

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 298/TT/2022**

**Coram:**

**Shri I. S. Jha, Member  
Shri Arun Goyal, Member  
Shri P.K. Singh, Member**

**Date of order: 08.05.2023**

**In the matter of:**

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and truing up of transmission tariff of 2014-19 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of 2019-24 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 in respect of **Asset-1:** Loop-out of 220 kV Jalandhar-Hamirpur line at Hamirpur (To be used as LILO of 1<sup>st</sup> Ckt. of 220 kV Hamirpur-Jalandhar Transmission Line) **Asset-2:** LILO of 2<sup>nd</sup> Circuit of 220 kV Jalandhar-Hamirpur Transmission Line **Asset-3:** Extension of Dehar 400/220 kV Sub-station (BBMB)-Installation of 400 kV, 1x63 MVAR Bus Reactor-I through a single 400 kV hybrid GIS bay **Asset-4A:** Extension of Kota 400/220 kV Sub-station (POWERGRID)-Shifting of 400 kV, 50 MVAR line reactor from Merta to Kota Sub-station for its use as Bus Reactor and 400 kV Bus reactor bay **Asset-4B:** 50 MVAR line reactor (shifted from Merta Sub-station) for its use as Bus reactor at Kota Sub-station (Only reactor) **Asset-5:** Extension of Koteshwar 400/220 kV Sub-station (THDC)-installation of 400 kV, 125 MVAR bus reactor along with associated bay at Koteshwar **Asset-6:** Extension of Dehar 400/220 kV Sub-station (BBMB)-installation of 400 kV, 1x63 MVAR bus Reactor-II through a single 400 kV hybrid GIS bay **Asset-7:** Replacement of 250 MVA ICT with 4x105 MVA, 1-Phase ICT and retrofitting of associated 400/220 kV bay equipment and protection relays at Dehar under "Strengthening Scheme in Northern Region" in the Northern Region.

**And in the matter of:**

Power Grid Corporation of India Limited,  
SAUDAMINI, Plot No-2,  
Sector-29, Gurgaon-122 001 (Haryana).

**.....Petitioner**

**Vs**

1. Ajmer Vidyut Vitran Nigam Limited  
Corporate Office, Vidyut Bhawan,  
Panchsheel Nagar, Makarwali Road  
Ajmer – 305004.



2. Jaipur Vidyut Vitran Nigam Limited,  
Vidyut Bhawan, Janpath, Jyoti Nagar,  
Jaipur – 302005.
3. Jodhpur Vidyut Vitran Nigam Limited,  
New Power House, Industrial Area,  
Jodhpur – 342003
4. Himachal Pradesh State Electricity Board,  
Vidyut Bhawan, Kumar House Complex Building II,  
Shimla-171004
5. Punjab State Power Corporation Limited,  
The Mall, PSEB Head Office,  
Patiala – 147001.
6. Haryana Power Purchase Centre,  
Shakti Bhawan, Sector-6  
Panchkula (Haryana) – 134109.
7. Power Development Department,  
Government of Jammu & Kashmir  
Mini Secretariat, Jammu.
8. Uttar Pradesh Power Corporation Limited,  
Shakti Bhawan, 14, Ashok Marg  
Lucknow – 226001.
9. BSES Yamuna Power Limited,  
B-Block, Shakti Kiran, Bldg. (Near Karkadooma Court),  
Karkadooma 2nd Floor,  
New Delhi – 110092.
10. BSES Rajdhani Power Limited,  
BSES Bhawan, Nehru Place,  
New Delhi.
11. Tata Power Delhi Distribution Limited,  
NDPL House, Hudson Lane  
Kingsway Camp, North Delhi – 110009.
12. Chandigarh Administration  
Sector -9, Chandigarh.
13. Uttarakhand Power Corporation Limited,  
Urja Bhawan, Kanwali Road  
Dehradun.



14. North Central Railway,  
Allahabad.

15. New Delhi Municipal Council,  
Palika Kendra, Sansad Marg,  
New Delhi-110002

...Respondent(s)

**For Petitioner:** Shri S.S. Raju, PGCIL  
Shri Nitin Kumar, PGCIL  
Shri V.P. Rastogi, PGCIL  
Shri Ashish Alankar, PGCIL  
Ms. Ashita Chauhan, PGCIL

**For Respondents:** None

### **ORDER**

The instant petition has been filed by Power Grid Corporation of India Limited (hereinafter referred to as “the Petitioner”), a deemed transmission licensee, for truing up of transmission tariff for the period from 1.4.2014 to 31.3.2019 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) and determination of tariff under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) of the 2019-24 period in respect of the following transmission assets under Strengthening Scheme in Northern Region in the Northern Region:

- Asset-1:** Loop-out of 220 kV Jalandhar-Hamirpur line at Hamirpur (to be used as LILO of 1<sup>st</sup> Ckt. of 220 kV Hamirpur-Jalandhar Transmission Line)
- Asset-2:** LILO of 2<sup>nd</sup> Circuit of 220 kV Jalandhar-Hamirpur Transmission Line
- Asset-3:** Extension of Dehar 400/220 kV Sub-station (BBMB)-Installation of 400 kV, 1x63 MVAR Bus Reactor- I through a single 400 kV hybrid GIS bay



- Asset-4A:** Extension of Kota 400/220 kV Sub-station (POWERGRID)-Shifting of 400 kV, 50 MVAR line reactor from Merta to Kota Sub-station for its use as Bus Reactor and 400 kV Bus reactor bay
- Asset-4B:** 50 MVAR line reactor (shifted from Merta Sub-station) for its use as Bus reactor at Kota Sub-station (Only reactor)
- Asset-5:** Extension of Koteshwar 400/220 kV Sub-station (THDC)-installation of 400 kV, 125 MVAR bus reactor along with associated bay at Koteshwar
- Asset-6:** Extension of Dehar 400/220 kV Sub-station (BBMB)-installation of 400 kV, 1x63 MVAR bus Reactor-II through a single 400 kV hybrid GIS bay
- Asset-7:** Replacement of 250 MVA ICT with 4x105 MVA, 1-Phase ICT & retrofitting of associated 400/220 kV bay equipment and protection relays at Dehar

2. Asset-1, Asset-2, Asset-3, Asset-4A, Asset-4B, Asset-5, Asset-6 and Asset-7 have been combined as on 1.4.2019 and have been collectively referred to as "Combined Asset" for the 2019-24 tariff period.

3. 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 9 and 10 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 8 and 9 above for respective block.*

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

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

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



6) Allow the Petitioner to claim the overall security expenses and consequential IOWC on that security expenses separately.

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

8) Condone the delay in filing the present petition caused due to prevailing Covid-19 pandemic.

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.”

## **Background**

4. The brief facts of the case are as follows:

a) The Investment Approval (IA) of the transmission system was accorded by the Board of Directors (BoD) of the Petitioner's Company vide Memorandum No. C/CP/IA/SS dated 26.10.2012 for ₹10055 lakh including IDC of ₹489 lakh based on August 2012 price level. The transmission system was scheduled to be commissioned within 24 months from the IA date i.e. 14.10.2014. The Petitioner vide affidavit dated 16.2.2017 has submitted the Revised Cost Estimate (RCE) of the project at ₹11272 lakh including IDC of ₹527 lakh as discussed in the 336<sup>th</sup> meeting of BoD of the Petitioner held on 6.12.2016.

b) The scope of the work covered under the Transmission System is as follows:

### **Transmission Lines**

(i) LILO of Jalandhar-Hamirpur 220 kV D/C line at Hamirpur (POWERGRID)



**Sub-stations**

- (i) Extension of Kota 400/220 kV Sub-station (POWERGRID) - Shifting of 400 kV, 50 MVAR line reactor from Merta to Kota Sub-station for its use as Bus Reactor and 400 kV Bus reactor bay;
- (ii) Extension of Dehar 400/220 kV Sub-station (BBMB) - Installation of 400 kV, 2x63 MVAR bus reactor through a single 400 kV hybrid GIS bay and replacement of 250 MVA ICT with 4x105 MVA, 1-Phase ICT & retrofitting of associated 400/220 kV bay equipment and protection relays;
- (iii) Extension of Koteshwar 400/220 kV Sub-station (THDC) - Installation of 400 kV, 125 MVAR bus reactors along with associated bay.

c) As per IA, the transmission project was to be executed within 24 months from the date of IA. The details of scheduled date of commercial operation (SCOD), date of commercial operation (COD) and time over-run of the transmission assets and the petitions wherein the transmission assets are covered are as follows:

Asset nomenclature in instant Petition	Asset nomenclature in previous Petition	Description of Asset	SCOD	COD	Time over-run
Order dated 28.6.2018 in Petition No. 149/TT/2017					
Asset-1	Asset	Loop-out of 220 kV Jalandhar-Hamirpur line at Hamirpur (To be used as LILO of 1 <sup>st</sup> Ckt. of 220 kV Hamirpur-Jalandhar Transmission Line)	14.10.2014	1.1.2014	No time overrun
Order dated 30.3.2016 in Petition No. 110/TT/2015					
Asset-2	Asset	LILO of 2 <sup>nd</sup> Circuit of 220 kV Jalandhar-Hamirpur Transmission Line	14.10.2014	2.3.2015	139 days (Condoned)
Order dated 17.10.2017 in Petition No. 234/TT/2016					



Asset-3	Asset	Extension of Dehar 400/220 kV Substation (BBMB)-Installation of 400 kV, 1x63 MVAR Bus Reactor- I through a single 400 kV hybrid GIS bay	14.10.2014	14.12.2016	792 days (365 days-Condoned 427 days-Not Condoned)
Order dated 17.8.2021 in Petition No. 104/TT/2019					
Asset-4A	Asset-I	Extension of Kota 400/220 kV Sub-station (POWERGRID)- Shifting of 400 kV, 50 MVAR line reactor from Merta to Kota Sub-station for its use as Bus Reactor and 400 kV Bus reactor bay	14.10.2014	1.4.2016	535 days ( Not condoned)
Asset-4B	Asset-I(A)	50 MVAR line reactor (shifted from Merta Sub-station) for its use as Bus reactor at Kota Sub-station (Only reactor)	14.10.2014	1.2.2009 Re-capitalisation date: 1.4.2016	NIL
Asset-5	Asset-II	Extension of Koteshwar 400/220 kV Sub-station (THDC)-installation of 400 kV, 125 MVAR bus reactor along with associated bay at Koteshwar	14.10.2014	22.7.2017	1012 days (Not condoned)
Asset-6	Asset-III	Extension of Dehar 400/220 kV Sub-station (BBMB)-installation of 400 kV, 1x63 MVAR bus Reactor-II through a single 400 kV hybrid GIS bay	14.10.2014	13.10.2017	1095 days (365 days Condoned 730 days Not Condoned)
Asset-7	Asset-IV	Replacement of 250 MVA ICT with 4x105 MVA, 1-Phase ICT & retrofitting of associated 400/220 kV bay equipment and protection relays at Dehar	14.10.2014	3.2.2017	843 days (not condoned)

5. Complete scope of the work, as per IA, is covered in the instant petition.



6. The Respondents herein are distribution licensees and power departments which are procuring transmission service from the Petitioner mainly the beneficiaries of the Northern Region.

7. The Petitioner has served the petition on the Respondents and notice of this petition has been published in the newspaper in accordance with Section 64 of the Electricity Act, 2003. No comments/ objections have been received from the general public in response to the aforesaid notice published in the newspaper by the Petitioner.

8. The hearing in this matter was held on 1.12.2022 through video conference and the order was reserved.

9. This order is issued considering the submissions made by the Petitioner in the petition and *vide* affidavits dated 2.8.2022 and 19.12.2022.

10. Having heard the representatives of the Petitioner and having perused the material available on record, we proceed to dispose of the Petition.

11. The Petitioner has submitted that there is delay in filing of the instant petition due to prevailing covid-19 pandemic and has requested to condone the same as it was beyond the control of the Petitioner.

12. We have considered the submissions of the Petitioner. As per Regulation 9(2) of the 2019 Tariff Regulations, the Petitioner was required to file the truing up petition in case of the existing transmission system or element thereof by 31.10.2019. The Petitioner filed Petition No. 331/MP/2019 seeking extension of time by 180 days to file the tariff petition in case of the existing assets where orders have already been issued and 180 days extension in cases where final tariff orders for 2014-19 period are yet to be issued. The Commission, *vide* order dated 28.10.2019, granted time upto 31.1.2020 to file truing up petitions in cases where final orders have already been issued and three





months from the date of issue of the final order, where final orders for 2014-19 period are yet to be issued. Later, NTPC and NHPC made their representations seeking further extension of time. Taking into consideration their representations and the outbreak of Covid-19 pandemic and the subsequent declaration of lockdown by the Central Government, the Commission extended the date of filing of truing up petitions of 2014-19 period in case of the existing generating stations and transmission licensees up to 30.6.2020 vide suo-motu orders dated 6.7.2020 and 7.7.2020 in Petition No. 7/SM/2020. The period was further extended upto 30.9.2020 in case of NHPC and Teesta Urja Ltd., on an application filed by them, vide order dated 6.7.2020 in Petition No.7/SM/2020 and in case of Teesta valley Power Transmission Ltd. vide order dated 23.7.2020 in Petition No.7/SM/2020.

13. Accordingly, the Commission has already extended the period upto 30.9.2020 in cases where tariff orders have already been issued and 90 days from the date of issue of the order where tariff orders are yet to be issued. The tariff for Asset-1 for the 2014-19 tariff period was approved vide order 28.6.2018 in Petition No. 149/TT/2017, for Asset-2 was approved vide order 30.6.2016 in Petition No. 110/TT/2015, for Asset-3 was approved vide order 17.10.2017 in Petition No. 234/TT/2016 and for Asset-4A, Asset-4B, Asset-5, Asset-6 and Asset-7 was approved vide order dated 17.8.2021 in Petition No. 104/TT/2019. Accordingly, as per the Commission's order dated 28.10.2019 in Petition No. 331/MP/2019, the Petitioner should have filed the truing up petition by 15.11.2021. However, the Petitioner has filed the instant petition on 27.5.2022. Thus, there is a delay of 192 days in filing of the instant petition. Taking into consideration the prevailing Covid-19 Pandemic and the consequent lockdown, the delay of 192 days in filing of the instant petition is condoned.



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

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

### **Asset-1**

(₹ in lakh)

<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	45.15	54.44	56.80	56.80	56.80
Interest on Loan	56.31	61.95	57.66	48.72	42.66
Return on Equity	50.30	60.96	63.59	63.59	63.76
O&M Expenses	3.62	4.21	4.23	4.03	3.90
Interest on Working Capital	2.27	2.35	2.43	2.51	2.60
<b>Total</b>	<b>157.65</b>	<b>183.91</b>	<b>184.71</b>	<b>175.65</b>	<b>169.72</b>

### **Asset-2**

(₹ in lakh)

<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	5.52	73.13	79.27	80.16	80.16
Interest on Loan	6.98	87.11	85.57	75.47	67.40
Return on Equity	6.15	81.88	88.76	89.75	89.99
O&M Expenses	0.44	5.73	6.00	5.82	5.65
Interest on Working Capital	0.23	2.89	2.99	3.09	3.20
<b>Total</b>	<b>19.32</b>	<b>250.74</b>	<b>262.59</b>	<b>254.29</b>	<b>246.40</b>

### **Asset-3**

(₹ in lakh)

<b>Particulars</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	25.53	95.97	104.95
Interest on Loan	27.01	96.41	98.13
Return on Equity	28.58	107.45	117.82
O&M Expenses	2.62	9.51	10.07
Interest on Working Capital	16.28	56.84	58.73
<b>Total</b>	<b>100.02</b>	<b>366.18</b>	<b>389.70</b>

### **Asset-4A**

(₹ in lakh)

<b>Particulars</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	12.39	16.00	16.23
Interest on Loan	13.24	15.97	14.86
Return on Equity	13.87	17.92	18.22
O&M Expenses	4.23	4.57	4.67
Interest on Working Capital	64.37	66.51	68.71
<b>Total</b>	<b>108.10</b>	<b>120.97</b>	<b>122.69</b>



**Asset-4B**

(₹ in lakh)

Particulars	2016-17	2017-18	2018-19
Depreciation	25.24	25.24	25.24
Interest on Loan	14.07	11.68	9.29
Return on Equity	28.26	28.26	28.33
O&M Expenses	1.47	1.42	1.37
Interest on Working Capital	0.00	0.00	0.00
<b>Total</b>	<b>69.04</b>	<b>66.60</b>	<b>64.23</b>

**Asset-5**

(₹ in lakh)

Particulars	2016-17	2017-18	2018-19
Depreciation	27.91	40.98	419.00
Interest on Loan	26.59	36.49	389.11
Return on Equity	31.25	46.00	470.69
O&M Expenses	46.10	68.71	40.10
Interest on Working Capital	4.21	6.19	233.62
<b>Total</b>	<b>136.06</b>	<b>198.37</b>	<b>1552.52</b>

**Asset-6**

(₹ in lakh)

Particulars	2017-18	2018-19
Depreciation	9.89	22.00
Interest on Loan	9.93	20.91
Return on Equity	11.08	24.70
O&M Expenses	26.47	58.73
Interest on Working Capital	2.03	4.47
<b>Total</b>	<b>59.40</b>	<b>130.81</b>

**Asset-7**

(₹ in lakh)

Particulars	2016-17	2017-18	2018-19
Depreciation	17.22	110.41	112.52
Interest on Loan	18.13	110.78	104.03
Return on Equity	19.28	123.62	126.32
O&M Expenses	2.01	12.93	13.06
Interest on Working Capital	15.63	103.39	106.83
<b>Total</b>	<b>72.27</b>	<b>461.13</b>	<b>462.76</b>

15. The details of the trued-up Interest on Working Capital (IWC) claimed by the Petitioner in respect of the transmission assets are as follows:



**Asset-1**

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	0.19	0.20	0.20	0.21	0.22
Maintenance Spares	0.34	0.35	0.36	0.38	0.39
Receivables	26.28	30.65	30.79	29.28	28.29
<b>Total Working Capital</b>	<b>26.81</b>	<b>31.20</b>	<b>31.35</b>	<b>29.87</b>	<b>28.90</b>
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
<b>Interest on Working Capital</b>	<b>3.62</b>	<b>4.21</b>	<b>4.23</b>	<b>4.03</b>	<b>3.90</b>

**Asset-2**

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	0.23	0.24	0.25	0.26	0.27
Maintenance Spares	0.42	0.43	0.45	0.46	0.48
Receivables	39.18	41.79	43.77	42.38	41.07
<b>Total Working Capital</b>	<b>39.83</b>	<b>42.46</b>	<b>44.47</b>	<b>43.10</b>	<b>41.82</b>
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
<b>Interest on Working Capital</b>	<b>0.44</b>	<b>5.73</b>	<b>6.00</b>	<b>5.82</b>	<b>5.65</b>

