equity	462.49	462.49	462.49	462.49	462.49
Average Equity	462.49	462.49	462.49	462.49	462.49
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
Tax Rate applicable (%)	17.472	17.472	17.472	17.472	17.472
Rate of Return on Equity (Pre-tax)	18.782	18.782	18.782	18.782	18.782
<b>Return on Equity (Pre-tax)</b>	<b>86.86</b>	<b>86.86</b>	<b>86.86</b>	<b>86.86</b>	<b>86.86</b>

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

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

#### ***“34. Interest on Working Capital***

*(1)...*

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

- i. Receivables equivalent to 45 days of 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;”*



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

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O & M Expenses (O&M expenses for 1 month)	5.36	5.55	5.74	5.94	6.15
Maintenance Spares ( 15% of O&M expenses)	9.65	9.98	10.34	10.70	11.07
Receivables (Equivalent to 45 days of annual fixed cost / annual transmission charges)	33.67	33.33	32.96	32.61	25.32
<b>Total</b>	<b>48.68</b>	<b>48.86</b>	<b>49.04</b>	<b>49.25</b>	<b>42.54</b>
Rate of Interest (%)	12.05	11.25	11.25	11.25	11.25
<b>Interest of working capital</b>	<b>5.87</b>	<b>5.50</b>	<b>5.52</b>	<b>5.54</b>	<b>4.79</b>

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

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

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

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<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



Norms for AC and HVDC lines (₹ Lakh per km)					
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.881	0.912	0.944	0.977	1.011
Single Circuit (Bundled conductor with four sub-conductors)	0.755	0.781	0.809	0.837	0.867
Single Circuit (Twin & Triple Conductor)	0.503	0.521	0.539	0.558	0.578
Single Circuit (Single Conductor)	0.252	0.260	0.270	0.279	0.289
Double Circuit (Bundled conductor with four or more sub-conductors)	1.322	1.368	1.416	1.466	1.517
Double Circuit (Twin & Triple Conductor)	0.881	0.912	0.944	0.977	1.011
Double Circuit (Single Conductor)	0.377	0.391	0.404	0.419	0.433
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.319	2.401	2.485	2.572	2.662
Multi Circuit (Twin & Triple Conductor)	1.544	1.598	1.654	1.713	1.773
Norms for HVDC stations					
HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)	834	864	894	925	958
Gazuwaka HVDC Back-to-Back station (₹ Lakh per 500 MW)	1,666	1,725	1,785	1,848	1,913
500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)	2,252	2,331	2,413	2,498	2,586
±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)	2,468	2,555	2,645	2,738	2,834
±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)	1,696	1,756	1,817	1,881	1,947
±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW)	2,563	2,653	2,746	2,842	2,942

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

Provided further that:

- i. the operation and maintenance expenses for new HVDC bi-pole schemes commissioned after 1.4.2019 for a particular year shall be allowed pro-rata on the basis of normative rate of operation and maintenance expenses of similar HVDC bi-pole scheme for the corresponding year of the tariff period;
- ii. the O&M expenses norms for HVDC bi-pole line shall be considered as Double Circuit quad AC line;
- iii. the O&M expenses of ±500 kV Mundra-Mohindergarh HVDC bipole scheme (2000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±500 kV Talchar-Kolar HVDC bi-pole scheme (2000 MW);
- iv. the O&M expenses of ±800 kV Champa-Kurukshetra HVDC bi-pole scheme (3000 MW) shall be on the basis of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme;
- v. the O&M expenses of ±800 kV, Alipurduar-Agra HVDC bi-pole scheme (3000



*MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme; and*

vi. *the O&M expenses of Static Synchronous Compensator and Static Var Compensator shall be worked at 1.5% of original project cost as on commercial operation which shall be escalated at the rate of 3.51% to work out the O&M expenses during the tariff period. The O&M expenses of Static Synchronous Compensator and Static Var Compensator, if required, may be reviewed after three years.*

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

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

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

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

59. The O&M Expenses as claimed by the Petitioner for the Combined Asset are as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Sub-station Bays</b>					
400 kV – Khandwa:1X125 MVAR Bus Reactor	1	1	1	1	1
400 kV – Dehgam:1X125 MVAR Bus Reactor	1	1	1	1	1
<b>Norm (₹ lakh/bay)</b>					
400kV	32.15	33.28	34.45	35.66	36.91
<b>Total Sub-station Bays</b>	<b>64.30</b>	<b>66.56</b>	<b>68.90</b>	<b>71.32</b>	<b>73.82</b>
<b>Total O&amp;M Expenses</b>	<b>64.30</b>	<b>66.56</b>	<b>68.90</b>	<b>71.32</b>	<b>73.82</b>

60. The O&M Expenses claimed by the Petitioner are in accordance with Regulation 35(3) of the 2019 Tariff Regulations. Hence, the same is allowed as claimed.

