

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 504/TT/2020

Coram:

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

Date of Order: 05.09.2021

In the matter of:

Approval under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and truing-up of transmission tariff of the 2014-19 period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of the 2019-24 period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for Asset-1: Re-conductoring of Imphal (POWERGRID)-Yurembam (Imphal Sub-station-Manipur) 132 kV S/c line with high capacity conductor [HTLS of capacity equivalent to that of Single ACSR Moose: 798 A] and Upgradation/modification of 132 kV line bay equipment for Imphal (POWERGRID) - Yurembam (Imphal Sub-station- Manipur) 132 kV S/c (HTLS) line, Asset-2: 315 MVA, 400/132kV, ICT-III along with associated bays in GIS bays at 400kV Silchar Sub-station, Asset- 3: 200 MVA, 400/132kV Spare ICT at 400kV Silchar Sub-station, Asset 4: 31.5MVAR, 220 kV, Bus Reactor along with associated bay at Mokokchung (POWERGRID) Sub-station, Asset 5: 160 MVA, 220/132kV, ICT (Spare) at Kopili Sub-station and 50MVA, 132/33kV, ICT (Spare) at Nirjuli Sub-station, Asset- 6: IX80MVAR, 420 kV Reactor (Spare) and 1X63 MVAR 420 kV Reactor (Spare) at Bongaigaon Sub-station), Asset-7: 315MVA, 400/220kV, ICT (Spare) at Misa Sub-station under "North Eastern Region Strengthening Scheme-VII (NERSS-VII)" in North-Eastern Region.

And in the matter of:

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

....Petitioner

Vs

1. Assam Electricity Grid Corporation Limited,
Bijulee Bhawan, Paltan Bazar,



Guwahati-781001, Assam

2. Meghalaya Energy Corporation Limited,
Short Round Road, "Lumijingshai",
Shillong-793001, Meghalaya
3. Government of Arunachal Pradesh,
Itanagar, Arunachal Pradesh
4. Power and Electricity Department,
Government of Mizoram,
Aizwal, Mizoram
5. Manipur State Electricity Distribution Company Limited,
Keishampat, Imphal
6. Department of Power,
Government of Nagaland,
Kohima, Nagaland
7. Tripura State Electricity Corporation Limited,
Vidyut Bhawan, North Banamaipur,
Agartala, Tripura (W)-799001, Tripura

...Respondents

For Petitioner : Shri S.S. Raju, PGCIL
Shri B. Dash, PGCIL
Shri A.K. Verma, PGCIL
Shri Ved Prakash Rastogi, PGCIL
Shri D.K. Biswal, PGCIL

For Respondents : None

ORDER

The Petitioner, Power Grid Corporation of India Ltd., a deemed transmission licensee, has filed the instant petition for truing-up of the transmission tariff for the period from COD to 31.3.2019 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as the "the 2014 Tariff Regulations") and tariff determination for the period from 1.4.2019 to 31.3.2024 under the Central Electricity Regulatory Commission (Terms and



Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) in respect of the following assets (herein after referred to as “the transmission assets”) under “North Eastern Region Strengthening Scheme-VII (NERSS-VII)” in North-Eastern Region (hereinafter referred to as “the transmission project”):

Asset-1: Re-conductoring of Imphal (POWERGRID) - Yurembam (Imphal Sub-station-Manipur) 132kV S/c line with high capacity conductor [HTLS of capacity equivalent to that of Single ACSR Moose: 798 A] and Upgradation/ modification of 132kV line bay equipment for Imphal (POWERGRID) - Yurembam (Imphal Sub-station-Manipur) 132kV S/c (HTLS) line;

Asset-2: 315 MVA, 400/132kV, ICT-III alongwith associated bays in GIS bays at 400kV Silchar Sub-station;

Asset-3: 200 MVA, 400/132kV Spare ICT at 400kV Silchar Sub-station;

Asset-4: 31.5MVAR, 220kV, Bus Reactor alongwith associated bay at Mokokchung (POWERGRID) Sub-station;

Asset-5: 160MVA, 220/132kV, ICT (Spare) at Kopili Sub-station and 50MVA, 132/33kV, ICT (Spare) at Nirjuli Sub-station;

Asset-6: 1x80MVAR, 420kV Reactor (Spare) and 1X63MVAR 420kV Reactor (Spare) at Bongaigaon Sub-station);

Asset-7: 315MVA, 400/220kV, ICT (Spare) at Misa Sub-station

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

“1) Approve the trued up Transmission Tariff for 2014-19 block and transmission tariff for 2019-24 block for the assets covered under this petition, as per para 11.2 and 12.1 above.

2) Admit the capital cost claimed and additional capitalization incurred during 2014-19 and also allow the projected additional capitalization during 2019-24.

3) Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any



application before the Commission as provided in Tariff Regulation 2014 and Tariff regulations 2019 as per para 11.2 and 12.1 above for respective block.

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

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

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

7) Allow the Initial spares claimed as project as a whole.

8) Allow the petitioner to file a separate petition before Hon'ble Commission for claiming the overall security expenses and consequential IOWC on that security expenses as mentioned at para 12.1 above.

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

10) Allow the Petitioner to bill and recover GST on Transmission Charges separately from the respondents, if GST on transmission is levied at any rate in future. Further, any taxes including GST and duties including cess etc. imposed by any statutory/Govt./municipal authorities shall be allowed to be recovered from the beneficiaries.

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

Background

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

a) The Investment Approval (IA) for the transmission project was accorded by the Board of Directors of the Petitioner company in 330th meeting held on 20.7.2016 for ₹ 9070 lakh including an IDC of ₹ 500 lakh based on April 2016



price level (communicated vide Memorandum No. C/CP/PA1617-07-01-IA007 dated 26.7.2016).

b) The administrative approval and expenditure sanction of Revised Cost Estimate (RCE) for the transmission project was accorded by the Board of Directors of Petitioner company on 4.10.2017 for ₹9465 lakh including an IDC of ₹ 459 lakh based on April 2017 price level (communicated vide Memorandum No. C/CP/PA1718-10D-RCE004 dated 18.10.2017).

