

# CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

**Petition No. 308/TT/2020**  
**along with**  
**IA No. 56/IA/2020**

**Coram:**

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

**Date of Order: 28.02.2022**

**In the Matter of:**

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and truing up of transmission tariff of 2014-19 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of 2019-24 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 in respect of **Asset-I**: 400 kV D/C Palatana-Silchar Twin Moose Conductor Transmission Line, **Asset-II**: 400 kV D/C Silchar-Byrnihat (one circuit on D/C towers) Twin Moose Conductor Transmission Line, **Asset-III**: 400 kV D/C Byrnihat-Bongaigaon (one circuit on D/C towers) Twin Moose Conductor Transmission Line, **Asset-IV**: 400 kV D/C Silchar- Azara (one circuit on D/C towers) Twin Moose Conductor Transmission Line and **Asset-V**: 400 kV D/C Azara-Bongaigaon Transmission Line (one circuit on D/C towers) Twin Moose Conductor Transmission Line of North East Transmission Company Limited (NETCL) in North Eastern Region.

**And in the matter of:**

North East Transmission Company Limited,  
Corporate Office: 2C, 3rd Floor, D-21,  
DMRC Building, Corporate Park,  
Dwarka, Sector-21, Delhi - 110077.  
Registered Office: Village East Champamura,  
Khayerpur By-Pass Road, P.O. & PS- Old Agartala,  
Distt.- West Tripura - 799008.

**... Petitioner**

**Versus**

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



2. Tripura State Electricity Corporation Limited,  
Vidyut Bhawan, North Banamalipur,  
Agartala-799001.
3. Assam Electricity Grid Corporation Limited,  
Bijulee Bhawan, Paltan Bazar,  
Guwahati - 781001.
4. Meghalaya State Electricity Board,  
Lumjingshai, Short Round Road-I,  
Shillong - 793001.
5. Department of Power,  
Government of Nagaland,  
Kohima - 797001.
6. Power & Electricity Department,  
Government of Mizoram,  
Aizwal - 796001.
7. Electricity Department, Government of Manipur,  
Keishampat, Imphal - 795001.
8. Department of Power,  
Government of Arunachal Pradesh,  
Itanagar - 791111.
10. ONGC Tripura Power Company Limited,  
Udaipur, Karkraban road, Palatana P.O.  
Distt-Gomati, Tripura - 799105.
11. North Eastern Regional Power Committee,  
Nongrim Hills,  
Shillong - 793003.

...Respondent(s)

**For Petitioner:** Shri M.G. Ramachandran, Senior Advocate, NETCL  
Shri. Shubham Arya, Advocate, NETCL  
Shri Satyajit Ganguly, NETCL  
Shri Naveen Kumar Mishra, NETCL

**For Respondents:** None



## ORDER

The present petition has been filed by the Petitioner, North East Transmission Company Limited (NETCL), a joint venture (JV) Company between Power Grid Corporation of India Limited (hereinafter referred to as 'PGCIL'), ONGC Tripura Power Company Limited (hereinafter referred to as 'OTPCCL') and entities in six States of North Eastern Region for truing up of tariff of 2014-19 period under Regulation 8 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as "the 2014 Tariff Regulations") and for determination of tariff of 2019-24 tariff period under Regulation 8 of 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 transmission assets under "400 kV D/C Palatana-Bongaigaon Transmission System Project" (hereinafter referred to as "the transmission project") in North Eastern Region:

**Asset-I:** 400 kV D/C Palatana-Silchar Twin Moose Conductor Transmission Line;

**Asset-II:** 400 kV D/C Silchar-Byrnihat (one circuit on D/C towers) Twin Moose Conductor Transmission Line;

**Asset-III:** 400 kV D/C Byrnihat-Bongaigaon (one circuit on D/C towers) Twin Moose Conductor Transmission Line;

**Asset-IV:** 400 kV D/C Silchar-Azara (one circuit on D/C towers) Twin Moose Conductor Transmission Line; and

**Asset-V:** 400 kV D/C Azara-Bongaigaon (one circuit on D/C towers) Twin Moose Conductor Transmission Line.

Asset-I, Asset-II, Asset-III, Asset-IV and Asset-V have been collectively referred to as "the transmission assets" for 2014-19 tariff period. The transmission assets have been combined as on 1.4.2019 and have been collectively referred to as the "Combined Asset" for 2019-24 tariff period.

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



*“a) Admit the instant petition and approve the Trued up Transmission Tariff for the tariff block 2014-19 and the transmission tariff for tariff block 2019-24 for the assets covered under this petition, as per Para-1.32 and 1.44, respectively;*

*b) Allow NETCL to recover the shortfall or refund the excess Annual Fixed Charges after Truing-up exercise as specified under Regulation 8 of Tariff Regulation 2014;*

*c) Allow NETCL 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 under Tariff regulations 2014 and Tariff regulation, 2019;*

*d) Allow the revised IDC claimed for Assets III, IV and V as mentioned in Para 1.18;*

*e) Allow recovery of NETCL’s claim against refinancing as specified in FORM 9E for 2014-19 and 2019-24 Tariff block;*

*f) Allow the O&M expenses as claimed under the 191/MP/2019 for 2014-19 tariff block and O&M expenses claimed for 2019-24 tariff block;*

*g) Allow NETCL to approach the Hon’ble Commission for suitable revision in the norms for O&M expenditure for claiming the impact of the wage hike, if any, during period 2019-24;*

*h) Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on the 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 the petition;*

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

*j) Allow NETCL to claim the capital spares at the end of the tariff block as per actuals;*

*k) Allow NETCL to bill and recover GST on Transmission Charges separately from the beneficiaries, if GST on the 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 deem fit and appropriate under the circumstances of the case and in the interest of justice.”*

## **Background**

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

a) The Petitioner has been entrusted with the implementation and operation of Transmission System from Palatana to Bongaigaon associated with Gas Based Combined Cycle Power Project (GBCCPP) of ONGC Tripura Power



Company Limited situated at Palatana, Tripura.

b) The Investment Approval (IA) for the transmission project was accorded by the Board of Directors of the Petitioner's Company in the 7<sup>th</sup> meeting held on 29.6.2009 at an estimated cost of ₹177010 lakh including IDC of ₹18380 lakh. Subsequently, the cost estimate of the transmission project was revised and approved for ₹205700 lakh in Revised Cost Estimate-1 (RCE-1), ₹215000 lakh in RCE-2 and ₹225500 lakh in RCE-3 by the Petitioner's Board of Directors in its 21<sup>st</sup>, 29<sup>th</sup> and 36<sup>th</sup> meetings held on 16.2.2012, 26.12.2013 and 23.6.2015 respectively. The Petitioner's Board of Directors further revised the capital cost through RCE-4 in its 44<sup>th</sup> meeting held on 31.3.2017 at an estimated cost of ₹225700 lakh including IDC of ₹41076 lakh.

c) The Petitioner was granted inter-State transmission license vide order dated 16.6.2009 in Petition No. 16/2009. The scope of work as per transmission license is as follows:

Sl. No.	Description	Length
1	<b>Asset-I:</b> 400 kV D/C Palatana-Silchar transmission line (twin moose)	250 km
2	400 KV D/C Silchar-Bongaigaon transmission line (twin moose): This asset was split into <b>Asset-II, Asset-III, Asset-IV and Asset-V</b> vide order dated 1.4.2015 in IA No. 14/IA/2014 and IA No. 18/IA/2014 in Petition No. 224/TT/2012	400 km

d) The Commission vide order dated 1.4.2015 in IA No. 14/IA/2014 and IA No. 18/IA/2014 in Petition No. 224/TT/2012 split the 400 KV D/C Silchar-Bongaigaon transmission line (twin moose) as per recommendations of POSOCO. The relevant portion of the said order is as follows:

**"Analysis and Decision**

*16. The petitioner was granted licence for execution of 400 kV Palatana-Silchar transmission line and 400 kV D/C Silchar-Bongaigaon transmission line with total line length of 650 km. The 400 kV Palatana-Silchar transmission line has been commissioned. However, only sections of 400 kV D/C Silchar-Bongaigaon transmission line have been commissioned. NETCL has prayed for splitting the 400 kV D/C Silchar-Bongaigaon transmission line into three assets and POSOCO has also recommended the splitting of the said asset into four sections. However, the recommendations of POSOCO for splitting the asset is different from the prayer made by NETCL and the details are given below:*



<b>Assets as per licence</b>	<b>NETCL's prayer</b>	<b>POSOCO's recommendations</b>	<b>Date of commercial operation (COD)</b>
Asset I: 400 kV D/C Palatana-Silchar transmission line	400 kV D/C Silchar-Byrnihat transmission line	Asset I: 400 kV D/C Palatana-Silchar transmission line	1.9.2012
Asset II: 400 kV D/C Silchar-Bongaigaon transmission line	400 kV D/C Byrnihat-Azara transmission line 400 kV D/C Azara-Bongaigaon transmission line	Asset II: 400 kV S/C Silchar-Byrnihat transmission line	1.3.2013
		Asset III: 400 kV S/C Silchar-Azara transmission line	27.7.2014
		Asset IV: 400 kV S/C Byrnihat-Bongaigaon transmission line	Yet to be commissioned
		Asset V: 400 kV S/C Azara-Bongaigaon transmission line	Yet to be commissioned

POSOCO has submitted that after splitting of the 400 kV D/C Silchar-Bongaigaon transmission line into four assets, these assets should be considered as segregated assets for the purpose of computation of PoC charges after they are commissioned.

17. .... We are in agreement with the POSOCO's recommendation for splitting the 400 kV D/C Silchar-Bongaigaon transmission line into four lines, namely Silchar-Byrnihat S/C line, Byrnihat-Bongaigaon S/C line, Silchar-Azara S/C line and Azara-Bongaigaon S/C line.....”

e) The Commission vide order dated 1.4.2015 in Petition No. 224/TT/2012 observed as follows:

“18. We find that the two assets namely, 400 kV D/C Palatana-Silchar transmission line and 400 kV S/C Silchar-Byrnihat transmission line have been commissioned during the tariff period 2009-14. Out of the remaining three assets, 400 kV S/C Silchar-Azara transmission line has been commissioned during 2014-19 tariff period and the other two assets are yet to be commissioned. Therefore, the assets are covered under two tariff periods. In respect of the assets commissioned during 2009-14 period, the petitioner has filed the claims on projection basis and has been granted provisional tariff. If the final tariff is granted now on the basis of projected information i.e. after the 2009-14 tariff period is over, the petitioner will be required to file true-up petition. This will prolong the process of determination of tariff of the assets. Similarly, in respect of the assets



which have been commissioned or are likely to be commissioned during 2014-19 period, the petitioner should be required to file the petition in accordance with the 2014 Tariff Regulations. In our view, it would be appropriate, if the present petition is disposed of with directions to the petitioner to file separate petitions for the assets commissioned during 2009-14 and 2014-19 periods in accordance with the applicable tariff regulations.”

f) In compliance of the directions of Commission vide order dated 1.4.2015 in Petition No. 224/TT/2012, the Petitioner filed Petition No. 233/TT/2015 claiming tariff in respect of Asset-I and Asset-II for 2009-14 period. The Commission vide order dated 29.7.2016 in Petition No. 233/TT/2015 granted tariff with respect to Asset-I and Asset-II.

g) The Petitioner filed Petition No. 213/TT/2015 claiming tariff for 2014-19 period in respect of the following transmission assets:

Sl. No.	Assets	COD	Length
1	Asset-I: 400 kV D/C Palatana-Silchar transmission line (twin moose)	1.9.2012	247.30 km
2	Asset-II: 400 kV D/C Silchar- Byrnihat transmission line (twin moose)*	1.3.2013	214.41 km
3	Asset-III: 400 kV D/C Byrnihat-Bongaigaon transmission line (twin moose)*	22.2.2015	201.00 km
4	Asset-IV: 400 kV D/C Silchar- Azara transmission line (twin moose)*	27.7.2014	256.41 km
5	Asset-V: 400 kV D/C Azara-Bongaigaon transmission line (twin moose)*	16.1.2015	159.00 km

\* One circuit on D/C towers.

h) The Commission vide order dated 16.8.2016 in Petition No. 213/TT/2015 determined transmission tariff for 2014-19 tariff period in respect of the transmission assets subject to truing-up and the same is as follows:

		(₹ in lakh)				
Assets	Particulars	2014-15	16-2015	17-2016	18-2017	19-2018
Asset-I	Annual Fixed Charges (AFC)	11742.40	10733.00	10930.18	10331.70	9584.64
Asset-II		6269.86	5769.19	5923.17	5597.61	5166.17
Asset-III		958.28*	7262.56	7533.88	7434.02	7046.64
Asset-IV		5843.96*	8183.95	8516.79	7972.92	7350.84
Asset-V		1275.38*	5785.70	6039.52	5749.79	5367.71

\* Pro-rata

i) The entire scope of work under the transmission scheme has been



completed and is covered under the instant petition.

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

5. The Petitioner has served the petition on the Respondents and notice of this application has also been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003. No comments or suggestions have been received from the public in response to the notice in newspapers. None of the Respondents have filed any reply to the petition.

6. The hearing in this matter was held on 27.4.2021 through video conference and order was reserved.

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

8. This order has been issued after considering the Petitioner's affidavit dated 23.1.2020 and dated 8.6.2020, 5.10.2020, 12.10.2020, 20.3.2021 and 9.5.2021.

9. As provided under Regulation 8(1) of the 2014 Tariff Regulations, tariff allowed for the period from 1.4.2014 to 31.3.2019 is trued-up and tariff for 2019-24 period is determined under Regulation 8 of the 2019 Tariff Regulations.

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

10. The Petitioner has submitted information as required under the 2014 Tariff Regulations for truing up of AFC for 2014-19 period. The tariff for 2014-19 period has been trued up as discussed in the subsequent paragraphs.





11. The details of the trued-up transmission charges claimed by the Petitioner in respect of the transmission assets for 2014-19 tariff period are as follows:

(₹ in lakh)

Particulars	Asset-I				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	3264.88	3306.40	3313.11	3315.44	3309.77
Interest on Loan	5335.66	4868.58	4432.24	3824.32	3036.05
Return on Equity	2484.25	1975.32	2518.78	2521.63	2539.75
Interest on Working Capital	276.22	251.91	258.76	245.83	230.42
O&M Expenses	381.39	330.79	407.29	424.48	468.65
<b>Total</b>	<b>11742.40</b>	<b>10733.00</b>	<b>10930.18</b>	<b>10331.70</b>	<b>9584.64</b>

(₹ in lakh)

Particulars	Asset-II				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	1725.76	1756.32	1775.92	1778.67	1773.97
Interest on Loan	2919.93	2678.10	2469.92	2141.25	1691.50
Return on Equity	1307.04	1043.94	1349.13	1352.34	1362.55
Interest on Working Capital	146.45	134.72	139.22	132.04	123.02
O&M Expenses	170.68	156.11	188.98	193.31	215.13
<b>Total</b>	<b>6269.86</b>	<b>5769.19</b>	<b>5923.17</b>	<b>5597.61</b>	<b>5166.17</b>

(₹ in lakh)

Particulars	Asset-III				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	212.99	2078.56	2128.60	2205.39	2255.43
Interest on Loan	400.47	3651.92	3444.74	3148.85	2623.45
Return on Equity	161.06	1230.84	1623.00	1721.96	1798.22
Interest on Working Capital	26.51	167.62	174.64	173.08	164.99
O&M Expenses	157.25	133.62	162.90	184.74	204.55
<b>Total</b>	<b>958.28</b>	<b>7262.56</b>	<b>7533.88</b>	<b>7434.02</b>	<b>7046.64</b>

(₹ in lakh)

Particulars	Asset-IV				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	1567.67	2379.99	2439.38	2442.15	2442.15
Interest on Loan	2890.41	4015.25	3779.38	3305.97	2659.98
Return on Equity	1187.00	1423.43	1876.13	1879.42	1885.20
Interest on Working Capital	133.55	189.67	198.66	184.46	171.44
O&M Expenses	65.33	175.61	223.24	160.92	192.07
<b>Total</b>	<b>5843.96</b>	<b>8183.95</b>	<b>8516.79</b>	<b>7972.92</b>	<b>7350.84</b>



(₹ in lakh)

Particulars	Asset-V				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	331.26	1658.25	1706.27	1726.98	1740.16
Interest on Loan	620.69	2891.52	2736.39	2427.52	1976.57
Return on Equity	250.60	989.59	1311.85	1335.17	1354.08
Interest on Working Capital	30.04	133.73	140.44	133.36	126.15
O&M Expenses	42.79	112.61	144.57	126.76	170.75
<b>Total</b>	<b>1275.38</b>	<b>5785.70</b>	<b>6039.52</b>	<b>5749.79</b>	<b>5367.71</b>

12. The details of the trued-up Interest on Working Capital (IWC) claimed by the Petitioner in respect of the transmission assets for 2014-19 tariff period are as follows:

(₹ in lakh)

Particulars	Asset-I				
	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	57.21	49.62	61.09	63.67	70.30
O&M Expenses	31.78	27.57	33.94	35.37	39.05
Receivables	1957.06	1788.83	1821.70	1721.95	1597.44
Total Working Capital	2046.05	1866.02	1916.73	1820.99	1706.79
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
Interest on Working Capital	276.22	251.91	258.76	245.83	230.42

(₹ in lakh)

Particulars	Asset-II				
	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	25.60	23.42	28.35	29.00	32.27
O&M Expenses	14.22	13.01	15.75	16.11	17.93
Receivables	1044.98	961.53	987.20	932.93	861.03
Total Working Capital	1084.80	997.96	1031.29	978.04	911.23
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
Interest on Working Capital	146.45	134.72	139.22	132.04	123.02

(₹ in lakh)

Particulars	Asset-III				
	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	226.56	20.04	24.43	27.71	30.68
O&M Expenses	125.87	11.13	13.57	15.40	17.05
Receivables	1534.08	1210.42	1255.65	1239.00	1174.44
Total Working Capital	1886.51	1241.60	1293.66	1282.11	1222.17
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
Interest on Working Capital	26.51	167.62	174.64	173.08	164.99



(₹ in lakh)

Particulars	Asset-IV				
	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	14.42	26.34	33.49	24.14	28.81
O&M Expenses	8.01	14.63	18.60	13.41	16.01
Receivables	1433.50	1363.99	1419.46	1328.82	1225.14
Total Working Capital	1455.93	1404.97	1471.55	1366.37	1269.96
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
Interest on Working Capital	133.55	189.67	198.66	184.46	171.44

(₹ in lakh)

Particulars	Asset-V				
	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	31.24	16.89	21.69	19.01	25.61
O&M Expenses	17.35	9.38	12.05	10.56	14.23
Receivables	1034.49	964.28	1006.59	958.30	894.62
Total Working Capital	1083.08	990.56	1040.32	987.88	934.46
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
Interest on Working Capital	30.04	133.73	140.44	133.36	126.15

### **Commercial Operation Date (“COD”)**

13. The Commission *vide* order dated 16.8.2016 in Petition No. 213/TT/2015 considered the following COD of the transmission assets and the same is considered for true up of tariff for 2014-19:

Sl. No.	Name of the assets	COD
1	Asset-I: 400 kV D/C Palatana-Silchar transmission line	1.9.2012
2	Asset-II: 400 kV D/C Silchar- Byrnihat transmission line *	1.3.2013
3	Asset-III: 400 kV D/C Byrnihat-Bongaigaon transmission line *	22.2.2015
4	Asset-IV: 400 kV D/C Silchar- Azara transmission line *	27.7.2014
5	Asset-V: 400 kV D/C Azara-Bongaigaon transmission line *	16.1.2015

\* One circuit on D/C towers.

