

# CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

Petition No. 110/TT/2022

**Coram:**

**Shri I.S. Jha, Member**  
**Shri Arun Goyal, Member**

**Date of Order: 30.06.2023**

## **In the matter of:**

Approval under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for determination of transmission tariff from COD to 31.3.2024 for **Asset-A:** 1 no. 500 MVA 400/220 kV ICT-4 along with associated 400 kV and 220 kV bays at Bhuj Sub-station, **Asset-B:** 1 no. 500 MVA 400/220 kV ICT-5 along with associated 400 kV & 220 kV bays at Bhuj Sub-station, **Asset-C:** 1 no. 500 MVA 400/220 kV ICT-3 along with associated 400 kV & 220 kV bays at Bhuj Sub-station, **Asset-D:** 1 no. 500 MVA, 400/220 kV ICT-8 along with associated 400kV and 220kV transformer bays at Bhuj PS and 1 no. 1500 MVA, 765/400 kV ICT-4 along with associated 765 kV and 400 kV transformer bays at Bhuj PS, **Asset-E:** 1 no. 500 MVA, 400/220 kV ICT-7 along with associated 400 kV and 220 kV transformer bays at Bhuj PS, **Asset-F:** 1 no. 1500 MVA, 765/400 kV ICT-3 along with associated 765 kV & 400 kV transformer bays at Bhuj PS and 1 No. 500 MVA, 400/220 kV ICT-6 along with associated 400 kV & 220 kV transformer bays at Bhuj PS and **Asset-G:** 1 X 500 MVA, 400/220 kV Transformer along with associated bays at Tuticorin-II (GIS) Sub-station under "System Strengthening Scheme at Tuticorin- II and Bhuj PS" in the Western and Southern Region.

## **And in the matter of:**

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

.....**Petitioner**

## **Versus**

1. Madhya Pradesh Power Management Company Limited,  
Shakti Bhawan, Rampur,  
Jabalpur - 482008.



2. Madhya Pradesh Power Transmission Company Limited,  
Shakti Bhawan, Rampur,  
Jabalpur – 482008.
3. Madhya Pradesh Audyogik Kendra Vikas Nigam (Indore) Limited,  
3/54, Press Complex, Agra-Bombay Road,  
Indore-452 008.
4. Maharashtra State Electricity Distribution Corporation Limited,  
Hongkong Bank Building, 3rd Floor,  
M.G. Road, Fort, Mumbai-400 001.
5. Maharashtra State Electricity Transmission Corporation Limited,  
Prakashganga, 6<sup>th</sup> Floor, Plot No. C-19, E-Block,  
Bandra Kurla Complex, Bandra (East) Mumbai-400 051.
6. Gujarat Urja Vikas Nigam Limited,  
Sardar Patel Vidyut Bhawan,  
Race Course Road, Vadodara - 390 007.
7. Electricity Department,  
Government of Goa, Vidyut Bhawan, Panaji,  
Near Mandvi Hotel, Goa - 403 001.
8. Electricity Department,  
Administration Of Daman & Diu,  
Daman - 396 210.
9. DNH Power Distribution Corporation Limited,  
Vidyut Bhawan, 66 kV Road, Near Secretariat Amla,  
Silvassa - 396 230.
10. Chhattisgarh State Power Transmission Corporation Limited,  
State Load Despatch Building,  
Dangania, Raipur – 492 013.
11. Chhattisgarh State Power Distribution Corporation Limited,  
P.O. Sunder Nagar, Dangania, Raipur,  
Chhattisgarh-492 013.
12. Gujarat Power Corporation Limited,  
Block No. 8, Sixth Floor,  
Udhyog Bhavan, Sector 11,  
Gandhinagar – 382 011.
13. Tamil Nadu Generation and Distribution Corporation Limited,  
(Formerly Tamil Nadu Electricity Board -TNEB)  
NPKKR Maaligai, 800, Anna Salai, Chennai – 600 002.



- 14 Transmission Corporation of Andhra Pradesh Limited, (APTRANSCO),  
Vidyut Soudha, Near Axis Bank, Eluru Road,  
Gunadala, Vijayawada– 520004.
- 15 Kerala State Electricity Board (KSEB),  
Vaidyuthi Bhavanam,  
Pattom, Thiruvananthapuram – 695 004.
- 16 Tamil Nadu Electricity Board (TNEB),  
NPKRR Maaligai, 800, Anna Salai,  
Chennai – 600 002.
- 17 Electricity Department,  
Government of Pondicherry,  
Pondicherry – 605001.
- 18 Eastern Power Distribution Company of Andhra Pradesh Limited (APEPDCL),  
APEPDCL, P&T Colony,  
Seethmmadhara, Vishakhapatnam, Andhra Pradesh.
- 19 Southern Power Distribution Company of Andhra Pradesh Limited (APSPDCL)  
Srinivasasa Kalyana Mandapam Backside,  
Tiruchanoor Road, Kesavayana Gunta,  
Tirupati-517 501, Chittoor District, Andhra Pradesh.
- 20 Southern Power Distribution Company of Telangana Limited (TSSPDCL), 6-1-50,  
Corporate Office, Mint Compound,  
Hyderabad – 500 063, Andhra Pradesh.
- 21 Northern Power Distribution Company Of Telangana Limited (TSNPDCL),  
Opposite NIT Petrol Pump Chaitanyapuri, Kazipet,  
Warangal – 506 004, Telangana.
- 22 Bangalore Electricity Supply Company Limited, (BESCOM),  
Corporate Office, K.R.Circle,  
Bangalore – 560 001, Karanataka.
- 23 Gulbarga Electricity Supply Company Limited, (GESCOM),  
Station Main Road, Gulbarga, Karnataka.
- 24 Hubli Electricity Supply Company Limited, (HESCOM),  
Navanagar, PB Road, Hubli, Karnataka.
- 25 MESCOM Corporate Office,  
Paradigm Plaza, Ab Shetty Circle,  
Mangalore – 575 001, Karnataka.



- 26 Chamundeswari Electricity Supply Corporation Limited, (CESC)  
927, L J Avenue, Ground Floor, New Kantharaj URS Road,  
Saraswatipuram, Mysore – 570 009, Karnataka.
- 27 Transmission Corporation of Telangana Limited,  
Vidhyut Sudha, Khairatabad,  
Hyderabad, 500082.
- 28 Karnataka Solar Power Development Corporation Limited (KSPDCL),  
2nd Floor, South Block, Beeja Raja Seed Complex,  
Bellary Road, Hebbala, Bengaluru- 560024, Karnataka.
- 29 Tamil Nadu Transmission Corporation Limited (TANTRANSCO),  
(Formerly Tamil Nadu Electricity Board -TNEB)  
5B Block 144, Anna Salai,  
Chennai – 600 002.
- 30 Karnataka Power Transmission Corporation Limited, (KPTCL),  
Kaveribhavan, Bangalore – 560 009. **...Respondent(s)**

**For Petitioner:** Shri Mukesh Khanna, PGCIL  
Shri D.K. Biswal, PGCIL  
Shri Zafrul Hasan, PGCIL  
Shri Ashish Alankar, PGCIL  
Shri Pankaj Sharma, PGCIL

**For Respondent:** None

### **ORDER**

The instant petition has been filed by Power Grid Corporation of India Limited for determination of tariff under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) of the period from COD to 31.3.2024 in respect of the assets under “System Strengthening Scheme at Tuticorin-II and Bhuj PS” (hereinafter referred to as the “transmission project”):

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



- “1) *Condone the delay in commissioning of above mentioned assets as the reasons mentioned at para 5 are beyond the control of petitioner and allow IDC and IEDC as claimed in the petition.*
- 2) *Admit the capital cost as claimed in the Petition and approve the Additional Capitalisation incurred / projected to be incurred.*
- 3) *Approve the Transmission Tariff for the tariff block 2019-24 block for the asset covered under this petition, as per para –8.4 above.*
- 4) *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 2019 as per para 8 above for respective block.*
- 5) *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.*
- 6) *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.*
- 7) *Allow the petitioner to bill and adjust impact on Interest on Loan due to change in Interest rate on account of floating rate of interest applicable during 2019-24 period, if any, from the beneficiaries.*
- 8) *Allow the Petitioner to claim the overall security expenses and consequential IOWC on that security expenses separately.*
- 9) *Allow the petitioner to claim the capital spares at the end of tariff block as per actual.*
- 10) *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.*
- 11) *Allow interim tariff in accordance with Regulation 10 (3) of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for purpose of inclusion in the PoC charges.*
- 12) *Allow Final tariff in accordance with Regulation 10 (5) of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for purpose of inclusion in the PoC charges.*

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



## **Background**

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

- a) The Investment Approval (IA) of the project was accorded by Board of Directors (BoD) of the Petitioner in its 359<sup>th</sup> meeting held on 5.11.2018 vide Memorandum Ref.: PA18-19-08-0X-IA015 dated 6.12.2018, at an estimated cost of ₹49611 lakh including IDC of ₹2606 lakh, at June, 2018 price level.
- b) The scope of the scheme was discussed and agreed in the 42<sup>nd</sup> meeting of Standing Committee on Power System Planning in the Southern Region held on 27.4.2018 and 43<sup>rd</sup> WR SCM held on 11.5.2018. Further, the transmission scheme has also been agreed to in the 37<sup>th</sup> meeting of WRPC held on 18.12.2018.
- c) The scope of work covered under System Strengthening Scheme at Tuticorin-II and Bhuj PS in the Southern Region is as follows:

### **Sub-station**

#### **Extension of 400/230 kV Tuticorin-II (GIS) Sub-station**

##### 400 kV

- 500 MVA transformer : 1 Number
- Transformer bay (GIS) : 1 Number

##### 220 kV

- Transformer bays : 1 Number

#### **Extension of 765/400/220 kV Bhuj Sub-station**

##### 765 kV

- 1500 MVA transformer : 2 Numbers
- Transformer bay (AIS) : 2 Numbers

##### 400 kV

- 500 MVA transformer : 6 Numbers
- Transformer bay (AIS) : 3 Numbers
- Transformer bays (GIS) : 5 Numbers



4. The Complete scope of the work as per I.A is completed and is covered in the instant petition. The details of the assets covered in the instant petition are as follows:

Sl. No.	Asset No	Asset Name	COD
1	<b>Asset-A</b>	1 no. 500 MVA 400/220 kV ICT-4 along with associated 400 kV and 220 kV bays at Bhuj Sub-station	9.10.2019
2	<b>Asset-B</b>	1 no. 500 MVA 400/220 kV ICT-5 along with associated 400 kV & 220 kV bays at Bhuj Sub-station	23.10.2019
3	<b>Asset-C</b>	1 no. 500 MVA 400/220 kV ICT-3 along with associated 400 kV & 220 kV bays at Bhuj Sub-station	17.9.2020
4	<b>Asset-D</b>	1 no. 500 MVA, 400/220 kV ICT-8 along with associated 400 kV and 220 kV transformer bays at Bhuj PS and 1 no. 1500 MVA, 765/400 kV ICT-4 along with associated 765 kV and 400 kV transformer bays at Bhuj PS	2.5.2021
5	<b>Asset-E</b>	1 no. 500 MVA, 400/220 kV ICT-7 along with associated 400 kV and 220 kV transformer bays at Bhuj PS	4.5.2021
6	<b>Asset-F</b>	1 no. 1500 MVA, 765/400 kV ICT-3 along with associated 765 kV & 400 kV transformer bays at Bhuj PS and 1 No. 500 MVA, 400/220 kV ICT-6 along with associated 400 kV & 220 kV transformer bays at Bhuj PS	5.5.2021
7	<b>Asset-G</b>	1 X 500 MVA, 400/220 kV Transformer along with associated bays at Tuticorin -II (GIS) Sub-station	28.2.2022

5. The Respondents are distribution licensees and Power Departments, which are procuring transmission service from the Petitioner, mainly beneficiaries of the Western and Southern Region.

6. 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 or suggestions have been received from the general public in response to the aforesaid notice published in the newspaper by the Petitioner.



Madhya Pradesh Power Management Company Limited (MPPMCL), Respondent No. 1, vide affidavit dated 12.4.2022 has filed its reply and has raised the issues of time over-run, Additional Capital Expenditure (ACE) and GST. The Petitioner has filed rejoinder to the reply of MPPMCL vide affidavit dated 2.9.2022. The issues raised by MPPMCL, and the clarifications given by the Petitioner are considered in the relevant portions of this order.

7. This order is issued considering the submissions made by the Petitioner vide affidavits dated 28.10.2021, 4.8.2022 and 14.11.2022, reply filed by MPPMCL vide affidavit dated 12.4.2022 and the Petitioner's rejoinder vide affidavit dated 2.9.2022.

8. The hearing in this matter was held on 27.10.2022 and the order was reserved.

9. Having heard the representatives of the Petitioner and perused the material on record, we proceed to dispose of the petition.

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

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

**Asset-A**

Particulars	(₹ in lakh)				
	2019-20 (pro-rata 175 days)	2020-21	2021-22	2022-23	2023-24
Depreciation	29.12	86.78	112.13	120.10	120.10
Interest on Loan	0.59	1.68	2.06	2.07	1.92
Return on Equity	30.65	90.74	117.69	126.19	126.19
O&M Expenses	111.72	242.08	250.57	259.62	268.25
Interest on Working Capital	5.78	13.26	14.43	15.07	15.42
<b>Total</b>	<b>177.86</b>	<b>434.54</b>	<b>496.88</b>	<b>523.05</b>	<b>531.88</b>





**Asset-B**

(₹ in lakh)

Particulars	2019-20 (pro-rata 161 days)	2020-21	2021-22	2022-23	2023-24
Depreciation	27.04	87.56	113.16	121.21	121.21
Interest on Loan	0.42	1.29	1.57	1.56	1.42
Return on Equity	28.47	91.56	118.78	127.38	127.38
O&M Expenses	102.78	242.08	250.57	259.62	268.25
Interest on Working Capital	5.32	13.28	14.45	15.10	15.45
<b>Total</b>	<b>164.03</b>	<b>435.77</b>	<b>498.53</b>	<b>524.87</b>	<b>533.71</b>

**Asset-C**

(₹ in lakh)

Particulars	2020-21 (pro-rata 196 days)	2021-22	2022-23	2023-24
Depreciation	66.53	140.91	144.04	144.04
Interest on Loan	25.59	51.41	49.85	48.09
Return on Equity	70.99	150.37	153.72	153.72
O&M Expenses	129.99	250.57	259.62	268.25
Interest on Working Capital	7.58	15.01	15.45	15.75
<b>Total</b>	<b>300.68</b>	<b>608.27</b>	<b>622.68</b>	<b>629.85</b>

**Asset-D**

(₹ in lakh)

Particulars	2021-22 (pro-rata 334 days)	2022-23	2023-24
Depreciation	549.11	632.48	634.80
Interest on Loan	102.72	115.21	114.56
Return on Equity	581.97	671.64	674.11
O&M Expenses	1008.02	1141.31	1180.70
Interest on Working Capital	54.42	61.91	63.37
<b>Total</b>	<b>2296.24</b>	<b>2622.55</b>	<b>2667.54</b>

**Asset-E**

(₹ in lakh)

Particulars	2021-22 (pro-rata 332 days)	2022-23	2023-24
Depreciation	199.86	227.71	228.31
Interest on Loan	30.94	33.98	33.84
Return on Equity	210.64	239.98	240.63



Particulars	2021-22 (pro-rata 332 days)	2022-23	2023-24
O&M Expenses	218.51	248.92	257.18
Interest on Working Capital	14.08	16.02	16.32
<b>Total</b>	<b>674.03</b>	<b>766.61</b>	<b>776.28</b>

#### Asset-F

(₹ in lakh)

Particulars	2021-22 (pro-rata 331 days)	2022-23	2023-24
Depreciation	540.85	625.38	627.81
Interest on Loan	86.97	97.33	97.13
Return on Equity	571.88	661.28	663.88
O&M Expenses	998.97	1141.31	1180.70
Interest on Working Capital	53.63	61.45	62.91
<b>Total</b>	<b>2252.30</b>	<b>2586.75</b>	<b>2632.43</b>

#### Asset-G

(₹ in lakh)

Particulars	2021-22 (pro-rata 32 days)	2022-23	2023-24
Depreciation	18.67	222.51	232.27
Interest on Loan	9.83	114.37	114.02
Return on Equity	19.56	233.45	243.87
O&M Expenses	20.42	241.43	249.43
Interest on Working Capital	1.41	16.64	17.17
<b>Total</b>	<b>69.89</b>	<b>828.40</b>	<b>856.76</b>

