

# CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

**Petition No. 328/TT/2020**

**Coram:**

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

**Date of Order: 26.11.2021**

**In the matter of:**

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999, truing up of transmission tariff of 2014-19 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff for 2019-24 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for assets covered under “Common Transmission Scheme associated with ISGS in Nagapattinam/Cuddalore area of Tamil Nadu Part A1(a)” in the 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. Karnataka Power Transmission Corporation Limited,  
Kaveri Bhavan,  
Bangalore – 560 009.
2. Transmission Corporation of Andhra Pradesh Limited,  
Vidyut Soudha,  
Hyderabad – 500 082.
3. Kerala State Electricity Board,  
Vaidyuthi Bhavanam, Pattom,  
Thiruvananthapuram – 695 004.



4. Tamil Nadu Generation and Distribution Corporation Limited,  
(Formerly Tamilnadu Electricity Board -TNEB),  
NPKRR Maaligai, 800, Anna Salai,  
Chennai – 600 002.
5. Electricity Department,  
Government of Pondicherry,  
Pondicherry – 605 001.
6. Eastern Power Distribution Company of Andhra Pradesh Limited,  
APEPDL P&T Colony, Seethmmadhara,  
Vishakhapatnam, Andhra Pradesh.
7. Southern Power Distribution Company of Andhra Pradesh Limited,  
Srinivasasa Kalyana Mandapam Backside,  
Tiruchanoor Road, Kesavayana Gunta, Tirupati – 517 501,  
Chittoor District, Andhra Pradesh.
8. Southern Power Distribution Company of Telangana Limited,  
Corporate Office, Mint Compound,  
Hyderabad – 500 063, Telangana.
9. Northern Power Distribution Company of Andhra Pradesh Limited,  
Opp. NIT Petrol Pump, Chaitanyapuri, Kazipet,  
Warangal – 506 004, Telangana.
10. Bangalore Electricity Supply Company Limited,  
Corporate Office, K.R.Circle,  
Bangalore – 560 001, Karnataka.
11. Gulbarga Electricity Supply Company Limited,  
Station Main Road, Gulbarga,  
Karnataka.
12. Hubli Electricity Supply Company Limited,  
Navanagar, PB Road, Hubli,  
Karnataka.
13. MESCOM Corporate Office,  
Paradigm Plaza, AB Shetty Circle,  
Mangalore – 575 001, Karnataka.
14. Chamundeswari Electricity Supply Corporation Limited,  
927, L J Avenue, Ground Floor,  
New Kantharaj Urs Road, Saraswatipuram,  
Mysore – 570 009, Karnataka.



15. Electricity Department,  
Government of Goa,  
Vidyuti Bhawan, Panaji,  
Goa – 403 001.

16. Transmission Corporation of Telangana Limited,  
Vidhyut Sudha, Khairatabad,  
Hyderabad – 500 082.

17. Tamil Nadu Transmission Corporation,  
NPKRR Maaligai, 800, Anna Salai,  
Chennai – 600 002.

...Respondent(s)

**For Petitioner:** Shri S.S. Raju, PGCIL  
Shri Ved Prakssh Rastogi, PGCIL  
Shri A.K. Verma, PGCIL  
Shri D.K. Biswal, PGCIL

**For Respondent:** Shri B. Vinodh Kanna, Advocate, TANGEDCO  
Ms. R. Ramalakshmi, TANGEDCO  
Dr. R. Kathiravan, TANGEDCO

### **ORDER**

The instant petition has been filed by Power Grid Corporation of India Limited, a deemed transmission licensee, for truing up of the tariff for the period from the date of commercial operation (COD) to 31.3.2019 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) and determination of tariff for the period from 1.4.2019 to 31.3.2024 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) in respect of the following assets under “Common Transmission Scheme associated with ISGS in Nagapattinam/ Cuddalore area of Tamil Nadu Part A1(a)” in the Southern Region (hereinafter referred to as “the transmission project”):



**Asset-1:** LILO of one circuit of Neyveli-Trichy line at Nagapattinam PS for initial arrangement which shall later be by-passed;

**Asset-2:** 400 kV Nagapattinam GIS (400 kV GIS bay at Nagapattinam for Neyveli line);

**Asset-3:** 400 kV SF6 Gas Insulated ICT feeder bay module along with 400 kV GIS auxiliary bus module provision for spare transformer at 400 kV Nagapattinam GIS;

**Asset-4:** 400 kV gas insulator line reactor bay module set at 400 kV Nagapattinam GIS;

**Asset-5:** 400 kV GIS bay at Nagapattinam for Trichy line; and

**Asset-6:** 1X125 MVAR Bus reactor at 400 kV Nagapattinam GIS alongwith associated bays and equipment (hereinafter collectively referred to as "the transmission assets/Combined Asset").

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

*"1) Approve the trued up Transmission Tariff for 2014-19 block and transmission tariff for 2019-24 block for the assets covered under this petition, as per para 10.0 and 11.0 above.*

*2) Approve the Completion cost and additional capitalization incurred during 2014-19, also allow the projected additional capitalization during 2019-24.*

*3) Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided in Tariff Regulation 2014 and Tariff regulations 2019 as per para 10.2 and 11.0 above for respective block.*

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

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

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

*7) Allow the petitioner to file a separate petition before Hon'ble Commission for claiming the overall security expenses and consequential IOWC on that security expenses as mentioned at para 11.6 above.*

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

*9) Allow the Petitioner to bill and recover GST on Transmission Charges separately from the beneficiaries, if GST on transmission is levied at any rate in future. Further,*



*any taxes including GST and duties including cess etc. imposed by any statutory/Govt./municipal authorities shall be allowed to be recovered from the beneficiaries.*

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

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

a) The Investment Approval (IA) for the transmission project was accorded on 3.1.2013 by the Board of Directors of the Petitioner's Company vide Memorandum No. C/CP/NAGAPATTINAM-PART-A1 (a) dated 28.1.2013 at an estimated cost of ₹18280 lakh including IDC of ₹1026 lakh (based on October 2012 price level). The Revised Cost Estimate (RCE) for the transmission project was approved by the Board of Directors of the Petitioner Company vide Memorandum Ref. No. C/CP/PA1617-09-00-RCE003 dated 21.9.2016 at revised estimated cost of ₹16993 lakh including IDC of ₹647 lakh (based on February 2016 price level).

b) The transmission project was scheduled to be commissioned within 21 months from the date of IA i.e. the scheduled date of commercial operation (SCOD) of the transmission project was 2.10.2014.

c) The scope of the transmission project was discussed and agreed to in the 31<sup>st</sup> meeting of Standing Committee on Power System Planning of Southern Region held on 16.11.2010 at New Delhi. The scope of the work as per I.A is as follows:

**Transmission Lines**

i) LILO of Neyvelli-Trichy 400 kV S/C line at Nagapattinam Pooling station for initial arrangement which later shall be by-passed;

**Sub-stations**

ii) New 400 kV GIS Pooling station at Nagapattinam with sectionalisation arrangement to control short circuit MVA (provision of establishing a 765/400 kV Sub-station in future in the same switchyard);

**Reactive Compensation**

Bus Reactors (400 kV)

iii) 1x125 MVAR Bus Reactor at Nagapattinam Pooling Station.



d) The entire elements of the transmission project have been covered under the instant petition. The details of transmission assets covered in the transmission project are as follows:

Asset	Name of Asset	COD	Petition No.
1	LILO of one circuit of Neyveli-Trichy line at Nagapaatinam PS for initial arrangement which shall later be by-passed.	3.5.2014	36/TT/2014
2*	400 kV Nagapattinam GIS (400 kV GIS bay at Nagapattinam for Neyveli line).	1.4.2015	416/TT/2014
3*	400 kV SF6 Gas Insulated ICT feeder bay module along with 400 kV GIS auxiliary bus module provision for spare transformer at 400 kV Nagapattinam GIS.	1.4.2015	416/TT/2014
4*	400 kV Gas Insulator line reactor bay module set at 400 kV Nagapattinam GIS.	1.4.2015	416/TT/2014
5*	400 kV GIS bay at Nagapattinam for Trichy line.	28.6.2015	416/TT/2014
6	1X125 MVAR Bus reactor at 400 kv Nagapattinam GIS alongwith associated bays and equipment.	1.8.2016	222/TT/2016

\*A single element 400 kV GIS Pooling Station at Nagapattinam along with 125 MVAR Bus Reactor was filed in Petition No. 416/TT/2014. However, 125 MVAR Bus Reactor was commissioned later, therefore, it was filed in a separate petition in Petition No. 222/TT/2016. Further, the Commission vide order dated 22.8.2016 in Petition No. 416/TT/2014 segregated 400 kV GIS Pooling Station at Nagapattinam into 2 assets viz Asset-I for Neyveli Bay at Nagapattinam (COD: 1.4.2015) and Asset-II: Trichy Bay at Nagapattinam (COD: 28.6.2015). In the instant petition, Asset-I of Petition No. 416/TT/2014 (i.e. Neyveli Bay at Nagapattinam) is further split into 3 elements i.e. instant Asset-2, Asset-3 and Asset-4.

e) The transmission tariff were allowed in respect of the transmission assets for 2014-19 tariff period vide order dated 31.5.2016 in Petition No. 36/TT/2014 for Asset-1, vide order dated 22.8.2016 in Petition No. 416/TT/2014 for Asset-2, Asset-3, Asset-4 and Asset-5 and vide order dated 14.5.2018 in Petition No. 222/TT/2016 for Asset-6. The Petitioner has claimed the following trued-up transmission tariff in respect of the transmission assets:

Particulars	(₹ in lakh)				
	2014-15 (Pro-rata 333 days)	2015-16	2016-17	2017-18	2018-19
<b>Asset-1</b>					
Annual Fixed Charges (AFC) approved vide order dated 31.5.2016 in Petition No. 36/TT/2014.	491.48	569.25	553.55	537.81	522.17
AFC claimed by the Petitioner based on truing up in the instant petition	500.42	626.59	640.96	621.37	604.17



(₹ in lakh)

Particulars	2015-16	2016-17	2017-18	2018-19
<b>Asset-2</b>				
AFC approved <i>vide</i> order dated 22.8.2016 in Petition No. 416/TT/2014.	518.53	611.56	618.09	605.58
AFC claimed by the Petitioner based on truing up in the instant petition.	1034.94	1183.21	1189.73	1166.13
<b>Asset-3</b>				
AFC approved <i>vide</i> order dated 22.8.2016 in Petition No. 416/TT/2014.	0.00	0.00	0.00	0.00
AFC claimed by the Petitioner based on truing up in the instant petition.	155.49	171.14	165.94	161.19
<b>Asset-4</b>				
AFC approved <i>vide</i> order dated 22.8.2016 in Petition No. 416/TT/2014.	0.00	0.00	0.00	0.00
AFC claimed by the Petitioner based on truing up in the instant petition.	31.09	34.49	33.44	32.48

(₹ in lakh)

Particulars	2015-16 (Pro-rata 278 days)	2016-17	2017-18	2018-19
<b>Asset-5</b>				
AFC approved <i>vide</i> order dated 22.8.2016 in Petition No. 416/TT/2014.	396.46	615.05	621.55	609.03
AFC claimed by the Petitioner based on truing up in the instant petition.	189.37	271.54	267.02	263.10

(₹ in lakh)

Particulars	2016-17 (Pro-rata 243 days)	2017-18	2018-19
<b>Asset-6</b>			
AFC approved <i>vide</i> order dated 14.5.2018 in Petition No. 222/TT/2016.	310.20	568.90	598.59
AFC claimed by the Petitioner based on truing up in the instant petition.	288.25	526.84	605.41

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



5. The Petitioner has served the petition on the Respondents and notice of this petition has been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003. No comments or suggestions have been received from the general public in response to the aforesaid notices published in the newspapers by the Petitioner. Reply to the petition has been filed by Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO) *vide* affidavit dated 7.7.2021. The issues raised by TANGEDCO are with regard to disallowance of capital cost of Asset-3 and Asset-4, non-deduction of Liquidated Damages (LD) recovered for Asset-6, Additional Capital Expenditure (ACE) claimed by the Petitioner and disallowance of IEDC of Asset-6. The Petitioner has filed its rejoinder affidavit dated 14.7.2021 to the reply filed by TANGEDCO. The issues raised by TANGEDCO and the clarifications given by the Petitioner are dealt in the relevant portions of this order.

6. The hearing in this matter was held on 22.6.2021 through video conference and order was reserved.

7. This order is issued considering submissions made by the Petitioner in the petition *vide* affidavit dated 23.1.2020, the Petitioner's affidavit dated 27.11.2020, TANGEDCO's reply filed *vide* affidavit dated 7.7.2021 and the Petitioner's rejoinder affidavit dated 14.7.2021 to the reply filed by TANGEDCO.

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





**Truing Up of Annual Fixed Charges of the 2014-19 Tariff Period**

9. The details of the transmission charges claimed by the Petitioner in respect of the transmission assets are as follows:

(₹ in lakh)

Particulars	2014-15 (Pro-rata 333 days)	2015-16	2016-17	2017-18	2018-19
<b>Asset-1</b>					
Depreciation	143.77	185.17	194.86	194.86	194.86
Interest on Loan	169.78	202.56	195.60	175.86	157.84
Return on Equity	160.31	207.42	218.16	218.16	218.75
Interest on Working Capital	11.72	14.63	14.97	14.55	14.18
O&M Expenses	14.84	16.81	17.37	17.94	18.54
<b>Total</b>	<b>500.42</b>	<b>626.59</b>	<b>640.96</b>	<b>621.37</b>	<b>604.17</b>

(₹ in lakh)

Particulars	2015-16	2016-17	2017-18	2018-19
<b>Asset-2</b>				
Depreciation	268.39	314.39	321.79	322.79
Interest on Loan	353.07	387.40	369.95	341.70
Return on Equity	335.27	398.04	412.59	414.82
Interest on Working Capital	24.96	28.36	28.56	28.09
O&M Expenses	53.25	55.02	56.84	58.73
<b>Total</b>	<b>1034.94</b>	<b>1183.21</b>	<b>1189.73</b>	<b>1166.13</b>
<b>Asset-3</b>				
Depreciation	46.10	52.25	52.25	52.25
Interest on Loan	54.25	56.54	51.46	46.65
Return on Equity	51.64	58.50	58.50	58.66
Interest on Working Capital	3.50	3.85	3.73	3.63
O&M Expenses	-	-	-	-
<b>Total</b>	<b>155.49</b>	<b>171.14</b>	<b>165.94</b>	<b>161.19</b>
<b>Asset-4</b>				
Depreciation	9.22	10.53	10.53	10.53
Interest on Loan	10.84	11.39	10.37	9.40
Return on Equity	10.33	11.79	11.79	11.82
Interest on Working Capital	0.70	0.78	0.75	0.73
O&M Expenses	-	-	-	-
<b>Total</b>	<b>31.09</b>	<b>34.49</b>	<b>33.44</b>	<b>32.48</b>



(₹ in lakh)