**Asset-3**

(₹ in lakh)

Particulars	2016-17	2017-18	2018-19
O&M Expenses	4.59	4.74	4.89
Maintenance Spares	8.25	8.53	8.81
Receivables	56.34	61.03	64.95
<b>Total Working Capital</b>	<b>69.18</b>	<b>74.30</b>	<b>78.65</b>
Rate of Interest (%)	12.80	12.80	12.80
<b>Interest on Working Capital</b>	<b>2.62</b>	<b>9.51</b>	<b>10.07</b>

**Asset-4A**

(₹ in lakh)

Particulars	2016-17	2017-18	2018-19
O&M Expenses	5.36	5.54	5.73
Maintenance Spares	9.66	9.98	10.31
Receivables	18.02	20.16	20.45
<b>Total Working Capital</b>	<b>33.04</b>	<b>35.68</b>	<b>36.49</b>
Rate of Interest (%)	12.80	12.80	12.80
<b>Interest on Working Capital</b>	<b>4.23</b>	<b>4.57</b>	<b>4.67</b>

**Asset-4B**

(₹ in lakh)

Particulars	2016-17	2017-18	2018-19
O&M Expenses	0.00	0.00	0.00
Maintenance Spares	0.00	0.00	0.00
Receivables	11.51	11.10	10.71
<b>Total Working Capital</b>	<b>11.51</b>	<b>11.10</b>	<b>10.71</b>



Rate of Interest (%)	12.80	12.80	12.80
<b>Interest on Working Capital</b>	<b>1.47</b>	<b>1.42</b>	<b>1.37</b>

#### Asset-5

(₹ in lakh)

Particulars	2017-18	2018-19
O&M Expenses	5.54	5.73
Maintenance Spares	9.98	10.31
Receivables	32.72	33.06
<b>Total Working Capital</b>	<b>48.24</b>	<b>49.10</b>
Rate of Interest (%)	12.60	12.60
<b>Interest on Working Capital</b>	<b>4.21</b>	<b>6.19</b>

#### Asset-6

(₹ in lakh)

Particulars	2017-18	2018-19
O&M Expenses	4.74	4.89
Maintenance Spares	8.53	8.81
Receivables	21.56	21.80
<b>Total Working Capital</b>	<b>34.53</b>	<b>35.50</b>
Rate of Interest (%)	12.60	12.60
<b>Interest on Working Capital</b>	<b>2.03</b>	<b>4.47</b>

#### Asset-7

(₹ in lakh)

Particulars	2016-17	2017-18	2018-19
O&M Expenses	8.34	8.62	8.90
Maintenance Spares	15.01	15.51	16.02
Receivables	77.13	76.86	77.13
<b>Total Working Capital</b>	<b>100.48</b>	<b>100.99</b>	<b>102.05</b>
Rate of Interest (%)	12.80	12.80	12.80
<b>Interest on Working Capital</b>	<b>2.01</b>	<b>12.93</b>	<b>13.06</b>

#### Capital Cost

16. The capital cost of the transmission system has been calculated in accordance with the Regulation 9(1) and 9(2) of the 2014 Tariff Regulations.

17. The Commission *vide* order dated 28.6.2018 in Petition No. 149/TT/2017 allowed capital cost as on COD for Asset-1, *vide* order dated 30.3.2016 in Petition No. 110/TT/2015 allowed capital cost as on COD for Asset-2, *vide* order dated 17.10.2017 in Petition No. 234/TT/2016 allowed capital cost as on COD for Asset-3, *vide* order



dated 17.8.2021 in Petition No. 104/TT/2019 for Asset-4A, Asset-4B, Asset-5, Asset-6 and Asset-7 allowed capital cost as on COD and projected ACE for the 2014-19 period. The details of the capital cost as allowed by the Commission in the aforesaid orders are as follows:

(₹ in lakh)

Asset	Capital Cost allowed as on COD	ACE allowed					Capital Cost allowed as on 31.3.2019
		2014-15	2015-16	2016-17	2017-18	2018-19	
Asset-1	723.51	263.08	89.09	0.00	0.00	0.00	1075.68
Asset-2	1262.65	26.13	299.83	0.00	0.00	0.00	1588.61
Asset-3	1418.66			604.70	362.82	241.87	2628.05
Asset-4A	169.36			130.41	12.00	138.50	450.27
Asset-4B	477.99			0.00	0.00	0.00	477.99
Asset-5	751.58				33.10	188.91	973.59
Asset-6	392.89				18.68	29.77	441.34
Asset-7	2095.89			2.91	3.30	282.44	2384.54

18. The Petitioner in the instant true-up petition has submitted the following capital cost for true-up in the 2014-19 tariff period:

(₹ in lakh)

Assets	Apportioned Approved Capital Cost (RCE)	Capital Cost as on COD	ACE Claimed					Total Capital Cost as on 31.3.2019
			2014-15	2015-16	2016-17	2017-18	2018-19	
Asset-1	1282.95	724.45	262.14	96.08	0.00	0.00	0.00	1082.67
Asset-2	1701.54	1276.80	26.13	185.91	33.70	0.00	0.00	1522.54
Asset-3	3157.28	1696.13			60.50	457.02	35.28	2248.93
Asset-4A	546.10	198.20			148.47	21.82	1.81	370.30
Asset-4B	-	477.99			0.00	0.00	0.00	477.99
Asset-5	1096.51	803.29				22.22	4.58	830.09
Asset-6	643.59	422.06				18.68	10.33	451.07
Asset-7	2844.03	2237.59			2.91	3.30	111.94	2355.74



## Cost Over-run

19. In response to technical validation letter dated 22.7.2022 regarding “Reconciliation Statement for the Opening Capital Cost and Additional Capital Expenditure (ACE) during 2014-19 with the Auditor Certificates”, the Petitioner vide affidavit dated 2.8.2022 has submitted as follows:

(₹ in lakh)

<b>Asset-1:</b>	<b>Admitted</b>	<b>Claimed</b>	<b>Remarks</b>
Cost as on 31.03.2014	723.51	723.51	No change
Add-cap during 2014-19	352.17	352.17	No change

<b>Asset-2:</b>	<b>Admitted</b>	<b>Claimed</b>	<b>Remarks</b>
Cost as on COD	1262.65	1259.55	The difference is on account of cash IDC adjustment.
Add-cap during 2014-19	325.96	258.66	The difference is on account of actual expenditure incurred and excess initial spare adjustment

<b>Asset-3:</b>	<b>Admitted</b>	<b>Claimed</b>	<b>Remarks</b>
Cost as on COD	1418.66	1603.60	The difference is on account of re-calculation of excess initial spare and disallowance of spare based on spare discharge.
Add-cap during 2014-19	1209.39	400.63	The difference is on account of actual expenditure incurred, excess initial spare adjustment, spill over of add-cap to 2019-24.

<b>Asset-4(A):</b>	<b>Admitted</b>	<b>Claimed</b>	<b>Remarks</b>
Cost as on COD	169.36	169.36	No change
Add-cap during 2014-19	280.91	138.90	The difference is on account of actual expenditure incurred, excess initial spare adjustment, spill-over of add-cap to 2019-24.

<b>Asset-4(B):</b>	<b>Admitted</b>	<b>Claimed</b>	<b>Remarks</b>
Cost as on 31.03.2014	477.99	477.99	No change
Add-cap during 2014-19	0.00	0.00	No change

<b>Asset-5:</b>	<b>Admitted</b>	<b>Claimed</b>	<b>Remarks</b>
Cost as on COD	751.58	751.58	No change
Add-cap during 2014-19	222.01	26.80	The difference is on account of actual expenditure incurred and spill-over of add-cap to 2019-24.



<b>Asset-6:</b>	<b>Admitted</b>	<b>Claimed</b>	<b>Remarks</b>
Cost as on COD	392.89	392.89	No change
Add-cap during 2014-19	48.45	29.01	The difference is on account of actual expenditure incurred and spill-over of add-cap to 2019-24.

<b>Asset-7:</b>	<b>Admitted</b>	<b>Claimed</b>	<b>Remarks</b>
Cost as on COD	2095.89	2086.50	The difference is on account of re-calculation of excess initial spare and disallowance of spare based on spare discharge.
Add-cap during 2014-19	288.65	83.08	The difference is on account of actual expenditure incurred, excess initial spare adjustment, spill-over of add-cap to 2019-24.

20. The Petitioner vide affidavit dated 2.8.2022 has submitted the comparison of RCE cost of ₹11272 lakh against the approved cost of ₹10055 lakh. The comparison details are summarized as follows:

<b>Sr. No.</b>	<b>Variation on account of:</b>	<b>Variation</b>	
		<b>(₹ in lakh)</b>	<b>(%)</b>
(i)	Price Variation	2332	23.20 %
(ii)	Variation in quantities of approved Items	(-) 932	(-) 9.27 %
(iii)	Deletion of items	(-) 375	(-) 3.73 %
(iv)	Crop and Forest Compensation	307	3.05 %
(v)	FERV (Due to LoAs awarded in foreign currency)	99	0.98 %
<b>Sr. No.</b>	<b>Variation on account of:</b>	<b>Variation</b>	
		<b>(₹ in lakh)</b>	<b>(%)</b>
(vi)	Other Reasons (IEDC and IDC)		
a	IEDC (incl. Contingencies)	(-) 252	(-) 2.51 %
b	IDC	38	0.38 %
	Sub- Total (IEDC & IDC)	(-) 214	(-) 2.13 %
	<b>GRAND TOTAL</b>	<b>1217</b>	<b>12.10%</b>

### Reasons for variation in cost

21. The Petitioner has submitted that there is an increase of ₹1217 lakh (12.10 %) from the approved cost of ₹10055 lakh as explained above. The major variation in cost is attributable to the following reasons:

Price variation	23.20 %
Variation in quantities of approved items	(-) 9.27 %
Deletion of items	(-) 3.73 %
Increase in crop & forest compensation	3.05 %





Foreign Exchange Rate Variation (FERV)  
Net decrease in IDC & IEDC

0.98 %  
(-) 2.13 %.

22. The Petitioner has submitted head-wise variation in cost as follows:

**a. Price Variation (PV) (Net Increase of ₹ 2332 lakh: 23.20 %):** There has been an increase in the cost of the project by ₹ 2332 lakh on this account, which works out to 23.20 % of the approved cost. It may be seen from the above table that out of a total price variation, a variation of ₹1905 lakh has been incurred from the time of approval of project till award of various contracts (DPR to LOA) based on prices received as per competitive bidding and a variation of ₹428 lakh has been incurred/ likely to be incurred on the basis of PV based on indices as per provision of respective contracts. As regards PV from DPR to LOA, the Contracts for various packages under this project were awarded to the lowest evaluated and responsive bidder, on the basis of Competitive Bidding, after publication of NITs in leading Newspapers. Thus, the award prices represent the lowest prices available at the time of bidding of various packages. Further, during the project execution, there has been inflationary trend in the prices of various input items for the project as indicated in the indices given below:-

NAME OF INDICES	DPR (August 2012 PL)	November 2012 (one month prior to first OBD)	March 2013	March 2014	March 2015	% Increase from first OBD
Tower Steel	54983	54772	53539	53586	49918	-8.86%
HG Zinc	120100	117100	132900	159200	155600	<b>32.88%</b>
EC Grade Al	141283	141283	146700	143883	151833	<b>7.47%</b>
CRGO	176344	165686	156590	194009	226050	<b>36.43%</b>
Copper	442186	446066	441489	422611	393972	-11.68%
WPI	167.3	168.8	170.1	178.9	176.1	<b>4.32%</b>
CPI	214	218	224	238	254	<b>16.51%</b>



Thus, the price variation under the project is attributable to the inflationary trend prevailing during execution of project and also market forces prevailing at the time of bidding process of various packages.

- b. **Variation in Quantities of Approved Items (Net decrease of ₹9.32 lakh: (-) 9.27 %):** During execution of the project, there has been decrease under the head due to decrease in line length of LILO of 220kV D/C Jalandhar - Hamirpur TL at Hamirpur (POWERGRID) from 21 km in DPR to about 17 km resulting in variation of following major items –

Tower Steel:	(-) 208 lakh
Conductor:	(-) 90 lakh
Insulator:	(-) 25 lakh
Concreting & Reinforcement:	(-) 144 lakh
Revetment:	(-) 334 lakh

Accordingly, there has been a decrease in the cost of the project by ₹932 lakh, which works out to (-) 9.27 % of the approved cost.

- c. **Deletion of items (Net decrease of ₹ 375 lakh: (-) 3.73 %)**

There was a provision of ₹375 lakh in DPR under the head “Overhead payable to SEB” towards sub-station works of POWERGRID to be carried out in Dehar (BBMB) Sub-station by BBMB. However, the bays were implemented by POWERGRID at Dehar (BBMB) Sub-station and accordingly, no overheads were payable to BBMB. Thus, there has been decrease of ₹ 375 lakh {(-) 3.73 %} under the project cost.

- d. **Crop and Forest Compensation (Net increase of ₹ 307 lakh: 3.05 %):**

There was a provision of ₹301 lakh under the head ‘Crop and Forest Compensation’. However, actual expenditure incurred and balance anticipated expenditure to be incurred under the above head will be ₹ 608 resulting in an increase of ₹ 307 lakh under the head ‘Crop and Forest Compensation’. The detail of increase in cost under the head is as follows:



(₹ in lakh)

Description	As per DPR	As per RCE	Remarks
i) Compensation towards crop, PTCC	93	155	Based on actual/ anticipated payment.
ii) Compensation towards Forest	208	453	Based on actual/ anticipated payment.
<b>TOTAL</b>	<b>301</b>	<b>608</b>	

**e. Foreign Exchange Rate Variation (Net increase of ₹99 lakh: 0.98 %):**

The project involves payment in foreign currencies under various contracts awarded. Net increase in liability on account of FERV due to above is ₹99 lakh. The detail of exchange rates considered is as follows:

Foreign Currency (in INR)		
	Approved DPR (Aug 2012 PL)	Remarks
1 USD	56.31	Varied from 53.41 to 68.69

**f. Variation in IDC and IEDC (Net decrease of ₹214 lakh: (-) 2.13 %):**

Total IDC and IEDC under the project has decreased by ₹214 lakh in comparison to approved cost, which works out to (-) 2.13 % as per the following break-up-

**A. Decrease in IEDC**

As per the IA, the IEDC including contingencies for the project as per approved cost was estimated at ₹1066 lakh on normative basis whereas in the RCE, based on actual/ anticipated expenditure incurred, this works out to ₹814 lakh resulting in a decrease of ₹252 lakh.

**B. Increase in IDC**

Interest during Construction (IDC) for the project as per approved DPR cost was estimated at ₹489 lakh whereas based on the actual and anticipated funds flow, the IDC for the project in the RCE works out to ₹527 lakh. Thus, there is an increase of ₹38 lakh in IDC.



The main reasons for increase in IDC are (i) increase in project cost (excl. IDC) from ₹9566 lakh to ₹10745 lakh and (ii) increase in commissioning schedule of various assets from 4 months to 35 months under the project.

23. Accordingly, the Petitioner has submitted that there is no cost over-run.

24. We have considered the submissions made by the Petitioner. The Commission already took cognizance of Revised Cost estimate (RCE) in case of Asset-3, Asset-4, Asset-5, Asset-6 and Asset-7 in the previous orders. The estimated completion cost is within RCE cost.

### **Time Overrun**

25. As per the IA dated 8.2.2012, the scheduled date of commercial operation of the transmission assets was 14.10.2014. However, the transmission assets were put into commercial operation as follows:

<b>Assets</b>	<b>SCOD</b>	<b>Actual COD</b>	<b>Time over-run</b>	<b>Time over-run condoned</b>
Asset-1	14.10.2014	1.1.2014	NIL	-
Asset-2		2.3.2015	4 months 19 days	4 months 19 days
Asset-3		14.12.2016	26 months	12 months
Asset-4A		1.4.2016	535 days	Not Condoned
Asset-4B		1.2.2009 Re-cap date 1.4.2016	NIL	-
Asset-5		22.7.2017	1012 days	Not Condoned
Asset-6		13.10.2017	1095 days	365 days
Asset-7		3.2.2017	843 days	Not Condoned

26. There was no time over-run in case of Asset-1. In case of Asset-2, Asset-3, Asset-4A, Asset-5, Asset-6 and Asset-7, there was a time over-run of 4 months and 17 days, 12 months, 535 days, 1012 days, 1095 days and 843 days respectively. The Commission has not condoned the time over-run in case of Asset-4A, Asset-5 and Asset-7 vide order dated 17.8.2021 in Petition No. 104/TT/2019, partially condoned time



over-run in case of Asset-3 and Asset-6 vide order dated 17.10.2017 in Petition No. 234/TT/2016 and order dated 30.30.2016 in Petition No. 110/TT/2015 respectively and fully condoned the time over-run in Asset-2 vide order dated 28.6.2018 in Petition No. 149/TT/2017.

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

27. As stated above, there is time over-run in all the assets except Asset-1. As stated above, the time over-run in case of Asset-4A, Asset-5 and Asset-7 was condoned, partially condoned time over-run in in case of Asset-3 and Asset-6 and fully condoned time over-run in in case of Asset-2. The Petitioner has claimed IDC for the transmission assets covered in the instant petition and has submitted the statement showing IDC claim.

28. The discharge of IDC liability as on COD and thereafter is as follows:

(₹ in lakh)

Assets	IDC as per Auditor Certificate	IDC Discharged upto COD	IDC discharged during the year					Total IDC
			2014-15	2015-16	2016-17	2017-18	2018-19	
Asset-1	19.52	19.52	0.94	0.00	0.00	0.00	0.00	20.46
Asset-2	81.96	64.71	0.00	17.25	0.00	0.00	0.00	81.96
Asset-3	63.25	26.10			0.00	37.16	0.00	63.25
Asset-4A	10.02	0.93			9.09	0.00	0.00	10.02
Asset-5	28.03	6.03				21.57	0.42	28.03
Asset-6	0.18	0.00				0.00	0.18	0.18
Asset-7	76.47	8.54			0.00	67.93	0.00	76.47

29. The Petitioner has submitted IDC computation statement which contains the name of loan, drawl date, loan amount, interest rate and interest claimed. The 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. On scrutiny of these documents, certain discrepancies have been noted such as mis-match in loan amount



between IDC statement and Form-6 and Form-9C. The allowable IDC has been worked out based on the information available on record and relying on loan amount as per Form-9C. The IDC 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)

Assets	IDC as per Auditor certificate	IDC disallowed due to time over-run not condoned	IDC disallowed due to computational error	IDC allowed	IDC discharged upto COD	IDC discharged during the year				
						2014-15	2015-16	2016-17	2017-18	2018-19
Asset-1	19.52	0.00	0.00	0.00	0.00	0.94	0.00	0.00	0.00	0.00
Asset-2	81.96	0.00	0.57	81.39	64.53	0.00	16.86	0.00	0.00	0.00
Asset-3	63.25	58.99	0.00	4.26	4.26	0.00	0.00	0.00	0.00	0.00
Asset-4A	10.02	10.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asset-4B	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asset-5	28.03	28.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asset-6	0.18	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asset-7	76.47	76.17	0.00	0.03	0.03	0.00	0.00	0.00	0.00	0.00

30. The Petitioner has claimed IEDC for the transmission assets covered in the instant petition. The Petitioner has claimed IEDC for the transmission assets as per the Auditor Certificate and also considered the IEDC disallowed due to time over-run not condoned. The Petitioner has submitted that the IEDC mentioned in the Auditor's Certificate is on cash basis and was paid upto the COD.