11. The Petitioner has claimed the Interest on Working Capital (IWC) for the transmission assets for the 2019-24 tariff period as follows:

#### Asset-A

(₹ in lakh)

Particulars	2019-20 (pro-rata 175 days)	2020-21	2021-22	2022-23	2023-24
O&M Expenses	19.47	20.17	20.88	21.64	22.35
Maintenance Spares	35.05	36.31	37.59	38.94	40.24
Receivables	45.73	53.57	61.26	64.49	65.40
<b>Total Working Capital</b>	<b>100.25</b>	<b>110.05</b>	<b>119.73</b>	<b>125.07</b>	<b>127.99</b>
Rate of Interest (%)	12.05	12.05	12.05	12.05	12.05



Particulars	2019-20 (pro-rata 175 days)	2020-21	2021-22	2022-23	2023-24
Interest on Working Capital	5.78	13.26	14.43	15.07	15.42

#### Asset-B

(₹ in lakh)

Particulars	2019-20 (pro-rata 161 days)	2020-21	2021-22	2022-23	2023-24
O&M Expenses	19.47	20.17	20.88	21.64	22.35
Maintenance Spares	35.05	36.31	37.59	38.94	40.24
Receivables	45.85	53.73	61.46	64.71	65.62
<b>Total Working Capital</b>	<b>100.37</b>	<b>110.21</b>	<b>119.93</b>	<b>125.29</b>	<b>128.21</b>
Rate of Interest (%)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	5.32	13.28	14.45	15.10	15.45

#### Asset-C

(₹ in lakh)

Particulars	2020-21 (pro-rata 196 days)	2021-22	2022-23	2023-24
O&M Expenses	20.17	20.88	21.64	22.35
Maintenance Spares	36.31	37.59	38.94	40.24
Receivables	69.03	74.99	76.77	77.44
<b>Total Working Capital</b>	<b>125.51</b>	<b>133.46</b>	<b>137.35</b>	<b>140.03</b>
Rate of Interest (%)	11.25	11.25	11.25	11.25
Interest on Working Capital	7.58	15.01	15.45	15.75

#### Asset-D

(₹ in lakh)

Particulars	2021-22 (pro-rata 334 days)	2022-23	2023-24
O&M Expenses	91.80	95.11	98.39
Maintenance Spares	165.24	171.20	177.11
Receivables	309.38	323.33	327.98
<b>Total Working Capital</b>	<b>566.42</b>	<b>589.64</b>	<b>603.48</b>
Rate of Interest (%)	10.50	10.50	10.50
Interest on Working Capital	54.42	61.91	63.37



**Asset-E**

(₹ in lakh)

Particulars	2021-22 (pro-rata 332 days)	2022-23	2023-24
O&M Expenses	20.02	20.74	21.43
Maintenance Spares	36.04	37.34	38.58
Receivables	91.36	94.51	95.44
<b>Total Working Capital</b>	<b>147.42</b>	<b>152.59</b>	<b>155.45</b>
Rate of Interest (%)	10.50	10.50	10.50
<b>Interest on Working Capital</b>	<b>14.08</b>	<b>16.02</b>	<b>16.32</b>

**Asset-F**

(₹ in lakh)

Particulars	2021-22 (pro-rata 331 days)	2022-23	2023-24
O&M Expenses	91.80	95.11	98.39
Maintenance Spares	165.24	171.20	177.11
Receivables	306.20	318.91	323.66
<b>Total Working Capital</b>	<b>563.24</b>	<b>585.22</b>	<b>599.16</b>
Rate of Interest (%)	10.50	10.50	10.50
<b>Interest on Working Capital</b>	<b>53.63</b>	<b>61.45</b>	<b>62.91</b>

**Asset-G**

(₹ in lakh)

Particulars	2021-22 (pro-rata 32 days)	2022-23	2023-24
O&M Expenses	19.42	20.12	20.79
Maintenance Spares	34.95	36.21	37.41
Receivables	98.29	102.13	105.34
<b>Total Working Capital</b>	<b>152.66</b>	<b>158.46</b>	<b>163.54</b>
Rate of Interest (%)	10.50	10.50	10.50
<b>Interest on Working Capital</b>	<b>1.41</b>	<b>16.64</b>	<b>17.17</b>

**Date of Commercial Operation (COD)**

12. The Petitioner has claimed the COD for the transmission assets as follows:

Asset	Asset	COD
<b>Asset-A</b>	1 no. 500 MVA 400/220 kV ICT-4 along with associated 400 kV and 220 kV bays at Bhuj Sub-station	9.10.2019



<b>Asset-B</b>	1 no. 500 MVA 400/220 kV ICT-5 along with associated 400 kV & 220 kV bays at Bhuj Sub-station	23.10.2019
<b>Asset-C</b>	1 no. 500 MVA 400/220 kV ICT-3 along with associated 400 kV & 220 kV bays at Bhuj Sub-station	17.9.2020
<b>Asset-D</b>	1 no. 500 MVA, 400/220 kV ICT-8 along with associated 400 kV and 220 kV transformer bays at Bhuj PS and 1 no. 1500 MVA, 765/400 kV ICT-4 along with associated 765 kV and 400 kV transformer bays at Bhuj PS	2.5.2021
<b>Asset-E</b>	1 no. 500 MVA, 400/220 kV ICT-7 along with associated 400 kV and 220 kV transformer bays at Bhuj PS	4.5.2021
<b>Asset-F</b>	1 no. 1500 MVA, 765/400 kV ICT-3 along with associated 765 kV & 400 kV transformer bays at Bhuj PS and 1 No. 500 MVA, 400/220 kV ICT-6 along with associated 400 kV & 220 kV transformer bays at Bhuj PS	5.5.2021
<b>Asset-G</b>	1 X 500 MVA, 400/220 kV Transformer along with associated bays at Tuticorin -II (GIS) Sub-station	28.2.2022

13. Regulation 5 of the 2019 Tariff Regulations provides as follows:

**“5. Date of Commercial Operation:** (1) *The date of commercial operation of a generating station or unit thereof or a transmission system or element thereof and associated communication system shall be determined in accordance with the provisions of the Grid Code.*

(2) *In case the transmission system or element thereof executed by a transmission licensee is ready for commercial operation but the interconnected generating station or the transmission system of other transmission licensee as per the agreed project implementation schedule is not ready for commercial operation, the transmission licensee may file petition before the Commission for approval of the date of commercial operation of such transmission system or element thereof:*

*Provided that the transmission licensee seeking the approval of the date of commercial operation under this Regulation shall give prior notice of at least one month, to the generating company or the other transmission licensee and the long term customers of its transmission system, as the case may be, regarding the date of commercial operation:*

*Provided further that the transmission licensee seeking the approval of the date of commercial operation of the transmission system under this Regulation shall be required to submit the following documents along with the petition:*



- (a) Energisation certificate issued by the Regional Electrical Inspector under Central Electricity Authority;*
- (b) Trial operation certificate issued by the concerned RLDC for charging element with or without electrical load;*
- (c) Implementation Agreement, if any, executed by the parties;*
- (d) Minutes of the coordination meetings or related correspondences regarding the monitoring of the progress of the generating station and transmission systems;*
- (e) Notice issued by the transmission licensee as per the first proviso under this Regulation and the response;*
- (f) Certificate of the CEO or MD of the company regarding the completion of the transmission system including associated communication system in all respects.”*

14. In support of the COD of the transmission assets, the Petitioner has submitted the following certificates:

- a. In support of COD of Asset-A, the Petitioner has submitted CEA Energisation Certificates dated 2.3.2021 under Regulation 43 of CEA (Measures relating to Safety and Electric Supply) Regulations, 2010; RLDC Charging Certificate dated 2.10.2020, self-declaration of COD letter dated 31.3.2019 and Petitioner’s CMD Certificate as required under the Grid Code.
- b. In support of COD of Asset-B, the Petitioner has submitted CEA Energisation Certificates dated 3.6.2019 under Regulation 43 of Central Electricity Authority (CEA) (Measures relating to Safety and Electric Supply) Regulations, 2010; RLDC Charging Certificate dated 1.11.2019, self-declaration COD letter dated 31.10.2019 and Petitioner’s CMD Certificate as required under the Grid Code.
- c. In support of COD of Asset-C, the Petitioner has submitted CEA Energisation Certificates dated 18.3.2020 under Regulation 43 of Central Electricity Authority (CEA) (Measures relating to Safety and Electric Supply) Regulations, 2010; RLDC Charging Certificate dated 2.10.2020, self-declaration COD letter dated 21.9.2020 and Petitioner’s CMD Certificate as required under the Grid Code.



d. In support of COD of Asset-D, the Petitioner has submitted CEA Energisation Certificates dated 27.9.2019 under Regulation 43 of Central Electricity Authority (CEA) (Measures relating to Safety and Electric Supply) Regulations, 2010; RLDC Charging Certificate dated 15.5.2021, self-declaration COD letter dated 6.5.2021 and Petitioner's CMD Certificate as required under the Grid Code.e. In support of actual COD of Asset-E, the Petitioner has submitted CEA Energisation Certificates dated 18.3.2020 under Regulation 43 of Central Electricity Authority (CEA) (Measures relating to Safety and Electric Supply) Regulations, 2010; RLDC Charging Certificate dated 24.5.2021, self-declaration COD letter dated 6.5.2021 and Petitioner's CMD Certificate as required under the Grid Code.

f. In support of COD of Asset-F, the Petitioner has submitted CEA Energisation Certificates dated 2.3.2021 under Regulation 43 of Central Electricity Authority (CEA) (Measures relating to Safety and Electric Supply) Regulations, 2010; RLDC Charging Certificate dated 11.6.2021, self-declaration COD letter dated 6.5.2021 and Petitioner's CMD Certificate as required under the Grid Code.

g. In support of COD of Asset-G, the Petitioner has submitted CEA Energisation Certificates dated 17.2.2021 under Regulation 43 of Central Electricity Authority (CEA) (Measures relating to Safety and Electric Supply) Regulations, 2010; RLDC Charging Certificate dated 25.3.2022, self-declaration COD letter dated 28.2.2022 and Petitioner's CMD Certificate as required under the Grid Code.

15. Taking into consideration CEA Energisation Certificates, RLDC Charging Certificates, CMD Certificates as required under the Grid Code, COD of Asset-A, Asset-B, Asset-C, Asset-D, Asset-E, Asset-F and Asset-G are approved as 9.10.2019, 23.10.2019, 17.9.2020, 2.5.2021, 4.5.2021, 5.5.2021 and 28.2.2022 respectively.



## **Capital Cost**

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

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

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

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

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





- (a) Capital cost admitted by the Commission prior to 1.4.2019 duly tried up by excluding liability, if any, as on 1.4.2019;
  - (b) Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;
  - (c) Capital expenditure on account of renovation and modernisation as admitted by this Commission in accordance with these regulations;
  - (d) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
  - (e) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and
  - (f) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.
- (4) The capital cost in case of existing or new hydro generating station shall also include:
- (a) cost of approved rehabilitation and resettlement (R&R) plan of the project in conformity with National R&R Policy and R&R package as approved; and
  - (b) cost of the developer's 10% contribution towards Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) and Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) project in the affected area.
- (5) The following shall be excluded from the capital cost of the existing and new projects:
- (a) The assets forming part of the project, but not in use, as declared in the tariff petition;
  - (b) De-capitalised Assets after the date of commercial operation on account of replacement or removal on account of obsolescence or shifting from one project to another project:
- Provided that in case replacement of transmission asset is recommended by Regional Power Committee, such asset shall be de-capitalised only after its redeployment;*
- Provided further that unless shifting of an asset from one project to another is of permanent nature, there shall be no de-capitalization of the concerned assets.*
- (c) In case of hydro generating stations, any expenditure incurred or committed to be incurred by a project developer for getting the project site allotted by the State Government by following a transparent process;
  - (d) Proportionate cost of land of the existing project which is being used for generating power from generating station based on renewable energy; and
  - (e) Any grant received from the Central or State Government or any statutory body or authority for the execution of the project which does not carry any liability of repayment.”



17. The Petitioner has claimed the capital cost incurred as on COD and ACE projected to be incurred in respect of the transmission assets during 2019-24 tariff period and has submitted the Auditor's Certificates in support of the same:

(₹ in lakh)

Assets	FR approved cost	Capital cost as on COD	Projected ACE					Capital Cost as on 31.3.2024
			2019-20	2020-21	2021-22	2022-23	2023-24	
Asset-A	2726.39	993.07	289.83	654.96	301.73	0.00	0.00	2239.59
Asset-B	2723.16	1002.53	291.94	661.10	305.06	0.00	0.00	2260.63
Asset-C	3236.88	2091.48	0.00	525.00	111.58	0.00	0.00	2728.06
Asset-D	15084.62	10752.56	0.00	0.00	1123.33	87.91	0.00	11963.80
Asset-E	5405.66	3973.33	0.00	0.00	274.31	22.88	0.00	4270.52
Asset-F	14997.75	10712.64	0.00	0.00	977.36	92.25	0.00	11782.25
Asset-G	5436.55	3967.37	0.00	0.00	2.62	352.24	11.55	4323.78
<b>Total</b>	<b>49611.00</b>	<b>33492.98</b>	<b>581.77</b>	<b>1841.06</b>	<b>3095.99</b>	<b>555.28</b>	<b>11.55</b>	<b>39578.63</b>

### Cost Over-run

18. The Petitioner has submitted the following capital cost details:

(₹ in lakh)

Approved Cost (a)	Estimated Completion Cost upto cut-off date (b)	Cost Variation (c=b-a)
49611.00	39578.63	-10032.37

19. The estimated completion cost of the transmission assets is within the FR approved cost therefore, there is no cost over-run.

### Time over-run

20. As per the IA dated 5.11.2018, the transmission project was scheduled to be put into commercial operation within 15-19 months progressively from the date of IA. Accordingly, the scheduled COD of the transmission assets was 5.6.2020. However, the actual COD of the transmission assets are as follows:



<b>Assets</b>	<b>I.A. date</b>	<b>SCOD</b>	<b>COD</b>	<b>Time over-run</b>
Asset-A	5.11.2018	5.6.2020	9.10.2019	NA
Asset-B			23.10.2019	NA
Asset-C			17.9.2020	104 days
Asset-D			2.5.2021	331 days
Asset-E			4.5.2021	333 days
Asset-F			5.5.2021	334 days
Asset-G			28.2.2022	633 days

21. The Petitioner has further submitted that as per Ministry of Power, Government of India Circular No. 3/1/2020-Trans dated 27.7.2020, all inter-State projects the SCOD of which is beyond 25.3.2020 and which are under construction as on 25.3.2020, shall get an extension of 5 months in SCOD due to the nationwide lockdown restrictions for containment of the spread of Covid-19 pandemic. Thus, the revised schedule for the project to be commissioned is 5.11.2020. The details of the time over-run as per Revised SCOD is as follows:

<b>Assets</b>	<b>I.A. date</b>	<b>Revised SCOD as per MoP letter dated 27.7.2020</b>	<b>COD</b>	<b>Time over-run</b>
Asset-A	5.11.2018	5.11.2020	9.10.2019	NA
Asset-B		5.11.2020	23.10.2019	NA
Asset-C		5.11.2020	17.9.2020	NA
Asset-D		5.11.2020	2.5.2021	178 days
Asset-E		5.11.2020	4.5.2021	180 days
Asset-F		5.11.2020	5.5.2021	181 days
Asset-G		5.11.2020	28.2.2022	480 days

22. Accordingly, there is time over-run of 178 days, 180 days, 181 days and 480 days in respect of Asset-D, Asset-E, Asset-F and Asset-G respectively. The Petitioner vide affidavit dated 14.11.2022 has submitted the following reasons for time over-run:



a. Covid-19 impact on procurement\_of imported components for GIS from China:

Due to the global Covid-19 restrictions for mobilizations, the Supply Chain Management (SCM) was affected, due to which the imported components of GIS Materials got delayed. Some GIS material like 6 nos. Air Bushings were to be supplied from China which was delayed owing to the national and global restrictions. This problem was further accentuated due to logistical constraint and container shortages. Owing to this, materials were airlifted in order to avoid further delay. Thereafter, materials were received at Chennai factory of the agency in the 1st week of September and after testing the bushings were dispatched and received at site on 23.12.2020. This delay of 7 months was on account of lockdown imposed by China and global restrictions of supply chain.