### **Time Over-run**

14. The details of time over-run condoned and not condoned in respect of Asset-I and Asset-II *vide* order dated 29.7.2016 in Petition No. 233/TT/2015 and in respect of



Asset-III, Asset-IV and Asset-V vide order dated 16.8.2016 in Petition No. 213/TT/2015 are as follows:

Assets	SCOD	Actual COD	Time over-run	Time over-run	
				Condoned	Not Condoned
Asset-I	1.3.2012	1.9.2012	6 months	6 months	Nil
Asset-II	1.3.2012	1.3.2013	1 year	1 year	Nil
Asset-III	1.3.2012	22.2.2015	35 months and 21 days	35 months and 21 days	Nil
Asset-IV	1.3.2012	27.7.2014	28 months and 26 days	28 months and 26 days	Nil
Asset-V	1.3.2012	16.1.2015	34 months and 15 days	34 months and 15 days	Nil

### Capital Cost

15. The Commission vide order dated 16.8.2016 in Petition No. 213/TT/2015 approved the following capital cost as on COD and ACE up to 31.3.2019 in respect of the transmission assets for 2014-19 tariff period:

Assets	Approved Apportioned cost as per Revised Cost Estimate (RCE-3)	Admitted Capital Cost allowed as on 31.3.2014/ COD* as per order dated 16.8.2016	ACE/ Projected ACE					Total Capital cost as on 31.3.2019
			2014-15	2015-16	2016-17	2017-18	2018-19	
Asset-I	63070.00	61161.83	1755.30	0.00	0.00	0.00	0.00	62917.13
Asset-II	34941.00	32440.00	625.00	0.00	0.00	0.00	0.00	33065.00
Asset-III	41851.00	39690.00	334.00	0.00	0.00	0.00	0.00	40024.00
Asset-IV	45992.00	44381.00	611.00	0.00	0.00	0.00	0.00	44992.00
Asset-V	34198.00	30934.00	318.00	0.00	0.00	0.00	0.00	31252.00
<b>Total</b>	<b>220052.00</b>	<b>208606.83</b>	<b>3643.30</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>212250.13</b>

\* Admitted capital cost as on 31.3.2014 for Asset-I and Asset-II and capital cost as on COD for Asset-III, Asset-IV and Asset-V.

16. The Petitioner vide affidavit dated 5.10.2020 has claimed revision and re-apportionment of approved estimated cost of the transmission assets and has submitted RCE-4 in support of the same. The details of the re-apportioned approved cost as per RCE-4, capital cost as on 31.3.2014/ COD and estimated ACE incurred/



projected to be incurred in respect of the transmission assets as claimed by the Petitioner are as follows:

(₹ in lakh)

Assets	Apportioned approved cost based on RCE-4 as per subject petition	Capital Cost as on 31.3.2014/ COD*	ACE					Total capital Cost as on 31.3.2019
			2014-15	2015-16	2016-17	2017-18	2018-19	
Asset-I	63410.00	61161.83	1592.10	226.78	27.54	60.55	197.40**	63266.20
Asset-II	34941.00	32440.00	490.42	666.98	75.66	28.39	-206.42	33495.03
Asset-III	43651.00	38579.37	334.10	831.85	1137.54	2204.85	124.03	43211.74
Asset-IV	46514.00	43392.31	611.21	2144.13	105.27	0.00	0.00	46252.92
Asset-V	37184.00	30373.97	318.46	1427.52	391.47	392.98	106.46	33010.86
Total	225700.00	210386.71	3644.09	2314.50	563.28	2155.86	550.44	219614.87

\* Admitted capital cost as on 31.3.2014 in respect of Assets-I and Asset-II and capital cost as on COD for Asset-III, Asset-IV and Asset-V.

\*\* including negative ACE (-275.35)

17. The capital cost of the transmission assets has been calculated in accordance with Regulation 9(2) of the 2014 Tariff Regulations.

18. The Petitioner has claimed capital cost of ₹210386.71 lakh as on 31.3.2014 as against the earlier admitted capital cost of ₹208606.83 lakh as on 31.3.2014. Thus, there is increase of ₹1779.88 lakh in the capital cost admitted as on 31.3.2014. The Petitioner vide affidavit dated 5.10.2020 has submitted the following justification with regard to increase in the capital cost as on 31.3.2014:

a. The Commission vide order dated 1.4.2015 in I.A. No.14/IA/2014 in Petition No. 224/TT/2012 permitted the Petitioner to split the asset.

b. Both circuits of Silchar-Byrnihat D/C line have already been capitalized in tariff allowed by the Commission vide order dated 26.9.2012, which was before the splitting of the assets. After splitting of the assets, cost of 2<sup>nd</sup> Ckt i.e. 50% of the cost of Silchar-Byrnihat line (to LILO at Azara), which had already capitalized vide order dated 26.9.2012 in Petition No. 224/T/2012, was transferred to CWIP. The line was later extended till Azara sub-station and cost of the same has been claimed as Asset IV (i.e, Silchar-Azara line).



c. During the process of transferring capital cost of 2<sup>nd</sup> Ckt. of Silchar-Byrnihat line to CWIP, the interest pertaining to said part of the line was inadvertently adjusted with interest of the prevailing year. Since the loan was for the whole project, such adjustment affected IDC of Asset-III, Asset-IV and Asset-V. This inadvertent error was noticed by the Petitioner in 2016-17. Hence, the Petitioner has rectified the error in the instant petition due to which IDC of Asset-III, Asset-IV and Asset-V has increased as on COD as compared to IDC allowed by the Commission vide order dated 16.8.2016 in Petition No. 213/TT/2015. The details of the same are as follows:

(₹ in lakh)

Assets	COD	IDC allowed vide order dated 16-08-2016	Actual IDC as per Auditor's certificate
Asset-III	22.2.2015	9973.00	10583.07
Asset-IV	27.7.2014	9953.00	10642.87
Asset-V	16.1.2015	7596.00	8077.21
<b>Total</b>		<b>27522.00</b>	<b>29303.15</b>
<b>Increase (Actual vs Admitted) = ₹1781.15 lakh</b>			

d. The impact of revised IDC has been taken into consideration by the Board of Directors of the Petitioner while approving RCE-4. RCE-4 of ₹225700 lakh includes additional IDC of ₹1781.65 lakh.

19. We have considered the submissions of the Petitioner. The Petitioner has submitted that it had inadvertently adjusted the interest pertaining to the 2<sup>nd</sup> Ckt. of Silchar-Byrnihat line. Since the loan was for whole of the project, such adjustment affected IDC of Asset-III, Asset-IV and Asset-V. This inadvertent error was realized by the Petitioner in 2016-17 and it has rectified the error in the present petition due to which IDC for Asset-III, Asset-IV and Asset-V has increased as on COD as compared to IDC allowed earlier allowed by the Commission.

20. The Petitioner has claimed negative ACE during 2018-19 in respect of Asset-I and Asset-II pertaining to reversal of the contractual payment. As submitted by the Petitioner, the payment was made during 2009-14 tariff period. Since tariff for 2009-



14 period has already been tried up, the capital cost has been adjusted as on 1.4.2014 instead of 2018-19. The details of the capital cost are as follows:

Assets	Capital Cost claimed as on COD (as per Auditor's certificate)	Adjustment on account of reversal of contractual payment	Capital cost allowed (as on COD)
	(A)	(B)	(C)=(A-B)
Asset-I	61161.83	-275.35	60886.48
Asset-II	32440.00	-206.42	32233.58
Asset-III	38579.37	0.00	38579.37
Asset-IV	43392.31	0.00	43392.31
Asset-V	30373.97	0.00	30373.97
<b>Total</b>	<b>205947.48</b>	<b>-481.77</b>	<b>205465.71</b>

### **Cost Over-run**

21. The Commission vide order dated 16.8.2016 in Petition No. 213/TT/2015 allowed the completion cost of the transmission assets as per RCE-3 and relevant extract of the same are as follows:

*“16. We have considered the submissions of the petitioner. As per RCE-3, there is no cost over-run in case of instant assets. It is observed that the project cost increased due to increase in compensation towards crop, tree and PTCC, transmission line cost, ERS and project management consultancy cost. We are of the view that the aforementioned reasons are beyond the control of the petitioner and therefore, the cost variation is allowed.”*

22. The Petitioner has submitted revised apportioned cost of all the transmission assets as per RCE-4 approved by the Petitioner's Board of Directors in its 44<sup>th</sup> meeting held on 31.3.2017. The individual asset-wise completion cost is within the approved apportioned cost as per RCE-4.

23. The Petitioner has submitted that upward revision in capital cost as per RCE-4 vis-à-vis RCE-3 is mainly due to ACE incurred for railway diversion, pile foundation, payment of compensation, construction of site office-cum-stores and expenditure on protection work at 8 locations in 400 kV D/C Palatana-Silchar Line etc. The reasons and scope of ACE were discussed in TCC and NERPC meetings and in-principle



approval for the same was obtained. The overall completion cost of ₹219614.87 lakh of all the five transmission assets is within the RCE-4 cost of ₹225700.00 lakh.

24. We have considered the submissions of the Petitioner. The Commission *vide* order dated 16.8.2016 in Petition No. 213/TT/2015 allowed the cost variation and admitted the overall completion cost of ₹212250.13 lakh against RCE-3 of ₹220052.00 lakh. In the instant petition, the Petitioner has submitted revised apportioned cost of ₹225700.00 lakh as per RCE-4 against the earlier approved cost of ₹220052.00 lakh as per RCE-3 which is mainly on account of railway diversion, pile foundation, payment of compensation, construction of site office cum stores and expenditure on protection work at 8 locations in 400 kV D/C Palatana-Silchar Line.

25. Further, against the admitted capital cost of ₹208606.83 lakh as on 31.3.2014, allowed by the Commission *vide* order dated 16.8.2016 in Petition No. 213/TT/2015, the Petitioner has claimed an amount of ₹210386.71 lakh as on 31.3.2014. Thus, there is increase of ₹1779.88 lakh in the capital cost admitted as on 31.3.2014. The increase in capital cost as on 31.3.2014/ COD is due to additional IDC as on COD in case of Asset-III, Asset-IV and Asset-V caused due to splitting of asset and accounting treatment thereof. The revised IDC figures are certified by the Auditors and also approved by the Petitioner's Board of Directors in RCE-4. Accordingly, capital cost of ₹210386.71 lakh claimed by the Petitioner and duly supported by the Auditor's Certificate, is allowed and considered as on 31.3.2014 for tariff purpose in this petition under true-up exercise.

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

26. The Petitioner *vide* order dated 16.8.2016 in Petition No. 213/TT/2015 was directed to submit detailed computations of IDC. The Petitioner has submitted Auditor's Certificate in support of its claim of IDC. However, Petitioner has not





submitted statement of IDC to identify the amount of loan, drawl date, repayment schedule and rate of interest as per requirement to meet the final calculation. In the absence of details regarding IDC, the same has not been computed on actual basis and the same has been considered as an exceptional case from the available documents (i.e. balance sheet and Profit & Loss Account).

27. Due to non-submission of complete details in respect of IDC computation, the Commission *vide* order dated 16.8.2016 in Petition No. 213/TT/2015 treated the entire claimed IDC as discharged as on COD and allowed the entire IDC with observation to review the same at the time of truing up. The relevant paragraph of the order dated 16.8.2016 in Petition No. 213/TT/2015 is extracted as follows:

*“Treatment of IDC*

*22. The petitioner has submitted the tariff forms (in the original petition) for all the assets vide affidavit dated 31.7.2015. The petitioner was directed, vide ROP dated 4.12.2015, to submit the Form-4A for all the assets, besides other information. In response, the petitioner (NETCL) vide affidavit dated 8.1.2016, submitted the Form- 4A and other information including IDC of all the assets. The document submitted (Form-4A) do not show the 'Amount of Liabilities' in the Gross Block of capital cost as on COD, for any asset. Therefore, the details of actual IDC (cash basis) discharged up to COD and the IDC to be discharged after COD, were not available for Assets-III, IV and V, while for Assets-I and II the information was submitted vide affidavit dated 15.7.2016. In the absence of sufficient information regarding the IDC discharged as on COD and IDC to be discharged after COD, provisionally, it is being assumed that the total IDC claimed has been discharged as on COD for the Assets-III, IV and V (For assets – I and II, IDC has already been dealt in Petition No. 233/TT/2015). The information submitted by the petitioner is insufficient to work out the IDC as on COD for the assets i.e. individual schedule of date of drawl of PFC Loan for each asset and the schedule of interest rates being charged by the lender from the first date of drawl to the last date of drawl of the loan. Therefore, in the instant petition, the claimed IDC for Assets-III, IV and V, are being allowed to be capitalised as on COD provisionally and would be reviewed at the time of truing-up, on submission of the IDC calculations separately for each asset.*

*23. The details of the IDC claimed by the petitioner and allowed as on COD is given hereunder:-*

**(₹ in lakh)**

<b>IDC</b>		
	<b>Claimed</b>	<b>Allowed</b>
<i>Asset-I</i>	<i>In Petition No. 233/TT/2015</i>	
<i>Asset-II</i>		
<i>Asset-III</i>	<i>9973.00</i>	<i>9973.00</i>
<i>Asset-IV</i>	<i>9953.00</i>	<i>9953.00</i>
<i>Asset-V</i>	<i>7596.00</i>	<i>7596.00</i>

”



28. The Petitioner *vide* affidavit dated 5.10.2020 has submitted statement indicating asset-wise IDC discharged as on COD and during 2014-19 tariff period which is as follows:

(₹ in lakh)

Assets	IDC discharged as on COD	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	Total IDC
Asset-I	7191.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7191.41
Asset-II	4580.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4580.93
Asset-III	10178.52	0.00	0.00	0.00	404.55	0.00	0.00	0.00	10583.07
Asset-IV	10642.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10642.87
Asset-V	8077.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8077.21

29. In the absence of loan-wise details (rate of interest, drawl date of loan, asset-wise apportioned loan amount), IDC has not been computed and IDC claimed by the Petitioner has been considered based on the information furnished by the Petitioner in balance sheet and Profit and Loss Account. The Petitioner has submitted upward revision in IDC of Asset-III, Asset-IV and Asset-V against IDC admitted *vide* order dated 16.8.2016 in Petition No. 213/TT/2015. The variation in IDC has been examined in light of the justification submitted by the Petitioner, the details of which have been given above in this order.

30. IDC allowed in this order, IDC discharged up to COD and IDC discharged during 2015-16 for the purpose of tariff determination is as follows:

(₹ in lakh)

Assets	IDC allowed in the instant order	IDC discharged up to COD	IDC discharged in 2015-16	Total IDC discharged in 2014-19
Asset-I	7191.43	7191.43	0.00	0.00
Asset-I	4580.93	4580.93	0.00	0.00
Asset-III	10583.07	10178.52	404.55	404.55
Asset-IV	10642.87	10642.87	0.00	0.00
Asset-V	8077.21	8077.21	0.00	0.00



31. The Commission vide order dated 16.8.2016 in Petition No. 213/TT/2015 has held as follows:

*“Treatment of IEDC*

24. The petitioner has submitted the brief of the disbursement of IEDC in case of all the assets vide affidavit dated 8.1.2016. In the absence of the detailed computation of IEDC and estimated IEDC limit (%) (which is assigned at the time of project approval), 5.00 % of the hard cost is considered as the allowable limit of IEDC, which is the IEDC limit applied in most of the transmission petitions received. Therefore, in the current petition, 5.00% of the hard cost is being taken as IEDC limit and the claimed IEDC in Assets–III, IV and V are within the limits and hence being allowed as under:-

**(₹ in lakh)**

IEDC		
	Claimed	Allowed
Asset-I	<i>In Petition no. 233/TT/2015</i>	
Asset-II		
Asset-III	<b>436.94</b>	<b>436.94</b>
Asset-IV	<b>506.88</b>	<b>506.88</b>
Asset-V	<b>344.32</b>	<b>344.32</b>

32. The Petitioner has claimed IEDC in respect of the transmission assets for 2014-19 tariff period and submitted Auditor’s Certificate in support of the same. The Petitioner vide affidavit dated 5.10.2020 has submitted that entire IEDC amount mentioned in the Auditor’s Certificate is on cash basis and is paid up to COD. IEDC details submitted by the Petitioner are as follows:

**(₹ in lakh)**

Assets	IEDC Claimed	IEDC discharged as on COD
Asset-I	587.07	587.07
Asset-II	307.60	307.60
Asset-III	436.94	436.94
Asset-IV	506.88	506.88
Asset-V	344.32	344.32

33. Accordingly, based on the information furnished by the Petitioner, IEDC considered is as follows:

**(₹ in lakh)**

Assets	IEDC allowed (up to COD)
Asset-I	587.07
Asset-II	307.60
Asset-III	436.94



Asset-IV	506.88
Asset-V	344.32

34. Petitioner has not claimed any expense with respect to Initial Spares during 2014-19 tariff period.

35. The capital cost allowed as on 31.3.2014/ COD of the transmission assets is as follows:

(₹ in lakh)

Assets	Capital cost claimed in Auditor's Certificate	Capital cost disallowed on account of reversal of contractual payment	IDC and IEDC disallowed	Capital cost allowed as on 31.3.2014/ COD
Asset-I	61161.83	-275.35	0.00	60886.48
Asset-II	32440.00	-206.42	0.00	32233.58
Asset-III	38579.37	0.00	0.00	38579.37
Asset-IV	43392.31	0.00	0.00	43392.31
Asset-V	30373.97	0.00	0.00	30373.97

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

36. ACE allowed by the Commission vide order dated 16.8.2016 in Petition No. 213/TT/2015 under Regulation 14(1) and 3(13) of the 2014 Tariff Regulations is as follows:

*"31. The cut-off date for the Asset-I and Asset-II is 31.3.2015 and 31.3.2016. The add-cap for 2015-16 in case of Asset-I is not being allowed as per Clause 3 of Regulation 14 of 2014 Tariff Regulations, as it is beyond the cut-off date of the asset and no proper justification for the same has been submitted by the petitioner. It may be allowed at the time of truing-up, subject to submission of proper justification for the same under the mentioned Regulation. Further, the petitioner was directed to submit funding of add-cap after COD. The petitioner has submitted the draw down and equity infusion details. This document, however, has no details of funding of additional capital expenditure from 2015-16 to 2018-19 for all the assets. In the absence of funding details, additional capital expenditure for 2015-16, 2016-17 and 2017-18 is not being allowed.*

(₹ in lakh)

Assets	Admitted capital cost as on 31.3.2014/ capital cost as on COD*	Add Cap / Projected Add Cap				Total estimated capital cost as on 31.3.2019
		2014-15	2015-16	2016-17	2017-18	
Asset-I	61161.83	1755.30	0.00	0.00	0.00	62917.13
Asset-II	32440.00	625.00	0.00	0.00	0.00	33065.00
Asset-III	39690.00	334.00	0.00	0.00	0.00	40024.00



Asset-IV	44381.00	611.00	0.00	0.00	0.00	44992.00
Asset-V	30934.00	318.00	0.00	0.00	0.00	31252.00

32. The petitioner is directed to submit the funding details for additional capital expenditure for all the assets at the time of true-up.”

37. The Petitioner has claimed ACE in the instant petition and submitted detailed justification in support of the same as follows:

**A) Railway Diversion of 400 kV D/C Silchar–Byrnihat-Azara transmission line between location numbers 573 to 580 (2.33 km) to facilitate construction of Tetelia – Byrnihat Railway line of North East Frontier Railway (NFR)**

*(Regulation 14(2)(i) of 2014 Tariff Regulations)*

(i) 400 kV D/C Silchar–Byrnihat-Azara line is part of transmission project. Silchar–Byrnihat Ckt. and Silchar–Azara Ckt of the aforesaid line were commissioned on 1.3.2013 and on 27.7.2014 respectively. To facilitate construction of Tetelia–Byrnihat Railway line of NFR, a section of the line of 2.33 km involving 6 (six) tower locations was to be diverted through a new alignment. During construction of the line in 2012, NFR (North Frontier Railway) claimed that both the line and Railway corridor in this section were overlapping each other and, as such, the line was to be shifted prior to the construction of the railway line. Permission for possession of land was granted to NFR as per notification in July 2010 by Additional Dy. Commissioner, Kamrup (Metro), Guwahati.

(ii) The Petitioner, being transmission system developer, finalized the route alignment during 2005-06 after obtaining necessary approvals under Section 68 and Section 164 of the Electricity Act, 2003. Though it was not mandatory, the Petitioner obtained approval from Revenue Authorities of Sonapur during December 2010 much before taking up the construction activity in the Tetelia-Byrnihat section by NFR and completed the work by April 2012. Since then, series of meetings were held between the Petitioner and NFR in presence of representative of the Government of Assam. But till August 2016, no conclusion could be arrived with regard to which party (the Petitioner or NFR) would bear the expenses of the said diversion. Finally, in the meeting convened by Special Secretary (Power) Government of India (GoI) on 26.9.2016, the Petitioner had



issued letter of acceptance for diversion of the line. Accordingly, the Petitioner placed LOA for diversion of the line with a target to complete by December, 2017. The Petitioner has executed the job under Project Management Consultancy (PMC). The total cost of this diversion work was around ₹1400.00 lakh. The Petitioner in 18<sup>th</sup> TCC and 18<sup>th</sup> NERPC Meeting held on 10<sup>th</sup> and 11<sup>th</sup> October, 2017 at Shillong has proposed for booking of this expenditure under PoC Mechanism.