31. There is disallowance of IEDC in case of Asset-3, Asset-4, Asset-5, Asset-6 and Asset-7 due to non-condonation of time over-run. The IEDC considered as on COD for the purpose of tariff determination is as follows:

(₹ in lakh)

Asset	IEDC as per Auditor's Certificate	IEDC disallowed due to time over-run not condoned	IEDC allowed
Asset-1	19.50	0.0	19.50
Asset-2	88.09	0.00	88.09
Asset-3	118.62	33.28	85.34
Asset-4A	44.32	18.74	25.58
Asset-5	40.48	23.52	16.96



Asset	IEDC as per Auditor's Certificate	IEDC disallowed due to time over-run not condoned	IEDC allowed
Asset-6	56.07	22.43	33.64
Asset-7	121.34	65.03	56.31

### Initial Spares

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

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

33. The Initial Spares claimed by the Petitioner are as follows:

Asset	Particulars	Plant and Machinery Cost (excluding IDC and IEDC, land cost and cost of civil works)	Initial Spares claimed	Initial spares as % of capital cost	Ceiling limit as per Regulations %
Asset-1	Transmission Line	1082.67	17.75	1.64%	0.75%
Asset-2	Transmission Line	1346.02	17.75	1.32%	1.00%
Asset-3	Sub-station	2432.50	343.74	14.13%	5.00%
Asset-4A	Sub-station	369.36	39.86	10.79%	6.00%
Asset-5	Sub-station	935.33	37.50	4.01%	6.00%
Asset-6	Sub-station	537.33	0.00	0.00%	5.00%
Asset-7	Sub-station	2157.93	150.13	6.96%	5.00%

34. We have considered the submissions of the Petitioner. The Initial Spares in respect of the transmission assets are allowed as per respective percentage of the plant and machinery cost as on the cut-off date on individual basis. Initial Spares are allowed on the basis of the overall project cost as per the APTEL's judgement dated 14.9.2019



in Appeal No. 74 of 2017 for the 2019-24 tariff period, when the transmission assets are combined into one asset. Initial Spares allowed in respect of the transmission assets are as follows:

(₹ in lakh)

Asset	Particulars	Plant and Machinery cost (excluding IDC and IEDC, land cost & cost of civil works) upto cut-off date (₹ in lakh)	Initial Spares claimed (₹ in lakh)	Norms as per the 2014 Tariff Regulations	Initial Spares allowable (₹ in lakh)	Excess Initial Spares (₹ in lakh)	Initial Spares allowed (₹ in lakh)
		A	B	C	$D = (A - B) * C / (100 - B)$	E-B	
Asset-1	Transmission Line	1082.67	17.75	0.75%	8.05	9.70	8.05
Asset-2	Transmission Line	1346.02	17.75	1.00%	13.42	4.33	13.42
Asset-3	Sub-station	2432.50	343.74	5.00%	109.93	233.81	109.93
Asset-4A	Sub-station	369.36	39.86	6.00%	21.03	18.83	21.03
Asset-5	Sub-station	935.33	37.50	6.00%	57.31	-19.81	37.50
Asset-6	Sub-station	537.33	0.00	5.00%	28.28	-28.28	0.00
Asset-7	Sub-station	2157.93	150.13	5.00%	105.67	44.46	105.67

### Capital Cost as on COD

35. The details of capital cost approved as on COD in respect of the transmission asset in the instant petition are as follows:

(₹ in lakh)

Assets	Capital cost claimed as on COD (A)	Disallowed as on COD (B)				Items corresponding to admitted capital cost as on COD (C)	Capital cost allowed as on COD (D = A-B-C)
		DC due to time over-run not condoned	IDC due to computational error	IEDC	Initial Spares	Undis-charged IDC	
Asset-1	724.45	0.00	0.00	0.00	9.70	0.94	713.81
Asset-2	1276.80	0.00	0.57	0.00	4.33	16.86	1255.03
Asset-3	1696.13	58.99	0.00	33.28	233.81	0.00	1370.06
Asset-4A	198.20	10.02	0.00	18.74	18.83	0.00	150.61
Asset-5	803.29	28.03	0.00	23.52	0	0.00	751.74
Asset-6	422.06	0.18	0.00	22.43	0	0.00	399.45
Asset-7	2237.59	76.17	0.00	65.03	44.46	0.00	2051.94
Asset-4B	477.99	0.00	0.00	0.00	0.00	0.00	477.99





### **Shifting/Re-capitalisation**

36. The Petitioner has submitted that Asset-4(B) i.e. 400 kV 50 MVAR line Reactor at Merta sub-station was shifted to Kota sub-station for use as bus reactor. The said reactor has already been de-capitalized from Merta Sub-station vide order dated 31.10.2021 in Petition No. 131/TT/2020 and re-capitalization of shifted reactor in instant project was allowed vide order dated 17.8.2021 in Petition No. 104/TT/2019. The details of shifted reactor considered in Petition No. 131/TT/2020 and Petition No. 104/TT/2019 is as follows:

(₹ in lakh)							
Asset	Original COD	Date of recapitalisation in the instant petition	Date of decapitalisation in Petition No. 131/TT/2020	Debt-Equity ratio at the time of capitalization	Original book value of the asset being recapitalised asset	Corresponding cumulative depreciation as on date of decapitalisation	Corresponding cumulative repayment as on date of decapitalisation
Asset-4(B)	1.2.2009	1.4.2016	14.12.2015	70:30	477.99	173.36	173.36

37. Further, the Commission vide order dated 17.8.2021 in Petition No. 104/TT/2019 allowed to recover the amount of ₹18.06 lakh towards dismantling, shifting, transportation and re-erection of the shifted reactor directly from the beneficiaries covered under the instant petition as a one-time exercise. The same is booked under Additional Capital Expenditure (ACE) of 2016-17 in Asset-4(A) and is being claimed as one-time exercise as directed by the Commission vide order dated 17.8.2021 in Petition No. 104/TT/2019.

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

38. The Commission had allowed ACE for the Transmission Assets for the 2014-19 period vide order dated 28.6.2018 in Petition No. 149/TT/2017 for Asset-1, vide order



dated 30.3.2016 in Petition No. 110/TT/2015 for Asset-2, vide order dated 17.10.2017 in Petition No. 234/TT/2016 for Asset-3, vide order dated 17.8.2021 in Petition No. 104/TT/2019 for Asset-4A, Asset-4B, Asset-5, Asset-6 and Asset-7 and projected ACE for the 2014-19 period under clause 14(1)(i) of the 2014 Tariff Regulations.

39. The cut-off dates of the transmission assets are as follows:

<b>Assets</b>	<b>COD</b>	<b>Cut-off date</b>
Asset-1	1.1.2014	31.3.2017
Asset-2	2.3.2015	31.3.2018
Asset-3	14.12.2016	31.3.2019
Asset-4A	1.4.2016	31.3.2019
Asset-4B	1.2.2009 Re-cap 1.4.2016	31.3.2019
Asset-5	22.7.2017	31.3.2020
Asset-6	13.10.2017	31.3.2020
Asset-7	3.2.2017	31.3.2020

40. The asset-wise details of the ACE claimed by the Petitioner are as follows:

**(₹ in lakh)**

<b>Asset</b>	<b>Year</b>	<b>ACE</b>	<b>Regulations</b>
Asset-1	2014-15	263.08*	Regulation 14(1)(i) and Regulation 14(1)(ii) of the 2014 Tariff Regulations
	2015-16	96.08	Regulation 14(1)(i) and Regulation 14(1)(ii) of the 2014 Tariff Regulations

\*including IDC of 0.94 lakh

**(₹ in lakh)**

<b>Asset</b>	<b>Year</b>	<b>ACE</b>	<b>Regulations</b>
Asset-2	2014-15	26.13	Regulation 14(1)(i) and Regulation 14(1)(ii) of the 2014 Tariff Regulations
	2015-16	202.77*	Regulation 14(1)(i) and Regulation 14(1)(ii) of the 2014 Tariff Regulations
	2016-17	33.70	Regulation 14(1)(i) and Regulation 14(1)(ii) of the 2014 Tariff Regulations

\*including IDC of 16.86 lakh

**(₹ in lakh)**

<b>Asset</b>	<b>Year</b>	<b>ACE</b>	<b>Regulations</b>
Asset-3	2016-17	41.65	Regulation 14(1)(i) and Regulation 14(1)(ii) of the 2014 Tariff Regulations
	2017-18	441.00	Regulation 14(1)(i) and Regulation 14(1)(ii) of the 2014 Tariff Regulations
	2018-19	16.38	Regulation 14(1)(i) and Regulation 14(1)(ii) of the 2014 Tariff Regulations



(₹ in lakh)

Asset	Year	ACE	Regulations
Asset-4A	2016-17	10.41	Regulation 14(1)(i) and Regulation 14(1)(ii) of the 2014 Tariff Regulations
	2017-18	21.82	Regulation 14(1)(i) and Regulation 14(1)(ii) of the 2014 Tariff Regulations
	2018-19	1.81	Regulation 14(1)(i) and Regulation 14(1)(ii) of the 2014 Tariff Regulations

(₹ in lakh)

Asset	Year	ACE	Regulations
Asset-5	2017-18	22.22	Regulation 14(1)(i) and Regulation 14(1)(ii) of the 2014 Tariff Regulations
	2018-19	4.58	Regulation 14(1)(i) and Regulation 14(1)(ii) of the 2014 Tariff Regulations

(₹ in lakh)

Asset	Year	ACE	Regulations
Asset-6	2017-18	18.68	Regulation 14(1)(i) and Regulation 14(1)(ii) of the 2014 Tariff Regulations
	2018-19	10.33	Regulation 14(1)(i) and Regulation 14(1)(ii) of the 2014 Tariff Regulations

(₹ in lakh)

Asset	Year	ACE	Regulations
Asset-7	2016-17	2.91	Regulation 14(1)(i) and Regulation 14(1)(ii) of the 2014 Tariff Regulations
	2017-18	3.30	Regulation 14(1)(i) and Regulation 14(1)(ii) of the 2014 Tariff Regulations
	2018-19	111.94	Regulation 14(1)(i) and Regulation 14(1)(ii) of the 2014 Tariff Regulations

41. We have considered the submissions of the Petitioner. The ACE claimed by the Petitioner towards balance and retention payments and works deferred for execution is allowed under Regulation 14(1)(i) and Regulation 14(1)(ii) of the 2014 Tariff Regulations. The capital cost allowed for the 2014-19 tariff period is as follows:

(₹ in lakh)

Asset	AppORTIONED Approved Cost (RCE)	Capital Cost allowed as on COD	ACE (incl. IDC discharge)					Capital Cost as on 31.3.2019
			2014-15	2015-16	2016-17	2017-18	2018-19	
Asset-1	1282.95	713.81	263.08	96.08	0.00	0.00	0.00	1072.97
Asset-2	1701.54	1255.03	26.13	202.77	33.70	0.00	0.00	1517.63
Asset-3	3157.28	1370.06			60.50	457.02	35.28	1922.86
Asset-4A	546.10	150.61			130.41	21.82	1.81	304.65
Asset-4B	0.00	477.99			0.00	0.00	0.00	477.99
Asset-5	1096.51	751.74				22.22	4.58	778.54



Asset	AppORTIONED Approved Cost (RCE)	Capital Cost allowed as on COD	ACE (incl. IDC discharge)					Capital Cost as on 31.3.2019
			2014-15	2015-16	2016-17	2017-18	2018-19	
Asset-6	643.59	399.45				18.68	10.33	428.46
Asset-7	2844.03	2051.94			2.91	3.30	111.94	2170.09

### Debt-Equity ratio

42. The Petitioner has claimed debt-equity ratio of 70:30 as on COD of the transmission assets. Debt-Equity ratio of 70:30 is considered as provided under Regulation 19 of the 2014 Tariff Regulations. The details of the debt and equity as on the COD and as on 31.3.2019 for the transmission assets considered for the purpose of tariff of the 2014-19 period are as follows:

#### **Asset-1**

Funding	Capital Cost as on COD (₹ in lakh)	(%)	ACE in 2014-19 (₹ in lakh)	(%)	Capital Cost as on 31.3.2019 (₹ in lakh)	(%)
Debt	499.67	70.00	251.41	70.00	751.08	70.00
Equity	214.14	30.00	107.75	30.00	321.89	30.00
<b>Total</b>	<b>713.81</b>	<b>100.00</b>	<b>359.16</b>	<b>100.00</b>	<b>1072.97</b>	<b>100.00</b>

#### **Asset-2**

Funding	Capital Cost as on COD (₹ in lakh)	(%)	ACE in 2014-19 (₹ in lakh)	(%)	Capital Cost as on 31.3.2019 (₹ in lakh)	(%)
Debt	878.52	70.00	183.82	70.00	1062.34	70.00
Equity	376.51	30.00	78.78	30.00	455.29	30.00
<b>Total</b>	<b>1255.03</b>	<b>100.00</b>	<b>262.60</b>	<b>100.00</b>	<b>1517.63</b>	<b>100.00</b>

#### **Asset-3**

Funding	Capital Cost as on COD (₹ in lakh)	(%)	ACE in 2014-19 (₹ in lakh)	(%)	Capital Cost as on 31.3.2019 (₹ in lakh)	(%)
Debt	959.04	70.00	386.96	70.00	1346.00	70.00
Equity	411.02	30.00	165.84	30.00	576.86	30.00
<b>Total</b>	<b>1370.06</b>	<b>100.00</b>	<b>552.80</b>	<b>100.00</b>	<b>1922.86</b>	<b>100.00</b>



**Asset-4A**

Funding	Capital Cost as on COD (₹ in lakh)	(%)	ACE in 2014-19 (₹ in lakh)	(%)	Capital Cost as on 31.3.2019 (₹ in lakh)	(%)
Debt	105.43	70.00	107.83	70.00	213.25	70.00
Equity	45.18	30.00	46.21	30.00	91.39	30.00
<b>Total</b>	<b>150.61</b>	<b>100.00</b>	<b>154.04</b>	<b>100.00</b>	<b>304.65</b>	<b>100.00</b>

**Asset-4B**

Funding	Capital Cost as on COD (₹ in lakh)	(%)	ACE in 2014-19 (₹ in lakh)	(%)	Capital Cost as on 31.3.2019 (₹ in lakh)	(%)
Debt	334.45	70.00	0.00	70.00	334.45	70.00
Equity	143.34	30.00	0.00	30.00	143.34	30.00
<b>Total</b>	<b>477.79</b>	<b>100.00</b>	<b>0.00</b>	<b>100.00</b>	<b>477.79</b>	<b>100.00</b>

**Asset-5**

Funding	Capital Cost as on COD (₹ in lakh)	(%)	ACE in 2014-19 (₹ in lakh)	(%)	Capital Cost as on 31.3.2019 (₹ in lakh)	(%)
Debt	526.22	70.00	18.76	70.00	544.98	70.00
Equity	225.52	30.00	8.04	30.00	233.56	30.00
<b>Total</b>	<b>751.74</b>	<b>100.00</b>	<b>26.80</b>	<b>100.00</b>	<b>778.54</b>	<b>100.00</b>

**Asset-6**

Funding	Capital Cost as on COD (₹ in lakh)	(%)	ACE in 2014-19 (₹ in lakh)	(%)	Capital Cost as on 31.3.2019 (₹ in lakh)	(%)
Debt	279.62	70.00	20.31	70.00	299.92	70.00
Equity	119.84	30.00	8.70	30.00	128.54	30.00
<b>Total</b>	<b>399.45</b>	<b>100.00</b>	<b>29.01</b>	<b>100.00</b>	<b>428.46</b>	<b>100.00</b>

**Asset-7**

Funding	Capital Cost as on COD (₹ in lakh)	(%)	ACE in 2014-19 (₹ in lakh)	(%)	Capital Cost as on 31.3.2019 (₹ in lakh)	(%)
Debt	1436.36	70.00	82.71	70.00	1519.06	70.00
Equity	615.58	30.00	35.45	30.00	651.03	30.00
<b>Total</b>	<b>2051.94</b>	<b>100.00</b>	<b>118.15</b>	<b>100.00</b>	<b>2170.09</b>	<b>100.00</b>



## **Depreciation**

43. The Petitioner's claim towards depreciation in this petition was found to be higher than the depreciation allowed *vide* order dated 28.6.2018 in Petition No. 149/TT/2017 for Asset-1, *vide* order dated 30.3.2016 in Petition No. 110/TT/2015 for Asset-2, *vide* order dated 17.10.2017 in Petition No. 234/TT/2016 for Asset-3, *vide* order dated 17.8.2021 in Petition No. 104/TT/2019 for Asset-4A, Asset-4B, Asset-5, Asset-6 and Asset-7. The Petitioner has neither given any justification for claiming higher depreciation than what was not allowed in previous orders nor has made any specific prayer for allowing higher depreciation in this petition. Similar issue was dealt *vide* order dated 9.5.2020 Petition No. 19/TT/2020.