The summary of the supply of the parts is as follows:

<b>Commodity</b>	<b>Qty</b>	<b>Scheduled Delivery date</b>	<b>Schedule Delivery Time (in days)</b>	<b>Actual delivery date</b>	<b>Actual Delivery Time (in days)</b>	<b>Impact in delivery (in months)</b>
Air-bushing -400 kV	6	21.5.2020	101	23.12.2020	317	7

b. The Bhuj site has witnessed continuous heavy rainfall and waterlogging, which further resulted into flood like situation, damaging the civil work installations (drains, Yard PCC, gravel etc.) and several equipment. The extent of damage was widespread as the percentage departure of rainfall in Kutch District was as high as 454% in the month of August 2020 as per IMD Statistics. The rainfall pattern of August 2020 to October 2020 and the local newspaper cutting showing the deluge of the rainfall are submitted. The rainfall variation of



Kutch district (Gujarat) as per Customized Rainfall Information System (CRIS),  
IMD is as follows:

Year	August		September		October	
	R/F	%DEP	R/F	%DEP	R/F	%DEP
2020	641	454	71.2	35	42.7	256

*R/F – District Rainfall in Millimeters*

*%DEP- Percentage Departure from long period averages of rainfall*

c. Due to heavy intermittent rainfall for 7-8 days (during the period of 9.8.2020 to 15.9.2020) and the damage at site, all construction activities were completely stopped and some GIS material like Bus Duct etc. were damaged due to the heavy water logging. The damaged equipment was returned to factory after impact assessment conducted jointly by GE and the insurance surveyor. Thereafter, the repaired materials were received at site progressively from January 2021 to March 2021. This led to time over-run of 7 months.

d. After receiving the material at site on 25.3.2021, erection of the GIS material i.e. Bust Duct required a timeline of minimum 45 days for erection and testing work. Further, in the month of March-April 2021, the second wave of Covid-19 was at its peak and States were under local restrictions such as imposition of night curfew in the state of Gujarat. Also, POWERGRID employees at Bhuj posted for the subject project were also affected by the Covid-19 second wave. However, the Petitioner could complete the work within 35 days. The summary of the reasons for time over-run and time is as follows:

S. No.	Reasons for time over-run	Time over-run
1	Nationwide lockdown due to COVID-19	5 Months



S. No.	Reasons for time over-run	Time over-run
2	Global supply chain disturbance	7 Months
3	Heavy rainfall in Kutch District	7 Months
Total cumulative delay		19 Months
Actual time over-run		11 Months

e. The cumulative delay due to lockdown in China and heavy rainfall in Bhuj had a cascading effect causing delay of total 19 months. However, the Petitioner was able to contain the same to 11 months. Thus, in view of above forced majeure conditions which were beyond the control of the Petitioner, the total time over-run of 11 months may be condoned.

23. Further, in response to technical validation letter, the Petitioner has submitted reasons of delay in case of Asset-G at Tuticorin Sub-station:

Delay due to change in scope

a. Immediately after the IA, the letter of award (LOA) was placed on GE T&D India Limited on 19.12.2018 and work was started. Subsequently, in the 1<sup>st</sup> meeting of SRPC (TP) held on 16.12.2019, additional scope of works was discussed and agreed. The relevant para of the discussion is as follows:

*“31.4 The development of 230 kV substation switchyard was to be taken up in parts and the investment in development of second part was deferred which was to be implemented with matching RE generation projects. RE generation developers faced lot of difficulties in interface of GIS module for connection with the existing 230 kV GIS bus. Looking into the difficulties, extension of 230 kV switchyard (extension beyond 05 nos. of GIS line bays and 03 nos. of ICT bays) has been transformed into outdoor hybrid switchyard (Bus bar AIS and line bay equipment GIS) so that the future bay extensions can be carried out smoothly through the outdoor hybrid GIS module(s).*

*31.5 Accordingly, for evacuation of power from RE generators connected at 230 kV Hybrid switchyard, extension of indoor GIS bus upto the outdoor AIS bus bar of Hybrid switchyard using GIB arrangement and necessary associated common infrastructure is required at Tuticorin-II GIS S/s. In joint study meeting it was decided to discuss the matter in forthcoming 1st SRPC(TP) meeting.*



31.6 The matter was deliberated at length in the 1st SRPC(TP) meeting and it was agreed that the extension of indoor GIS bus upto the gantry before bay no. 210 (figure at Annex II) to the outdoor AIS bus bar of 230 kV Hybrid switchyard using GIB arrangement and necessary associated.”

b. The additional work (Extension of Indoor GIS bus up to gantry before bay no. 210 to the outdoor AIS busbar of 230 kV hybrid switchyard using GIB arrangement and necessary associated common infrastructure works) has been included in the instant project. Accordingly, the amendment was issued in the existing contract of GE in June 2020 with completion schedule of February 2021. As the scope was finalized in June 2020, the SCOD was shifted from June 2020 to Feb 2021 (about 18 months impact).

c. Due to change in scope, the SCOD of the instant asset along with additional scope has been revised from June 2020 to February 2021. Meanwhile, due to COVID-19 second wave lockdown, the GIS factories could not function fully during May 2021 and June 2021 and supply of the imported components for GIS from France, bus duct got delayed. Further, Ministry of Power vide OM dated 12.6.2021 has provided an extension of 3 months for the ISTS projects whose SCOD date is after 1.4.2021.

d. The summary of the reasons and the period of time over-run is as follows:

S. No.	Reasons for time over-run	Time over-run
1	Nationwide lockdown due to COVID-19	5 Months
2	Global supply chain disturbance	7 Months
3	Change in scope	18 Months
4	Covid-19 second wave impact	3 months
Total Cumulative Delay		33 Months

e. Accordingly, there was cumulative delay of 33 months. However, the Petitioner could contain the delay to 22 months and 23 days. Thus, in view of above forced



majeure conditions which were beyond the control of the Petitioner, the entire time over-run may be condoned

24. MPPMCL has submitted that the Petitioner has attributed the time over-run to Covid-19 impact on procurement of imported component and heavy rainfall at site. Ministry of Power, Gol vide circular no 3/1/2020-Trans dated 27.7.2020 has already given five (5) months extension to all inter-State projects whose SCOD is beyond 25.3.2020 and which were under construction on 25.3.2020.

25. MPPMCL has further submitted that heavy rains during the (period 9.8.2020 to 15.9.2020) monsoon season / rainy season in India is normal and all Projects should take into account the monsoon time and accordingly project time should be fixed. Therefore, no additional time over-run could be condoned on the ground of heavy rains. Further, the SCOD of the project is 5.6.2020, except the time over-run which has been condoned by the Gol in circular no. 3.1.2020- Trans dated 27.7.2020, no other time over-run may be condoned.

26. We have considered the submissions of the Petitioner and MPPMCL. As per the Investment approval dated 6.12.2018, the SCOD of the transmission project was 5.6.2020 against which Asset-A and Asset-B was put into commercial operation within the SCOD and however, there is time over-run of 104 days, 331 days, 333 days, 334 days and 633 days respectively in respect of Asset-C, Asset-D, Asset-E, Asset-F and Asset-G.

27. The MoP vide letter dated 27.7.2020 extended the COD of all inter-State projects whose SCOD is beyond 25.3.2020 and which were under construction on 25.3.2020





due to the nationwide lockdown restrictions for containment of the spread of Covid-19 pandemic. The relevant portion of the letter dated 27.7.2020 is as follows:

*“Sub: Extension to TSP/Transmission Licensees for completion of under construction Inter-State transmission projects*

*Sir,*

*I am directed to state that transmission utilities have pointed out that construction activities at various transmission project sites have been severely affected by the Nationwide lockdown measures announced since 25<sup>th</sup> march, 2020 to contain outbreak of COVID-19 and have requested for extension of Scheduled Commercial Operation (SCOD) to mitigate the issues of disruption in supply chains and manpower, caused due to outbreak of COVID-19 pandemic.*

*2. It has been, therefore, decided that;*

*i. All inter-state transmission projects, which were under construction as on date of lock-down i.e. 25<sup>th</sup> March 2020, shall get an extension of five months in respect of SCOD*

*ii. This order shall not apply to those projects, whose SCOD date was prior to 25<sup>th</sup> March 2020*

*iii. Start date of Long Term Access granted to a generator by CTU based on completion of a transmission line, whose SCOD is extended by 5 months due to COVID-19 as mentioned above at point(i), shall also be extended by 5 months.”*

*3. This issue with the approval of Competent Authority.”*

28. As per I.A., the schedule COD of the project is 5.6.2020. In terms of the above letter dated 27.7.2020, the COD has to be extended by 5 months. Taking into consideration the said letter, 5 months' time extension upto 5.11.2020 is allowed for the Petitioner to put the transmission assets into commercial operation. Accordingly, there is no time over-run in case of Asset-A, Asset-B and Asset-C. In case of Asset-D, Asset-E Asset-F and Asset-G there is a time over-run of 178 days,180 days,181 days and 480 days respectively. We analyse the time over-run in case of these four assets in the following paragraphs:

**Asset-D, Asset-E and Asset-F:**

29. The Petitioner has submitted that an additional 7 months of delay from 21.5.2020 to 23.12.2020 is due to Covid-19 pandemic and therefore, imported components of GIS



material, particularly 6 numbers of air bushings which were to be supplied from China, got delayed. The Petitioner has submitted that the materials received at Chennai factory in 1<sup>st</sup> week of September and dispatched to site on 23.12.2020.

30. Further, the Petitioner has attributed the time over-run in case of Asset-D, Asset-E and Asset-F to COVID-19 and unprecedented rains.

31. The Petitioner has submitted that on account of lockdown imposed by China and global supply chain restrictions, the supply of GIS material was delayed. We have perused the information submitted by the Petitioner. The Petitioner has not submitted any documentary evidence in support of supply side restrictions due to Covid-19. The Petitioner is directed to submit valid documentary evidence / government order wherein the supply chain disruptions have been declared as *force majeure* and accordingly the time over-run on this account will be reviewed at the time of truing-up.

32. In support of its contention that the execution of the transmission project was affected for 7 months on account of heavy rain in the month of August at Bhuj site, the Petitioner has not placed on record any documents to show that the rainfall during the period of August-October, 2020 was an exceptionally adverse weather condition which was in excess of the statistical measures for the last hundred (100) years. Therefore, the event of excessive rainfall claimed by the Petitioner is not a *force majeure* event and thus the delay due to heavy rainfall is not condoned.

33. Accordingly, the additional delay of 178 days, 180 days and 181 days in respect of Asset-D, Asset-E and Asset-F respectively is not condoned. However, the Petitioner is directed to submit valid documentary evidence / government order wherein it has



declared disruptions due to supply chain restrictions as *force majeure* event and accordingly the time over-run on this account will be reviewed at the time of truing-up.

**Asset-G:**

34. We have considered the submissions of the Petitioner and MPPMCL with respect to the time over-run in case of Asset-G. The Petitioner has attributed the time over-run in case of Asset-G to change in the scope and delay in receipt of material from China and from France due to Covid-19 pandemic. We analyse these reasons in the subsequent paragraphs.

**Delay due to change in scope**

35. The Petitioner has submitted that for evacuation of power from RE generators connected at 230 kV Hybrid switchyard, extension of indoor GIS bus upto the outdoor AIS bus bar of Hybrid switchyard using GIB arrangement and necessary associated common infrastructure is required at Tuticorin-II GIS Sub-station. Accordingly, the change in the scope of the work was approved in the 1<sup>st</sup> meeting of SRPC (TP) held on 16.12.2019 and based on this approval, the Petitioner amended the existing contract with GE in June, 2020 with target completion of additional work by February, 2021. We have gone through the submissions of the Petitioner. The Petitioner has submitted that the letter of award (LoA) was placed on 19.12.2018, after the Investment Approval of 5.11.2018. However, the change in the scope of the work was approved in 1<sup>st</sup> meeting of SRPC (TP) held on 16.12.2019, after more than a year. As per the revised scope, the Petitioner was required to implement additional work (Extension of Indoor GIS bus up to gantry before bay no.210 to the outdoor AIS busbar of 230 kV Hybrid switchyard using GIB arrangement) which impacted the COD of the asset. We are of the view that the time period from the 1<sup>st</sup> meeting of SRPC (TP) held on 16.12.2019 up to target



completion of additional work by February, 2021 is impacted due to additional work. However, we have already revised the SCOD of the transmission asset as 5.11.2020, so the net impact from 6.11.2020 to 28.2.2021 (114 days) is condoned on account of implementation of extension of indoor GIS bus upto the outdoor AIS bus bar of Hybrid switchyard using GIB arrangement).

### **Covid-19 impact on procurement of imported components for GIS from China**

36. The Petitioner has submitted that on account of lockdown imposed by China and global supply chain restrictions, the supply of GIS material was delayed. We have gone through the submissions of the Petitioner. The Petitioner has not submitted any documentary evidence in support of the supply side restrictions due to Covid-19. The Petitioner is directed to submit valid documentary evidence / government order wherein it has declared disruption in supply chain has been declared as *force majeure* event and the time over-run on this account will be reviewed at the time of truing-up.

### **Covid-19 second wave impact of imported components for GIS from France**

37. The Petitioner has submitted that the additional scope of work has to be implemented by February, 2021 and meanwhile due to Covid-19, supply of bus duct got delayed. The Petitioner has further submitted that MoP vide OM dated 12.6.2021 has extended COD of the transmission projects by 3 months whose SCOD is after 1.4.2021. We have gone through the submissions of the Petitioner. We have already taken cognisance of change in scope of work and the time period from 6.11.2020 to 28.2.2021 (114 days) is condoned on account of change in scope of works. As regards the Ministry of Power OM dated 12.6.2021 which provides for extension of 3 months for the ISTS projects whose SCOD is after 1.4.2021, we are of the view that the said OM is not



applicable to Asset-G as its SCOD is 5.11.2020. Hence, the time over-run in on this account is not condoned.

38. Based on the above discussion, out of the total time over-run of 480 days, time over-run of 114 days is beyond the control of the Petitioner and the same has been condoned.

39. The details of the time over-run in case of the transmission assets and the time over-run condoned is as follows:

Asset	SCOD as per MoP letter dated 27.7.2020	Actual COD	Time over-run	Time over-run condoned	Time over-run not condoned
Asset-A	5.11.2020	9.10.2019	NA	NA	-
Asset-B		23.10.2019	NA	NA	-
Asset-C		17.9.2020	NA	NA	-
Asset-D		2.5.2021	178 days	Nil	178 days
Asset-E		4.5.2021	180 days	Nil	180 days
Asset-F		5.5.2021	181 days	Nil	181 days
Asset-G		28.2.2022	480 days	114 days	366 days

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

40. The Petitioner in the original petition has claimed the IDC in respect of Asset-A, Asset-B, Asset-C, Asset-D, Asset-E and Asset-F. Further, vide affidavit dated 4.8.2022, the Petitioner has claimed the IDC in respect of Asset-G. The Petitioner has submitted the statement showing computation of IDC, discharge of IDC liability as on date of commercial operation and thereafter as follows:



(₹ in lakh)

Assets	IDC as per Auditor Certificate	IDC Discharged upto COD	IDC to be discharge 2019-20	IDC to be discharge 2020-21	IDC to be discharge 2021-22	IDC to be discharge 2022-23
Asset-A	0.28	0.16	0.05	0.07	0.00	0.00
Asset-B	0.34	0.27	0.07	0.00	0.00	0.00
Asset-C	50.87	42.73	0.00	1.00	7.14	0.00
Asset-D	164.18	110.02	0.00	0.00	54.16	0.00
Asset-E	7.54	6.55	0.00	0.00	0.99	0.00
Asset-F	64.29	45.40	0.00	0.00	18.89	0.00
Asset-G	73.20	62.68	0.00	0.00	4.40	6.12

41. We have considered the submissions of the Petitioner. As discussed above in this order, the time over-run in case of the transmission assets have been partially condoned. Accordingly, the IDC on cash basis up to the COD has been worked out based on the loan details given in the statement showing discharge of IDC and Form-9C for the transmission asset. The IDC claimed and considered as on COD and summary of discharge of IDC liability up to COD and thereafter for the purpose of tariff determination subject to revision at the time of truing up is as follows:

(₹ in lakh)