(iii) Subsequently, in 19<sup>th</sup> TCC and 19<sup>th</sup> NERPC meeting held on 28<sup>th</sup> and 29<sup>th</sup> November, 2018 at Guwahati, RPC approved that as a special consideration and the same is to be capitalized by the Petitioner. The cost is to be recovered under PoC mechanism.

(iv) It is imperative to mention that the net expenditure incurred against the railway diversion is ₹1197.36 lakh in 2018-19. The asset amounting to ₹726.52 lakh has been decapitalized which pertains to civil works and transmission assets. Hence, the net ACE under the railway diversion head is ₹470.83 lakh in 2018-19. Though, the work was completed in 2018-19, expenditure of ₹98.64 lakh towards balance payment of contractor and expenditure of ₹62.00 lakh towards compensation is expected to be discharged in 2019-20.

**B) Protection Wall work at 8 locations in 400 kV D/C Palatana–Silchar Line**

*(Regulation 14(1)(iv) and Regulation 14(2)(i) of the 2014 Tariff Regulations)*

(i) Palatana-Silchar 400 kV D/C transmission line was commissioned in the month of September, 2012 and passes through 73 km of hilly forest stretch in the state of Tripura. During construction, soil cutting/ benching in this hilly stretch was minimized by using uneven leg extensions for better stability and economy.

(ii) During 2016, this region experienced frequent earthquakes of high intensity and heavy monsoon with incessant rains which are not a normal phenomenon. During earthquake, the horizontal seismic forces have created voids in soil strata due to which water seepage caused sinking of land mass in this region. There have been several road blockages and landslides and the subject transmission line corridor also got affected. Due to foregoing, 8 towers



location of 400 kV D/C Palatana-Silchar transmission lines got badly affected. Emergency temporary measures were taken in few of the vulnerable locations at that time by PGCIL, the Project Management Consultant (PMC) of the Petitioner for the transmission project, to continue the power evacuation. As these emergency measures are temporary in nature, immediate steps shall have to be taken for protection of these 8 towers for long time safety and security of the subject transmission line.

(iii) The issue was deliberated during the 127th OCC Meeting and the estimated expenditure was intimated to be ₹70.77 lakh to build protection wall at 8 locations on immediate basis. Booking of such expenditure is proposed to be met through PoC mechanism. The members of OCC agreed in-principle to the proposal and recommended for approval in 18th TCC/ NERPC meeting. The same was held on 10<sup>th</sup> and 11<sup>th</sup> October, 2017 at Shillong and cost has been approved.

(iv) However, due to hilly terrain and bad weather/ site conditions, the expenditure has exceeded the approved limit of ₹70.70 lakh.

**C) Pile foundation work for Shifting of anchor tower of 400 kV D/C Byrnihat-Bongaigaon (portion) of NETCL line at location no. 1026 from open cast foundation to pile foundation at Brahmaputra river crossing in right bank near Jogighopa, Goalpara, Assam**

*(Regulation 14(1)(iv) and Regulation 14(2)(i) of 2014 Tariff Regulations)*

(i) In the state of Assam, the transmission line crosses Brahmaputra River near Jogighopa, Goalpara, Assam. The pile foundation location no. 41/0 (final location no. 1025) was 32 metres away from the bank edge and anchor tower location no. 40B/0 (final location no. 1026) was 137 metres away from river bank edge during 2010.

(ii) In this area, there was continuous erosion of river bank and the distance between bank and tower (1026) was reducing continuously. Due to this, the distance between tower location no. 1026 and river bank reduced to 40 metres (approx.) from the location which used to be 137 m during 2010. Further, for unloading of over-dimensional cargos, a channel had been created between location no.1025 and location no. 1026 by Inland Waterways Authority of India. The water reached about 10 metres from location no. 1026 which was around



14 metres during the month of May 2016. The ramp was very close to two legs of tower and erosion of land mass was going on continuously.

(iii) Any further shifting of bank line or formation of any whirlpool in this area could have caused problem to the stability of tower no. 1026. Inland Waterways Authority of India had also suggested shifting the tower to a safer location.

(iv) It was proposed to shift tower at location no.1026 on a suitable pile foundation for safe operations of the line. The expenditure was estimated at ₹1730.00 lakh including cost of pile foundation, de-erection and erection. Tariff was proposed by the Petitioner under PoC mechanism.

(v) The issue was discussed during 125<sup>th</sup> OCC meeting and members had agreed to the proposal of the Petitioner. In 17<sup>th</sup> TCC meeting held on 4<sup>th</sup> October, 2016 at Imphal, the proposed expenditure was approved by RPC to be recovered through PoC mechanism. The minutes of 17<sup>th</sup>, 18<sup>th</sup> and 19<sup>th</sup> TCC and NERPC meeting is attached along with the Petition.

(vi) The expenditure of ₹1388.23 lakh has been incurred in 2017-18. Further, an expenditure of ₹287.43 lakh and decapitalization of ₹193.00 lakh has been booked against replacement of tower in 2018-19. Hence, net ACE in 2018-19 amounts to ₹94.43 lakh.

#### **D) Contractor Payment towards Balance and Retention Payments**

*(Regulation 14(1)(i) and Regulation 14(2)(iv) of the 2014 Tariff Regulations)*

(i) ACE of ₹2563.36 lakh for 2015-19 is claimed against the balance and retention payments pertaining to various contractors towards transmission line works. This payment pertains to works within the scope of the project.

(ii) Additionally, liability of ₹275.35 lakh in case of Asset-I and ₹419.65 lakh in case of Asset-II were inadvertently claimed in capital cost on cash basis towards contractor's payment. The contractor has not claimed the expenditure till date while the contract for the same has already been closed and the contractor has already provided NOC. Accordingly, the Petitioner has reversed and decapitalized the said amount from the capital cost.



### **E) Compensation**

(Regulation 14(1)(iv) and Regulation 14(2)(i) of the 2014 Tariff Regulations)

(i) Pending compensation pertaining to construction period has been paid to various land owners and villagers at various locations as directed through District Magistrate/ Court orders. Copy of orders and payment proof are attached with the petition.

### **F) Site Office/ Inventory Store**

(Regulation 14(1)(ii) and Regulation 14(2)(iv) of the 2014 Tariff Regulations)

(i) Given the difficult terrain of its transmission network, the Petitioner has constructed a site office cum-store for spares at Agartala against which expenditure of ₹594.12 lakh has been claimed. The Petitioner has purchased land of ₹433.24 lakh for site office cum-stores at Guwahati. Both the site offices are for the purpose of inventory and store management so that reliability of the transmission line can be improved and system downtime can be reduced significantly for want of spares.

(ii) The expenditure with respect to colony and office/ regional office for transmission line in Agartala, Silchar and Guwahati has already been conveyed to the Commission in Petition No. 213/TT/2015 and expenditure of ₹247 lakh for land in Agartala was allowed by the Commission vide order dated 16.8.2016. The Petitioner has requested to allow the expenditure for the same.

38. The Petitioner has submitted revised ACE details *vide* affidavit dated 5.10.2020 in respect of the transmission assets and has submitted Auditor's Certificate and Form-7 in support of the same, as follows:

(₹ in lakh)

Assets	ACE					Total ACE as on 31.3.2019
	2014-15	2015-16	2016-17	2017-18	2018-19	
Asset-I	1592.10	226.78	27.54	60.55	197.40*	2104.37
Asset-II	490.42	666.98	75.66	28.39	-206.42	1055.03
Asset-III	334.10	831.85	1137.54	2204.85	124.03	4632.37
Asset-IV	611.21	2144.13	105.27	0.00	0.00	2860.61



Asset-V	318.46	1427.52	391.47	392.98	106.46	2636.89
<b>Total</b>	<b>3346.29</b>	<b>5297.26</b>	<b>1737.48</b>	<b>2686.77</b>	<b>221.47</b>	<b>13289.27</b>

\* including negative ACE or de-cap of (-) ₹275.35 lakh

39. In response to a query of the Commission during hearing dated 28.8.2020 as to whether the construction of site office cum store complex is covered within the original scope of the transmission project, the Petitioner submitted that construction of site office cum store complex is part of the original scope of the Project and has been approved by Government of India in its DPR.

40. The Petitioner has submitted that ACE during 2014-19 has been incurred for railway diversion, pile foundation, payment of compensation, construction of site office cum stores and expenditure on protection work at 8 locations in 400 kV D/C Palatana-Silchar transmission line. The reasons for ACE were discussed in TCC and NERPC meetings and in-principle approval for the same has been obtained. ACE has been approved in RCE-4 by the Petitioner's Board of Directors.

41. We have considered the submissions of the Petitioner. The Petitioner has claimed actual ACE during 2014-19 period in respect of the transmission assets and submitted Auditor's Certificate in support of the same. The Petitioner has submitted Form-7 and has claimed actual ACE of new transmission elements added after 1.4.2014, under Regulation 14(1) and Regulation 14(2) of the 2014 Tariff Regulations. The Petitioner has submitted that ACE on account of balance payment of work executed within the cut-off date has been claimed under Regulation 14(1) of the 2014 Tariff Regulations. Further, the Petitioner has submitted that ACE on account of balance payment of work executed within cut-off date but remaining payment done after cut-off date after final accounting has been claimed under Regulation 14(2) of the 2014 Tariff Regulations.

42. COD of Asset-I, Asset-II, Asset-II, Asset-IV and Asset-V is 1.9.2012, 1.3.2013, 22.2.2015, 27.7.2014 and 16.1.2015, respectively. Therefore, their respective cut-off dates are 31.3.2015, 31.3.2016, 31.3.2018, 31.3.2017 and 31.3.2018. Accordingly, ACE in respect of the transmission assets is allowed on actual basis after 1.4.2014 and up to 31.3.2019. Balance payment within the cut-off date is allowed under Regulation 14(1)(i) of the 2014 Tariff Regulations and discharge of IDC in respect of the transmission assets has been considered as per IDC statements submitted by the Petitioner. Further, the balance payment after the cut-off date is allowed under Regulation 14(2)(iv) of the 2014 Tariff Regulations. De-capitalisation/ reversal of contractual payment claimed by the Petitioner in 2018-19 has already been adjusted in capital cost as on 1.4.2014 as explained above. Therefore, ACE, without negative ACE, has been considered now for tariff purpose. Accordingly, ACE allowed for transmission assets in true-up for 2014-19 tariff period is as follows:

(₹ in lakh)

Assets	ACE					
	2014-15	2015-16	2016-17	2017-18	2018-19	Total ACE as on 31.3.2019
Asset-I	1592.10	226.78	27.54	60.55	472.75	2379.72
Asset-II	490.42	666.98	75.66	28.39	0.00	1261.45
Asset-III	334.10	831.85	1137.54	2204.85	124.03	4632.37
Asset-IV	611.21	2144.13	105.27	0.00	0.00	2860.61
Asset-V	318.46	1427.52	391.47	392.98	106.46	2636.89
<b>Total</b>	<b>3346.29</b>	<b>5297.26</b>	<b>1737.48</b>	<b>2686.77</b>	<b>703.24</b>	<b>13771.04</b>

43. ACE allowed *vide* order dated 16.8.2016 in Petition No. 213/TT/2015, as claimed by the Petitioner and as allowed in the instant petition under true-up of 2014-19 tariff period in respect of transmission assets is as follows:



(₹ in lakh)

Particulars	Asset-I				
	2014-15	2015-16	2016-17	2017-18	2018-19
ACE allowed <i>vide</i> order dated 16.8.2016 in Petition No. 213/TT/2015	1755.30	0.00	0.00	0.00	0.00
Claimed by the Petitioner in the instant petition	1592.10	226.78	27.54	60.55	197.40*
Approved after true-up in this order	1592.10	226.78	27.54	60.55	472.75

\* including negative ACE or de-cap of (-) ₹275.35 lakh

(₹ in lakh)

Particulars	Asset-II				
	2014-15	2015-16	2016-17	2017-18	2018-19
ACE allowed <i>vide</i> order dated 16.8.2016 in Petition No. 213/TT/2015	625.00	0.00	0.00	0.00	0.00
Claimed by the Petitioner in the instant petition	490.42	666.98	75.66	28.39	-206.42
Approved after true-up in this order	490.42	666.98	75.66	28.39	0.00

(₹ in lakh)

Particulars	Asset-III				
	2014-15	2015-16	2016-17	2017-18	2018-19
ACE allowed <i>vide</i> order dated 16.8.2016 in Petition No. 213/TT/2015	334.00	0.00	0.00	0.00	0.00
Claimed by the Petitioner in the instant petition	334.10	831.85	1137.54	2204.85	124.03
Approved after true-up in this order	334.10	831.85	1137.54	2204.85	124.03

(₹ in lakh)

Particulars	Asset-IV				
	2014-15	2015-16	2016-17	2017-18	2018-19
ACE allowed <i>vide</i> order dated 16.8.2016 in Petition No. 213/TT/2015	611.00	0.00	0.00	0.00	0.00
Claimed by the Petitioner in the instant petition	611.21	2144.13	105.27	0.00	0.00
Approved after true-up in this order	611.21	2144.13	105.27	0.00	0.00

(₹ in lakh)

Particulars	Asset-V				
	2014-15	2015-16	2016-17	2017-18	2018-19
ACE allowed <i>vide</i> order dated 16.8.2016 in Petition No. 213/TT/2015	318.00	0.00	0.00	0.00	611.00
Claimed by the Petitioner in the instant petition	318.46	1427.52	391.47	392.98	106.46



Approved after true-up in this order	318.46	1427.52	391.47	392.98	106.46
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### **Capital Cost Considered as on 31.3.2019**

44. Accordingly, the details of the capital cost as on COD, ACE during 2014-19 period and capital cost as on 31.3.2019 allowed in respect of the transmission assets are as follows:

Assets	Capital Cost Allowed (as on COD)	ACE allowed for 2014-19					Capital Cost allowed (as on 31.3.2019)
		2014-15	2015-16	2016-17	2017-18	2018-19	(₹ in lakh)
Asset-I	60886.48	1592.10	226.78	27.54	60.55	472.75	63266.20
Asset-II	32233.58	490.42	666.98	75.66	28.39	0.00	33495.03
Asset-III	38579.37	334.10	831.85	1137.54	2204.85	124.03	43211.74
Asset-IV	43392.31	611.21	2144.13	105.27	0.00	0.00	46252.92
Asset-V	30373.97	318.46	1427.52	391.47	392.98	106.46	33010.86
Total	205465.71	3346.29	5297.26	1737.48	2686.77	703.24	219236.75

### **Debt-Equity Ratio**

45. Debt-equity ratio is dealt in accordance with Regulations 19(1), Regulation 19(3) and Regulation 19(5) of the 2014 Tariff Regulations. Since Asset-I and Asset-II have achieved COD prior to 1.4.2014, debt-equity ratio considered as on 31.3.2014 for Asset-I and Asset-II in Petition No. 233/TT/2015 is being considered as on 1.4.2014 in line with the provision of Regulation 19(3) of the 2014 Tariff Regulations. For subsequent years, debt-equity ratio has been considered as per Regulation 19(1) of the 2014 Tariff Regulations. However, in case of Asset-III, Asset-IV and Asset-V, debt-equity ratio is considered as per Regulation 19(1) of 2014 Tariff Regulations.

46. Accordingly, the details of debt-equity ratio as on 1.4.2014 with respect to Asset-I and Asset-II and that as on COD with respect to Asset-III, Asset-IV and Asset-V and 31.3.2019 have been considered for the purpose of trueing-up of tariff for 2014-19 period are as follows:



<b>Asset-I</b>				
<b>Particulars</b>	<b>Amount as on 1.4.2014 (₹ in lakh)</b>	<b>(in %)</b>	<b>Amount as on 31.3.2019 (₹ in lakh)</b>	<b>(in %)</b>
Debt	48710.58	80.00	50376.39	79.63
Equity	12175.90	20.00	12889.81	20.37
Total	60886.48	100.00	63266.20	100.00

<b>Asset-II</b>				
<b>Particulars</b>	<b>Amount as on 1.4.2014 (₹ in lakh)</b>	<b>(in %)</b>	<b>Amount as on 31.3.2019 (₹ in lakh)</b>	<b>(in %)</b>
Debt	25787.61	80.00	26670.62	79.63
Equity	6445.97	20.00	6824.41	20.37
Total	32233.58	100.00	33495.03	100.00

<b>Asset-III</b>				
<b>Particulars</b>	<b>Amount as on COD (₹ in lakh)</b>	<b>(in %)</b>	<b>Amount as on 31.3.2019 (₹ in lakh)</b>	<b>(in %)</b>
Debt	30863.50	80.00	34106.16	78.93
Equity	7715.87	20.00	9105.59	21.07
Total	38579.37	100.00	43211.74	100.00

<b>Asset-IV</b>				
<b>Particulars</b>	<b>Amount as on COD (₹ in lakh)</b>	<b>(in %)</b>	<b>Amount as on 31.3.2019 (₹ in lakh)</b>	<b>(in %)</b>
Debt	34713.85	80.00	36716.28	79.38
Equity	8678.46	20.00	9536.65	20.62
Total	43392.31	100.00	46252.92	100.00

<b>Asset-V</b>				
<b>Particulars</b>	<b>Amount as on COD (₹ in lakh)</b>	<b>(in %)</b>	<b>Amount as on 31.3.2019 (₹ in lakh)</b>	<b>(in %)</b>
Debt	24299.18	80.00	26145.00	79.20
Equity	6074.79	20.00	6865.86	20.80
Total	30373.97	100.00	33010.86	100.00

### **Depreciation**

47. The Commission *vide* order dated 16.8.2016 in Petition No. 213/TT/2015 held as follows:



“44. The petitioner vide affidavit dated 31.7.2015, had submitted the tariff forms for all the assets for 2014-19 period. The petitioner has claimed depreciation on the 'Depreciable Value' each year (for all assets), instead of calculating it on 'Average Gross Block' of the capital cost each year. Therefore, there are differences in the 'claims' and the 'worked out' of the Depreciation component of the Annual Fixed Charges. The depreciation for all the assets have been calculated as per Regulation 27 of 2014 Tariff Regulations, where Straight Line Method (SLM) is being considered up to first 12 years and after that the remaining depreciable value of the assets would be spread over the remaining useful life of the asset. ....”

48. Depreciation has been worked out as per the methodology provided in Regulation 27 of the 2014 Tariff Regulations. The transmission assets have been put under commercial operation between 1.9.2012 and 22.2.2015 and, accordingly, they will complete 12 years of useful life after 31.3.2019. The Petitioner vide affidavit dated 5.10.2020 has submitted detailed computation of year-wise Weighted Average Rate of Depreciation (WAROD) on overall basis of GFA opening balance as on 31.3.2014, ACE during 2014-19 period and GFA closing balance as on 31.3.2019 in respect of transmission assets, for true-up of 2014-19 tariff period.