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

Transmission Line

(i) Re-conductoring of Imphal (POWERGRID) - Yurembam (Imphal S/s- Manipur) 132kV S/c line with high capacity conductor [HTLS of capacity equivalent to that of Single ACSR Moose: 798 A (for 45°C ambient temperature and 85°C maximum conductor temperature)]: 1 km

Sub-stations

(i) Imphal (POWERGRID) Sub-station

- Upgradation/ modification of 132 kV line bay equipment for Imphal (POWERGRID) – Yurembam (Imphal S/s – Manipur) 132 kV S/c (HTLS) line

(ii) Silchar Sub-station

- 400/ 132 kV, 315 MVA ICT (3rd) with associated bays in GIS
- 400/ 132 kV, 200 MVA ICT (Spare)

(iii) Mokokchung (POWERGRID) Sub-station

- 220 kV, 31.5 MVAr bus reactor with associated bay

(iv) Kopili Sub-station

- 220/132 kV, 160 MVA ICT (Spare)

(v) Nirjuli Sub-station

- 132/ 33 kV, 50 MVA ICT (Spare)

(vi) Bongaigaon Sub-station

- 420 kV, 80MVAr reactor (Spare)
- 420 kV, 63MVAr reactor (Spare)

(vii) Misa Sub-station



– 400/220 kV, 315MVA ICT (Spare)

d) As per IA dated 20.7.2016, the transmission assets under the transmission project were scheduled to be put into commercial operation within 24 months from the date of the IA. Details of commercial operation of the transmission assets along with time-overrun are as follows:

Particulars	SCOD	COD	Time over-run
Asset-1	20.7.2018	18.7.2018	-
Asset-2	20.7.2018	18.7.2018	-
Asset-3	20.7.2018	24.7.2017	-
Asset-4	20.7.2018	1.12.2018	134 days
Asset-5	20.7.2018	29.6.2018	-
Asset-6	20.7.2018	1.4.2018	-
Asset-7	20.7.2018	31.12.2018	164 days

e) The transmission tariff in respect of the transmission assets was allowed by the Commission vide order dated 10.12.2019 in Petition No. 175/TT/2018. Tariff for Asset-3, Asset-5, Asset-6, Asset-7 and Asset-8 was allowed as regional spares based on the recommendation and approval of the 5th TCC & 15th NERPC.

4. The Respondents are distribution licensees, power departments and transmission licensees, who are procuring transmission services from the Petitioner, mainly beneficiaries of the 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 general public in response to the aforesaid notices published in the newspapers by the Petitioner. None of the Respondents have filed their reply in the matter.

6. The hearing in this matter was held on 20.4.2021 through video conference and the order was reserved.



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

8. This order is issued considering the submissions made by the Petitioner in the petition and the additional information filed vide affidavit dated 13.4.2021.

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

9. The details of the trued-up transmission charges claimed by the Petitioner for the transmission assets are as follows:

(₹ in lakh)

Asset-1	
Particulars	2018-19 (Pro rata for 257 days)
Depreciation	2.70
Interest on Loan	2.72
Return on Equity	3.03
Interest on Working Capital	0.18
O&M Expenses	0.00
Total	8.63

(₹ in lakh)

Asset-2	
Particulars	2018-19 (Pro rata for 257 days)
Depreciation	84.39
Interest on Loan	81.44
Return on Equity	92.37
Interest on Working Capital	8.63
O&M Expenses	65.54
Total	332.37

(₹ in lakh)

Asset-3		
Particulars	2017-18 (Pro rata for 251 days)	2018-19
Depreciation	39.58	61.48
Interest on Loan	37.41	54.83
Return on Equity	44.31	69.02
Interest on Working Capital	2.60	3.98
O&M Expenses	0.00	0.00
Total	123.90	189.31



(₹ in lakh)

Asset-4	
Particulars	2018-19 (Pro rata for 121 days)
Depreciation	20.96
Interest on Loan	20.61
Return on Equity	22.57
Interest on Working Capital	2.12
O&M Expenses	15.95
Total	82.21

(₹ in lakh)

Asset-5	
Particulars	2018-19 (Pro rata for 276 days)
Depreciation	39.32
Interest on Loan	38.06
Return on Equity	44.14
Interest on Working Capital	2.53
O&M Expenses	0.00
Total	124.05

(₹ in lakh)

Asset-6	
Particulars	2018-19
Depreciation	82.31
Interest on Loan	80.51
Return on Equity	92.40
Interest on Working Capital	5.30
O&M Expenses	0.00
Total	260.52

(₹ in lakh)

Asset-7	
Particulars	2018-19 (Pro rata for 91 days)
Depreciation	5.46
Interest on Loan	5.99
Return on Equity	6.12
Interest on Working Capital	0.36
O&M Expenses	0.00
Total	17.93

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



(₹ in lakh)

Asset-1	
Particulars	2018-19 (Pro rata for 257 days)
Maintenance Spares	0.00
O&M Expenses	0.00
Receivables	2.04
Total	2.04
Rate of Interest (in %)	12.20
Interest on Working Capital	0.18

(₹ in lakh)

Asset-2	
Particulars	2018-19 (Pro rata for 257 days)
Maintenance Spares	7.76
O&M Expenses	13.96
Receivables	78.67
Total	100.39
Rate of Interest (in %)	12.20
Interest on Working Capital	8.63

(₹ in lakh)

Asset-3		
Particulars	2017-18 (Pro rata for 251 days)	2018-19
Maintenance Spares	0.00	0.00
O&M Expenses	0.00	0.00
Receivables	30.03	31.55
Total	30.03	31.55
Rate of Interest (in %)	12.60	12.60
Interest on Working Capital	2.60	3.98

(₹ in lakh)

Asset-4	
Particulars	2018-19 (Pro rata for 121 days)
Maintenance Spares	4.01
O&M Expenses	7.22
Receivables	41.33
Total	52.56
Rate of Interest (in %)	12.20
Interest on Working Capital	2.12

(₹ in lakh)

Asset-5	
Particulars	2018-19 (Pro rata for 276 days)



Maintenance Spares	0.00
O&M Expenses	0.00
Receivables	27.34
Total	27.34
Rate of Interest (in %)	12.20
Interest on Working Capital	3.34

(₹ in lakh)

Asset-6	
Particulars	2018-19
Maintenance Spares	0.00
O&M Expenses	0.00
Receivables	43.42
Total	43.42
Rate of Interest (in %)	12.20
Interest on Working Capital	5.30