Assets	IDC as per Auditor Certificate (A)	IDC disallowed due to time over-run not condoned / computational error (B)	IDC Allowed C)=(A)-(B)	Undischarged IDC (D)	DC allowed on COD (E)=(C)-(D)	IDC to be discharge in FY 2019-20 (F)	IDC discharged in FY 2020-21 (G)	IDC discharged in FY 2021-22 (H)	IDC discharged in FY 2022-23 (I)
Asset-A	0.28	0.01	0.27	0.11	0.16	0.05	0.06	0.00	0.00
Asset-B	0.34	0.00	0.34	0.07	0.27	0.07	0.00	0.00	0.00
Asset-C	50.87	0.41	50.46	8.07	42.39	0.00	1.00	7.07	0.00
Asset-D	164.18	42.29	121.89	26.46	95.42	0.00	0.00	26.46	0.00
Asset-E	7.54	0.80	6.74	0.27	6.46	0.00	0.00	0.27	0.00
Asset-F	64.29	19.72	44.57	6.95	37.62	0.00	0.00	6.95	0.00
Asset-G	73.20	55.93	17.27	0.00	17.27	0.00	0.00	0.00	0.00

42. The Petitioner has claimed IEDC for the transmission asset as per the Auditor Certificate. The Petitioner has submitted that the entire IEDC mentioned in the Auditor Certificate is on cash basis and was paid up to the date of commercial operation. As the time over-run for the instant transmission asset has been partially condoned, there is



partial disallowance of IEDC. The IEDC claimed as per Auditor's Certificate, IEDC disallowed and IEDC allowed is as follows:

(₹ in lakh)

Assets	IEDC as per Auditor Certificate (A)	IEDC disallowed due to time over-run not condoned (B)	IEDC allowed (A-B)
Asset-A	40.36	0.00	40.36
Asset-B	40.72	0.00	40.72
Asset-C	122.55	0.00	122.55
Asset-D	832.62	163.04	669.58
Asset-E	310.69	61.39	249.30
Asset-F	840.99	166.91	674.08
Asset-G	221.87	67.06	154.81

### **Initial Spares**

43. Regulation 23(d) of the 2019 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*

- (i) *Transmission line- 1.00%*
- (ii) *Transmission sub-station*
  - *Green Field- 4.00%*
  - *Brown Field- 6.00%*
- (iii) *Series Compensation devices and HVDC Station- 4.00%*
- (iv) *Gas Insulated Sub-station (GIS)*
  - *Green Field- 5.00%*
  - *Brown Field- 7.00%*
- (v) *Communication System- 3.50%*
- (vi) *Static Synchronous Compensator- 6.00%”*

44. The Initial Spares as claimed by the Petitioner vide affidavit dated 5.11.2021 and 4.8.2022 is as follows:

(₹ in lakh)

Assets	Particulars	Plant and machinery cost as on cut-off date excluding IDC/IEDC, Land cost and Cost of Civil Works)	Initial Spares claimed	Initial Spares Claimed (%)	Ceiling limit as mentioned as per Regulation (%)
Asset-A	Sub-station	2183.19	47.86	2.24%	6.00%
Asset-B	Sub-station	2203.66	47.86	2.22%	6.00%
Asset-C	Sub-station	2480.85	55.02	2.27%	6.00%
Asset-D	Sub-station	10272.49	347.93	3.51%	6.00%



Assets	Particulars	Plant and machinery cost as on cut-off date excluding IDC/IEDC, Land cost and Cost of Civil Works)	Initial Spares claimed	Initial Spares Claimed (%)	Ceiling limit as mentioned as per Regulation (%)
Asset-E	Sub-station	3747.13	125.00	3.45%	6.00%
Asset-F	Sub-station	10313.34	347.93	3.49%	6.00%
Asset-G	Sub-station	4028.60	195.77	5.11%	7.00%

45. We have considered the submissions of Petitioner. The Initial Spares claimed by the Petitioner are within the norms. The Initial Spares for the transmission asset are allowed as per respective percentage of the Plant and Machinery Cost as on the cut-off date on individual basis. The Initial Spares allowed for the transmission assets are as follows:

Assets	Particulars	Plant and Machinery cost (excluding IDC and IEDC, land cost and Cost of Civil Works) (₹ in lakh)	Initial Spares claimed (₹ in lakh)	Norms as per 2019 Tariff Regulations (%)	Initial Spares allowable (₹ in lakh)	Initial Spares disallowed (₹ in lakh)	Initial Spares Allowed (₹ in lakh)
		<b>A</b>	<b>B</b>	<b>C</b>	<b>D=(A-B)*C/(100-C)</b>	<b>E=B-D</b>	
Asset-A	Sub-station	2183.19	47.86	6.00%	136.30	NIL	47.86
Asset-B	Sub-station	2203.66	47.86	6.00%	137.60	NIL	47.86
Asset-C	Sub-station	2480.85	55.02	6.00%	154.84	NIL	55.02
Asset-D	Sub-station	10272.49	347.93	6.00%	633.48	NIL	347.93
Asset-E	Sub-station	3747.13	125.00	6.00%	231.20	NIL	125.00
Asset-F	Sub-station	10313.34	347.93	6.00%	636.09	NIL	347.93
Asset-G	Sub-station	4028.61	195.77	7.00%	288.49	NIL	195.77

46. The capital cost of the transmission assets approved as on COD is as follows:





(₹ in lakh)

Assets	Capital Cost claimed as on COD (Auditor Certificate) (A)	IDC disallowed due to time over-run not condoned / computational error (B)	Undischarged IDC as on COD (C)	IEDC Disallowed (D)	Capital Cost as on COD (E) = (A-B-C-D)
Asset-A	993.07	0.01	0.11	0.00	992.95
Asset-B	1002.53	0.00	0.07	0.00	1002.46
Asset-C	2091.48	0.41	8.07	0.00	2083.00
Asset-D	10752.56	42.29	26.46	163.04	10520.76
Asset-E	3973.33	0.80	0.27	61.39	3910.87
Asset-F	10712.64	19.72	6.95	166.91	10519.06
Asset-G	3967.37	55.93	0.00	67.06	3844.39

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

47. Regulation 24 of the 2019 Tariff Regulations provide as follows:

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

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

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

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

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

48. The Petitioner has claimed that the ACE incurred/ projected to be incurred is mainly on account of balance/retention payments and is claimed under Regulations 24(1)(a) and 24(1)(b) of the 2019 Tariff Regulations. The Petitioner has claimed capital cost as per the cash IDC discharged as on 31.3.2024 as follows:



(₹ in lakh)

Assets	FR approved cost	Capital cost up to COD	Projected ACE					Capital Cost as on 31.3.2024
			2019-20	2020-21	2021-22	2022-23	2023-24	
Asset-A	2726.39	993.07	289.83	654.96	301.73	0.00	0.00	2239.59
Asset-B	2723.16	1002.53	291.94	661.10	305.06	0.00	0.00	2260.63
Asset-C	3236.88	2091.48	0.00	525.00	111.58	0.00	0.00	2728.06
Asset-D	15084.62	10752.56	0.00	0.00	1123.33	87.91	0.00	11963.80
Asset-E	5405.66	3973.33	0.00	0.00	274.31	22.88	0.00	4270.52
Asset-F	14997.75	10712.64	0.00	0.00	977.36	92.25	0.00	11782.25
Asset-G	5436.55	3967.37	0.00	0.00	2.62	352.24	11.55	4333.78

49. The Petitioner has submitted the package-wise and vendor-wise details of the ACE claimed including details of balance and retention payments vide affidavit dated 28.10.2021 and the details are as follows.

(₹ in lakh)

Year	Party	Head	Amount	Balance and retention payment/deferred work
<b>Asset-A</b>				
2019-20	TBEA	Sub-station	98.43	Work Deferred for Execution as per Regulation 24(1)(b) of 2019 Tariff Regulations
	GE T&D	Sub-station	133.49	Work Deferred for Execution as per Regulation 24(1)(b) of 2019 Tariff Regulations
	GE T&D	IT equipment	17.12	Work Deferred for Execution as per Regulation 24(1)(b) of 2019 Tariff Regulations
	TBEA	Sub-station	13.84	Undischarged liabilities recognized to be payable at a future date as per Regulation 24(1)(a) of 2019 Tariff Regulations
	GE T&D	Sub-station	26.95	Undischarged liabilities recognized to be payable at a future date as per Regulation 24(1)(a) of 2019 Tariff Regulations
2020-21	TBEA	Sub-station	427.48	Work Deferred for Execution as per Regulation 24(1)(b) of 2019 Tariff Regulations
	GE T&D	Sub-station	95.34	Work Deferred for Execution as per Regulation 24(1)(b) of 2019 Tariff Regulations
	TBEA	Sub-station	16.06	Undischarged liabilities recognized to be payable at a future date as per Regulation



Year	Party	Head	Amount	Balance and retention payment/deferred work
				24(1)(a) of 2019 Tariff Regulations
	GE T&D	Sub-station	114.22	Undischarged liabilities recognized to be payable at a future date as per Regulation 24(1)(a) of 2019 Tariff Regulations
	GE T&D	IT equipment	1.86	Undischarged liabilities recognized to be payable at a future date as per Regulation 24(1)(a) of 2019 Tariff Regulations
2021-22	TBEA	Sub-station	81.57	Undischarged liabilities recognized to be payable at a future date as per Regulation 24(1)(a) of 2019 Tariff Regulations
	GE T&D	Sub-station	220.16	Undischarged liabilities recognized to be payable at a future date as per Regulation 24(1)(a) of 2019 Tariff Regulations
<b>Asset-B</b>				
2019-20	TBEA	Sub-station	85.32	Work Deferred for Execution as per Regulation 24(1)(b) of 2019 Tariff Regulations
	GE T&D	Sub-station	148.14	Work Deferred for Execution as per Regulation 24(1)(b) of 2019 Tariff Regulations
	GE T&D	IT equipment	17.12	Work Deferred for Execution as per Regulation 24(1)(b) of 2019 Tariff Regulations
	TBEA	Sub-station	26.95	Undischarged liabilities recognized to be payable at a future date as per Regulation 24(1)(a) of 2019 Tariff Regulations
	GE T&D	Sub-station	14.42	Undischarged liabilities recognized to be payable at a future date as per Regulation 24(1)(a) of 2019 Tariff Regulations
2020-21	TBEA	Sub-station	427.48	Work Deferred for Execution as per Regulation 24(1)(b) of 2019 Tariff Regulations
	GE T&D	Sub-station	96.43	Work Deferred for Execution as per Regulation 24(1)(b) of 2019 Tariff Regulations
	TBEA	Sub-station	16.06	Undischarged liabilities recognized to be payable at a



Year	Party	Head	Amount	Balance and retention payment/deferred work
				future date as per Regulation 24(1)(a) of 2019 Tariff Regulations
	GE T&D	Sub-station	119.27	Undischarged liabilities recognized to be payable at a future date as per Regulation 24(1)(a) of 2019 Tariff Regulations
	GE T&D	IT equipment	1.86	Undischarged liabilities recognized to be payable at a future date as per Regulation 24(1)(a) of 2019 Tariff Regulations
2021-22	TBEA	Sub-station	81.57	Undischarged liabilities recognized to be payable at a future date as per Regulation 24(1)(a) of 2019 Tariff Regulations
	GE T&D	Sub-station	223.49	Undischarged liabilities recognized to be payable at a future date as per Regulation 24(1)(a) of 2019 Tariff Regulations
<b>Asset-C</b>				
2020-21	TBEA	Sub-station	173.81	Work Deferred for Execution as per Regulation 24(1)(b) of 2019 Tariff Regulations
	GE T&D	Sub-station	213.49	Work Deferred for Execution as per Regulation 24(1)(b) of 2019 Tariff Regulations
	TBEA	Sub-station	101.19	Undischarged liabilities recognized to be payable at a future date as per Regulation 24(1)(a) of 2019 Tariff Regulations
	GE T&D	Sub-station	36.51	Undischarged liabilities recognized to be payable at a future date as per Regulation 24(1)(a) of 2019 Tariff Regulations
2021-22	TBEA	Sub-station	56.27	Undischarged liabilities recognized to be payable at a future date as per Regulation 24(1)(a) of 2019 Tariff Regulations
	GE T&D	Sub-station	55.31	Undischarged liabilities recognized to be payable at a future date as per Regulation 24(1)(a) of 2019 Tariff Regulations



Year	Party	Head	Amount	Balance and retention payment/deferred work
<b>Asset-D</b>				
2021-22	TBEA	Sub-station	255.92	Work Deferred for Execution as per Regulation 24(1)(b) of 2019 Tariff Regulations
	GE T&D	Sub-station	347.72	Work Deferred for Execution as per Regulation 24(1)(b) of 2019 Tariff Regulations
	Civil Work	-	126.51	Work Deferred for Execution as per Regulation 24(1)(b) of 2019 Tariff Regulations
	TBEA	Sub-station	137.80	Undischarged liabilities recognized to be payable at a future date as per Regulation 24(1)(a) of 2019 Tariff Regulations
	GE T&D	Sub-station	250.71	Undischarged liabilities recognized to be payable at a future date as per Regulation 24(1)(a) of 2019 Tariff Regulations
	GE T&D	IT equipment	4.66	Undischarged liabilities recognized to be payable at a future date as per Regulation 24(1)(a) of 2019 Tariff Regulations
2022-23	GE T&D	Sub-station	87.91	Undischarged liabilities recognized to be payable at a future date as per Regulation 24(1)(a) of 2019 Tariff Regulations
<b>Asset-E</b>				
2021-22	TBEA	Sub-station	51.14	Work Deferred for Execution as per Regulation 24(1)(b) of 2019 Tariff Regulations
	GE T&D	Sub-station	168.31	Work Deferred for Execution as per Regulation 24(1)(b) of 2019 Tariff Regulations
	TBEA	Sub-station	12.78	Undischarged liabilities recognized to be payable at a future date as per Regulation 24(1)(a) of 2019 Tariff Regulations
	GE T&D	Sub-station	39.76	Undischarged liabilities recognized to be payable at a future date as per Regulation 24(1)(a) of 2019 Tariff Regulations
	GE T&D	IT equipment	2.32	Undischarged liabilities recognized to be payable at a future date as per Regulation



Year	Party	Head	Amount	Balance and retention payment/deferred work
				24(1)(a) of 2019 Tariff Regulations
2022-23	GE T&D	Sub-station	22.88	Undischarged liabilities recognized to be payable at a future date as per Regulation 24(1)(a) of 2019 Tariff Regulations
<b>Asset-F</b>				
2021-22	TBEA	Sub-station	221.38	Work Deferred for Execution as per Regulation 24(1)(b) of 2019 Tariff Regulations
	GE T&D	Sub-station	365.04	Work Deferred for Execution as per Regulation 24(1)(b) of 2019 Tariff Regulations
	TBEA	Sub-station	150.69	Undischarged liabilities recognized to be payable at a future date as per Regulation 24(1)(a) of 2019 Tariff Regulations
	GE T&D	Sub-station	235.59	Undischarged liabilities recognized to be payable at a future date as per Regulation 24(1)(a) of 2019 Tariff Regulations
	GE T&D	IT equipment	4.66	Undischarged liabilities recognized to be payable at a future date as per Regulation 24(1)(a) of 2019 Tariff Regulations
2022-23	GE T&D	Sub-station	92.25	Undischarged liabilities recognized to be payable at a future date as per Regulation 24(1)(a) of 2019 Tariff Regulations
<b>Asset-G</b>				
2021-22	GE T&D	Sub-station	2.62	Work Deferred for Execution as per Regulation 24(1)(b) of 2019 Tariff Regulations
2022-23	GE T&D	Sub-station	113.97	Work Deferred for Execution as per Regulation 24(1)(b) of 2019 Tariff Regulations
	P. Kuppusamy Contract	Sub-station	18.79	Work Deferred for Execution as per Regulation 24(1)(b) of 2019 Tariff Regulations
	GE T&D	Sub-station	206.01	Undischarged liabilities recognized to be payable at a future date as per Regulation 24(1)(a) of 2019 Tariff Regulations



Year	Party	Head	Amount	Balance and retention payment/deferred work
	TBEA	Sub-station	13.47	Undischarged liabilities recognized to be payable at a future date as per Regulation 24(1)(a) of 2019 Tariff Regulations
2023-24	GE T&D	Sub-station	6.81	Undischarged liabilities recognized to be payable at a future date as per Regulation 24(1)(a) of 2019 Tariff Regulations
	Scope T&M Pvt Ltd.	Sub-station	0.87	Undischarged liabilities recognized to be payable at a future date as per Regulation 24(1)(a) of 2019 Tariff Regulations
	Altanova India Pvt. Ltd.	Sub-station	1.57	Undischarged liabilities recognized to be payable at a future date as per Regulation 24(1)(a) of 2019 Tariff Regulations
	P. Kuppusamy Contract	Sub-station	2.31	Undischarged liabilities recognized to be payable at a future date as per Regulation 24(1)(a) of 2019 Tariff Regulations