49. The details of the true-up depreciation allowed during 2014-19 tariff period is as follows:

Particulars	Asset-I				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	60886.48	62478.58	62705.36	62732.90	62793.45
Additional Capitalisation	1592.10	226.78	27.54	60.55	472.75
Closing Gross Block	62478.58	62705.36	62732.90	62793.45	63266.20
Average Gross Block	61682.53	62591.97	62719.13	62763.18	63029.83
Weighted Average Rate of Depreciation (WAROD) (in %)	5.2761	5.2724	5.2724	5.2724	5.2651
Balance useful life of the asset at the beginning of the year (Year)	32	31	30	29	28
Lapsed life of the asset at the beginning of the year (Year)	3	4	5	6	7
Aggregated Depreciable Value	55514.28	56332.77	56447.22	56486.86	56726.84
<b>Depreciation during the year</b>	<b>3254.45</b>	<b>3300.08</b>	<b>3306.80</b>	<b>3309.12</b>	<b>3318.61</b>
Cumulative Depreciation at the	8283.38	11583.46	14890.25	18199.37	21517.99



end of the year					
Remaining Aggregated Depreciable Value at the end of the Year	<b>47230.90</b>	<b>44749.32</b>	<b>41556.97</b>	<b>38287.49</b>	<b>35208.86</b>

(₹ in lakh)

Particulars	Asset-II				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	32233.58	32724.00	33390.98	33466.64	33495.03
Additional Capitalisation	490.42	666.98	75.66	28.39	0.00
Closing Gross Block	32724.00	33390.98	33466.64	33495.03	33495.03
Average Gross Block	32478.79	33057.49	33428.81	33480.84	33495.03
Weighted Average Rate of Depreciation (WAROD) (in %)	5.2800	5.2800	5.2800	5.2800	5.2800
Balance useful life of the asset at the beginning of the year (Year)	33	32	31	30	29
Lapsed life of the asset at the beginning of the year (Year)	2	3	4	5	6
Aggregated Depreciable Value	29230.91	29751.74	30085.93	30132.75	30145.53
<b>Depreciation during the year</b>	<b>1714.88</b>	<b>1745.44</b>	<b>1765.04</b>	<b>1767.79</b>	<b>1768.54</b>
Cumulative Depreciation at the end of the year	3539.26	5284.70	7049.74	8817.52	10586.06
Remaining Aggregated Depreciable Value at the end of the Year	<b>25691.65</b>	<b>24467.05</b>	<b>23036.19</b>	<b>21315.23</b>	<b>19559.46</b>

(₹ in lakh)

Particulars	Asset-III				
	2014-15 (pro-rata 38 days)	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	38579.37	38913.47	39745.32	40882.86	43087.71
Additional Capitalisation	334.10	831.85	1137.54	2204.85	124.03
Closing Gross Block	38913.47	39745.32	40882.86	43087.71	43211.74
Average Gross Block	38746.42	39329.40	40314.09	41985.29	43149.73
Weighted Average Rate of Depreciation (WAROD) (in %)	5.2800	5.2800	5.2800	5.2800	5.2800
Balance useful life of the asset at the beginning of the year (Year)	35	34	33	32	31
Lapsed life of the asset at the end of the year (Year)	0	1	2	3	4





Aggregated Depreciable Value	34871.78	35396.46	36282.68	37786.76	38834.75
<b>Depreciation during the year</b>	<b>212.99</b>	<b>2076.59</b>	<b>2128.58</b>	<b>2212.62</b>	<b>2269.90</b>
Cumulative Depreciation at the end of the year	212.99	2289.58	4418.16	6630.79	8900.69
Remaining Aggregated Depreciable Value at the end of the Year.	<b>34658.79</b>	<b>33106.87</b>	<b>31864.52</b>	<b>31155.97</b>	<b>29934.07</b>

(₹ in lakh)

Particulars	Asset-IV				
	2014-15 (pro-rata 248 days)	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	43392.31	44003.52	46147.65	46252.92	46252.92
Additional Capitalisation	611.21	2144.13	105.27	0.00	0.00
Closing Gross Block	44003.52	46147.65	46252.92	46252.92	46252.92
Average Gross Block	43697.92	45075.59	46200.29	46252.92	46252.92
Weighted Average Rate of Depreciation (WAROD) (in %)	5.2800	5.2800	5.2800	5.2800	5.2800
Balance useful life of the asset at the beginning of the year (Year)	35	34	33	32	31
Lapsed life of the asset at the beginning of the year (Year)	0	1	2	3	4
Aggregated Depreciable Value	39328.12	40568.03	41580.26	41627.63	41627.63
<b>Depreciation during the year</b>	<b>1567.67</b>	<b>2379.99</b>	<b>2439.38</b>	<b>2442.15</b>	<b>2442.15</b>
Cumulative Depreciation at the end of the year.	1567.67	3947.66	6387.03	8829.19	11271.34
Remaining Aggregated Depreciable Value at the end of the Year.	<b>37760.46</b>	<b>36620.37</b>	<b>35193.22</b>	<b>32798.44</b>	<b>30356.29</b>

(₹ in lakh)

Particulars	Asset-V				
	2014-15 (pro-rata 75 days)	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	30373.97	30692.43	32119.95	32511.42	32904.40
Additional Capitalisation	318.46	1427.52	391.47	392.98	106.46
Closing Gross Block	30692.43	32119.95	32511.42	32904.40	33010.86
Average Gross Block	30533.20	31406.19	32315.69	32707.91	32957.63
Weighted Average Rate of Depreciation (WAROD) (in %)	5.2800	5.2800	5.2800	5.2800	5.2800



Balance useful life of the asset at the beginning of the year (Year)	35	34	33	32	31
Lapsed life of the asset at the beginning of the year (Year)	0	1	2	3	4
Aggregated Depreciable Value	27479.88	28265.57	29084.12	29437.12	29661.87
<b>Depreciation during the year</b>	<b>331.26</b>	<b>1658.25</b>	<b>1706.27</b>	<b>1726.98</b>	<b>1740.16</b>
Cumulative Depreciation at the end of the year	331.26	1989.51	3695.78	5422.76	7162.92
Remaining Aggregated Depreciable Value at the end of the Year	<b>27148.62</b>	<b>26276.06</b>	<b>25388.34</b>	<b>24014.36</b>	<b>22498.95</b>

50. The details of depreciation allowed *vide* order dated 16.8.2016 in Petition No. 213/TT/2015, as claimed by the Petitioner and as allowed in the instant petition in truing-up of 2014-19 tariff period is as follows:

(₹ in lakh)

Particulars	Asset-I				
	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed <i>vide</i> order dated 16.8.2016 in Petition No. 213/TT/2015	3269.18	3309.02	3309.02	3309.02	3309.02
Claimed by the Petitioner in the instant petition	3264.88	3306.40	3313.11	3315.44	3309.77
Approved after true-up in this order	3254.45	3300.08	3306.80	3309.12	3318.61

(₹ in lakh)

Particulars	Asset-II				
	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed <i>vide</i> order dated 16.8.2016 in Petition No. 213/TT/2015	1729.33	1745.83	1745.83	1745.83	1745.83
Claimed by the Petitioner in the instant petition	1725.76	1756.32	1775.92	1778.67	1773.97
Approved after true-up in this order	1714.88	1745.44	1765.04	1767.79	1768.54

(₹ in lakh)

Particulars	Asset-III				
	2014-15 (pro-rata 38 days)	2015-16	2016-17	2017-18	2018-19
Allowed <i>vide</i> order dated 16.8.2016 in Petition No. 213/TT/2015	219.09	2113.27	2113.27	2113.27	2113.27



Claimed by the Petitioner in the instant petition	212.99	2078.56	2128.60	2205.39	2255.43
Approved after true-up in this order	212.99	2076.59	2128.58	2212.62	2269.90

(₹ in lakh)

Particulars	Asset-IV				
	2014-15 (pro-rata 248 days)	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 16.8.2016 in Petition No. 213/TT/2015	1603.13	2375.58	2375.58	2375.58	2375.58
Claimed by the Petitioner in the instant petition	1567.67	2379.99	2439.38	2442.15	2442.15
Approved after true-up in this order	1567.67	2379.99	2439.38	2442.15	2442.15

(₹ in lakh)

Particulars	Asset-V				
	2014-15 (pro-rata 75 days)	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 16.8.2016 in Petition No. 213/TT/2015	337.34	1650.11	1650.11	1650.11	1650.11
Claimed by the Petitioner in the instant petition	331.26	1658.25	1706.27	1726.98	1740.16
Approved after true-up in this order	331.26	1658.25	1706.27	1726.98	1740.16

### **Interest on Loan (“IoL”)**

51. The Commission vide order dated 16.8.2016 in Petition No. 213/TT/2015 held as follows:

*“40. Accordingly, the interest on loan has been calculated considering the PFC loan submitted in Form-9C for each asset and the Interest of the loan has been considered as 12.25 % for all the assets for whole period 2014-19, as per the claim. Differences in calculation in petitioner's 'claims' and the 'worked out' interest on loan component of the Annual Fixed Charges would be reviewed at the time of truing-up and submission of the documentary proof of the same by the petitioner.”*

52. The Commission directed the Petitioner to submit the name of the loan in Form 9C and also to submit separate calculations showing weighted average rates of Interest on original loans and with refinanced loans. In response, the Petitioner vide affidavit dated 5.10.2020 has submitted that the loan has been availed from Power



Finance Corporation (PFC). The Petitioner, regarding original and refinanced loan, has submitted as follows:

(a) The Petitioner has already submitted details of refinancing in the main petition. The Project was successfully refinanced on 7.12.2017. In Form 9E, the Petitioner has submitted the Weighted Average Rate of Interest (WAROI) based on actuals. In Form 9C, the Petitioner has claimed the impact of refinancing based on difference of old and actual rates. The Petitioner has already submitted, in the petition, PFC advice with reference to rates prevailing before and after refinancing.

(b) The Petitioner has claimed the benefit of refinancing from the beneficiary to the extent of 1/3<sup>rd</sup> of the benefit for 2014-19 and ½ for 2019-24. Accordingly, in accordance with Regulation 26(7) of the 2014 Tariff Regulations, while calculating the interest of loans in Form 9E, the Petitioner is claiming its own share of 1/3<sup>rd</sup> of the benefit for 2014-19 resulting out of refinancing. The share of the Petitioner is as follows:

(₹ in lakh)

Particulars	1/3 <sup>rd</sup> of the Petitioner's Claim	
	2017-18	2018-19
Asset-I	107.06	307.14
Asset-II	55.94	171.12
Asset-III	88.15	265.40
Asset-IV	92.55	269.09
Asset-V	67.96	199.96
<b>Total</b>	<b>411.66</b>	<b>1212.71</b>

(c) The Petitioner has attached detailed note regarding multiple steps taken to facilitate interest rate reduction from 12.50% to 11.50% during 2014-19 tariff period including supporting documents from PFC and ICICI bank and other documents.

53. We have considered the submissions of the Petitioner. Regulation 26(7) of the 2014 Tariff Regulations provides as follows:

**“26. Interest on loan capital:**

xxxxx

*(7) The generating company or the transmission licensee, as the case may be, shall make every effort to re-finance the loan as long as it results in net savings on interest*



*and in that event the costs associated with such re-financing shall be borne by the beneficiaries and the net savings shall be shared between the beneficiaries and the generating company or the transmission licensee, as the case may be, in the ratio of 2:1.”*

54. The Petitioner had availed loan facility of ₹169902 lakh from PFC for the development of its Palatana-Bongaigaon transmission line.

55. As per the terms of its agreement dated 15.9.2009 with PFC, the rate of interest on loan was @12.50% with a timely rebate percentage @0.25%. Thus, the effective rate considered for computation was 12.25% for the financial year 2014-15. The Petitioner made continuous efforts to reduce the rate of interest from 12.50% to 11.50%. On 15.10.2015, net effective rate of interest was 10.40% after timely rebate of 1.10%. Subsequently, after several deliberations, the rate of interest offered by PFC was negotiated @ 9.04% (effective rate @ 8.79%) on 7.12.2017. On 2.1.2021, the rate has been further reduced to 6.44%. The effective weighted average rate of interest (E-WAROI) used in tariff computation for 2014-19 and 2019-24 tariff period is worked out as follows:

E-WAROI						
Financial Year	Date from (A)	Date to (B)	Number of days (C)= (A-B)	Total Number of days	Rate in loan documents (in %)	E-WAROI worked out
2015-16	01-04-15	14-10-15	197.00	366	12.25	6.5936
	15-10-15	31-03-16	169.00	366	10.40	4.8022
<b>E-WAROI</b>						<b>11.3958</b>
2017-18	01-04-17	06-12-17	250.00	365	10.40	7.1233
	07-12-17	31-03-18	115.00	365	8.79	2.7695
<b>E-WAROI</b>						<b>9.8927</b>
2020-21	01-04-20	01-01-21	276.00	365	8.79	6.6467
	02-01-21	31-03-21	89.00	365	6.44	1.5703
<b>E-WAROI</b>						<b>8.2170</b>

56. The details of the trued-up IoL allowed in respect of the transmission assets for 2014-19 tariff period is as follows:



**Asset-I****(₹ in lakh)**

<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Gross Normative Loan	48710.58	49825.05	49983.80	50003.08	50045.46
Cumulative Repayments up to Previous Year	5028.93	8283.38	11583.46	14890.25	18199.37
Net Loan-Opening	43681.66	41541.68	38400.34	35112.83	31846.09
Additions due to ACE	1114.47	158.75	19.28	42.39	330.93
Repayment during the year	3254.45	3300.08	3306.80	3309.12	3318.61
Net Loan-Closing	41541.68	38400.34	35112.83	31846.09	28858.40
Average Loan	42611.67	39971.01	36756.58	33479.46	30352.25
Weighted Average Rate of Interest on Loan (in %)	12.2500	11.3958	10.4000	9.8927	8.7900
<b>Interest on Loan</b>	<b>5219.93</b>	<b>4555.00</b>	<b>3822.68</b>	<b>3312.04</b>	<b>2667.96</b>

**Asset-II****(₹ in lakh)**

<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Gross Normative Loan	25787.61	26130.90	26597.79	26650.75	26670.62
Cumulative Repayments up to Previous Year	1824.38	3539.26	5284.70	7049.74	8817.52
Net Loan-Opening	23963.23	22591.64	21313.09	19601.01	17853.10
Additions due to ACE	343.29	466.89	52.96	19.87	0.00
Repayment during the year	1714.88	1745.44	1765.04	1767.79	1768.54
Net Loan-Closing	22591.64	21313.09	19601.01	17853.10	16084.56
Average Loan	23277.44	21952.37	20457.05	18727.06	16968.83
Weighted Average Rate of Interest on Loan (in %)	12.2500	11.3958	10.4000	9.8927	8.7900
<b>Interest on Loan</b>	<b>2851.49</b>	<b>2501.64</b>	<b>2127.53</b>	<b>1852.62</b>	<b>1491.56</b>

**Asset-III****(₹ in lakh)**

<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Gross Normative Loan	30863.50	31097.37	31679.66	32475.94	34019.33
Cumulative Repayments upto Previous Year	0.00	212.99	2289.58	4418.16	6630.79
Net Loan-Opening	30863.50	30884.38	29390.08	28057.77	27388.55
Additions due to ACE	233.87	582.30	796.28	1543.40	86.82
Repayment during the year	212.99	2076.59	2128.58	2212.62	2269.90
Net Loan-Closing	30884.38	29390.08	28057.77	27388.55	25205.47
Average Loan	30873.94	30137.23	28723.93	27723.16	26297.01
Weighted Average Rate of Interest on Loan (in %)	12.2500%	11.3958%	10.4000%	9.8927%	8.7900%
<b>Interest on Loan</b>	<b>393.75</b>	<b>3434.37</b>	<b>2987.29</b>	<b>2742.58</b>	<b>2311.51</b>



**Asset-IV**

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	34713.85	35141.70	36642.59	36716.28	36716.28
Cumulative Repayments up to Previous Year	0.00	1567.67	3947.66	6387.03	8829.19
Net Loan-Opening	34713.85	33574.03	32694.93	30329.24	27887.09
Additions due to ACE	427.85	1500.89	73.69	0.00	0.00
Repayment during the year	1567.67	2379.99	2439.38	2442.15	2442.15
Net Loan-Closing	33574.03	32694.93	30329.24	27887.09	25444.94
Average Loan	34143.94	33134.48	31512.09	29108.17	26666.01
Weighted Average Rate of Interest on Loan (in %)	12.2500	11.3958	10.4000	9.8927	8.7900
<b>Interest on Loan</b>	<b>2841.90</b>	<b>3775.93</b>	<b>3277.26</b>	<b>2879.60</b>	<b>2343.94</b>

**Asset-V**

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	24299.18	24522.10	25521.36	25795.39	26070.48
Cumulative Repayments up to Previous Year	0.00	331.26	1989.51	3695.78	5422.76
Net Loan-Opening	24299.18	24190.83	23531.85	22099.61	20647.72
Additions due to ACE	222.92	999.26	274.03	275.09	74.52
Repayment during the year	331.26	1658.25	1706.27	1726.98	1740.16
Net Loan-Closing	24190.83	23531.85	22099.61	20647.72	18982.08
Average Loan	24245.00	23861.34	22815.73	21373.67	19814.90
Weighted Average Rate of Interest on Loan (in %)	12.2500	11.3958	10.4000	9.8927	8.7900
<b>Interest on Loan</b>	<b>610.28</b>	<b>2719.18</b>	<b>2372.84</b>	<b>2114.44</b>	<b>1741.73</b>

57. The Petitioner is directed to share the benefits of the re-financing with the beneficiaries in accordance with Regulation 26(7) of the 2014 Tariff Regulations.

58. The details of IoL allowed *vide* order dated 16.8.2016 in Petition No. 213/TT/2015, as claimed by the Petitioner in the instant petition and tried up in the instant order in respect of transmission assets is as follows:



(₹ in lakh)

Particulars	Asset-I				
	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed <i>vide</i> order dated 16.8.2016 in Petition No. 213/TT/2015	5259.46	4938.25	4532.90	4127.55	3722.19
Claimed by the Petitioner in the instant petition	5335.66	4868.58	4432.24	3824.32	3036.05
Approved after true-up in this order	5219.93	4555.00	3822.68	3312.04	2667.96

(₹ in lakh)

Particulars	Asset-II				
	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed <i>vide</i> order dated 16.8.2016 in Petition No. 213/TT/2015.	2878.90	2695.14	2481.27	2267.41	2053.54
Claimed by the Petitioner in the instant petition.	2919.93	2678.10	2469.92	2141.25	1691.50
Approved after true-up in this order.	2851.49	2501.64	2127.53	1852.62	1491.56

(₹ in lakh)

Particulars	Asset-III				
	2014-15 (pro-rata 38 days)	2015-16	2016-17	2017-18	2018-19
Allowed <i>vide</i> order dated 16.8.2016 in Petition No. 213/TT/2015	405.19	3764.85	3505.97	3247.10	2988.22
Claimed by the Petitioner in the instant petition	400.47	3651.92	3444.74	3148.85	2623.45
Approved after true-up in this order	393.75	3434.37	2987.29	2742.58	2311.51

(₹ in lakh)

Particulars	Asset-IV				
	2014-15 (pro-rata 248 days)	2015-16	2016-17	2017-18	2018-19
Allowed <i>vide</i> order dated 16.8.2016 in Petition No. 213/TT/2015	2908.46	4066.36	3775.35	3484.35	3193.34
Claimed by the Petitioner in the instant petition	2890.41	4015.25	3779.38	3305.97	2659.98
Approved after true-up in this order	2841.90	3775.93	3277.26	2879.60	2343.94





Particulars	Asset-V				
	2014-15 (pro-rata 75 days)	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 16.8.2016 in Petition No. 213/TT/2015 .	621.87	2920.30	2718.17	2516.03	2313.89
Claimed by the Petitioner in the instant petition	620.69	2891.52	2736.39	2427.52	1976.57
Approved after true-up in this order.	610.28	2719.18	2372.84	2114.44	1741.73

### **Return on Equity (“RoE”)**

59. The Commission vide order dated 16.8.2016 in Petition No. 213/TT/2015 had held as follows:

*“36. Return on Equity has been worked out for all the assets as per Regulation 24 of 2014 Tariff Regulations. The MAT rate used for the whole period 2014-19 in our calculation, was based on the MAT rate of 2013-14, which would be updated at the time of truing-up.”*

60. The Commission directed the Petitioner to submit, the details (Section-wise of Income Tax Act, 1961) of ‘Total Tax and Interest paid’, ‘Assessed MAT Income’ and ‘Refund of Tax and interest recovered thereon or additional payment of tax and penalty for short deposited tax’ duly certified by the Auditor in accordance with applicable Auditing Standard and Implementation Guidelines, in order to arrive at the Effective Tax Percentage for 2014-19 tariff period. The Petitioner was directed to submit the information separately for ‘Tariff Income’ and ‘Non-Tariff Income’ duly reconciled with Books of Accounts.

