

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 405/TT/2020**

**Coram:**

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

**Date of Order: 28.06.2021**

**In the matter of:**

Approval under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999, truing up of transmission tariff of 2014-19 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of 2019-24 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for the Combined Asset comprising of **Asset-A1**: 765 kV Line Bays and 3x80 MVAR line reactor at 765 kV Vadodara GIS for Vadodara-Dhule transmission line (IPTC); **Asset-B1**: 765 kV Line Bays and 3x80 MVAR Switchable line reactor at 765 kV Jabalpur Pooling Sub-station (for 765 kV S/C Jabalpur-Bhopal line); **Asset-B2**: 765 kV Line Bays and 3x80 MVAR line reactor at 765 kV Indore Sub-station (for 765 kV S/C Bhopal-Indore line); and **Asset-B3**: Extension of 765 kV Aurangabad Sub-station for 765 kV S/C line bay under "Line bays and Reactor Provisions at POWERGRID Sub-stations associated with System Strengthening for 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, 3<sup>rd</sup> Floor,  
M.G. Road, Fort, Mumbai-400001.
5. Maharashtra State Electricity Transmission Company Ltd.,  
Prakashganga, 6<sup>th</sup> Floor, Plot No. C-19, E-Block,  
Bandra Kurla Complex, Bandra (East) Mumbai-400051.
6. Gujarat Urja Vikas Nigam Ltd.,  
Sardar Patel Vidyut Bhawan,  
Race Course Road, Vadodara-390007.
7. Electricity Department,  
Govt. of Goa, Vidyut Bhawan, Panaji,  
Near Mandvi Hotel, Goa-403001.
8. Electricity Department,  
Administration of Daman & Diu,  
Daman-396210.
9. DNH Power Distribution Corporation Ltd.,  
Vidyut Bhawan, 66 kV Road, Near Secretariat Amla,  
Silvassa -396230.
10. Chhattisgarh State Power Transmission Company Ltd.,  
State Load Despatch Building,  
Dangania, Raipur-492013.
11. Chhattisgarh State Power Distribution Company Ltd.,  
P.O. Sunder Nagar, Dangania, Raipur,  
Chhattisgarh-492013.
12. Sterlite Technologies Ltd.,  
C-2, Mira Corporate Suits, 2<sup>nd</sup> Floor,  
Okhla Crossing, Mathura Road, Ishwar Nagar,  
New Delhi-110066.

.....Respondent(s)

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

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



## ORDER

The instant petition has been filed by Power Grid Corporation of India Ltd. for truing up of transmission tariff from date of commercial operation to 31.3.2019 under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) and for determination of transmission tariff for the period from 1.4.2019 to 31.3.2024 under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) for the following transmission assets under “Line bays and Reactor Provisions at POWERGRID Sub-stations associated with System Strengthening for Western Region” (hereinafter referred to as “the transmission project”):

**Asset-A1:** 765 kV Line bays and 3x80 MVAR line reactor at 765 kV Vadodara GIS for Vadodara-Dhule Transmission Line (IPTC);

**Asset-B1:** 765 kV Line Bays and 3x80 MVAR Switchable line reactor at 765 kV Jabalpur Pooling Sub-station (for 765 kV S/C Jabalpur-Bhopal Transmission Line);

**Asset-B2:** 765 kV Line Bays and 3x80 MVAR line reactor at 765 kV Indore Sub-station (for 765 kV S/C Bhopal-Indore Transmission Line); and

**Asset-B3:** Extension of 765 kV Aurangabad Sub-station for 765 kV S/C Transmission Line bay.

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

*“1) Approve the trued up Transmission Tariff for 2014-19 block and transmission tariff for 2019-24 block for the assets covered under this petition, as per para 11.1 and 12.1 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 11.1 and 12.1 above for respective block.*



- 3) Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 70 (1) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019, and other expenditure (if any) in relation to the filing of petition.
- 4) Allow the petitioner to bill and recover Licensee fee and RLDC fees and charges, separately from the respondents in terms of Regulation 70 (3) and (4) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019.
- 5) Allow the Initial Spare for the entire project.
- 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 respondents.
- 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 12.1 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 respondents, if GST on transmission is levied at any rate in future. Further, any taxes including GST and duties including cess etc. imposed by any statutory/Govt./municipal authorities shall be allowed to be recovered from the beneficiaries.

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

### 3. **Backdrop of the case**

a) The Investment Approval (IA) and expenditure sanction to the transmission project was accorded by the Board of Directors (BOD) of the Petitioner vide Memorandum No. C/CP/WR-182 dated 22.3.2012 at an estimated cost of ₹14571 lakh, including an IDC of ₹680 lakh (based on 4<sup>th</sup> quarter, 2011 price level). Revised Cost Estimate (RCE) for the transmission project was accorded by BOD of the Petitioner vide Memorandum No. C/CP/RCE-Line bays-WR dated 30.5.2016 at an estimated cost of ₹14086.00 lakh, including an IDC of ₹552.00 lakh. The transmission project was discussed and agreed in 29<sup>th</sup> Standing Committee Meeting of Power System Planning in Western Region held on 10.9.2009.

b) The scope of work covered under the transmission project is as follows:

#### **Sub-station:**

- i. 765/400 kV Jabalpur Pooling Sub-station [Extn]  
765 kV Line Bays  
240 MVAR Switchable line reactor



- ii. 765/400 kV Indore Sub-station [Extn]  
765 kV Line Bays  
240 MVAR Switchable line reactor
- iii. 765/400 kV Aurangabad Sub-station [Extn]  
765 kV Line Bays
- iv. 765/400 kV Vadodara Gas Insulated sub-station [Extn]  
765 Line Bays  
240 MVAR line reactor

4. The Petitioner *vide* affidavit dated 27.10.2020 has submitted that the entire scope of the transmission project has been completed and covered under the instant petition. The details of the transmission assets covered in the transmission project are as follows:

Sr. No.	Asset Description	Previous Order	Asset nomenclature in previous order	Asset nomenclature in instant order
1	765 kV Line bay & 3x80 MVAR line reactor at 765 kV Vadodara GIS for Vadodara-Dhule transmission line (IPTC)	Order dated 25.5.2016 in Petition No. 66/TT/2015	Asset-1	Asset-A1
2	765 kV line Bays & 3*80 MVAR Switchable line Reactor at 765 kV Jabalpur Pooling Sub-station	Order dated 20.9.2017 in Petition No. 227/TT/2014	Asset-1	Asset-B1
3	765 kV Line Bays & 3*80 MVAR line reactor at 765 kV Indore Sub-station		Asset-2	Asset-B2
4	Extension of 765 kV Aurangabad substation for 765 kV S/C line bay		Asset-3	Asset-B3

5. The COD of Asset-B1, Asset-B2 and Asset-B3 was approved under proviso (ii) of clause (3) of Regulation 4 of the 2014 Tariff Regulations, as the associated transmission system under the scope of Bhopal Dhule Transmission Company Limited was not ready. Asset-1 had been put into commercial operation on 14.6.2015.



6. The dates of commercial operation of the transmission assets along with the time over-run are as follows:

Asset	Scheduled date of commercial operation	Actual date of commercial operation	Total time over-run	Time over-run condoned
Asset-A1	23.3.2014	14.6.2015	450 days	450 days
Asset-B1	23.3.2014	20.10.2014	211 days	211 days
Asset-B2	23.3.2014	5.10.2014	196 days	196 days
Asset-B3	23.3.2014	29.5.2014	67 days	67 days

7. The transmission tariff was allowed for Asset-A1 from its date of commercial operation to 31.3.2019 *vide* order dated 25.5.2016 in Petition No. 66/TT/2015. In case of Asset-B1, Asset-B2, and Asset-B3, the transmission tariff from their respective dates of commercial operation to 31.3.2019 was approved *vide* order dated 20.9.2017 in Petition No. 227/TT/2014. The Annual Fixed Charges (AFC) approved by the Commission and trued up transmission tariff claimed by the Petitioner for the transmission assets are as follows:

(₹ in lakh)

Asset	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-A1	AFC approved <i>vide</i> order dated Order dated 25.5.2016 in Petition No. 66/TT/2015	0.00	594.27	891.94	925.95	920.73
	AFC claimed by the Petitioner based on truing up in the instant petition	0.00	566.49	759.09	776.28	784.73
Asset-B1	AFC approved <i>vide</i> order dated 20.9.2017 in Petition No. 227/TT/2014	292.85	807.06	959.85	993.80	975.70
	AFC claimed by the Petitioner based on truing up in the instant petition	294.74	745.52	810.71	850.57	876.14
Asset-B2	AFC approved <i>vide</i> order dated 20.9.2017 in Petition No. 227/TT/2014	268.20	603.02	646.83	648.88	635.58
	AFC claimed by the Petitioner based on truing up in the instant petition	269.22	565.55	565.05	571.88	573.60



Asset-B3	AFC approved <i>vide</i> order dated 20.9.2017 in Petition No. 227/TT/2014	141.28	209.55	226.46	231.14	230.52
	AFC claimed by the Petitioner based on truing up in the instant petition	141.74	204.35	210.34	209.39	209.38

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

9. The Petitioner has served the petition on the Respondents and notice regarding filing of this 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 newspaper. Madhya Pradesh Power Management Company Ltd. (MPPMCL), Respondent No. 1, has filed its reply *vide* affidavit dated 5.6.2020 and has raised the issues of grossing up of Return on Equity (RoE); non-submission of assessment orders for 2014-15 to 2017-18 periods and audited accounts in respect of actual taxes paid for 2016-17 and 2017-18 periods; and GST. The Petitioner has submitted its rejoinder *vide* affidavit dated 30.3.2021. The issues raised by MPPMCL and the clarifications given by the Petitioner are dealt in the relevant portions of the instant order.

10. The hearing in this matter was held on 6.4.2021 through video conference and the order was reserved. This order is issued considering the submissions made by the Petitioner in the petition *vide* affidavit dated 18.1.2020, Petitioner's affidavit dated 26.11.2020, MPPMCL's reply *vide* affidavit dated 5.6.2020 and Petitioner's rejoinder to MPPMCL's reply filed *vide* affidavit dated 30.3.2021.



11. Having heard the representatives of the Petitioner and MPPMCL and after perusal of the materials on record, we proceed to dispose of the petition.