50. We have considered the submissions made by the Petitioner. The ACE claimed by the Petitioner is allowed under Regulation 24(1)(a) and 24(1)(b) of the 2019 Tariff Regulations on account of balance and retention payments for works already executed. Accordingly, the ACE allowed for the 2019-24 period is as follows:

#### **Asset-A**

Particulars	Regulation	ACE allowed (₹ in lakh)		
		2019-20	2020-21	2021-22
Undischarged liabilities recognized to be payable at a future date	24(1)(a)	40.79	132.14	301.73
Work Deferred for Execution	24(1)(b)	249.04	522.82	0
Accrual IDC	24(1)(a)	0.05	0.06	0.00
<b>Total ACE</b>		<b>289.88</b>	<b>655.02</b>	<b>301.73</b>



**Asset-B**

(₹ in lakh)

Particulars	Regulation	ACE allowed		
		2019-20	2020-21	2021-22
Undischarged liabilities recognized to be payable at a future date	24(1)(a)	41.37	137.19	305.06
Work Deferred for Execution	24(1)(b)	250.58	523.91	0.00
Accrual IDC	24(1)(a)	0.07	0.00	0.00
<b>Total ACE</b>		<b>292.01</b>	<b>661.10</b>	<b>305.06</b>

**Asset-C**

(₹ in lakh)

Particulars	Regulation	ACE allowed	
		2020-21	2021-22
Undischarged liabilities recognized to be payable at a future date	24(1)(a)	137.7	111.58
Work Deferred for Execution	24(1)(b)	387.30	0.00
Accrual IDC	24(1)(a)	1.00	7.07
<b>Total ACE</b>		<b>526.00</b>	<b>118.65</b>

**Asset-D**

(₹ in lakh)

Particulars	Regulation	ACE allowed	
		2021-22	2022-23
Undischarged liabilities recognized to be payable at a future date	24(1)(a)	393.17	87.91
Work Deferred for Execution	24(1)(b)	730.15	0.00
Accrual IDC	24(1)(a)	26.46	0.00
<b>Total ACE</b>		<b>1149.79</b>	<b>87.91</b>

**Asset-E**

(₹ in lakh)

Particulars	Regulation	ACE allowed	
		2021-22	2022-23
Undischarged liabilities recognized to be payable at a future date	24(1)(a)	54.86	22.88
Work Deferred for Execution	24(1)(b)	219.45	0.00
Accrual IDC	24(1)(a)	0.27	0.00
<b>Total ACE</b>		<b>274.58</b>	<b>22.88</b>





## Asset-F

(₹ in lakh)

Particulars	Regulation	ACE allowed	
		2021-22	2022-23
Undischarged liabilities recognized to be payable at a future date	24(1)(a)	390.94	92.25
Work Deferred for Execution	24(1)(b)	586.42	0.00
Accrual IDC	24(1)(a)	6.95	0.00
<b>Total ACE</b>		<b>984.31</b>	<b>92.25</b>

## Asset-G

(₹ in lakh)

Particulars	Regulation	ACE allowed		
		2021-22	2022-23	2023-24
Undischarged liabilities recognized to be payable at a future date	24(1)(a)	0.00	219.48	11.55
Work Deferred for Execution	24(1)(b)	2.62	132.76	0.00
Accrual IDC	24(1)(a)	0.00	0.00	0.00
<b>Total ACE</b>		<b>2.62</b>	<b>352.24</b>	<b>11.55</b>

51. Accordingly, the capital cost allowed for the transmission assets are as follows:

(₹ in lakh)

Assets	FR approved cost	Capital cost up to COD	Projected ACE					Capital Cost as on 31.3.2024
			2019-20	2020-21	2021-22	2022-23	2023-24	
Asset-A	2726.39	992.95	289.88	655.02	301.73	0.00	0.00	2,239.58
Asset-B	2723.16	1002.46	292.01	661.10	305.06	0.00	0.00	2,260.63
Asset-C	3236.88	2083.00	0.00	526.00	118.65	0.00	0.00	2,727.65
Asset-D	15084.62	10520.76	0.00	0.00	1149.79	87.91	0.00	11,758.46
Asset-E	5405.66	3910.87	0.00	0.00	274.58	22.88	0.00	4,208.33
Asset-F	14997.75	10519.06	0.00	0.00	984.31	92.25	0.00	11,595.62
Asset-G	5436.55	3956.85	0.00	0.00	2.62	352.24	11.55	4210.80

## Debt-Equity ratio

52. 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.”*



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

**Asset-A**

Funding	Capital Cost as on COD (₹ in lakh)	%	ACE during 2019-24 (₹ in lakh)	%	Capital Cost as on 31.3.2024 (₹ in lakh)	%
Debt	695.06	70.00	872.64	70.00	1567.71	70.00
Equity	297.88	30.00	373.99	30.00	671.88	30.00
<b>Total</b>	<b>992.95</b>	<b>100.00</b>	<b>1246.63</b>	<b>100.00</b>	<b>2239.58</b>	<b>100.00</b>

**Asset-B**

Funding	Capital Cost as on COD (₹ in lakh)	%	ACE during 2019-24 (₹ in lakh)	%	Capital Cost as on 31.3.2024 (₹ in lakh)	%
Debt	701.72	70.00	880.72	70.00	1582.44	70.00
Equity	300.74	30.00	377.45	30.00	678.19	30.00
<b>Total</b>	<b>1002.46</b>	<b>100.00</b>	<b>1258.17</b>	<b>100.00</b>	<b>2260.63</b>	<b>100.00</b>

**Asset-C**

Funding	Capital Cost as on COD (₹ in lakh)	%	ACE during 2019-24 (₹ in lakh)	%	Capital Cost as on 31.3.2024 (₹ in lakh)	%
Debt	1458.10	70.00	451.25	70.00	1909.35	70.00
Equity	624.90	30.00	193.39	30.00	818.29	30.00
<b>Total</b>	<b>2083.00</b>	<b>100.00</b>	<b>644.65</b>	<b>100.00</b>	<b>2727.65</b>	<b>100.00</b>

**Asset-D**

Funding	Capital Cost as on COD (₹ in lakh)	%	ACE during 2019-24 (₹ in lakh)	%	Capital Cost as on 31.3.2024 (₹ in lakh)	%
Debt	7364.53	70.00	866.39	70.00	8230.92	70.00
Equity	3156.23	30.00	371.31	30.00	3527.54	30.00
<b>Total</b>	<b>10520.76</b>	<b>100.00</b>	<b>1237.70</b>	<b>100.00</b>	<b>11758.46</b>	<b>100.00</b>



## Asset-E

Funding	Capital Cost as on COD (₹ in lakh)	%	ACE during 2019-24 (₹ in lakh)	%	Capital Cost as on 31.3.2024 (₹ in lakh)	%
Debt	2737.61	70.00	208.22	70.00	2945.83	70.00
Equity	1173.26	30.00	89.24	30.00	1262.50	30.00
<b>Total</b>	<b>3910.87</b>	<b>100.00</b>	<b>297.46</b>	<b>100.00</b>	<b>4208.33</b>	<b>100.00</b>

## Asset-F

Funding	Capital Cost as on COD (₹ in lakh)	%	ACE during 2019-24 (₹ in lakh)	%	Capital Cost as on 31.3.2024 (₹ in lakh)	%
Debt	7363.34	70.00	753.59	70.00	8116.94	70.00
Equity	3155.72	30.00	322.97	30.00	3478.69	30.00
<b>Total</b>	<b>10519.06</b>	<b>100.00</b>	<b>1076.56</b>	<b>100.00</b>	<b>11595.62</b>	<b>100.00</b>

## Asset-G

Funding	Capital Cost as on COD (₹ in lakh)	%	ACE during 2019-24 (₹ in lakh)	%	Capital Cost as on 31.3.2024 (₹ in lakh)	%
Debt	2691.07	70.00	256.49	70.00	2947.56	70.00
Equity	1153.32	30.00	109.92	30.00	1263.24	30.00
<b>Total</b>	<b>3844.39</b>	<b>100.00</b>	<b>366.41</b>	<b>100.00</b>	<b>4210.80</b>	<b>100.00</b>

## Depreciation

54. 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 clause(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.”

55. The depreciation has been worked out considering the admitted capital cost as on COD. The weighted average rate of depreciation (WAROD) has been worked out as per the rates of depreciation prescribed in the 2019 Tariff Regulations and the WAROD table is placed in the Annexure. The depreciation allowed for the transmission assets is as follows:

#### Asset-A

(₹ in lakh)						
	Particulars	2019-20 (pro-rata 175 days)	2020-21	2021-22	2022-23	2023-24
	<b>Depreciation</b>					
A	Opening Gross Block	992.95	1282.83	1937.85	2239.58	2239.58
B	Additional Capitalisation	289.88	655.02	301.73	0.00	0.00
C	Closing Gross Block (A+B)	1282.83	1937.85	2239.58	2239.58	2239.58



	Particulars	2019-20 (pro-rata 175 days)	2020-21	2021-22	2022-23	2023-24
E	Average Gross Block (A+C)/2	1137.89	1610.34	2088.72	2239.58	2239.58
D	Freehold Land	0.00	0.00	0.00	0.00	0.00
F	Weighted average rate of Depreciation (WAROD) (in %)	5.35	5.39	5.37	5.36	5.36
G	Balance useful life of the asset	25	25	24	23	22
H	Aggregate Depreciable Value	1024.96	1451.11	1881.74	2017.52	2017.52
I	<b>Depreciation during the year</b>	<b>29.12</b>	<b>86.78</b>	<b>112.13</b>	<b>120.09</b>	<b>120.09</b>
J	Cumulative Depreciation	29.12	115.91	228.03	348.13	468.22
K	Remaining Depreciable Value (H-J)	995.83	1335.21	1653.71	1669.39	1549.30

### Asset-B

(₹ in lakh)

	Particulars	2019-20 (pro-rata 161 days)	2020-21	2021-22	2022-23	2023-24
	<b>Depreciation</b>					
A	Opening Gross Block	1002.46	1294.47	1955.57	2260.63	2260.63
B	Additional Capitalisation	292.01	661.10	305.06	0.00	0.00
C	Closing Gross Block (A+B)	1294.47	1955.57	2260.63	2260.63	2260.63
E	Average Gross Block (A+C)/2	1148.47	1625.02	2108.10	2260.63	2260.63
D	Freehold Land	0.00	0.00	0.00	0.00	0.00
F	Weighted average rate of Depreciation (WAROD) (in %)	5.35	5.39	5.37	5.36	5.36
G	Balance useful life of the asset	25	25	24	23	22
H	Aggregate Depreciable Value	1034.47	1464.32	1899.19	2036.47	2036.47
I	<b>Depreciation during the year</b>	<b>27.04</b>	<b>87.56</b>	<b>113.15</b>	<b>121.21</b>	<b>121.21</b>
J	Cumulative Depreciation	27.04	114.60	227.75	348.95	470.16
K	Remaining Depreciable Value (H-J)	1007.43	1349.73	1671.44	1687.51	1566.30

### Asset-C

(₹ in lakh)

	Particulars	2020-21 (pro-rata 196 days)	2021-22	2022-23	2023-24
	<b>Depreciation</b>				
A	Opening Gross Block	2083.00	2609.00	2727.65	2727.65



	Particulars	2020-21 (pro-rata 196 days)	2021-22	2022-23	2023-24
B	Additional Capitalisation	526.00	118.65	0.00	0.00
C	Closing Gross Block (A+B)	2609.00	2727.65	2727.65	2727.65
E	Average Gross Block (A+C)/2	2346.00	2668.33	2727.65	2727.65
D	Freehold Land	0.00	0.00	0.00	0.00
F	Weighted average rate of Depreciation (WAROD) (in %)	5.28	5.28	5.28	5.28
G	Balance useful life of the asset	25	25	24	23
H	Aggregate Depreciable Value	2111.40	2401.49	2454.88	2454.88
I	<b>Depreciation during the year</b>	<b>66.52</b>	<b>140.89</b>	<b>144.02</b>	<b>144.02</b>
J	Cumulative Depreciation	66.52	207.40	351.42	495.44
K	Remaining Depreciable Value (H-J)	2044.89	2194.09	2103.46	1959.44

#### Asset-D

(₹ in lakh)

	Particulars	2021-22 (pro-rata 334 days)	2022-23	2023-24
	<b>Depreciation</b>			
A	Opening Gross Block	10520.76	11670.56	11758.47
B	Additional Capitalisation	1149.79	87.91	0.00
C	Closing Gross Block (A+B)	11670.56	11758.47	11758.47
E	Average Gross Block (A+C)/2	11095.66	11714.51	11758.47
D	Freehold Land	0.00	0.00	0.00
F	Weighted average rate of Depreciation (WAROD) (in %)	5.32	5.31	5.31
G	Balance useful life of the asset	25	25	24
H	Aggregate Depreciable Value	9991.63	10548.83	10588.39
I	<b>Depreciation during the year</b>	<b>539.77</b>	<b>621.54</b>	<b>623.87</b>
J	Cumulative Depreciation	539.77	1161.31	1785.17
K	Remaining Depreciable Value (H-J)	9451.86	9387.52	8803.22

#### Asset-E

(₹ in lakh)

	Particulars	2021-22 (pro-rata 332 days)	2022-23	2023-24
	<b>Depreciation</b>			
A	Opening Gross Block	3910.87	4185.45	4208.33
B	Additional Capitalisation	274.58	22.88	0.00
C	Closing Gross Block (A+B)	4185.45	4208.33	4208.33
E	Average Gross Block (A+C)/2	4048.16	4196.89	4208.33
D	Freehold Land	0.00	0.00	0.00





	Particulars	2021-22 (pro-rata 332 days)	2022-23	2023-24
F	Weighted average rate of Depreciation (WAROD) (in %)	5.35	5.35	5.35
G	Balance useful life of the asset	25	25	24
H	Aggregate Depreciable Value	3646.10	3780.07	3790.37
I	<b>Depreciation during the year</b>	<b>196.86</b>	<b>224.39</b>	<b>224.99</b>
J	Cumulative Depreciation	196.86	421.25	646.24
K	Remaining Depreciable Value (H-J)	3449.24	3358.83	3144.13

#### Asset-F

(₹ in lakh)

	Particulars	2021-22 (pro-rata 331 days)	2022-23	2023-24
	<b>Depreciation</b>			
A	Opening Gross Block	10519.06	11503.38	11595.63
B	Additional Capitalisation	984.31	92.25	0.00
C	Closing Gross Block (A+B)	11503.38	11595.63	11595.63
E	Average Gross Block (A+C)/2	11011.22	11549.50	11595.63
D	Freehold Land	0.00	0.00	0.00
F	Weighted average rate of Depreciation (WAROD) (in %)	5.33	5.33	5.33
G	Balance useful life of the asset	25	25	24
H	Aggregate Depreciable Value	9915.64	10400.33	10441.84
I	<b>Depreciation during the year</b>	<b>532.12</b>	<b>615.43</b>	<b>617.87</b>
J	Cumulative Depreciation	532.12	1147.56	1765.43
K	Remaining Depreciable Value (H-J)	9383.52	9252.77	8676.42

#### Asset-G

(₹ in lakh)

	Particulars	2021-22 (pro-rata 32 days)	2022-23	2023-24
	<b>Depreciation</b>			
A	Opening Gross Block	3844.39	3847.01	4199.25
B	Additional Capitalisation	2.62	352.24	11.55
C	Closing Gross Block (A+B)	3847.01	4199.25	4210.80
E	Average Gross Block (A+C)/2	3845.70	4023.13	4205.02
D	Freehold Land	0.00	0.00	0.00
F	Weighted average rate of Depreciation (WAROD) (in %)	5.38	5.37	5.37
G	Balance useful life of the asset	25	25	24
H	Aggregate Depreciable Value	3465.34	3625.22	3789.13



	Particulars	2021-22 (pro-rata 32 days)	2022-23	2023-24
I	Depreciation during the year	18.12	216.07	225.66
J	Cumulative Depreciation	18.12	234.19	459.86
K	Remaining Depreciable Value (H-J)	3447.22	3391.03	3329.28

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

56. 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.”