Particulars	2015-16 (Pro-rata 278 days)	2016-17	2017-18	2018-19
<b>Asset-5</b>				
Depreciation	43.36	64.80	64.80	64.80
Interest on Loan	51.45	71.33	65.03	59.06
Return on Equity	48.57	72.55	72.55	72.74
Interest on Working Capital	5.54	7.84	7.80	7.77
O&M Expenses	40.45	55.02	56.84	58.73
<b>Total</b>	<b>189.37</b>	<b>271.54</b>	<b>267.02</b>	<b>263.10</b>

(₹ in lakh)

Particulars	2016-17 (Pro-rata 243 days)	2017-18	2018-19
<b>Asset-6</b>			
Depreciation	75.84	145.52	173.49
Interest on Loan	82.90	147.52	162.66
Return on Equity	85.64	164.02	195.86
Interest on Working Capital	7.24	12.94	14.67
O&M Expenses	36.63	56.84	58.73
<b>Total</b>	<b>288.25</b>	<b>526.84</b>	<b>605.41</b>

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

(₹ in lakh)

Particulars	2014-15 (Pro-rata 333 days)	2015-16	2016-17	2017-18	2018-19
<b>Asset-1</b>					
O&M Expenses	1.36	1.40	1.45	1.50	1.55
Maintenance Spares	2.44	2.52	2.61	2.69	2.78
Receivables	91.42	104.43	106.83	103.56	100.69
Total Working Capital	95.22	108.35	110.89	107.75	105.02
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
<b>Interest on Working Capital</b>	<b>11.72</b>	<b>14.63</b>	<b>14.97</b>	<b>14.55</b>	<b>14.18</b>



(₹ in lakh)				
Particulars	2015-16	2016-17	2017-18	2018-19
<b>Asset-2</b>				
O&M Expenses	4.44	4.59	4.74	4.89
Maintenance Spares	7.99	8.25	8.53	8.81
Receivables	172.49	197.20	198.29	194.36
Total Working Capital	184.92	210.04	211.56	208.06
Rate of Interest (in %)	13.50	13.50	13.50	13.50
<b>Interest on Working Capital</b>	<b>24.96</b>	<b>28.36</b>	<b>28.56</b>	<b>28.09</b>
<b>Asset-3</b>				
O&M Expenses	0.00	0.00	0.00	0.00
Maintenance Spares	0.00	0.00	0.00	0.00
Receivables	25.92	28.52	27.66	26.87
Total Working Capital	25.92	28.52	27.66	26.87
Rate of Interest (in %)	13.50	13.50	13.50	13.50
<b>Interest on Working Capital</b>	<b>3.50</b>	<b>3.85</b>	<b>3.73</b>	<b>3.63</b>
<b>Asset-4</b>				
O&M Expenses	0.00	0.00	0.00	0.00
Maintenance Spares	0.00	0.00	0.00	0.00
Receivables	5.18	5.75	5.57	5.41
Total Working Capital	5.18	5.75	5.57	5.41
Rate of Interest (in %)	13.50	13.50	13.50	13.50
<b>Interest on Working Capital</b>	<b>0.70</b>	<b>0.78</b>	<b>0.75</b>	<b>0.73</b>

(₹ in lakh)				
Particulars	2015-16 (Pro-rata 278 days)	2016-17	2017-18	2018-19
<b>Asset-5</b>				
O&M Expenses	4.44	4.59	4.74	4.89
Maintenance Spares	7.99	8.25	8.53	8.81
Receivables	41.55	45.26	44.50	43.85
Total Working Capital	53.98	58.10	57.77	57.55
Rate of Interest (in %)	13.50	13.50	13.50	13.50
<b>Interest on Working Capital</b>	<b>5.54</b>	<b>7.84</b>	<b>7.80</b>	<b>7.77</b>

(₹ in lakh)			
Particulars	2016-17 (Pro-rata 243 days)	2017-18	2018-19
<b>Asset-6</b>			
O&M Expenses	4.59	4.74	4.89
Maintenance Spares	8.25	8.53	8.81
Receivables	72.16	87.81	100.90
Total Working Capital	85.00	101.08	114.60
Rate of Interest (in %)	12.80	12.80	12.80
<b>Interest on Working Capital</b>	<b>7.24</b>	<b>12.94</b>	<b>14.67</b>



## Capital Cost

11. The capital cost of the transmission assets has been calculated in accordance with the Regulation 9(3) of the 2014 Tariff Regulations.

12. The Petitioner has submitted that the Commission vide order dated 31.5.2016 in Petition No. 36/TT/2014, vide order dated 22.8.2016 in Petition No. 416/TT/2014, vide order dated 18.7.2017 in Review Petition No. 1/RP/2017 in Petition No. 416/TT/2014, vide order dated 14.5.2018 in Petition No. 222/TT/2016 and vide order dated 12.2.2019 in Review Petition No. 26/RP/2018 in Petition No. 222/TT/2016 admitted capital cost as on COD and projected ACE during 2014-19 in respect of the transmission assets and the same are as follows:

Assets	Apportioned approved cost as per FR	Apportioned approved cost as per RCE	Expenditure up to COD (As claimed)	Capital cost allowed as on COD	Add Cap 2014-2019 (as admitted by CERC)					Estimated Completion Cost (as allowed)					
					14-15	15-16	16-17	17-18	18-19						
<b>Commission's order dated 31. 5.2016 in Petition No. 36/TT/2014</b>															
Asset-1	3198.00	3918.98	2707.33	2640.21*	490.67**	0.00	0.00	0.00	0	3130.88					
<b>Commission's order dated 22. 8.2016 and 8. 8.2017 in Petition No. 416/TT/2014</b>															
Asset-2	11592.55	7073.26	6893.87	2808.87 ***	0	976.83	219.82	0.00	0.00	4005.52					
Asset-3		990.00			0										
Asset-4		201.11			0										
Asset-5		1228.00			0.00						976.83	219.82	0.00	0.00	4009.98
<b>Commission's order dated 14. 5.2018 in Petition No. 222/TT/2016</b>															
Asset-6	3489.45	3581.65	2260.60	1959.68 *****	0.00	0.00	797.50	479.83	0.00	3237.01					
<b>TOTAL</b>	<b>18280.00</b>	<b>16993.00</b>	<b>9601.20</b>	<b>7103.15</b>	<b>490.67</b>	<b>1953.66</b>	<b>439.64</b>	<b>0.00</b>	<b>0.00</b>	<b>9987.12</b>					

\* Cost allowed after deduction of IDC of ₹67.12 lakh on account of proposed loan deployed in cash IDC statement.

\*\* Add cap expenditure restricted on account of cost restriction up to FR cost.

\*\*\* Cost allowed after deduction of un-discharged IDC of ₹ 85.54 lakh and Equipment cost disallowed amounting to ₹ 552.53 lakh vide order dated 8. 8.2017.

\*\*\*\* Cost allowed after deduction of un-discharged IDC of ₹ 81.08 lakh and Equipment cost disallowed amounting to ₹552.53 lakh vide order dated 8.8.2017.

\*\*\*\*\*Cost allowed after deduction of IDC of ₹115.72 lakh on account of delay and deduction of IEDC of ₹ 185.19 lakh on account of delay and restricting it to the limit of 10.75% of hard cost.



13. The Commission vide order dated 22.8.2016 in Petition No. 416/TT/2014 had disallowed the cost of future bays and equipment and granted liberty to Petitioner to approach the Commission along with the details of cost pertaining to disallowed elements separately at the time of trueing up.

14. The Petitioner filed Review Petition No. 1/RP/2017 in Petition No. 416/TT/2014 and the Commission vide its order dated 18.7.2017 dismissed the said Review Petition.

15. The Commission vide Corrigendum order dated 8.8.2017 in Petition No. 416/TT/2014 revised the disallowed cost on account of inadvertent error in the cost calculation. In terms of the direction given vide order dated 22.8.2016 in Petition No. 416/TT/2014 (paragraph 28), the Petitioner has furnished the details of each asset separately considering the cash and accrued IDC of the individual assets as follows:

Sl. No.	Particulars	COD	Petition No.
1	400 kV Nagapattinam GIS (400 kV GIS bay at Nagapattinam for Neyveli line)	1.4.2015	416/TT/2014
2	400 kV SF6 Gas Insulated ICT feeder bay module along with 400 kV GIS auxiliary bus module provision for spare transformer at 400 kV Nagapattinam GIS.	1.4.2015	416/TT/2014
3	400 kV Gas Insulator Line Reactor bay module set at 400 kV Nagapattinam GIS	1.4.2015	416/TT/2014
4	400 kV GIS bay at Nagapattinam for Trichy Line.	28.6.2015	416/TT/2014

16. The Petitioner in the instant true up petition, as per the Auditor's Certificate dated 5.11.2019, has claimed details of capital cost up to COD along with actual Additional Capital Expenditure (ACE) for 2014-19 period in respect of different assets covered in this petition and the same are as follows:



(₹ in lakh)

Asset Details	Apportioned approved cost as per FR	Apportioned approved cost as per RCE	Expenditure up to COD	Additional Capitalization 2014-2019					Cost as on 31.3.2019
				(As per Auditor's Certificate)					
				14-15	15-16	16-17	17-18	18-19	
Asset-1	3198.00	3918.98	2707.33	623.67	359.53	0.00	0.00	0.00	3690.53
Asset-2	11592.55	7073.26	5003.80	0.00	1502.63	453.98	50.00	0.00	7010.41
Asset-3		990	783.55	0.00	206.08	0.00	0.00	0.00	989.63
Asset-4		201.11	155.2	0.00	44.28	0.00	0.00	0.00	199.48
Asset-5		1228	967.88	0.00	259.31	0.00	0.00	0.00	1227.19
Asset-6		3489.45	3581.65	2260.6	0.00	0.00	258.75	938.51	120.89
<b>TOTAL</b>	<b>18280.00</b>	<b>16993</b>	<b>9617.76</b>	<b>623.67</b>	<b>2371.83</b>	<b>453.98</b>	<b>50.00</b>	<b>120.89</b>	<b>16695.99</b>

17. TANGEDCO has submitted that the Commission *vide* order dated 22.8.2016 in Petition No. 416/TT/2014 had restricted the capital cost of elements which were not commissioned and put under use i.e. the modules such as ICT feeder bay module, SF6 Gas Insulated Reactor, Spare Transformer. The Commission in the said order had also restricted additional RoE considering proviso (vi) of Regulation 24(2) of the 2014 Tariff Regulations stating that additional RoE shall not be admissible for transmission line having length of less than 50 km. Subsequently, the Commission *vide* order dated 18.7.2017 in Review Petition No. 1/RP/2017 declined the prayer of the Petitioner to allow additional RoE and capital cost of three number of modules for future bays. TANGEDCO has submitted that the Petitioner in the instant petition has split the assets which were disallowed by the Commission in the original order and in the Review Petition. Further, the Petitioner has claimed the capital cost of these three assets in the present petition which was disallowed by the Commission *vide* order dated 22.8.2016 in Petition No. 416/TT/2014.

18. TANGEDCO has further submitted that the Commission in the said order dated 22.8.2016 did not grant any liberty to the Petitioner to claim the disallowed cost of the assets and the order of the Commission has attained finality. TANGEDCO has submitted that the Petitioner may be directed to submit explanation for making



illegitimate claims. TANGEDCO has further submitted that cost of the assets claimed under Asset-3 and Asset-4 which was earlier disallowed by the Commission may be disallowed again along with Initial Spares, tax, IEDC and IDC on pro-rata basis.

19. In response to the reply of TANGEDCO, the Petitioner has submitted that although future bays were disallowed by the Commission *vide* order dated 22.8.2016 in Petition No. 416/TT/2014, the matter regarding claim of future bays in case of GIS sub-station was dealt again in Petition No. 157/TT/2017 wherein the Commission considered the facts associated with GIS sub-station and issued order dated 5.7.2018 with respect to future bays in the light of APTEL's judgement dated 18.1.2018 in Appeal No 198 of 2015 and judgment dated 2.7.2012 in Appeal No 123 of 2011. The Petitioner has further submitted that GIS at Nagapattinam is one and half breaker scheme. Unlike in AIS, the GIS modules for the complete diameter have to be installed to comply with one and half breaker scheme for connectivity with both the main buses 1 & 2. Furthermore, in case of GIS, even though the construction is modular, it does not mean that it can be charged module-wise in an installation. It is a known fact that GIS being of compact design, the area requirement of GIS is very less as compared to air insulated switchgears. The compact design has its own unique problems as well. As in the instant case, if only the bus connected with the diameter which is presently utilized for power flow is charged and the remaining part of bus is not going to be charged, necessary end pieces shall be required to insulate it from the other part which is difficult to plan for each instance. Each additional end piece would in turn require additional space which will increase the land requirement adversely impacting the benefits of GIS. In case GIS is planned bay-wise, it would increase the requirement of end piece, extension piece etc. leading to adverse impact of the cost in



addition to the fact that whenever additional bus or bays are to be connected, the required HV Test would need to be done which would un-necessarily expose the existing GIS to harsh HV test. Each GIS equipment can be exposed to HV test for a limited number of times. Thus, it will not be practical to carry out HV test with each increasing number of bays. Repeated opening for extension will increase the vulnerability of GIS for exposure to faults which may be caused due to ingress of dust, moisture etc. In addition, each extension and HV test would require shut-down of the complete station which may not be practical each time. Accordingly, the cost of these bays has been included along with the instant petition (although O&M of these bays have not been claimed in the instant petition). Therefore, the Petitioner has requested to allow the capital cost including IDC and IEDC for Asset-3 and Asset-4 as claimed in the instant petition.

20. We have considered the submissions of the Petitioner and TANGEDCO. The Petitioner in the instant petition has split the assets and has claimed the capital cost for the aforementioned elements as Asset-3 and Asset-4 in the instant petition. The Commission *vide* order dated 22.8.2016 in Petition No. 416/TT/2014 had disallowed the capital cost and associated IDC, IEDC and Initial Spares of the following elements as they were not commissioned or put to use:

- i. 400 kV SF6 gas insulated line reactor bay module
- ii. 400 kV SF6 gas insulated ICT feeder bay module
- iii. 400 kV GIS auxiliary bus module provision for spare transformer

21. Subsequently, the Commission *vide* order dated 18.7.2017 in Review Petition No. 1/RP/2017 in Petition No. 416/TT/2014 upheld the original decision and, therefore, the decision of the Commission has attained finality. Therefore, capital cost, ACE,





IDC, IEDC and Initial Spares claimed for Asset-3 and Asset-4 have not been allowed in the instant petition. Accordingly, the transmission tariff for Asset-3 and Asset-4 is not determined in the subsequent paragraphs of the order.

22. The Commission has determined capital cost as on COD in accordance with Regulation 9(3) of the 2014 Tariff Regulations. The determination of IDC, IEDC and Initial Spares is dealt in the relevant portions of this order. Accordingly, the details of capital cost as on COD now approved are as follows:

(₹ in lakh)

Particulars	Apportioned approved cost as per RCE	Capital Cost allowed as on COD
Asset-1	3918.98	2645.95
Asset-2	7073.26	4830.97
Asset-3	990.00	0.00
Asset-4	201.11	0.00
Asset-5	1228.00	920.04
Asset-6	3581.65	2046.64

**Cost Over-run**

23. The completion cost in respect of Asset-1, Asset-2, Asset-5 and Asset-6 is within the apportioned approved cost as per RCE. Therefore, there is no cost over-run.