(₹ in lakh)

Asset-7	
Particulars	2018-19 (Pro rata for 91 days)
Maintenance Spares	0.00
O&M Expenses	0.00
Receivables	11.99
Total	11.99
Rate of Interest (in %)	12.20
Interest on Working Capital	0.36

Capital Cost

11. The Commission vide order dated 10.12.2019 in Petition No. 175/TT/2018 approved the following capital cost and ACE for the transmission assets:

(₹ in lakh)

Particulars	Capital Cost (as on COD)	ACE (Allowed)	Total Capital Cost (as on 31.3 2019)
Asset-1	55.89	32.48	88.37
Asset-2	1878.46	638.94	2517.40
Asset-3	1020.90	162.69	1183.99
Asset-4	925.30	272.37	1197.67
Asset-5	834.47	204.64	1039.11
Asset-6	1445.64	146.27	1591.90
Asset-7	359.39	91.99	451.38
Total	6520.05	1549.38	8069.82



12. The Petitioner vide Auditor's Certificate dated 31.7.2019 has submitted the capital cost upto the date of commercial operation along with ACE up to 31.3.2019. The details of the approved apportioned capital cost, capital cost as on COD and the ACE incurred upto 31.3.2019 as claimed by the Petitioner in the instant true up petition for the transmission assets are as follows:

(₹ in lakh)

Particulars	Apportioned approved cost as per FR	Apportioned approved cost as per RCE	Expenditure up to COD	ACE		Capital Cost (as on 31.3.2019)
				2017-18	2018-19	
Asset-1	195.01	168.85	67.65	0.00	12.40	80.05
Asset-2	2823.29	2923.15	1970.29	0.00	551.14	2521.43
Asset-3	1499.87	1358.71	1025.93	138.21	5.58	1169.72
Asset-4	1311.63	1628.97	1111.57	0.00	121.52	1233.09
Asset-5	1358.85	1380.49	891.41	0.00	210.20	1101.61
Asset-6	1709.57	1809.96	1482.35	0.00	179.68	1662.03
Asset-7	172.03	194.69	362.37	0.00	104.65	467.02

Cost Over-Run

13. The individual completion cost of the transmission assets is within the apportioned approved cost of RCE except Asset-7. The combined completion cost claimed by Petitioner including ACE in respect of the transmission assets is ₹ 8220.48 lakhs which is within the approved apportioned capital cost as per RCE of ₹9464.82 lakhs.

14. With regard to Asset-7, the Commission vide order dated 10.12.2019 in Petition No. 175/TT/2018 (Asset-8 in that petition) has given findings as follows:-

“26. The Petitioner has submitted the apportioned approved cost as per Investment Approval and as per approved Revised Cost Estimate (RCE) in respect of the instant assets. The Petitioner vide Auditor Certificates dated 30.10.2018, 11.8.2018, 25.9.2017, 3.1.2019, 24.7.2018, 24.7.2018 & 10.1.2019 has claimed the following capital cost incurred as on COD as well as additional capitalization projected to be incurred during 2017-18, 2018-19, 2019-20 & 2020-21 in respect of the instant assets:

(₹ in lakh)



Particulars	Apportioned Approved Cost (FR) (as per Form 5B submitted vide affidavit dated 20.6.2019)	Apportioned Approved Cost (RCE) (as per Form 5B submitted vide affidavit dated 20.6.2019)	Cost up to COD	Projected Expenditure				Estimated Completion Cost
				2017-18	2018-19	2019-20	2020-21	
Asset-1	195.01	168.85	67.65	0.00	30.36	17.98	0.00	115.99
Asset-2	2823.29	2923.15	1970.29	0.00	574.17	167.69	49.05	2761.20
Asset-3	1499.87	1358.71	1025.93	140.74	17.49	0.00	0.00	1184.16
Asset-4	1311.63	1628.97	1111.57	0.00	247.80	108.65	0.00	1468.02
Asset- 5&6	1358.85	1380.49	891.41	0.00	181.61	64.86	12.97	1150.85
Asset-7	1709.57	1809.96	1482.35	0.00	120.26	32.07	8.02	1642.69
Asset-8	172.03	194.69	362.37		91.99	15.20	0.00	469.56*

*The cost is inclusive of ₹ 304.57 lakh (net block of 315 MVA, 400/220 kV ICT-I at Narendra s/s, decapitalised vide GERC order dated 18.8.2018 in Petition No. 176/TT/2017) and diverted to Misa S/S. The remaining cost of ₹ 164.99 lakh (469.56-304.57) pertains to diversion cost of ICT from Narendra to Misa (approved under the subject project-NERSS VII)

Cost Over-run

27. It is observed from the above Table that the estimated completion cost of the assets covered under the instant Petition is within apportioned approved cost as per RCE except Asset-8. The Asset-8 has been shifted from Narendra substation and kept as Regional Spare at Misa and this shifting is covered under the Project Scope of the scheme dealt in the instant Petition. The estimated completion cost of ₹ 469.56 lakh of Asset-8 includes ₹ 304.57 lakh which is net block value of 315 MVA, 400/220 kV ICT at Narendra substation which was decapitalized by the Commission in its Order dated 18.8.2018 in Petition No. 176/TT/2017. Thus, the cost of ₹ 304.57 lakh has already been approved by the Commission. With regard to the remaining cost of Asset-8 of ₹ 164.99 lakh which pertains to diversion cost of ICT from Narendra to Misa the same is within the apportioned approved cost as per RCE. Accordingly, the Petitioner is directed to amend the project scope of "System Strengthening Scheme-XX of Southern Region" in which 315 MVA, 400/220 kV ICT at Narendra substation was earlier covered and now shifted to Misa as per the project scope of the NERSS-VII and file a copy of amended investment approval at the time of truing up exercise"

15. In view of above decisions with regard to Asset-7 and the submissions of Petitioner, it is observed that the claimed completion cost of the instant asset is within the apportioned approved cost of RCE. Therefore, there is no cost over-run.