57. The Petitioner has claimed the weighted average rate of IoL, based on its actual loan portfolio and rate of interest. Accordingly, IoL has been calculated based on actual interest rate submitted by the Petitioner, in accordance with Regulation 32 of the 2019 Tariff Regulations. The IoL allowed for the transmission assets is as follows:

#### Asset-A

(₹ in lakh)						
	Particulars	2019-20 (pro-rata 175 days)	2020-21	2021-22	2022-23	2023-24
	<b>Interest on Loan</b>					
A	Gross Normative Loan	695.06	897.98	1356.50	1567.71	1567.71
B	Cumulative Repayments upto Previous Year	0.00	29.12	115.91	228.03	348.13
C	Net Loan-Opening (A-B)	695.06	868.86	1240.59	1339.67	1219.58
D	Additions	202.92	458.52	211.21	0.00	0.00
E	Repayment during the year	29.12	86.78	112.13	120.09	120.09
F	Net Loan-Closing (C+D-E)	868.86	1240.59	1339.67	1219.58	1099.48
G	Average Loan (C+F)/2	781.96	1054.72	1290.13	1279.63	1159.53
H	Weighted Average Rate of Interest on Loan (in %)	0.1587	0.1592	0.1595	0.1614	0.1660
I	<b>Interest on Loan (G*H)</b>	<b>0.59</b>	<b>1.68</b>	<b>2.06</b>	<b>2.07</b>	<b>1.92</b>

#### Asset-B

(₹ in lakh)						
	Particulars	2019-20 (pro-rata 161 days)	2020-21	2021-22	2022-23	2023-24
	<b>Interest on Loan</b>					
A	Gross Normative Loan	701.72	906.13	1368.90	1582.44	1582.44
B	Cumulative Repayments upto Previous Year	0.00	27.04	114.60	227.75	348.95
C	Net Loan-Opening (A-B)	701.72	879.09	1254.30	1354.69	1233.49
D	Additions	204.41	462.77	213.54	0.00	0.00
E	Repayment during the year	27.04	87.56	113.15	121.21	121.21
F	Net Loan-Closing (C+D-E)	879.09	1254.30	1354.69	1233.49	1112.28
G	Average Loan (C+F)/2	790.41	1066.70	1304.50	1294.09	1172.88
H	Weighted Average Rate of Interest on Loan (in %)	0.1204	0.1206	0.1206	0.1206	0.1207



	Particulars	2019-20 (pro-rata 161 days)	2020-21	2021-22	2022-23	2023-24
I	Interest on Loan (G*H)	0.42	1.29	1.57	1.56	1.42

#### Asset-C

(₹ in lakh)

	Particulars	2020-21 (pro-rata 196 days)	2021-22	2022-23	2023-24
	<b>Interest on Loan</b>				
A	Gross Normative Loan	1458.10	1826.30	1909.35	1909.35
B	Cumulative Repayments upto Previous Year	0.00	66.52	207.40	351.42
C	Net Loan-Opening (A-B)	1458.10	1759.78	1701.95	1557.93
D	Additions	368.20	83.05	0.00	0.00
E	Repayment during the year	66.52	140.89	144.02	144.02
F	Net Loan-Closing (C+D-E)	1759.78	1701.95	1557.93	1413.91
G	Average Loan (C+F)/2	1608.94	1730.87	1629.94	1485.92
H	Weighted Average Rate of Interest on Loan (in %)	2.9610	2.9695	3.0581	3.2362
I	<b>Interest on Loan (G*H)</b>	<b>25.58</b>	<b>51.40</b>	<b>49.85</b>	<b>48.09</b>

#### Asset-D

(₹ in lakh)

	Particulars	2021-22 (pro-rata 334 days)	2022-23	2023-24
	<b>Interest on Loan</b>			
A	Gross Normative Loan	7364.53	8169.39	8230.92
B	Cumulative Repayments upto Previous Year	0.00	539.77	1161.31
C	Net Loan-Opening (A-B)	7364.53	7629.62	7069.61
D	Additions	804.86	61.54	0.00
E	Repayment during the year	539.77	621.54	623.87
F	Net Loan-Closing (C+D-E)	7629.62	7069.61	6445.75
G	Average Loan (C+F)/2	7497.08	7349.62	6757.68
H	Weighted Average Rate of Interest on Loan (in %)	1.4719	1.5406	1.6662
I	<b>Interest on Loan (G*H)</b>	<b>100.98</b>	<b>113.23</b>	<b>112.59</b>



**Asset-E**

(₹ in lakh)

	Particulars	2021-22 (pro-rata 332 days)	2022-23	2023-24
	<b>Interest on Loan</b>			
A	Gross Normative Loan	2737.61	2929.82	2945.83
B	Cumulative Repayments upto Previous Year	0.00	196.86	421.25
C	Net Loan-Opening (A-B)	2737.61	2732.96	2524.59
D	Additions	192.21	16.02	0.00
E	Repayment during the year	196.86	224.39	224.99
F	Net Loan-Closing (C+D-E)	2732.96	2524.59	2299.60
G	Average Loan (C+F)/2	2735.29	2628.77	2412.09
H	Weighted Average Rate of Interest on Loan (in %)	1.2248	1.2736	1.3824
I	<b>Interest on Loan (G*H)</b>	<b>30.47</b>	<b>33.48</b>	<b>33.34</b>

**Asset-F**

(₹ in lakh)

	Particulars	2021-22 (pro-rata 331 days)	2022-23	2023-24
	<b>Interest on Loan</b>			
A	Gross Normative Loan	7363.34	8052.36	8116.94
B	Cumulative Repayments upto Previous Year	0.00	532.12	1147.56
C	Net Loan-Opening (A-B)	7363.34	7520.24	6969.38
D	Additions	689.02	64.58	0.00
E	Repayment during the year	532.12	615.43	617.87
F	Net Loan-Closing (C+D-E)	7520.24	6969.38	6351.51
G	Average Loan (C+F)/2	7441.79	7244.81	6660.44
H	Weighted Average Rate of Interest on Loan (in %)	1.2679	1.3221	1.4352
I	<b>Interest on Loan (G*H)</b>	<b>85.57</b>	<b>95.79</b>	<b>95.59</b>

**Asset-G**

(₹ in lakh)

	Particulars	2021-22 (pro-rata 32 days)	2022-23	2023-24
	<b>Interest on Loan</b>			
A	Gross Normative Loan	2691.07	2692.91	2939.48
B	Cumulative Repayments upto Previous Year	0.00	18.12	234.19
C	Net Loan-Opening (A-B)	2691.07	2674.78	2705.28



	Particulars	2021-22 (pro-rata 32 days)	2022-23	2023-24
D	Additions	1.83	246.57	8.09
E	Repayment during the year	18.12	216.07	225.66
F	Net Loan-Closing (C+D-E)	2674.78	2705.28	2487.70
G	Average Loan (C+F)/2	2682.93	2690.03	2596.49
H	Weighted Average Rate of Interest on Loan (in %)	4.0602	4.1286	4.2669
I	<b>Interest on Loan (G*H)</b>	<b>9.55</b>	<b>111.06</b>	<b>110.79</b>

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

58. 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 cutoff 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 =  $15.50 / (1 - 0.24) = 20.395\%$ .

*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.”*

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

**Asset-A**

(₹ in lakh)						
	Particulars	2019-20 (pro-rata 175 days)	2020-21	2021-22	2022-23	2023-24
	<b>Return on Equity</b>					
A	Opening Equity	297.88	384.85	581.36	671.87	671.87
B	Additions	86.96	196.51	90.52	0.00	0.00
C	Closing Equity (A+B)	384.85	581.36	671.87	671.87	671.87
D	Average Equity (A+C)/2	341.37	483.10	626.62	671.87	671.87
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	17.472	17.472	17.472	17.472	17.472
G	Rate of Return on Equity (in %)	18.782	18.782	18.782	18.782	18.782
H	<b>Return on Equity (D*G)</b>	<b>30.66</b>	<b>90.74</b>	<b>117.69</b>	<b>126.19</b>	<b>126.19</b>





**Asset-B**

(₹ in lakh)

	Particulars	2019-20 (pro-rata 175 days)	2020-21	2021-22	2022-23	2023-24
	<b>Return on Equity</b>					
A	Opening Equity	300.74	388.34	586.67	678.19	678.19
B	Additions	87.60	198.33	91.52	0.00	0.00
C	Closing Equity (A+B)	388.34	586.67	678.19	678.19	678.19
D	Average Equity (A+C)/2	344.54	487.51	632.43	678.19	678.19
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	17.472	17.472	17.472	17.472	17.472
G	Rate of Return on Equity (in %)	18.782	18.782	18.782	18.782	18.782
H	<b>Return on Equity (D*G)</b>	<b>28.47</b>	<b>91.56</b>	<b>118.78</b>	<b>127.38</b>	<b>127.38</b>

**Asset-C**

(₹ in lakh)

	Particulars	2019-20 (pro-rata 161 days)	2020-21	2021-22	2022-23
	<b>Return on Equity</b>				
A	Opening Equity	624.90	782.70	818.29	818.29
B	Additions	157.80	35.59	0.00	0.00
C	Closing Equity (A+B)	782.70	818.29	818.29	818.29
D	Average Equity (A+C)/2	703.80	800.50	818.29	818.29
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	17.472	17.472	17.472	17.472
G	Rate of Return on Equity (in %)	18.782	18.782	18.782	18.782
H	<b>Return on Equity (D*G)</b>	<b>70.98</b>	<b>150.35</b>	<b>153.69</b>	<b>153.69</b>

**Asset-D**

(₹ in lakh)

	Particulars	2020-21 (pro-rata 334 days)	2021-22	2022-23
	<b>Return on Equity</b>			
A	Opening Equity	3156.23	3501.17	3527.54
B	Additions	344.94	26.37	0.00
C	Closing Equity (A+B)	3501.17	3527.54	3527.54
D	Average Equity (A+C)/2	3328.70	3514.35	3527.54
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	17.472	17.472	17.472
G	Rate of Return on Equity (in %)	18.782	18.782	18.782



	Particulars	2020-21 (pro-rata 334 days)	2021-22	2022-23
H	<b>Return on Equity (D*G)</b>	<b>572.10</b>	<b>660.07</b>	<b>662.54</b>

#### Asset-E

(₹ in lakh)

	Particulars	2021-22 (pro-rata 332 days)	2022-23	2023-24
	<b>Return on Equity</b>			
A	Opening Equity	1173.26	1255.63	1262.50
B	Additions	82.37	6.86	0.00
C	Closing Equity (A+B)	1255.63	1262.50	1262.50
D	Average Equity (A+C)/2	1214.45	1259.07	1262.50
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	17.472	17.472	17.472
G	Rate of Return on Equity (in %)	18.782	18.782	18.782
H	<b>Return on Equity (D*G)</b>	<b>207.47</b>	<b>236.48</b>	<b>237.12</b>

#### Asset-F

(₹ in lakh)

	Particulars	2021-22 (pro-rata 331 days)	2022-23	2023-24
	<b>Return on Equity</b>			
A	Opening Equity	3155.72	3451.01	3478.69
B	Additions	295.29	27.68	0.00
C	Closing Equity (A+B)	3451.01	3478.69	3478.69
D	Average Equity (A+C)/2	3303.37	3464.85	3478.69
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	17.472	17.472	17.472
G	Rate of Return on Equity (in %)	18.782	18.782	18.782
H	<b>Return on Equity (D*G)</b>	<b>562.64</b>	<b>650.77</b>	<b>653.37</b>

#### Asset-G

(₹ in lakh)

	Particulars	2021-22 (pro-rata 32 days)	2022-23	2023-24
	<b>Return on Equity</b>			
A	Opening Equity	1153.32	1154.10	1259.77
B	Additions	0.79	105.67	3.47



	Particulars	2021-22 (pro-rata 32 days)	2022-23	2023-24
C	Closing Equity (A+B)	1154.10	1259.77	1263.24
D	Average Equity (A+C)/2	1153.71	1206.94	1261.51
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	17.472	17.472	17.472
G	Rate of Return on Equity (in %)	18.782	18.782	18.782
H	<b>Return on Equity (D*G)</b>	<b>19.00</b>	<b>226.69</b>	<b>236.94</b>

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

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

#### **Asset-A**

(₹ in lakh)					
Particulars	2019-20 (pro-rata 175 days)	2020-21	2021-22	2022-23	2023-24
<b>Sub-station:</b>					
Bhuj: ICT 400/220 kV ICT					
400 kV (MVA)	500	500	500	500	500
Norms (₹ Lakh per MVA)	0.358	0.371	0.384	0.398	0.411
<b>Sub-station:</b>					
<b>400 kV</b>					
Bhuj: ICT 4 400 kV ICT Bay					
<b>220 kV</b>					
Bhuj: ICT 4 220 kV ICT Bay					
220 kV (nos.)	1.00	1.00	1.00	1.00	1.00
Norms (₹ lakh/bay)	22.51	23.30	24.12	24.96	25.84
400 kV (nos.)	1.00	1.00	1.00	1.00	1.00
Norms (₹ lakh/bay)	32.15	33.28	34.45	35.66	36.91
<b>Total O&amp;M Expenses</b>	<b>111.72</b>	<b>242.08</b>	<b>250.57</b>	<b>259.62</b>	<b>268.25</b>

#### **Asset-B**

(₹ in lakh)					
Particulars	2019-20 (pro-rata 162 days)	2020-21	2021-22	2022-23	2023-24
<b>Sub-station:</b>					
Bhuj:500 MVA ICT-3 at Bhuj					
400 kV (MVA)	500	500	500	500	500
Norms (₹ Lakh per MVA)	0.358	0.371	0.384	0.398	0.411



Particulars	2019-20 (pro-rata 162 days)	2020-21	2021-22	2022-23	2023-24
<b>Sub-station:</b>					
<b>400 kV</b>					
Bhuj: ICT-V 400 kV ICT Bay					
<b>220 kV</b>					
Bhuj: ICT-V 220 kV ICT Bay					
220 kV (nos.)	1.00	1.00	1.00	1.00	1.00
Norms (₹ lakh/bay)	22.51	23.30	24.12	24.96	25.84
400 kV (nos.)	1.00	1.00	1.00	1.00	1.00
Norms (₹ lakh/bay)	32.15	33.28	34.45	35.66	36.91
<b>Total O&amp;M Expenses</b>	<b>102.78</b>	<b>242.08</b>	<b>250.57</b>	<b>259.62</b>	<b>268.25</b>

### Asset-C

Particulars	(₹ in lakh)			
	2020-21 (pro-rata 196 days)	2021-22	2022-23	2023-24
<b>Sub-station:</b>				
Bhuj:ICT 400/220 kV ICT-V				
400 kV (MVA)	500	500	500	500
Norms (₹ Lakh per MVA)	0.371	0.384	0.398	0.411
<b>Sub-station:</b>				
<b>400 kV</b>				
Bhuj:ICT3 400 kV side main ICT bay 422				
<b>220 kV</b>				
Bhuj:ICT3 220 kV side main ICT bay 211				
220 kV (nos.)	1.00	1.00	1.00	1.00
Norms (₹ lakh/bay)	23.30	24.12	24.96	25.84
400 kV (nos.)	1.00	1.00	1.00	1.00
Norms (₹ lakh/bay)	33.28	34.45	35.66	36.91
<b>Total O&amp;M Expenses</b>	<b>129.99</b>	<b>250.57</b>	<b>259.62</b>	<b>268.25</b>

### Asset-D

Particulars	(₹ in lakh)		
	2021-22 (pro-rata 334 days)	2022-23	2023-24
<b>Sub-station:</b>			
1. Bhuj:500 MVA ICT-VIII at Bhuj			
2. Bhuj:1500 MVA ICT-IV at Bhuj			
400 kV (MVA)	500	500	500
Norms (₹ Lakh per MVA)	0.384	0.398	0.411
765 kV (MVA)	1500	1500	1500
Norms (₹ Lakh per MVA)	0.526	0.545	0.564



Particulars	2021-22 (pro-rata 334 days)	2022-23	2023-24
<b>Sub-station:</b>			
<b>765 kV</b>			
Bhuj:ICT4- 765 kV side main bay 1-703			
<b>220 kV</b>			
Bhuj:ICT8- 220 kV side main bay 1_227			
<b>400 kV GIS</b>			
1. Bhuj:ICT8--400 kV . side main GIS bay 1-438			
2. Bhuj:ICT4_ 400 kV side main GIS bay 1-439			
220 kV (nos.)	1	1	1
Norms (₹ lakh/bay)	24.12	24.96	25.84
765 kV (nos.)	1	1	1
Norms (₹ lakh/bay)	48.23	49.93	51.68
400 kV GIS (nos.)	2	2	2
Norms (₹ lakh/bay)	24.115	24.962	25.837
<b>Total O&amp;M Expenses</b>	<b>1008.02</b>	<b>1141.31</b>	<b>1180.70</b>