### **Truing up of Annual Fixed Charges of 2014-19 Tariff Period**

12. The details of the trued-up transmission charges claimed by the Petitioner in respect of the transmission assets are as follows:

#### **Asset-A1**

(₹ in lakh)

Particulars	2015-16	2016-17	2017-18	2018-19
Depreciation	140.46	203.73	219.17	228.19
Interest on Loan	168.53	220.41	201.40	186.61
Return on Equity	156.25	226.51	243.67	254.45
Interest on Working Capital	14.55	19.96	20.43	20.72
O&M Expenses	69.59	90.12	93.11	96.20
<b>Total</b>	<b>549.38</b>	<b>760.73</b>	<b>777.78</b>	<b>786.17</b>

#### **Asset-B1**

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	62.10	167.05	191.96	212.25	224.96
Interest on Loan	78.59	195.09	200.32	190.23	181.24
Return on Equity	68.45	186.67	214.27	236.87	251.77
Interest on Working Capital	8.98	22.27	23.92	25.00	25.77
O&M Expenses	75.40	174.44	180.24	186.22	192.40
<b>Total</b>	<b>293.52</b>	<b>745.52</b>	<b>810.71</b>	<b>850.57</b>	<b>876.14</b>

#### **Asset-B2**

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	66.63	143.99	148.31	155.35	161.20
Interest on Loan	79.19	158.64	147.21	136.98	126.60
Return on Equity	74.04	160.25	163.87	170.66	177.58
Interest on Working Capital	7.33	15.47	15.55	15.80	16.07
O&M Expenses	41.17	87.22	90.12	93.11	96.20
<b>Total</b>	<b>268.36</b>	<b>565.57</b>	<b>565.06</b>	<b>571.90</b>	<b>579.65</b>

#### **Asset-B3**

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	21.56	36.12	38.10	38.10	38.10
Interest on Loan	23.39	37.50	35.99	31.78	28.28
Return on Equity	22.21	38.22	40.41	40.41	40.52
Interest on Working Capital	5.47	7.39	7.61	7.68	7.78
O&M Expenses	71.01	87.22	90.12	93.11	96.20
<b>Total</b>	<b>143.64</b>	<b>206.45</b>	<b>212.23</b>	<b>211.08</b>	<b>210.88</b>

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13. The details of the trued-up IWC claimed by the Petitioner in respect of the transmission assets is as follows:

**Asset-A1**

(₹ in lakh)				
Particulars	2015-16	2016-17	2017-18	2018-19
O&M Expenses	7.27	7.51	7.76	8.02
Maintenance Spares	13.08	13.52	13.97	14.43
Receivables	114.77	126.79	129.63	131.03
<b>Total Working Capital</b>	<b>135.12</b>	<b>147.82</b>	<b>151.36</b>	<b>153.48</b>
Rate of Interest (in %)	13.50	13.50	13.50	13.50
<b>Interest on Working Capital</b>	<b>14.55</b>	<b>19.96</b>	<b>20.43</b>	<b>20.72</b>

**Asset-B1**

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	14.07	14.54	15.02	15.52	16.03
Maintenance Spares	25.33	26.17	27.04	27.93	28.86
Receivables	109.55	124.25	135.12	141.76	146.02
<b>Total Working Capital</b>	<b>148.95</b>	<b>164.96</b>	<b>177.18</b>	<b>185.21</b>	<b>190.91</b>
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
<b>Interest on Working Capital</b>	<b>8.98</b>	<b>22.27</b>	<b>23.92</b>	<b>25.00</b>	<b>25.77</b>

**Asset-B2**

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	7.04	7.27	7.51	7.76	8.02
Maintenance Spares	12.66	13.08	13.52	13.97	14.43
Receivables	91.72	94.26	94.18	95.32	96.61
<b>Total Working Capital</b>	<b>111.42</b>	<b>114.61</b>	<b>115.21</b>	<b>117.05</b>	<b>119.06</b>
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
<b>Interest on Working Capital</b>	<b>7.33</b>	<b>15.47</b>	<b>15.55</b>	<b>15.80</b>	<b>16.07</b>

**Asset-B3**

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	7.04	7.27	7.51	7.76	8.02
Maintenance Spares	12.66	13.08	13.52	13.97	14.43
Receivables	28.46	34.41	35.37	35.18	35.15
<b>Total Working Capital</b>	<b>48.16</b>	<b>54.76</b>	<b>56.40</b>	<b>56.91</b>	<b>57.60</b>
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
<b>Interest on Working Capital</b>	<b>5.47</b>	<b>7.39</b>	<b>7.61</b>	<b>7.68</b>	<b>7.78</b>

**Capital Cost**

14. The capital cost of the transmission assets has been calculated in accordance with Regulation 9(3) of the 2014 Tariff Regulations. The capital cost as on COD and



31.3.2019 along with projected Additional Capital Expenditure (ACE) as allowed by the Commission vide order dated 25.5.2016 in Petition No. 66/TT/2015 for Asset-A1 and vide order dated 20.9.2017 in Petition No. 227/TT/2014 for Asset-B1, Asset-B2 and Asset-B3 is as follows:

Particulars	Apportioned Approved Cost as per RCE	Capital cost as on COD	ACE					(₹ in lakh)
			2014-15	2015-16	2016-17	2017-18	2018-19	Capital cost as on 31.3.2019
<b>Asset-A1</b>								
Approved vide order dated 25.5.2016 in Petition No. 66/TT/2015	4926.07	2910.43	-	1361.27	419.94	187.39	0.00	4879.03
Claimed by the Petitioner in the instant petition	4926.07	2910.43	-	801.92	238.73	341.63	0.00	4292.71
<b>Asset-B1</b>								
Approved vide order dated 20.9.2017 in Petition No. 227/TT/2014	4736.30	2377.31	451.84	1253.43	561.14	0.00	0.00	4643.72
Claimed by the Petitioner in the instant petition	4736.30	2377.31	451.84	654.12	282.92	481.46	0.00	4247.64
<b>Asset-B2</b>								
Approved vide order dated 20.9.2017 in Petition No. 227/TT/2014	3436.73	2470.39	217.01	451.39	171.22	0.00	0.00	3310.01
Claimed by the Petitioner in the instant petition	3436.73	2470.39	217.01	44.28	80.88	148.65	69.61	3030.82
<b>Asset-B3</b>								
Approved vide order dated 20.9.2017 in Petition No. 227/TT/2014	986.90	285.76	320.23	134.79	62.78	0.00	0.00	803.56
Claimed by the Petitioner in the instant petition	986.90	288.48	320.23	74.87	0.00	0.00	0.00	683.58

15. The total capital cost claimed as on 31.3.2019 including ACE in respect of the transmission assets is within the RCE apportioned approved cost.



### **Time over-run**

16. The Commission vide order dated 25.5.2016 in Petition No. 66/TT/2015 had condoned the time over-run in case of Asset-A1 and vide order dated 20.9.2017 in Petition No. 227/TT/2014 condoned the time over-run in case of Asset-B1, Asset-B2 and Asset-B3.

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

17. The Petitioner has claimed IDC for the transmission assets and has submitted the statement showing IDC claim, discharge of IDC liability as on COD and thereafter and the same has been summarized as follows:

(₹ in lakh)

Asset	IDC as per Auditor Certificate	IDC discharged up to COD	IDC discharged		
			2014-15	2015-16	2016-17
Asset-A1	320.86	310.64		6.99	3.23
Asset-B1	122.69	107.91	6.91	7.87	0.00
Asset-B2	72.99	58.76	0.47	13.78	0.00
Asset-B3	5.73	5.73	0.00	0.00	0.00

18. The Petitioner has submitted IDC computation statements for Asset-A1, Asset-B1, Asset-B2 and Asset-B3 vide affidavit dated 26.11.2020 which contains name of the loan, drawl date, loan amount, interest rate and interest claimed. IDC is worked out based on the details given in the IDC statement. Further, the loan amount as on COD has been mentioned in Form-6 and Form-9C. The allowable IDC is worked out based on the information available on record and relying on loan amount as per Form 9C. IDC claimed and considered as on COD and summary of discharge of IDC liability up to COD and thereafter for the purpose of tariff determination is as follows:



(₹ in lakh)

Asset	IDC as per Auditor Certificate (A)	IDC disallowed due to computational difference (B)	IDC allowed in the instant order (C=A-B)	IDC discharged up to COD	Undischarged IDC as on COD	Year-wise IDC discharged		
						2014-15	2015-16	2016-17
Asset-A1	320.86	1.89	318.97	310.64	8.33		6.99	1.34
Asset-B1	122.69	0.00	122.69	107.91	14.78	6.91	7.87	0.00
Asset-B2	72.99	4.93	68.06	54.78	13.27	0.47	12.80	0.00
Asset-B3	5.73	0.00	5.73	5.73	0.0	0.00	0.00	0.00

19. The Petitioner has claimed IEDC (as per table below) as on COD which is within the percentage of hard cost as indicated in the abstract cost estimate. Further, the Petitioner has submitted that the entire IEDC claimed in the Auditor's Certificates is on cash basis and is paid upto the COD of the transmission assets. The details of IEDC claimed and allowed in respect of transmission assets are as follows:

(₹ in lakh)

Asset	IEDC claimed as per Auditor's Certificate	IEDC allowed
Asset-A1	19.01	19.01
Asset-B1	16.86	16.86
Asset-B2	17.38	17.38
Asset-B3	4.02	4.02

### **Initial Spares**

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

*“(d) Transmission System  
Transmission line - 1.00%  
Transmission Sub-station (Green Field) - 4.00%  
Transmission Sub-station (Brown Field) - 6.00%  
Series Compensation devices and HVDC Station - 4.00%  
Gas Insulated Sub-station (GIS) - 5.00%  
Communication System - 3.5%”*



21. The details of Initial Spares claimed by the Petitioner are as follows:

Asset	Plant and Machinery Cost (A) (₹ in lakh)	Initial Spares as per Auditor Certificate (B) (₹ in lakh)	Ceiling Limit (in %) (C)	Initial Spares worked out as per Norms (₹ in lakh)	Initial Spares claimed (₹ in lakh)
				$D = [(A-B)*C / (100-C)]$	
Asset-A1	4013.40	95.71	6.00	250.07	95.71
Asset-B1	4108.09	206.21	6.00	249.06	206.21
Asset-B2	2940.45	154.65	6.00	177.82	154.65
Asset-B3	639.11	45.11	6.00	37.91	45.11
<b>Total</b>	<b>11701.05</b>	<b>501.68</b>		<b>714.85</b>	<b>501.68</b>

22. We have considered the submissions of Petitioner. APTEL in its judgment dated 14.9.2019 in Appeal No. 74 of 2017 observed that the Commission, for the purpose of prudence check, may restrict the Initial Spares to the cost of the individual asset initially and later at the time of truing up allow Initial Spares as per the ceiling on the overall project cost. The relevant portion of the said judgment is extracted as follows:

*“18.13. .... We do not agree with this methodology of restricting initial spares asset / element wise as adopted by the Central Commission. The Central Commission to have a prudence check on the initial spares, being restricted based on the individual asset wise cost initially, but subsequently ought to have allowed as per the ceiling limits on the overall project cost basis during the true-up.”*

23. In the instant case, all assets covered in the transmission project have been put into commercial operation during 2014-19 period and they are combined in the 2019-24 tariff period and the overall project cost is arrived at only while determination of the transmission assets in the 2019-24 tariff period. Accordingly, the Initial Spares are allowed on the basis of the individual capital cost of the transmission assets in the 2014-19 tariff period and on the basis of the overall project cost in the 2019-24 tariff period. As per the 2014 Tariff Regulations, the allowable ceiling limit for Initial Spares for the brown field sub-station and transmission line are 6% and 1% respectively.



Based on the information available on record, the Initial Spares for the transmission assets are allowed as per respective percentage of the Plant and Machinery Cost as on the cut-off date on individual basis. The Initial Spares allowed for the transmission assets are as follows:

Asset	Plant and Machinery Cost as on cut-off date (A) (₹ in lakh)	Initial Spares claimed as per Auditor Certificate (B) (₹ in lakh)	Ceiling Limit (in %) (C)	Initial Spares worked out as per norms (₹ in lakh)  D = [(A-B) * C] / (100 - C)	Excess claim E=B-D (₹ in lakh)	Initial Spares allowed (₹ in lakh)
<b>For Sub-station</b>						
Asset-A1	4013.40	95.71	6.00	250.07	0.00	95.71
Asset-B1	4108.09	206.21	6.00	249.06	0.00	206.21
Asset-B2	2940.45	154.66	6.00	177.82	0.00	154.66
Asset-B3	639.11	45.11	6.00	37.91	7.20	37.91
	<b>11701.05</b>	<b>501.68</b>		<b>714.85</b>	<b>7.20</b>	<b>494.49</b>

### Capital Cost as on COD

24. Element-wise capital cost as claimed vide Auditors Certificates submitted by the Petitioner has been considered in respect of the transmission assets. The details of the capital cost as on COD tried-up and approved after adjustment of IDC, IEDC and Initial Spares are as follows:

(₹ in lakh)



Asset	Capital Cost claimed as on COD (Auditor Certificate) (A)	IDC undischarged as on COD (B)	IDC disallowed due to computational difference (C)	Excess Initial Spares disallowed (D)	Capital Cost allowed as on COD (E=A-B-C-D)
Asset-A1	2920.65	8.33	1.89	0.00	2910.43
Asset-B1	2392.09	14.78	0.00	0.00	2377.31
Asset-B2	2484.64	13.27	4.93	0.00	2466.43
Asset-B3	288.48	0.00	0.00	7.20	281.28

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

25. ACE of ₹1968.60 lakh during 2014-19 period was allowed for Asset-A1 by the Commission vide order dated 25.5.2016 in Petition No. 66/TT/2015; ACE of ₹2266.41 lakh for Asset-B1, ₹839.62 lakh for Asset-B2 and ₹517.80 lakh for Asset-B3 during 2014-19 period was allowed vide order dated 20.9.2017 in Petition No. 227/TT/2014 towards balance and retention payments. The total estimated completion cost of the transmission assets is within its apportioned approved cost.