**Time Over-run**

24. The transmission project was scheduled to be commissioned (SCOD) within 21 months from the date of IA i.e. 3.1.2013. Therefore, SCOD of the transmission assets was 2.10.2014.

25. Asset-1 was put under commercial operation on 3.5.2014. Therefore, there was no time over-run in commissioning of Asset-1.



26. Asset-2 and Asset-5 were declared under commercial operation on 1.4.2015 and 28.6.2015 respectively. There is delay of 180 days and 268 days in the commissioning of Asset-2 and Asset-5 respectively and the same was condoned by the Commission *vide* order dated 22.8.2016 in Petition No. 416/TT/2014.

27. Asset-6 was put under commercial operation on 1.8.2016. There is delay of 668 days in the commissioning of Asset-6. The Commission *vide* order dated 14.5.2018 in Petition No. 222/TT/2016 condoned delay from SCOD to 28.6.2015 i.e. 268 days, while delay of 400 days was not condoned by the Commission. Accordingly, IDC/ IEDC for the period from 28.6.2015 to 1.8.2016 was not allowed to be capitalised. The disallowance of IDC/ IEDC has been discussed in the relevant portion of this order.

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

28. The Petitioner has claimed IDC in respect of the transmission assets and has submitted the statement showing claim of IDC, discharge of IDC liability as on COD and thereafter as per the directions of the Commission and the same is as follows:

(₹ in lakh)			
Particulars	IDC as per Auditor Certificate	IDC Discharge Claimed up to COD	Un-discharged IDC Claimed up to COD
Asset-1	94.40	33.02	61.38
Asset-2	195.60	22.77	172.83
Asset-3	30.63	3.57	27.06
Asset-4	6.07	0.71	5.36
Asset-5	52.17	4.33	32.86*
Asset-6	122.73 <sup>#</sup>	7.01	0.00

\*The total IDC discharge claimed for Asset-5 does not add up to IDC as per Auditor's Certificate due to an error in computation by the Petitioner.

<sup>#</sup>The Petitioner has deducted ₹115.72 lakh from IDC of Asset-6 as the Commission did not condone time over-run of 400 days *vide* order dated 14.5.2018 in Petition No. 222/TT/2016.



29. The allowable IDC has been worked out considering the information submitted by the Petitioner. The loan details submitted in Form-9C for 2014-19 period and date of drawl submitted in IDC statement has been considered for the purpose of calculating IDC in respect of the transmission assets. IDC has been proportionately disallowed for Asset-6 due to time over-run. Further, as discussed above, the capital cost, ACE, IDC, IEDC and Initial Spares claimed for Asset-3 and Asset-4 have been disallowed in the instant petition. Accordingly, IDC allowed is as follows:

(₹ in lakh)

Particulars	IDC as per Auditor's Certificate	IDC up to COD as worked out	IDC disallowed due to computational difference	Un-discharged portion of IDC as on COD*	IDC allowed up to COD on cash basis
Asset-1	94.40	86.83	7.57	53.81	33.02
Asset-2	195.60	189.40	6.20	166.63	22.77
Asset-5	52.17	50.53	1.64	46.21	4.33
Asset-6	122.73	7.01	115.72	0.00	7.01

\*The undischarged IDC as on COD has been adjusted from Capital Cost as on COD and is considered as ACE in the year in which it is discharged.

30. The Petitioner has claimed IEDC in respect of the transmission assets as follows:

(₹ in lakh)

Particulars	IEDC claimed as per Auditor's Certificate	IEDC considered by Petitioner as on COD	IEDC discharged up to COD
Asset-1	62.35	62.35	62.35
Asset-2	463.10	463.10	463.10
Asset-3	72.52	72.52	72.52
Asset-4	14.36	14.36	14.36
Asset-5	14.36	14.36	14.36
Asset-6	320.75	222.51*	222.51

\*The Petitioner has deducted ₹98.24 lakh from IEDC of Asset-6 as the Commission did not condone time over-run of 400 days vide order dated 14.5.2018 in Petition No. 222/TT/2016.

31. In respect of Asset-6, the Petitioner has submitted that as per APTEL's judgement dated 2.12.2019 in Appeal No. 95 of 2018 & Appeal No. 140 of 2018, IEDC claimed shall not be restricted using the methodology involving certain (FR specified)



percentage (5%/10.75%) of the hard cost. Accordingly, IEDC corresponding to the delay not condoned amounting to ₹98.24 lakh as determined by the Petitioner has been restricted from the capital cost as on COD.

32. TANGEDCO has submitted that the Commission *vide* order dated 14.5.2018 in Petition No. 222/TT/2016 did not condone time over-run of 13 months and 14 days in the case of Asset-6 and has deducted an amount of ₹107.45 lakh. Further, IEDC was restricted by an amount of ₹185.19 lakh considering the percentage of IEDC indicated in the abstract cost estimate filed alongwith the IA. The decision on time over-run and IDC and IEDC claim was upheld by the Commission *vide* order dated 12.2.2019 in Review Petition No. 26/RP/2018. TANGEDCO has submitted that the Petitioner has claimed IEDC retrospectively contrary to the Commission's directions based on the APTEL's judgement dated 2.12.2019 in Appeal No. 95 of 2018 and Appeal No. 140 of 2018. APTEL's judgement dated 2.12.2019 in Appeal No. 95 of 2018 and Appeal No. 140 of 2018 deals with the Commission's order restricting IEDC to 5% of hard cost and the said judgment is no way relates to the claim of IEDC in respect of non-condonation of time over-run. It has been clearly observed in the APTEL's judgment that IEDC can be calculated only on actual basis and no norms have been specified in computing IEDC. The Petitioner has intentionally avoided furnishing the statement of IEDC showing the split up of IEDC for the assets disallowed and IEDC for the time over-run period. The Petitioner has claimed IEDC inappropriately limiting IEDC claim within 10.75% of FR/ RCE. TANGEDCO has further submitted that IEDC disallowed by the Commission for the non-condoned period of time over-run has not been deducted in IEDC claimed by the Petitioner and the Petitioner has not disclosed the statement of IEDC. TANGEDCO has further submitted that in the absence of



documentary proof/ statement of IEDC, IEDC claimed by the Petitioner may be disallowed.

33. In response, the Petitioner has submitted that it has reduced the capital cost of Asset-6 by ₹98.24 lakh which is on account of IEDC disallowed due to time over-run. The Petitioner has further submitted that with regard to limiting IEDC to hard cost, as per APTEL's judgement dated 2.12.2019 in Appeal No. 95 of 2018 & Appeal No. 140 of 2018, IEDC claimed shall not be restricted using the methodology involving certain (FR specified) percentage (5%/10.75%) of the hard cost. The Petitioner has submitted that in the instant case, IEDC corresponding to the delay not condoned amounting to ₹98.24 lakh has been restricted from COD cost and remaining IEDC has been re-claimed. The Petitioner has further submitted that the Commission *vide* order dated 14.5.2018 in Petition No. 222/TT/2016 has stated that treatment of IEDC shall be reviewed at the time of truing up based on actual completion cost. The Petitioner has, therefore, requested to allow the completion cost and IEDC as claimed in the instant petition.

34. We have considered the submissions of the Petitioner and TANGEDCO. The Commission *vide* order dated 14.5.2018 in Petition No. 222/TT/2016 did not condone the time over-run of 400 days for Asset-6. Accordingly, we have determined the proportionate IEDC to be disallowed for Asset-6 as ₹98.24 lakh. There is no time over-run in the commissioning of Asset-1 and time over-run in case of Asset-2 and Asset-5 was fully condoned by the Commission. Further, IEDC claimed as on date of commercial operation for Asset-1, Asset-2 and Asset-5 is within the percentage of



hard cost as per the abstract cost estimate mentioned in the IA. Hence, the entire amount of IEDC has been allowed for Asset-1, Asset-2 and Asset-5.

35. Accordingly, IEDC considered for the purpose of tariff calculation are as follows:

(₹ in lakh)			
Particulars	IEDC claimed as per Auditor's Certificate	IEDC allowed as on COD	IEDC discharged up to COD
Asset-1	62.35	62.35	62.35
Asset-2	463.10	463.10	463.10
Asset-5	14.36	14.36	14.36
Asset-6	320.75	222.51	222.51

### Initial Spares

36. The Petitioner has worked out the following Initial Spares in respect of the transmission assets:

Particulars	Asset Type	Capital Cost as on cut-off date (A) (₹ in lakh)	Initial Spares claimed (B) (₹ in lakh)	Ceiling (in %) (C)	Initial Spares worked out	Excess Initial Spares
					$D = \frac{[(A-B) \times C]}{(100-C)}$ (₹ in lakh)	$E = D - B$ (₹ in lakh)
<b>Transmission line</b>						
Asset-1	Transmission line	3533.78	35.00	1.00	35.34	-0.34
<b>Total</b>		<b>3533.78</b>	<b>35.00</b>		<b>35.34</b>	<b>-0.34</b>
<b>Gas Insulated Sub-station (GIS)</b>						
Asset-2	Gas Insulated Sub-station (GIS)	3970.18	183.69	5.00	199.29	-15.60
Asset-3		886.49	42.60		44.42	-1.82
Asset-4		179.05	8.34		8.98	-0.64
Asset-5		1085.39	50.57		54.46	-3.89
Asset-6		3034.66	0		159.72	-159.72
<b>Total</b>		<b>9155.77</b>	<b>285.20</b>		<b>369.61</b>	<b>-181.67</b>

37. The Petitioner has submitted that Initial Spares included in the Auditor's Certificate with respect to Asset-1 is as per actual cash expenditure incurred and the Initial Spares discharged after COD is considered as ACE in the respective years. The discharge of Initial Spares submitted by the Petitioner is as follows:



(₹ in lakh)

Particulars	Initial Spares claimed	Initial Spares discharged up to COD	Initial Spares discharged in 2015-16
Asset-1	35.00	0.00	35.00

38. We have considered the submissions of the Petitioner. Initial Spares claimed by the Petitioner with respect to Asset-1, Asset-2, Asset-5 and Asset-6 are within the permissible limit and the same is allowed. Initial Spares in respect of Asset-1 has been considered along with ACE for the year of its discharge i.e. 2015-16. The details of Initial Spares allowed are as follows:

Particulars	Asset Type	Capital Cost as on cut-off date (A) (₹ in lakh)	Initial Spares claimed (B) (₹ in lakh)	Ceiling limit (in %) (C)	Initial Spares worked out	Excess Initial Spares	Initial Spares allowed (₹ in lakh)
					D = [(A-B)*C/(100-C)] (₹ in lakh)	E = D-B (₹ in lakh)	
<b>Transmission line</b>							
Asset-1	Transmission line	3533.78	35.00	1.00	35.34	-	35.00
<b>Total</b>		<b>3533.78</b>	<b>35.00</b>		<b>35.34</b>	-	<b>35.00</b>
<b>Gas Insulated Sub-station (GIS)</b>							
Asset-2	Gas Insulated Sub-station (GIS)	3970.18	183.69	5.00	199.29	-	183.69
Asset-5		1085.39	50.57		54.46	-	50.57
Asset-6		3034.66	0		159.72	-	0
<b>Total</b>		<b>8090.23</b>	<b>234.26</b>		<b>413.47</b>	-	<b>234.26</b>

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

39. The Commission vide order dated 31.5.2016 in Petition No. 36/TT/2014 for Asset-1, vide order dated 22.8.2016 in Petition No. 416/TT/2014 for Asset-2, Asset-3, Asset-4 and Asset-5 and vide order dated 14.5.2018 in Petition No. 222/TT/2016 for Asset-6 allowed ACE as follows:

(₹ in lakh)

Particulars	Capital Cost allowed earlier as on COD	ACE allowed earlier				Capital Cost allowed earlier as on 31.3.2019
		2014-15	2015-16	2016-17	2017-18	
Asset-1	2640.21	490.67	0.00	0.00	0.00	3130.88
Asset-2	2229.24		976.83	219.82	0.00	3425.89



Asset-3	0.00		0.00	0.00	0.00	0.00
Asset-4	0.00		0.00	0.00	0.00	0.00
Asset-5	2233.70		976.83	219.82	0.00	3430.35
Asset-6	1959.68			797.50	479.83	3237.01

40. The Petitioner has claimed the following ACE in respect of the transmission assets based on actual expenditure:

Particulars	Apportioned approved cost as per RCE	Capital Cost claimed as on COD	ACE claimed					Capital Cost claimed as on 31.3.2019
			2014-15	2015-16	2016-17	2017-18	2018-19	
Asset-1	3918.98	2645.95	677.48	367.10	0.00	0.00	0.00	3690.53
Asset-2	7073.26	4830.97		1675.46	453.98	38.00	0.00	6998.41
Asset-3	990.00	756.49		233.14	0.00	0.00	0.00	989.63
Asset-4	201.11	149.84		49.64	0.00	0.00	0.00	199.48
Asset-5	1228.00	935.02		292.17	0.00	0.00	0.00	1227.19
Asset-6	3581.65	2046.64			258.75	938.51	120.89	3364.79

41. The Petitioner has submitted that ACE incurred during 2014-19 period is on account of un-discharged liabilities recognized to be payable at a future date under Regulation 14(1)(i) of the 2014 Tariff Regulations and works deferred for execution under Regulation 14(1)(ii) of the 2014 Tariff Regulations. Further, the Petitioner has deducted ₹12 lakh from Asset-2 in the year 2017-18 on account of Liquidated Damages (LD) recovered from the contractor. The break-up of ACE claimed by the Petitioner is as follows:

Particulars	Regulation	ACE claimed				
		2014-15	2015-16	2016-17	2017-18	2018-19
<b>Asset-1</b>						
Balance and retention payments for liabilities other than IDC and initial spares	14(1)(i)	39.29	25.77	-	-	-
Works deferred for execution	14(1)(ii)	584.38	298.76	-	-	-
IDC discharged after COD	14(1)(i)	53.81	7.57	-	-	-
Initial spares discharged after COD	14(1)(i)	-	35.00	-	-	-





<b>Total ACE (Asset-1)</b>		<b>677.48</b>	<b>367.10</b>	-	-	-
<b>Asset-2</b>						
Balance and retention payments for liabilities other than IDC	14(1)(i)		930.17	390.21	-	-
Works deferred for execution	14(1)(ii)		572.46	63.77	38.00	-
IDC discharged after COD	14(1)(i)		172.84	-	-	-
<b>Total ACE (Asset-2)</b>			<b>1675.47</b>	<b>453.98</b>	<b>38.00</b>	-
<b>Asset-3</b>						
Works deferred for execution	14(1)(ii)		206.08	-	-	-
IDC discharged after COD	14(1)(i)		27.06	-	-	-
<b>Total ACE (Asset-3)</b>			<b>233.14</b>	-	-	-
<b>Asset-4</b>						
Works deferred for execution	14(1)(ii)		44.28	-	-	-
IDC discharged after COD	14(1)(i)		5.36	-	-	-
<b>Total ACE (Asset-4)</b>			<b>49.64</b>	-	-	-
<b>Asset-5</b>						
Works deferred for execution	14(1)(ii)		259.31	-	-	-
IDC discharged after COD	14(1)(i)		32.86	-	-	-
<b>Total ACE (Asset-5)</b>			<b>292.17</b>	-	-	-
<b>Asset-6</b>						
Balance and retention payments	14(1)(i)			-	17.06	34.43
Works deferred for execution	14(1)(ii)			258.75	921.45	86.46
<b>Total ACE (Asset-6)</b>				<b>258.75</b>	<b>938.51</b>	<b>120.89</b>

42. With respect to ACE claimed on account of works deferred for execution, TANGEDCO has submitted that works deferred have not been detailed and no justification has been provided by the Petitioner in the instant petition. TANGEDCO has further submitted that the Commission may direct the Petitioner to provide requisite details of works deferred for execution in respect of all the transmission assets and also submit Form-5, Form-5(A) and Form-5(B) in support of its claim.