#### Asset-E

(₹ in lakh)

Particulars	2021-22 (pro-rata 332 days)	2022-23	2023-24
<b>Sub-station:</b>			
Bhuj:500 MVA ICT-VII at Bhuj			
400 kV (MVA)	500	500	500
Norms (₹ Lakh per MVA)	0.384	0.398	0.411
<b>Sub-station:</b>			
<b>220 kV</b>			
Bhuj:ICT7- 220 kV side main bay-1-226			
<b>400 kV GIS</b>			
Bhuj:ICT7- 400 kV side main bay-1_ 436			
220 kV (nos.)	1	1	1
Norms (₹ lakh/bay)	24.12	24.96	25.84
400 kV GIS (nos.)	1	1	1
Norms (₹ lakh/bay)	24.115	24.962	25.837
<b>Total O&amp;M Expenses</b>	<b>218.51</b>	<b>248.92</b>	<b>257.18</b>

#### Asset-F

(₹ in lakh)

Particulars	2021-22 (pro-rata 331 days)	2022-23	2023-24
<b>Sub-station:</b>			
1. Bhuj:500 MVA ICT-6 at Bhuj			



Particulars	2021-22 (pro-rata 331 days)	2022-23	2023-24
2. Bhuj:1500 MVA ICT-III at Bhuj			
400 kV (MVA)	500	500	500
Norms (₹ Lakh per MVA)	0.384	0.398	0.411
765 kV (MVA)	1500	1500	1500
Norms (₹ Lakh per MVA)	0.526	0.545	0.564
<b>Sub-station:</b>			
<b>765 kV</b>			
Bhuj:ICT4- 765 kV side main bay 1-706			
<b>220 kV</b>			
Bhuj:ICT6- 220 kV side main bay-1-221a			
<b>400 kV GIS</b>			
1. Bhuj:ICT3- 400 kV side main bay-1-433			
2. Bhuj:ICT6- 400 kV side main bay-1-435			
765 kV (nos.)	1	1	1
Norms (₹ lakh/bay)	48.23	49.93	51.68
220 kV (nos.)	1	1	1
Norms (₹ lakh/bay)	24.12	24.96	25.84
400 kV GIS (nos.)	1	1	1
Norms (₹ lakh/bay)	24.115	24.962	25.837
<b>Total O&amp;M Expenses</b>	<b>998.97</b>	<b>1141.31</b>	<b>1180.70</b>

#### Asset-G

Particulars	2021-22 (pro-rata 32 days)	2022-23	2023-24
(₹ in lakh)			
<b>Sub-station:</b>			
Tuticorin GIS: 1 No. 500 MVA, 400/220 kV Transformer			
400 V (MVA)	500	500	500
Norms (₹ Lakh per MVA)	0.384	0.398	0.411
<b>Sub-station:</b>			
<b>220 kV GIS</b>			
Tuticorin GIS:220 kV ICT Bay			
<b>400 kV GIS</b>			
Tuticorin GIS:400 kV ICT Bay			
220 kV (nos.)	1	1	1
Norms (₹ lakh/bay)	16.884	17.472	18.088
Norms (₹ lakh/bay)	24.115	24.962	25.837
<b>Total O&amp;M Expenses</b>	<b>20.42</b>	<b>241.43</b>	<b>249.43</b>

61. The Regulation 35(3)(a) of the 2019 Tariff Regulations provides for the following normative O&M Expenses for transmission system:



**“35. Operation and Maintenance Expenses:**

...

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

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



<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
<i>±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)</i>	1,696	1,756	1,817	1,881	1,947
<i>±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW)</i>	2,563	2,653	2,746	2,842	2,942

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

*Provided further that:*

- i. the operation and maintenance expenses for new HVDC bi-pole schemes commissioned after 1.4.2019 for a particular year shall be allowed pro-rata on the basis of normative rate of operation and maintenance expenses of similar HVDC bi-pole scheme for the corresponding year of the tariff period;*
- ii. the O&M expenses norms for HVDC bi-pole line shall be considered as Double Circuit quad AC line;*
- iii. the O&M expenses of ±500 kV Mundra-Mohindergarh HVDC bipole scheme (2000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±500 kV Talchar-Kolar HVDC bi-pole scheme (2000 MW);*
- iv. the O&M expenses of ±800 kV Champa-Kurukshetra HVDC bi-pole scheme (3000 MW) shall be on the basis of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme;*
- v. the O&M expenses of ±800 kV, Alipurduar-Agra HVDC bi-pole scheme (3000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme; and*
- vi. the O&M expenses of Static Synchronous Compensator and Static Var Compensator shall be worked at 1.5% of original project cost as on commercial operation which shall be escalated at the rate of 3.51% to work out the O&M expenses during the tariff period. The O&M expenses of Static Synchronous Compensator and Static Var Compensator, if required, may be reviewed after three years.*

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

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





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

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

62. We have considered the submissions of the Petitioner. The O&M Expenses have been worked out as per the norms specified in the 2019 Tariff Regulations and are as follows:

#### Asset-A

(₹ in lakh)					
Particulars	2019-20 (pro-rata 175 days)	2020-21	2021-22	2022-23	2023-24
<b>Sub-station:</b>					
Bhuj: ICT 400/220 kV ICT					
400 kV (MVA)	500	500	500	500	500
Norms (₹ Lakh per MVA)	0.358	0.371	0.384	0.398	0.411
<b>Sub-station:</b>					
<b>400 kV</b>					
Bhuj:ICT 4 400 kV Bay					
<b>220 kV</b>					
Bhuj:ICT 4 220 kV Bay					
220 kV (nos.)	1.00	1.00	1.00	1.00	1.00
Norms (₹ lakh/bay)	22.51	23.30	24.12	24.96	25.84
400 kV (nos.)	1.00	1.00	1.00	1.00	1.00
Norms (₹ lakh/bay)	32.15	33.28	34.45	35.66	36.91
<b>Total O&amp;M Expenses</b>	<b>111.72</b>	<b>242.08</b>	<b>250.57</b>	<b>259.62</b>	<b>268.25</b>

#### Asset-B

(₹ in lakh)					
Particulars	2019-20 (pro-rata 175 days)	2020-21	2021-22	2022-23	2023-24
<b>Sub-station:</b>					
Bhuj:500 MVA ICT-3 at Bhuj					
400 kV (MVA)	500	500	500	500	500
Norms (₹ Lakh per MVA)	0.358	0.371	0.384	0.398	0.411
<b>Sub-station:</b>					



Particulars	2019-20 (pro-rata 175 days)	2020-21	2021-22	2022-23	2023-24
<b>400 kV</b> Bhuj:ICT-V 400 kV Bay					
<b>220 kV</b> Bhuj:ICT-V 220 kV Bay					
220 kV (nos.)	1.00	1.00	1.00	1.00	1.00
Norms (₹ lakh/bay)	22.51	23.30	24.12	24.96	25.84
400 kV (nos.)	1.00	1.00	1.00	1.00	1.00
Norms (₹ lakh/bay)	32.15	33.28	34.45	35.66	36.91
<b>Total O&amp;M Expenses</b>	<b>102.78</b>	<b>242.08</b>	<b>250.57</b>	<b>259.62</b>	<b>268.25</b>

### Asset-C

(₹ in lakh)				
Particulars	2020-21 (pro-rata 196 days)	2021-22	2022-23	2023-24
<b>Sub-station:</b> Bhuj:ICT 400/220 kV ICT-V				
400 kV (MVA)	500	500	500	500
Norms (₹ Lakh per MVA)	0.371	0.384	0.398	0.411
<b>Sub-station:</b> <b>400 kV</b> Bhuj: ICT3 400 kV side main bay 422				
<b>220 kV</b> Bhuj: ICT3 400 kV side main bay 211				
220 kV (nos.)	1.00	1.00	1.00	1.00
Norms (₹ lakh/bay)	23.30	24.12	24.96	25.84
400 kV (nos.)	1.00	1.00	1.00	1.00
Norms (₹ lakh/bay)	33.28	34.45	35.66	36.91
<b>Total O&amp;M Expenses</b>	<b>129.99</b>	<b>250.57</b>	<b>259.62</b>	<b>268.25</b>

### Asset-D

(₹ in lakh)			
Particulars	2021-22 (pro-rata 334 days)	2022-23	2023-24
<b>Sub-station:</b> 1. Bhuj:500 MVA ICT-VIII at Bhuj 2. Bhuj:1500 MVA ICT-IV at Bhuj			
400 kV (MVA)	500	500	500
Norms (₹ Lakh per MVA)	0.384	0.398	0.411
765 kV (MVA)	1500	1500	1500
Norms (₹ Lakh per MVA)	0.526	0.545	0.564



Particulars	2021-22 (pro-rata 334 days)	2022-23	2023-24
<b>Sub-station:</b>			
<b>765 kV</b>			
1. Bhuj: ICT4--765 kV side main bay 1--703			
<b>220 kV</b>			
1. Bhuj: ICT8-220 kV side main bay 1-227			
<b>400 kV GIS</b>			
1. Bhuj: ICT8-400 kV side main bay 1-438			
2. Bhuj: ICT4-400 kV side main bay 1-439			
220 kV (nos.)	1	1	1
Norms (₹ lakh/bay)	24.12	24.96	25.84
765 kV (nos.)	1	1	1
Norms (₹ lakh/bay)	48.23	49.93	51.68
400 kV GIS (nos.)	2	2	2
Norms (₹ lakh/bay)	24.115	24.962	25.837
<b>Total O&amp;M Expenses</b>	<b>1008.02</b>	<b>1141.31</b>	<b>1180.70</b>

#### Asset-E

(₹ in lakh)

Particulars	2021-22 (pro-rata 332 days)	2022-23	2023-24
<b>Sub-station:</b>			
1. Bhuj:500 MVA ICT-VII at Bhuj			
400 kV (MVA)	500	500	500
Norms (₹ Lakh per MVA)	0.384	0.398	0.411
<b>Sub-station:</b>			
<b>220 kV</b>			
1. Bhuj: ICT7-220 kV side main bay-1-226			
<b>400 kV GIS</b>			
1. Bhuj: ICT7-400 kV side main bay-1-436			
220 kV (nos.)	1	1	1
Norms (₹ lakh/bay)	24.12	24.96	25.84
400 kV GIS (nos.)	1	1	1
Norms (₹ lakh/bay)	24.115	24.962	25.837
<b>Total O&amp;M Expenses</b>	<b>218.51</b>	<b>248.92</b>	<b>257.18</b>



**Asset-F**

(₹ in lakh)

Particulars	2021-22 (pro-rata 331 days)	2022-23	2023-24
<b>Sub-station:</b> Bhuj:500 MVA ICT-6 at Bhuj Bhuj:1500 MVA ICT-III at Bhuj			
400 kV (MVA)	500	500	500
Norms (₹ Lakh per MVA)	0.384	0.398	0.411
765 kV (MVA)	1500	1500	1500
Norms (₹ Lakh per MVA)	0.526	0.545	0.564
<b>Sub-station:</b> <b>765 kV</b> 1. Bhuj:ICT4-765 kV side main bay 1-706 <b>220 kV</b> 1. Bhuj:ICT6-220 kV side main bay-1-221a <b>400 kV GIS</b> 1. Bhuj:ICT3400 kV side main bay-1-433 2. Bhuj:ICT6-400 kV side main bay-1-435			
765 kV (nos.)	1	1	1
Norms (₹ lakh/bay)	48.23	49.93	51.68
220 kV (nos.)	1	1	1
Norms (₹ lakh/bay)	24.12	24.96	25.84
400 kV GIS (nos.)	1	1	1
Norms (₹ lakh/bay)	24.115	24.962	25.837
<b>Total O&amp;M Expenses</b>	<b>998.97</b>	<b>1141.31</b>	<b>1180.70</b>

**Asset-G**

(₹ in lakh)

Particulars	2021-22 (pro-rata 32 days)	2022-23	2023-24
<b>Sub-station:</b> 1. Tuticorin GIS:1 No. 500MVA, 400/220 kV Transformer			
400 KV (MVA)	500	500	500
Norms (₹ Lakh per MVA)	0.384	0.398	0.411
<b>Sub-station:</b> <b>220 kV GIS</b> 1. Tuticorin GIS:220 kV ICT Bay <b>400 kV GIS</b> 1. Tuticorin GIS:400 kV ICT Bay			
220 kV (nos.)	1	1	1
Norms (₹ lakh/bay)	16.884	17.472	18.088
400 kV GIS (nos.)	1	1	1



Particulars	2021-22 (pro-rata 32 days)	2022-23	2023-24
Norms (₹ lakh/bay)	24.115	24.962	25.837
<b>Total O&amp;M Expenses</b>	<b>20.43</b>	<b>241.43</b>	<b>249.43</b>

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

63. 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:-*

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

64. The Petitioner has submitted that it has computed IWC for the 2019-24 period considering the SBI Base Rate of 11.25% plus 350 basis points as on 1.4.2019.



65. 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, ROI for 2020-21 has been considered as 11.25% (SBI 1-year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points) ROI for 2021-22 has been considered as 10.50% (SBI 1-year MCLR applicable as on 1.4.2021 of 7.00% plus 350 basis points) whereas ROI for 2022-23 onwards has been considered as 10.50% (SBI 1-year MCLR applicable as on 1.4.2022 of 7.00% plus 350 basis points). The components of the working capital and interest thereon allowed are as follows:

#### Asset-A

(₹ in lakh)						
	Particulars	2019-20 (pro-rata 175 days)	2020-21	2021-22	2022-23	2023-24
A	Working Capital for O&M Expenses (O&M expenses for one month)	19.47	20.17	20.88	21.64	22.35
B	Working Capital for Maintenance Spares (15% of O&M expenses)	35.05	36.31	37.59	38.94	40.24
C	Working Capital for Receivables (Equivalent to 45 days of annual fixed cost / annual transmission charges)	45.74	53.46	61.03	64.24	65.15
<b>D</b>	<b>Total Working Capital (A+B+C)</b>	<b>100.26</b>	<b>109.95</b>	<b>119.49</b>	<b>124.82</b>	<b>127.74</b>
E	Rate of Interest (in %)	12.05	11.25	10.50	10.50	10.50
<b>F</b>	<b>Interest on working capital (D*E)</b>	<b>5.78</b>	<b>12.37</b>	<b>12.55</b>	<b>13.11</b>	<b>13.41</b>



**Asset-B**

(₹ in lakh)

	Particulars	2019-20 (pro-rata 161 days)	2020-21	2021-22	2022-23	2023-24
A	Working Capital for O&M Expenses (O&M Expenses for one month)	19.47	20.17	20.88	21.64	22.35
B	Working Capital for Maintenance Spares (15% of O&M Expenses)	35.05	36.31	37.59	38.94	40.24
C	Working Capital for Receivables (Equivalent to 45 days of annual fixed cost / annual transmission charges)	45.85	53.61	61.23	64.47	65.37
<b>D</b>	<b>Total Working Capital (A+B+C)</b>	<b>100.37</b>	<b>110.10</b>	<b>119.70</b>	<b>125.04</b>	<b>127.96</b>
E	Rate of Interest (in %)	12.05	11.25	10.50	10.50	10.50
<b>F</b>	<b>Interest on working capital (D*E)</b>	<b>5.32</b>	<b>12.39</b>	<b>12.57</b>	<b>13.13</b>	<b>13.44</b>

**Asset-C**

(₹ in lakh)

	Particulars	2020-21 (pro-rata 196 days)	2021-22	2022-23	2023-24
A	Working Capital for O&M Expenses (O&M expenses for one month)	20.17	20.88	21.64	22.35
B	Working Capital for Maintenance Spares (15% of O&M expenses)	36.31	37.59	38.94	40.24
C	Working Capital for Receivables (Equivalent to 45 days of annual fixed cost / annual transmission charges)	69.03	74.86	76.63	77.30
<b>D</b>	<b>Total Working Capital (A+B+C)</b>	<b>125.51</b>	<b>133.33</b>	<b>137.21</b>	<b>139.90</b>
E	Rate of Interest (in %)	11.25	10.50	10.50	10.50
<b>F</b>	<b>Interest on working capital (D*E)</b>	<b>7.58</b>	<b>14.00</b>	<b>14.41</b>	<b>14.69</b>

**Asset-D**

(₹ in lakh)