61. In response, the Petitioner vide affidavit dated 5.10.2020 has submitted the details of actual tax paid along with details of MAT income certified by the Auditor. The Petitioner has also submitted that in 2015-16, they incurred loss and, hence, no MAT is claimed in that year. Accordingly, MAT claimed by the Petitioner for 2014-19 tariff period is as follows:

Financial Year	Effective Tax percentage (in %)	Grossed up RoE (in %) [(Base rate)/(1-t)]
2014-15	22.19%	19.92%
2015-16	0.00%	15.50%
2016-17	21.34%	19.71%
2017-18	21.35%	19.71%
2018-19	21.59%	19.77%

62. We have considered the submissions of the Petitioner. The Commission vide order dated 27.4.2020 in Petition No. 274/TT/2019 has arrived at the effective tax rate based on the notified MAT rates and the same is as follows:

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

63. MAT rates considered vide order dated 27.4.2020 in Petition No. 274/TT/2019 are considered for the purpose of grossing up of rate of RoE for truing up of the tariff of 2014-19 tariff period in terms of the provisions of the 2014 Tariff Regulations, which 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

64. Accordingly, RoE has been worked out in accordance with Regulation 24 and Regulation 25 of the 2014 Tariff Regulations. RoE allowed is as follows:

Particulars	Asset-I				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	12175.90	12653.53	12721.56	12729.82	12747.99
Addition due to ACE	477.63	68.03	8.26	18.17	141.83

(₹ in lakh)



Closing Equity	12653.53	12721.56	12729.82	12747.99	12889.81
Average Equity	12414.71	12687.54	12725.69	12738.90	12818.90
Return on Equity (Base Rate) (in %)	15.50	15.50	15.50	15.50	15.50
Tax Rate applicable (in %)	20.961	0.000	21.342	21.342	21.549
Rate of Return on Equity (Pre-tax) (in %)	19.610	15.500	19.705	19.705	19.758
<b>Return on Equity (Pre-tax)</b>	<b>2434.52</b>	<b>1966.57</b>	<b>2507.60</b>	<b>2510.20</b>	<b>2532.76</b>

(₹ in lakh)

Particulars	Asset-II				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	6445.97	6593.10	6793.19	6815.89	6824.41
Addition due to ACE	147.13	200.09	22.70	8.52	0.00
Closing Equity	6593.10	6793.19	6815.89	6824.41	6824.41
Average Equity	6519.53	6693.14	6804.54	6820.15	6824.41
Return on Equity (Base Rate) (in %)	15.50	15.50	15.50	15.50	15.50
Tax Rate applicable (in %)	20.961	0.000	21.342	21.342	21.549
Rate of Return on Equity (Pre-tax) (in %)	19.610	15.500	19.705	19.705	19.758
<b>Return on Equity (Pre-tax)</b>	<b>1278.48</b>	<b>1037.44</b>	<b>1340.83</b>	<b>1343.91</b>	<b>1348.37</b>

(₹ in lakh)

Particulars	Asset-III				
	2014-15 (pro-rata 38 days)	2015-16	2016-17	2017-18	2018-19
Opening Equity	7715.87	7816.10	8065.66	8406.92	9068.38
Addition due to ACE	100.23	249.56	341.26	661.46	37.21
Closing Equity	7816.10	8065.66	8406.92	9068.38	9105.59
Average Equity	7765.99	7940.88	8236.29	8737.65	9086.98
Return on Equity (Base Rate) (in %)	15.50	15.50	15.50	15.50	15.50
Tax Rate applicable (in %)	20.961	0.000	21.342	21.342	21.549
Rate of Return on Equity (Pre-tax) (in %)	19.610	15.500	19.705	19.705	19.758
<b>Return on Equity (Pre-tax)</b>	<b>158.55</b>	<b>1230.84</b>	<b>1622.96</b>	<b>1721.75</b>	<b>1795.41</b>



(₹ in lakh)

Particulars	Asset-IV				
	2014-15 (pro-rata 248 days)	2015-16	2016-17	2017-18	2018-19
Opening Equity	8678.46	8861.83	9505.06	9536.65	9536.65
Addition due to ACE	183.36	643.24	31.58	0.00	0.00
Closing Equity	8861.83	9505.06	9536.65	9536.65	9536.65
Average Equity	8770.14	9183.44	9520.85	9536.65	9536.65
Return on Equity (Base Rate) (in %)	15.50	15.50	15.50	15.50	15.50
Tax Rate applicable (in %)	20.961	0.000	21.342	21.342	21.549
Rate of Return on Equity (Pre-tax) (in %)	19.610	15.500	19.705	19.705	19.758
<b>Return on Equity (Pre-tax)</b>	<b>1168.54</b>	<b>1423.43</b>	<b>1876.08</b>	<b>1879.20</b>	<b>1884.25</b>

(₹ in lakh)

Particulars	Asset-V				
	2014-15 (pro-rata 75 days)	2015-16	2016-17	2017-18	2018-19
Opening Equity	6074.79	6170.33	6598.59	6716.03	6833.92
Addition due to ACE	95.54	428.26	117.44	117.89	31.94
Closing Equity	6170.33	6598.59	6716.03	6833.92	6865.86
Average Equity	6122.56	6384.46	6657.31	6774.98	6849.89
Return on Equity (Base Rate) (in %)	15.50	15.50	15.50	15.50	15.50
Tax Rate applicable (in %)	20.961	0.000	21.342	21.342	21.549
Rate of Return on Equity (Pre-tax) (in %)	19.610	15.500	19.705	19.705	19.758
<b>Return on Equity (Pre-tax)</b>	<b>246.71</b>	<b>989.59</b>	<b>1311.82</b>	<b>1335.01</b>	<b>1353.40</b>

65. The details of RoE allowed *vide* order dated 16.8.2016 in Petition No. 213/TT/2015, as claimed by the Petitioner in the instant petition and trued up in the instant order in respect of transmission assets are as follows:

(₹ in lakh)

Particulars	Asset-I				
	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed <i>vide</i> order dated 16.8.2016 in Petition No. 213/TT/2015	2439.80	2481.10	2481.10	2481.10	2481.10
Claimed by the Petitioner in the instant petition	2484.25	1975.32	2518.78	2521.63	2539.75
Approved after true-up in this order	2434.52	1966.57	2507.60	2510.20	2532.76



(₹ in lakh)

Particulars	Asset-II				
	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed <i>vide</i> order dated 16.8.2016 in Petition No. 213/TT/2015	1286.86	1301.57	1301.57	1301.57	1301.57
Claimed by the Petitioner in the instant petition	1307.04	1043.94	1349.13	1352.34	1362.55
Approved after true-up in this order	1278.48	1037.44	1340.83	1343.91	1348.37

(₹ in lakh)

Particulars	Asset-III				
	2014-15 (pro-rata 38 days)	2015-16	2016-17	2017-18	2018-19
Allowed <i>vide</i> order dated 16.8.2016 in Petition No. 213/TT/2015	162.85	1571.71	1571.71	1571.71	1571.71
Claimed by the Petitioner in the instant petition	161.06	1230.84	1623.00	1721.96	1798.22
Approved after true-up in this order	158.55	1230.84	1622.96	1721.75	1795.41

(₹ in lakh)

Particulars	Asset-IV				
	2014-15 (pro-rata 248 days)	2015-16	2016-17	2017-18	2018-19
Allowed <i>vide</i> order dated 16.8.2016 in Petition No. 213/TT/2015	1191.34	1766.13	1766.13	1766.13	1766.13
Claimed by the Petitioner in the instant petition	1187.00	1423.43	1876.13	1879.42	1885.20
Approved after true-up in this order	1168.54	1423.43	1876.08	1879.20	1884.25

(₹ in lakh)

Particulars	Asset-V				
	2014-15 (pro-rata 75 days)	2015-16	2016-17	2017-18	2018-19
Allowed <i>vide</i> order dated 16.8.2016 in Petition No. 213/TT/2015	250.58	1225.70	1225.70	1225.70	1225.70
Claimed by the Petitioner in the instant petition	250.60	989.59	1311.85	1335.17	1354.08
Approved after true-up in this order	246.71	989.59	1311.82	1335.01	1353.40

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

66. The Petitioner has claimed O&M Expenses based on the actual expenses incurred. The Petitioner has further submitted that it filed Petition No. 191/MP/2019



seeking relaxation on O&M norms and the pleadings of the said petition may be considered in the present petition. O&M Expenses claimed for the transmission assets are as follows

		(₹ in lakh)				
Assets	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-I	<b>O&amp;M Expenses</b>	381.39	330.79	407.29	424.48	468.65
Asset-II		170.68	156.11	188.98	193.31	215.13
Asset-III		157.25	133.62	162.90	184.74	204.55
Asset-IV		65.33	175.61	223.24	160.92	192.07
Asset-V		42.79	112.60	144.57	126.77	170.75
<b>Total</b>		<b>817.44</b>	<b>908.73</b>	<b>1126.98</b>	<b>1090.22</b>	<b>1251.15</b>

67. We have considered the submissions of the Petitioner. The Commission vide order dated 27.1.2021 in Petition No. 191/MP/2019 with regard to Petitioner's seeking relaxation on Operation and Maintenance norms specified under Regulation 29(4) of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 has held as follows:

*“31. We observe that despite awarding contract for O&M to PGCIL and M/s Pioneer, the Petitioner has to maintain a site office to carry out various functions and, therefore, need to incur expenditure on site office. We also observe that the Petitioner has incurred significant amount in Corporate Expenses head. The Petitioner was aware of the norms of O&M Expenses under the 2014 Tariff Regulations and despite that such expenditures have been incurred. This in our view is not a prudent expenditure.*

*32. In the light of our observations made above, we do not find any reason to invoke provisions of power to relax as requested by the Petitioner to allow it higher O&M expenses. The Commission expects the Petitioner to be more prudent and restrict its O&M Expenses within the stipulated norms.*

68. The Petitioner filed Review Petition No. 8/RP/2021 in Petition No.191/MP/2019 on the issue of relaxation of operation and maintenance expenditure norms and the Commission vide order dated 6.8.2021 in the said Review Petition has held as follows:

*“20. In the instant case, the Review Petitioner has neither shown any error apparent on record nor has placed any new evidence in support of its contentions for review of the order dated 27.1.2021. The grounds for invoking provisions of power to relax were raised by the Petitioner in Petition No. 191/MP/2019 also and the Commission vide impugned order dated 27.1.2021 did not consider it appropriate to invoke provisions of*



power to relax provided under Regulation 54 of the 2014 Tariff Regulations. We observe that in the impugned order, the Commission has given detailed reasons for not invoking provisions of power to relax. The Review Petitioner, under the garb of review, is trying to re-agitate the issues already decided by us in our order dated 27.1.2021. We do not find any error apparent on the face of record which requires review of the order dated 27.1.2021.

69. In view of the above, additional O&M Expenses claimed by the Petitioner under “Power to Relax” is not allowed in the above-said petition.

70. Regulation 29(4)(a) and Regulation 29(4)(c) of the 2014 Tariff Regulations provide year-wise O&M Expenses norms claimed for the transmission system of the Petitioner and the same are as follows:

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
<b>Transmission Lines</b>					
Single circuit (twin and triple conductor) (₹ in lakh/km)	0.404	0.418	0.432	0.446	0.461
Double circuit (twin and triple conductor) (₹ in lakh/km)	0.707	0.731	0.755	0.780	0.806

71. The Commission vide order dated 16.8.2016 in Petition No. 213/TT/2015 allowed O&M Expenses for Asset-I, Asset-II, Asset-III, Asset-IV and Asset-V by dividing the norms of D/C line by two, due to the fact that one circuit is on D/C towers. The same methodology is adopted in the instant true up petition also. Accordingly, O&M Expenses allowed in respect of the transmission assets for 2014-19 tariff period are as follows:

Particulars	Asset-I				
	2014-15	2015-16	2016-17	2017-18	2018-19
400 kV D/C Palatana-Silchar transmission line (COD: 1.9.2012) (D/C Twin & Triple Conductor)					
Line Length (km)	247.39	247.39	247.39	247.39	247.39
Norms (₹ lakh/km)	0.707	0.731	0.755	0.780	0.806
<b>O&amp;M Expenses (₹ in lakh)</b>	<b>174.90</b>	<b>180.84</b>	<b>186.78</b>	<b>192.96</b>	<b>199.40</b>

Particulars	Asset-II				
	2014-15	2015-16	2016-17	2017-18	2018-19
400 kV D/C Palatana-Silchar transmission line (COD: 1.3.2013) <b>(D/C Twin &amp; Triple Conductor)*</b>					
Line Length (km)	214.41	214.41	214.41	214.41	214.41
Norms (₹ lakh/km)	0.354	0.366	0.378	0.390	0.403
<b>O&amp;M Expenses (₹ in lakh)</b>	<b>75.795</b>	<b>78.365</b>	<b>80.94</b>	<b>83.62</b>	<b>86.405</b>

Particulars	Asset-III				
	2014-15 (pro-rata 38 days)	2015-16	2016-17	2017-18	2018-19
400 kV D/C Byrnihat-Bongaigaon transmission line (COD: 22.2.2015) <b>(S/C Twin &amp; Triple Conductor)*</b>					
Line Length (km)	201.00	201.00	201.00	201.00	201.00
Norms (₹ lakh/km)	0.354	0.366	0.378	0.390	0.403
<b>O&amp;M Expenses (₹ in lakh)</b>	<b>7.11</b>	<b>73.465</b>	<b>75.88</b>	<b>78.39</b>	<b>81.005</b>

Particulars	Asset-IV				
	2014-15 (pro-rata 248 days)	2015-16	2016-17	2017-18	2018-19
400 kV D/C Silchar-Azara transmission line (COD: 27.7.2014) <b>(S/C Twin &amp; Triple Conductor)*</b>					
Line Length (km)	256.41	256.41	256.41	256.41	256.41
Norms (₹ lakh/km)	0.354	0.366	0.378	0.390	0.403
<b>O&amp;M Expenses (₹ in lakh)</b>	<b>61.86</b>	<b>93.72</b>	<b>96.795</b>	<b>100</b>	<b>103.335</b>

Particulars	Asset-V				
	2014-15 (pro-rata 75 days)	2015-16	2016-17	2017-18	2018-19
400 kV D/C Azara-Bongaigaon transmission line (COD: 16.1.2015) <b>(S/C Twin &amp; Triple Conductor)*</b>					
Line Length (km)	159.00	159.00	159.00	159.00	159.00
Norms (₹ lakh/km)	0.354	0.366	0.378	0.390	0.403
<b>O&amp;M Expenses (₹ in lakh)</b>	<b>11.55</b>	<b>58.115</b>	<b>60.025</b>	<b>62.01</b>	<b>64.075</b>

\* Single circuit on D/C towers.





72. The details of O&M Expenses approved *vide* order dated 16.8.2016 in Petition No. 213/TT/2015, O&M Expenses as claimed by the Petitioner in the instant petition and true up O&M Expenses allowed in the instant order in respect of transmission assets are as follows:

(₹ in lakh)

Particulars	Asset-I				
	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed <i>vide</i> order dated 16.8.2016 in Petition No. 213/TT/2015	174.90	180.84	186.78	192.96	199.40
Claimed by the Petitioner in the instant petition	381.39	330.79	407.29	424.48	468.65
Approved after true-up in this order	174.90	180.84	186.78	192.96	199.40

(₹ in lakh)

Particulars	Asset-II				
	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed <i>vide</i> order dated 16.8.2016 in Petition No. 213/TT/2015	75.80	78.37	80.94	83.62	86.40
Claimed by the Petitioner in the instant petition	170.68	156.11	188.98	193.31	215.13
Approved after true-up in this order.	75.80	78.37	80.94	83.62	86.40

(₹ in lakh)

Particulars	Asset-III				
	2014-15 (pro-rata 38 days)	2015-16	2016-17	2017-18	2018-19
Allowed <i>vide</i> order dated 16.8.2016 in Petition No. 213/TT/2015	7.11	73.47	75.88	78.39	81.00
Claimed by the Petitioner in the instant petition.	157.25	133.62	162.90	184.74	204.55
Approved after true-up in this order.	7.11	73.47	75.88	78.39	81.00

(₹ in lakh)

Particulars	Asset-IV				
	2014-15 (pro-rata 248 days)	2015-16	2016-17	2017-18	2018-19
Allowed <i>vide</i> order dated 16.8.2016 in Petition No. 213/TT/2015.	61.86	93.72	96.80	100.00	103.34



Claimed by the Petitioner in the instant petition.	65.33	175.61	223.24	160.92	192.07
Approved after true-up in this order.	61.86	93.72	96.80	100.00	103.34

(₹ in lakh)

	Asset-V				
	2014-15 (pro-rata 75 days)	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 16.8.2016 in Petition No. 213/TT/2015 .	11.55	58.12	60.03	62.01	64.08
Claimed by the Petitioner in the instant petition	42.79	112.60	144.57	126.77	170.75
Approved after true-up in this order.	11.55	58.12	60.03	62.01	64.08

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

73. IWC has been worked out as per the methodology provided in Regulation 28 of the 2014 Tariff Regulations and true-up IWC allowed in respect of the transmission assets for 2014-19 tariff period is as follows:

(₹ in lakh)

Particulars	Asset-I				
	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares (15% of O&M Expenses)	26.24	27.13	28.02	28.94	29.91
O&M Expenses (O&M Expenses for one month)	14.58	15.07	15.57	16.08	16.62
Receivables (Equivalent to two months of annual fixed cost)	1890.76	1706.43	1676.00	1590.86	1487.64
<b>Total Working Capital</b>	<b>1,931.57</b>	<b>1,748.62</b>	<b>1,719.58</b>	<b>1,635.88</b>	<b>1,534.17</b>
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
<b>Interest on Working Capital</b>	<b>260.76</b>	<b>236.06</b>	<b>232.14</b>	<b>220.84</b>	<b>207.11</b>

(₹ in lakh)

Particulars	Asset-II				
	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares (15% of O&M Expenses)	11.37	11.76	12.14	12.54	12.96
O&M Expenses (O&M Expenses for one month)	6.32	6.53	6.75	6.97	7.20
Receivables (Equivalent to two months of annual fixed cost)	1009.90	914.81	906.55	861.14	800.95
<b>Total Working Capital</b>	<b>1,027.58</b>	<b>933.09</b>	<b>925.43</b>	<b>880.65</b>	<b>821.11</b>
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
<b>Interest on Working Capital</b>	<b>138.72</b>	<b>125.97</b>	<b>124.93</b>	<b>118.89</b>	<b>110.85</b>



(₹ in lakh)

Particulars	Asset-III				
	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares (15% of O&M Expenses)	10.24	11.02	11.38	11.76	12.15
O&M Expenses (O&M Expenses for one month)	5.69	6.12	6.32	6.53	6.75
Receivables (Equivalent to two months of annual fixed cost)	1265.34	1162.42	1162.34	1152.23	1101.51
<b>Total Working Capital</b>	<b>1281.28</b>	<b>1179.56</b>	<b>1180.04</b>	<b>1170.52</b>	<b>1120.41</b>
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
<b>Interest on Working Capital</b>	<b>18.01</b>	<b>159.24</b>	<b>159.31</b>	<b>158.02</b>	<b>151.26</b>

(₹ in lakh)

Particulars	Asset-IV				
	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares (15% of O&M Expenses)	13.66	14.06	14.52	15.00	15.50
O&M Expenses (O&M Expenses for one month)	7.59	7.81	8.07	8.33	8.61
Receivables (Equivalent to two months of annual fixed cost)	1415.79	1308.79	1311.61	1245.37	1155.49
<b>Total Working Capital</b>	<b>1437.04</b>	<b>1330.65</b>	<b>1334.19</b>	<b>1268.70</b>	<b>1179.60</b>
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
<b>Interest on Working Capital</b>	<b>131.81</b>	<b>179.64</b>	<b>180.12</b>	<b>171.27</b>	<b>159.25</b>

(₹ in lakh)

Particulars	Asset-V				
	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares (15% of O&M Expenses)	8.43	8.72	9.00	9.30	9.61
O&M Expenses (O&M Expenses for one month)	4.68	4.84	5.00	5.17	5.34
Receivables (Equivalent to two months of annual fixed cost)	995.87	925.31	929.73	893.50	835.70
<b>Total Working Capital</b>	<b>1008.99</b>	<b>938.88</b>	<b>943.73</b>	<b>907.97</b>	<b>850.65</b>
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
<b>Interest on Working Capital</b>	<b>27.99</b>	<b>126.75</b>	<b>127.40</b>	<b>122.58</b>	<b>114.84</b>

74. The details of IWC approved *vide* order dated 16.8.2016 in Petition No. 213/TT/2015, as claimed by the Petitioner in the instant petition and as trued up in the instant order is as follows:



(₹ in lakh)