Time Over-run

16. The scheduled date of commercial operation (SCOD) of the transmission assets and the actual COD of the transmission assets are as follows:

Particulars	SCOD	COD	Time over-run
Asset-1	20.7.2018	18.7.2018	Nil
Asset-2	20.7.2018	18.7.2018	Nil
Asset-3	20.7.2018	24.7.2017	Nil
Asset-4	20.7.2018	1.12.2018	134 days
Asset-5	20.7.2018	29.6.2018	Nil
Asset-6	20.7.2018	1.4.2018	Nil
Asset-7	20.7.2018	31.12.2018	164 days

17. The Commission vide order dated 10.12.2019 in Petition No. 175/TT/2018 has condoned the delay of only 67 days out of 134 days in respect of Asset-4 and disallowed the entire time over-run of 164 days in respect of Asset-7.

Interest During Construction

18. The Petitioner has claimed Interest During Construction (IDC) for the transmission assets and has submitted the Auditor's Certificates in support of the same. The Petitioner has submitted computation of IDC along with the year-wise details of the IDC discharged.

19. The allowable IDC has been worked out considering the information submitted by the Petitioner for individual transmission assets separately on cash basis. The loan details submitted in Form-9C for the 2014-19 tariff period and the IDC computation sheet have been considered for the purpose of IDC calculation on cash and accrued basis. The undischarged IDC as on COD has been considered as ACE during the year in which it has been discharged.

20. Accordingly, based on the information filed by the Petitioner, the IDC considered is summarized as follows:



(₹ in lakh)

Particulars	IDC claimed by Petitioner (as per Auditor Certificate)	Entitled IDC up to SCOD	IDC disallowed as on SCOD due to computation difference	Undischarged portion of entitled IDC as on COD	IDC allowed on cash basis as on COD
	A	B	C=A-B	D	E=B-D
Asset-1	2.19	2.12	0.07	2.12	0.00
Asset-2	67.63	67.51	0.12	64.82	2.69
Asset-3	5.03	5.00	0.03	5.00	0.00
Asset-4	52.13	40.89	11.24	22.62	18.27
Asset-5	41.18	41.18	0.00	23.23	17.95
Asset-6	34.74	34.30	0.44	26.23	8.07
Asset-7	2.98	0.01	2.97	0.00	0.01

Incidental Expenditure During Construction (IEDC)

21. The Petitioner has claimed IEDC for the transmission assets and submitted Auditors Certificate in support of the same. The claimed IEDC is within the percentage of hard cost of 10.75% as indicated in FR abstract cost estimate. Accordingly, IEDC is allowed as claimed subject to adjustment as per condonation of time over-run. The details of claimed and allowed IEDC are as follows:

Particulars	IEDC claimed as per Auditor Certificate	IEDC disallowed due to time overrun	IEDC allowed as on COD
	1	2	3=(1-2)
Asset-1	8.58	0.00	8.58
Asset-2	203.08	0.00	203.08
Asset-3	46.52	0.00	46.52
Asset-4	63.66	4.94	58.72
Asset-5	87.24	0.00	87.24
Asset-6	119.89	0.00	119.89
Asset-7	0.00	0.00	0.00

Initial Spares

22. The Petitioner has claimed the following Initial Spares for the transmission assets and prayed to revise the Initial Spares allowed earlier in light of the judgement



of the Appellate Tribunal for Electricity (APTEL) dated 14.9.2019 in Appeal No.74 of 2017. Initial Spares claimed by the Petitioner are as follows:

Particulars	Asset	Estimated Completion Cost (₹ in lakh)	Initial Spares Claimed (₹ in lakh)	Ceiling as per Regulation 13(d)(iii) (Brown Field) (in %)
Asset-1	Sub-station	72.39	1.92	6.0
Asset-2	Sub-station	2647.63	109.94	6.0
Asset-3	Sub-station	1118.42	0	6.0
Asset-4	Sub-station	1433.15	190.56	6.0
Asset-5	Sub-station	1053.82	33.71	6.0
Asset-6	Sub-station	1512.01	96.32	6.0
Asset-7	Sub-station	510.1	0	6.0
Total		8347.52	432.45	

23. The discharge of Initial Spares claimed by Petitioner is as follows:

Particulars	(₹ in lakh)		
	As on COD	2018-19	2019-20
Asset-1	1.92	0.00	0.00
Asset-2	83.05	26.89	0.00
Asset-3	0.00	0.00	0.00
Asset-4	45.04	0.00	145.52
Asset-5	0.00	0.00	33.71
Asset-6	96.32	0.00	0.00
Asset-7	0.00	0.00	0.00

24. We have considered the submission of the Petitioner. As per the APTEL's judgment dated 14.9.2019 in Appeal No. 74 of 2017, Initial Spares are to be allowed as per the ceiling on overall project cost. The APTEL in judgement dated 14.9.2019 in Appeal No. 74 of 2017 held as follows:

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

25. In terms of the above, Initial Spares are to be allowed as percentage of the project cost as a whole. The transmission project was completed during 2014-19 tariff



period and the overall project cost of the transmission assets is arrived at only when all the transmission assets are combined while claiming the tariff for the 2019-24 tariff period. Therefore, the Initial Spares are allowed on the basis of the cost of the individual transmission assets in the 2014-19 tariff period and the Initial Spares are allowed on the basis of the overall project cost in the 2019- 24 period (as discussed in the relevant portion of the instant order).

26. The details of the Initial Spares allowed for the transmission assets for the 2014-19 tariff period are as under:

Asset	Plant & machinery cost up to cut-off date (excluding IDC and IEDC as per Auditor certificate) (₹ in lakh) (A)	Initial Spares claimed (₹ in lakh) (B)	Ceiling Limit (in %) (C)	Allowable Initial Spares worked out	Excess Initial Spares (₹ in lakh)	Initial Spares allowed (₹ in lakh)	Dis-allowed as on COD (₹ in lakh)	Allowed as on COD (₹ in lakh)	Initial Spares allowed (₹ in lakh)	
				$D = [(A-B)*C / (100-C)]$					2018-19	2019-20
Asset-1	72.39	1.92	6	4.50	0.00	1.92	0.00	1.92	0.00	0.00
Asset-2	2647.63	109.94	6	161.98	0.00	109.94	0.00	83.05	26.89	0.00
Asset-3	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asset-4	1433.15	190.56	6	79.31	111.25	79.31	0.00	45.04	0.00	34.27
Asset-5	1053.82	33.71	6	65.11	0.00	33.71	0.00	0.00	0.00	33.71
Asset-6	1512.01	96.32	6	90.36	5.96	90.36	5.96	90.36	0.00	0.00
Asset-7	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Capital cost as on COD