26. As per the Auditor's Certificates, the Petitioner has claimed the following ACE based on actual expenditure:

Asset	ACE claimed vide Auditor Certificates (excluding IDC discharged)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-A1	0.00	794.93	235.5	341.63	0.00
Asset-B1	444.93	646.25	282.91	481.46	0.00
Asset-B2	216.54	30.5	80.88	148.65	69.61
Asset-B3	320.23	74.87	0.00	0.00	0.00

27. Asset-A1, Asset-B1, Asset-B2 and Asset-B3 were put into commercial operation on 14.6.2015, 20.10.2014, 5.10.2014 and 29.5.2014 respectively. Accordingly, the cut-off date for Asset-A1 is 31.3.2018; for Asset-B1, Asset-B2 and B3 is 31.3.2017;



and Asset-B3 is 31.3.2016. ACE for Asset-A1 and Asset-B3 are within cut-off date whereas for Asset-B1 and Asset-B2 are beyond their respective cut-off dates.

28. The Petitioner has submitted that ACE in case of Asset-B1 and Asset-B2 claimed under Regulation 14(1)(i) and 14(1)(ii) of the 2014 Tariff Regulations is on account of undischarged liability towards final payment/ withheld payment due to contractual exigencies for works executed within the cut-off date. Besides, in respect of Asset-B2, ACE has been claimed for 2018-19 for the works executed beyond cut-off date under Regulation 14(2)(iv) of the 2014 Tariff Regulations. The Petitioner has submitted the following details of balance and retention payment made after the cut-off date:

			(₹ in lakh)
Asset	Financial Year	Party	Amount
Asset-B1	2017-18	TBEA Shenyang Transformer Group Co. Ltd.	444.21
	2017-18	ALSTOM T&D	37.25

			(₹ in lakh)
Asset	Financial Year	Party	Amount
Asset-B2	2018-19	TBEA Shenyang Transformer Group Co. Ltd.	69.61
	2017-18	TBEA Shenyang Transformer Group Co. Ltd.	123.82
	2017-18	Larsen & Turbo	24.83

29. We have considered the submissions of the Petitioner. ACE claimed by the petitioner for the year 2017-18 for Asset-B1 and Asset-B2 is allowed under Regulation 14(1)(i) and (ii) of the 2014 Tariff Regulations on account of balance and retention payment. ACE claimed beyond cut-off date for Asset-B2 has been claimed for 2018-19 is allowed under Regulation 14(2)(iv) of the 2014 Tariff Regulations as it is on account of un-discharged liability towards final payment/ withheld payment due to contractual exigencies for works executed within the cut-off date. ACE allowed for the transmission assets from COD to 31.3.2019 is as follows:

(₹ in lakh)

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Asset	Capital Cost as on 31.3.2014	ACE allowed					Total Capital Cost as on 31.3.2019
		2014-15	2015-16	2016-17	2017-18	2018-19	
Asset-A1	2910.43		801.92	236.84	341.63	0.00	4290.82
Asset-B1	2377.31	451.84	654.12	282.91	481.46	0.00	4247.64
Asset-B2	2466.43	217.01	43.30	80.88	148.65	69.61	3025.89
Asset-B3	281.28	320.23	74.87	0.00	0.00	0.00	676.38

### **Debt-Equity Ratio**

30. The Petitioner has claimed the debt-equity ratio of 70:30 as on COD and for ACE in respect of the transmission assets. The debt-equity ratio of 70:30 as claimed by the Petitioner in Form-6 has been considered for capital cost as on COD and ACE for 2017-18 and 2018-19 as provided under Regulation 19 of the 2014 Tariff Regulations and the details are as follows:

(₹ in lakh)

Asset	Capital Cost as on COD			Capital Cost as on 31.3.2019		
	Debt	Equity	Total	Debt	Equity	Total
	70%	30%	100%	70%	30%	100%
Asset-A1	2037.30	873.13	2910.43	3003.57	1287.24	4290.82
Asset-B1	1664.12	713.19	2377.31	2973.35	1274.29	4247.64
Asset-B2	1726.50	739.93	2466.39	2118.12	907.77	3025.89
Asset-B3	196.90	84.39	281.28	473.47	202.92	676.38

### **Depreciation**

31. The Petitioner has claimed the capital cost of the IT equipment in Petition No. 66/TT/2015 and Petition No. 227/TT/2014 as part of the capital cost of the sub-station.

32. We observe that the Petitioner now at the time of truing-up for 2014-19 period has segregated the IT equipment cost from sub-station cost. The Petitioner did not claim any capital expenditure towards "IT Equipment" in the above-said Petitions where tariff for the transmission assets for 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 the issue.



33. In terms of the order dated 9.5.2020 in Petitioner No. 19/TT/2020, the depreciation @5.28% has been considered for IT Equipment as part of the sub-station up to 31.3.2019 while truing up the capital expenditure for the 2014-19 period. During the 2019-24 tariff period, the 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 read with Sr. No. (p) of Appendix-I (Depreciation Schedule) of the 2019 Tariff Regulations.

34. Accordingly, the Gross Block during 2014-19 period has been depreciated at Weighted Average Rate of Depreciation (WAROD) and working of WAROD is at Annexure-I. After taking into account the depreciation rates of assets as specified in the 2014 Tariff Regulations and depreciation allowed during 2014-19 is as follows:

(₹ in lakh)

Particulars	Asset-A1			
	2015-16 (pro-rata 292 days)	2016-17	2017-18	2018-19
<b>Depreciation</b>				
Opening Gross Block	2910.43	3712.35	3949.19	4290.82
ACE	801.92	236.84	341.63	0.00
Closing Gross Block	3712.35	3949.19	4290.82	4290.82
Average Gross Block	3311.39	3830.77	4120.00	4290.82
Rate of Depreciation (in %)	5.32	5.32	5.32	5.32
Balance useful life of the asset (Year)	25	25	24	23
Lapsed life at the beginning of the year (Year)	0	0	1	2
Aggregate Depreciable Value	2980.25	3447.69	3708.00	3861.73
<b>Combined Depreciation during the year</b>	<b>140.45</b>	<b>203.68</b>	<b>219.07</b>	<b>228.09</b>
Aggregate Cumulative depreciation	140.45	344.13	563.21	791.30
Remaining Aggregate Depreciable Value	2839.79	3103.55	3144.79	3070.43

(₹ in lakh)

Particulars	2015-16 (pro-rata 292 days)	2016-17	2017-18	2018-19
Allowed vide order dated 25.5.2016 in Petition No. 66/TT/2015	152.34	238.20	254.23	259.18
Claimed by the Petitioner in	140.46	203.73	219.17	228.19



Particulars	2015-16 (pro-rata 292 days)	2016-17	2017-18	2018-19
the instant petition				
Approved after true-up in this order	140.45	203.68	219.07	228.09

(₹ in lakh)

Particulars	Asset-B1				
	2014-15 (pro-rata 163 days)	2015-16	2016-17	2017-18	2018-19
<b>Depreciation</b>					
Opening Gross Block	2377.31	2829.15	3483.27	3766.18	4247.64
ACE	451.84	654.12	282.91	481.46	0.00
Closing Gross Block	2829.15	3483.27	3766.18	4247.64	4247.64
Average Gross Block	2603.23	3156.21	3624.73	4006.91	4247.64
Rate of Depreciation (in %)	5.29	5.29	5.30	5.30	5.30
Balance useful life of the asset (Year)	25	25	24	23	22
Lapsed life at the beginning of the year (Year)	0	0	1	2	3
Aggregate Depreciable Value	2342.91	2840.59	3262.25	3606.22	3822.88
<b>Combined Depreciation during the year</b>	<b>61.48</b>	<b>167.05</b>	<b>191.96</b>	<b>212.25</b>	<b>224.96</b>
Aggregate Cumulative depreciation	61.48	228.53	420.49	632.74	857.70
Remaining Aggregate Depreciable Value	2281.42	2612.06	2841.76	2973.48	2965.18

(₹ in lakh)

Particulars	2014-15 (pro-rata 163 days)	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 20.9.2017 in Petition No. 227/TT/2014	61.48	182.98	231.06	245.87	245.87
Claimed by the Petitioner in the instant petition	62.10	167.05	191.96	212.25	224.96
Approved after true-up in this order	61.48	167.05	191.96	212.25	224.96

(₹ in lakh)

Particulars	Asset-B2				
	2014-15 (pro-rata 178 days)	2015-16	2016-17	2017-18	2018-19
<b>Depreciation</b>					
Opening Gross Block	2466.43	2683.44	2726.75	2807.63	2956.28
ACE	217.01	43.30	80.88	148.65	69.61
Closing Gross Block	2683.44	2726.75	2807.63	2956.28	3025.89

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Particulars	Asset-B2				
	2014-15 (pro-rata 178 days)	2015-16	2016-17	2017-18	2018-19
<b>Depreciation</b>					
Average Gross Block	2574.94	2705.10	2767.19	2881.95	2991.08
Rate of Depreciation (in %)	5.29	5.30	5.30	5.30	5.30
Balance useful life of the asset (Year)	25	25	24	23	22
Lapsed life at the beginning of the year (Year)	0	0	1	2	3
Aggregate Depreciable Value	2317.44	2434.59	2490.47	2593.76	2691.97
<b>Combined Depreciation during the year</b>	<b>66.41</b>	<b>143.28</b>	<b>146.72</b>	<b>152.84</b>	<b>158.61</b>
Aggregate Cumulative depreciation	66.41	209.69	356.42	509.26	667.87
Remaining Aggregate Depreciable Value	2251.03	2224.89	2134.05	2084.49	2024.10

(₹ in lakh)

Particulars	2014-15 (pro-rata 178 days)	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 20.9.2017 in Petition No. 227/TT/2014	66.51	154.33	170.94	175.46	175.46
Claimed by the Petitioner in the instant petition	66.63	143.99	148.31	155.35	161.20
Approved after true-up in this order	66.41	143.28	146.72	152.84	158.61

(₹ in lakh)

Particulars	Asset-B3				
	2014-15 (pro-rata 307 days)	2015-16	2016-17	2017-18	2018-19
<b>Depreciation</b>					
Opening Gross Block	281.28	601.51	676.38	676.38	676.38
ACE	320.23	74.87	0.00	0.00	0.00
Closing Gross Block	601.51	676.38	676.38	676.38	676.38
Average Gross Block	441.40	638.95	676.38	676.38	676.38
Rate of Depreciation (in %)	5.19	5.23	5.23	5.23	5.23
Balance useful life of the asset (Year)	25	25	24	23	22
Lapsed life at the beginning of the year (Year)	0	0	1	2	3
Aggregate Depreciable Value	397.26	575.05	608.75	608.75	608.75
<b>Combined Depreciation</b>	<b>19.27</b>	<b>33.39</b>	<b>35.38</b>	<b>35.38</b>	<b>35.38</b>



Particulars	Asset-B3				
	2014-15 (pro-rata 307 days)	2015-16	2016-17	2017-18	2018-19
<b>Depreciation during the year</b>					
Aggregate Cumulative depreciation	19.27	52.66	88.04	123.42	158.80
Remaining Aggregate Depreciable Value	377.99	522.39	520.71	485.33	449.95

₹ in lakh)

Particulars	2014-15 (pro-rata 307 days)	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 20.9.2017 in Petition No. 227/TT/2014	19.47	35.07	39.91	41.31	41.31
Claimed by the Petitioner in the instant petition	21.56	36.12	38.10	38.10	38.10
Approved after true-up in this order	19.27	33.39	35.38	35.38	35.38