44. In line with the order dated 9.5.2020, 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 tariff 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 of the 2019 Tariff Regulations. The Gross Block during the 2014-19 tariff period has been depreciated at weighted average rate of depreciation (WAROD). WAROD at Annexure-I has been worked out after taking into account the depreciation rates of asset as specified in the 2014 Tariff Regulations and depreciation allowed during the 2014-19 tariff period is as under:

(₹ in lakh)

		<b>Asset-1</b>				
	<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
	<b>Depreciation</b>					
A	Opening Gross Block	713.81	976.89	1072.97	1072.97	1072.97
B	ACE	263.08	96.08	0.00	0.00	0.00



<b>Asset-1</b>						
	<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
C	Closing Gross Block (A+B)	976.89	1072.97	1072.97	1072.97	1072.97
D	Average Gross Block (A+C)/2	845.35	1024.93	1072.97	1072.97	1072.97
E	Weighted Average Rate of Depreciation (%)	5.2800	5.2800	5.2800	5.2800	5.2800
F	Balance useful life of the asset	35	34	33	32	31
G	Elapsed life at the beginning of the year	0	1	2	3	4
H	Aggregate Depreciable Value	760.81	922.43	965.67	965.67	965.67
I	<b>Combined Depreciation during the year</b>	<b>44.63</b>	<b>54.12</b>	<b>56.65</b>	<b>56.65</b>	<b>56.65</b>
J	Aggregate Cumulative Depreciation	54.04	108.16	164.81	221.47	278.12
K	Remaining Depreciable Value (H-J)	706.77	814.27	800.86	744.20	687.55

(₹ in lakh)

<b>Asset-2</b>						
	<b>Particulars</b>	<b>2014-15 (pro-rata 30 days)</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
	<b>Depreciation</b>					
A	Opening Gross Block	1255.03	1281.16	1483.93	1517.63	1517.63
B	ACE	26.13	202.77	33.70	0.00	0.00
C	Closing Gross Block (A+B)	1281.16	1483.93	1517.63	1517.63	1517.63
D	Average Gross Block (A+C)/2	1268.10	1382.55	1500.78	1517.63	1517.63
E	Weighted Average Rate of Depreciation (%)	5.28	5.28	5.28	5.28	5.28
F	Balance useful life of the asset	35	35	34	33	32
G	Elapsed life at the beginning of the year	0	0	1	2	3
H	Aggregate Depreciable Value	1141.29	1244.29	1350.71	1365.87	1365.87
I	<b>Combined Depreciation during the year</b>	<b>5.50</b>	<b>73.00</b>	<b>79.24</b>	<b>80.13</b>	<b>80.13</b>
J	Aggregate Cumulative Depreciation	5.50	78.50	157.74	237.87	318.01
K	Remaining Depreciable Value (H-J)	1135.79	1165.79	1192.96	1128.00	1047.87

(₹ in lakh)

<b>Asset-3</b>				
	<b>Particulars</b>	<b>2016-17 (Pro-rata 108 days)</b>	<b>2017-18</b>	<b>2018-19</b>
	<b>Depreciation</b>			
A	Opening Gross Block	1370.06	1430.56	1887.58
B	ACE	60.50	457.02	35.28

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<b>Asset-3</b>				
	<b>Particulars</b>	<b>2016-17 (Pro-rata 108 days)</b>	<b>2017-18</b>	<b>2018-19</b>
C	Closing Gross Block (A+B)	1430.56	1887.58	1922.86
D	Average Gross Block (A+C)/2	1400.31	1659.07	1905.22
E	Weighted Average Rate of Depreciation (%)	5.28	5.28	5.28
F	Balance useful life of the asset	25	25	24
G	Elapsed life at the beginning of the year	0	0	1
H	Aggregate Depreciable Value	1260.28	1493.16	1714.70
I	<b>Combined Depreciation during the year</b>	<b>21.88</b>	<b>87.60</b>	<b>100.60</b>
J	Aggregate Cumulative Depreciation	21.88	109.48	210.07
K	Remaining Depreciable Value (H-J)	1238.40	1383.69	1504.63

(₹ in lakh)

<b>Asset-4A</b>				
	<b>Particulars</b>	<b>2016-17 (Pro-rata 365 days)</b>	<b>2017-18</b>	<b>2018-19</b>
	<b>Depreciation</b>			
A	Opening Gross Block	150.61	281.02	302.84
B	ACE	130.41	21.82	1.81
C	Closing Gross Block (A+B)	281.02	302.84	304.65
D	Average Gross Block (A+C)/2	215.81	291.93	303.74
E	Weighted Average Rate of Depreciation (%)	5.28	5.28	5.28
F	Balance useful life of the asset	18	17	16
G	Elapsed life at the beginning of the year	1	2	3
H	Aggregate Depreciable Value	194.23	262.74	273.37
I	<b>Combined Depreciation during the year</b>	<b>11.39</b>	<b>15.41</b>	<b>16.04</b>
J	Aggregate Cumulative Depreciation	11.39	26.81	42.85
K	Remaining Depreciable Value (H-J)	182.84	235.93	230.52

(₹ in lakh)

<b>Asset-4B</b>				
	<b>Particulars</b>	<b>2016-17 (Pro-rata 365 days)</b>	<b>2017-18</b>	<b>2018-19</b>
	<b>Depreciation</b>			
A	Opening Gross Block	477.79	477.79	477.79
B	ACE	0.00	0.00	0.00
C	Closing Gross Block (A+B)	477.79	477.79	477.79
D	Average Gross Block (A+C)/2	477.79	477.79	477.79

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<b>Asset-4B</b>				
	<b>Particulars</b>	<b>2016-17 (Pro-rata 365 days)</b>	<b>2017-18</b>	<b>2018-19</b>
E	Weighted Average Rate of Depreciation (%)	5.28	5.28	5.28
F	Balance useful life of the asset	24	24	23
G	Elapsed life at the beginning of the year	1	1	2
H	Aggregate Depreciable Value	430.01	430.01	430.01
I	<b>Combined Depreciation during the year</b>	<b>25.23</b>	<b>25.23</b>	<b>25.23</b>
J	Aggregate Cumulative Depreciation	198.59	223.81	249.04
K	Remaining Depreciable Value (H-J)	231.42	206.20	180.97

(₹ in lakh)

<b>Asset-5</b>			
	<b>Particulars</b>	<b>2017-18 (Pro-rata 253 days)</b>	<b>2018-19</b>
	<b>Depreciation</b>		
A	Opening Gross Block	751.74	773.96
B	ACE	22.22	4.58
C	Closing Gross Block (A+B)	773.96	778.54
D	Average Gross Block (A+C)/2	762.85	776.25
E	Weighted Average Rate of Depreciation (%)	5.28%	5.28%
F	Balance useful life of the asset	25.00	25.00
G	Elapsed life at the beginning of the year	0.00	0.00
H	Aggregate Depreciable Value	686.57	698.63
I	<b>Combined Depreciation during the year</b>	<b>27.92</b>	<b>40.99</b>
J	Aggregate Cumulative Depreciation	27.92	68.91
K	Remaining Depreciable Value (H-J)	658.65	629.72

(₹ in lakh)

<b>Asset-6</b>			
	<b>Particulars</b>	<b>2017-18 (Pro-rata 170 days)</b>	<b>2018-19</b>
	<b>Depreciation</b>		
A	Opening Gross Block	399.45	418.13
B	ACE	18.68	10.33
C	Closing Gross Block (A+B)	418.13	428.46
D	Average Gross Block (A+C)/2	408.79	423.30
E	Weighted Average Rate of Depreciation (%)	5.28%	5.28%
F	Balance useful life of the asset	25.00	25.00

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<b>Asset-6</b>			
	<b>Particulars</b>	<b>2017-18 (Pro-rata 170 days)</b>	<b>2018-19</b>
G	Elapsed life at the beginning of the year	0.00	0.00
H	Aggregate Depreciable Value	367.91	380.97
I	<b>Combined Depreciation during the year</b>	<b>10.05</b>	<b>22.35</b>
J	Aggregate Cumulative Depreciation	10.05	32.40
K	Remaining Depreciable Value (H-J)	357.86	348.56

(₹ in lakh)

<b>Asset-7</b>				
	<b>Particulars</b>	<b>2016-17 (Pro-rata 57 days)</b>	<b>2017-18</b>	<b>2018-19</b>
	<b>Depreciation</b>			
A	Opening Gross Block	2051.94	2054.85	2058.15
B	ACE	2.91	3.30	111.94
C	Closing Gross Block (A+B)	2054.85	2058.15	2170.09
D	Average Gross Block (A+C)/2	2053.39	2056.50	2114.12
E	Weighted Average Rate of Depreciation (%)	5.28	5.28	5.28
F	Balance useful life of the asset	25	25	24
G	Elapsed life at the beginning of the year	0	0	1
H	Aggregate Depreciable Value	1848.05	1850.85	1902.71
I	<b>Combined Depreciation during the year</b>	<b>16.93</b>	<b>108.58</b>	<b>111.63</b>
J	Aggregate Cumulative Depreciation	16.93	125.51	237.14
K	Remaining Depreciable Value (H-J)	1831.12	1725.33	1665.57

45. The details of depreciation allowed vide order dated 28.6.2018 in Petition No. 149/TT/2017 for Asset-1, vide order dated 30.3.2016 in Petition No. 110/TT/2015 for Asset-2, vide order dated 17.10.2017 in Petition No. 234/TT/2016 for Asset-3, vide order dated 17.8.2021 in Petition No. 104/TT/2019 for Asset-4A, Asset-4B, Asset-5, Asset-6 and Asset-7, claimed by the Petitioner in the instant petition and trued-up depreciation in the instant order are as follows:



(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
		<b>Asset-1</b>			
Allowed vide order dated 28.6.2018 in Petition No. 149/TT/2017	45.15	54.44	56.80	56.80	56.80
Claimed by the Petitioner in the instant petition	45.15	54.44	56.80	56.80	56.80
Approved after true-up in this order	44.63	54.12	56.65	56.65	56.65
		<b>Asset-2</b>			
Allowed vide order dated 30.3.2016 in Petition No. 110/TT/2015	5.35	75.96	83.88	83.88	83.88
Claimed by the Petitioner in the instant petition	5.52	73.13	79.27	80.16	80.16
Approved after true-up in this order	5.50	73.00	79.24	80.13	80.13
		<b>Asset-3</b>			
Allowed vide order dated 17.10.2017 in Petition No. 234/TT/2016			26.64	116.41	132.38
Claimed by the Petitioner in the instant petition			25.53	95.97	104.95
Approved after true-up in this order			21.88	87.60	100.60
		<b>Asset-4A</b>			
Allowed vide order dated 17.8.2021 in Petition No. 104/TT/2019			12.38	16.14	20.12
Claimed by the Petitioner in the instant petition			12.39	16.00	16.23
Approved after true-up in this order			11.39	15.41	16.04
		<b>Asset-4B</b>			
Allowed vide order dated 17.8.2021 in Petition No. 104/TT/2019			25.24	25.24	25.24
Claimed by the Petitioner in the instant petition			25.24	25.24	25.24
Approved after true-up in this order			25.23	25.23	25.23
		<b>Asset-5</b>			
Allowed vide order dated 17.8.2021 in Petition No. 104/TT/2019				28.11	46.42
Claimed by the Petitioner in the instant petition				27.91	40.98



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Approved after true-up in this order				27.92	40.99
		<b>Asset-6</b>			
Allowed vide order dated 17.8.2021 in Petition No. 104/TT/2019				9.89	22.52
Claimed by the Petitioner in the instant petition				9.89	22.00
Approved after true-up in this order				10.05	22.35
		<b>Asset-7</b>			
Allowed vide order dated 17.8.2021 in Petition No. 104/TT/2019			17.29	110.90	118.45
Claimed by the Petitioner in the instant petition			17.22	110.41	112.52
Approved after true-up in this order			16.93	108.58	111.63

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

46. The Petitioner has claimed the weighted average rate of IoL based on its actual loan portfolio and rate of interest. We have considered the submissions of the Petitioner. IoL has been calculated based on actual interest rate submitted by the Petitioner in accordance with Regulation 26 of the 2014 Tariff Regulations. The trued-up IoL allowed in respect of the transmission assets is as follows:

		(₹ in lakh)				
	Particulars	Asset-1				
		2014-15	2015-16	2016-17	2017-18	2018-19
	<b>Interest on Loan</b>					
A	Gross Normative Loan	499.67	683.82	751.08	751.08	751.08
B	Cumulative Repayments upto Previous Year	9.41	54.04	108.16	164.81	221.47
C	Net Loan-Opening (A-B)	490.26	629.78	642.92	586.26	529.61
D	Additions	184.16	67.26	0.00	0.00	0.00
E	Repayment during the year	44.63	54.12	56.65	56.65	56.65
F	Net Loan-Closing (C+D-E)	629.78	642.92	586.26	529.61	472.96
G	Average Loan (C+F)/2	560.02	636.35	614.59	557.94	501.28



	Particulars	Asset-1				
		2014-15	2015-16	2016-17	2017-18	2018-19
H	Weighted Average Rate of Interest on Loan (%)	9.9408	9.6817	9.3689	8.7204	8.5013
I	<b>Interest on Loan (G*H)</b>	<b>55.67</b>	<b>61.61</b>	<b>57.58</b>	<b>48.65</b>	<b>42.62</b>

(₹ in lakh)

	Particulars	Asset-2				
		2014-15 (pro-rata 30 days)	2015-16	2016-17	2017-18	2018-19
	<b>Interest on Loan</b>					
A	Gross Normative Loan	878.52	896.81	1038.75	1062.34	1062.34
B	Cumulative Repayments upto Previous Year	0.00	5.50	78.50	157.74	237.87
C	Net Loan-Opening (A-B)	878.52	891.31	960.25	904.60	824.47
D	Additions	18.29	141.94	23.59	0.00	0.00
E	Repayment during the year	5.50	73.00	79.24	80.13	80.13
F	Net Loan-Closing (C+D-E)	891.31	960.25	904.60	824.47	744.34
G	Average Loan (C+F)/2	884.92	925.78	932.43	864.54	784.40
H	Weighted Average Rate of Interest on Loan (%)	9.5693	9.3925	9.1746	8.7277	8.5909
I	<b>Interest on Loan (G*H)</b>	<b>6.96</b>	<b>86.95</b>	<b>85.55</b>	<b>75.45</b>	<b>67.39</b>

(₹ in lakh)

	Particulars	Asset-3		
		2016-17 (pro-rata 108 days)	2017-18	2018-19
	<b>Interest on Loan</b>			
A	Gross Normative Loan	959.04	1001.39	1321.30
B	Cumulative Repayments upto Previous Year	0.00	21.88	109.48
C	Net Loan-Opening (A-B)	959.04	979.51	1211.83
D	Additions	42.35	319.91	24.70
E	Repayment during the year	21.88	87.60	100.60
F	Net Loan-Closing (C+D-E)	979.51	1211.83	1135.93

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	Particulars	Asset-3		
		2016-17 (pro-rata 108 days)	2017-18	2018-19
G	Average Loan (C+F)/2	969.28	1095.67	1173.88
H	Weighted Average Rate of Interest on Loan (%)	8.0732	8.0422	8.0611
<b>I</b>	<b>Interest on Loan (G*H)</b>	<b>23.15</b>	<b>88.12</b>	<b>94.63</b>

(₹ in lakh)

	Particulars	Asset-4A		
		2016-17 (pro-rata 365 days)	2017-18	2018-19
	<b>Interest on Loan</b>			
A	Gross Normative Loan	105.43	196.71	211.99
B	Cumulative Repayments upto Previous Year	0.00	11.39	26.81
C	Net Loan-Opening (A-B)	105.43	185.32	185.18
D	Additions	91.29	15.27	1.27
E	Repayment during the year	11.39	15.41	16.04
F	Net Loan-Closing (C+D-E)	185.32	185.18	170.41
G	Average Loan (C+F)/2	145.37	185.25	177.79
H	Weighted Average Rate of Interest on Loan (%)	8.3798	8.3255	8.3194
<b>I</b>	<b>Interest on Loan (G*H)</b>	<b>12.18</b>	<b>15.42</b>	<b>14.79</b>

(₹ in lakh)

	Particulars	Asset-4B		
		2016-17 (pro-rata 365 days)	2017-18	2018-19
	<b>Interest on Loan</b>			
A	Gross Normative Loan	334.45	334.45	334.45
B	Cumulative Repayments upto Previous Year	173.36	198.59	223.81
C	Net Loan-Opening (A-B)	161.09	135.87	110.64
D	Additions	0.00	0.00	0.00
E	Repayment during the year	25.23	25.23	25.23
F	Net Loan-Closing (C+D-E)	135.87	110.64	85.41
G	Average Loan (C+F)/2	148.48	123.25	98.02
H	Weighted Average Rate of Interest on Loan (%)	9.4700	9.4700	9.4700
<b>I</b>	<b>Interest on Loan (G*H)</b>	<b>14.06</b>	<b>11.67</b>	<b>9.28</b>

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(₹ in lakh)

	Particulars	Asset-5	
		2017-18 (pro-rata 253 days)	2018-19
	<b>Interest on Loan</b>		
A	Gross Normative Loan	526.22	541.77
B	Cumulative Repayments upto Previous Year	0.00	27.92
C	Net Loan-Opening (A-B)	526.22	513.86
D	Additions	15.55	3.21
E	Repayment during the year	27.92	40.99
F	Net Loan-Closing (C+D-E)	513.86	476.08
G	Average Loan (C+F)/2	520.04	494.97
H	Weighted Average Rate of Interest on Loan (%)	7.3773	7.3738
I	<b>Interest on Loan (G*H)</b>	<b>26.59</b>	<b>36.50</b>

(₹ in lakh)

	Particulars	Asset-6	
		2017-18 (pro-rata 170 days)	2018-19
	<b>Interest on Loan</b>		
A	Gross Normative Loan	279.62	292.69
B	Cumulative Repayments upto Previous Year	0.00	10.05
C	Net Loan-Opening (A-B)	279.62	282.64
D	Additions	13.08	7.23
E	Repayment during the year	10.05	22.35
F	Net Loan-Closing (C+D-E)	282.64	267.52
G	Average Loan (C+F)/2	281.13	275.08
H	Weighted Average Rate of Interest on Loan (%)	7.7125	7.7193
I	<b>Interest on Loan (G*H)</b>	<b>10.10</b>	<b>21.23</b>

(₹ in lakh)

	Particulars	Asset-7		
		2016-17 (pro-rata 57 days)	2017-18	2018-19
	<b>Interest on Loan</b>			
A	Gross Normative Loan	1436.36	1438.39	1440.70
B	Cumulative Repayments upto Previous Year	0.00	16.93	125.51
C	Net Loan-Opening (A-B)	1436.36	1421.46	1315.19
D	Additions	2.04	2.31	78.36
E	Repayment during the year	16.93	108.58	111.63

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	Particulars	Asset-7		
		2016-17 (pro-rata 57 days)	2017-18	2018-19
F	Net Loan-Closing (C+D-E)	1421.46	1315.19	1281.92
G	Average Loan (C+F)/2	1428.91	1368.33	1298.56
H	Weighted Average Rate of Interest on Loan (%)	7.9897	7.9620	7.9539
I	<b>Interest on Loan (G*H)</b>	<b>17.83</b>	<b>108.95</b>	<b>103.29</b>