Particulars	Asset-I				
	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed <i>vide</i> order dated 16.8.2016 in Petition No. 213/TT/2015	262.13	256.93	247.93	238.94	229.97
Claimed by the Petitioner in the instant petition	276.22	251.91	258.76	245.83	230.42
Approved after true-up in this order	260.76	236.06	232.14	220.84	207.11

(₹ in lakh)

Particulars	Asset-II				
	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed <i>vide</i> order dated 16.8.2016 in Petition No. 213/TT/2015	139.88	136.51	131.73	126.96	122.19
Claimed by the Petitioner in the instant petition	146.45	134.72	139.22	132.04	123.02
Approved after true-up in this order	138.72	125.97	124.93	118.89	110.85

(₹ in lakh)

Particulars	Asset-III				
	2014-15 (pro-rata 38 days)	2015-16	2016-17	2017-18	2018-19
Allowed <i>vide</i> order dated 16.8.2016 in Petition No. 213/TT/2015	18.51	175.54	169.71	163.89	158.08
Claimed by the Petitioner in the instant petition	26.51	167.62	174.64	173.08	164.99
Approved after true-up in this order	18.01	159.24	159.31	158.02	151.26

(₹ in lakh)

Particulars	Asset-IV				
	2014-15 (pro-rata 248 days)	2015-16	2016-17	2017-18	2018-19
Allowed <i>vide</i> order dated 16.8.2016 in Petition No. 213/TT/2015	134.69	194.11	187.58	181.06	174.55
Claimed by the Petitioner in the instant petition	133.55	189.67	198.66	184.46	171.44
Approved after true-up in this order.	131.81	179.64	180.12	171.27	159.25



(₹ in lakh)

Particulars	Asset-V				
	2014-15 (pro-rata 75 days)	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 16.8.2016 in Petition No. 213/TT/2015	28.48	136.62	132.08	127.53	123.00
Claimed by the Petitioner in the instant petition	30.04	133.73	140.44	133.36	126.15
Approved after true-up in this order.	27.99	126.75	127.40	122.58	114.84

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

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

(₹ in lakh)

Particulars	Asset-I				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	3254.45	3300.08	3306.80	3309.12	3318.61
Interest on Loan	5219.93	4555.00	3822.68	3312.04	2667.96
Return on Equity	2434.52	1966.57	2507.60	2510.20	2532.76
Interest on Working Capital	260.76	236.06	232.14	220.84	207.11
O&M Expenses	174.90	180.84	186.78	192.96	199.40
<b>Total</b>	<b>11344.57</b>	<b>10238.56</b>	<b>10056.00</b>	<b>9545.16</b>	<b>8925.85</b>

(₹ in lakh)

Particulars	Asset-II				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	1714.88	1745.44	1765.04	1767.79	1768.54
Interest on Loan	2851.49	2501.64	2127.53	1852.62	1491.56
Return on Equity	1278.48	1037.44	1340.83	1343.91	1348.37
Interest on Working Capital	138.72	125.97	124.93	118.89	110.85
O&M Expenses	75.80	78.37	80.94	83.62	86.40
<b>Total</b>	<b>6059.37</b>	<b>5488.85</b>	<b>5439.28</b>	<b>5166.82</b>	<b>4805.71</b>



(₹ in lakh)

Particulars	Asset-III				
	2014-15 (Pro-rata 38 days)	2015-16	2016-17	2017-18	2018-19
Depreciation	212.99	2076.59	2128.58	2212.62	2269.90
Interest on Loan	393.75	3434.37	2987.29	2742.58	2311.51
Return on Equity	158.55	1230.84	1622.96	1721.75	1795.41
Interest on Working Capital	18.01	159.24	159.31	158.02	151.26
O&M Expenses	7.11	73.47	75.88	78.39	81.00
<b>Total</b>	<b>790.40</b>	<b>6974.51</b>	<b>6974.02</b>	<b>6913.36</b>	<b>6609.07</b>

(₹ in lakh)

Particulars	Asset-IV				
	2014-15 (Pro-rata 248 days)	2015-16	2016-17	2017-18	2018-19
Depreciation	1567.67	2379.99	2439.38	2442.15	2442.15
Interest on Loan	2841.90	3775.93	3277.26	2879.60	2343.94
Return on Equity	1168.54	1423.43	1876.08	1879.20	1884.25
Interest on Working Capital	131.81	179.64	180.12	171.27	159.25
O&M Expenses	61.86	93.72	96.80	100.00	103.34
<b>Total</b>	<b>5771.78</b>	<b>7852.71</b>	<b>7869.63</b>	<b>7472.22</b>	<b>6932.93</b>

(₹ in lakh)

Particulars	Asset-V				
	2014-15 (Pro-rata 75 days)	2015-16	2016-17	2017-18	2018-19
Depreciation	331.26	1658.25	1706.27	1726.98	1740.16
Interest on Loan	610.28	2719.18	2372.84	2114.44	1741.73
Return on Equity	246.71	989.59	1311.82	1335.01	1353.40
Interest on Working Capital	27.99	126.75	127.40	122.58	114.84
O&M Expenses	11.55	58.12	60.03	62.01	64.08
<b>Total</b>	<b>1227.79</b>	<b>5551.89</b>	<b>5578.36</b>	<b>5361.01</b>	<b>5014.21</b>

76. The details of AFC approved *vide* order dated 16.8.2016 in Petition No. 213/TT/2015, AFC claimed by the Petitioner in the instant Petition and as trued up AFC in the instant order in respect of transmission assets are as follows:



(₹ in lakh)

Particulars	Asset-I				
	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed <i>vide</i> order dated 16.8.2016 in Petition No. 213/TT/2015	11405.47	11166.15	10757.73	10349.57	9941.68
Claimed by the Petitioner in the instant petition	11742.40	10733.00	10930.18	10331.70	9584.64
Approved after true-up in this order	11344.57	10238.56	10056.00	9545.16	8925.85

(₹ in lakh)

Particulars	Asset-II				
	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed <i>vide</i> order dated 16.8.2016 in Petition No. 213/TT/2015	6110.76	5957.40	5741.34	5525.38	5309.53
Claimed by the Petitioner in the instant petition	6269.86	5769.19	5923.17	5597.61	5166.17
Approved after true-up in this order	6059.37	5488.85	5439.28	5166.82	4805.71

(₹ in lakh)

Particulars	Asset-III				
	2014-15 (Pro-rata 38 days)	2015-16	2016-17	2017-18	2018-19
Allowed <i>vide</i> order dated 16.8.2016 in Petition No. 213/TT/2015	812.74	7698.82	7436.54	7174.35	6912.27
Claimed by the Petitioner in the instant petition	958.28	7262.56	7533.88	7434.02	7046.64
Approved after true-up in this order	790.40	6974.51	6974.02	6913.36	6609.07

(₹ in lakh)

Particulars	Asset-IV				
	2014-15 (Pro-rata 248)	2015-16	2016-17	2017-18	2018-19
Allowed <i>vide</i> order dated 16.8.2016 in Petition No. 213/TT/2015	5899.48	8495.90	8201.44	7907.12	7612.92
Claimed by the Petitioner in the instant petition	5843.96	8183.95	8516.79	7972.92	7350.84
Approved after true-up in this order	5771.78	7852.71	7869.63	7472.22	6932.93



(₹ in lakh)

Particulars	Asset-V				
	2014-15 (Pro-rata 75 days)	2015-16	2016-17	2017-18	2018-19
Allowed <i>vide</i> order dated 16.8.2016 in Petition No. 213/TT/2015	1249.82	5990.85	5786.07	5581.38	5376.76
Claimed by the Petitioner in the instant petition	1275.38	5785.70	6039.52	5749.79	5367.71
Approved after true-up in this order	1227.79	5551.89	5578.36	5361.01	5014.21

77. AFC in respect of the transmission assets approved after truing up have changed in comparison to what was approved earlier *vide* order dated 16.8.2016 in Petition No. 213/TT/2015 and the same is owing to lower weighted average rate of interest due to refinancing in all the transmission assets and adjustment of decapitalisation as on 1.4.2014 with respect to Asset-I and Asset-II.

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

78. The Petitioner has submitted tariff forms for 2019-24 period after combining the transmission assets into single asset. 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.

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

(₹ in lakh)

Particulars	Combined Asset				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	11603.62	11714.94	11754.54	11776.91	11603.62
Interest on Loan	9812.85	10361.95	6823.82	5946.81	9812.85
Return on Equity	8608.51	8728.06	8781.25	8808.30	8608.51
Interest on Working Capital	511.12	526.29	476.49	466.25	511.12
O&M Expenses	1367.57	1415.44	1464.98	1516.25	1367.57
<b>Total</b>	<b>31903.67</b>	<b>32746.68</b>	<b>29301.08</b>	<b>28514.52</b>	<b>31903.67</b>





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

Particulars	Combined Asset				
	2019-20	2020-21	2021-22	2022-23	2023-24
Working Capital for Maintenance Spares (15% of O&M Expenses)	205.14	212.32	219.75	227.44	235.40
Working Capital for O&M Expenses (O&M Expenses for one month)	113.96	117.95	122.08	126.35	130.73
Working Capital for Receivables (Equivalent to 45 days of annual fixed cost/ annual transmission charges).	3922.58	1037.26	3612.46	3515.49	3399.77
<b>Total Working Capital</b>	<b>4241.68</b>	<b>4367.53</b>	<b>3954.29</b>	<b>3869.28</b>	<b>3765.95</b>
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
<b>Interest on Working Capital</b>	<b>511.12</b>	<b>526.29</b>	<b>476.49</b>	<b>466.25</b>	<b>453.80</b>

(₹ in lakh)

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

81. Regulation 6 and Regulation 27 of the 2014 Tariff Regulations provide as follows:

#### **“6. Tariff determination**

(1) Xxxxxxxx

Provided that:

(i) where all the generating units of a stage of a generating station or all elements of a transmission system have been declared under commercial operation prior to 1.4.2014, the generating company or the transmission licensee, as the case may be, shall file consolidated petition in respect of the entire generating station or transmissions system for the purpose of determination of tariff for the period 2014-15 to 2018-19:

Xxxxxxxx

#### **27. Depreciation:**

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

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

(2) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission. In case of multiple units of a generating station or multiple elements of transmission system, weighted average life for the generating station of the



*transmission system shall be applied. Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis.*

Xxxxxxxx”

82. E-COD in respect of the Combined Asset, has been worked out based on the admitted capital cost of individual assets as on 31.3.2019 and actual COD of individual assets. Accordingly, E-COD in respect of the Combined Asset has been worked out as 27.12.2013 and the same is as follows:

<b>E-COD</b>						
<b>Assets</b>	<b>Actual COD</b>	<b>Admitted Capital Cost as on 31.3.2019 (₹ in lakh)</b>	<b>Weightage of the cost (in %)</b>	<b>Number of days from last COD</b>	<b>Weighted days</b>	<b>E-COD (Latest COD less total weighted days)</b>
Asset-I	1.9.2012	63266.20	28.86	904.00	260.87	<b>27.12.2013</b>
Asset-II	1.3.2013	33495.03	15.28	723.00	110.46	
Asset-III	22.2.2015	43211.74	19.71	0.00	0.00	
Asset-IV	27.7.2014	46252.92	21.10	210.00	44.30	
Asset-V	16.1.2015	33010.86	15.06	37.00	5.57	
<b>Total</b>		<b>219236.75</b>	<b>100.00</b>		<b>421.21</b>	

83. E-COD as 27.12.2013 has been used to determine the lapsed life of project (Combined Asset) as on 1.4.2019 as 5 years. (i.e. the number of completed year as on 1.4.2019 from E-COD).

**Weighted Average Life (“WAL”)**

84. The life as defined in Regulation 33 of the 2019 Tariff Regulations has been considered for determination of WAL. The Combined Asset may have multiple elements such as land, building, transmission line, Sub-station and PLCC and each element may have different span of life. Therefore, the concept of WAL has been used as the useful life of the project as a whole.

85. WAL has been determined based on the admitted capital cost of individual elements as on 31.3.2019 and their respective life as specified in the 2019 Tariff Regulations. The element-wise life as defined in the 2014 Tariff Regulations

prevailing at the time of actual COD of individual assets has been ignored for this purpose. The life as defined in the 2019 Tariff Regulations has been considered for determination of WAL. Accordingly, WAL of all the transmission assets commissioned during 2014-19 period has been worked out as 35 years and the same is as follows:

(₹ in lakh)				
Particulars	Life (in years) (1)	Capital Cost as on 31.3.2019 (₹ in lakh) (2)	Weighted Cost (₹ in lakh) (3) = (1) * (2)	Weighted Average Life of Asset (in years) (4) = [(3) / (2)]
Building & Civil Works	25	1152.12	28803.00	<b>34.9474 Rounded off to 35 years</b>
Transmission Line	35	218084.63	7632962.05	
Sub-Station	25	0.00	0.00	
PLCC	15	0.00	000	
<b>Total</b>		<b>219236.75</b>	<b>7661765.05</b>	

86. 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 27.12.2013 and the lapsed life of the project as a whole works out to 5 year 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 30 years.

### **Capital Cost**

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

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

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

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

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

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



- (d) Interest during construction and incidental expenditure during construction as computed in accordance with these regulations;
- (e) Capitalised initial spares subject to the ceiling rates in accordance with these regulations;
- (f) Expenditure on account of additional capitalization and de-capitalisation determined in accordance with these regulations;
- (g) Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the date of commercial operation as specified under Regulation 7 of these regulations;
- (h) Adjustment of revenue earned by the transmission licensee by using the assets before the date of commercial operation;
- (i) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
- (j) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of the generating station but does not include the transportation cost and any other appurtenant cost paid to the railway;
- (k) Capital expenditure on account of biomass handling equipment and facilities, for co-firing;
- (l) Capital expenditure on account of emission control system necessary to meet the revised emission standards and sewage treatment plant;
- (m) Expenditure on account of fulfilment of any conditions for obtaining environment clearance for the project;
- (n) Expenditure on account of change in law and force majeure events; and
- (o) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries
- (3) The Capital cost of an existing project shall include the following:
- (a) Capital cost admitted by the Commission prior to 1.4.2019 duly tried up by excluding liability, if any, as on 1.4.2019.
- (b) Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations.
- (c) Capital expenditure on account of renovation and modernisation as admitted by this Commission in accordance with these regulations;
- (d) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
- (e) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal 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."

88. The Petitioner vide affidavit dated 5.10.2020 has claimed the capital cost of the Combined Asset and submitted Auditor's Certificate in support of the same. The capital cost claimed as on 31.3.2019 and ACE claimed during 2019-24 tariff period in respect of the Combined Asset as per Auditor Certificate are as follows:

(₹ in lakh)

Capital Cost of Combined Asset							
Apportioned Approved Cost as per latest RCE	Capital cost claimed as on 31.3.2019	2019-20	2020-21	2021-22	2022-23	2023-24	Estimated Completion cost as on 31.3.2024
225700.00	219236.40	3315.14	927.71	960.31	0.00	0.00	224439.56

89. Against the overall apportioned approved capital cost (as per latest RCE) of ₹225700.00 lakh, the estimated completion cost is ₹224439.56 lakh. The individual capital cost of each transmission asset is also within the respective RCE apportioned capital cost. Therefore, there is no cost over-run in respect of the Combined Asset.



90. The capital cost has been dealt in line with Regulation 19(3) of the 2019 Tariff Regulations. The element-wise capital cost (i.e., land, building, transmission line, Sub- station and PLCC) as admitted by the Commission as on 31.3.2019 in respect of the transmission assets are clubbed together and has been considered as the capital cost of the Combined Asset as on 1.4.2019 as follows:

Particulars						(₹ in lakh)
	Asset-I	Asset-II	Asset-III	Asset-IV	Asset-V	Capital Cost for Combined Asset as on 31.3.2019
Free hold Land	-	-	-	-	-	-
Lease hold Land	-	-	-	-	-	-
Building & Other Civil Works	718.88	-	433.24	-	-	-
Transmission Line	62547.32	33495.03	42778.50	46252.92	33010.86	219236.75
Sub-Station Equipment	-	-	-	-	-	-
PLCC	-	-	-	-	-	-
IT Equipment and Software	-	-	-	-	-	-
<b>Total</b>	<b>63266.20</b>	<b>33495.03</b>	<b>43211.74</b>	<b>46252.92</b>	<b>33010.86</b>	<b>219236.75</b>

91. The trued-up capital cost of ₹219236.75 lakh in respect of the Combined Asset has been considered as the 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”)**

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

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

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

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



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

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

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

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

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

(2) In case of replacement of assets deployed under the original scope of the existing project after cut-off date, the additional capitalization may be admitted by the Commission, after making necessary adjustments in the gross fixed assets and the cumulative depreciation, subject to prudence check on the following grounds:

- (a) The useful life of the assets is not commensurate with the useful life of the project and such assets have been fully depreciated in accordance with the provisions of these regulations;
- (b) The replacement of the asset or equipment is necessary on account of change in law or Force Majeure conditions;
- (c) The replacement of such asset or equipment is necessary on account of obsolescence of technology; and
- (d) The replacement of such asset or equipment has otherwise been allowed by the Commission.”

93. The Petitioner has submitted the following details of projected ACE for 2019-24 period incurred up to 31.3.2024 in respect of the Combined Asset covered in this petition and submitted Auditor’s Certificate in support of the same:

(₹ in lakh)

Assets	Projected ACE					Total ACE as on 31.3.2024
	2019-20	2020-21	2021-22	2022-23	2023-24	
Combined Asset	3315.14	927.71	960.31	0.00	0.00	5203.16

94. The Petitioner has submitted following justification in support of its claim of ACE for 2019-24 tariff period:



**A) Line Diversion of 400 kV D/C Byrnihat-Azara transmission line due to Regional Institute of Science and Technology, Ri-bhoi district, Meghalaya (RIST) (Regulation 25(1)(a) of 2019 Tariff Regulations)**

(i) The Byrnihat-Azara section (42 km) was to be completed by March 2014. However, objections were raised by the Educational Research and Development Foundation, Guwahati, Assam (ERDF) against passing of 350 metre of the overhead transmission line over the campus of Regional Institute of Science and Technology, Ri-bhoi district, Meghalaya (RIST) owned by them and they also filed Writ Petitions in April 2013 before the Hon'ble High Court of Meghalaya.

(ii) As per the directions of the Hon'ble High Court of Meghalaya to approach appropriate Commission to resolve the dispute under the Electricity Act, 2003, the Petitioner submitted the petition before this Commission in May 2013. The Commission vide order dated 10.3.2014 in Petition No. 118/MP/2013 allowed the Petitioner to proceed with the work. It was stated that no tower location falls within the campus but only the overhead conductors of the 400 kV D/C line is required to be taken over a stretch of 350 metre over the campus at a height of more than 33 metre.

(iii) ERDF filed Appeal 80 of 2014 before the Appellate Tribunal for Electricity (APTEL) on 24.3.2014 and on the first hearing on 28.3.2014, the APTEL advised the Petitioner to suspend the construction activities of tower location (1778/0) situated even outside the RIST campus. However, after hearing on 7.4.2014, the APTEL permitted the Petitioner to resume work outside the campus but restrained the Petitioner to string the conductor over the RIST campus till the petition is finally disposed of. Finally, both the parties filed their affidavit before the APTEL and agreed for route diversion on certain terms and conditions.

(iv) Further, the Petitioner vide Petition No. 128/MP/2018, approached the Commission on the same issue seeking extension of time for ACE of the asset for construction of an alternative route through RIST Campus as per the directions of the APTEL in Appeal No. 80 of 2014 and I.A. No. 149 and 151 of 2014. The Commission vide order dated 11.4.2019 approved in-principle ACE beyond the cut-off date upon completion of the alternative route. The observations made by the Commission are as follows:



*“Further, as per the directions of the Hon’ble Appellate Tribunal in Appeal No. 80 of 2014, the Petitioner was required to construct an alternative route for the existing transmission overhead line passing through the Regional Institute of Science and Technology (RIST), Meghalaya. The Petitioner has submitted that the Petitioner can commence the construction of the alternative route as per the directions of the Hon’ble Appellate tribunal only upon the grant of the requisite forest clearance by the competent authorities. As a result, the alternative route cannot be commissioned and declared under commercial operation before the expiry of the cut-off date. Therefore, the Petitioner will require extension of time from this Commission for consideration of this additional capitalization. **The Petitioner, therefore, reserves the right to seek such extension of time and approval of additional capitalization beyond the cut- off date upon the completion of the alternative route.**”*

(v) In this regard, the tender process and Memorandum of Understanding (MOU) worth ₹1772.43 lakh has already been signed with PGCIL. Out of which an advance payment of ₹1506.56 lakh has been made to PGCIL. Further, an expenditure of ₹155.13 lakh has been made towards forest clearance to Meghalaya Forest Department for the said diversion. The total estimated expenditure in this regard is ₹1927.56 lakh for 2019-24 MYT.