### Interest on Loan (IoL)

35. The Petitioner has claimed the weighted average rate of IoL based on its actual loan portfolio and rate of interest and the same has been considered based on the actual interest rate in accordance with Regulation 26 of the 2014 Tariff Regulations. The following tables show IoL allowed in the instant petition followed by IoL approved earlier, claimed by the Petitioner in the instant petition and trued-up in this order:

(₹ in lakh)

Particulars	Asset-A1			
	2015-16 (pro-rata 292 days)	2016-17	2017-18	2018-19
<b>Interest on Loan</b>				
Gross Normative Loan	2037.30	2598.64	2764.43	3003.57
Cumulative Repayments upto Previous Year	0.00	140.45	344.13	563.21
Net Loan-Opening	2037.30	2458.19	2420.30	2440.36
Additions	561.34	165.79	239.14	0.00
Repayment during the year	140.45	203.68	219.07	228.09
Net Loan-Closing	2458.19	2420.30	2440.36	2212.27
Average Loan	2247.74	2439.24	2430.33	2326.32
Weighted Average Rate of Interest on Loan	9.3978	9.0337	8.2827	8.0180



(₹ in lakh)

Particulars	Asset-A1			
	2015-16 ( <i>pro-rata</i> 292 days)	2016-17	2017-18	2018-19
<b>Interest on Loan</b>				
(in %)				
<b>Interest on Loan</b>	<b>168.53</b>	<b>220.35</b>	<b>201.30</b>	<b>186.52</b>

(₹ in lakh)

Particulars	2015-16 ( <i>pro-rata</i> 292 days)	2016-17	2017-18	2018-19
Allowed vide order dated 25.5.2016 in Petition No. 66/TT/2015	188.23	277.06	273.32	254.57
Claimed by the Petitioner in the instant petition	168.53	220.41	201.40	186.61
Approved after true-up in this order	168.53	220.35	201.30	186.52

(₹ in lakh)

Particulars	Asset-B1				
	2014-15 ( <i>pro-rata</i> 163 days)	2015-16	2016-17	2017-18	2018-19
<b>Interest on Loan</b>					
Gross Normative Loan	1664.12	1980.41	2438.29	2636.33	2973.35
Cumulative Repayments upto Previous Year	0.00	61.48	228.53	420.49	632.74
Net Loan-Opening	1664.12	1918.92	2209.76	2215.83	2340.61
Additions	316.29	457.88	198.04	337.02	0.00
Repayment during the year	61.48	167.05	191.96	212.25	224.96
Net Loan-Closing	1918.92	2209.76	2215.83	2340.61	2115.65
Average Loan	1791.52	2064.34	2212.79	2278.22	2228.13
Weighted Average Rate of Interest on Loan (in %)	9.8248	9.4535	9.0551	8.3522	8.1362
<b>Interest on Loan</b>	<b>78.60</b>	<b>195.15</b>	<b>200.37</b>	<b>190.28</b>	<b>181.29</b>

(₹ in lakh)

Particulars	2014-15 ( <i>pro-rata</i> 163 days)	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 20.9.2017 in Petition No. 227/TT/2014	78.60	221.69	263.34	258.96	234.89
Claimed by the Petitioner in the instant petition	78.59	195.09	200.32	190.23	181.24
Approved after true-up in this order	<b>78.60</b>	<b>195.15</b>	<b>200.37</b>	<b>190.28</b>	<b>181.29</b>

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(₹ in lakh)

Particulars	Asset-B2				
	2014-15 ( <i>pro-rata</i> 178 days)	2015-16	2016-17	2017-18	2018-19
<b>Interest on Loan</b>					
Gross Normative Loan	1726.50	1878.41	1908.72	1965.34	2069.39
Cumulative Repayments upto Previous Year	0.00	66.41	209.69	356.42	509.26
Net Loan-Opening	1726.50	1812.00	1699.03	1608.92	1560.13
Additions	151.91	30.31	56.62	104.06	48.73
Repayment during the year	66.41	143.28	146.72	152.84	158.61
Net Loan-Closing	1812.00	1699.03	1608.92	1560.13	1450.25
Average Loan	1769.25	1755.51	1653.97	1584.53	1505.19
Weighted Average Rate of Interest on Loan (in %)	9.1647	9.0235	8.8912	8.6464	8.5601
<b>Interest on Loan</b>	<b>79.07</b>	<b>158.41</b>	<b>147.06</b>	<b>137.00</b>	<b>128.85</b>

(₹ in lakh)

Particulars	2014-15 ( <i>pro-rata</i> 178 days)	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 20.9.2017 in Petition No. 227/TT/2014	79.20	172.94	177.76	167.10	150.92
Claimed by the Petitioner in the instant petition	79.19	158.64	147.21	136.98	126.60
Approved after true-up in this order	79.07	158.41	147.06	137.00	128.85

(₹ in lakh)

Particulars	Asset-B3				
	2014-15 ( <i>pro-rata</i> 307 days)	2015-16	2016-17	2017-18	2018-19
<b>Interest on Loan</b>					
Gross Normative Loan	196.90	421.06	473.47	473.47	473.47
Cumulative Repayments upto Previous Year	0.00	19.27	52.66	88.04	123.42
Net Loan-Opening	196.90	401.79	420.81	385.43	350.05
Additions	224.16	52.41	0.00	0.00	0.00
Repayment during the year	19.27	33.39	35.38	35.38	35.38
Net Loan-Closing	401.79	420.81	385.43	350.05	314.67
Average Loan	299.34	411.30	403.12	367.74	332.36
Weighted Average Rate of Interest on Loan (in %)	9.1721	9.0860	8.9564	8.7377	8.6860
<b>Interest on Loan</b>	<b>23.09</b>	<b>37.37</b>	<b>36.10</b>	<b>32.13</b>	<b>28.87</b>

(₹ in lakh)

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<b>Particulars</b>	<b>2014-15 (pro-rata 307 days)</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Allowed vide order dated 20.9.2017 in Petition No. 227/TT/2014	23.33	39.99	42.85	41.08	37.30
Claimed by the Petitioner in the instant petition	23.39	37.50	35.99	31.78	28.28
Approved after true-up in this order	23.09	37.37	36.10	32.13	28.87

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

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

<b>Year</b>	<b>Claimed effective tax rate (in %)</b>	<b>Grossed up RoE [(Base Rate/(1-t))] (in %)</b>
2014-15	21.018	19.624
2015-16	21.382	19.715
2016-17	21.338	19.705
2017-18	21.337	19.705
2018-19	21.549	19.758

37. MPPMCL in its reply has submitted that the Petitioner has claimed grossed-up RoE on the basis of actual taxes paid during 2016-17 and 2017-18 and for the year 2018-19, RoE has been grossed up on the basis of applicable Minimum Alternate tax (MAT) rate, surcharge and cess and not on the basis of actual taxes paid for the year 2018-19. MPPMCL has also submitted that the Petitioner has not placed on record the assessment orders for 2016-17 and 2017-18 and that the Petitioner has also not enclosed the audited accounts in respect of actual taxes paid for 2016-17 and 2017-18.

38. In response, the Petitioner vide rejoinder 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 was submitted in Petition No. 20/TT/2020. The Petitioner has also annexed a copy of the assessment order for the year 2016-17 along with the rejoinder and has also placed on record a copy of the assessment order for the year 2016-17 along with the rejoinder.

39. We have considered the submissions of the Petitioner and MPPMCL. As regards the MPPMCL's contentions that the grossed-up rate of RoE for the period 2016-17 and 2017-18 is not based on the MAT rates approved by the Income Tax Authorities, it is observed that the effective rate of tax considered for 2014-15, 2015-16 and 2016-17 are based on Assessment orders issued by Income Tax Authorities and the effective rate of tax considered for 2017-18 and 2018-19 are based on the Income Tax returns filed for the purpose of grossing up the RoE rate of respective years.

40. In view of the clarification given by the Petitioner, we are of the view that there is no merit in the contentions advanced by MPPMCL. Accordingly, we reject the above submissions of MPPMCL.

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

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

42. The MAT rates considered in order dated 27.4.2020 for the purpose of grossing up of rate of RoE for truing up of the tariff of 2014-19 tariff period, in terms of



provisions of the 2014 Tariff Regulations, is considered in the instant case which is as follows:

Year	Notified MAT rates (in %) (inclusive of surcharge and 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

43. The Petitioner has claimed RoE for 2014-19 period after grossing up RoE of 15.50% with effective tax rates (based on MAT rates) each year as per Regulation 25(3) of the 2014 Tariff Regulations. RoE is trued-up on the basis of the MAT rate applicable in the respective years. The following tables show asset-wise RoE allowed in the instant petition followed by RoE approved earlier, claimed by the Petitioner in the instant petition and trued up in this order:

(₹ in lakh)

Particulars	Asset-A1			
	2015-16 (pro-rata 292 days)	2016-17	2017-18	2018-19
<b>Return on Equity</b>				
Opening Equity	873.13	1113.70	1184.76	1287.24
Additions	240.58	71.05	102.49	0.00
Closing Equity	1113.70	1184.76	1287.24	1287.24
Average Equity	993.42	1149.23	1236.00	1287.24
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500
MAT Rate for respective year (in %)	21.342	21.342	21.342	21.549
Rate of Return on Equity (in %)	19.705	19.705	19.705	19.758
<b>Return on Equity</b>	<b>156.17</b>	<b>226.46</b>	<b>243.55</b>	<b>254.33</b>

(₹ in lakh)

Particulars	2015-16 (pro-rata 292 days)	2016-17	2017-18	2018-19
Approved vide order dated 25.5.2016 in Petition No. 66/TT/2015	168.55	263.66	281.52	287.03
Claimed by the Petitioner in the instant petition	156.25	226.51	243.67	254.45



Particulars	2015-16 (pro-rata 292 days)	2016-17	2017-18	2018-19
Allowed after true-up in this order	156.17	226.46	243.55	254.33

(₹ in lakh)

Particulars	Asset-B1				
	2014-15 (pro-rata 163 days)	2015-16	2016-17	2017-18	2018-19
<b>Return on Equity</b>					
Opening Equity	713.19	848.75	1044.98	1129.85	1274.29
Additions	135.55	196.24	84.87	144.44	0.00
Closing Equity	848.75	1044.98	1129.85	1274.29	1274.29
Average Equity	780.97	946.86	1087.42	1202.07	1274.29
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (in %)	20.961	21.342	21.342	21.342	21.549
Rate of Return on Equity (in %)	19.610	19.705	19.705	19.705	19.758
<b>Return on Equity</b>	<b>68.39</b>	<b>186.58</b>	<b>214.28</b>	<b>236.87</b>	<b>251.77</b>

(₹ in lakh)

Particulars	2014-15 (pro-rata 163 days)	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 20.9.2017 in Petition No. 227/TT/2014	68.39	204.30	257.93	274.52	274.52
Claimed by the Petitioner in the instant petition	68.45	186.67	214.27	236.87	251.77
Allowed after true-up in this order	68.39	186.58	214.28	236.87	251.77

(₹ in lakh)

Particulars	Asset-B2				
	2014-15 (pro-rata 178 days)	2015-16	2016-17	2017-18	2018-19
<b>Return on Equity</b>					
Opening Equity	739.93	805.03	818.02	842.29	886.88
Additions	65.10	12.99	24.26	44.60	20.88
Closing Equity	805.03	818.02	842.29	886.88	907.77
Average Equity	772.48	811.53	830.16	864.59	897.32
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (in %)	20.961	21.342	21.342	21.342	21.549
Rate of Return on Equity (in %)	19.610	19.705	19.705	19.705	19.758
<b>Return on Equity</b>	<b>73.87</b>	<b>159.91</b>	<b>163.58</b>	<b>170.37</b>	<b>177.29</b>

(₹ in lakh)



Particulars	2014-15 ( <i>pro-rata</i> 178 days)	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 20.9.2017 in Petition No. 227/TT/2014	73.99	172.21	190.61	195.67	195.67
Claimed by the Petitioner in the instant petition	74.04	160.25	163.87	170.66	177.58
Allowed after true-up in this order	73.87	159.91	163.58	170.37	177.29