	Particulars	2021-22 (pro-rata 334 days)	2022-23	2023-24
A	Working Capital for O&M Expenses (O&M expenses for one month)	91.80	95.11	98.39
B	Working Capital for Maintenance Spares (15% of O&M expenses)	165.24	171.20	177.10



	Particulars	2021-22 (pro-rata 334 days)	2022-23	2023-24
C	Working Capital for Receivables (Equivalent to 45 days of annual fixed cost / annual transmission charges)	306.51	320.27	324.93
<b>D</b>	<b>Total Working Capital (A+B+C)</b>	<b>563.55</b>	<b>586.58</b>	<b>600.42</b>
E	Rate of Interest (in %)	10.50	10.50	10.50
<b>F</b>	<b>Interest on working capital (D*E)</b>	<b>54.15</b>	<b>61.59</b>	<b>63.04</b>

#### Asset-E

(₹ in lakh)

	Particulars	2021-22 (pro-rata 332 days)	2022-23	2023-24
A	Working Capital for O&M Expenses (O&M expenses for one month)	20.02	20.74	21.43
B	Working Capital for Maintenance Spares (15% of O&M expenses)	36.04	37.34	38.58
C	Working Capital for Receivables (Equivalent to 45 days of annual fixed cost / annual transmission charges)	90.45	93.60	94.53
<b>D</b>	<b>Total Working Capital (A+B+C)</b>	<b>146.50</b>	<b>151.68</b>	<b>154.54</b>
E	Rate of Interest (in %)	10.50	10.50	10.50
<b>F</b>	<b>Interest on working capital (D*E)</b>	<b>13.99</b>	<b>15.93</b>	<b>16.23</b>

#### Asset-F

(₹ in lakh)

	Particulars	2021-22 (pro-rata 331 days)	2022-23	2023-24
A	Working Capital for O&M Expenses (O&M expenses for one month)	91.80	95.11	98.39
B	Working Capital for Maintenance Spares (15% of O&M expenses)	165.24	171.20	177.10
C	Working Capital for Receivables (Equivalent to 45 days of annual fixed cost / annual transmission charges)	303.54	316.17	320.92
<b>D</b>	<b>Total Working Capital (A+B+C)</b>	<b>560.57</b>	<b>582.47</b>	<b>596.41</b>
E	Rate of Interest (in %)	10.50	10.50	10.50
<b>F</b>	<b>Interest on working capital (D*E)</b>	<b>53.38</b>	<b>61.16</b>	<b>62.62</b>





**Asset-G**

(₹ in lakh)

	Particulars	2021-22 (pro-rata 32 days)	2022-23	2023-24
A	Working Capital for O&M Expenses (O&M expenses for one month)	19.42	20.12	20.79
B	Working Capital for Maintenance Spares (15% of O&M expenses)	34.95	36.22	37.41
C	Working Capital for Receivables (Equivalent to 45 days of annual fixed cost / annual transmission charges)	96.31	100.07	103.25
<b>D</b>	<b>Total Working Capital (A+B+C)</b>	<b>150.67</b>	<b>156.40</b>	<b>161.45</b>
E	Rate of Interest (in %)	10.50	10.50	10.50
<b>F</b>	<b>Interest on working capital (D*E)</b>	<b>1.39</b>	<b>16.42</b>	<b>16.95</b>

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

66. The transmission charges allowed in respect of the transmission assets for the 2019-24 tariff period is as follows:

**Asset-A**

(₹ in lakh)

Particulars	2019-20 (pro-rata 175 days)	2020-21	2021-22	2022-23	2023-24
<b>Annual Transmission Charges</b>					
Depreciation	29.12	86.78	112.13	120.09	120.09
Interest on Loan	0.59	1.68	2.06	2.07	1.92
Return on Equity	30.66	90.74	117.69	126.19	126.19
O & M Expenses	111.72	242.08	250.57	259.62	268.25
Interest on Working Capital	5.78	12.37	12.55	13.11	13.41
<b>Total</b>	<b>177.87</b>	<b>433.65</b>	<b>494.99</b>	<b>521.08</b>	<b>529.87</b>

**Asset-B**

(₹ in lakh)

Particulars	2019-20 (pro-rata 161 days)	2020-21	2021-22	2022-23	2023-24
<b>Annual Transmission Charges</b>					
Depreciation	27.04	87.56	113.15	121.21	121.21



Particulars	2019-20 (pro-rata 161 days)	2020-21	2021-22	2022-23	2023-24
Interest on Loan	0.42	1.29	1.57	1.56	1.42
Return on Equity	28.47	91.56	118.78	127.38	127.38
O & M Expenses	102.78	242.08	250.57	259.62	268.25
Interest on Working Capital	5.32	12.39	12.57	13.13	13.44
<b>Total</b>	<b>164.03</b>	<b>434.87</b>	<b>496.65</b>	<b>522.89</b>	<b>531.69</b>

#### Asset-C

(₹ in lakh)

Particulars	2020-21 (pro-rata 196 days)	2021-22	2022-23	2023-24
<b>Annual Transmission Charges</b>				
Depreciation	66.52	140.89	144.02	144.02
Interest on Loan	25.58	51.40	49.85	48.09
Return on Equity	70.98	150.35	153.69	153.69
O & M Expenses	129.99	250.57	259.62	268.25
Interest on Working Capital	7.58	14.00	14.41	14.69
<b>Total</b>	<b>300.66</b>	<b>607.21</b>	<b>621.58</b>	<b>628.74</b>

#### Asset-D

(₹ in lakh)

Particulars	2021-22 (pro-rata 334 days)	2022-23	2023-24
<b>Annual Transmission Charges</b>			
Depreciation	539.77	621.54	623.87
Interest on Loan	100.98	113.23	112.59
Return on Equity	572.10	660.07	662.54
O & M Expenses	1008.02	1141.31	1180.69
Interest on Working Capital	54.15	61.59	63.04
<b>Total</b>	<b>2275.01</b>	<b>2597.74</b>	<b>2642.74</b>

#### Asset-E

(₹ in lakh)

Particulars	2021-22 (pro-rata 332 days)	2022-23	2023-24
<b>Annual Transmission Charges</b>			
Depreciation	196.86	224.39	224.99
Interest on Loan	30.47	33.48	33.34
Return on Equity	207.47	236.48	237.12



Particulars	2021-22 (pro-rata 332 days)	2022-23	2023-24
O & M Expenses	218.52	248.92	257.18
Interest on Working Capital	13.99	15.93	16.23
<b>Total</b>	<b>667.31</b>	<b>759.20</b>	<b>768.86</b>

#### Asset-F

(₹ in lakh)

Particulars	2021-22 (pro-rata 331 days)	2022-23	2023-24
<b>Annual Transmission Charges</b>			
Depreciation	532.12	615.43	617.87
Interest on Loan	85.57	95.79	95.59
Return on Equity	562.64	650.77	653.37
O & M Expenses	998.97	1141.31	1180.69
Interest on Working Capital	53.38	61.16	62.62
<b>Total</b>	<b>2232.68</b>	<b>2564.46</b>	<b>2610.14</b>

#### Asset-G

(₹ in lakh)

Particulars	2021-22 (pro-rata 32 days)	2022-23	2023-24
<b>Annual Transmission Charges</b>			
Depreciation	18.12	216.07	225.66
Interest on Loan	9.55	111.06	110.79
Return on Equity	19.00	226.69	236.94
O & M Expenses	20.43	241.43	249.43
Interest on Working Capital	1.39	16.42	16.95
<b>Total</b>	<b>68.48</b>	<b>811.67</b>	<b>839.77</b>

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

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

68. 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.



### **Licence Fee & RLDC Fees and Charges**

69. The Petitioner has sought reimbursement of licensee fee in accordance with Regulation 70(4) of the 2019 Tariff Regulations for 2019-24 tariff period. 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**

70. 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.

71. 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**

72. The Petitioner has submitted that security expenses for the transmission asset are not claimed in the instant petition and it would file a separate petition for claiming the overall security expenses and consequential IWC.

73. 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 said petition has already been disposed of by the Commission vide order dated 3.8.2021. Therefore, 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**

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

**Sharing of Transmission Charges**

75. With effect from 1.7.2011, sharing of transmission charges for inter-State transmission systems is governed by the 2010 Sharing Regulations. With effect from 1.11.2020, sharing of transmission charges is governed by 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 Sharing Regulations as provided in Regulation 57 of the 2019 Tariff Regulations.

76. To summarise, the AFC allowed for the transmission assets for the 2019-24 tariff period is as follows:

**Asset-A**

(₹ in lakh)					
Particulars	2019-20 (pro-rata 175 days)	2020-21	2021-22	2022-23	2023-24
AFC	177.87	433.65	494.99	521.08	529.87



**Asset-B**

(₹ in lakh)

Particulars	2019-20 (pro-rata 161 days)	2020-21	2021-22	2022-23	2023-24
AFC	164.03	434.87	496.65	522.89	531.69

**Asset-C**

(₹ in lakh)

Particulars	2020-21 (pro-rata 196 days)	2021-22	2022-23	2023-24
AFC	300.66	607.21	621.58	628.74

**Asset-D**

(₹ in lakh)

Particulars	2021-22 (pro-rata 334 days)	2022-23	2023-24
AFC	2275.01	2597.74	2642.74

**Asset-E**

(₹ in lakh)

Particulars	2021-22 (pro-rata 332 days)	2022-23	2023-24
AFC	667.31	759.20	768.86

**Asset-F**

(₹ in lakh)

Particulars	2021-22 (pro-rata 331 days)	2022-23	2023-24
AFC	2232.68	2564.46	2610.14

**Asset-G**

(₹ in lakh)

Particulars	2021-22 (pro-rata 32 days)	2022-23	2023-24
AFC	68.48	811.67	839.77



77. The annexures given hereinafter form part of this order.

78. This order disposes of Petition No. 110/TT/2022 in terms of the above findings and discussions.

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

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



## Asset-A

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	Total			2019-20	2020-21	2021-22	2022-23	2023-24
Sub Station	992.95	272.76	653.16	301.73	1227.65	2220.60	5.28%	59.63	84.07	109.28	117.25	117.25
IT Equipment (Incl. Software)	-	17.12	1.86	-	18.98	18.98	15.00%	1.28	2.71	2.85	2.85	2.85
<b>Total</b>	<b>992.95</b>	<b>289.88</b>	<b>655.02</b>	<b>301.73</b>	<b>1246.63</b>	<b>2239.58</b>		<b>60.91</b>	<b>86.78</b>	<b>112.13</b>	<b>120.09</b>	<b>120.09</b>
							<b>Average Gross Block (₹ in lakh)</b>	<b>1137.89</b>	<b>1610.34</b>	<b>2088.72</b>	<b>2239.58</b>	<b>2239.58</b>
							<b>Weighted Average Rate of Depreciation</b>	<b>5.35%</b>	<b>5.39%</b>	<b>5.37%</b>	<b>5.36%</b>	<b>5.36%</b>





**ANNEXURE-II****Asset-B**

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	Total			2019-20	2020-21	2021-22	2022-23	2023-24
Sub Station	1002.46	274.89	659.24	305.06	1239.19	2241.65	5.28%	60.19	84.85	110.31	118.36	118.36
IT Equipment (Incl. Software)	-	17.12	1.86	-	18.98	18.98	15.00%	1.28	2.71	2.85	2.85	2.85
<b>Total</b>	<b>1002.46</b>	<b>292.01</b>	<b>661.10</b>	<b>305.06</b>	<b>1258.17</b>	<b>2260.63</b>		<b>61.47</b>	<b>87.56</b>	<b>113.15</b>	<b>121.21</b>	<b>121.21</b>
							<b>Average Gross Block (₹ in lakh)</b>	<b>1148.47</b>	<b>1625.02</b>	<b>2108.10</b>	<b>2260.63</b>	<b>2260.63</b>
							<b>Weighted Average Rate of Depreciation</b>	<b>5.35%</b>	<b>5.39%</b>	<b>5.37%</b>	<b>5.36%</b>	<b>5.36%</b>



## Asset-C

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)			
		2020-21	2021-22	Total			2020-21	2021-22	2022-23	2023-24
Sub Station	2083.00	526.00	118.65	644.65	2727.65	5.28%	123.87	140.89	144.02	144.02
<b>Total</b>	<b>2083.00</b>	<b>526.00</b>	<b>118.65</b>	<b>644.65</b>	<b>2727.65</b>		<b>123.87</b>	<b>140.89</b>	<b>144.02</b>	<b>144.02</b>
<b>Average Gross Block (₹ in lakh)</b>							<b>2346.00</b>	<b>2668.33</b>	<b>2727.65</b>	<b>2727.65</b>
<b>Weighted Average Rate of Depreciation</b>							<b>5.28%</b>	<b>5.28%</b>	<b>5.28%</b>	<b>5.28%</b>



**ANNEXURE-IV****Asset-D**

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)		
		2021-22	2022-23	Total			2021-22	2022-23	2023-24
Building Civil Works & Colony	7.12	126.53	-	126.53	133.65	3.34%	2.35	4.46	4.46
Sub Station	10460.70	1018.47	87.91	1106.38	11567.09	5.28%	579.21	608.42	610.74
IT Equipment (Incl. Software)	52.93	4.79	-	4.79	57.73	15.00%	8.30	8.66	8.66
<b>Total</b>	<b>10520.76</b>	<b>1149.79</b>	<b>87.91</b>	<b>1237.70</b>	<b>11758.47</b>		<b>589.86</b>	<b>621.54</b>	<b>623.87</b>
<b>Average Gross Block (₹ in lakh)</b>							<b>11095.66</b>	<b>11714.51</b>	<b>11758.47</b>
<b>Weighted Average Rate of Depreciation</b>							<b>5.32%</b>	<b>5.31%</b>	<b>5.31%</b>



**ANNEXURE-V****Asset-E**

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)			
		2021-22	2022-23	Total			2021-22	2022-23	2023-24	
Sub Station	3884.45	272.26	22.88	295.14	4179.59	5.28%	212.29	220.08	220.68	
IT Equipment (Incl. Software)	26.42	2.32	-	2.32	28.74	15.00%	4.14	4.31	4.31	
<b>Total</b>	<b>3910.87</b>	<b>274.58</b>	<b>22.88</b>	<b>297.46</b>	<b>4208.33</b>		<b>216.42</b>	<b>224.39</b>	<b>224.99</b>	
							<b>Average Gross Block (₹ in lakh)</b>	<b>4048.16</b>	<b>4196.89</b>	<b>4208.33</b>
							<b>Weighted Average Rate of Depreciation</b>	<b>5.35%</b>	<b>5.35%</b>	<b>5.35%</b>



**ANNEXURE-VI****Asset-F**

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)			
		2021-22	2022-23	Total			2021-22	2022-23	2023-24	
Sub Station	10465.94	979.62	92.25	1071.87	11537.81	5.28%	578.46	606.76	609.20	
IT Equipment (Incl. Software)	53.12	4.70	-	4.70	57.82	15.00%	8.32	8.67	8.67	
<b>Total</b>	<b>10519.06</b>	<b>984.31</b>	<b>92.25</b>	<b>1076.56</b>	<b>11595.63</b>		<b>586.78</b>	<b>615.43</b>	<b>617.87</b>	
							<b>Average Gross Block (₹ in lakh)</b>	<b>11011.22</b>	<b>11549.50</b>	<b>11595.63</b>
							<b>Weighted Average Rate of Depreciation</b>	<b>5.33%</b>	<b>5.33%</b>	<b>5.33%</b>



**ANNEXURE-VII****Asset-G**

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)			
		2021-22	2022-23	2023-24	Total			2021-22	2022-23	2023-24	
Building Civil Works & Colony	22.38	-	20.99	0.12	21.11	43.49	3.34%	0.75	1.10	1.45	
Sub Station	3779.86	2.62	327.37	11.25	341.24	4121.10	5.28%	199.65	208.36	217.30	
IT Equipment (Incl. Software)	42.14	-	3.88	0.18	4.06	46.20	15.00%	6.32	6.61	6.92	
<b>Total</b>	<b>3844.39</b>	<b>2.62</b>	<b>352.24</b>	<b>11.55</b>	<b>366.41</b>	<b>4210.80</b>		<b>206.71</b>	<b>216.07</b>	<b>225.66</b>	
								<b>Average Gross Block (₹ in lakh)</b>	<b>3845.70</b>	<b>4023.13</b>	<b>4205.02</b>
								<b>Weighted Average Rate of Depreciation</b>	<b>5.38%</b>	<b>5.37%</b>	<b>5.37%</b>