27. Accordingly, the capital cost allowed as on COD is summarized as follows:

Particulars	Capital cost as on 1.4.2014 or COD whichever is later as per Auditor Certificate	Less: IDC as on COD due to		Less: IEDC disallowed as on COD	Excess Initial Spares	Capital cost considered as on 1.4.2014 or COD whichever is later
		Computation difference	Un-discharged			
Asset-1	67.65	0.07	2.12	0.00	0.00	65.46
Asset- 2	1970.29	0.12	64.82	0.00	0.00	1905.35
Asset- 3	1025.93	0.03	5.00	0.00	0.00	1020.90
Asset-4	1111.57	11.24	22.62	4.94	0.00	1072.77



Asset- 5	891.41	0.00	23.23	0.00	0.00	868.18
Asset- 6	1482.35	0.44	26.23	0.00	5.96	1449.72
Asset-7	362.37	2.97	0.00	0.00	0.00	359.40

Additional Capital Expenditure (ACE)

28. The Commission had allowed ACE vide order dated 10.12.2019 in Petition No. 175/TT/2018 respectively as follows:

(₹ in lakh)

Particulars	Additional Capital Expenditure	
	2017-18	2018-19
Asset-1	0.00	32.48
Asset-2	0.00	638.94
Asset-3	140.74	22.35
Asset-4	0.00	272.37
Asset-5	0.00	204.64
Asset-6	0.00	146.27
Asset-7	0.00	91.99

29. The Petitioner has claimed the following ACE in respect of the transmission assets and submitted Auditor's Certificate in support of its claim:

(₹ in lakh)

Particulars	Additional Capital Expenditure	
	2017-18	2018-19
Asset-1	0.00	12.40
Asset-2	0.00	551.14
Asset-3	138.21	5.58
Asset-4	0.00	121.52
Asset-5	0.00	210.20
Asset-6	0.00	179.68
Asset-7	0.00	104.65

30. The cut-off date in respect of all the transmission assets works out as 31.3.2021 except for Asset-3 for which the cut-off-date is 31.3.2020.



31. ACE claimed includes the accrued IDC discharged during the 2014-19 tariff period. It is observed that the total estimated completion cost including ACE for the 2014-19 period is within the approved cost as per FR.

32. ACE claimed by the Petitioner has been allowed under Regulation 14(1)(i) and Regulation 14(1)(ii) of the 2014 Tariff Regulations as it is towards Balance and Retention payments and works deferred for execution. The undischarged IDC as on COD has been allowed as ACE. The details of ACE allowed are as follows:

(₹ in lakh)	
Asset-1	ACE
	2018-19
ACE to the extent of Balance & Retention Payments and work deferred for execution/ ACE to the extent of unexecuted work	12.40
Add: IDC Discharged	2.12
Total ACE allowed	14.52

(₹ in lakh)	
Asset-2	ACE
	2018-19
ACE to the extent of Balance & Retention Payments and work deferred for execution/ ACE to the extent of unexecuted work	551.14*
Add: IDC Discharged**	64.64
Total ACE allowed	615.78

*inclusive of undischarged spares of ₹ 26.89 lakh

**IDC of ₹ 0.17 lakh is allowed in ACE of FY 2019-20

(₹ in lakh)		
Asset-3	ACE	
	2017-18	2018-19
ACE to the extent of Balance & Retention Payments and work deferred for execution/ ACE to the extent of unexecuted work	138.21	5.58
Add: IDC Discharged	0.00	5.00
Total ACE allowed	138.21	10.58

(₹ in lakh)	
Asset-4	ACE
	2018-19
ACE to the extent of Balance & Retention Payments and work deferred for execution/ ACE to the extent of unexecuted work	121.52



Add: IDC Discharged	22.62
Total ACE allowed	144.14

Asset-5	(₹ in lakh)
	ACE
	2018-19
ACE to the extent of Balance & Retention Payments and work deferred for execution/ ACE to the extent of unexecuted work	210.20
Add: IDC Discharged**	23.03**
Total ACE allowed	233.23

* IDC of ₹ 0.20 lakh is allowed in ACE of FY 2019-20

Asset-6	(₹ in lakh)
	ACE
	2018-19
ACE to the extent of Balance & Retention Payments and work deferred for execution/ ACE to the extent of unexecuted work	179.68
Add: IDC Discharged	26.23
Total ACE allowed	205.91

Asset-7	(₹ in lakh)
	ACE
	2018-19
ACE to the extent of Balance & Retention Payments and work deferred for execution/ ACE to the extent of unexecuted work	104.65
Add: IDC Discharged	0.00
Total ACE allowed	104.65

Capital Cost for the 2014-19 tariff period

33. Accordingly, the capital cost of the transmission assets considered for the 2014-19 tariff period is as follows:

Particulars	Apportioned Approved Capital Cost as per RCE	Capital Cost as on COD on cash basis	Additional Capital Expenditure (ACE)		Total Capital Cost as on 31.3.2019
			2017-18	2018-19	
			(₹ in lakh)		
Asset-1	168.85	65.46	0.00	14.52	79.98
Asset-2	2923.15	1905.35	0.00	615.78	2521.13
Asset-3	1358.71	1020.90	138.21	10.58	1169.69
Asset-4	1628.97	1072.77	0.00	144.14	1216.91



Asset-5	1380.49	868.18	0.00	233.23	1101.41
Asset-6	1809.96	1449.72	0.00	205.91	1655.64
Asset-7	194.69	359.40	0.00	104.65	464.05
Total	9464.82	6741.78	138.21	1328.81	8208.81

34. In Asset-1, Re-conductoring of Imphal (POWERGRID) - Yurembam (Imphal S/s-Manipur) 132 kV S/c line with high capacity conductor [HTLS of capacity equivalent to that of Single ACSR Moose: 798 A and Upgradation/ modification of 132 kV line bay equipment for Imphal (POWERGRID) - Yurembam (Imphal Sub-station- Manipur) 132 kV S/C (HTLS) line] has been done w.e.f. 18.7.2018 under the transmission project (NERSS-VII) covered in order dated 10.12.2019 Petition No. 175/TT/2018. The Petitioner has decapitalized the gross block from the date of re-conductoring, i.e., from 18.7.2018 of ₹9.54 lakh on account of decapitalization of CTs and Conductor due to re-conductoring work done under NERSS-VII in Petition No. 148/TT/2020 in respect of transmission system associated with Doyang HEP.