(₹ in lakh)

Particulars	Asset-B3				
	2014-15 ( <i>pro-rata</i> 307 days)	2015-16	2016-17	2017-18	2018-19
<b>Return on Equity</b>					
Opening Equity	84.39	180.45	202.92	202.92	202.92
Additions	96.07	22.46	0.00	0.00	0.00
Closing Equity	180.45	202.92	202.92	202.92	202.92
Average Equity	132.42	191.68	202.92	202.92	202.92
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (in %)	20.961	21.342	21.342	21.342	21.549
Rate of Return on Equity (in %)	19.610	19.705	19.705	19.705	19.758
<b>Return on Equity</b>	<b>21.84</b>	<b>37.77</b>	<b>39.98</b>	<b>39.98</b>	<b>40.09</b>

(₹ in lakh)

Particulars	2014-15 ( <i>pro-rata</i> 307 days)	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 20.9.2017 in Petition No. 227/TT/2014	22.06	39.81	45.65	47.50	47.50
Claimed by the Petitioner in the instant petition	22.21	38.22	40.41	40.41	40.52
Allowed after true-up in this order	21.84	37.77	39.98	39.98	40.09

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

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

(₹ in lakh)

O&M Expenses	Asset-A1			
Particulars	2015-16 ( <i>pro-rata</i> 292 days)	2016-17	2017-18	2018-19
<b>765 kV</b>				
Number of bays	1	1	1	1
<b>Total O&amp;M Expenses (₹ in lakh)</b>	<b>69.53</b>	<b>90.12</b>	<b>93.11</b>	<b>96.20</b>

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(₹ in lakh)

O&M Expenses	Asset-B1				
Particulars	2014-15 ( <i>pro-rata</i> 163 days)	2015-16	2016-17	2017-18	2018-19
<b>Sub-station bays</b>					
<b>765 kV</b>					
Number of bays	2	2	2	2	2
<b>Total O&amp;M Expenses (₹ in lakh)</b>	<b>75.80</b>	<b>174.44</b>	<b>180.24</b>	<b>186.22</b>	<b>192.40</b>

(₹ in lakh)

O&M Expenses	Asset-B2				
Particulars	2014-15 ( <i>pro-rata</i> 178 days)	2015-16	2016-17	2017-18	2018-19
<b>Sub-station bays</b>					
<b>765 kV</b>					
Number of bays	1	1	1	1	1
<b>Total O&amp;M Expenses (₹ in lakh)</b>	<b>41.30</b>	<b>87.22</b>	<b>90.12</b>	<b>93.11</b>	<b>96.20</b>

(₹ in lakh)

O&M Expenses	Asset-B3				
Particulars	2014-15 ( <i>pro-rata</i> 307 days)	2015-16	2016-17	2017-18	2018-19
<b>Sub-station bays</b>					
<b>765 kV</b>					
Number of bays	1	1	1	1	1
<b>Total O&amp;M Expenses (₹ in lakh)</b>	<b>71.03</b>	<b>87.22</b>	<b>90.12</b>	<b>93.11</b>	<b>96.20</b>

45. The Petitioner has claimed O&M Expenses as specified in sub-clause (a) of clause (3) of Regulation 29 of the 2014 Tariff Regulations. The following tables show asset-wise O&M Expenses allowed in the instant petition followed by O&M Expenses approved earlier, claimed by the Petitioner in the instant petition and trued-up in this order:

(₹ in lakh)

O&M Expenses	Asset-A1			
Particulars	2015-16 ( <i>pro-rata</i> 292 days)	2016-17	2017-18	2018-19
<b>Sub-station bays</b>				
<b>765 kV</b>				
Number of bays	1	1	1	1
Norms (₹ lakh/Bay)	87.22	90.12	93.11	96.20
<b>Total O&amp;M Expenses (₹ in lakh)</b>	<b>69.59</b>	<b>90.12</b>	<b>93.11</b>	<b>96.20</b>

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(₹ in lakh)

Particulars	2015-16 ( <i>pro-rata</i> 292 days)	2016-17	2017-18	2018-19
Approved vide order dated 25.5.2016 in Petition No. 66/TT/2015	69.59	90.12	93.11	96.20
Claimed by the Petitioner in the instant petition	69.59	90.12	93.11	96.20
Allowed after true-up in this order	69.59	90.12	93.11	96.20

(₹ in lakh)

O&M Expenses Particulars	Asset-B1				
	2014-15 ( <i>pro-rata</i> 163 days)	2015-16	2016-17	2017-18	2018-19
<b>Sub-station bays</b>					
765 kV					
Number of bays	2	2	2	2	2
Norms (₹ lakh/Bay)	87.22	90.12	93.11	96.2	87.22
<b>Total O&amp;M Expenses (₹ in lakh)</b>	<b>75.40</b>	<b>174.44</b>	<b>180.24</b>	<b>186.22</b>	<b>192.40</b>

(₹ in lakh)

Particulars	2014-15 ( <i>pro-rata</i> 163 days)	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 20.9.2017 in Petition No. 227/TT/2014	75.40	174.44	180.24	186.22	192.40
Claimed by the Petitioner in the instant petition	75.40	174.44	180.24	186.22	192.40
Allowed after true-up in this order	75.40	174.44	180.24	186.22	192.40

(₹ in lakh)

O&M Expenses Particulars	Asset-B2				
	2014-15 ( <i>pro-rata</i> 178 days)	2015-16	2016-17	2017-18	2018-19
<b>Sub-station bays</b>					
765 kV					
Number of bays	1	1	1	1	1
Norms (₹ lakh/Bay)	84.42	87.22	90.12	93.11	96.2
<b>Total O&amp;M Expenses (₹ in lakh)</b>	<b>41.17</b>	<b>87.22</b>	<b>90.12</b>	<b>93.11</b>	<b>96.20</b>

(₹ in lakh)

Particulars	2014-15 ( <i>pro-rata</i> 178 days)	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 20.9.2017 in Petition No. 227/TT/2014	41.17	87.22	90.12	93.11	96.20
Claimed by the Petitioner in the instant petition	41.17	87.22	90.12	93.11	96.20

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Particulars	2014-15 (pro-rata 178 days)	2015-16	2016-17	2017-18	2018-19
Allowed after true-up in this order	41.17	87.22	90.12	93.11	96.20

(₹ in lakh)

O&M Expenses	Asset-B3				
Particulars	2014-15 (pro-rata 307 days)	2015-16	2016-17	2017-18	2018-19
<b>Sub-station bays</b>					
765 kV					
Number of bays	1	1	1	1	1
Norms (₹ lakh/Bay)	84.42	87.22	90.12	93.11	96.2
<b>Total O&amp;M Expenses (₹ in lakh)</b>	<b>71.01</b>	<b>87.22</b>	<b>90.12</b>	<b>93.11</b>	<b>96.20</b>

(₹ in lakh)

Particulars	2014-15 (pro-rata 307 days)	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 20.9.2017 in Petition No. 227/TT/2014	71.01	87.22	90.12	93.11	96.20
Claimed by the Petitioner in the instant petition	71.01	87.22	90.12	93.11	96.20
Allowed after true-up in this order	71.01	87.22	90.12	93.11	96.20

### Interest on Working Capital (IWC)

46. IWC has been worked out as per the methodology provided in Regulation 28 of the 2014 Tariff Regulations. The following tables show asset-wise IWC approved in the instant petition followed by IWC allowed earlier, claimed by the Petitioner in the instant petition and trued up in this order:

(₹ in lakh)

Particulars	Asset-A1			
	2015-16 (pro-rata 292 days)	2016-17	2017-18	2018-19
<b>Interest on Working Capital</b>				
O&M Expenses (O&M Expenses for 1 month)	7.27	7.51	7.76	8.02
Maintenance Spares (15% of O&M Expenses)	13.08	13.52	13.97	14.43
Receivables (Equivalent to 2 months of annual fixed cost)	114.75	126.76	129.58	130.98
<b>Total Working Capital</b>	<b>135.10</b>	<b>147.79</b>	<b>151.30</b>	<b>153.42</b>

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Rate of Interest (in %)	13.50	13.50	13.50	13.50
<b>Interest on Working Capital</b>	<b>14.55</b>	<b>19.95</b>	<b>20.43</b>	<b>20.71</b>

(₹ in lakh)

Particulars	2015-16 ( <i>pro-rata</i> 292 days)	2016-17	2017-18	2018-19
Allowed vide order dated 25.5.2016 in Petition No. 66/TT/2015	15.56	22.91	23.77	23.75
Claimed by the Petitioner in the instant petition	14.55	19.96	20.43	20.72
Approved after true-up in this order	14.55	19.95	20.43	20.71

(₹ in lakh)

Particulars	Asset-B1				
	2014-15 ( <i>pro-rata</i> 163 days)	2015-16	2016-17	2017-18	2018-19
<b>Interest on Working Capital</b>					
O&M Expenses (O&M Expenses for 1 month)	14.07	14.54	15.02	15.52	16.03
Maintenance Spares (15% of O&M Expenses)	25.33	26.17	27.04	27.93	28.86
Receivables (Equivalent to 2 months of annual fixed cost)	109.29	124.25	135.13	141.77	146.03
<b>Total Working Capital</b>	<b>148.69</b>	<b>164.95</b>	<b>177.18</b>	<b>185.22</b>	<b>190.93</b>
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
<b>Interest on Working Capital</b>	<b>8.96</b>	<b>22.27</b>	<b>23.92</b>	<b>25.00</b>	<b>25.77</b>

(₹ in lakh)

Particulars	2014-15 ( <i>pro-rata</i> 163 days)	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 20.9.2017 in Petition No. 227/TT/2014	8.96	23.65	27.27	28.23	28.01
Claimed by the Petitioner in the instant petition	8.98	22.27	23.92	25.00	25.77
Approved after true-up in this order	8.96	22.27	23.92	25.00	25.77

(₹ in lakh)

Particulars	Asset-B2				
	2014-15 ( <i>pro-rata</i> 178 days)	2015-16	2016-17	2017-18	2018-19
<b>Interest on Working Capital</b>					
O&M Expenses (O&M Expenses for 1 month)	7.04	7.27	7.51	7.76	8.02
Maintenance Spares (15% of O&M Expenses)	12.66	13.08	13.52	13.97	14.43
Receivables (Equivalent to 2 months of annual fixed cost)	91.54	94.04	93.83	94.84	96.16
<b>Total Working Capital</b>	<b>111.24</b>	<b>114.40</b>	<b>114.86</b>	<b>116.57</b>	<b>118.61</b>

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Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
<b>Interest on Working Capital</b>	<b>7.32</b>	<b>15.44</b>	<b>15.51</b>	<b>15.74</b>	<b>16.01</b>

(₹ in lakh)

Particulars	2014-15 (pro-rata 178 days)	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 20.9.2017 in Petition No. 227/TT/2014	7.33	16.31	17.39	17.53	17.33
Claimed by the Petitioner in the instant petition	7.33	15.47	15.55	15.80	16.07
Approved after true-up in this order	7.32	15.44	15.51	15.74	16.01

(₹ in lakh)

Particulars	Asset-B3				
	2014-15 (pro-rata 307 days)	2015-16	2016-17	2017-18	2018-19
<b>Interest on Working Capital</b>					
O&M Expenses (O&M Expenses for 1 month)	7.04	7.27	7.51	7.76	8.02
Maintenance Spares (15% of O&M Expenses)	12.66	13.08	13.52	13.97	14.43
Receivables (Equivalent to 2 months of annual fixed cost)	27.86	33.84	34.86	34.70	34.71
<b>Total Working Capital</b>	<b>47.56</b>	<b>54.20</b>	<b>55.88</b>	<b>56.43</b>	<b>57.16</b>
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
<b>Interest on Working Capital</b>	<b>5.40</b>	<b>7.32</b>	<b>7.54</b>	<b>7.62</b>	<b>7.72</b>

(₹ in lakh)