43. In response, the Petitioner has submitted that it has already submitted year-wise, head-wise and package-wise details of balance and retention payments as well as balance work details *vide* affidavit dated 27.11.2020.



44. With regard to liquidated damages (LD) of ₹34.43 lakh recovered from the contractor by the Petitioner for Asset-6, TANGEDCO has submitted that the same has not been reduced from the capital cost of the asset. TANGEDCO has submitted that the Commission may direct the Petitioner to furnish the details of LD recovered from the contractor and consider LD adjustments in computing capital cost of Asset-6.

45. In response, the Petitioner has submitted that Commission *vide* order dated 14.5.2018 in Petition No. 222/TT/2016 disallowed IDC and IEDC amounting to ₹115.72 lakh and ₹98.24 respectively on account of time over-run which is more than LD received. Accordingly, the capital cost of Asset-6 is reduced by the IDC/IEDC amount disallowed by the Commission and further reducing the capital cost by LD amount received would lead to double deduction of the cost.

46. We have considered the submissions of the Petitioner and TANGEDCO. It is observed from the Auditor's Certificate dated 5.11.2019 for Asset-6 that LD of ₹34.43 lakh was recovered from the contractor in the year 2018-19 was deducted from ACE in the year 2018-19 and the same amount has been added back to ACE of that year as the IDC and IEDC disallowed by the Commission *vide* order dated 14.5.2018 in Petition No. 222/TT/2016 is more than LD recovered by the Petitioner. APTEL *vide* judgement dated 27.4.2011 in Appeal 72/2010 has laid down the following principles for dealing with the issue of time over-run in execution of projects:

*"7.4. The delay in execution of a generating project could occur due to following reasons:*

*i) due to factors entirely attributable to the generating company, e.g., imprudence in selecting the contractors/suppliers and in executing contractual agreements including terms and conditions of the contracts, delay in award of contracts, delay in providing inputs like making land available to the contractors, delay in payments to contractors/suppliers as per the terms of contract, mismanagement of finances,*



*slackness in project management like improper co-ordination between the various contractors, etc.*

*ii) due to factors beyond the control of the generating company e.g. delay caused due to force majeure like natural calamity or any other reasons which clearly establish, beyond any doubt, that there has been no imprudence on the part of the generating company in executing the project.*

*iii) situation not covered by (i) & (ii) above.*

*In our opinion in the first case the entire cost due to time over run has to be borne by the generating company. However, the Liquidated Damages (LDs) and insurance proceeds on account of delay, if any, received by the generating company could be retained by the generating company. In the second case the generating company could be given benefit of the additional cost incurred due to time over-run. However, the consumers should get full benefit of the LDs recovered from the contractors/suppliers of the generating company and the insurance proceeds, if any, to reduce the capital cost. In the third case the additional cost due to time overrun including the LDs and insurance proceeds could be shared between the generating company and the consumer. It would also be prudent to consider the delay with respect to some benchmarks rather than depending on the provisions of the contract between the generating company and its contractors/suppliers. If the time schedule is taken as per the terms of the contract, this may result in imprudent time schedule not in accordance with good industry practices.”*

47. As per the above judgement of APTEL, when the time over-run is attributable to the project developer (in the instant case, PGCIL), or its contractors, the cost of the time over-run, i.e., IDC and IEDC has to be borne by the project developer and LD, if any recovered, can be retained by the Petitioner. IDC and IEDC disallowed vide order dated 14.5.2018 in Petition No. 222/TT/2016 have already been deducted from the capital cost of Asset-6. Therefore, the Petitioner is allowed to retain the LD recovered in this case.

48. ACE claimed by the Petitioner has been verified from the Auditor's Certificates. ACE claimed for Asset-1, Asset-2, Asset-5 and Asset-6 have been allowed under Regulation 14(1)(i) and Regulation 14(1)(ii) of the 2014 Tariff Regulations. Further, the capital cost claimed as on 31.3.2019 with respect to Asset-1, Asset-2, Asset-5 and Asset-6 are within the apportioned approved cost as per RCE. ACE allowed in respect of the transmission assets for 2014-19 period is as follows:



(₹ in lakh)

Particulars	Regulations	ACE claimed				
		2014-15	2015-16	2016-17	2017-18	2018-19
<b>Asset-1</b>						
Balance and retention payments for liabilities other than IDC and initial spares	14(1)(i)	39.29	25.77	-	-	-
Works deferred for execution	14(1)(ii)	584.38	298.76	-	-	-
IDC discharged after COD	14(1)(i)	53.81	-	-	-	-
Initial spares discharged after COD	14(1)(i)	-	35.00	-	-	-
<b>Total ACE (Asset-1)</b>		<b>677.48</b>	<b>359.53</b>	-	-	-
<b>Asset-2</b>						
Balance and retention payments for liabilities other than IDC	14(1)(i)		930.17	390.21	-	-
Works deferred for execution	14(1)(ii)		572.46	63.77	38.00	-
IDC discharged after COD	14(1)(i)		166.63	-	-	-
<b>Total ACE (Asset-2)</b>			<b>1669.26</b>	<b>453.98</b>	<b>38.00</b>	-
<b>Asset-5</b>						
Works deferred for execution	14(1)(ii)		259.31	-	-	-
IDC discharged after COD	14(1)(i)		46.21	-	-	-
<b>Total ACE (Asset-5)</b>			<b>305.52</b>	-	-	-
<b>Asset-6</b>						
Balance and retention payments	14(1)(i)			-	17.06	34.43
Works deferred for execution	14(1)(ii)			258.75	921.45	86.46
<b>Total ACE (Asset-6)</b>				<b>258.75</b>	<b>938.51</b>	<b>120.89</b>

(₹ in lakh)

Particulars	Apportioned approved cost as per RCE	Capital Cost allowed as on COD	ACE allowed					Capital Cost allowed as on 31.3.2019
			2014-15	2015-16	2016-17	2017-18	2018-19	
Asset-1	3918.98	2645.95	677.48	359.53	0.00	0.00	0.00	3682.96
Asset-2	7073.26	4830.97		1669.26	453.98	38.00	0.00	6992.21
Asset-3	990.00	0.00		0.00	0.00	0.00	0.00	0.00
Asset-4	201.11	0.00		0.00	0.00	0.00	0.00	0.00
Asset-5	1228.00	920.04		305.52	0.00	0.00	0.00	1225.55
Asset-6	3581.65	2046.64			258.75	938.51	120.89	3364.79



### Debt-Equity ratio

49. The Petitioner has claimed debt-equity ratio of 70:30 as on COD in respect of the transmission assets. Debt-equity ratio of 70:30 is considered as provided in Regulation 19 of the 2014 Tariff Regulations for the transmission assets. The details of debt-equity ratio in respect of the transmission assets as on COD and as on 31.3.2019 are as follows:

Particulars	Capital Cost as on COD (₹ in lakh)	(in %)	ACE 2014-19 (₹ in lakh)	(in %)	Capital Cost as on 31.3.2019 (₹ in lakh)	(in %)
<b>Asset-1</b>						
Debt	1852.17	70.00	725.91	70.00	2578.07	70.00
Equity	793.79	30.00	311.10	30.00	1104.89	30.00
<b>Total</b>	<b>2645.95</b>	<b>100.00</b>	<b>1037.01</b>	<b>100.00</b>	<b>3682.96</b>	<b>100.00</b>
<b>Asset-2</b>						
Debt	3381.68	70.00	1512.87	70.00	4894.55	70.00
Equity	1449.29	30.00	648.37	30.00	2097.66	30.00
<b>Total</b>	<b>4830.97</b>	<b>100.00</b>	<b>2161.24</b>	<b>100.00</b>	<b>6992.21</b>	<b>100.00</b>
<b>Asset-5</b>						
Debt	644.03	70.00	213.86	70.00	857.89	70.00
Equity	276.01	30.00	91.65	30.00	367.67	30.00
<b>Total</b>	<b>920.04</b>	<b>100.00</b>	<b>305.52</b>	<b>100.00</b>	<b>1225.55</b>	<b>100.00</b>
<b>Asset-6</b>						
Debt	1432.65	70.00	922.71	70.00	2355.35	70.00
Equity	613.99	30.00	395.45	30.00	1009.44	30.00
<b>Total</b>	<b>2046.64</b>	<b>100.00</b>	<b>1318.15</b>	<b>100.00</b>	<b>3364.79</b>	<b>100.00</b>

### Depreciation

50. The Petitioner's claim towards depreciation in this petition for Asset-2 was found higher than the depreciation allowed *vide* order dated 22.8.2016 in Petition No. 416/TT/2014. The Petitioner has neither given any justification for claiming higher



depreciation than what was allowed in previous orders nor made any specific prayer for allowing higher depreciation in this petition. Similar issue came up in Petition No. 19/TT/2020 wherein the Commission vide order dated 9.5.2020 decided that depreciation @5.28% shall be considered for IT Equipment as part of the sub-station up to 31.3.2019 while truing up the capital expenditure for 2014-19 period. During 2019-24 tariff period, the IT Equipment has been considered separately and depreciation has been allowed @15% for the balance depreciable value of IT Equipment in accordance with Regulation 33 of the 2019 Tariff Regulations.

51. The Gross Block during 2014-19 period in respect of the transmission assets has been depreciated at Weighted Average Rate of Depreciation (WAROD). The calculation of WAROD for 2014-19 period for Asset-1, Asset-2, Asset-5 and Asset-6 is placed in Annexures I, II, III and IV respectively. WAROD in respect of the transmission assets has been worked out after taking into account the depreciation rates of assets as prescribed in the 2014 Tariff Regulations and trued up depreciation allowed during 2014-19 tariff period in respect of the transmission assets are as follows:

(₹ in lakh)					
Particulars	2014-15 (Pro-rata 333 days)	2015-16	2016-17	2017-18	2018-19
<b>Asset-1</b>					
Opening Gross Block	2645.95	3323.43	3682.96	3682.96	3682.96
ACE	677.48	359.53	0.00	0.00	0.00
Closing Gross Block	3323.43	3682.96	3682.96	3682.96	3682.96
Average Gross Block	2984.69	3503.20	3682.96	3682.96	3682.96
Weighted average rate of Depreciation (WAROD) (in %)	5.28	5.28	5.28	5.28	5.28
Balance useful life of the asset (Year)	35	34	33	32	31
Lapsed life at the beginning of the year (Year)	0	1	2	3	4
Depreciable Value	2686.22	3152.88	3314.66	3314.66	3314.66



<b>Depreciation during the year</b>	<b>143.78</b>	<b>184.97</b>	<b>194.46</b>	<b>194.46</b>	<b>194.46</b>
Cumulative Depreciation at the end of the year	143.78	328.74	523.20	717.66	912.13
Remaining Depreciable Value at the end of the year	2542.45	2824.13	2791.46	2597.00	2402.54

(₹ in lakh)

Particulars	2015-16	2016-17	2017-18	2018-19
<b>Asset-2</b>				
Opening Gross Block	4830.97	6500.23	6954.21	6992.21
ACE	1669.26	453.98	38.00	0.00
Closing Gross Block	6500.23	6954.21	6992.21	6992.21
Average Gross Block	5665.60	6727.22	6973.21	6992.21
Freehold Land	439.99	475.80	511.60	511.60
Weighted average rate of Depreciation (WAROD) (in %)	4.46	4.44	4.39	4.39
Balance useful life of the asset (Year)	25	24	23	22
Lapsed life at the beginning of the year (Year)	0	1	2	3
Aggregate Depreciable Value	4703.05	5626.28	5815.45	5832.55
<b>Combined Depreciation during the year</b>	<b>252.88</b>	<b>298.45</b>	<b>305.83</b>	<b>306.84</b>
Cumulative Aggregate Depreciation at the end of the year	252.88	551.33	857.16	1164.00
Remaining Aggregate Depreciable Value at the end of the year	4450.17	5074.96	4958.29	4668.55

(₹ in lakh)

Particulars	2015-16 (Pro-rata 278 days)	2016-17	2017-18	2018-19
<b>Asset-5</b>				
Opening Gross Block	920.04	1225.55	1225.55	1225.55
ACE	305.52	0.00	0.00	0.00
Closing Gross Block	1225.55	1225.55	1225.55	1225.55
Average Gross Block	1072.80	1225.55	1225.55	1225.55
Weighted average rate of Depreciation (WAROD) (in %)	5.28	5.28	5.28	5.28
Balance useful life of the asset (Year)	25	25	24	23
Lapsed life at the beginning of the year (Year)	0	0	1	2
Depreciable Value	965.52	1103.00	1103.00	1103.00
<b>Depreciation during the year</b>	<b>43.05</b>	<b>64.71</b>	<b>64.71</b>	<b>64.71</b>
Cumulative Depreciation at the end of the year	43.05	107.76	172.47	237.18
Remaining Depreciable Value at the end of the year	922.47	995.24	930.53	865.82



(₹ in lakh)			
Particulars	2016-17 (Pro-rata 243 days)	2017-18	2018-19
<b>Asset-6</b>			
Opening Gross Block	2046.64	2305.39	3243.90
ACE	258.75	938.51	120.89
Closing Gross Block	2305.39	3243.90	3364.79
Average Gross Block	2176.01	2774.64	3304.34
Weighted average rate of Depreciation (WAROD) (in %)	5.24	5.24	5.25
Balance useful life of the asset (Year)	25	25	24
Lapsed life at the beginning of the year (Year)	0	0	1
Depreciable Value	1958.41	2497.18	2973.91
<b>Depreciation during the year</b>	<b>75.84</b>	<b>145.52</b>	<b>173.49</b>
Cumulative Depreciation at the end of the year	75.84	221.36	394.86
Remaining Depreciable Value at the end of the year	1882.57	2275.81	2579.05

52. Accordingly, depreciation approved *vide* order dated 31.5.2016 in Petition No. 36/TT/2014 for Asset-1, *vide* order dated 22.8.2016 in Petition No. 416/TT/2014 for Asset-2, Asset-3, Asset-4 and Asset-5 and *vide* order dated 14.5.2018 in Petition No. 222/TT/2016 for Asset-6, claimed by the Petitioner in the instant petition and trued up depreciation in this order are as follows:

(₹ in lakh)					
Particulars	2014-15 (Pro-rata 333 days)	2015-16	2016-17	2017-18	2018-19
<b>Asset-1</b>					
Approved <i>vide</i> order dated 31.5.2016 in Petition No. 36/TT/2014	139.00	165.31	165.31	165.31	165.31
Claimed by the Petitioner based on truing up in the instant petition	143.77	185.17	194.86	194.86	194.86
Allowed after true-up in this order	143.78	184.97	194.46	194.46	194.46





(₹ in lakh)				
Particulars	2015-16	2016-17	2017-18	2018-19
<b>Asset-2</b>				
Approved <i>vide</i> order dated 22.8.2016 in Petition No. 416/TT/2014	119.38	146.50	151.28	151.28
Claimed by the Petitioner based on truing up in the instant petition	268.39	314.39	321.79	322.79
Allowed after true-up in this order	252.88	298.45	305.83	306.84
<b>Asset-3</b>				
Approved <i>vide</i> order dated 22.8.2016 in Petition No. 416/TT/2014	0.00	0.00	0.00	0.00
Claimed by the Petitioner based on truing up in the instant petition	46.10	52.25	52.25	52.25
Allowed after true-up in this order	0.00	0.00	0.00	0.00
<b>Asset-4</b>				
Approved <i>vide</i> order dated 22.8.2016 in Petition No. 416/TT/2014	0.00	0.00	0.00	0.00
Claimed by the Petitioner based on truing up in the instant petition	9.22	10.53	10.53	10.53
Allowed after true-up in this order	0.00	0.00	0.00	0.00

(₹ in lakh)				
Particulars	2015-16 (Pro-rata 278 days)	2016-17	2017-18	2018-19
<b>Asset-5</b>				
Approved <i>vide</i> order dated 22.8.2016 in Petition No. 416/TT/2014	91.09	146.71	151.50	151.50
Claimed by the Petitioner based on truing up in the instant petition	43.36	64.80	64.80	64.80
Allowed after true-up in this order	43.05	64.71	64.71	64.71

(₹ in lakh)			
Particulars	2016-17 (Pro-rata 243 days)	2017-18	2018-19
<b>Asset-6</b>			
Approved <i>vide</i> order dated 14.5.2018 in Petition No. 222/TT/2016	82.28	157.31	169.98
Claimed by the Petitioner based on truing up in the instant petition	75.84	145.52	173.49
Allowed after true-up in this order	75.84	145.52	173.49

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

53. The Petitioner has claimed the weighted average rate of IoL based on its actual loan portfolio and rate of interest in respect of the transmission assets. Accordingly, IoL for the transmission assets has been calculated based on actual interest rate, in



accordance with Regulation 26 of the 2014 Tariff Regulations. IoL allowed in respect of the transmission assets are as follows:

(₹ in lakh)

Particulars	2014-15 (Pro-rata 333 days)	2015-16	2016-17	2017-18	2018-19
<b>Asset-1</b>					
Gross Normative Loan	1852.17	2326.40	2578.07	2578.07	2578.07
Cumulative Repayments up to Previous Year	0.00	143.78	328.74	523.20	717.66
Net Loan-Opening	1852.17	2182.63	2249.33	2054.87	1860.41
Additions	474.24	251.67	0.00	0.00	0.00
Repayment during the year	143.78	184.97	194.46	194.46	194.46
Net Loan-Closing	2182.63	2249.33	2054.87	1860.41	1665.95
Average Loan	2017.40	2215.98	2152.10	1957.64	1763.18
Weighted Average Rate of Interest on Loan (in %)	9.2242	9.1303	9.0683	8.9624	8.9310
<b>Interest on Loan</b>	<b>169.77</b>	<b>202.32</b>	<b>195.16</b>	<b>175.45</b>	<b>157.47</b>

(₹ in lakh)

Particulars	2015-16	2016-17	2017-18	2018-19
<b>Asset-2</b>				
Gross Normative Loan	3381.68	4550.16	4867.95	4894.55
Cumulative Repayments up to Previous Year	0.00	252.88	551.33	857.16
Net Loan-Opening	3381.68	4297.28	4316.62	4037.39
Additions	1168.48	317.79	26.60	0.00
Repayment during the year	252.88	298.45	305.83	306.84
Net Loan-Closing	4297.28	4316.62	4037.39	3730.55
Average Loan	3839.48	4306.95	4177.00	3883.97
Weighted Average Rate of Interest on Loan (in %)	9.2092	9.0350	8.9318	8.9148
<b>Interest on Loan</b>	<b>353.59</b>	<b>389.13</b>	<b>373.08</b>	<b>346.25</b>

(₹ in lakh)

Particulars	2015-16 (Pro-rata 278 days)	2016-17	2017-18	2018-19
<b>Asset-5</b>				
Gross Normative Loan	644.03	857.89	857.89	857.89
Cumulative Repayments up to Previous Year	0.00	43.05	107.76	172.47
Net Loan-Opening	644.03	814.84	750.13	685.42
Additions	213.86	0.00	0.00	0.00
Repayment during the year	43.05	64.71	64.71	64.71



Net Loan-Closing	814.84	750.13	685.42	620.71
Average Loan	729.43	782.48	717.77	653.07
Weighted Average Rate of Interest on Loan (in %)	9.2148	9.1068	9.0508	9.0356
<b>Interest on Loan</b>	<b>51.08</b>	<b>71.26</b>	<b>64.96</b>	<b>59.01</b>

(₹ in lakh)

Particulars	2016-17 (Pro-rata 243 days)	2017-18	2018-19
<b>Asset-6</b>			
Gross Normative Loan	1432.65	1613.77	2270.73
Cumulative Repayments up to Previous Year	0.00	75.84	221.36
Net Loan-Opening	1432.65	1537.93	2049.36
Additions	181.13	656.96	84.62
Repayment during the year	75.84	145.52	173.49
Net Loan-Closing	1537.93	2049.36	1960.49
Average Loan	1485.29	1793.65	2004.93
Weighted Average Rate of Interest on Loan (in %)	8.3836	8.2247	8.1130
<b>Interest on Loan</b>	<b>82.90</b>	<b>147.52</b>	<b>162.66</b>

54. Accordingly, IoL approved *vide* order dated 31.5.2016 in Petition No. 36/TT/2014 for Asset-1, *vide* order dated 22.8.2016 in Petition No. 416/TT/2014 for Asset-2, Asset-3, Asset-4 and Asset-5 and *vide* order dated 14.5.2018 in Petition No. 222/TT/2016 for Asset-6, as claimed by the Petitioner in the instant petition and trued up IoL in this order are as follows:

(₹ in lakh)

Particulars	2014-15 (Pro-rata 333 days)	2015-16	2016-17	2017-18	2018-19
<b>Asset-1</b>					
Approved <i>vide</i> order dated 31.5.2016 in Petition No. 36/TT/2014	171.26	189.60	173.68	157.74	141.80
Claimed by the Petitioner based on truing up in the instant petition	169.78	202.56	195.60	175.86	157.84
Allowed after true-up in this order	169.77	202.32	195.16	175.45	157.47



(₹ in lakh)				
Particulars	2015-16	2016-17	2017-18	2018-19
<b>Asset-2</b>				
Approved <i>vide</i> order dated 22.8.2016 in Petition No. 416/TT/2014	172.68	199.47	192.72	178.55
Claimed by the Petitioner based on truing up in the instant petition	353.07	387.40	369.95	341.70
Allowed after true-up in this order	353.59	389.13	373.08	346.25
<b>Asset-3</b>				
Approved <i>vide</i> order dated 22.8.2016 in Petition No. 416/TT/2014	0.00	0.00	0.00	0.00
Claimed by the Petitioner based on truing up in the instant petition	54.25	56.54	51.46	46.65
Allowed after true-up in this order	0.00	0.00	0.00	0.00
<b>Asset-4</b>				
Approved <i>vide</i> order dated 22.8.2016 in Petition No. 416/TT/2014	0.00	0.00	0.00	0.00
Claimed by the Petitioner based on truing up in the instant petition	10.84	11.39	10.37	9.40
Allowed after true-up in this order	0.00	0.00	0.00	0.00

(₹ in lakh)				
Particulars	2015-16 (Pro-rata 278 days)	2016-17	2017-18	2018-19
<b>Asset-5</b>				
Approved <i>vide</i> order dated 22.8.2016 in Petition No. 416/TT/2014	132.75	202.40	195.64	181.44
Claimed by the Petitioner based on truing up in the instant petition	51.45	71.33	65.03	59.06
Allowed after true-up in this order	51.08	71.26	64.96	59.01

(₹ in lakh)			
Particulars	2016-17 (Pro-rata 243 days)	2017-18	2018-19
<b>Asset-6</b>			
Approved <i>vide</i> order dated 14.5.2018 in Petition No. 222/TT/2016	91.15	164.59	164.93
Claimed by the Petitioner based on truing up in the instant petition	82.90	147.52	162.66
Allowed after true-up in this order	82.90	147.52	162.66

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

55. The Petitioner has claimed RoE in respect of the transmission assets in accordance with Regulation 24 and Regulation 25 of the 2014 Tariff Regulations. The



Petitioner has submitted that it is liable to pay income tax at MAT rates and has claimed following effective tax rates for 2014-19 period:

Year	Claimed effective Tax (in %)	Grossed up RoE (in %) [(Base Rate)/(1-t)]
2014-15	21.020	19.625
2015-16	21.380	19.715
2016-17	21.340	19.705
2017-18	21.340	19.705
2018-19	21.550	19.758

56. The Commission *vide* order dated 27.4.2020 in Petition No. 274/TT/2019, has arrived at the effective tax rate for the Petitioner based on the notified MAT rates which are as follows:

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

57. The MAT rates considered *vide* order dated 27.4.2020 in Petition No. 274/TT/2019 has been considered for the purpose of grossing up of rate of RoE for truing up of the tariff of 2014-19 period in terms of the provisions of the 2014 Tariff Regulations and the same are as follows:

Year	Notified MAT rates (in %) (inclusive of surcharge & cess)	Base rate of RoE (in %)	Grossed up RoE (in %) [(Base Rate)/(1-t)]
2014-15	20.961	15.50	19.610



2015-16	21.342	15.50	19.705
2016-17	21.342	15.50	19.705
2017-18	21.342	15.50	19.705
2018-19	21.549	15.50	19.758

58. The Petitioner has claimed RoE for 2014-19 period after grossing up the RoE of 15.50% with effective tax rates (based on MAT rates) of each year as per the above said Regulation. RoE in respect of the transmission assets is trued up on the basis of MAT rate applicable in the respective years and is allowed as follows:

(₹ in lakh)

Particulars	2014-15 (Pro-rata 333 days)	2015-16	2016-17	2017-18	2018-19
<b>Asset-1</b>					
Opening Equity	793.79	997.03	1104.89	1104.89	1104.89
Additions	203.24	107.86	0.00	0.00	0.00
Closing Equity	997.03	1104.89	1104.89	1104.89	1104.89
Average Equity	895.41	1050.96	1104.89	1104.89	1104.89
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (in %)	20.961	21.342	21.342	21.342	21.549
Rate of Return on Equity (in %)	19.610	19.705	19.705	19.705	19.758
<b>Return on Equity</b>	<b>160.20</b>	<b>207.09</b>	<b>217.72</b>	<b>217.72</b>	<b>218.30</b>

(₹ in lakh)

Particulars	2015-16	2016-17	2017-18	2018-19
<b>Asset-2</b>				
Opening Equity	1449.29	1950.07	2086.26	2097.66
Additions	500.78	136.19	11.40	0.00
Closing Equity	1950.07	2086.26	2097.66	2097.66
Average Equity	1699.68	2018.17	2091.96	2097.66
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500
MAT Rate for respective year (in %)	21.342	21.342	21.342	21.549
Rate of Return on Equity (in %)	19.705	19.705	19.705	19.758
<b>Return on Equity</b>	<b>334.92</b>	<b>397.68</b>	<b>412.22</b>	<b>414.46</b>



(₹ in lakh)

Particulars	2015-16 (Pro-rata 278 days)	2016-17	2017-18	2018-19
<b>Asset-5</b>				
Opening Equity	276.01	367.67	367.67	367.67
Additions	91.65	0.00	0.00	0.00
Closing Equity	367.67	367.67	367.67	367.67
Average Equity	321.84	367.67	367.67	367.67
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500
MAT Rate for respective year (in %)	21.342	21.342	21.342	21.549
Rate of Return on Equity (in %)	19.705	19.705	19.705	19.758
<b>Return on Equity</b>	<b>48.20</b>	<b>72.45</b>	<b>72.45</b>	<b>72.64</b>

(₹ in lakh)

Particulars	2016-17 (Pro-rata 243 days)	2017-18	2018-19
<b>Asset-6</b>			
Opening Equity	613.99	691.62	973.17
Additions	77.63	281.55	36.27
Closing Equity	691.62	973.17	1009.44
Average Equity	652.80	832.39	991.30
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500
MAT Rate for respective year (in %)	21.342	21.342	21.549
Rate of Return on Equity (in %)	19.705	19.705	19.758
<b>Return on Equity</b>	<b>85.64</b>	<b>164.02</b>	<b>195.86</b>

59. Accordingly, RoE approved *vide* order dated 31.5.2016 in Petition No. 36/TT/2014 for Asset-1, *vide* order dated 22.8.2016 in Petition No. 416/TT/2014 for Asset-2, Asset-3, Asset-4 and Asset-5 and *vide* order dated 14.5.2018 in Petition No. 222/TT/2016 for Asset-6, as claimed by the Petitioner in the instant petition and *trued up* RoE in this order are as follows:

(₹ in lakh)

Particulars	2014-15 (Pro-rata 333 days)	2015-16	2016-17	2017-18	2018-19
<b>Asset-1</b>					
Approved <i>vide</i> order dated 31.5.2016 in Petition No. 36/TT/2014	154.87	184.19	184.19	184.19	184.19
Claimed by the Petitioner	160.31	207.42	218.16	218.16	218.75



based on truing up in the instant petition					
Allowed after true-up in this order	160.20	207.09	217.72	217.72	218.30

(₹ in lakh)

Particulars	2015-16	2016-17	2017-18	2018-19
<b>Asset-2</b>				
Approved <i>vide</i> order dated 22.8.2016 in Petition No. 416/TT/2014	159.88	195.08	201.55	201.55
Claimed by the Petitioner based on truing up in the instant petition	335.27	398.04	412.59	414.82
Allowed after true-up in this order	334.92	397.68	412.22	414.46
<b>Asset-3</b>				
Approved <i>vide</i> order dated 22.8.2016 in Petition No. 416/TT/2014	0.00	0.00	0.00	0.00
Claimed by the Petitioner based on truing up in the instant petition	51.64	58.50	58.50	58.66
Allowed after true-up in this order	0.00	0.00	0.00	0.00
<b>Asset-4</b>				
Approved <i>vide</i> order dated 22.8.2016 in Petition No. 416/TT/2014	0.00	0.00	0.00	0.00
Claimed by the Petitioner based on truing up in the instant petition	10.33	11.79	11.79	11.82
Allowed after true-up in this order	0.00	0.00	0.00	0.00

(₹ in lakh)