35. In Asset-7, the cost is inclusive of ₹304.57 lakh (net block of 315 MVA, 400/220 kV ICT-I at Narendra S/S (decapitalized vide order dated 18.8.2018 in Petition No. 176/TT/2017) and diverted to Misa S/S. The remaining cost pertains to diversion cost of ICT from Narendra to Misa.

36. The completion cost including additional capital expenditure in respect of the transmission assets is within approved apportioned capital cost.

Debt-Equity Ratio

37. The Petitioner has considered debt-equity ratio of 70:30 as on COD and for Additional Capital Expenditure post COD. The debt-equity ratio of 70:30 has been considered for capital cost as on COD and ACE during the 2014-19 period as provided under Regulation 19 of the 2014 Tariff Regulations. The details of debt-



equity ratio in respect of the transmission assets as on the date of commercial operation and as on 31.3.2019 is as follows:

Funding Asset-1	As on COD		As on 31.3.2019	
	Amount (₹ in lakh)	(in %)	Amount (₹ in lakh)	(in %)
Debt	45.83	70.01	56.00	70.01
Equity	19.63	29.99	23.99	29.99
Total	65.46	100.00	79.98	100.00
Funding Asset-2	As on COD		As on 31.3.2019	
	Amount (₹ in lakh)	(in %)	Amount (₹ in lakh)	(in %)
Debt	1333.75	70.00	1764.80	70.00
Equity	571.60	30.00	756.33	30.00
Total	1905.35	100.00	2521.13	100.00
Funding Asset-3	As on COD		As on 31.3.2019	
	Amount (₹ in lakh)	(in %)	Amount (₹ in lakh)	(in %)
Debt	714.63	70.00	818.80	70.00
Equity	306.27	30.00	350.89	30.00
Total	1020.90	100.00	1169.69	100.00
Funding Asset-4	As on COD		As on 31.3.2019	
	Amount (₹ in lakh)	(in %)	Amount (₹ in lakh)	(in %)
Debt	750.94	70.00	851.84	70.00
Equity	321.83	30.00	365.07	30.00
Total	1072.77	100.00	1216.91	100.00
Funding Asset-5	As on COD		As on 31.3.2019	
	Amount (₹ in lakh)	(in %)	Amount (₹ in lakh)	(in %)
Debt	607.73	70	770.99	70
Equity	260.45	30	330.42	30
Total	868.18	100	1101.41	100
Funding Asset-6	As on COD		As on 31.3.2019	
	Amount (₹ in lakh)	(in %)	Amount (₹ in lakh)	(in %)
Debt	1014.81	70	1158.95	70
Equity	434.91	30	496.68	30
Total	1449.72	100	1655.64	100
Funding Asset-7	As on COD		As on 31.3.2019	
	Amount (₹ in lakh)	(in %)	Amount (₹ in lakh)	(in %)
Debt	251.58	70	324.84	70



Equity	107.82	30	139.21	30
Total	359.40	100	464.05	100

Depreciation

38. The depreciation has been allowed as per the methodology provided in Regulation 27 of the 2014 Tariff Regulations. Depreciation has been allowed considering capital expenditure as on 1.4.2014 and approved ACE during the 2014-19 tariff period. The Gross Block during the 2014-19 tariff period has been depreciated at weighted average rate of depreciation (WAROD) and working of WAROD is at Annexure-I. The depreciation for the 2014-19 period is trued-up for the transmission assets as per the methodology provided in Regulation 27 of the 2014 Tariff Regulations and the same is as follows:

(₹ in lakh)

Asset-1	
Particulars	2018-19 (Pro rata for 257 days)
Opening Gross Block	65.46
Additional Capitalisation	14.52
Closing Gross Block	79.98
Average Gross Block	72.72
Weighted Average Rate of Depreciation (WAROD) (in %)	5.28
Balance useful life at the beginning of the year (Year)	28
Aggregated Depreciable Value	65.45
Remaining Aggregated Depreciable Value	62.75
Combined Depreciation during the year	2.70

(₹ in lakh)

Asset-2	
Particulars	2018-19 (Pro rata for 257 days)
Opening Gross Block	1905.35
Additional Capitalisation	615.78
Closing Gross Block	2521.13
Average Gross Block	2213.24
Weighted Average Rate of Depreciation (WAROD) (in %)	5.28
Balance useful life at the beginning of the year (Year)	25
Aggregated Depreciable Value	1991.92
Remaining Aggregated Depreciable Value	1909.64
Combined Depreciation during the year	82.28



(₹ in lakh)

Asset-3		
Particulars	2017-18 (Pro-rata for 251 days)	2018-19
Opening Gross Block	1020.90	1159.11
Additional Capitalisation	138.21	10.58
Closing Gross Block	1159.11	1169.69
Average Gross Block	1090.01	1164.40
Weighted Average Rate of Depreciation (WAROD) (in %)	5.28	5.28
Balance useful life at the beginning of the year (Year)	25.00	25.00
Aggregated Depreciable Value	981.00	1047.96
Remaining Aggregated Depreciable Value	941.43	946.90
Combined Depreciation during the year	39.58	61.48

(₹ in lakh)

Asset-4	
Particulars	2018-19 (Pro rata for 121 days)
Opening Gross Block	1072.77
Additional Capitalisation	144.14
Closing Gross Block	1216.91
Average Gross Block	1144.84
Weighted Average Rate of Depreciation (WAROD) (in %)	5.28
Balance useful life at the beginning of the year (Year)	25
Aggregated Depreciable Value	1030.36
Remaining Aggregated Depreciable Value	1010.32
Combined Depreciation during the year	20.04

(₹ in lakh)

Asset-5	
Particulars	2018-19 (Pro rata for 276 days)
Opening Gross Block	868.18
Additional Capitalisation	233.23
Closing Gross Block	1101.41
Average Gross Block	984.79
Weighted Average Rate of Depreciation (WAROD) (in %)	5.28
Balance useful life at the beginning of the year (Year)	25
Aggregated Depreciable Value	886.31
Remaining Aggregated Depreciable Value	847.00
Combined Depreciation during the year	39.32