47. The details of interest on loan allowed vide order dated 28.6.2018 in Petition No. 149/TT/2017 for Asset-1, vide order dated 30.3.2016 in Petition No. 110/TT/2015 for Asset-2, vide order dated 17.10.2017 in Petition No. 234/TT/2016 for Asset-3, vide order dated 17.8.2021 in Petition No. 104/TT/2019 for Asset-4A, Asset-4B, Asset-5, Asset-6 and Asset-7, claimed by the Petitioner in the instant petition and true-up depreciation in the instant order are as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
	<b>Asset-1</b>				
Allowed vide order dated 28.6.2018 in Petition No. 149/TT/2017	56.32	63.96	61.56	55.87	50.22
Claimed by the Petitioner in the instant petition	56.31	61.95	57.66	48.72	42.66
Approved after true-up in this order	55.67	61.61	57.58	48.65	42.61
	<b>Asset-2</b>				
Allowed vide order dated 30.3.2016 in Petition No. 110/TT/2015	6.77	92.11	94.36	86.16	78.06
Claimed by the Petitioner in the instant petition	6.98	87.11	85.57	75.47	67.40
Approved after true-up in this order	6.96	86.95	85.55	75.45	67.39
	<b>Asset-3</b>				
Allowed vide order dated 17.10.2017 in Petition No. 234/TT/2016			28.23	117.81	124.76
Claimed by the Petitioner in the instant petition			27.01	96.41	98.13





<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Approved after true-up in this order			23.15	88.12	94.63
		<b>Asset-4A</b>			
Allowed vide order dated 17.8.2021 in Petition No. 104/TT/2019			13.23	16.08	18.92
Claimed by the Petitioner in the instant petition			13.24	15.97	14.86
Approved after true-up in this order			12.18	15.42	14.79
		<b>Asset-4B</b>			
Allowed vide order dated 17.8.2021 in Petition No. 104/TT/2019			14.07	11.68	9.29
Claimed by the Petitioner in the instant petition			14.07	11.68	9.29
Approved after true-up in this order			14.06	11.67	9.28
		<b>Asset-5</b>			
Allowed vide order dated 17.8.2021 in Petition No. 104/TT/2019				26.84	41.74
Claimed by the Petitioner in the instant petition				26.59	36.49
Approved after true-up in this order				26.59	36.50
		<b>Asset-6</b>			
Allowed vide order dated 17.8.2021 in Petition No. 104/TT/2019				9.94	21.40
Claimed by the Petitioner in the instant petition				9.93	20.91
Approved after true-up in this order				10.10	21.23
		<b>Asset-7</b>			
Allowed vide order dated 17.8.2021 in Petition No. 104/TT/2019			18.19	111.36	110.04
Claimed by the Petitioner in the instant petition			18.13	110.78	104.03
Approved after true-up in this order			17.83	108.95	103.29

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

48. 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 the following effective tax rates for the 2014-19 tariff 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	19.716
2016-17	21.338	19.705
2017-18	21.337	19.704
2018-19	21.549	19.758

49. For the purpose of consideration, the Petitioner has not submitted copy of assessment order for the FY 2014-15 and 2015-16. Similarly, the audited accounts in respect of actual taxes paid for 2016-17 and 2017-18 has also not been enclosed with the current petition. In absence of these essential documents, it is not possible to scrutinize the claim of the Petitioner in an appropriate manner.

50. The Petitioner has submitted that effective rate of tax considered for 2014-15, 2015-16 and 2016-17 are based on Assessment Orders issued by Income-Tax authorities for the purpose of grossing up of RoE rate. Further, the effective rates of tax considered for 2017-18 and 2018-19 are based on the Income-tax returns filed, for the purpose of grossing up of RoE rate of the respective years.

51. Further, the Petitioner has submitted that trued-up tariff of 2014-19 has been granted by the Commission *vide* tariff order dated 27.4.2020 in Petition No. 274/TT/2019 wherein following effective tax rate based (for 2014-19 period) on notified MAT rates are considered for the purpose of grossing-up of rate of RoE;



Year	Notified MAT rates (in %) (inclusive of surcharge & cess)	Effective tax (in %)	Grossed-up RoE [(Base Rate)/(1-t)] (in %)
2014-15	20.961	20.961	19.611
2015-16	21.342	21.342	19.706
2016-17	21.342	21.342	19.706
2017-18	21.342	21.342	19.706
2018-19	21.549	21.549	19.758

52. The Petitioner has further submitted that the tariff for each year of the 2014-19 tariff period is being determined by the Commission considering the above effective tax rates to arrive at grossed-up RoE. In view of the above, the Petitioner has submitted that Grossed-up RoE (in %) and effective tax rate for 2014-19 period has already been determined by the Commission.

53. We have considered the submissions made by the Petitioner. 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. The relevant portion of the order dated 27.4.2020 is as follows:

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

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



<b>Year</b>	<b>Notified MAT rates (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

54. The same MAT rates as considered in the above-mentioned order in Petition No. 274/TT/2019 are considered for the purpose of grossing up of rate of RoE for truing up of the tariff of the 2014-19 period in terms of the provisions of the 2014 Tariff Regulations.

<b>Year</b>	<b>Notified MAT rates (in %) (inclusive of surcharge &amp; cess)</b>	<b>Base rate of RoE (in %)</b>	<b>Grossed-up RoE [(Base Rate)/(1-t)] (in %)</b>
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

55. The Petitioner has claimed RoE for 2014-19 tariff period after grossing up the RoE @15.50% with Effective Tax rates (based on MAT rates) each year as per the above said Regulation. RoE is trued-up based on MAT rates applicable in the respective years and is allowed for the transmission assets as follows:

		(₹ in lakh)				
	Particulars	Asset-1				
		2014-15	2015-16	2016-17	2017-18	2018-19
	<b>Return on Equity</b>					
A	Opening Equity	214.14	293.07	321.89	321.89	321.89
B	Additions	78.92	28.82	0.00	0.00	0.00
C	Closing Equity (A+B)	293.07	321.89	321.89	321.89	321.89
D	Average Equity (A+C)/2	253.60	307.48	321.89	321.89	321.89
E	Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (%)	20.961	21.342	21.342	21.342	21.549



	Particulars	Asset-1				
		2014-15	2015-16	2016-17	2017-18	2018-19
G	Rate of Return on Equity (%)	19.610	19.705	19.705	19.705	19.758
H	<b>Return on Equity (D*G)</b>	<b>49.73</b>	<b>60.59</b>	<b>63.43</b>	<b>63.43</b>	<b>63.60</b>

(₹ in lakh)

	Particulars	Asset-2				
		2014-15 (pro-rata 30 days)	2015-16	2016-17	2017-18	2018-19
	<b>Return on Equity</b>					
A	Opening Equity	376.51	384.35	445.18	455.29	455.29
B	Additions	7.84	60.83	10.11	0.00	0.00
C	Closing Equity (A+B)	384.35	445.18	455.29	455.29	455.29
D	Average Equity (A+C)/2	380.43	414.76	450.24	455.29	455.29
E	Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (%)	20.961	21.342	21.342	21.342	21.549
G	Rate of Return on Equity (%)	19.610	19.705	19.705	19.705	19.758
H	<b>Return on Equity (D*G)</b>	<b>6.13</b>	<b>81.73</b>	<b>88.72</b>	<b>89.71</b>	<b>89.96</b>

(₹ in lakh)

	Particulars	Asset-3		
		2016-17 (pro-rata 108 days)	2017-18	2018-19
	<b>Return on Equity</b>			
A	Opening Equity	411.02	429.17	566.27
B	Additions	18.15	137.11	10.58
C	Closing Equity (A+B)	429.17	566.27	576.86
D	Average Equity (A+C)/2	420.09	497.72	571.57
E	Return on Equity (Base Rate) (%)	15.500	15.500	15.500
F	MAT Rate for respective year (%)	21.342	21.342	21.549
G	Rate of Return on Equity (%)	19.705	19.705	19.758
H	<b>Return on Equity (D*G)</b>	<b>24.49</b>	<b>98.08</b>	<b>112.93</b>



(₹ in lakh)

	Particulars	Asset-4A		
		2016-17 (pro-rata 365 days)	2017-18	2018-19
	<b>Return on Equity</b>			
A	Opening Equity	45.18	84.31	90.85
B	Additions	39.12	6.55	0.54
C	Closing Equity (A+B)	84.31	90.85	91.39
D	Average Equity (A+C)/2	64.74	87.58	91.12
E	Return on Equity (Base Rate) (%)	15.500	15.500	15.500
F	MAT Rate for respective year (%)	21.342	21.342	21.549
G	Rate of Return on Equity (%)	19.705	19.705	19.758
H	<b>Return on Equity (D*G)</b>	<b>12.76</b>	<b>17.26</b>	<b>18.00</b>

(₹ in lakh)

	Particulars	Asset-4B		
		2016-17 (pro-rata 365 days)	2017-18	2018-19
	<b>Return on Equity</b>			
A	Opening Equity	143.34	143.34	143.34
B	Additions	0.00	0.00	0.00
C	Closing Equity (A+B)	143.34	143.34	143.34
D	Average Equity (A+C)/2	143.34	143.34	143.34
E	Return on Equity (Base Rate) (%)	15.500	15.500	15.500
F	MAT Rate for respective year (%)	21.342	21.342	21.549
G	Rate of Return on Equity (%)	19.705	19.705	19.758
H	<b>Return on Equity (D*G)</b>	<b>28.24</b>	<b>28.24</b>	<b>28.32</b>

(₹ in lakh)

	Particulars	Asset-5	
		2017-18 (pro-rata 253 days)	2018-19
	<b>Return on Equity</b>		
A	Opening Equity	225.52	232.19
B	Additions	6.67	1.37
C	Closing Equity (A+B)	232.19	233.56
D	Average Equity (A+C)/2	228.86	232.88
E	Return on Equity (Base Rate) (%)	15.500	15.500
F	MAT Rate for respective year (%)	21.342	21.549
G	Rate of Return on Equity (%)	19.705	19.758
H	<b>Return on Equity (D*G)</b>	<b>31.26</b>	<b>46.01</b>

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₹ in lakh)

	Particulars	Asset-6	
		2017-18 (pro-rata 170 days)	2018-19
	<b>Return on Equity</b>		
A	Opening Equity	119.84	125.44
B	Additions	5.60	3.10
C	Closing Equity (A+B)	125.44	128.54
D	Average Equity (A+C)/2	122.64	126.99
E	Return on Equity (Base Rate) (%)	15.500	15.500
F	MAT Rate for respective year (%)	21.342	21.549
G	Rate of Return on Equity (%)	19.705	19.758
H	<b>Return on Equity (D*G)</b>	<b>11.26</b>	<b>25.09</b>

(₹ in lakh)

	Particulars	Asset-7		
		2016-17 (pro-rata 57 days)	2017-18	2018-19
	<b>Return on Equity</b>			
A	Opening Equity	615.58	616.45	617.44
B	Additions	0.87	0.99	33.58
C	Closing Equity (A+B)	616.45	617.44	651.03
D	Average Equity (A+C)/2	616.02	616.95	634.24
E	Return on Equity (Base Rate) (%)	15.500	15.500	15.500
F	MAT Rate for respective year (%)	21.342	21.342	21.549
G	Rate of Return on Equity (%)	19.705	19.705	19.758
H	<b>Return on Equity (D*G)</b>	<b>18.96</b>	<b>121.57</b>	<b>125.31</b>

56. The details of return on equity approved vide order dated 28.6.2018 in Petition No. 149/TT/2017 for Asset-1, vide order dated 30.3.2016 in Petition No. 110/TT/2015 for Asset-2, vide order dated 17.10.2017 in Petition No. 234/TT/2016 for Asset-3, vide order dated 17.8.2021 in Petition No. 104/TT/2019 for Asset-4A, Asset-4B, Asset-5, Asset-6 and Asset-7, claimed by the Petitioner in the instant petition and trued-up depreciation in the instant order are as follows:



(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
		<b>Asset-1</b>			
Allowed vide order dated 28.6.2018 in Petition No. 149/TT/2017	50.30	60.66	63.28	63.28	63.28
Claimed by the Petitioner in the instant petition	50.30	60.96	63.59	63.59	63.76
Approved after true-up in this order	49.73	60.59	63.43	63.43	63.60
		<b>Asset-2</b>			
Allowed vide order dated 30.3.2016 in Petition No. 110/TT/2015	5.96	85.05	93.91	93.91	93.91
Claimed by the Petitioner in the instant petition	6.15	81.88	88.76	89.75	89.99
Approved after true-up in this order	6.13	81.73	88.72	89.71	89.96
		<b>Asset-3</b>			
Allowed vide order dated 17.10.2017 in Petition No. 234/TT/2016			29.68	129.71	147.49
Claimed by the Petitioner in the instant petition			28.58	107.45	117.82
Approved after true-up in this order			24.49	98.08	112.93
		<b>Asset-4A</b>			
Allowed vide order dated 17.8.2021 in Petition No. 104/TT/2019			13.87	18.07	22.58
Claimed by the Petitioner in the instant petition			13.87	17.92	18.22
Approved after true-up in this order			12.76	17.26	18.00
		<b>Asset-4B</b>			
Allowed vide order dated 17.8.2021 in Petition No. 104/TT/2019			28.26	28.26	28.33
Claimed by the Petitioner in the instant petition			28.26	28.26	28.33
Approved after true-up in this order			28.24	28.24	28.32
		<b>Asset-5</b>			
Allowed vide order dated 17.8.2021 in Petition No. 104/TT/2019				31.47	52.11
Claimed by the Petitioner in the instant petition				31.25	46.00





Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Approved after true-up in this order				31.26	46.01
		<b>Asset-6</b>			
Allowed vide order dated 17.8.2021 in Petition No. 104/TT/2019				11.07	25.28
Claimed by the Petitioner in the instant petition				11.08	24.70
Approved after true-up in this order				11.26	25.09
		<b>Asset-7</b>			
Allowed vide order dated 17.8.2021 in Petition No. 104/TT/2019			19.36	124.17	132.97
Claimed by the Petitioner in the instant petition			15.63	103.39	106.83
Approved after true-up in this order			15.63	103.39	106.83

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

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

Particulars	Asset-1				
	2014-15	2015-16	2016-17	2017-18	2018-19
<b>Transmission Line</b>					
(i) Loop out of 220 kV D/C Jalandhar-Hamirpur Transmission Line at Hamirpur					
DC Single Conductor	7.503	7.503	7.503	7.503	7.503
Norms (₹ lakh/km)	0.303	0.313	0.324	0.334	0.346
<b>Total O&amp;M Expense (₹ in lakh)</b>	<b>2.27</b>	<b>2.35</b>	<b>2.43</b>	<b>2.51</b>	<b>2.60</b>

Particulars	Asset-2				
	2014-15	2015-16	2016-17	2017-18	2018-19
<b>Transmission Line</b>					
(i) LILO of 220 kV D/C Jaladnhar-Hamirpur line at Hamirpur					
DC Single Conductor	9.238	9.238	9.238	9.238	9.238
Norms (₹ lakh/km)	0.303	0.313	0.324	0.334	0.346
<b>Total O&amp;M Expense (₹ in lakh)</b>	<b>0.23</b>	<b>2.89</b>	<b>2.99</b>	<b>3.09</b>	<b>3.20</b>

Particulars	Asset-3		
	2016-17	2017-18	2018-19
<b>Bays:</b>			
(i) Dehar (BBMB): BR-I Bay: GIS			
400 kV GIS Bays	1	1	1



Particulars	Asset-3		
	2016-17	2017-18	2018-19
Norms (₹ lakh/Bay)	55.02	56.84	58.73
<b>Total O&amp;M Expense (₹ in lakh)</b>	<b>28.75</b>	<b>66.51</b>	<b>68.71</b>

Particulars	Asset-4A		
	2016-17	2017-18	2018-19
<b>Bays</b>			
(i) Kota: Bus Reactor Bay			
400 kV Bays	1	1	1
Norms (₹ lakh/Bay)	64.37	66.51	68.71
<b>Total O&amp;M Expense (₹ in lakh)</b>	<b>64.37</b>	<b>66.51</b>	<b>68.71</b>

Particulars	Asset-5	
	2017-18	2018-19
<b>Bays:</b>		
(i) Koteswar: Bus Reactor (125 MVAR Koteswar GIS): GIS		
400 kV GIS Bays	1	1
Norms (₹ lakh/Bay)	66.51	68.71
<b>Total O&amp;M Expense (₹ in lakh)</b>	<b>46.10</b>	<b>68.71</b>

Particulars	Asset-6	
	2017-18	2018-19
<b>Bays:</b>		
(i) Dehar (BBMB): Extension of 400/220 kV Dehar Sub-station (BBMB) -400 kV 63 MVAR Bus Reactor-II Dehar (BBMB)		
400 kV Bays	1	1
Norms (₹ lakh/Bay)	56.84	58.73
<b>Total O&amp;M Expense (₹ in lakh)</b>	<b>26.47</b>	<b>58.73</b>

Particulars	Asset-7		
	2016-17	2017-18	2018-19
<b>Bays:</b>			
(i) Dehar (BBMB): ICT Bay: 400 kV GIS			
(ii) Dehar (BBMB): ICT Bay: 220 kV GIS			
400 kV GIS Bays	1	1	1
Norms (₹ lakh/Bay)	55.02	56.84	58.73
220 kV GIS Bays	1	1	1
Norms (₹ lakh/Bay)	45.06	46.55	48.10
<b>Total O&amp;M Expense (₹ in lakh)</b>	<b>15.63</b>	<b>103.39</b>	<b>106.83</b>



58. We have considered the submissions of the Petitioner. The O&M Expenses allowed for the transmission assets, as per norms specified in the 2014 Tariff Regulations, are as follows:

Particulars	Asset-1				
	2014-15 (Pro-rata 90 days)	2015-16	2016-17	2017-18	2018-19
<b>Transmission Line</b>					
(i) Loop out of 220 kV D/C Jalandhar-Hamirpur Transmission Line at Hamirpur					
DC Single Conductor	7.503	7.503	7.503	7.503	7.503
Norms (₹ lakh/km)	0.303	0.313	0.324	0.334	0.346
<b>Total O&amp;M Expense (₹ in lakh)</b>	<b>2.27</b>	<b>2.35</b>	<b>2.43</b>	<b>2.51</b>	<b>2.60</b>

Particulars	Asset-2				
	2014-15	2015-16	2016-17	2017-18	2018-19
<b>Transmission Line</b>					
(i) LILO of 220 kV D/C Jaladnhar-Hamirpur line at Hamirpur					
DC Single Conductor	9.238	9.238	9.238	9.238	9.238
Norms (₹ lakh/km)	0.303	0.313	0.324	0.334	0.346
<b>Total O&amp;M Expense (₹ in lakh)</b>	<b>0.23</b>	<b>2.89</b>	<b>2.99</b>	<b>3.09</b>	<b>3.20</b>

Particulars	Asset-3		
	2016-17	2017-18	2018-19
<b>Bays:</b>			
(i) Dehar (BBMB): BR-I Bay: GIS			
400 kV GIS Bays	1	1	1
Norms (₹ lakh/Bay)	55.02	56.84	58.73
<b>Total O&amp;M Expense (₹ in lakh)</b>	<b>28.75</b>	<b>66.51</b>	<b>68.71</b>