Particulars	2015-16 (Pro-rata 278 days)	2016-17	2017-18	2018-19
<b>Asset-5</b>				
Approved <i>vide</i> order dated 22.8.2016 in Petition No. 416/TT/2014	121.97	195.34	201.81	201.81
Claimed by the Petitioner based on truing up in the instant petition	48.57	72.55	72.55	72.74
Allowed after true-up in this order	48.20	72.45	72.45	72.64

(₹ in lakh)

Particulars	2016-17 (Pro-rata 243 days)	2017-18	2018-19
<b>Asset-6</b>			
Approved <i>vide</i> order dated 14.5.2018 in Petition No. 222/TT/2016	92.37	176.32	190.43
Claimed by the Petitioner based on truing up in the instant petition	85.64	164.02	195.86
Allowed after true-up in this order	85.64	164.02	195.86





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

60. Regulation 29(3) of the 2014 Tariff Regulations specifies the norms for O&M Expenses. The total O&M Expenses in respect of the transmission assets claimed by the Petitioner are as follows:

(₹ in lakh)

<b>O&amp;M Expenses claimed by the Petitioner</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Asset-1	14.84*	16.81	17.37	17.94	18.54
Asset-2		53.25	55.02	56.84	58.73
Asset-3		0.00	0.00	0.00	0.00
Asset-4		0.00	0.00	0.00	0.00
Asset-5		40.45*	55.02	56.84	58.73
Asset-6			36.63*	56.84	58.73

\*Pro-rata O&M Expenses

61. We have considered the submissions of the Petitioner. O&M Expenses are allowed under Regulation 29(3) of the 2014 Tariff Regulations and the same are as follows:

(₹ in lakh)

<b>Particulars</b>	<b>2014-15 (Pro-rata 333 days)</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>Asset-1</b>					
<b>Transmission line</b> (LILO of one Ckt. of Neyveli-Trichy 400 kV line at Nagapattinam Pooling Station)					
D/C Twin Conductor (km)	23.00	23.00	23.00	23.00	23.00
Norms (₹ lakh/km)	0.707	0.731	0.755	0.780	0.806
<b>Total O&amp;M Expense (₹ in lakh)</b>	<b>14.84</b>	<b>16.81</b>	<b>17.37</b>	<b>17.94</b>	<b>18.54</b>

(₹ in lakh)

<b>Particulars</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>Asset-2</b>				
<b>Gas Insulated Sub-station (GIS) bay</b> (Neyveli TS-I expansion bay at Nagapattinam)				
400 kV bays (Number of bays)	1	1	1	1
Norms (₹ lakh/bay)	53.25	55.02	56.84	58.73
<b>Total O&amp;M Expense (₹ in lakh)</b>	<b>53.25</b>	<b>55.02</b>	<b>56.84</b>	<b>58.73</b>



(₹ in lakh)

Particulars	2015-16 (Pro-rata 278 days)	2016-17	2017-18	2018-19
<b>Asset-5</b>				
<b>Gas Insulated Sub-station (GIS) bay (Trichy bay)</b>				
400 kV bays (Numbers of bays)	1	1	1	1
Norms (₹ lakh/bay)	53.25	55.02	56.84	58.73
<b>Total O&amp;M Expense (₹ in lakh)</b>	<b>40.45</b>	<b>55.02</b>	<b>56.84</b>	<b>58.73</b>

(₹ in lakh)

Particulars	2016-17 (Pro-rata 243 days)	2017-18	2018-19
<b>Asset-6</b>			
<b>Gas Insulated Sub-station (GIS) bay (Bus reactor bay at Nagapattinam)</b>			
400 kV bays (Numbers of bays)	1	1	1
Norms (₹ lakh/bay)	55.02	56.84	58.73
<b>Total O&amp;M Expense (₹ in lakh)</b>	<b>36.63</b>	<b>56.84</b>	<b>58.73</b>

62. Accordingly, O&M Expenses approved *vide* order dated 31.5.2016 in Petition No. 36/TT/2014 for Asset-1, *vide* order dated 22.8.2016 in Petition No. 416/TT/2014 for Asset-2, Asset-3, Asset-4 and Asset-5 and *vide* order dated 14.5.2018 in Petition No. 222/TT/2016 for Asset-6, as claimed by the Petitioner in the instant petition and trued up O&M Expenses in this order are as follows:

(₹ in lakh)

Particulars	2015-16	2016-17	2017-18	2018-19
<b>Asset-2</b>				
Approved <i>vide</i> order dated 22.8.2016 in Petition No. 416/TT/2014	53.25	55.02	56.84	58.73
Claimed by the Petitioner based on truing up in the instant petition	53.25	55.02	56.84	58.73
Allowed after true-up in this order	53.25	55.02	56.84	58.73
<b>Asset-3</b>				
Approved <i>vide</i> order dated 22.8.2016 in Petition No. 416/TT/2014	0.00	0.00	0.00	0.00
Claimed by the Petitioner based on truing up in the instant petition	0.00	0.00	0.00	0.00
Allowed after true-up in this order	0.00	0.00	0.00	0.00
<b>Asset-4</b>				
Approved <i>vide</i> order dated 22.8.2016 in	0.00	0.00	0.00	0.00



Particulars	2015-16	2016-17	2017-18	2018-19
Petition No. 416/TT/2014				
Claimed by the Petitioner based on truing up in the instant petition	0.00	0.00	0.00	0.00
Allowed after true-up in this order	0.00	0.00	0.00	0.00

(₹ in lakh)

Particulars	2015-16 (Pro-rata 278 days)	2016-17	2017-18	2018-19
<b>Asset-5</b>				
Approved <i>vide</i> order dated 22.8.2016 in Petition No. 416/TT/2014	40.45	55.02	56.84	58.73
Claimed by the Petitioner based on truing up in the instant petition	40.45	55.02	56.84	58.73
Allowed after true-up in this order	40.45	55.02	56.84	58.73

(₹ in lakh)

Particulars	2016-17 (Pro-rata 243 days)	2017-18	2018-19
<b>Asset-6</b>			
Approved <i>vide</i> order dated 14.5.2018 in Petition No. 222/TT/2016	36.68	56.84	58.73
Claimed by the Petitioner based on truing up in the instant petition	36.63	56.84	58.73
Allowed after true-up in this order	36.63	56.84	58.73

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

63. IWC in respect of the transmission assets have been worked out as per the methodology provided in Regulation 28 of the 2014 Tariff Regulations and are allowed as follows:

(₹ in lakh)

Particulars	2014-15 (Pro-rata 333 days)	2015-16	2016-17	2017-18	2018-19
<b>Asset-1</b>					
Working Capital for O&M Expenses (O&M Expenses for one month)	1.36	1.40	1.45	1.50	1.54
Working Capital for Maintenance Spares (15% of O&M Expenses)	2.44	2.52	2.60	2.69	2.78
Working Capital for Receivables (Equivalent to two months of annual fixed cost/ annual	91.40	104.30	106.61	103.35	100.49



transmission charges).					
<b>Total Working Capital</b>	95.19	108.22	110.66	107.53	104.81
Rate of Interest on Working Capital (in %)	13.50	13.50	13.50	13.50	13.50
<b>Interest on Working Capital</b>	<b>11.72</b>	<b>14.61</b>	<b>14.94</b>	<b>14.52</b>	<b>14.15</b>

(₹ in lakh)

Particulars	2015-16	2016-17	2017-18	2018-19
<b>Asset-2</b>				
Working Capital for O&M Expenses (O&M Expenses for one month)	4.44	4.59	4.74	4.89
Working Capital for Maintenance Spares (15% of O&M Expenses)	7.99	8.25	8.53	8.81
Working Capital for Receivables (Equivalent to two months of annual fixed cost/ annual transmission charges)	169.87	194.72	196.04	192.35
<b>Total Working Capital</b>	<b>182.30</b>	<b>207.55</b>	<b>209.30</b>	<b>206.05</b>
Rate of Interest on Working Capital (in %)	13.50	13.50	13.50	13.50
<b>Interest on Working Capital</b>	<b>24.61</b>	<b>28.02</b>	<b>28.26</b>	<b>27.82</b>

(₹ in lakh)

Particulars	2015-16 (Pro-rata 278 days)	2016-17	2017-18	2018-19
<b>Asset-5</b>				
Working Capital for O&M Expenses (O&M Expenses for one month)	4.44	4.59	4.74	4.89
Working Capital for Maintenance Spares (15% of O&M Expenses)	7.99	8.25	8.53	8.81
Working Capital for Receivables (Equivalent to two months of annual fixed cost/ annual transmission charges)	41.29	45.21	44.46	43.81
<b>Total Working Capital</b>	<b>53.72</b>	<b>58.05</b>	<b>57.72</b>	<b>57.51</b>
Rate of Interest on Working Capital (in %)	13.50	13.50	13.50	13.50
<b>Interest on Working Capital</b>	<b>5.51</b>	<b>7.84</b>	<b>7.79</b>	<b>7.76</b>

(₹ in lakh)

Particulars	2016-17 (Pro-rata 243 days)	2017-18	2018-19
<b>Asset-6</b>			
Working Capital for O&M Expenses (O&M Expenses for one month)	4.59	4.74	4.89
Working Capital for Maintenance Spares (15% of O&M Expenses)	8.25	8.53	8.81
Working Capital for Receivables (Equivalent to two months of annual fixed cost/ annual transmission charges)	72.16	87.81	100.90



<b>Total Working Capital</b>	85.00	101.07	114.61
Rate of Interest on Working Capital (in %)	12.80	12.80	12.80
<b>Interest on Working Capital</b>	<b>7.24</b>	<b>12.94</b>	<b>14.67</b>

64. Accordingly, IWC approved *vide* order dated 31.5.2016 in Petition No. 36/TT/2014 for Asset-1, *vide* order dated 22.8.2016 in Petition No. 416/TT/2014 for Asset-2, Asset-3, Asset-4 and Asset-5 and *vide* order dated 14.5.2018 in Petition No. 222/TT/2016 for Asset-6, as claimed by the Petitioner in the instant petition and trued up IWC in this order are as follows:

(₹ in lakh)

Particulars	2014-15 (Pro-rata 333 days)	2015-16	2016-17	2017-18	2018-19
<b>Asset-1</b>					
Approved <i>vide</i> order dated 31.5.2016 in Petition No. 36/TT/2014	11.53	13.34	13.00	12.66	12.33
Claimed by the Petitioner based on truing up in the instant petition	11.72	14.63	14.97	14.55	14.18
Allowed after true-up in this order	11.72	14.61	14.94	14.52	14.15

(₹ in lakh)

Particulars	2015-16	2016-17	2017-18	2018-19
<b>Asset-2</b>				
Approved <i>vide</i> order dated 22.8.2016 in Petition No. 416/TT/2014	13.34	15.49	15.70	15.48
Claimed by the Petitioner based on truing up in the instant petition	24.96	28.36	28.56	28.09
Allowed after true-up in this order	24.61	28.02	28.26	27.82
<b>Asset-3</b>				
Approved <i>vide</i> order dated 22.8.2016 in Petition No. 416/TT/2014	0.00	0.00	0.00	0.00
Claimed by the Petitioner based on truing up in the instant petition	3.50	3.85	3.73	3.63
Allowed after true-up in this order	0.00	0.00	0.00	0.00
<b>Asset-4</b>				
Approved <i>vide</i> order dated 22.8.2016 in Petition No. 416/TT/2014	0.00	0.00	0.00	0.00
Claimed by the Petitioner based on truing up in the instant petition	0.70	0.78	0.75	0.73
Allowed after true-up in this order	0.00	0.00	0.00	0.00



(₹ in lakh)

Particulars	2015-16 (Pro-rata 278 days)	2016-17	2017-18	2018-19
<b>Asset-5</b>				
Approved <i>vide</i> order dated 22.8.2016 in Petition No. 416/TT/2014	10.19	15.57	15.78	15.55
Claimed by the Petitioner based on truing up in the instant petition	5.54	7.84	7.80	7.77
Allowed after true-up in this order	5.51	7.84	7.79	7.76

(₹ in lakh)

Particulars	2016-17 (Pro-rata 243 days)	2017-18	2018-19
<b>Asset-6</b>			
Approved <i>vide</i> order dated 14.5.2018 in Petition No. 222/TT/2016	7.71	13.83	14.52
Claimed by the Petitioner based on truing up in the instant petition	7.24	12.94	14.67
Allowed after true-up in this order	7.24	12.94	14.67

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

65. The trued up Annual Fixed Charges (AFC) in respect of the transmission assets for 2014-19 tariff period are as follows:

(₹ in lakh)

Particulars	2014-15 (Pro-rata 333 days)	2015-16	2016-17	2017-18	2018-19
<b>Asset-1</b>					
Depreciation	143.78	184.97	194.46	194.46	194.46
Interest on Loan	169.77	202.32	195.16	175.45	157.47
Return on Equity	160.20	207.09	217.72	217.72	218.30
O&M Expenses	14.84	16.81	17.37	17.94	18.54
Interest on Working Capital	11.72	14.61	14.94	14.52	14.15
<b>Total</b>	<b>500.30</b>	<b>625.81</b>	<b>639.64</b>	<b>620.09</b>	<b>602.92</b>

(₹ in lakh)

Particulars	2015-16	2016-17	2017-18	2018-19
<b>Asset-2</b>				
Depreciation	252.88	298.45	305.83	306.84
Interest on Loan	353.59	389.13	373.08	346.25
Return on Equity	334.92	397.68	412.22	414.46
O&M Expenses	53.25	55.02	56.84	58.73
Interest on Working Capital	24.61	28.02	28.26	27.82



<b>Total</b>	<b>1019.25</b>	<b>1168.30</b>	<b>1176.23</b>	<b>1154.09</b>
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(₹ in lakh)

<b>Particulars</b>	<b>2015-16 (Pro-rata 278 days)</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>Asset-5</b>				
Depreciation	43.05	64.71	64.71	64.71
Interest on Loan	51.08	71.26	64.96	59.01
Return on Equity	48.20	72.45	72.45	72.64
O&M Expenses	5.51	7.84	7.79	7.76
Interest on Working Capital	40.45	55.02	56.84	58.73
<b>Total</b>	<b>188.29</b>	<b>271.27</b>	<b>266.75</b>	<b>262.86</b>

(₹ in lakh)

<b>Particulars</b>	<b>2016-17 (Pro-rata 243 days)</b>	<b>2017-18</b>	<b>2018-19</b>
<b>Asset-6</b>			
Depreciation	75.84	145.52	173.49
Interest on Loan	82.90	147.52	162.66
Return on Equity	85.64	164.02	195.86
O&M Expenses	36.63	56.84	58.73
Interest on Working Capital	7.24	12.94	14.67
<b>Total</b>	<b>288.25</b>	<b>526.85</b>	<b>605.41</b>

66. Accordingly, the Annual Transmission Charges approved *vide* order dated 31.5.2016 in Petition No. 36/TT/2014 for Asset-1, *vide* order dated 22.8.2016 in Petition No. 416/TT/2014 for Asset-2, Asset-3, Asset-4 and Asset-5 and *vide* order dated 14.5.2018 in Petition No. 222/TT/2016 for Asset-6, as claimed by the Petitioner in the instant petition and as approved after truing up in the instant order are as follows:

(₹ in lakh)

<b>Particulars</b>	<b>2014-15 (Pro-rata 333 days)</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>Asset-1</b>					
Approved <i>vide</i> order dated 31.5.2016 in Petition No. 36/TT/2014	491.48	569.25	553.55	537.81	522.17
Claimed by the Petitioner based on truing up in the	500.42	626.59	640.96	621.37	604.17



instant petition					
Allowed after true-up in this order	500.30	625.81	639.64	620.09	602.92

(₹ in lakh)

Particulars	2015-16	2016-17	2017-18	2018-19
<b>Asset-2</b>				
Approved <i>vide</i> order dated 22.8.2016 in Petition No. 416/TT/2014	518.53	611.56	618.09	605.58
Claimed by the Petitioner based on truing up in the instant petition	1034.94	1183.21	1189.73	1166.13
Allowed after true-up in this order	1019.25	1168.30	1176.23	1154.09
<b>Asset-3</b>				
Approved <i>vide</i> order dated 22.8.2016 in Petition No. 416/TT/2014	0.00	0.00	0.00	0.00
Claimed by the Petitioner based on truing up in the instant petition	155.49	171.14	165.94	161.19
Allowed after true-up in this order	0.00	0.00	0.00	0.00
<b>Asset-4</b>				
Approved <i>vide</i> order dated 22.8.2016 in Petition No. 416/TT/2014	0.00	0.00	0.00	0.00
Claimed by the Petitioner based on truing up in the instant petition	31.09	34.49	33.44	32.48
Allowed after true-up in this order	0.00	0.00	0.00	0.00

(₹ in lakh)

Particulars	2015-16 (Pro-rata 278 days)	2016-17	2017-18	2018-19
<b>Asset-5</b>				
Approved <i>vide</i> order dated 22.8.2016 in Petition No. 416/TT/2014	396.46	615.05	621.55	609.03
Claimed by the Petitioner based on truing up in the instant petition	189.37	271.54	267.02	263.10
Allowed after true-up in this order	188.29	271.27	266.75	262.86

(₹ in lakh)

Particulars	2016-17 (Pro-rata 243 days)	2017-18	2018-19
<b>Asset-6</b>			
Approved <i>vide</i> order dated 14.5.2018 in Petition No. 222/TT/2016	310.20	568.90	598.59
Claimed by the Petitioner based on truing up in the instant petition	288.25	526.84	605.41
Allowed after true-up in this order	288.25	526.85	605.41





67. The variation in Annual Transmission Charges in respect of the transmission assets approved after truing up in comparison to what was approved earlier is mainly due to change in trued up capital cost on account of IDC disallowed due to time over-run and segregation of capital cost of Asset-2 and Asset-5 *vide* order dated 22.8.2016 in Petition No. 416/TT/2014 in the ratio of 50:50 based on assumptions.

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

68. The Petitioner has submitted tariff forms after combining the transmission assets into a single asset and has claimed combined tariff. Accordingly, as per proviso (i) of Regulation 8(1) of the 2019 Tariff Regulations, single tariff for the Combined Asset has been worked out for 2019-24 tariff period.

69. The Petitioner has claimed the following transmission charges in respect of the Combined Asset for 2019-24 tariff period:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	821.91	821.91	814.33	797.76	797.76
Interest on Loan	711.01	638.16	568.89	500.43	431.16
Return on Equity	929.85	931.68	931.68	931.68	931.68
Interest on Working Capital	40.96	40.13	39.11	37.97	36.98
O&M Expenses	89.95	93.04	96.23	99.51	102.93
<b>Total</b>	<b>2593.68</b>	<b>2524.92</b>	<b>2450.24</b>	<b>2367.35</b>	<b>2300.51</b>

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

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	7.50	7.75	8.02	8.29	8.58
Maintenance Spares	13.49	13.96	14.43	14.93	15.44
Receivables	318.90	311.29	302.08	291.87	282.85



Total Working Capital	339.89	333.00	324.53	315.09	306.87
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
<b>Interest on Working Capital</b>	<b>40.96</b>	<b>40.13</b>	<b>39.11</b>	<b>37.97</b>	<b>36.98</b>

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

71. The Petitioner has claimed E-COD of the Combined Asset as 3.5.2015. Based on the trued-up admitted capital cost and actual COD of all the Assets, E-COD has been worked out as follows:

(₹ in lakh)

<b>Computation of E-COD</b>					
<b>Particulars</b>	<b>COD</b>	<b>Admitted Capital Cost as on 31.3.2019</b>	<b>Weight of the cost (in %)</b>	<b>Number of days from last COD</b>	<b>Weighted days</b>
Asset-1	3.5.2014	3682.96	0.24	821	198.07
Asset-2	1.4.2015	6992.21	0.46	488	223.52
Asset-3		0.00	0.00	488	0.00
Asset-4		0.00	0.00	488	0.00
Asset-5	28.6.2015	1225.55	0.08	400	32.11
Asset-6	1.8.2016	3364.79	0.22	0	0.00
<b>Total</b>		<b>15266.39</b>	<b>1.00</b>		<b>453.71</b>
<b>E-COD 5.5.2015</b>					

72. E-COD is used to determine the lapsed life of the project as a whole which works out as 3 (three) years as on 1.4.2019 (i.e. the number of completed years as on 1.4.2019 from E-COD).

### **Weighted Average Life (“WAL”) of the Combined Transmission Asset**

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

74. WAL has been determined based on the admitted capital cost of the individual elements as on 31.3.2019 and their respective life as stipulated in the 2019 Tariff



Regulations. The element-wise life as it was defined in the 2014 Tariff Regulations prevailing at the time of actual COD of the individual asset has been ignored for this purpose. The life as defined in the 2019 Tariff Regulations has been considered for determination of WAL. Accordingly, WAL of the Combined Asset has been worked out as 27 years as follows:

Particulars (1)	Combined Cost (₹ in lakh) (2)	Life in Years (3)	Weighted Cost (₹ in lakh) (4) = (2)x(3)	Weighted Average Life of Asset (in years) (5) = (4)/ (2)
Building	1930.35	25	48258.73	<b>27.22 years, rounded off to 27 years</b>
Transmission line	3682.96	35	128903.64	
Sub-station	8871.87	25	221796.87	
PLCC	107.93	15	1618.89	
IT Equipment and Software	160.80	6.67	1072.01	
<b>Total</b>	<b>14753.91</b>		<b>401650.13</b>	

75. WAL as on 1.4.2019 as determined above is applicable prospectively (i.e. for 2019-24 tariff period onwards) and no retrospective adjustment of depreciation in previous tariff period is required to be done. As discussed above, E-COD of the Combined Asset is 5.5.2015 and the lapsed life of the project as a whole works out as 3 years as on 1.4.2019 (i.e. the number of completed years as on 1.4.2019 from E-COD). Accordingly, WAL has been used to determine the remaining useful life as on 31.3.2019 to be 24 years.

### **Capital Cost**

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

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

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



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

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

- (a) *Capital cost admitted by the Commission prior to 1.4.2019 duly trued up by excluding liability, if any, as on 1.4.2019;*
- (b) *Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;*
- (c) *Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*
- (d) *Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*
- (e) *Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal up to the receiving end of generating*



station but does not include the transportation cost and any other appurtenant cost paid to the railway; and  
(f) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.”

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

- (a) cost of approved rehabilitation and resettlement (R&R) plan of the project in conformity with National R&R Policy and R&R package as approved; and
- (b) cost of the developer's 10% contribution towards Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) and Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) project in the affected area.

“(5) The following shall be excluded from the Capital Cost of the existing and new projects:

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

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

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

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

77. The Petitioner has claimed capital cost of ₹16470.03 lakh as on 31.3.2019 with respect to Combined Asset. The Commission has worked out ₹15265.51 lakh as opening capital cost as on 1.4.2019 for determination of tariff in accordance with Regulation 19 of the 2019 Tariff Regulations.



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

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

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

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

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

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

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

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

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

- (a) Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority, or order or decree of any court of law;*
- (b) Change in law or compliance of any existing law;*
- (c) Deferred works relating to ash pond or ash handling system in the original scope of work;*
- (d) Liability for works executed prior to the cut-off date;*
- (e) Force Majeure events;*
- (f) Liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments; and*
- (g) Raising of ash dyke as a part of ash disposal system.*

*(2) In case of replacement of assets deployed under the original scope of the existing project after cut-off date, the additional capitalization may be admitted by the Commission, after making necessary adjustments in the gross fixed assets and the*



*cumulative depreciation, subject to prudence check on the following grounds:*

*(a) The useful life of the assets is not commensurate with the useful life of the project*

*and such assets have been fully depreciated in accordance with the provisions of these regulations*

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

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

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

79. The Petitioner has claimed ACE of ₹65 lakh during the year 2019-20 in respect of Asset-2 under Regulation 25(1)(a) of the 2019 Tariff Regulations. The Petitioner has submitted that ACE is on account of the direction from Revenue Authorities towards implementation of Community Development works under Rehabilitation Action Plan (RAP) at 765/400 kV Nagapattinam Pooling Station. The Petitioner has further submitted that as per the District Collector letter dated 26.6.2019, the Petitioner was directed to implement community development works under rehabilitation assistance and that there was considerable delay from the Revenue Department in suggesting the suitable community development works which led to ACE being proposed in the year 2019-20 i.e. beyond the cut-off date for Asset-2. The Petitioner has also enclosed the copy of the letter and other relevant documents *vide* affidavit dated 27.11.2020.

80. We have considered the submissions of the Petitioner. ACE claimed on account of the direction from Revenue Authorities towards implementation of Community Development works under Rehabilitation Action Plan (RAP) at 765/400 kV Nagapattinam Pooling Station is allowed under Regulation 25(1)(a) of the 2019 Tariff Regulations. The capital cost considered for 2019-24 tariff period is as follows:



(₹ in lakh)

Capital Cost as on 1.4.2019	Admitted ACE	Capital Cost as on 31.3.2024
	2019-20	
15265.51	65.00	15330.51

### **Debt-Equity ratio**

81. 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 ACE 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.”

82. Debt-equity considered for the purpose of tariff for 2019-24 period is as follows:

Particulars	Capital Cost as on 1.4.2019 (₹ in lakh)	(in %)	Capital Cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	10685.86	70.00	10731.36	70.00
Equity	4579.65	30.00	4599.15	30.00
<b>Total</b>	<b>15265.51</b>	<b>100.00</b>	<b>15330.51</b>	<b>100.00</b>

### **Depreciation**

83. Regulation 33 of the 2019 Tariff Regulations provide 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 project or element thereof including communication project. In case of the tariff of all the units of a generating station or all elements of a transmission project including communication project 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 project 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 project, 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 project, weighted average life for the generating station of the transmission project shall be applied. Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis.



*(3) The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset:*

*Provided that the salvage value for IT equipment and software shall be considered as NIL and 100% value of the assets shall be considered depreciable;*

*Provided further that in case of hydro generating stations, the salvage value shall be as provided in the agreement, if any, signed by the developers with the State Government for development of the generating station:*

*Provided also that the capital cost of the assets of the hydro generating station for the purpose of computation of depreciated value shall correspond to the percentage of sale of electricity under long-term power purchase agreement at regulated tariff:*

*Provided also that any depreciation disallowed on account of lower availability of the generating station or unit or transmission system as the case may be, shall not be allowed to be recovered at a later stage during the useful life or the extended life.*

*(4) Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.*

*(5) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix-I to these regulations for the assets of the generating station and transmission system:*

*Provided that the remaining depreciable value as on 31st March of the year closing after a period of 12 years from the effective date of commercial operation of the station shall be spread over the balance useful life of the assets.*

*(6) In case of the existing projects, the balance depreciable value as on 1.4.2019 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31.3.2019 from the gross depreciable value of the assets.*

*(7) The generating company or the transmission licensee, as the case may be, shall submit the details of proposed capital expenditure five years before the completion of useful life of the project along with justification and proposed life extension. The Commission based on prudence check of such submissions shall approve the depreciation on capital expenditure.*

*(8) In case of de-capitalization of assets in respect of generating station or unit thereof or transmission system or element thereof, the cumulative depreciation shall be adjusted by taking into account the depreciation recovered in tariff by the de-capitalized asset during its useful services.”*

84. WAROD has been worked out (as placed in Annexure V) after taking into account the depreciation rates of assets as prescribed in the 2019 Tariff Regulations. Depreciation has been worked out considering the admitted capital expenditure as on 31.3.2019 and accumulated depreciation up to 31.3.2019. Depreciation allowed in respect of the Combined Asset is as follows:



(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Depreciation</b>					
Opening Gross Block	15265.51	15330.51	15330.51	15330.51	15330.51
ACE	65.00	0.00	0.00	0.00	0.00
Closing Gross Block	15330.51	15330.51	15330.51	15330.51	15330.51
Average Gross Block	15298.01	15330.51	15330.51	15330.51	15330.51
Freehold Land	544.10	576.60	576.60	576.60	576.60
Weighted average rate of Depreciation (WAROD) (in %)	4.96	4.95	4.95	4.95	4.95
Balance useful life of the asset (Year)	24	23	22	21	20
Lapsed life at the beginning of the year (Year)	3	4	5	6	7
Aggregate Depreciable Value	13294.60	13294.60	13294.60	13294.60	13294.60
<b>Combined Depreciation during the year</b>	<b>758.32</b>	<b>758.32</b>	<b>758.32</b>	<b>758.32</b>	<b>758.32</b>
Cumulative Aggregate Depreciation at the end of the year	3466.48	4224.80	4983.12	5741.44	6499.76
Remaining Aggregate Depreciable Value at the end of the year	9828.12	9069.80	8311.48	7553.16	6794.84

### **Interest on Loan (“IoL”)**

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

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

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

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

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



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

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

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

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

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

86. The weighted average rate of IoL has been considered on the basis of rate prevailing as on 1.4.2019. The Petitioner has prayed that the change in interest rate due to floating rate of interest applicable, if any, during 2019-24 tariff period will be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of true up. Therefore, IoL has been allowed in accordance with Regulation 32 of the 2019 Tariff Regulations. IoL allowed in respect of the Combined Asset is as follows:

	(₹ in lakh)				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	10685.86	10731.36	10731.36	10731.36	10731.36
Cumulative Repayments up to Previous Year	2708.16	3466.48	4224.80	4983.12	5741.44
Net Loan-Opening	7977.70	7264.88	6506.56	5748.24	4989.92
Additions	45.50	0.00	0.00	0.00	0.00
Repayment during the year	758.32	758.32	758.32	758.32	758.32
Net Loan-Closing	7264.88	6506.56	5748.24	4989.92	4231.60
Average Loan	7621.29	6885.72	6127.40	5369.08	4610.76
Weighted Average Rate of	8.7110	8.6714	8.7020	8.7377	8.7503



Interest on Loan (in %)					
<b>Interest on Loan</b>	<b>663.89</b>	<b>597.09</b>	<b>533.21</b>	<b>469.13</b>	<b>403.45</b>

### **Return on Equity (“RoE”)**

87. Regulation 30 and Regulation 31 of the 2019 Tariff Regulations specify as follows:

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

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

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

*Provided further that:*

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

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

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

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

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

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



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

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

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

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

**Illustration-**

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

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

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

- (a) Estimated Gross Income from generation or transmission business for FY 2019-20 is Rs 1,000 crore;
- (b) Estimated Advance Tax for the year on above is Rs 240 crore;
- (c) Effective Tax Rate for the year 2019-20 = Rs 240 Crore/Rs 1000 Crore = 24%;
- (d) Rate of return on equity =  $15.50 / (1 - 0.24) = 20.395\%$ .