(₹ in lakh)

Asset-6	
Particulars	2018-19
Opening Gross Block	1449.72
Additional Capitalisation	205.91
Closing Gross Block	1655.64



Average Gross Block	1552.68
Weighted Average Rate of Depreciation (WAROD) (in %)	5.28
Balance useful life at the beginning of the year (Year)	25
Aggregated Depreciable Value	1397.41
Remaining Aggregated Depreciable Value	1315.43
Combined Depreciation during the year	81.98

(₹ in lakh)

Asset-7	
Particulars	2018-19 (Pro rata for 91 days)
Opening Gross Block	359.40
Additional Capitalisation	104.65
Closing Gross Block	464.05
Average Gross Block	411.72
Weighted Average Rate of Depreciation (WAROD) (in %)	5.28
Balance useful life at the beginning of the year (Year)	25
Aggregated Depreciable Value	370.55
Remaining Aggregated Depreciable Value	365.13
Combined Depreciation during the year	5.42

39. The details of depreciation allowed for the transmission assets vide order dated 10.12.2019 in Petition No. 175/TT/2018, as claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

(₹ in lakh)			
Asset	Particulars	2017-18	2018-19
Asset-1	Allowed vide order dated 10.12.2019 in Petition No. 175/TT/2018	0.00	2.68
	As claimed by the Petitioner	0.00	2.70
	Approved after Truing Up	0.00	2.70
Asset-2	Allowed vide order dated 10.12.2019 in Petition No. 175/TT/2018	0.00	81.71
	As claimed by the Petitioner	0.00	84.39
	Approved after Truing Up	0.00	82.28
Asset-3	Allowed vide order dated 10.12.2019 in Petition No. 175/TT/2018	39.62	61.92
	As claimed by the Petitioner	39.58	61.48
	Approved after Truing Up	39.58	61.48
Asset-4	Allowed vide order dated 10.12.2019 in Petition No. 175/TT/2018	0.00	18.58
	As claimed by the Petitioner	0.00	20.96
	Approved after Truing Up	0.00	20.04
Asset-5	Allowed vide order dated 10.12.2019 in Petition No. 175/TT/2018	0.00	37.40
	As claimed by the Petitioner	0.00	38.06
	Approved after Truing Up	0.00	39.32
Asset-6	Allowed vide order dated 10.12.2019 in Petition No. 175/TT/2018	0.00	80.19



	As claimed by the Petitioner	0.00	82.31
	Approved after Truing Up	0.00	81.98
Asset-7	Allowed vide order dated 10.12.2019 in Petition No. 175/TT/2018	0.00	5.34
	As claimed by the Petitioner	0.00	5.46
	Approved after Truing Up	0.00	5.42

Interest on Loan (IoL)

40. The Petitioner has prayed for change in interest rates prevailing as on 1.4.2019 for respective loans. The change in interest rate is due to floating rate of interest applicable for the project to be claimed/ adjusted over a period of 5 years directly from the beneficiaries. We have considered the submissions of the Petitioner and accordingly calculated IoL based on actual interest rate in accordance with Regulation 26 of the 2014 Tariff Regulations. The IoL has been worked out as detailed below:

- (i) Gross amount of loan, repayment of instalments and weighted average rate of interest on actual average loan have been considered as per the petition.
- (ii) The repayment for the tariff period 2014-19 has been considered to be equal to the depreciation allowed for that period.

41. The details of IoL calculated in respect of the transmission assets are as follows:

(₹ in lakh)	
Asset-1	
Particulars	2018-19 (Pro rata for 257 days)
Gross Normative Loan	45.83
Cumulative Repayments upto Previous Year	0.00
Net Loan-Opening	45.83
Addition due to Additional Capitalization	10.17
Repayment during the year	2.70
Net Loan-Closing	53.29
Average Loan	49.56
Weighted Average Rate of Interest on Loan (in %)	7.780
Interest on Loan	2.72



(₹ in lakh)

Asset-2	
Particulars	2018-19 (Pro rata for 257 days)
Gross Normative Loan	1333.75
Cumulative Repayments upto Previous Year	0.00
Net Loan-Opening	1333.75
Addition due to Additional Capitalization	431.05
Repayment during the year	82.28
Net Loan-Closing	1682.52
Average Loan	1508.14
Weighted Average Rate of Interest on Loan (in %)	7.666
Interest on Loan	81.40

(₹ in lakh)

Asset-3		
Particulars	2017-18 (Pro-rata for 251 days)	2018-19
Gross Normative Loan	714.63	811.38
Cumulative Repayments upto Previous Year	0.00	39.58
Net Loan-Opening	714.63	771.80
Addition due to Additional Capitalization	96.75	7.42
Repayment during the year	39.58	61.48
Net Loan-Closing	771.80	717.74
Average Loan	743.22	744.77
Weighted Average Rate of Interest on Loan (in %)	7.319	7.362
Interest on Loan	37.41	54.83

(₹ in lakh)

Asset-4	
Particulars	2018-19 (Pro rata for 121 days)
Gross Normative Loan	750.94
Cumulative Repayments upto Previous Year	0.00
Net Loan-Opening	750.94
Addition due to Additional Capitalization	100.90
Repayment during the year	20.04
Net Loan-Closing	831.81
Average Loan	791.37
Weighted Average Rate of Interest on Loan (in %)	7.816
Interest on Loan	20.50

(₹ in lakh)

Asset-5	
Particulars	2018-19 (Pro rata for 276 days)
Gross Normative Loan	607.73
Cumulative Repayments upto Previous Year	0.00
Net Loan-Opening	607.73
Addition due to Additional Capitalization	163.26
Repayment during the year	39.32



Net Loan-Closing	731.67
Average Loan	669.70
Weighted Average Rate of Interest on Loan (in %)	7.512
Interest on Loan	38.04

(₹ in lakh)

Asset-6	
Particulars	2018-19
Gross Normative Loan	1014.81
Cumulative Repayments upto Previous Year	0.00
Net Loan-Opening	1014.81
Addition due to Additional Capitalization	144.14
Repayment during the year	81.98
Net Loan-Closing	1076.97
Average Loan	1045.89
Weighted Average Rate of Interest on Loan (in %)	7.667
Interest on Loan	80.19