Particulars	Asset-4A		
	2016-17	2017-18	2018-19
<b>Bays</b>			
(i) Kota: BR Bay			
400 kV Bays	1	1	1
Norms (₹ lakh/Bay)	64.37	66.51	68.71
<b>Total O&amp;M Expense (₹ in lakh)</b>	<b>64.37</b>	<b>66.51</b>	<b>68.71</b>

Particulars	Asset-5	
	2017-18	2018-19
<b>Bays:</b>		
(i) Koteshwar: Bus Reactor (125 MVAR Koteshwar GIS): GIS		
400 kV GIS Bays	1	1



Particulars	Asset-5	
	2017-18	2018-19
Norms (₹ lakh/Bay)	66.51	68.71
<b>Total O&amp;M Expense (₹ in lakh)</b>	<b>46.10</b>	<b>68.71</b>

Particulars	Asset-6	
	2017-18	2018-19
<b>Bays:</b>		
(i) Dehar (BBMB): Extension of 400/220 kV Dehar Sub-station (BBMB) -400 kF 64 MVAR Bus Reactor-II Dehar (BBMB)		
400 kV Bays	1	1
Norms (₹ lakh/Bay)	56.84	58.73
<b>Total O&amp;M Expense (₹ in lakh)</b>	<b>26.47</b>	<b>58.73</b>

Particulars	Asset-7		
	2016-17	2017-18	2018-19
<b>Bays:</b>			
(i) Dehar (BBMB): ICT Bay: 400 kV GIS			
(ii) Dehar (BBMB): ICT Bay: 220 kV GIS			
400 kV GIS Bays	1	1	1
Norms (₹ lakh/Bay)	55.02	56.84	58.73
220 kV GIS Bays	1	1	1
Norms (₹ lakh/Bay)	45.06	46.55	48.10
<b>Total O&amp;M Expense (₹ in lakh)</b>	<b>15.63</b>	<b>103.39</b>	<b>106.83</b>

59. The details of O&M Expenses allowed vide order dated 28.6.2018 in Petition No. 149/TT/2017 for Asset-1, vide order dated 30.3.2016 in Petition No. 110/TT/2015 for Asset-2, vide order dated 17.10.2017 in Petition No. 234/TT/2016 for Asset-3, vide order dated 17.8.2021 in Petition No. 104/TT/2019 for Asset-4A, Asset-4B, Asset-5, Asset-6 and Asset-7, claimed by the Petitioner in the instant petition and trued-up depreciation in the instant order are as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
	<b>Asset-1</b>				
Allowed vide order dated 28.6.2018 in Petition No. 149/TT/2017	2.27	2.35	2.43	2.51	2.60



<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Claimed by the Petitioner in the instant petition	2.27	2.35	2.43	2.51	2.60
Approved after true-up in this order	2.27	2.35	2.43	2.51	2.60
		<b>Asset-2</b>			
Allowed vide order dated 30.3.2016 in Petition No. 110/TT/2015	0.22	2.89	2.99	3.09	3.20
Claimed by the Petitioner in the instant petition	0.23	2.89	2.99	3.09	3.20
Approved after true-up in this order	0.23	2.89	2.99	3.09	3.20
		<b>Asset-3</b>			
Allowed vide order dated 17.10.2017 in Petition No. 234/TT/2016			16.13	56.84	58.73
Claimed by the Petitioner in the instant petition			16.28	56.84	58.73
Approved after true-up in this order			16.28	56.84	58.73
		<b>Asset-4A</b>			
Allowed vide order dated 17.8.2021 in Petition No. 104/TT/2019			64.37	66.51	68.71
Claimed by the Petitioner in the instant petition			64.37	66.51	68.71
Approved after true-up in this order			64.37	66.51	68.71
		<b>Asset-4B</b>			
Allowed vide order dated 17.8.2021 in Petition No. 104/TT/2019			0.00	0.00	0.00
Claimed by the Petitioner in the instant petition			0.00	0.00	0.00
Approved after true-up in this order			0.00	0.00	0.00
		<b>Asset-5</b>			
Allowed vide order dated 17.8.2021 in Petition No. 104/TT/2019				46.10	68.71
Claimed by the Petitioner in the instant petition				46.10	68.71
Approved after true-up in this order				46.10	68.71
		<b>Asset-6</b>			
Allowed vide order dated 17.8.2021 in Petition No. 104/TT/2019				26.47	58.73



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Claimed by the Petitioner in the instant petition				26.47	58.73
Approved after true-up in this order				26.47	58.73
		<b>Asset-7</b>			
Allowed vide order dated 17.8.2021 in Petition No. 104/TT/2019			15.63	103.39	106.83
Claimed by the Petitioner in the instant petition			15.63	103.39	106.83
Approved after true-up in this order			15.63	103.39	106.83

### Interest on Working Capital (IWC)

60. IWC has been worked out as per the methodology provided in Regulation 28 of the 2014 Tariff Regulations and is allowed for the transmission assets as follows:

(₹ in lakh)

	Particulars	Asset-1				
		2014-15	2015-16	2016-17	2017-18	2018-19
	<b>Interest on Working Capital</b>					
A	O & M Expenses	0.19	0.20	0.20	0.21	0.22
B	Maintenance Spares	0.34	0.35	0.36	0.38	0.39
C	Receivables	25.98	30.48	30.72	29.21	28.23
<b>D</b>	<b>Total Working Capital (A+B+C)</b>	<b>26.51</b>	<b>31.02</b>	<b>31.29</b>	<b>29.80</b>	<b>28.83</b>
E	Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
<b>F</b>	<b>Interest of working capital (D*E)</b>	<b>3.58</b>	<b>4.19</b>	<b>4.22</b>	<b>4.02</b>	<b>3.89</b>

(₹ in lakh)

	Particulars	Asset-2				
		2014-15 (pro-rata) 30 days	2015-16	2016-17	2017-18	2018-19
	<b>Interest on Working Capital</b>					
A	O & M Expenses	0.23	0.24	0.25	0.26	0.27
B	Maintenance Spares	0.42	0.43	0.45	0.46	0.48
C	Receivables	39.07	41.72	43.75	42.37	41.05
<b>D</b>	<b>Total Working Capital (A+B+C)</b>	<b>39.72</b>	<b>42.39</b>	<b>44.45</b>	<b>43.09</b>	<b>41.80</b>
E	Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
<b>F</b>	<b>Interest of working capital (D*E)</b>	<b>0.44</b>	<b>5.72</b>	<b>6.00</b>	<b>5.82</b>	<b>5.64</b>



(₹ in lakh)

	Particulars	Asset-3		
		2016-17 (pro-rata 108 days)	2017-18	2018-19
	<b>Interest on Working Capital</b>			
A	O & M Expenses	4.59	4.74	4.89
B	Maintenance Spares	8.25	8.53	8.81
C	Receivables	49.66	56.60	62.78
<b>D</b>	<b>Total Working Capital (A+B+C)</b>	<b>62.50</b>	<b>69.86</b>	<b>76.48</b>
E	Rate of Interest (%)	12.80	12.80	12.80
<b>F</b>	<b>Interest of working capital (D*E)</b>	<b>2.37</b>	<b>8.94</b>	<b>9.79</b>

(₹ in lakh)

	Particulars	Asset-4A		
		2016-17 (pro-rata 365 days)	2017-18	2018-19
	<b>Interest on Working Capital</b>			
A	O & M Expenses	5.36	5.54	5.73
B	Maintenance Spares	9.66	9.98	10.31
C	Receivables	17.48	19.86	20.37
<b>D</b>	<b>Total Working Capital (A+B+C)</b>	<b>32.50</b>	<b>35.37</b>	<b>36.40</b>
E	Rate of Interest (%)	12.80	12.80	12.80
<b>F</b>	<b>Interest of working capital (D*E)</b>	<b>4.16</b>	<b>4.53</b>	<b>4.66</b>

(₹ in lakh)

	Particulars	Asset-4B		
		2016-17 (pro-rata 365 days)	2017-18	2018-19
	<b>Interest on Working Capital</b>			
A	O & M Expenses	0.00	0.00	0.00
B	Maintenance Spares	0.00	0.00	0.00
C	Receivables	11.50	11.09	10.70
<b>D</b>	<b>Total Working Capital (A+B+C)</b>	<b>11.50</b>	<b>11.09</b>	<b>10.70</b>
E	Rate of Interest (%)	12.80	12.80	12.80
<b>F</b>	<b>Interest of working capital (D*E)</b>	<b>1.47</b>	<b>1.42</b>	<b>1.37</b>

(₹ in lakh)

	Particulars	Asset-5	
		2017-18 (pro-rata 253 days)	2018-19
	<b>Interest on Working Capital</b>		
A	O & M Expenses	5.54	5.73
B	Maintenance Spares	9.98	10.31
C	Receivables	32.72	33.07
<b>D</b>	<b>Total Working Capital (A+B+C)</b>	<b>48.24</b>	<b>49.10</b>
E	Rate of Interest (%)	12.60	12.60
<b>F</b>	<b>Interest of working capital (D*E)</b>	<b>4.21</b>	<b>6.19</b>

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(₹ in lakh)

	Particulars	Asset-6	
		2017-18 (pro-rata 170 days)	2018-19
	<b>Interest on Working Capital</b>		
A	O & M Expenses	4.74	4.89
B	Maintenance Spares	8.53	8.81
C	Receivables	21.44	21.98
<b>D</b>	<b>Total Working Capital (A+B+C)</b>	<b>34.70</b>	<b>35.69</b>
E	Rate of Interest (%)	12.60	12.60
<b>F</b>	<b>Interest of working capital (D*E)</b>	<b>2.04</b>	<b>4.50</b>

(₹ in lakh)

	Particulars	Asset-7		
		2016-17 (pro-rata 57 days)	2017-18	2018-19
	<b>Interest on Working Capital</b>			
A	O & M Expenses	8.34	8.62	8.90
B	Maintenance Spares	15.01	15.51	16.02
C	Receivables	76.13	75.88	76.68
<b>D</b>	<b>Total Working Capital (A+B+C)</b>	<b>99.48</b>	<b>100.01</b>	<b>101.60</b>
E	Rate of Interest (%)	12.80	12.80	12.80
<b>F</b>	<b>Interest of working capital (D*E)</b>	<b>1.99</b>	<b>12.80</b>	<b>13.01</b>

61. The details of interest on working capital allowed vide order dated 28.6.2018 in Petition No. 149/TT/2017 for Asset-1, vide order dated 30.3.2016 in Petition No. 110/TT/2015 for Asset-2, vide order dated 17.10.2017 in Petition No. 234/TT/2016 for Asset-3, vide order dated 17.8.2021 in Petition No. 104/TT/2019 for Asset-4A, Asset-4B, Asset-5, Asset-6 and Asset-7, claimed by the Petitioner in the instant petition and true-up depreciation in the instant order are as follows:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
		<b>Asset-1</b>			
Allowed vide order dated 28.6.2018 in Petition No. 149/TT/2017	3.62	4.25	4.32	4.19	4.06
Claimed by the Petitioner in the instant petition	3.62	4.21	4.23	4.03	3.90
Approved after true-up in this order	3.58	4.19	4.22	4.02	3.89

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Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
		<b>Asset-2</b>			
Allowed vide order dated 30.3.2016 in Petition No. 110/TT/2015	0.43	5.99	6.43	6.25	6.07
Claimed by the Petitioner in the instant petition	0.44	5.73	6.00	5.82	5.65
Approved after true-up in this order	0.44	5.72	6.00	5.82	5.64
		<b>Asset-3</b>			
Allowed vide order dated 17.10.2017 in Petition No. 234/TT/2016			2.69	10.91	11.89
Claimed by the Petitioner in the instant petition			2.62	9.51	10.07
Approved after true-up in this order			2.37	8.94	9.79
		<b>Asset-4A</b>			
Allowed vide order dated 17.8.2021 in Petition No. 104/TT/2019			4.23	4.58	4.94
Claimed by the Petitioner in the instant petition			4.23	4.57	4.67
Approved after true-up in this order			4.16	4.53	4.66
		<b>Asset-4B</b>			
Allowed vide order dated 17.8.2021 in Petition No. 104/TT/2019			1.47	1.42	1.37
Claimed by the Petitioner in the instant petition			1.47	1.42	1.37
Approved after true-up in this order			1.47	1.42	1.37
		<b>Asset-5</b>			
Allowed vide order dated 17.8.2021 in Petition No. 104/TT/2019				4.23	6.55
Claimed by the Petitioner in the instant petition				4.21	6.19
Approved after true-up in this order				4.21	6.19
		<b>Asset-6</b>			
Allowed vide order dated 17.8.2021 in Petition No. 104/TT/2019				2.03	4.51
Claimed by the Petitioner in the instant petition				2.03	4.47
Approved after true-up in this order				2.04	4.50



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
		<b>Asset-7</b>			
Allowed vide order dated 17.8.2021 in Petition No. 104/TT/2019			2.01	12.96	13.47
Claimed by the Petitioner in the instant petition			2.01	12.93	13.06
Approved after true-up in this order			1.99	12.80	13.01

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

62. The trued-up AFC approved for the transmission assets for 2014-19 tariff period are as follows:

(₹ in lakh)

	Particulars	Asset-1				
		2014-15	2015-16	2016-17	2017-18	2018-19
	<b>Annual Transmission Charges</b>					
A	Depreciation	44.63	54.12	56.65	56.65	56.65
B	Interest on Loan	55.67	61.61	57.58	48.65	42.62
C	Return on Equity	49.73	60.59	63.43	63.43	63.60
D	O & M Expenses	2.27	2.35	2.43	2.51	2.60
E	Interest on Working Capital	3.58	4.19	4.22	4.02	3.89
<b>F</b>	<b>Total (A+B+C+D+E)</b>	<b>155.89</b>	<b>182.85</b>	<b>184.32</b>	<b>175.26</b>	<b>169.36</b>

(₹ in lakh)

	Particulars	Asset-2				
		2014-15 (pro-rata 30 days)	2015-16	2016-17	2017-18	2018-19
	<b>Annual Transmission Charges</b>					
A	Depreciation	5.50	73.00	79.24	80.13	80.13
B	Interest on Loan	6.96	86.95	85.55	75.45	67.39
C	Return on Equity	6.13	81.73	88.72	89.71	89.96
D	O & M Expenses	0.23	2.89	2.99	3.09	3.20
E	Interest on Working Capital	0.44	5.72	6.00	5.82	5.64
<b>F</b>	<b>Total (A+B+C+D+E)</b>	<b>19.27</b>	<b>250.30</b>	<b>262.50</b>	<b>254.20</b>	<b>246.31</b>

(₹ in lakh)

	Particulars	Asset-3		
		2016-17 (pro-rata 108 days)	2017-18	2018-19
	<b>Annual Transmission Charges</b>			
A	Depreciation	21.88	87.60	100.60
B	Interest on Loan	23.15	88.12	94.63



	Particulars	Asset-3		
		2016-17 (pro-rata 108 days)	2017-18	2018-19
C	Return on Equity	24.49	98.08	112.93
D	O & M Expenses	16.28	56.84	58.73
E	Interest on Working Capital	2.37	8.94	9.79
<b>F</b>	<b>Total (A+B+C+D+E)</b>	<b>88.17</b>	<b>339.57</b>	<b>376.67</b>

(₹ in lakh)

	Particulars	Asset-4A		
		2016-17 (pro-rata 365 days)	2017-18	2018-19
	<b>Annual Transmission Charges</b>			
A	Depreciation	11.39	15.41	16.04
B	Interest on Loan	12.18	15.42	14.79
C	Return on Equity	12.76	17.26	18.00
D	O & M Expenses	64.37	66.51	68.71
E	Interest on Working Capital	4.16	4.53	4.66
<b>F</b>	<b>Total (A+B+C+D+E)</b>	<b>104.86</b>	<b>119.13</b>	<b>122.20</b>

(₹ in lakh)

	Particulars	Asset-4B		
		2016-17 (pro-rata 365 days)	2017-18	2018-19
	<b>Annual Transmission Charges</b>			
A	Depreciation	25.23	25.23	25.23
B	Interest on Loan	14.06	11.67	9.28
C	Return on Equity	28.24	28.24	28.32
D	O & M Expenses	0.00	0.00	0.00
E	Interest on Working Capital	1.47	1.42	1.37
<b>F</b>	<b>Total (A+B+C+D+E)</b>	<b>69.00</b>	<b>66.56</b>	<b>64.20</b>

(₹ in lakh)

	Particulars	Asset-5	
		2017-18 (pro-rata 253 days)	2018-19
	<b>Annual Transmission Charges</b>		
A	Depreciation	27.92	40.99
B	Interest on Loan	26.59	36.50
C	Return on Equity	31.26	46.01
D	O & M Expenses	4.21	6.19
E	Interest on Working Capital	46.10	68.71
<b>F</b>	<b>Total (A+B+C+D+E)</b>	<b>136.08</b>	<b>198.39</b>



(₹ in lakh)

Particulars		Asset-6	
		2017-18 (pro-rata 170 days)	2018-19
	<b>Annual Transmission Charges</b>		
A	Depreciation	10.05	22.35
B	Interest on Loan	10.10	21.23
C	Return on Equity	11.26	25.09
D	O & M Expenses	2.04	4.50
E	Interest on Working Capital	26.47	58.73
<b>F</b>	<b>Total (A+B+C+D+E)</b>	<b>59.92</b>	<b>131.90</b>

(₹ in lakh)

Particulars		Asset-7		
		2016-17 (pro-rata 57 days)	2017-18	2018-19
	<b>Annual Transmission Charges</b>			
A	Depreciation	16.93	108.58	111.63
B	Interest on Loan	17.83	108.95	103.29
C	Return on Equity	18.96	121.57	125.31
D	O & M Expenses	15.63	103.39	106.83
E	Interest on Working Capital	1.99	12.80	13.01
<b>F</b>	<b>Total (A+B+C+D+E)</b>	<b>71.33</b>	<b>455.29</b>	<b>460.06</b>

63. The details of AFC allowed vide order dated 28.6.2018 in Petition No. 149/TT/2017 for Asset-1, vide order dated 30.3.2016 in Petition No. 110/TT/2015 for Asset-2, vide order dated 17.10.2017 in Petition No. 234/TT/2016 for Asset-3, vide order dated 17.8.2021 in Petition No. 104/TT/2019 for Asset-4A, Asset-4B, Asset-5, Asset-6 and Asset-7, AFC claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
<b>Asset-1</b>					
Allowed vide order dated 28.6.2018 in Petition No. 149/TT/2017	157.66	185.67	188.38	182.65	176.97
Claimed by the Petitioner in the instant petition	157.65	183.91	184.71	175.65	169.72
Approved after true-up in this order	155.89	182.85	184.32	175.26	169.36
<b>Asset-2</b>					

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<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Allowed vide order dated 30.3.2016 in Petition No. 110/TT/2015	18.73	262.00	281.57	273.28	265.12
Claimed by the Petitioner in the instant petition	19.32	250.74	262.59	254.29	246.40
Approved after true-up in this order	19.27	250.30	262.50	254.20	246.31
		<b>Asset-3</b>			
Allowed vide order dated 17.10.2017 in Petition No. 234/TT/2016			103.37	431.67	475.26
Claimed by the Petitioner in the instant petition			100.02	366.18	389.70
Approved after true-up in this order			88.17	339.57	376.67
		<b>Asset-4A</b>			
Allowed vide order dated 17.8.2021 in Petition No. 104/TT/2019			108.08	121.38	135.27
Claimed by the Petitioner in the instant petition			108.10	120.97	122.69
Approved after true-up in this order			104.86	119.13	122.20
		<b>Asset-4B</b>			
Allowed vide order dated 17.8.2021 in Petition No. 104/TT/2019			69.04	66.60	64.23
Claimed by the Petitioner in the instant petition			69.04	66.60	64.23
Approved after true-up in this order			69.00	66.56	64.20
		<b>Asset-5</b>			
Allowed vide order dated 17.8.2021 in Petition No. 104/TT/2019				136.76	215.52
Claimed by the Petitioner in the instant petition				136.06	198.37
Approved after true-up in this order				136.08	198.39
		<b>Asset-6</b>			
Allowed vide order dated 17.8.2021 in Petition No. 104/TT/2019				59.40	132.43
Claimed by the Petitioner in the instant petition				59.40	130.81



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Approved after true-up in this order				59.92	131.90
		<b>Asset-7</b>			
Allowed vide order dated 17.8.2021 in Petition No. 104/TT/2019			72.49	462.79	481.75
Claimed by the Petitioner in the instant petition			72.27	461.13	462.76
Approved after true-up in this order			71.33	455.29	460.06

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

64. The Petitioner has combined all the transmission assets covered in the transmission project into one single Combined Asset and has filed a consolidated petition claiming tariff for the Combined Asset as a whole for the 2019-24 tariff period as provided in Regulation 8(1) of the 2019 Tariff Regulations.