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

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

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	89.76	89.76	89.76	89.76	32.93
Interest on Loan	27.10	21.67	16.31	11.00	7.53
Return on Equity	86.86	86.86	86.86	86.86	86.86
Interest on Working Capital	5.87	5.50	5.52	5.54	4.79
Operation and Maintenance	64.30	66.56	68.90	71.32	73.82
<b>Total</b>	<b>273.89</b>	<b>270.35</b>	<b>267.34</b>	<b>264.48</b>	<b>205.93</b>

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

62. 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 and RLDC Fees and Charges**

63. 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**

64. The Petitioner has sought to recover GST on transmission charges separately from the Respondents, if at any time GST on transmission is withdrawn from negative list in future.



65. MPPMCL has submitted that Petitioner's prayer for GST is premature and need not be allowed at this stage.

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

### **Security Expenses**

67. The Petitioner has submitted that security expenses for the Combined Asset are not claimed in the instant petition and it would file a separate petition for claiming the overall security expenses and the consequential Interest on Working Capital. 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 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 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 assets in one petition. The Commission observes 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 the 2019 Tariff Regulations.

### **Capital Spares**

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

### **Sharing of Transmission Charges**

70. The billing, collection and disbursement of the transmission charges approved shall be governed by the provisions of the Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010 or the Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2020, as applicable, as provided in Regulation 43 of the 2014 Tariff Regulations for the 2014-19 tariff period and Regulation 57 of the 2019 Tariff Regulations for the 2019-24 tariff period.

71. To summarise, the trued-up Annual Fixed Charges allowed for the Combined Asset for the 2014-19 tariff period are as under:

	(₹ in lakh)				
<b>Combined Asset</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Annual Fixed Charges	352.74	353.99	357.68	359.49	362.81

72. The Annual Fixed Charges allowed for the Combined Asset for the 2019-24 tariff period are as under:

	(₹ in lakh)				
<b>Combined Asset</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Annual Fixed Charges	<b>273.89</b>	<b>270.35</b>	<b>267.34</b>	<b>264.48</b>	<b>205.93</b>



73. This order disposes of Petition No. 348/TT/2019. The two annexures attached hereinafter are part of this order.

**sd/-**  
**(Prakash Mhaske)**  
**Member, Ex-officio**

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

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

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

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



**Annexure - 1**

Asset	2014-19	Combined admitted Capital Cost as on 1.4.2014 (₹ in lakh)	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (%)	Annual Depreciation as per Regulations				
	Capital Expenditure as on 1.4.2014				2014-15 (₹ in lakh)	2015-16 (₹ in lakh)	2016-17 (₹ in lakh)	2017-18 (₹ in lakh)	2018-19 (₹ in lakh)
Combined Asset	Sub Station	1699.92	1699.92	5.28	89.76	89.76	89.76	89.76	89.76
	<b>TOTAL</b>	<b>1699.92</b>	<b>1699.92</b>		<b>89.76</b>	<b>89.76</b>	<b>89.76</b>	<b>89.76</b>	<b>89.76</b>
<b>Average Gross Block (₹ in lakh)</b>					1699.92	1699.92	1699.92	1699.92	1699.92
<b>Weighted Average Rate of Depreciation (%)</b>					<b>5.28</b>	<b>5.28</b>	<b>5.28</b>	<b>5.28</b>	<b>5.28</b>



**Annexure - 2**

Asset	2019-24	Combined admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation(%)	Annual Depreciation as per Regulations				
	Capital Expenditure as on 1.4.2019				2019-20 (₹ in lakh)	2020-21 (₹ in lakh)	2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)
Combined Asset	Sub Station	1699.92	1699.92	5.28	89.76	89.76	89.76	89.76	32.93
	<b>TOTAL</b>	<b>1699.92</b>	<b>1699.92</b>		<b>89.76</b>	<b>89.76</b>	<b>89.76</b>	<b>89.76</b>	<b>32.93</b>
<b>Average Gross Block (₹ in lakh)</b>					1699.92	1699.92	1699.92	1699.92	1699.92
<b>Weighted Average Rate of Depreciation (%)</b>					<b>5.28</b>	<b>5.28</b>	<b>5.28</b>	<b>5.28</b>	<b>Spreading</b>