Particulars	2014-15 (pro-rata 307 days)	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 20.9.2017 in Petition No. 227/TT/2014	5.42	7.46	7.93	8.13	8.22
Claimed by the Petitioner in the instant petition	5.47	7.39	7.61	7.68	7.78
Approved after true-up in this order	5.40	7.32	7.54	7.62	7.72

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

47. The trued-up Annual Fixed Charges (AFC) for Asset-A1 for 2014-19 tariff period are as follows:

(₹ in lakh)

Particulars	Asset-A1			
	2015-16 (Pro-rata 292 days)	2016-17	2017-18	2018-19
Depreciation	140.45	203.68	219.07	228.09
Interest on Loan	168.53	220.35	201.30	186.52

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Return on Equity	156.17	226.46	243.55	254.33
Interest on Working Capital	14.55	19.95	20.43	20.71
O&M Expenses	69.59	90.12	93.11	96.20
<b>Total</b>	<b>549.29</b>	<b>760.56</b>	<b>777.46</b>	<b>785.86</b>

48. For Asset-A1, the AFC allowed *vide* order dated 25.5.2016 in Petition No. 66/TT/2015, claimed by the Petitioner in the instant petition and as approved after truing up in the instant order is as follows:

Particulars	(₹ in lakh)			
	2015-16 (Pro-rata 292 days)	2016-17	2017-18	2018-19
Allowed <i>vide</i> order dated 25.5.2016 in Petition No. 66/TT/2015	594.27	891.94	925.95	920.73
Claimed by the Petitioner in the instant petition	549.38	760.73	777.78	786.17
Approved after true-up in this order	549.29	760.56	777.46	785.86

49. The trued-up AFC for Asset-B1 for the 2014-19 tariff period are as follows:

Particulars	(₹ in lakh)				
	Asset-B1				
	2014-15 ( <i>pro-rata</i> 163 days)	2015-16	2016-17	2017-18	2018-19
Depreciation	61.48	167.05	191.96	212.25	224.96
Interest on Loan	78.60	195.15	200.37	190.28	181.29
Return on Equity	68.39	186.58	214.28	236.87	251.77
Interest on Working Capital	8.96	22.27	23.92	25.00	25.77
O&M Expenses	75.40	174.44	180.24	186.22	192.40
<b>Total</b>	<b>292.84</b>	<b>745.49</b>	<b>810.77</b>	<b>850.62</b>	<b>876.19</b>

50. AFC allowed for Asset-B1 *vide* order dated 20.9.2017 in Petition No. 227/TT/2014, claimed by the Petitioner in the instant petition and as approved after truing up in the instant order is as follows:

Particulars	(₹ in lakh)				
	2014-15 ( <i>pro-rata</i> 163 days)	2015-16	2016-17	2017-18	2018-19
Allowed <i>vide</i> order dated 20.9.2017 in Petition No. 227/TT/2014	292.85	807.06	959.85	993.80	975.70
Claimed by the Petitioner in the instant petition	293.52	745.52	810.71	850.57	876.14



Particulars	2014-15 ( <i>pro-rata</i> 163 days)	2015-16	2016-17	2017-18	2018-19
Approved after true-up in this order	292.84	745.49	810.77	850.62	876.19

51. The trued-up AFC for Asset-B2 for 2014-19 tariff period are as follows:

(₹ in lakh)

Particulars	Asset-B2				
	2014-15 ( <i>pro-rata</i> 178 days)	2015-16	2016-17	2017-18	2018-19
Depreciation	66.41	143.28	146.72	152.84	158.61
Interest on Loan	79.07	158.41	147.06	137.00	128.85
Return on Equity	73.87	159.91	163.58	170.37	177.29
Interest on Working Capital	7.32	15.44	15.51	15.74	16.01
O&M Expenses	41.17	87.22	90.12	93.11	96.20
<b>Total</b>	<b>267.85</b>	<b>564.27</b>	<b>562.99</b>	<b>569.06</b>	<b>576.96</b>

52. AFC allowed for Asset-B2 vide order dated 20.9.2017 in Petition No. 227/TT/2014, claimed by the Petitioner in the instant petition and as approved after truing up in the instant order is as follows:

(₹ in lakh)

Particulars	2014-15 ( <i>pro-rata</i> 178 days)	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 20.9.2017 in Petition No. 227/TT/2014	268.20	603.02	646.83	648.88	635.58
Claimed by the Petitioner in the instant petition	268.36	565.57	565.06	571.90	579.65
Approved after true-up in this order	267.85	564.27	562.99	569.06	576.96

53. The trued-up AFC for Asset-B3 for 2014-19 tariff period are as follows:

(₹ in lakh)

Particulars	Asset-B3				
	2014-15 ( <i>pro-rata</i> 307 days)	2015-16	2016-17	2017-18	2018-19
<b>Annual Transmission Charges</b>					
Depreciation	19.27	33.39	35.38	35.38	35.38
Interest on Loan	23.09	37.37	36.10	32.13	28.87
Return on Equity	21.84	37.77	39.98	39.98	40.09
Interest on Working Capital	5.40	7.32	7.54	7.62	7.72
O&M Expenses	71.01	87.22	90.12	93.11	96.20
<b>Total</b>	<b>140.61</b>	<b>203.07</b>	<b>209.13</b>	<b>208.22</b>	<b>208.26</b>



54. AFC allowed for Asset-B3 vide order dated 20.9.2017 in Petition No. 227/TT/2014, claimed by the Petitioner in the instant petition and as approved after true-up in the instant order is as follows:

Particulars	(₹ in lakh)				
	2014-15 ( <i>pro-rata</i> 307 days)	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 20.9.2017 in Petition No. 227/TT/2014	141.28	209.55	226.46	231.14	230.52
Claimed by the Petitioner in the instant petition	143.64	206.45	212.23	211.08	210.88
Approved after true-up in this order	140.61	203.07	209.13	208.22	208.26

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

55. The Petitioner has combined the transmission assets (Asset-A1, Asset-B1, Asset-B2 and Asset-B3) and has claimed the following transmission charges for 2019-24 tariff period in respect of the Combined Asset:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	655.89	657.49	656.40	650.27	650.27
Interest on Loan	478.87	424.20	371.41	318.84	265.06
Return on Equity	692.21	693.91	693.91	693.91	693.91
Interest on Working Capital	37.57	37.22	36.77	36.25	35.75
O&M Expenses	231.58	239.53	247.68	256.18	264.93
<b>Total</b>	<b>2096.12</b>	<b>2052.35</b>	<b>2006.17</b>	<b>1955.45</b>	<b>1909.92</b>

56. The Petitioner has claimed the following IWC for 2019-24 tariff period in respect of the Combined Asset:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	19.30	19.96	20.64	21.35	22.08
Maintenance Spares	34.74	35.93	37.15	38.43	39.74
Receivables	257.72	253.03	247.33	241.08	234.83
<b>Total Working Capital</b>	<b>311.76</b>	<b>308.92</b>	<b>305.12</b>	<b>300.86</b>	<b>296.65</b>
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
<b>Interest on Working Capital</b>	<b>37.57</b>	<b>37.22</b>	<b>36.77</b>	<b>36.25</b>	<b>35.75</b>



### **Effective Date of Commercial Operation (E-COD)**

57. The Petitioner has claimed that E-COD of the Combined Asset is 30.12.2014.

Based on the trued-up admitted capital cost and actual COD of the individual assets, the E-COD has been worked out as follows:

<b>As set</b>	<b>COD</b>	<b>Admitted Capital Cost as on 31.3.2019 (₹ in lakh)</b>	<b>Weight of cost (in %)</b>	<b>Number of Days from last COD</b>	<b>Weighted days</b>	<b>Effective COD (latest COD-total weighted days)</b>
Asset A1	14.6.2015	4290.82	35.05	0	0.00	<b>30.12.2014</b>
Asset B1	20.10.2014	4247.64	34.70	237	82.24	
Asset B2	5.10.2014	3025.89	24.72	252	62.29	
Asset B3	29.5.2014	676.38	5.53	381	21.05	
<b>Total</b>		<b>12240.73</b>	<b>100.00</b>		<b>165.59</b>	

58. E-COD is used to determine the lapsed life of the project as a whole which works out as 4 (four) years as on 1.4.2019 (i.e. the number of completed years as on 1.4.2019 from E-COD).

### **Weighted Average Life (WAL) of the Asset**

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

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

61. WAL has been determined based on the admitted capital cost of individual elements as on 31.3.2019 and their respective life as provided in the 2019 Tariff Regulations. Accordingly, WAL of the transmission assets executed during 2014-19 tariff period has been worked out as 25 years as follows:



(₹ in lakh)

Particulars	Useful Life (in years) (A)	Capital Cost as on 31.3.2019 (₹ in lakh) (B)	Weighted Cost (₹ in lakh) (C=A x B)	Weighted Average Life of Asset (in years) (D=C/B)
Building Civil Works and Colony	25	44.48	1112	<b>24.52 years (rounded off to 25 years)</b>
Transmission Line	35	0.00	0	
Sub-station	25	11730.06	293251.61	
PLCC	15	326.35	4895.29	
IT Equipment and Software	6.67	139.83	932.67	
<b>Total</b>		<b>12240.73</b>	<b>300191.57</b>	

62. WAL as on 1.4.2019 as determined above is applicable prospectively (i.e. for 2019-24 tariff period onwards) and no retrospective adjustment of depreciation in previous tariff period is required to be done. As discussed above, the E-COD of the transmission assets is 30.12.2014 and the lapsed life of the project as a whole works out as four years as on 1.4.2019 (i.e. the number of completed years as on 1.4.2019 from Effective COD). Accordingly, WAL has been used to determine the remaining useful life as on 31.3.2019 to be 21 years.

### **Capital Cost**

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

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

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

- (a) *The expenditure incurred or projected to be incurred up to the date of commercial operation of the project;*
- (b) *Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;*
- (c) *Any gain or loss on account of foreign exchange risk variation pertaining to the loan amount availed during the construction period;*



- (d) *Interest during construction and incidental expenditure during construction as computed in accordance with these regulations;*
- (e) *Capitalised initial spares subject to the ceiling rates in accordance with these regulations;*
- (f) *Expenditure on account of additional capitalization and de-capitalisation determined in accordance with these regulations;*
- (g) *Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the date of commercial operation as specified under Regulation 7 of these regulations;*
- (h) *Adjustment of revenue earned by the transmission licensee by using the assets before the date of commercial operation;*
- (i) *Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*
- (j) *Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of the generating station but does not include the transportation cost and any other appurtenant cost paid to the railway;*
- (k) *Capital expenditure on account of biomass handling equipment and facilities, for co-firing;*
- (l) *Capital expenditure on account of emission control system necessary to meet the revised emission standards and sewage treatment plant;*
- (m) *Expenditure on account of fulfilment of any conditions for obtaining environment clearance for the project;*
- (n) *Expenditure on account of change in law and force majeure events; and*
- (o) *Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.*

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

- (a) *Capital cost admitted by the Commission prior to 1.4.2019 duly 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 renovation and modernisation as admitted by this Commission in accordance with these regulations;*
- (d) *Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*
- (e) *Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and*
- (f) *Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.*

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

- (a) *cost of approved rehabilitation and resettlement (R&R) plan of the project in conformity with National R&R Policy and R&R package as approved; and*



- (b) cost of the developer's 10% contribution towards Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) and Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) project in the affected area.
- (5) The following shall be excluded from the capital cost of the existing and new projects:

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

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

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

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

64. The Petitioner has claimed capital cost of ₹12254.76 lakh as on 31.3.2019 for the Combined Asset.

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

(₹ in lakh)					
Element	Asset A1	Asset B1	Asset B2	Asset B3	Capital cost for Combined Asset
Building Civil Works &	0.00	0.00	0.00	44.48	44.48





Colony					
Sub Station	4105.72	4129.60	2937.32	557.41	11730.06
PLCC	146.41	65.00	64.50	50.44	326.35
IT Equipment & Software	38.68	53.04	24.06	24.05	139.83
<b>Total</b>	<b>4290.82</b>	<b>4247.64</b>	<b>3025.89</b>	<b>676.38</b>	<b>12240.73</b>

### Initial Spares

66. The transmission assets covered in the transmission project are combined as Combined Asset and the overall project cost is arrived at in 2019-24 tariff period and, therefore, Initial Spares are allowed during 2019-24 tariff period on the basis of the overall project cost as per APTEL's judgment dated 14.9.2019 in Appeal No. 74 of 2017. The Plant & Machinery cost (excluding IDC and IEDC) is considered as on cut-off date and is based on the Auditor's Certificates.