**B) Site Office/ Inventory Store (Regulation 25(1)(f) of the 2019 Tariff Regulations)**

(i) ACE amounting to ₹344.86 lakh towards construction of site office cum-store in Guwahati is estimated to be incurred in 2019-20. MoU has already been signed in this regard and 100% payment has been paid to PGCIL. Further expenditure of ₹275.00 lakh against land for site office cum store in Silchar and ₹307.60 lakh against construction of site office cum store in Silchar is estimated to be incurred in 2020-21 and 2021-22, respectively.

(ii) The expenditure with respect to colony and Corporate Office/ Regional Office for transmission line in Agartala, Silchar and Guwahati has already been conveyed to the Commission in Petition No. 213/TT/2015 and the expenditure to the extent of ₹247 lakh for land in Agartala was allowed by the Commission vide order dated 16.8.2016.

**C) Protection Wall work at 9 locations of 400 kV D/C Palatana–Silchar Line (Regulation 25(1)(a) of 2019 Tariff Regulations)**

(i) Palatana-Silchar 400 kV D/C transmission line is passing through 73 km of hilly Reserve Forest stretch in the State of Tripura. During construction, hill cutting was minimized by using uneven leg extensions for better stability. In



2018, the State of Tripura experienced unprecedented heavy monsoon with incessant rains in the month of June. The intensity of rain was so severe that within a time span of 7-10 days, the free-flowing rainwater caused very heavy landslides in the entire hilly stretch of Tripura resulting in severe erosion in the subject transmission line corridor.

(ii) Due to such natural calamity, 9 (nine) tower locations of this transmission line were badly affected. Immediately, temporary measures were taken to provide minimum protection in those vulnerable locations by PGCIL (the PMC of the Petitioner). These protection measures were temporary in nature and only for protecting the locations during that difficult time. Subsequently, the matter regarding taking up of the permanent protections in these vulnerable locations was initiated jointly by PGCIL and the Petitioner. Simultaneously, the Petitioner being a very small entity, the matter was put up in the 152<sup>nd</sup> OCC Meeting with a request for booking of such heavy expenditure through PoC mechanism. After detailed deliberations, the forum suggested/ advised the Petitioner to take up the work immediately considering any additional endangered locations and subsequently to submit petition to the Commission for inclusion of the cost in tariff.

(iii) Subsequently, action was taken by PGCIL/ Petitioner to provide permanent protection e.g. RRM wall in all the 9 (nine) tower locations at a cost of ₹283.29 lakh. The matter was also taken up in 38<sup>th</sup> Commercial sub-Committee meeting and all the members were apprised about the cost and for inclusion of the same in tariff. The committee appreciated the importance of permanent protection to the vulnerable locations which was instrumental in ensuring the stability of the Palatana-Silchar-Bongaigaon corridor thereby ensuring the transfer of scheduled power at competitive rate to all the NER beneficiaries of OTPC Palatana.

(iv) For consideration of the cost by the Commission for the subject work, clearances of TCC and RPC were required. This proposal was approved in 20<sup>th</sup> TCC and 20<sup>th</sup> NERPC meeting held on 12.9.2019 at Guwahati. The minutes of meeting is enclosed with the petition.



(v) However, against the approved cost of ₹283.00 lakh, total capital expenditure of ₹302.85 lakh is expected to be incurred due to hilly terrain and tough weather conditions.

**D) Contractor Payment towards Balance and Retention** (*Regulation 25(1)(d) of the 2019 Tariff Regulations*)

(i) The details of balance and retention payment of contractor already paid in 2019-24 is as follows:

(₹ in lakh)	
<b>Expenditure toward contractor payment already paid in 2019-20</b>	
Conductor for Railway Diversion	98.64
PMC Paid for Assets 3 and 5	47.32
Tools & Plant	145.69
Other balance payments	2.39
Agartala office	10.04
<b>Total</b>	<b>304.08</b>

(ii) The expenditure of ₹98.64 lakh already paid in 2019-20 towards contractor payment for conductor against Railway Diversion. Payments of ₹47.32 lakh, ₹145.69 lakh and ₹10.04 lakh against PMC, Tools & Plant and site office expenses in Agartala respectively already paid in 2019-20 to the vendors. Expenditure with respect to colony and Corporate office/ Regional Office for transmission line in Agartala has already been conveyed to the Commission in Petition No. 213/TT/2015 and the expenditure to the extent of ₹247 lakh for land in Agartala was allowed vide order dated 16.8.2016 in Petition No. 213/TT/2015.

(iii) Besides, an estimated ACE of ₹2.39 lakh on account of balance payment to the contractor has also been discharged in 2019-20.

**E) Compensation** (*Regulation 25(1)(d) of the 2019 Tariff Regulations*)

(i) The Petitioner is expected to pay total compensation amounting to ₹362.74 lakh in 2019-24 period out of which compensation of ₹62.00 lakh is to be paid for Railways Diversion as already brought out in ACE of 2014-19 tariff period.

(ii) The expenditure of ₹49.82 lakh is estimated to be paid against the compensation as per the direction of Circle Officer, Government of Assam vide its letter dated 28.6.2019 and subsequent letter by PGCIL dated 9.7.2019 in

2019-20. Both the letters are attached with the petition.

(iii) The other compensation amounting to ₹250.92 lakh pertains to compensation yet to be paid against various works executed in 2014-19 period and is expected to be discharged in 2019-24 period.

(iv) The total compensation (₹62.00 + ₹49.82 + ₹250.92 = ₹362.74 lakh) is expected to be discharged as follows:

Particulars	(₹ in lakh)			
	2019-20	2020-21	2021-22	Total
Compensation	57.32	152.71	152.71	362.74

**F) Installation of Transmission Line Arrestor (TLA) (Regulation 26(1)(d) of the 2019 Tariff Regulations)**

(i) 400 kV D/C Silchar-Byrnihat transmission line of the Petitioner in the North Eastern region traverses through rocky and hilly area, soil strata has high resistivity, most of the area is rocky and hilly (10–10,000 Ωm), isokeraunic levels are high (i.e. Lightning Current 150 kA) and tough geographical conditions.

(ii) The above line (near Khehrihat and Shillong in Meghalaya) passes through severe lightning prone area due to which 400 kV Silchar-Byrnihat and Silchar-Azara experiences number of outages during monsoon period. The Petitioner has adapted various measures to improve the earthing by the way of reducing tower footing resistance sodium bentonite chemical earthing. Though line outages due to lightning have reduced up to some extent but could not be completely prevented. Therefore, it is felt necessary to provide Transmission Line Arrestor (TLA) in some of the section where maximum lightning current is noticed. The installation of 400 kV TLA shall be adopted for the first time in Indian grid based on the successful rate of TLA used in 132 kV and 220 kV in lightning prone area. PGCIL has adapted TLA in their 132 kV and 220 kV line in lightning prone area and successfully reduced outages.

(iii) Installation of TLA would help in reduction of trippings due to lightning in transmission line besides stability and reliability of NER Grid. For this purpose, the Petitioner has estimated to install approx. 400 TLAs in identified section of Silchar-Byrnihat line. Based on the market survey/ available data, it would cost around ₹1000.00 lakh. However, the exact cost shall be considered on its final



order.

(iv) In 160<sup>th</sup> OCC meeting of NERPC, it has been agreed, in principle, to install TLA in the line to avoid frequent trappings. The agenda and minute of meeting of 160<sup>th</sup> OCC Sub-Committee Meeting is attached with the petition.

(v) The net expenditure in this regard is estimated to be ₹1000.00 lakh out of which ₹500 lakh is estimated in 2020-21 and ₹500 lakh in 2021-22.

95. We have considered the submissions of the Petitioner. The cut-off dates of transmission assets fall in 2014-19 period. The Petitioner has submitted that the admissibility of ACE incurred after cut-off date is to be dealt in accordance with the provision of Regulation 25(1) of the 2019 Tariff Regulations.

96. The Petitioner has submitted that ACE during 2019-24 period has been incurred for line diversion, payment of compensation, construction of site office cum stores, expenditure on protection work at 9 locations in 400 kV D/C Palatana-Silchar Line, contractors balance and retention payments, installation of Transmission Line Arrestor (TLA) etc. The reasons for ACE were discussed in TCC and NERPC meetings and in-principle approval for the same has been obtained. ACE has been approved in the RCE-4 approved by the Petitioner's Board of Directors. Some of the proposed ACE such as compensation, balance and retention payment, foundation protection, office cum store etc. are already part of ACE allowed for 2014-19 period and are spill-over payments. The Petitioner has claimed ACE of about ₹5200 lakh during 2019-24 period on projected basis. The Petitioner has booked contingencies amounting about ₹4200 lakh in RCE-4. ACE claimed is restricted to the extent of contingencies claimed by the Petitioner. It is observed that the transmission project has been commissioned during 2009-14 and 2014-19 tariff periods. The Petitioner may claim this amount, as and when it is incurred, subject to the submission of details at the time of truing-up of 2019-24 tariff period.



97. Accordingly, ACE in respect of Compound Asset is allowed under Regulation 25(1) of the 2019 Tariff Regulations as follows:

(₹ in lakh)

Assets	Estimated ACE					Total ACE as on 31.3.2024
	2019-20	2020-21	2021-22	2022-23	2023-24	
Combined Asset	1003.16	0.00	0.00	0.00	0.00	1003.16

### Capital Cost for 2019-24 Tariff Period

98. Accordingly, capital cost in respect of the Combined Asset considered for 2019-24 tariff period, subject to truing up, is as follows:

(₹ in lakh)

Assets	RCE-4 Apportioned cost	Capital cost admitted as on 1.4.2019	ACE allowed for FY 2019-24	Total Estimated Completion capital cost allowed as on 31.3.2024
		A	B	C=A+B
Combined Asset	225700.00	219236.75	1003.16	220239.91

### Debt-Equity Ratio

99. Regulation 18 of the 2019 Tariff Regulations provides as follows:

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

Provided that:

i. where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of tariff:

ii. the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:

iii. any grant obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt-equity ratio.

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

(2) The generating company or the transmission licensee, as the case may be, shall submit the resolution of the Board of the company or approval of the competent authority in other cases regarding infusion of funds from internal resources in support



of the utilization made or proposed to be made to meet the capital expenditure of the generating station or the transmission system including communication system, as the case may be.

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

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

Provided further that in case of projects owned by Damodar Valley Corporation, the debt: equity ratio shall be governed as per sub-clause (ii) of clause (2) of Regulation 72 of these regulations.

(4) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2019, but where debt: equity ratio has not been determined by the Commission for determination of tariff for the period ending 31.3.2019, the Commission shall approve the debt: equity ratio in accordance with clause (1) of this Regulation.

(5) Any expenditure incurred or projected to be incurred on or after 1.4.2019 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this Regulation.

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

100. Debt-equity ratio is dealt in accordance with Regulations 18 of the 2019 Tariff Regulations. Accordingly, debt-equity ratio considered for the purpose of tariff of 2019-24 tariff period in respect of Combined Asset, subject to true-up, 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	174014.44	79.37	174716.65	79.33
Equity	45222.31	20.63	45523.26	20.67
<b>Total</b>	<b>219236.75</b>	<b>100.00</b>	<b>220239.91</b>	<b>100.00</b>

### **Depreciation**

101. Regulation 33 of the 2019 Tariff Regulations provides as follows:

**“33. Depreciation:** (1) Depreciation shall be computed from the date of commercial operation of a generating station or unit thereof or a transmission system or element



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

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

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

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

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

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

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

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

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

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

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

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

(7) The generating company or the transmission licensee, as the case may be, shall submit the details of proposed capital expenditure five years before the completion of useful life of the project along with justification and proposed life extension. The





*Commission based on prudence check of such submissions shall approve the depreciation on capital expenditure.*

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

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

*(10) Depreciation of the emission control system of an existing or a new generating station or unit thereof where the date of operation of the emission control system is subsequent to the date of commercial operation of the generating station or unit thereof, shall be computed annually from the date of operation of such emission control system based on straight line method, with salvage value of 10%, over a period of-*

*a) twenty five years, in case the generating station or unit thereof is in operation for fifteen years or less as on the date of operation of the emission control system; or*

*b) balance useful life of the generating station or unit thereof plus fifteen years, in case the generating station or unit thereof is in operation for more than fifteen years as on the date of operation of the emission control system; or*

*c) ten years or a period mutually agreed by the generating company and the beneficiaries, whichever is*

102. Depreciation has been worked out as per the methodology provided in Regulation 33 of the 2019 Tariff Regulations. The transmission assets have been put on commercial operation between 1.9.2012 and 22.2.2015 and, accordingly, will complete 12 years of useful life after 31.3.2024. The Petitioner vide affidavit dated 5.10.2020 has submitted detailed computation of year-wise WAROD. The calculation of WAROD for 2019-24 period is given at Annexure-I. 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 for 2019-24 tariff period, subject to true up, is as follows:



Combined Asset					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	219236.75	220239.91	220239.91	220239.91	220239.91
Additional Capitalisation	1003.16	0.00	0.00	0.00	0.00
Closing Gross Block	220239.91	220239.91	220239.91	220239.91	220239.91
Average Gross Block	219738.33	220239.91	220239.91	220239.91	220239.91
Weighted Average Rate of Depreciation (WAROD) (in %)	5.2686	5.2673	5.2673	5.2673	5.2673
Balance useful life of the asset at the beginning of the year (Year)	30	29	28	27	26
Lapsed life of the asset at the beginning of the year (Year)	5	6	7	8	9
Aggregated Depreciable Value	197717.54	198122.00	198122.00	198122.00	198122.00
<b>Combined Depreciation during the year</b>	<b>11577.08</b>	<b>11600.81</b>	<b>11600.81</b>	<b>11600.81</b>	<b>11600.81</b>
Cumulative Depreciation at the end of the year	71016.08	82616.88	94217.69	105818.50	117419.30
Remaining Aggregated Depreciable Value at the end of the Year	126701.46	115505.12	103904.31	92303.50	80702.70

### Interest on Loan (“IoL”)

103. 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 asset, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered upto the date of de-capitalisation of such asset.

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

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

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

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

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

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

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

104. The Petitioner vide affidavit dated 5.10.2020 has claimed WAROI and has as submitted Form-9C in respect of the Combined Asset for 2019-24 tariff period. The Petitioner has submitted that transmission project was successfully refinanced by PFC India Limited on 7.12.2017 at a lower rate of interest than the prevailing one and has submitted factual details supported by documentary evidence. The Petitioner has carried out refinancing of project loan under the provisions of Regulation 26(7) of the 2014 Tariff Regulation which has been considered in true-up of 2014-19 tariff period.

105. Further, the Petitioner has carried out refinancing of project loan under the provisions of Regulation 61(1) of the 2019 Tariff Regulation which provides as follows:

***“61. Sharing of saving in interest due to re-financing or restructuring of loan:***

*(1) If refinancing or restructuring of loan by the generating company or the transmission licensee, as the case may be, results in net savings on interest after accounting for cost 125 associated with such refinancing or restructuring, the same shall be shared between the beneficiaries and the generating company or the transmission licensee, as the case may be, in the ratio of 50:50.”*

106. The credit for refinancing has been claimed for 2019-24 tariff period in



accordance with Regulation 61(1) of the 2019 Tariff Regulation. The Petitioner, while calculating the interest on loans in Form-9E, has claimed its own share of 50% of the benefit resulting out of refinancing. The share of the Petitioner is as follows:

(₹ in lakh)

50% of the Petitioner's Claim				
2019-20	2020-21	2021-22	2022-23	2023-24
1670.80	1514.40	1346.50	1173.16	994.54

107. We have considered the submissions of the Petitioner. Accordingly, IoL has been calculated based on actual interest rate submitted by the Petitioner in accordance with Regulation 32 of the 2019 Tariff Regulations and E-WAROI (as referred to above in this order under the heading "IoL" for true-up of tariff of 2014-19 period). Further, the Petitioner is directed to share the benefits of the refinancing with the beneficiaries in accordance with Regulation 61(1) of the 2019 Tariff Regulations. The details of the IoL allowed in respect of the Combined Asset for 2019-24 tariff period, subject to true-up, is as follows:

(₹ in lakh)

Combined Asset					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	174014.45	174716.66	174716.66	174716.66	174716.66
Cumulative Repayments up to Previous Year	59439.00	71016.08	82616.89	94217.69	105818.50
Net Loan-Opening	114575.45	103700.58	92099.78	80498.97	68898.16
Addition due to ACE	702.21	0.00	0.00	0.00	0.00
Repayment during the year	11577.08	11600.81	11600.81	11600.81	11600.81
Net Loan-Closing	103700.58	92099.78	80498.97	68898.16	57297.35
Average Loan	109138.02	97900.18	86299.37	74698.56	63097.76
Weighted Average Rate of Interest on Loan (in %)	8.7900%	8.2170%	6.4400%	6.4400%	6.4400%
<b>Interest on Loan</b>	<b>9593.23</b>	<b>8044.44</b>	<b>5557.68</b>	<b>4810.59</b>	<b>4063.50</b>



## **Return on Equity (“RoE”)**

108. Regulation 30 and Regulation 31 of the 2019 Tariff Regulations provides 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 account of emission control system, shall be computed at the weighted average rate of interest on actual loan portfolio of the generating station or the transmission system or in the absence of actual loan portfolio of the generating station or the transmission system, the weighted average rate of interest of the generating company or the transmission licensee, as the case may be, as a whole shall be considered, subject to ceiling of 14%.;*

*Provided further that:*

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

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

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

- a) rate of return on equity shall be reduced by 0.25% in case of failure to achieve the ramp rate of 1% per minute;*
- b) an additional rate of return on equity of 0.25% shall be allowed for every incremental ramp rate of 1% per minute achieved over and above the ramp rate of 1% per minute, subject to ceiling of additional rate of return on equity of 1.00%:*

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

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

**“31. Tax on Return on Equity:** (1) The base rate of return on equity as allowed by the Commission under Regulation 30 of these regulations shall be grossed up with the



effective tax rate of the respective financial year. For this purpose, the effective tax rate shall be considered on the basis of actual tax paid in respect of the financial year in line with the provisions of the relevant Finance Acts by the concerned generating company or the transmission licensee, as the case may be. The actual tax paid on income from other businesses including deferred tax liability (i.e. income from business other than business of generation or transmission, as the case may be) shall be excluded for the calculation of effective tax rate.

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

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

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

### **Illustration-**

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

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

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

(a) Estimated Gross Income from generation or transmission business for FY 2019-20 is Rs 1,000 crore;

(b) Estimated Advance Tax for the year on above is Rs 240 crore;

(c) Effective Tax Rate for the year 2019-20 = Rs 240 Crore / Rs 1000 Crore = 24%;

(d) Rate of return on equity =  $15.50 / (1 - 0.24) = 20.395\%$ .