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

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	476.92	484.94	499.58	510.78	510.78
Interest on Loan	365.81	333.71	311.36	285.02	242.37
Return on Equity	498.06	506.53	522.16	534.11	534.11
O&M Expenses	33.42	33.73	34.33	34.79	34.58
Interest on Working Capital	304.26	325.13	326.18	337.84	349.30
<b>Total</b>	<b>1678.47</b>	<b>1684.04</b>	<b>1693.61</b>	<b>1702.54</b>	<b>1671.14</b>

66. The details of IWC claimed by the Petitioner for the 2019-24 tariff period in respect of the Combined Asset are as follows:

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	25.36	26.26	27.18	28.15	29.11
Maintenance Spares	45.64	47.27	48.93	50.68	52.40
Receivables	206.37	206.39	208.80	209.90	205.47



Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Total Working Capital</b>	<b>277.37</b>	<b>279.92</b>	<b>284.91</b>	<b>288.73</b>	<b>286.98</b>
Rate of Interest (%)	12.05	12.05	12.05	12.05	12.05
<b>Interest on Working Capital</b>	<b>33.42</b>	<b>33.73</b>	<b>34.33</b>	<b>34.79</b>	<b>34.58</b>

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

67. The Petitioner has claimed that E-COD of the Combined Asset works out to be 4.5.2016. Based on the trued-up admitted capital cost as on 31.3.2019 and actual COD of all the transmission assets, E-COD has been worked out as follows:

Assets	Capital Cost as on 31.3.2019 (₹ in lakh)	COD	Number of days from last COD	Weightage of Cost (in %)	Weighted days	Effective COD (latest COD – weighted days)
Asset-1	1072.97	1.1.2014	1381.00	12.37%	170.85	4.5.2016
Asset-2	1517.63	2.3.2015	956.00	17.50%	167.28	
Asset-3	1922.86	14.12.2016	303.00	22.17%	67.18	
Asset-4A	304.65	1.4.2016	560.00	3.51%	19.67	
Asset-4B	477.79	1.4.2016	560.00	5.51%	30.85	
Asset-5	778.54	22.7.2017	83.00	8.98%	7.45	
Asset-6	428.46	13.10.2017	0.00	4.94%	0.00	
Asset-7	2170.09	3.2.2017	252.00	25.02%	63.05	
<b>Total</b>	<b>8672.99</b>			<b>1.00</b>	<b>526.34</b>	

68. E-COD is used to determine the lapsed life of the project as a whole which works out as 2 (two) years as on 1.4.2019 (i.e. the number of years completed as on 1.4.2019 from E-COD).

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

69. The life, as defined in Regulation 33 of the 2019 Tariff Regulations, has been considered for determination of Weighted Average Life.

70. 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.

71. The WAL has been determined based on the admitted capital cost of individual elements as on 31.3.2019 and their respective life as specified in the 2019 Tariff Regulations. The element-wise life, as defined in the 2014 Tariff Regulations prevailing at the time of actual COD of individual assets has been ignored for this purpose. The life as defined in the 2019 Tariff Regulations has been considered for determination of WAL. Accordingly, the WAL of all the transmission assets put into commercial operation in the 2014-19 period has been worked out as 28 years as follows:

Particulars	Life (in years) (1)	Capital Cost as on 31.3.2019 (₹ in lakh) (2)	Weighted Cost (₹ in lakh) (3) = (1) * (2)	Weighted Avg. Life of Asset (in years) (4) = (3) / (2)
Transmission Line	35.00	2590.60	90671.08	<b>28 years</b> (27.767 years)
Sub Station	25.00	5978.34	149458.60	
PLCC	15.00	0.00	0.00	
I.T. Equipment	6.67	104.05	693.64	
<b>Total</b>		<b>8672.99</b>	<b>240823.32</b>	

72. The 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 assets is 4.5.2016 and the elapsed life of the project as a whole works out as 2 years as on 1.4.2019 (i.e. the number of completed years as on 1.4.2019 from E-COD). Accordingly, WAL has been used to determine the remaining useful life as on 31.3.2019 to be 28 years.

### **Capital Cost**

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





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

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

- (a) The expenditure incurred or projected to be incurred up to the date of commercial operation of the project;*
- (b) Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;*
- (c) Any gain or loss on account of foreign exchange risk variation pertaining to the loan amount availed during the construction period;*
- (d) Interest during construction and incidental expenditure during construction as computed in accordance with these regulations;*
- (e) Capitalised Initial Spares subject to the ceiling rates in accordance with these regulations;*
- (f) Expenditure on account of additional capitalization and de-capitalisation determined in accordance with these regulations;*
- (g) Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the date of commercial operation as specified under Regulation 7 of these regulations;*
- (h) Adjustment of revenue earned by the transmission licensee by using the assets before the date of commercial operation;*
- (i) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*
- (j) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of the generating station but does not include the transportation cost and any other appurtenant cost paid to the railway;*
- (k) Capital expenditure on account of biomass handling equipment and facilities, for co-firing;*
- (l) Capital expenditure on account of emission control system necessary to meet the revised emission standards and sewage treatment plant;*
- (m) Expenditure on account of fulfilment of any conditions for obtaining environment clearance for the project;*
- (n) Expenditure on account of change in law and force majeure events; and*
- (o) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.*

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

- (a) Capital cost admitted by the Commission prior to 1.4.2019 duly tried up by excluding liability, if any, as on 1.4.2019;*
- (b) Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;*
- (c) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*



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

- (4) The capital cost in case of existing or new hydro generating station shall also include:  
(a) cost of approved rehabilitation and resettlement (R&R) plan of the project in conformity with National R&R Policy and R&R package as approved; and  
(b) cost of the developer’s 10% contribution towards Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) and Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) project in the affected area.
- (5) The following shall be excluded from the capital cost of the existing and new projects:  
(a) The assets forming part of the project, but not in use, as declared in the tariff petition;  
(b) De-capitalised Assets after the date of commercial operation on account of replacement or removal on account of obsolescence or shifting from one project to another project:

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

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

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

74. Against the overall apportioned approved capital cost (as per RCE) of ₹11272 lakh, the estimated completion cost is ₹9449.71 lakh. The individual capital cost of each asset is also within the respective RCE apportioned capital cost. Therefore, there is no cost over-run in respect of the Combined Asset.



75. We have considered the submissions of the Petitioner. The capital cost has been dealt in line with Regulation 19(3) of the 2019 Tariff Regulations. The element-wise capital cost (i.e. land, building, transmission line, substation and PLCC) as admitted by the Commission as on 31.3.2019 for the transmission assets are clubbed together and the capital cost has been considered as capital cost for Combined Asset as on 1.4.2019 as per following details:

									(₹ in lakh)
Element	Asset-1	Asset-2	Asset-3	Asset-4A	Asset-4B	Asset-5	Asset-6	Asset-7	Capital cost for Combined Asset as on 31.3.2019
Freehold Land	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Leasehold Land	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building Civil Works & Colony	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transmission Line	1072.97	1517.63	0.00	0.00	0.00	0.00	0.00	0.00	2590.60
Sub Station	0.00	0.00	1869.09	254.37	477.79	778.54	428.46	2170.09	5978.34
PLCC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IT Equipment (Incl. Software)	0.00	0.00	53.77	50.28	0.00	0.00	0.00	0.00	104.05
<b>Total</b>	<b>1072.97</b>	<b>1517.63</b>	<b>1922.86</b>	<b>304.65</b>	<b>477.79</b>	<b>778.54</b>	<b>428.46</b>	<b>2170.09</b>	<b>8672.99</b>

76. The trued-up capital cost of ₹8672.99 lakh for Combined Asset is considered as admitted capital cost as on 31.3.2019 for working out the tariff for 2019-24 tariff period.

### **Initial Spares**

77. As discussed above, the assets covered under the project are combined and the overall project cost is arrived at in the 2019-24 tariff period and therefore Initial Spares are allowed during the 2019-24 tariff period on the basis of the overall project cost as per the APTEL's judgement dated 14.9.2019 in Appeal No. 74 of 2017. Accordingly, Initial Spares allowed in the 2019-24 tariff period are as follows:



**Transmission Line:**

Asset	Capital Cost/Plant & Machinery cost considered as on cut-off date (₹ in lakh)	Initial Spares claimed (₹ in lakh)	Norms as per 2009/2014 Tariff Regulations	Initial Spares allowable as per 2009/2014 Tariff Regulations (₹ in lakh)	Excess initial spares claimed (₹ in lakh)	Initial spares allowed during 2014-19 period (₹ in lakh)	Initial Spares allowed on Combined Asset (₹ in lakh)	Additional Initial Spares allowed (₹ in lakh)
	A	B	C	$D = (A - B) * C / (100 - C)$	B-D	E	F	G=E-F
Asset-1	1082.67	17.75	0.75%	8.05	14.04	21.46	21.46	0.00
Asset-2	1346.02	17.75	1.00%	13.42				
<b>Combined Asset</b>		<b>35.50</b>		<b>21.46</b>				

**Sub-station:**

Asset	Capital Cost/Plant & Machinery cost considered as on cut-off date (₹ in lakh)	Initial Spares claimed (₹ in lakh)	Norms as per 2009/2014 Tariff Regulations	Initial Spares allowable as per 2009/2014 Tariff Regulations (₹ in lakh)	Excess initial spares claimed (₹ in lakh)	Initial spares allowed during 2014-19 period (₹ in lakh)	Initial Spares allowed on Combined Asset (₹ in lakh)	Additional Initial Spares allowed (₹ in lakh)
	A	B	C	$D = (A - B) * C / (100 - C)$	B-D	E	F	G=E-F
Asset-3	2432.50	343.74	5.00%	109.93	249.00	274.14	322.23	48.09
Asset-4A	369.36	39.86	6.00%	21.03				
Asset-5	935.33	37.50	6.00%	57.31				
Asset-6	537.33	0.00	5.00%	28.28				
Asset-7	2157.93	150.13	5.00%	105.67				
<b>Combined Asset</b>		<b>571.23</b>		<b>322.23</b>				

78. Thus, in line with APTEL's judgement dated 14.9.2019 in Appeal No. 74 of 2017 additional initial spares of ₹48.09 lakh are admissible. Capital cost as on 1.4.2019 for the Combined Asset allowed after adding Initial Spares is as follows:

(₹ in lakh)		
Capital Cost as on 31.3.2019	Additional Initial Spares as per APTEL's Judgment dated 14.9.2019	Capital Cost as on 1.4.2019
8672.99	48.09	8721.08

**Additional Capital Expenditure (ACE)**

79. Regulations 24 and 25 of the 2019 Tariff Regulations provides as follows:



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

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

- (a) *Undischarged liabilities recognized to be payable at a future date;*
- (b) *Works deferred for execution;*
- (c) *Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 23of 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 additional capital expenditure 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;*
- (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.*”

80. The Petitioner has claimed ACE of ₹ 728.63 lakh for the 2019-24 period under Regulations 25(1)(a) of the 2019 Tariff Regulations on account of undischarged liability towards final payment after the cut-off date for works executed prior to the cut-off date/ works deferred for execution. The same has been summarised as follows:

Asset	Asset Type	ACE Claimed (2019-24)
Asset-2	Transmission Line	-6.47
Asset-3	Sub-station	365.44
Asset-4	Sub-station	51.76
	IT Equipment	1.64
Asset-5	Sub-station	173.75
Asset-6	Sub-station	142.51
<b>Total</b>		<b>728.63</b>

81. We have considered the submissions of the Petitioner. The ACE claimed by the Petitioner has been allowed under Regulation 25(1)(a) of the 2019 Tariff Regulations, as it is towards undischarged liabilities discharged after the cut-off date for works executed prior to the cut-off date. The total capital expenditure as on 31.3.2024 is within the apportioned approved cost. Accordingly, ACE for 2019-20 and the capital cost as on 31.3.2024 for the transmission asset considered are as follows:

(₹ in lakh)			
Asset	Capital Cost admitted as on 1.4.2019 (A)	ACE allowed for 2019-24 (B)	Capital Cost allowed as on 31.3.2024 (C)=(A)+(B)
Combined Asset	8721.08	728.63	9449.71

**Debt-Equity ratio**

82. 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.*



(6) Any expenditure incurred for the emission control system during the tariff period as may be admitted by the Commission as additional capital expenditure for determination of supplementary tariff, shall be serviced in the manner specified in clause (1) of this Regulation.”

83. The debt-equity considered for the purpose of computation of tariff for the 2019-24 tariff period is allowed as per Regulation 18(3) of the 2019 Tariff Regulations. The debt-equity considered for the purpose of computation of tariff for the Combined Asset for the 2019-24 tariff period is as follows:

Funding	Capital Cost as on 1.4.2019 (₹ in lakh)	(in %)	ACE in 2019-24 (₹ in lakh)	(in %)	Capital Cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	6104.76	70.00	510.04	70.00	6614.80	70.00
Equity	2616.32	30.00	218.59	30.00	2834.91	30.00
<b>Total</b>	<b>8721.08</b>	<b>100.00</b>	<b>728.63</b>	<b>100.00</b>	<b>9449.71</b>	<b>100.00</b>

### Depreciation

84. 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.*

*(9) Where the emission control system is implemented within the original scope of the generating station and the date of commercial operation of the generating station or unit thereof and the date of operation of the emission control system are the same, depreciation of the generating station or unit thereof including the emission control system shall be computed in accordance with Clauses (1) to (8) of this Regulation.*

*(10) Depreciation of the emission control system of an existing or a new generating station or unit thereof where the date of operation of the emission control system is subsequent to the date of commercial operation of the generating station or unit thereof, shall be computed annually from the date of operation of such emission*



control system based on straight line method, with salvage value of 10%, over a period of

- a) twenty five years, in case the generating station or unit thereof is in operation for fifteen years or less as on the date of operation of the emission control system; or
- b) balance useful life of the generating station or unit thereof plus fifteen years, in case the generating station or unit thereof is in operation for more than fifteen years as on the date of operation of the emission control system; or
- c) ten years or a period mutually agreed by the generating company and the beneficiaries, whichever is higher, in case the generating station or unit thereof has completed its useful life.”

85. The IT equipment has been considered as part of the Gross Block and depreciated using WAROD. WAROD at Annexure-II has been worked out 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 as NIL, i.e. IT asset has been considered as 100 per cent 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)				
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	<b>Depreciation</b>					
A	Opening Gross Block	8721.08	8895.10	9025.64	9449.71	9449.71
B	ACE	174.02	130.54	424.07	0.00	0.00
C	Closing Gross Block (A+B)	8895.10	9025.64	9449.71	9449.71	9449.71
D	Average Gross Block (A+C)/2	8808.09	8960.37	9237.68	9449.71	9449.71
E	Weighted average rate of Depreciation (WAROD) (%)	5.40	5.39	5.39	5.39	5.39
F	Balance useful life of the asset	26	25	24	23	22
G	Elapsed life at the beginning of the year	2	3	4	5	6
H	Aggregate Depreciable Value	7937.77	8074.90	8324.48	8515.31	8515.31
I	<b>Depreciation during the year</b>	<b>475.26</b>	<b>483.38</b>	<b>498.02</b>	<b>509.22</b>	<b>509.22</b>



	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
J	Cumulative Depreciation	1911.79	2395.17	2893.19	3402.41	3911.63
K	Remaining Depreciable Value (H-J)	6025.98	5679.73	5431.28	5112.90	4603.68

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

86. 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.*

(5a) *The rate of interest on loan for installation of emission control system shall be the weighted average rate of interest of actual loan portfolio of the emission control system or in the absence of actual loan portfolio, the weighted average rate of interest of the generating company 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.”

87. The Petitioner has prayed that the change in interest rate due to floating rate of interest applicable, if any, during the 2019-24 tariff period may be adjusted.