Asset	Plant & Machinery cost up to cut-off date (excluding IDC and IEDC) (₹ in lakh) (A)	Initial Spares Claimed (₹ in lakh) (B)	Ceiling limit (in %) (C)	Initial Spares worked out	Initial Spares allowable as per 2014 Tariff Regulations and APTEL judgment dated 14.9.2019 (₹ in lakh)	Initial Spares allowed (₹ in lakh)	Initial spares allowed on combined transmission asset (₹ in lakh)
				D = [(A-B)*C/(100-C)]			
<b>Sub-station</b>							
Asset-A1	4013.40	95.71	6.00	250.07	95.71	95.71	<b>7.20</b>
Asset-B1	4108.09	206.21	6.00	249.06	206.21	206.21	
Asset-B2	2940.45	154.66	6.00	177.82	154.65	154.66	
Asset-B3	639.11	45.11	6.00	37.91	45.11	37.91	
<b>Total</b>	<b>11701.05</b>	<b>501.68</b>		<b>714.85</b>	<b>501.69</b>	<b>494.49</b>	

67. In compliance of APTEL's judgment dated 14.9.2019 in Appeal No. 74 of 2017, additional initial spares of ₹7.20 lakh for Combined Asset have been allowed.

68. Capital cost as on 1.4.2019 allowed after adjusting Initial Spares is as follows:

Asset	Combined Capital Cost as on 31.3.2019	Additional Initial Spares allowed as per APTEL judgment	(₹ in lakh)
			Combined Capital Cost as on 1.4.2019



		<b>dated 14.9.2019</b>	
Combined Asset	12240.73	7.20	12247.93

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

69. Regulations 24 and 25 of the 2019 Tariff Regulations provide as follows:

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

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

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

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

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

**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*
- (g) *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.”*

70. As per the Auditor’s Certificates dated 3.8.2019 and 31.7.2019, the Petitioner has claimed ₹60.56 lakh for the year 2019-20 (on projection basis) as ACE for the Combined Asset during the 2019-24 tariff period in respect of Asset-A1. The Petitioner has claimed the capital cost as on 31.3.2024 as follows:

(₹ in lakh)		
Capital Cost as on 31.3.2019	Projected ACE	Capital Cost as on 31.3.2024
	2019-20	
12254.76	60.56	12315.32

71. The Petitioner has further submitted that total ACE claimed in 2019-20 pertains to Asset-A1 and is beyond the cut-off date, i.e., 31.3.2018 and submitted the following details:

Asset	Party Name	Package	Balance and retention amount (₹ in lakh)
Asset-A1	New Northeast Electric Group High Voltage Co.	Transmission Line	60.56

72. We have considered the submissions of the Petitioner. It is observed that ₹60.56 lakh pertaining to Asset-A1 are towards balance and retention payments to New Northeast Electric Group High Voltage Co. for the works executed within the cut-off date and they are thus allowed under Regulation 25(1)(d) of the 2019 Tariff Regulations which is subject to true up. Accordingly, the capital cost as on 31.3.2024 is considered as follows:

(₹ in lakh)		
Admitted Capital Cost as on 1.4.2019	ACE allowed	Capital Cost as on 31.3.2024



	<b>2019-20</b>	
12247.93	60.56	12308.49

### **Debt-Equity Ratio**

73. 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.”

74. The debt-equity ratio considered for the purpose of tariff calculations for the 2019-24 tariff period is as follows:

Particulars	Capital Cost as on 1.4.2019 (₹ in lakh)	In %	Capital Cost as on 31.3.2024 (₹ in lakh)	In %
Debt	8573.55	70.00	8615.94	70.00
Equity	3674.38	30.00	3692.55	30.00
<b>Total</b>	<b>12247.93</b>	<b>100.00</b>	<b>12308.49</b>	<b>100.00</b>

### **Depreciation**

75. 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 31<sup>st</sup> 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.”*

76. The IT equipment has been considered as a part of the Gross Block and depreciated using WAROD. WAROD has been worked out at Annexure-II after taking into account the depreciation rates of IT and non-IT assets as specified in the 2019 Tariff Regulations. The salvage value of IT equipment has been considered nil, i.e. IT asset has been considered as 100% depreciable. The depreciation has been worked out considering the admitted capital expenditure as on 31.3.2019 and accumulated depreciation up to 31.3.2019. The depreciation allowed for the Combined Asset is as follows:

**(₹ in lakh)**

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Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Depreciation</b>					
Opening Gross Block	12247.93	12308.49	12308.49	12308.49	12308.49
Addition during the year 2019-24 due to projected ACE	60.56	0.00	0.00	0.00	0.00
Closing Gross Block	12308.49	12308.49	12308.49	12308.49	12308.49
Average Gross Block	12278.21	12308.49	12308.49	12308.49	12308.49
Rate of Depreciation (in %)	5.41	5.41	5.41	5.41	5.41
Balance useful life of the asset (Year)	21	20	19	18	17
Lapsed life at the beginning of the year (Year)	4	5	6	7	8
Aggregated Depreciable Value	11064.37	11091.62	11091.62	11091.62	11091.62
<b>Combined Depreciation during the year</b>	<b>664.44</b>	<b>666.04</b>	<b>666.04</b>	<b>666.04</b>	<b>666.04</b>
Aggregate Cumulative Depreciation	3140.11	3806.16	4472.20	5138.24	5804.29
Remaining Aggregated Depreciable Value	7924.26	7285.46	6619.42	5953.38	5287.33

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

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

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

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

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

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

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

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

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



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

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

78. The weighted average rate of IoL has been considered on the basis of rate prevailing as on 1.4.2019. The Petitioner has prayed that the change in interest rate due to floating rate of interest applicable, if any, during 2019-24 tariff period will be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of truing-up. Therefore, IoL has been allowed in accordance with Regulation 32 of the 2019 Tariff Regulations. IoL allowed for 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	8573.55	8615.94	8615.94	8615.94	8615.94
Cumulative Repayments up to Previous Year	2475.67	3140.11	3806.16	4472.20	5138.24
Net Loan-Opening	6097.88	5475.83	4809.78	4143.74	3477.70
Additions	42.39	0.00	0.00	0.00	0.00
Repayment during the year	664.44	666.04	666.04	666.04	666.04
Net Loan-Closing	5475.83	4809.78	4143.74	3477.70	2811.65
Average Loan	5786.85	5142.81	4476.76	3810.72	3144.67
Weighted Average Rate of Interest on Loan (in %)	8.2931	8.2548	8.2869	8.3281	8.3397
<b>Interest on Loan</b>	<b>479.91</b>	<b>424.53</b>	<b>370.99</b>	<b>317.36</b>	<b>262.26</b>

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

79. 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 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."

80. 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:

	(₹ in lakh)				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	3674.38	3692.55	3692.55	3692.55	3692.55
Additions	18.17	0.00	0.00	0.00	0.00
Closing Equity	3692.55	3692.55	3692.55	3692.55	3692.55
Average Equity	3683.46	3692.55	3692.55	3692.55	3692.55
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (in %)	17.472	17.472	17.472	17.472	17.472
Rate of Return on Equity (in %)	18.782	18.782	18.782	18.782	18.782
<b>Return on Equity</b>	<b>691.83</b>	<b>693.53</b>	<b>693.53</b>	<b>693.53</b>	<b>693.53</b>

81. 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
<b>Norms for sub-station Bays (₹ Lakh per bay)</b>					
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
<b>Norms for Transformers (₹ Lakh per MVA)</b>					
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
<b>Norms for AC and HVDC lines (₹ Lakh per km)</b>					
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-conductor)	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
<b>Norms for HVDC stations</b>					
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



$\pm 800$ kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW)	2,563	2,653	2,746	2,842	2,942
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*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  $\pm 500$  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  $\pm 500$  kV Talchar-Kolar HVDC bi-pole scheme (2000 MW);*
- iv. the O&M expenses of  $\pm 800$  kV Champa-Kurukshetra HVDC bi-pole scheme (3000 MW) shall be on the basis of the normative O&M expenses for  $\pm 800$  kV, Bishwanath-Agra HVDC bi-pole scheme;*
- v. the O&M expenses of  $\pm 800$  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  $\pm 800$  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.”*

82. The Petitioner has claimed the following O&M Expenses for the Combined Asset for 2019-24 tariff period:

<b>O&amp;M Expenses</b>					
<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
<b>Sub-station bays</b>					
765 kV					
Number of bays	5	5	5	5	5
Norms (₹ lakh/Bay)	45.01	46.6	48.23	49.93	51.68
<b>O&amp;M for PLCC (2% of ₹326.44 lakh)</b>	6.53	6.53	6.53	6.53	6.53
<b>Total O&amp;M Expense (₹ in lakh)</b>	<b>231.58</b>	<b>239.53</b>	<b>247.68</b>	<b>256.18</b>	<b>264.93</b>

83. The Petitioner has claimed O&M Expenses separately for the 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 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.

84. In terms of the decision in order dated 24.1.2021 in Petition No.126/TT/2020, Petitioner's claim for separate O&M Expenses for PLCC @2% is rejected. The O&M Expenses have been worked out as per the norms specified in the 2019 Tariff Regulations and the same are as follows:

<b>O&amp;M Expenses</b>	<b>Combined Asset</b>				
<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
<b>Sub-station bays</b>					
765 kV					



Number of bays	5	5	5	5	5
Norms (₹ lakh/Bay)	45.01	46.6	48.23	49.93	51.68
<b>Total O&amp;M Expenses (₹ in lakh)</b>	<b>225.05</b>	<b>233.00</b>	<b>241.15</b>	<b>249.65</b>	<b>258.40</b>

**Interest on Working Capital (IWC)**

85. 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 annual fixed cost;
- (ii) Maintenance spares @ 15% of operation and maintenance expenses including security expenses; and
- (iii) Operation and maintenance expenses, including security expenses for one month.

“(3) Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2019 or as on 1<sup>st</sup> 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;”

86. The Petitioner has submitted that it has computed IWC for 2019-24 tariff period considering the SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of IWC as 12.05%. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The Rate of Interest (ROI) considered is 12.05% (SBI 1 year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points)



for 2019-20, whereas, ROI for 2020-21 onwards has been considered as 11.25% (SBI 1 year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points). 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)	18.75	19.42	20.10	20.80	21.53
Maintenance Spares (15% of O&M Expenses)	33.76	34.95	36.17	37.45	38.76
Receivables (Equivalent to 45 days of annual transmission charges)	257.72	253.03	247.34	241.08	234.83
<b>Total Working Capital</b>	<b>310.23</b>	<b>307.40</b>	<b>303.60</b>	<b>299.33</b>	<b>295.12</b>
Rate of Interest (in %)	12.05	11.25	11.25	11.25	11.25
<b>Interest on Working Capital</b>	<b>37.38</b>	<b>34.58</b>	<b>34.16</b>	<b>33.68</b>	<b>33.20</b>

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

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

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	664.44	666.04	666.04	666.04	666.04
Interest on Loan	479.91	424.53	370.99	317.36	262.26
Return on Equity	691.83	693.53	693.53	693.53	693.53
Interest on Working Capital	37.38	34.58	34.16	33.68	33.20
O&M Expenses	225.05	233.00	241.15	249.65	258.40
<b>Total</b>	<b>2098.62</b>	<b>2051.69</b>	<b>2005.87</b>	<b>1960.26</b>	<b>1913.44</b>

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

88. The Petitioner has claimed reimbursement of fee paid by it for filing the petition and publication expenses in terms of Regulation 70(1) of the 2019 Tariff Regulations. The Petitioner is allowed 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**

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

### **Goods and Services Tax**

90. MPPMCL has submitted that the demand of the Petitioner is premature and need not be considered at this juncture. In response, the Petitioner has submitted that currently transmission of electricity by an electric transmission utility is exempt from GST. Hence, the transmission charges currently charged are exclusive of GST. The Petitioner has submitted that, if GST is levied at any rate and at any point of time in future on charges of transmission of electricity, the same shall be borne and additionally paid by the Respondent(s) to the Petitioner and the same shall be charged and billed separately by the Petitioner. Further additional taxes, if any, are to be paid by the Petitioner on account of demand from Government/Statutory authorities, the same may be allowed to be recovered from the beneficiaries.