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



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

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	4579.65	4599.15	4599.15	4599.15	4599.15
Additions	19.50	0.00	0.00	0.00	0.00
Closing Equity	4599.15	4599.15	4599.15	4599.15	4599.15
Average Equity	4589.40	4599.15	4599.15	4599.15	4599.15
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (in %)	17.472	17.472	17.472	17.472	17.472
Rate of Return on Equity (in %)	18.782	18.782	18.782	18.782	18.782
<b>Return on Equity</b>	<b>861.98</b>	<b>863.81</b>	<b>863.81</b>	<b>863.81</b>	<b>863.81</b>

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

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

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Transmission line (LILO of one Ckt. of Neyveli-Trichy 400 kV line at Nagapattinam Pooling Station)</b>					
D/C Twin Conductor (Length: 23.00 km)	20.26	20.98	21.71	22.47	23.25
<b>Gas Insulated Sub-station (GIS) bays</b>					
3 Numbers of 400 kV bays at Nagapattinam	67.53	69.90	72.36	74.88	77.52
.CC (2% of ₹108.05 lakh)	2.16	2.16	2.16	2.16	2.16
<b>Total O&amp;M Expenses</b>	<b>89.95</b>	<b>93.04</b>	<b>96.23</b>	<b>99.51</b>	<b>102.93</b>



90. The norms specified under Regulation 35(3)(a) and Regulation 35 (4) of the 2019 Tariff Regulations is as follows:

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

...

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

<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





<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 Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)</i>	2,468	2,555	2,645	2,738	2,834
<i>±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)</i>	1,696	1,756	1,817	1,881	1,947
<i>±800 kV, Bishwanath-Agra HVDC bipole 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.”

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

92. O&M Expenses allowed for 2019-24 tariff period are as follows:

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Gas Insulated Sub-station (GIS) bays</b>					
400 kV bays at Nagapattinam					
Number of bays	3	3	3	3	3
Norms (₹ lakh/bay)	22.505	23.296	24.115	24.962	25.837
<b>Transmission line</b> (LILO of one Ckt. of Neyveli-Trichy 400 kV line at Nagapattinam Pooling Station)					



D/C Twin Conductor (km)	23.00	23.00	23.00	23.00	23.00
Norms (₹ lakh/km)	0.881	0.912	0.944	0.977	1.011
<b>Total O&amp;M Expense (₹ in lakh)</b>	<b>87.78</b>	<b>90.86</b>	<b>94.06</b>	<b>97.36</b>	<b>100.76</b>

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

93. 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) ...

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

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

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

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

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

#### **“3. Definitions ...**

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

94. The Petitioner has submitted that it has computed IWC for 2019-24 period considering the SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of IWC as 12.05%.



95. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The Rate of Interest (ROI) considered is 12.05% (SBI 1-year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for 2019-20, 11.25% (SBI 1-year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points) for 2020-21 and from 2021-22 onwards as 10.50% (SBI 1-year MCLR applicable as on 1.4.2021 of 7.00% plus 350 basis points). The components of the working capital and interest allowed thereon in respect of the Combined Asset is as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Working Capital for O&M Expenses (O&M Expenses for one month)	7.31	7.57	7.84	8.11	8.40
Working Capital for Maintenance Spares (15% of O&M Expenses)	13.17	13.63	14.11	14.60	15.11
Working Capital for Receivables (Equivalent to 45 days of annual fixed cost/ annual transmission charges)	318.90	311.29	302.08	291.87	282.85
<b>Total Working Capital</b>	<b>339.38</b>	<b>332.49</b>	<b>324.03</b>	<b>314.58</b>	<b>306.36</b>
Rate of Interest on Working Capital (in %)	12.05	11.25	10.50	10.50	10.50
<b>Interest on Working Capital</b>	<b>40.89</b>	<b>37.41</b>	<b>34.02</b>	<b>33.03</b>	<b>32.17</b>

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

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

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	758.32	758.32	758.32	758.32	758.32
Interest on Loan	663.89	597.09	533.21	469.13	403.45
Return on Equity	861.98	863.81	863.81	863.81	863.81
O&M Expenses	40.89	37.41	34.02	33.03	32.17



Interest on Working Capital	87.78	90.86	94.06	97.36	100.76
<b>Total</b>	<b>2412.87</b>	<b>2347.49</b>	<b>2283.42</b>	<b>2221.65</b>	<b>2158.52</b>

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

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

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

98. 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 Regulation 70(3) of the 2019 Tariff Regulations for 2019-24 tariff period.

### **Goods and Services Tax**

99. 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 & 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.

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



### **Security Expenses**

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

102. 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 wherein the Commission approved security expenses from 1.4.2019 to 31.3.2024. Therefore, security expenses will be shared in terms of the order dated 3.8.2021 in Petition No. 260/MP/2020. 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**

103. 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**

104. The Commission vide order dated 31.5.2016 in Petition No. 36/TT/2014 held as follows:

*"57. The approved transmission charges from the date of COD to 28.9.2015 shall be billed to and paid by IL&FS. Thereafter, w.e.f. 29.9.2015, the billing, collection and disbursement of the transmission charges approved shall be governed by the provisions of Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010, as amended from time to time, as provided in Regulation 43 of the 2014 Tariff Regulations."*



105. The Commission vide order dated 22.8.2016 in petition No. 416/TT/2014 held as follows:

*“85. We are of the view that the transmission charges approved in this order shall be borne by IL&FS from the date of COD of the instant assets till operationalisation of LTA of IL&FS and it shall not be included in the computation of PoC charges. Thereafter, the billing, collection and disbursement of the transmission charges approved shall be governed by the provisions of Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010, as amended from time to time, as provided in Regulation 43 of the 2014 Tariff Regulations”.*

106. In view of the above, the transmission charges with respect to Asset-1 from its COD to 28.9.2015 shall be recovered from IL&FS. With effect from 29.9.2015, the same shall be recoverable from the common pool of transmission charges. The transmission charges with respect to Asset-2 and Asset-5 from their COD till operationalization of LTA shall be recovered from IL&FS. Thereafter, the same shall be recoverable from common pool of transmission charges. Transmission charges for Asset-6 shall be recoverable from common pool of transmission charges with effect from its COD.

107. With effect from 1.11.2020, the 2010 Sharing Regulations has been repealed and sharing of transmission charges is governed by the provisions of the 2020 Sharing Regulations. Accordingly, the liabilities of DICs for arrears of transmission charges determined through this order shall be computed DIC-wise in accordance with the provisions of respective Tariff Regulations and Sharing Regulations and shall be recovered from the concerned DICs through Bills under Regulation 15(2)(b) of the 2020 Sharing Regulations. Billing, collection and disbursement of transmission charges for subsequent period shall be recovered in terms of provisions of the 2020 Sharing Regulations as provided in Regulation 57 of the 2019 Tariff Regulations.



108. To summarise:

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

(₹ in lakh)

Particulars	2014-15 (Pro-rata 333 days)	2015-16	2016-17	2017-18	2018-19
AFC (Asset-1)	500.30	625.81	639.64	620.09	602.92

(₹ in lakh)

Particulars	2015-16	2016-17	2017-18	2018-19
AFC (Asset-2)	1019.25	1168.30	1176.23	1154.09

(₹ in lakh)

Particulars	2015-16 (Pro-rata 278 days)	2016-17	2017-18	2018-19
AFC (Asset-5)	188.29	271.27	266.75	262.86

(₹ in lakh)

Particulars	2016-17 (Pro-rata 243 days)	2017-18	2018-19
AFC (Asset-6)	288.25	526.85	605.41

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

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
AFC	2412.87	2347.49	2283.42	2221.65	2158.52

109. Annexure-I, Annexure-II, Annexure-III, Annexure-IV and Annexure-V given hereinafter shall form part of this order.

110. This order disposes of Petition No. 328/TT/2020 in terms of the above discussion and findings.

sd/-  
(P. K. Singh)  
Member

sd/-  
(I. S. Jha)  
Member

sd/-  
(P.K. Pujari)  
Chairperson





<b>Petition No.:</b>	<b>328/TT/2020</b>
<b>Period</b>	<b>2014-19 True-up</b>

### Annexure-I (Asset-1)

2014-19 Capital Expenditure	Admitted Capital Cost as on COD (₹ in lakh)	ACE (₹ in lakh)		Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)				
		2015-16	Total			2014-15	2015-16	2016-17	2017-18	2018-19
Transmission Line	2645.95	359.53	1037.01	3682.96	5.28%	157.59	184.97	194.46	194.46	194.46
<b>Total</b>	<b>2645.95</b>	<b>359.53</b>	<b>1037.01</b>	<b>3682.96</b>	<b>Total</b>	<b>157.59</b>	<b>184.97</b>	<b>194.46</b>	<b>194.46</b>	<b>194.46</b>
<b>Average Gross Block (₹ in lakh)</b>						<b>2984.69</b>	<b>3503.20</b>	<b>3682.96</b>	<b>3682.96</b>	<b>3682.96</b>
<b>Weighted Average Rate of Depreciation</b>						<b>5.28%</b>	<b>5.28%</b>	<b>5.28%</b>	<b>5.28%</b>	<b>5.28%</b>



<b>Petition No.:</b>	<b>328/TT/2020</b>
<b>Period</b>	<b>2014-19 True-up</b>

### Annexure-II (Asset-2)

2014-19 Capital Expenditure	Admitted Capital Cost as on COD (₹ in lakh)	ACE (₹ in lakh)				Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)				
		2015-16	2016-17	2017-18	Total			2015-16	2016-17	2017-18	2018-19	
Building Civil Works & Colony	982.68	514.95	382.37	-	897.32	1880.00	3.34%	41.42	56.41	62.79	62.79	
Sub-station	3165.51	1128.37	-	38.00	1166.37	4331.88	5.28%	196.93	226.72	227.72	228.72	
PLCC	87.86	20.06	-	-	20.06	107.93	6.33%	6.20	6.83	6.83	6.83	
IT Equipment (Incl. Software)	154.92	5.88	-	-	5.88	160.80	5.28%	8.34	8.49	8.49	8.49	
<b>Total</b>	<b>4830.97</b>	<b>1669.26</b>	<b>453.98</b>	<b>38.00</b>	<b>2161.24</b>	<b>6992.21</b>	<b>Total</b>	<b>252.88</b>	<b>298.45</b>	<b>305.83</b>	<b>306.84</b>	
								<b>Average Gross Block (₹ in lakh)</b>	<b>5665.60</b>	<b>6727.22</b>	<b>6973.21</b>	<b>6992.21</b>
								<b>Weighted Average Rate of Depreciation</b>	<b>4.46%</b>	<b>4.44%</b>	<b>4.39%</b>	<b>4.39%</b>



<b>Petition No.:</b>	<b>328/TT/2020</b>
<b>Period</b>	<b>2014-19 True-up</b>

### Annexure-III (Asset-V)

2014-19 Capital Expenditure	Admitted Capital Cost as on COD (₹ in lakh)	ACE (₹ in lakh)		Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)			
		2015-16	Total			2015-16	2016-17	2017-18	2018-19
Sub-station	920.04	305.52	305.52	1225.55	5.28%	56.64	64.71	64.71	64.71
<b>Total</b>	<b>920.04</b>	<b>305.52</b>	<b>305.52</b>	<b>1225.55</b>	<b>Total</b>	<b>56.64</b>	<b>64.71</b>	<b>64.71</b>	<b>64.71</b>
<b>Average Gross Block (₹ in lakh)</b>						<b>1072.80</b>	<b>1225.55</b>	<b>1225.55</b>	<b>1225.55</b>
<b>Weighted Average Rate of Depreciation</b>						<b>5.28%</b>	<b>5.28%</b>	<b>5.28%</b>	<b>5.28%</b>



<b>Petition No.:</b>	<b>328/TT/2020</b>
<b>Period</b>	<b>2014-19 True-up</b>

### Annexure-IV (Asset-6)

2014-19 Capital Expenditure	Admitted Capital Cost as on COD (₹ in lakh)	ACE (₹ in lakh)				Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)			
		2016-17	2017-18	2018-19	Total			2016-17	2017-18	2018-19	
Building Civil Works & Colony	50.35	-	-	-	-	50.35	3.34%	1.68	1.68	1.68	
Sub-station	1996.29	258.75	938.51	120.89	1318.15	3314.44	5.28%	112.24	143.84	171.81	
<b>Total</b>	<b>2046.64</b>	<b>258.75</b>	<b>938.51</b>	<b>120.89</b>	<b>1318.15</b>	<b>3364.79</b>	<b>Total</b>	<b>113.92</b>	<b>145.52</b>	<b>173.49</b>	
								<b>Average Gross Block (₹ in lakh)</b>	<b>2176.01</b>	<b>2774.64</b>	<b>3304.34</b>
								<b>Weighted Average Rate of Depreciation</b>	<b>5.24%</b>	<b>5.24%</b>	<b>5.25%</b>



<b>Petition No.:</b>	<b>328/TT/2020</b>
<b>Period</b>	<b>2019-24 Tariff</b>

### Annexure-V (Combined Asset)

2019-24 Capital Expenditure	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Projected ACE (₹ in lakh)		Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)				
		2019-20	Total			2019-20	2020-21	2021-22	2022-23	2023-24
Land - Freehold	511.60	65.00	65.00	576.60	-	-	-	-	-	-
Land - Leasehold	0.00	-	-	0.00	3.34%	-	-	-	-	-
Building Civil Works & Colony	1,930.35	-	-	1,930.35	3.34%	64.47	64.47	64.47	64.47	64.47
Transmission Line	3682.96	-	-	3682.96	5.28%	194.46	194.46	194.46	194.46	194.46
Sub-station	8871.87	-	-	8871.87	5.28%	468.43	468.43	468.43	468.43	468.43
PLCC	107.93	-	-	107.93	6.33%	6.83	6.83	6.83	6.83	6.83
IT Equipment (Incl. Software)	160.80	-	-	160.80	15.00%	24.12	24.12	24.12	24.12	24.12
<b>Total</b>	<b>15265.51</b>	<b>65.00</b>	<b>65.00</b>	<b>15330.51</b>		<b>758.32</b>	<b>758.32</b>	<b>758.32</b>	<b>758.32</b>	<b>758.32</b>
<b>Average Gross Block (₹ in lakh)</b>						<b>15298.01</b>	<b>15330.51</b>	<b>15330.51</b>	<b>15330.51</b>	<b>15330.51</b>
<b>Weighted Average Rate of Depreciation</b>						<b>4.96%</b>	<b>4.95%</b>	<b>4.95%</b>	<b>4.95%</b>	<b>4.95%</b>