88. The weighted average rate of IoL has been considered on the basis of rate prevailing as on 1.4.2019. Accordingly, the floating rate of interest, if any, will be considered at the time of true up. IoL has been allowed in accordance with Regulation 32 of the 2019 Tariff Regulations. IoL allowed for the 2019-24 tariff period is as follows:

		(₹ in lakh)				
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	<b>Interest on Loan</b>					
A	Gross Normative Loan	6104.76	6226.57	6317.95	6614.80	6614.80
B	Cumulative Repayments upto Previous Year	1436.53	1911.79	2395.17	2893.19	3402.41
C	Net Loan-Opening (A-B)	4668.23	4314.78	3922.78	3721.61	3212.39
D	Additions	121.81	91.38	296.85	0.00	0.00
E	Repayment during the year	475.26	483.38	498.02	509.22	509.22
F	Net Loan-Closing (C+D-E)	4314.78	3922.78	3721.61	3212.39	2703.17
G	Average Loan (C+F)/2	4491.51	4118.78	3822.19	3467.00	2957.78
H	Weighted Average Rate of Interest on Loan (%)	8.1466	8.1103	8.1583	8.2381	8.2190
I	<b>Interest on Loan (G*H)</b>	<b>365.91</b>	<b>334.04</b>	<b>311.83</b>	<b>285.61</b>	<b>243.10</b>

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

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

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

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



*Provided that return on equity in respect of additional capitalization after cut-off date beyond the original scope, excluding additional capitalization on account of emission control system, shall be computed at the weighted average rate of interest on actual loan portfolio of the generating station or the transmission system or in the absence of actual loan portfolio of the generating station or the transmission system, the weighted average rate of interest of the generating company or the transmission licensee, as the case may be, as a whole shall be considered, subject to ceiling of 14%.*

*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.*

*(3) The return on equity in respect of additional capitalization on account of emission control system shall be computed at the base rate of one-year marginal cost of lending rate (MCLR) of the State Bank of India as on 1st April of the year in which the date of operation (ODe) occurs plus 350 basis point, subject to ceiling of 14%;”*

**“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."

90. The Petitioner has submitted that MAT rate is applicable to the Petitioner's company. Accordingly, the MAT rate applicable for 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
	<b>Return on Equity</b>					
A	Opening Equity	2616.32	2668.53	2707.69	2834.91	2834.91
B	Additions	52.21	39.16	127.22	0.00	0.00
C	Closing Equity (A+B)	2668.53	2707.69	2834.91	2834.91	2834.91
D	Average Equity (A+C)/2	2642.42	2688.11	2771.30	2834.91	2834.91
E	Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (%)	17.472	17.472	17.472	17.472	17.472
G	Rate of Return on Equity (%)	18.782	18.782	18.782	18.782	18.782
H	<b>Return on Equity (D*G)</b>	<b>496.30</b>	<b>504.88</b>	<b>520.51</b>	<b>532.45</b>	<b>532.45</b>

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

91. The O&M expenses claimed by the Petitioner for various elements included in the Combined Asset for 2019-24 tariff period are as follows:

Particulars	Combined Asset				
	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Transmission Line:</b>					
(i) Loop out of 220 kV D/C Jalandhar- Hamirpur Transmission Line at Hamirpur					
(ii) LILO of 220 kV D/C Jalandhar-Hamirpur line at Hamirpur					
<b>Bays:</b>					
<b>400 kV bays of:</b>					
(i) Kota: BR Bay					
(ii) Koteshwar: Bus Reactor (125 MVAR_KOTESHWAR GIS)					
<b>400 kV GIS bays of:</b>					
(iii) Dehar (BBMB): BR-I Bay					
(iv) Dehar (BBMB): Extension of 400/220 kV Dehar Sub-station (BBMB) -400 KF 63 MVAR Bus Reactor-II					
<b>220 kV GIS bays of:</b>					
Dehar (BBMB): ICT Bay					
400 kV Bays	2	2	2	2	2
Norms (₹ lakh/Bay)	32.15	33.28	34.45	35.66	36.91
400 kV GIS Bays	3	3	3	3	3
Norms (₹ lakh/Bay)	22.505	23.296	24.115	24.962	25.837
220 kV GIS Bays	1	1	1	1	1
Norms (₹ lakh/Bay)	15.757	16.31	16.884	17.472	18.088



Particulars	Combined Asset				
	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Transformers:</b>					
<b>400 kV</b>					
(i) Dehar (BBMB): Dehar ICT					
400 kV (MVA)	4	4	4	4	4
Norms (₹ lakh/MVA)	0.358	0.371	0.384	0.398	0.411
<b>Total O&amp;M Expense (₹ in lakh)</b>	<b>304.26</b>	<b>315.13</b>	<b>326.18</b>	<b>337.84</b>	<b>349.30</b>

92. Regulation 35(3)(a) and Regulation 33(4) of the 2019 Tariff Regulations provides 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-conductors)	1.322	1.368	1.416	1.466	1.517
Double Circuit (Twin & Triple Conductor)	0.881	0.912	0.944	0.977	1.011





Double Circuit (Single Conductor)	0.377	0.391	0.404	0.419	0.433
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.319	2.401	2.485	2.572	2.662
Multi Circuit (Twin & Triple Conductor)	1.544	1.598	1.654	1.713	1.773
<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
±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW)	2,563	2,653	2,746	2,842	2,942

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

*Provided further that:*

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



v. the O&M expenses of  $\pm 800$  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 year

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

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

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

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

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



94. The O&M Expenses have been worked out for the Combined Asset as per the norms specified in the 2019 Tariff Regulations and the same are as follows:

Particulars	Combined Asset				
	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Transmission Line:</b>					
(iii) Loop out of 220 kV D/C Jalandhar- Hamirpur Transmission Line at Hamirpur					
(iv) LILO of 220 kV D/C Jalandhar-Hamirpur line at Hamirpur					
<b>Bays:</b>					
<b>400 kV bays of:</b>					
(v) Kota: BR Bay					
(vi) Koteshwar: Bus Reactor (125 MVAR_KOTESHWAR GIS)					
<b>400 kV GIS bays of:</b>					
(vii) Dehar (BBMB): BR-I Bay					
(viii) Dehar (BBMB): Extension of 400/220 kV Dehar Sub-station (BBMB) -400 KF 63 MVAR Bus Reactor-II					
<b>220 kV GIS bays of:</b>					
Dehar (BBMB): ICT Bay					
400 kV Bays	2	2	2	2	2
Norms (₹ lakh/Bay)	32.15	33.28	34.45	35.66	36.91
400 kV GIS Bays	3	3	3	3	3
Norms (₹ lakh/Bay)	22.505	23.296	24.115	24.962	25.837
220 kV GIS Bays	1	1	1	1	1
Norms (₹ lakh/Bay)	15.757	16.31	16.884	17.472	18.088
<b>Transformers:</b>					
<b>400 kV</b>					
(ii) Dehar (BBMB): Dehar ICT					
400 kV (MVA)	4	4	4	4	4
Norms (₹ lakh/MVA)	0.358	0.371	0.384	0.398	0.411
<b>Total O&amp;M Expense (₹ in lakh)</b>	<b>304.24</b>	<b>315.12</b>	<b>326.17</b>	<b>337.85</b>	<b>349.29</b>

**Interest on Working Capital (IWC)**

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

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

.....

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

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

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



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

.....

(3) Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2019 or as on 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.** - In these regulations, unless the context otherwise requires:-

**‘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;”

96. The Petitioner has submitted that it has computed IWC for the 2019-24 period considering the SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of IWC as 12.05%. The 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, 11.25% (SBI 1-year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points) for 2020-21 and from 2021-22 onwards has been considered as 10.50% (SBI 1-year MCLR applicable as on 1.4.2020 of 7.00% plus 350 basis points). The components of the working capital and interest thereon allowed is as follows:

		(₹ in lakh)				
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	<b>Interest on Working Capital</b>					
A	O & M Expenses	25.35	26.26	27.18	28.15	29.11
B	Maintenance Spares	45.64	47.27	48.93	50.68	52.39
C	Receivables	205.95	205.75	207.91	209.02	204.60



	<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
D	<b>Total Working Capital (A+B+C)</b>	<b>276.94</b>	<b>279.28</b>	<b>284.01</b>	<b>287.85</b>	<b>286.10</b>
E	Rate of Interest (%)	12.05	11.25	10.50	10.50	10.50
F	<b>Interest on working capital (D*E)</b>	<b>33.37</b>	<b>31.42</b>	<b>29.82</b>	<b>30.22</b>	<b>30.04</b>

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

97. The transmission charges allowed in respect of Combined Asset for the 2019-24 tariff period are as follows:

	(₹ in lakh)				
<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Depreciation	475.26	483.38	498.02	509.22	509.22
Interest on Loan	365.91	334.04	311.83	285.61	243.10
Return on Equity	496.30	504.88	520.51	532.45	532.45
O & M Expenses	304.24	315.12	326.17	337.85	349.29
Interest on Working Capital	33.37	31.42	29.82	30.22	30.04
<b>Total</b>	<b>1675.08</b>	<b>1668.85</b>	<b>1686.35</b>	<b>1695.36</b>	<b>1664.10</b>

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

98. The Petitioner has sought reimbursement of fee paid by it for filing the Petition and publication expenses.

99. We have considered the submissions of the Petitioner. The Petitioner shall be entitled for reimbursement of the filing fees and publication expenses in connection with the present Petition, directly from the beneficiaries on pro-rata basis in accordance with Regulation 70(1) of the 2019 Tariff Regulations.

### **License Fee and Publication Expenses**

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



### **Goods and Services Tax**

101. 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.

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

### **Security Expenses**

103. 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 consequential IWC.

104. We have considered the submissions of the Petitioner. The Petitioner has claimed consolidated security expenses on projected basis for 2019-24 tariff period on the basis of actual security expenses incurred in 2018-19 in Petition No. 260/MP/2020. The Commission vide order dated 3.8.2021 in Petition No. 260/MP/2020 approved security expenses from 1.4.2019 to 31.3.2024. Therefore, security expenses will be shared in terms of the order dated 3.8.2021 in Petition No. 260/MP/2020. Accordingly, the Petitioner's prayer in the instant petition for allowing it to file a separate petition for claiming the overall security expenses and consequential IWC has become infructuous.



### **Capital Spares**

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

### **Sharing of Transmission Charges**

106. With effect from 1.7.2011, sharing of transmission charges for inter-State transmission system was governed by the Central Electricity Regulatory Commission (Sharing of Transmission Charges and Losses) Regulations, 2010. With effect from 1.11.2020, sharing of transmission charges is governed by the Central Electricity Regulatory Commission (Sharing of Transmission Charges and Losses) Regulations, 2020 (in short, "the 2020 Sharing Regulations"). Accordingly, the billing, collection and disbursement of the transmission charges approved in this order shall be governed by the provisions of the applicable Sharing Regulations as provided in Regulation 43 of the 2014 Tariff Regulations and Regulation 57 of the 2019 Tariff Regulations.

107. To summarise:

- a. The trued-up Annual Fixed Charges (AFC) allowed for 2014-19 tariff period are:

	(₹ in lakh)				
<b>Assets</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Asset-1	155.89	182.85	184.32	175.26	169.36
Asset-2	19.27	250.30	262.50	254.20	246.31
Asset-3			88.17	339.57	376.67
Asset-4A			104.86	119.13	122.20
Asset-4B			69.00	66.56	64.20
Asset-5				136.08	198.39
Asset-6				59.92	131.90
Asset-7			71.33	455.29	460.06



b. Annual Fixed Charges allowed in respect of the Combined Asset for 2019-24 tariff period in this order are:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Combined Asset	1675.08	1668.85	1686.35	1695.36	1664.10

108. Annexure-I and Annexure-II given hereinafter form part of the instant order.

109. This order disposes of the Petition No. 298/TT/2022, in terms of the above discussions and findings.

**sd/-**  
**(P.K. Singh)**  
**Member**

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

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





## Asset-1

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	2016-17	2017-18	2018-19	Total			2014-15	2015- 16	2016- 17	2017-18	2018- 19
Transmission Line	713.81	263.08	96.08	-	-	-	359.16	1072.97	5.28%	44.63	54.12	56.65	56.65	56.65
<b>Total</b>	<b>713.81</b>	<b>263.08</b>	<b>96.08</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>359.16</b>	<b>1072.97</b>		<b>44.63</b>	<b>54.12</b>	<b>56.65</b>	<b>56.65</b>	<b>56.65</b>
<b>Average Gross Block (₹ in lakh)</b>										<b>845.35</b>	<b>1024.93</b>	<b>1072.97</b>	<b>1072.97</b>	<b>1072.97</b>
<b>Weighted Average Rate of Depreciation</b>										<b>5.28%</b>	<b>5.28%</b>	<b>5.28%</b>	<b>5.28%</b>	<b>5.28%</b>



## Asset-2

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	2016-17	Total			2014-15	2015-16	2016-17	2017-18	2018-19
Transmission Line	1255.03	26.13	202.77	33.70	262.60	1517.63	5.28%	66.96	73.00	79.24	80.13	80.13
<b>Total</b>	<b>1255.03</b>	<b>26.13</b>	<b>202.77</b>	<b>33.70</b>	<b>262.60</b>	<b>1517.63</b>		<b>66.96</b>	<b>73.00</b>	<b>79.24</b>	<b>80.13</b>	<b>80.13</b>
<b>Average Gross Block (₹ in lakh)</b>								<b>1268.10</b>	<b>1382.55</b>	<b>1500.78</b>	<b>1517.63</b>	<b>1517.63</b>
<b>Weighted Average Rate of Depreciation</b>								<b>5.28%</b>	<b>5.28%</b>	<b>5.28%</b>	<b>5.28%</b>	<b>5.28%</b>

## Asset-3

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)		
		2016-17	2017-18	2018-19	Total			2016-17	2017-18	2018-19
Sub Station	1370.06	60.50	457.02	35.28	552.80	1922.86	5.28%	73.94	87.60	100.60
<b>Total</b>	<b>1370.06</b>	<b>60.50</b>	<b>457.02</b>	<b>35.28</b>	<b>552.80</b>	<b>1922.86</b>	<b>Total</b>	<b>73.94</b>	<b>87.60</b>	<b>100.60</b>
<b>Average Gross Block (₹ in lakh)</b>								<b>1400.31</b>	<b>1659.07</b>	<b>1905.22</b>
<b>Weighted Average Rate of Depreciation</b>								<b>5.28%</b>	<b>5.28%</b>	<b>5.28%</b>



#### Asset-4A

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			2016-17	2017-18	2018-19
Sub Station	100.45	-	130.29	21.82	153.92	254.37	5.28%	8.74	12.76	13.38
IT Equipment (Incl. Software)	50.16	-	0.12	-	0.12	50.28	5.28%	2.65	2.65	2.65
<b>Total</b>	<b>150.61</b>	<b>-</b>	<b>130.41</b>	<b>21.82</b>	<b>154.04</b>	<b>304.65</b>	<b>Total</b>	<b>11.39</b>	<b>15.41</b>	<b>16.04</b>
<b>Average Gross Block (₹ in lakh)</b>								<b>215.87</b>	<b>292.05</b>	<b>303.86</b>
<b>Weighted Average Rate of Depreciation</b>								<b>5.28%</b>	<b>5.28%</b>	<b>5.28%</b>

#### Asset-4B

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			2016-17	2017-18	2018-19
Sub Station	477.79	-	-	-	-	477.79	5.28%	25.23	25.23	25.23
<b>Total</b>	<b>477.79</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>477.79</b>	<b>Total</b>	<b>25.23</b>	<b>25.23</b>	<b>25.23</b>
<b>Average Gross Block (₹ in lakh)</b>								<b>477.79</b>	<b>477.79</b>	<b>477.79</b>
<b>Weighted Average Rate of Depreciation</b>								<b>5.28%</b>	<b>5.28%</b>	<b>5.28%</b>



### Asset-5

2014-19	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)		
		2017-18	2018-19	Total			2016-17	2017-18	2018-19
Capital Expenditure									
Sub Station	751.74	22.22	4.58	26.80	778.54	5.28%	0.00	40.28	40.99
<b>Total</b>	<b>751.74</b>	<b>22.22</b>	<b>4.58</b>	<b>26.80</b>	<b>778.54</b>	<b>Total</b>	<b>0.00</b>	<b>40.28</b>	<b>40.99</b>
<b>Average Gross Block (₹ in lakh)</b>							<b>0.00</b>	<b>762.85</b>	<b>776.25</b>
<b>Weighted Average Rate of Depreciation</b>							<b>0.00%</b>	<b>5.28%</b>	<b>5.28%</b>

### Asset-6

2014-19	Capital Cost as on 1.4.2014 / COD (₹ in lakh)	ACE (₹ in lakh)					Allowed ACE (₹ in lakh)	Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depn.	Depreciation as per Regulations				
		2014-19	2015-16	2016-17	2017-18	2018-19				2014-15	2015-16	2016-17	2017-18	2018-19
Sub Station	399.45	0.00	0.00	0.00	18.68	10.33	29.01	428.46	5.28%	0.00	0.00	0.00	21.58	22.35
<b>Total</b>	<b>399.45</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>18.68</b>	<b>10.33</b>	<b>29.01</b>	<b>428.46</b>	<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>21.58</b>	<b>22.35</b>
<b>Average Gross Block (₹ in lakh)</b>										<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>408.79</b>	<b>423.30</b>
<b>Weighted Average Rate of Depreciation</b>										<b>0.00%</b>	<b>0.00%</b>	<b>0.00%</b>	<b>5.28%</b>	<b>5.28%</b>



## Asset-7

2014-19	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			2016-17	2017-18	2018-19
Capital Expenditure										
Sub Station	2051.94	-	2.91	3.30	118.15	2170.09	5.28%	108.42	108.58	111.63
<b>Total</b>	<b>2051.94</b>	<b>-</b>	<b>2.91</b>	<b>3.30</b>	<b>118.15</b>	<b>2170.09</b>	<b>Total</b>	<b>108.42</b>	<b>108.58</b>	<b>111.63</b>
<b>Average Gross Block (₹ in lakh)</b>								<b>2053.39</b>	<b>2056.50</b>	<b>2114.12</b>
<b>Weighted Average Rate of Depreciation</b>								<b>5.28%</b>	<b>5.28%</b>	<b>5.28%</b>



## Combined Assets

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	2020-21	2021-22	2022-23	2023-24	Total			2019-20	2020-21	2021-22	2022-23	2023-24
Transmission Line	2590.60	-	-6.47	-	-	-	-6.47	2584.13	5.28%	136.78	136.61	136.44	136.44	136.44
Sub Station	6026.43	172.38	137.01	424.07	-	-	733.46	6759.89	5.28%	322.75	330.91	345.73	356.92	356.92
IT Equipment (Incl. Software)	104.05	1.64	-	-	-	-	1.64	105.69	15.00%	15.73	15.85	15.85	15.85	15.85
<b>Total</b>	<b>8721.08</b>	<b>174.02</b>	<b>130.54</b>	<b>424.07</b>	<b>-</b>	<b>-</b>	<b>728.63</b>	<b>9449.71</b>		<b>475.26</b>	<b>483.38</b>	<b>498.02</b>	<b>509.22</b>	<b>509.22</b>
<b>Average Gross Block (₹ in lakh)</b>										<b>8808.09</b>	<b>8960.37</b>	<b>9237.68</b>	<b>9449.71</b>	<b>9449.71</b>
<b>Weighted Average Rate of Depreciation</b>										<b>5.40%</b>	<b>5.39%</b>	<b>5.39%</b>	<b>5.39%</b>	<b>5.39%</b>