91. 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 the Petitioner's prayer is premature.

### **Security Expenses**

92. The Petitioner has submitted that security expenses for the transmission assets are not claimed in the instant petition and it would file a separate petition for claiming





the overall security expenses and the consequential IWC. The Petitioner has requested to consider the actual security expenses incurred during 2018-19 for claiming estimated security expenses for 2019-20 which shall be subject to true up at the end of the year based on the actuals. The Petitioner has submitted that similar petition for security expenses for 2020-21, 2021-22, 2022-23 and 2023-24 shall be filed on a yearly basis on the basis of the actual expenses of previous year subject to true up at the end of the year on actual expenses. The Petitioner has submitted that the difference, if any, between the estimated security expenses and actual security expenses as per the audited accounts may be allowed to be recovered from the beneficiaries on a yearly basis.

93. We have considered the submissions of the Petitioner. We are of the view that the Petitioner should claim security expenses for all the transmission assets in one petition. It is observed that the Petitioner has already filed the Petition No. 260/MP/2020 claiming consolidated security expenses on projected basis for the 2019-24 tariff period on the basis of actual security expenses incurred in 2018-19. Therefore, security expenses will be dealt with in Petition No. 260/MP/2020 in accordance with the applicable provisions of the 2019 Tariff Regulations.

### **Capital Spares**

94. 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**

95. The Commission vide order dated 20.9.2017 in Petition No. 227/TT/2014 held as follows:



*“54. It is observed that due to non-availability of downstream assets the instant assets have not been put to regular use. Accordingly, we are of the view that the transmission charges of Assets-1, 2 and 3 from the COD till the commissioning of downstream network will be borne by Bhopal Dhule Transmission Company Limited. After that the billing, collection and disbursement of the transmission charges approved shall be governed by the provisions of Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010, as amended from time to time as provided in Regulation 43 of the 2014 Tariff Regulations.”*

96. In view of the above, the transmission charges of Asset-B1, Asset-B2 and Asset-B3 from COD till the commissioning of downstream asset shall be borne by Bhopal Dhule Transmission Company Ltd.

97. With effect from 1.11.2020, sharing of transmission charges is governed by provisions of the Central Electricity Regulatory Commission (Sharing of Transmission Charges and Losses) Regulations, 2020 (in short, “the 2020 Sharing Regulations”). Accordingly, the liabilities of DICs for arrears of transmission charges determined through this order shall be recovered from the concerned DICs through Bill 2 under Regulation 15(2)(b) of the 2020 Sharing Regulations. For the subsequent period, billing, collection and disbursement of transmission charges shall be governed by the provisions of the 2020 Sharing Regulations as provided in Regulation 57 of the 2019 Tariff Regulations.

98. **To summarize:**

a) The trued-up AFC allowed for the transmission assets for 2014-19 period are as follows:

	(₹ in lakh)				
<b>Asset</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Asset-A1	0.00	549.29	760.56	777.46	785.86
Asset-B1	292.84	745.49	810.77	850.62	876.19
Asset-B2	267.85	564.27	562.99	569.06	576.96
Asset-B3	140.61	203.07	209.13	208.22	208.26

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

(₹ in lakh)				
2019-20	2020-21	2021-22	2022-23	2023-24
2098.62	2051.69	2005.87	1960.26	1913.44

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

100. This order disposes of Petition No. 405/TT/2020 in terms of the above discussion and findings.

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

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

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

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



## ANNEXURE-I

### Asset-A1

2014-19 Capital Expenditure	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)				
		2015-16	2016-17	2017-18	Total			2015-16	2016-17	2017-18	2018-19	
Land - Freehold	-	-	-	-	-	-	-	-	-	-	-	
Land - Leasehold	-	-	-	-	-	-	3.34%	-	-	-	-	
Building Civil Works & Colony	-	-	-	-	-	-	3.34%	-	-	-	-	
Transmission Line	-	-	-	-	-	-	5.28%	-	-	-	-	
Sub Station	2803.97	749.71	213.84	338.20	1301.76	4105.72	5.28%	167.84	193.28	207.85	216.78	
PLCC	106.46	16.96	23.00	-	39.95	146.41	6.33%	7.28	8.54	9.27	9.27	
IT Equipment (Incl. Software)	-	35.25	-	3.43	38.68	38.68	5.28%	0.93	1.86	1.95	2.04	
<b>Total</b>	<b>2910.43</b>	<b>801.92</b>	<b>236.84</b>	<b>341.63</b>	<b>1380.39</b>	<b>4290.82</b>	<b>Total</b>	<b>176.05</b>	<b>203.68</b>	<b>219.07</b>	<b>228.09</b>	
								<b>Average Gross Block (₹ in lakh)</b>	<b>3311.39</b>	<b>3830.77</b>	<b>4120.00</b>	<b>4290.82</b>
								<b>Weighted Average Rate of Depreciation</b>	<b>5.32%</b>	<b>5.32%</b>	<b>5.32%</b>	<b>5.32%</b>

### Asset-B1

2014-19 Capital Expenditure	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)					
		2015-16	2016-17	2017-18	Total			2014-15	2015-16	2016-17	2017-18	2018-19	
Land - Freehold	-	-	-	-	-	-	-	-	-	-	-	-	
Land - Leasehold	-	-	-	-	-	-	3.34%	-	-	-	-	-	
Building Civil Works & Colony	-	-	-	-	-	-	3.34%	-	-	-	-	-	
Transmission Line	-	-	-	-	-	-	5.28%	-	-	-	-	-	
Sub Station	2317.33	640.84	257.62	481.46	1812.27	4129.60	5.28%	133.77	162.10	185.82	205.33	218.04	
PLCC	12.24	13.12	20.28	-	52.76	65.00	6.33%	1.39	2.42	3.47	4.11	4.11	
IT Equipment (Incl. Software)	47.73	0.16	5.01	-	5.31	53.04	5.28%	2.52	2.53	2.67	2.80	2.80	
<b>Total</b>	<b>2377.31</b>	<b>654.12</b>	<b>282.91</b>	<b>481.46</b>	<b>1870.33</b>	<b>4247.64</b>	<b>Total</b>	<b>137.68</b>	<b>167.05</b>	<b>191.96</b>	<b>212.25</b>	<b>224.96</b>	
								<b>Average Gross Block (₹ in lakh)</b>	<b>2603.23</b>	<b>3156.21</b>	<b>3624.73</b>	<b>4006.91</b>	<b>4247.64</b>
								<b>Weighted Average Rate of Depreciation</b>	<b>5.29%</b>	<b>5.29%</b>	<b>5.30%</b>	<b>5.30%</b>	<b>5.30%</b>



## Asset-B2

2014-19 Capital Expenditure	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)					
		2015-16	2016-17	2017-18	2018-19	Total			2014-15	2015-16	2016-17	2017-18	2018-19	
Land - Freehold	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Land - Leasehold	-	-	-	-	-	-	-	3.34%	-	-	-	-	-	-
Building Civil Works & Colony	-	-	-	-	-	-	-	3.34%	-	-	-	-	-	-
Transmission Line	-	-	-	-	-	-	-	5.28%	-	-	-	-	-	-
Sub Station	2457.54	23.91	51.95	146.98	69.61	479.79	2937.32	5.28%	134.70	140.28	142.28	147.54	153.25	
PLCC	8.89	19.40	11.50	-	-	55.61	64.50	6.33%	1.35	2.74	3.72	4.08	4.08	
IT Equipment (Incl. Software)	-	-	17.43	1.67	-	24.06	24.06	5.28%	0.13	0.26	0.72	1.23	1.27	
<b>Total</b>	<b>2466.43</b>	<b>43.30</b>	<b>80.88</b>	<b>148.65</b>	<b>69.61</b>	<b>559.45</b>	<b>3025.89</b>	<b>Total</b>	<b>136.18</b>	<b>143.28</b>	<b>146.72</b>	<b>152.84</b>	<b>158.61</b>	
									<b>Average Gross Block (₹ in lakh)</b>	<b>2574.94</b>	<b>2705.10</b>	<b>2767.19</b>	<b>2881.95</b>	<b>2991.08</b>
									<b>Weighted Average Rate of Depreciation</b>	<b>5.29%</b>	<b>5.30%</b>	<b>5.30%</b>	<b>5.30%</b>	<b>5.30%</b>

## Asset-B3

2014-19 Capital Expenditure	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)						
		2014-15	2015-16	Total			2014-15	2015-16	2016-17	2017-18	2018-19		
Land - Freehold	-	-	-	-	-	-	-	-	-	-	-	-	-
Land - Leasehold	-	-	-	-	-	3.34%	-	-	-	-	-	-	-
Building Civil Works & Colony	33.53	10.95	-	10.95	44.48	3.34%	1.30	1.49	1.49	1.49	1.49	1.49	
Transmission Line	-	-	-	-	-	5.28%	-	-	-	-	-	-	
Sub Station	202.40	282.83	72.18	355.01	557.41	5.28%	18.15	27.53	29.43	29.43	29.43		
PLCC	21.30	26.45	2.69	29.14	50.44	6.33%	2.19	3.11	3.19	3.19	3.19		
IT Equipment (Incl. Software)	24.05	-	-	-	24.05	5.28%	1.27	1.27	1.27	1.27	1.27		
<b>Total</b>	<b>281.28</b>	<b>320.23</b>	<b>74.87</b>	<b>395.10</b>	<b>676.38</b>	<b>Total</b>	<b>22.91</b>	<b>33.39</b>	<b>35.38</b>	<b>35.38</b>	<b>35.38</b>		
							<b>Average Gross Block (₹ in lakh)</b>	<b>441.40</b>	<b>638.95</b>	<b>676.38</b>	<b>676.38</b>	<b>676.38</b>	
							<b>Weighted Average Rate of Depreciation</b>	<b>5.19%</b>	<b>5.23%</b>	<b>5.23%</b>	<b>5.23%</b>	<b>5.23%</b>	



## Annexure-II

2019-24 Capital Expenditure	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Projected ACE (₹ in lakh)		Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)				
		2019-20	Total			2019-20	2020-21	2021-22	2022-23	2023-24
Land - Freehold	0.00	-	-	0.00	-	-	-	-	-	-
Land - Leasehold	0.00	-	-	0.00	3.34%	-	-	-	-	-
Building Civil Works & Colony	44.48	-	-	44.48	3.34%	1.49	1.49	1.49	1.49	1.49
Transmission Line	0.00	-	-	0.00	5.28%	-	-	-	-	-
Sub Station	11737.26	60.56	60.56	11797.82	5.28%	621.33	622.93	622.93	622.93	622.93
PLCC	326.35	-	-	326.35	6.33%	20.66	20.66	20.66	20.66	20.66
IT Equipment (Incl. Software)	139.83	-	-	139.83	15.00%	20.97	20.97	20.97	20.97	20.97
<b>Total</b>	<b>12247.93</b>	<b>60.56</b>	<b>60.56</b>	<b>12308.49</b>		<b>664.44</b>	<b>666.04</b>	<b>666.04</b>	<b>666.04</b>	<b>666.04</b>
<b>Average Gross Block (₹ in lakh)</b>						<b>12278.21</b>	<b>12308.49</b>	<b>12308.49</b>	<b>12308.49</b>	<b>12308.49</b>
<b>Weighted Average Rate of Depreciation</b>						<b>5.41%</b>	<b>5.41%</b>	<b>5.41%</b>	<b>5.41%</b>	<b>5.41%</b>