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

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



(₹ in lakh)

Combined Asset					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	45222.32	45523.27	45523.27	45523.27	45222.32
Addition due to ACE	300.95	0.00	0.00	0.00	300.95
Closing Equity	45523.27	45523.27	45523.27	45523.27	45523.27
Average Equity	45372.79	45523.27	45523.27	45523.27	45372.79
Return on Equity (Base Rate) (in %)	15.50	15.50	15.50	15.50	15.50
Tax Rate applicable (in %)	17.472	17.472	17.472	17.472	17.472
Rate of Return on Equity (Pre-tax)	18.782	18.782	18.782	18.782	18.782
<b>Return on Equity (Pre-tax)</b>	<b>8521.92</b>	<b>8550.18</b>	<b>8550.18</b>	<b>8550.18</b>	<b>8521.92</b>

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

110. Regulation 35(3)(a) of the 2019 Tariff Regulations specifies the norms for the O&M Expenses for the transmission system and it is as follows:

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

Particulars	2019- 20	2020-21	2021-22	2022-23	2023- 24
<b>Norms for sub-station Bays (₹ Lakh per bay)</b>					
765 kV	45.01	46.60	48.23	49.93	51.68
400 kV	32.15	33.28	34.45	35.66	36.91
220 kV	22.51	23.30	24.12	24.96	25.84
132 kV and below	16.08	16.64	17.23	17.83	18.46
<b>Norms for Transformers (₹ Lakh per MVA)</b>					
765 kV	0.491	0.508	0.526	0.545	0.564
400 kV	0.358	0.371	0.384	0.398	0.411
220 kV	0.245	0.254	0.263	0.272	0.282
132 kV and below	0.245	0.254	0.263	0.272	0.282
<b>Norms for AC and HVDC lines (₹ Lakh per km)</b>					
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.881	0.912	0.944	0.977	1.011
Single Circuit (Bundled conductor with four sub-conductors)	0.755	0.781	0.809	0.837	0.867
Single Circuit (Twin & Triple Conductor)	0.503	0.521	0.539	0.558	0.578
Single Circuit (Single Conductor)	0.252	0.260	0.270	0.279	0.289
Double Circuit (Bundled conductor with four or more sub-conductors)	1.322	1.368	1.416	1.466	1.517
Double Circuit (Twin & Triple Conductor)	0.881	0.912	0.944	0.977	1.011
Double Circuit (Single Conductor)	0.377	0.391	0.404	0.419	0.433
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.319	2.401	2.485	2.572	2.662



Multi Circuit (Twin & Triple Conductor)	1.544	1.598	1.654	1.713	1.773
<b>Norms for HVDC stations</b>					
HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)	834.00	864.00	894.00	925.00	958.00
Gazuwaka HVDC Back-to-Back station (₹ Lakh per 500 MW)	1,666.00	1,725.00	1,785.00	1,848.00	1,913.00
500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)	2,252.00	2,331.00	2,413.00	2,498.00	2,586.00
±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)	2,468.00	2,555.00	2,645.00	2,738.00	2,834.00
±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)	1,696.00	1,756.00	1,817.00	1,881.00	1,947.00
±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW)	2,563.0	2,653	2,746.00	2,842.00	2,942.00

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 Talcher-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.”

111. The Petitioner has submitted that O&M Expenses for determination of transmission tariff for 2019-24 period has been escalated in accordance with O&M escalation rate of the 2019 Tariff Regulations, i.e., 3.50% and the same is as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Escalation rate with reference to previous year	9.31%	3.50%			
O&M Expenses claimed after applying CERC escalation on actual O&M Expenses for 2013-14	<b>1367.57</b>	<b>1415.44</b>	<b>1464.98</b>	<b>1516.25</b>	<b>1569.32</b>

\*O&M Expenses claimed for 2018-19 period for all 5 transmission assets is ₹1251.15 lakh

112. We have considered the submission of the Petitioner. We have already taken a view in order dated 27.1.2021 in Petition No. 191/MP/2019 that O&M Expenses shall be allowed as per normative rates provided in the Tariff Regulations. Accordingly, O&M Expenses have been worked out for the individual assets in accordance with Regulation 35(3)(a) of the 2019 Tariff Regulations and summing them for arriving at O&M Expenses of the Combined Asset, subject to truing-up of 2019-24 tariff period is as follows:

Particulars	Asset-I				
	2019-20	2020-21	2021-22	2022-23	2023-24
400 kV D/C Palatana-Silchar transmission line (D/C Twin & Triple Conductor)					
Line Length (km)	247.39	247.39	247.39	247.39	247.39
Norms (₹ lakh/km)	0.881	0.912	0.944	0.977	1.011
<b>O&amp;M Expenses (₹ in lakh)</b>	<b>217.95</b>	<b>225.62</b>	<b>233.54</b>	<b>241.70</b>	<b>250.11</b>



Particulars	Asset-II				
	2019-20	2020-21	2021-22	2022-23	2023-24
400 kV D/C Palatana-Silchar transmission line (D/C Twin & Triple Conductor)*					
Line Length (km)	214.41	214.41	214.41	214.41	214.41
Norms (₹ lakh/km)	0.503	0.521	0.539	0.558	0.578
<b>O&amp;M Expenses (₹ in lakh)</b>	<b>107.85</b>	<b>111.71</b>	<b>115.57</b>	<b>119.64</b>	<b>123.93</b>

Particulars	Asset-III				
	2019-20	2020-21	2021-22	2022-23	2023-24
400 kV D/C Byrnihat-Bongaigaon transmission line (S/C Twin & Triple Conductor)*					
Line Length (km)	201.00	201.00	201.00	201.00	201.00
Norms (₹ lakh/km)	0.503	0.521	0.539	0.558	0.578
<b>O&amp;M Expenses (₹ in lakh)</b>	<b>101.10</b>	<b>104.72</b>	<b>108.34</b>	<b>112.16</b>	<b>116.18</b>

Particulars	Asset-IV				
	2019-20	2020-21	2021-22	2022-23	2023-24
400 kV D/C Silchar-Azara transmission line (S/C Twin & Triple Conductor)*					
Line Length (km)	256.41	256.41	256.41	256.41	256.41
Norms (₹ lakh/km)	0.503	0.521	0.539	0.558	0.578
<b>O&amp;M Expenses (₹ in lakh)</b>	<b>128.97</b>	<b>133.59</b>	<b>138.20</b>	<b>143.08</b>	<b>148.20</b>

Particulars	Asset-V				
	2019-20	2020-21	2021-22	2022-23	2023-24
400 kV D/C Azara-Bongaigaon transmission line (S/C Twin & Triple Conductor)*					
Line Length (km)	159.00	159.00	159.00	159.00	159.00
Norms (₹ lakh/km)	0.503	0.521	0.539	0.558	0.578
<b>O&amp;M Expenses (₹ in lakh)</b>	<b>79.98</b>	<b>82.84</b>	<b>85.70</b>	<b>88.72</b>	<b>91.90</b>

\* Single circuit on D/C towers.

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Combined Asset: 400 kV Palatana-Bongaigaon Transmission System</b>					



O&M Expenses (₹ in lakh)	635.85	658.48	681.35	705.30	730.33
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113. The Petitioner has not claimed any O&M Expenses on account of communication system, security expenses and capital spares consumed.

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

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

**“34. Interest on Working Capital:**

(1) .....

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

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

(2) .....

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

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

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

**“3. Definitions ...**

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

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

116. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The Rate of Interest (ROI) on working capital considered is 12.05% (SBI



1 year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for 2019-20, whereas ROI for 2020-21 has been considered as 11.25% (SBI 1-year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points) and from 2021-22 onwards has been considered 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, subject to true-up, is as follows:

Particulars	Combined Asset				
	2019-20	2020-21	2021-22	2022-23	2023-24
Maintenance Spares (15% of O&M Expenses)	95.38	98.77	102.20	105.80	109.55
O&M Expenses (O&M Expenses for one month)	52.99	54.87	56.78	58.78	60.86
Receivables (Equivalent to 45 days of annual fixed cost)	3787.17	3609.53	3298.32	3208.07	3109.33
<b>Total Working Capital</b>	<b>3935.53</b>	<b>3763.17</b>	<b>3457.30</b>	<b>3372.64</b>	<b>3279.74</b>
Rate of Interest (in %)	12.05	11.25	10.50	10.50	10.50
<b>Interest on Working Capital</b>	<b>474.23</b>	<b>423.36</b>	<b>363.02</b>	<b>354.13</b>	<b>344.37</b>

#### **Annual Transmission Charges for 2019-24 Tariff Period**

117. The transmission charges allowed in respect of Combined Asset for 2019-24 tariff period, subject to true up, are as follows:

Particulars	Combined Asset				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	11577.08	11600.81	11600.81	11600.81	11600.81
Interest on Loan	9593.23	8044.44	5557.68	4810.59	4063.50
Return on Equity	8521.92	8550.18	8550.18	8550.18	8550.18
Interest on Working Capital	474.23	423.36	363.02	354.13	344.37
O&M Expenses	635.85	658.48	681.35	705.30	730.33
<b>Total</b>	<b>30802.31</b>	<b>29277.27</b>	<b>26753.03</b>	<b>26021.00</b>	<b>25289.19</b>

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

118. The Petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses in terms of Regulation 70(1) of the 2019 Tariff Regulations. The Petitioner shall be entitled for reimbursement of the filing fees and publication



expenses in connection with the present petition, directly from the beneficiaries on pro-rata basis in accordance with Regulation 70(1) of the 2019 Tariff Regulations.

### **License fee and RLDC Fees and Charges**

119. 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 fees and charges in accordance with Regulation 70(3) of the 2019 Tariff Regulations for 2019-24 tariff period.

### **Goods and Services Tax**

120. The Petitioner has submitted that if GST is levied at any rate and at any point of time in future on charges of transmission of electricity, the same shall be borne and additionally paid by the Respondent(s) to the Petitioner and the same shall be charged and billed separately by the Petitioner. Further, additional taxes, if any, are to be paid by the Petitioner on account of demand from Government/ Statutory authorities, the same may be allowed to be recovered from the beneficiaries.

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

### **Capital Spares**

122. 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.

### **Interlocutory Application (IA) No. 56/IA/2020**

123. The Petitioner has filed IA No. 56/IA/2020 accompanied by affidavit dated 21.7.2020. The Petitioner in the said IA has submitted that current billing for 2019-24



tariff period is being done as per tariff of 2014-19 period approved *vide* order dated 16.8.2016 in Petition No. 213/TT/2015 under the provisions of Regulation 10(4) of 2019 Tariff Regulations. AFC with respect to all the transmission assets (Asset-I to Asset-V) for 2018-19 approved *vide* order dated 16.8.2016 in Petition No. 213/TT/2015 as ₹35153.16 lakh is higher than the AFC of ₹33645.09 lakh as claimed by the Petitioner for 2019-20. Therefore, the Petitioner, being a single asset Company is seeking to prevent the interest liability in future in respect of higher billing.

124. The Petitioner has made the following prayer in IA No. 56/IA/2020:

*“(j). allow the Petitioner to bill the beneficiaries as per tariff claimed for FY 2019-24 in Petition No. 308/TT/2020 till the petition is disposed of.”*

125. We have considered the submissions of the Petitioner. In view of the fact that in the present petition, we have tried up the transmission tariff of the transmission assets for 2014-19 period and determined the tariff in respect of Combined Asset for 2019-24 period, the IA allowing the Petitioner to bill the beneficiaries as per the tariff claimed for 2019-24 period has become infructuous. Accordingly, IA No. 56/IA/2020 is disposed of as infructuous.

### **Sharing of Transmission Charges**

126. With effect from 1.7.2011, sharing of transmission charges for inter-State transmission systems was governed by the provisions of the 2010 Sharing Regulations and with effect from 1.11.2020 (after repeal of the 2010 Sharing Regulations), sharing of transmission charges is governed by the 2020 Sharing Regulations. Accordingly, the liabilities of the DICs for arrears of the 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 the 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.

127. To summarise:

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

(₹ in lakh)

Particulars	Asset-I				
	2014-15	2015-16	2016-17	2017-18	2018-19
AFC	11344.57	10238.56	10056.00	9545.16	8925.85

(₹ in lakh)

Particulars	Asset-II				
	2014-15	2015-16	2016-17	2017-18	2018-19
AFC	6059.37	5488.85	5439.28	5166.82	4805.71

(₹ in lakh)

Particulars	Asset-III				
	2014-15 (Pro-rata 38 days)	2015-16	2016-17	2017-18	2018-19
AFC	790.40	6974.51	6974.02	6913.36	6609.07

(₹ in lakh)

Particulars	Asset-IV				
	2014-15 (Pro-rata 248 days)	2015-16	2016-17	2017-18	2018-19
AFC	5771.78	7852.71	7869.63	7472.22	6932.93

(₹ in lakh)

Particulars	Asset-V				
	2014-15 (Pro-rata 75 days)	2015-16	2016-17	2017-18	2018-19
AFC	1227.79	5551.89	5578.36	5361.01	5014.21

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

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Combined Asset	30802.31	29277.27	26753.03	26021.00	25289.19

128. Annexure-I given hereinafter forms part of the order.



129. This order disposes of Petition No. 308/TT/2020 along with IA No. 56/IA/2020 in terms of above discussions and findings.

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

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

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

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





**Annexure-I**

**Asset-I**

Capital Expenditures as on DOCO / 01.04.2014	Admitted Capital Cost as on 31.03.2014 vide Petition No. 233/TT/2015	Additional capitalization (2014-19)	Admitted Cost as on 31.3.2019	Rate of Depreciation as per Regulation	Depreciation as per Regulation				
		Total			2014-15	2015-16	2016-17	2017-18	2018-19
Freehold Land	0.00	0.00	0.00	0.00%	0.00	0.00	0.00	0.00	0.00
Leasehold Land	0.00	0.00	0.00	3.34%	0.00	0.00	0.00	0.00	0.00
Building & Other Civil Works	0.00	718.88	718.88	3.34%	4.11	8.22	8.22	8.22	16.12
Transmission Line	60886.48	1660.84	62547.32	5.28%	3250.34	3291.86	3298.57	3300.90	3302.50
Sub-Station Equipment	0.00	0.00	0.00	5.28%	0.00	0.00	0.00	0.00	0.00
PLCC	0.00	0.00	0.00	6.33%	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>60886.48</b>	<b>2379.72</b>	<b>63266.20</b>		<b>3254.45</b>	<b>3300.08</b>	<b>3306.80</b>	<b>3309.12</b>	<b>3318.61</b>
		<b>Average Gross block</b>			61682.53	62591.97	62719.13	62763.18	63029.83
		<b>Weighted Average Rate of Depreciation (WAROD) (in %)</b>			5.2761%	5.2724%	5.2724%	5.2724%	5.2651%

**Asset-II**

Capital Expenditures as on DOCO / 01.04.2014	Admitted Capital Cost as on 31.03.2014 vide Petition No. 233/TT/2015	Additional capitalization (2014-19)	Admitted Cost as on 31.3.2019	Rate of Depreciation as per Regulation	Depreciation as per Regulation				
		Total			2014-15	2015-16	2016-17	2017-18	2018-19
Freehold Land	0.00	0.00	0.00	0.00%	0.00	0.00	0.00	0.00	0.00
Leasehold Land	0.00	0.00	0.00	3.34%	0.00	0.00	0.00	0.00	0.00
Building & Other Civil Works	0.00	0.00	0.00	3.34%	0.00	0.00	0.00	0.00	0.00
Transmission Line	32233.58	1261.45	33495.03	5.28%	1714.88	1745.44	1765.04	1767.79	1768.54
Sub-Station Equipment	0.00	0.00	0.00	5.28%	0.00	0.00	0.00	0.00	0.00
PLCC	0.00	0.00	0.00	6.33%	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>32233.58</b>	<b>1261.45</b>	<b>33495.03</b>		<b>1714.88</b>	<b>1745.44</b>	<b>1765.04</b>	<b>1767.79</b>	<b>1768.54</b>
		<b>Average Gross block</b>			32478.79	33057.49	33428.81	33480.84	33495.03
		<b>Weighted Average Rate of Depreciation (WAROD)(%)</b>			5.2800%	5.2800%	5.2800%	5.2800%	5.2800%

**Asset-III**

Capital Expenditures as on DOCO / 01.04.2014	Capital Cost as per Auditor Certificate	Additional capitalization (2014-19)	Admitted Cost as on 31.3.2019	Rate of Depreciation as per Regulation	Depreciation as per Regulation				
		Total			2014-15	2015-16	2016-17	2017-18	2018-19
Freehold Land	0.00	0.00	0.00	0.00%	0.00	0.00	0.00	0.00	0.00
Leasehold Land	0.00	0.00	0.00	3.34%	0.00	0.00	0.00	0.00	0.00
Building & Other Civil Works	0.00	433.24	433.24	3.34%	0.00	0.00	0.00	7.24	14.47
Transmission Line	38579.37	4199.13	42778.50	5.28%	2045.81	2076.59	2128.58	2205.39	2255.43
Sub-Station Equipment	0.00	0.00	0.00	5.28%	0.00	0.00	0.00	0.00	0.00
PLCC	0.00	0.00	0.00	6.33%	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>38579.37</b>	<b>4632.37</b>	<b>43211.74</b>		<b>2045.81</b>	<b>2076.59</b>	<b>2128.58</b>	<b>2212.62</b>	<b>2269.90</b>
		<b>Average Gross block</b>			38746.42	39329.40	40314.09	41985.29	43149.73
		<b>Weighted Average Rate of Depreciation (WAROD)(%)</b>			5.2800%	5.2800%	5.2800%	5.2700%	5.2605%

**Asset-IV**

Capital Expenditures as on DOCO / 01.04.2014	Capital Cost as per Auditor Certificate	Additional capitalization (2014-19)	Admitted Cost as on 31.3.2019	Rate of Depreciation as per Regulation	Depreciation as per Regulation				
		Total			2014-15	2015-16	2016-17	2017-18	2018-19
Freehold Land	0.00	0.00	0.00	0.00%	0.00	0.00	0.00	0.00	0.00
Leasehold Land	0.00	0.00	0.00	3.34%	0.00	0.00	0.00	0.00	0.00
Building & Other Civil Works	0.00	0.00	0.00	3.34%	0.00	0.00	0.00	0.00	0.00
Transmission Line	43392.31	2860.61	46252.92	5.28%	2307.25	2379.99	2439.38	2442.15	2442.15
Sub-Station Equipment	0.00	0.00	0.00	5.28%	0.00	0.00	0.00	0.00	0.00
PLCC	0.00	0.00	0.00	6.33%	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>43392.31</b>	<b>2860.61</b>	<b>46252.92</b>		<b>2307.25</b>	<b>2379.99</b>	<b>2439.38</b>	<b>2442.15</b>	<b>2442.15</b>
		<b>Average Gross block</b>			43697.92	45075.59	46200.29	46252.92	46252.92
		<b>Weighted Average Rate of Depreciation (WAROD)(%)</b>			5.2800%	5.2800%	5.2800%	5.2800%	5.2800%

**Asset-V**

Capital Expenditures as on DOCO / 01.04.2014	Capital Cost as per Auditor Certificate	Additional capitalization (2014-19)	Admitted Cost as on 31.3.2019	Rate of Depreciation as per Regulation	Depreciation as per Regulation				
		Total			2014-15	2015-16	2016-17	2017-18	2018-19
Freehold Land	0.00	0.00	0.00	0.00%	0.00	0.00	0.00	0.00	0.00
Leasehold Land	0.00	0.00	0.00	3.34%	0.00	0.00	0.00	0.00	0.00
Building & Other Civil Works	0.00	0.00	0.00	3.34%	0.00	0.00	0.00	0.00	0.00
Transmission Line	30373.97	2636.89	33010.86	5.28%	1612.15	1658.25	1706.27	1726.98	1740.16
Sub-Station Equipment	0.00	0.00	0.00	5.28%	0.00	0.00	0.00	0.00	0.00
PLCC	0.00	0.00	0.00	6.33%	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>30373.97</b>	<b>2636.89</b>	<b>33010.86</b>		<b>1612.15</b>	<b>1658.25</b>	<b>1706.27</b>	<b>1726.98</b>	<b>1740.16</b>
		<b>Average Gross block</b>			30533.20	31406.19	32315.69	32707.91	32957.63
		<b>Weighted Average Rate of Depreciation (WAROD) (in %)</b>			5.2800%	5.2800%	5.2800%	5.2800%	5.2800%

## Combined Asset

2019-24 Capital Expenditure as on 1.4.2019	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	ACE	Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations				
		2019-24			2019-20 (₹ in lakh)	2020-21 (₹ in lakh)	2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)
Land	0.00	104.35	104.35	0.00	0.00	0.00	0.00	0.00	0.00
Building	1152.12	0.00	1152.12	3.34	38.48	38.48	38.48	38.48	38.48
Transmission Line	218084.63	898.81	218983.44	5.28	11538.60	11562.33	11562.33	11562.33	11562.33
Sub Station	0.00	0.00	0.00	5.28	0.00	0.00	0.00	0.00	0.00
PLCC	0.00	0.00	0.00	6.63	0.00	0.00	0.00	0.00	0.00
IT Equipment and software	0.00	0.00	0.00	15.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>219236.75</b>	<b>1003.16</b>	<b>220239.91</b>		<b>11577.08</b>	<b>11600.81</b>	<b>11600.81</b>	<b>11600.81</b>	<b>11600.81</b>
Average Gross Block					219738.33	220239.91	220239.91	220239.91	220239.91
Weighted Average Rate of Depreciation (WAROD) (in %)					5.2686	5.2674	5.2674	5.2674	5.2674