(₹ in lakh)

Asset-7	
Particulars	2018-19 (Pro rata for 91 days)
Gross Normative Loan	251.58
Cumulative Repayments upto Previous Year	0.00
Net Loan-Opening	251.58
Addition due to Additional Capitalization	73.26
Repayment during the year	5.42
Net Loan-Closing	319.42
Average Loan	285.50
Weighted Average Rate of Interest on Loan (in %)	8.276
Interest on Loan	5.89

42. The details of IoL allowed for the transmission assets vide order dated 10.12.2019 in Petition Nos. 175/TT/2018, as claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:

(₹ in lakh)

Assets	Particulars	2017-18	2018-19
Asset-1	Allowed vide order dated 10.12.2019 in Petition No. 175/TT/2018	0.00	2.68
	As claimed by the Petitioner	0.00	2.72
	Approved after Truing Up	0.00	2.72
Asset-2	Allowed vide order dated 10.12.2019 in Petition No. 175/TT/2018	0.00	79.68
	As claimed by the Petitioner	0.00	81.44
	Approved after Truing Up	0.00	81.40
Asset-3	Allowed vide order dated 10.12.2019 in Petition No. 175/TT/2018	37.34	54.75
	As claimed by the Petitioner	37.41	54.83



	Approved after Truing Up	37.41	54.83
Asset-4	Allowed vide order dated 10.12.2019 in Petition No. 175/TT/2018	0.00	18.87
	As claimed by the Petitioner	0.00	20.61
	Approved after Truing Up	0.00	20.50
Asset-5	Allowed vide order dated 10.12.2019 in Petition No. 175/TT/2018	0.00	35.68
	As claimed by the Petitioner	0.00	38.06
	Approved after Truing Up	0.00	38.04
Asset-6	Allowed vide order dated 10.12.2019 in Petition No. 175/TT/2018	0.00	78.09
	As claimed by the Petitioner	0.00	80.51
	Approved after Truing Up	0.00	80.19
Asset-7	Allowed vide order dated 10.12.2019 in Petition No. 175/TT/2018	0.00	5.63
	As claimed by the Petitioner	0.00	5.99
	Approved after Truing Up	0.00	5.89

Return on Equity (RoE)

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

Year	Claimed effective tax (in %)	Grossed-up RoE [(Base Rate)/(1-t)] (in %)
2014-15	21.018	19.624
2015-16	21.382	19.715
2016-17	21.338	19.704
2017-18	21.337	19.704
2018-19	21.549	19.757

44. The Commission, vide order dated 27.4.2020 in Petition No. 274/TT/2019, had arrived at the effective tax rate for the Petitioner based on the notified MAT rates and the same is given in the table below. The same MAT rates are considered for the purpose of grossing up of the rate of RoE for truing up of the tariff of the 2014-19 period in terms of the provisions of the 2014 Tariff Regulations.



Year	Notified MAT rates (in %) (inclusive of surcharge & cess)	Base rate of RoE (in %)	Grossed-up RoE [(Base Rate)/(1-t)] (in %)
2014-15	20.961	15.50	19.610
2015-16	21.342	15.50	19.705
2016-17	21.342	15.50	19.705
2017-18	21.342	15.50	19.705
2018-19	21.549	15.50	19.758

45. The Petitioner has prayed for claiming the differential tariff on account of the trued-up RoE based on effective rate calculated on completion of Income tax assessment/ re-assessment for 2014-15, 2015-16, 2016-17, 2017-18 and 2018-19 on receipt of respective assessment orders, directly from the beneficiaries, on year-to-year basis as provided under the 2014 Tariff Regulations.

46. Accordingly, RoE allowed for the transmission assets is as follows:

(₹ in lakh)

Asset-1	
Particulars	2018-19 (Pro rata for 257 days)
Opening Equity	19.63
Addition due to Additional Capitalization	4.36
Closing Equity	23.99
Average Equity	21.81
Return on Equity (Base Rate) (in %)	15.500
Tax Rate applicable (in %)	21.549
Rate of Return on Equity (Pre-tax)	19.758
Return on Equity (Pre-tax)	3.03

(₹ in lakh)

Asset-2	
Particulars	2018-19 (Pro rata for 257 days)
Opening Equity	571.60
Addition due to Additional Capitalization	184.73
Closing Equity	756.33
Average Equity	663.97
Return on Equity (Base Rate) (in %)	15.500
Tax Rate applicable (in %)	21.549
Rate of Return on Equity (Pre-tax)	19.758
Return on Equity (Pre-tax)	92.37



(₹ in lakh)

Asset-3		
Particulars	2017-18 (Pro-rata for 251 days)	2018-19
Opening Equity	306.27	347.73
Addition due to Additional Capitalization	41.46	3.16
Closing Equity	347.73	350.89
Average Equity	327.00	349.31
Return on Equity (Base Rate) (in %)	15.500	15.500
Tax Rate applicable (in %)	21.342	21.549
Rate of Return on Equity (Pre-tax)	19.705	19.758
Return on Equity (Pre-tax)	44.31	69.02

(₹ in lakh)

Asset-4	
Particulars	2018-19 (Pro rata for 121 Days)
Opening Equity	321.83
Addition due to Additional Capitalization	43.24
Closing Equity	365.07
Average Equity	343.45
Return on Equity (Base Rate) (in %)	15.500
Tax Rate applicable (in %)	21.549
Rate of Return on Equity (Pre-tax)	19.758
Return on Equity (Pre-tax)	22.50

(₹ in lakh)

Asset-5	
Particulars	2018-19 (Pro rata for 276 days)
Opening Equity	260.45
Addition due to Additional Capitalization	69.97
Closing Equity	330.42
Average Equity	295.43
Return on Equity (Base Rate) (in %)	15.500
Tax Rate applicable (in %)	21.549
Rate of Return on Equity (Pre-tax)	19.758
Return on Equity (Pre-tax)	44.14

(₹ in lakh)

Asset-6	
Particulars	2018-19
Opening Equity	434.91
Addition due to Additional Capitalization	61.77
Closing Equity	496.68
Average Equity	465.80
Return on Equity (Base Rate) (in %)	15.500
Tax Rate applicable (in %)	21.549
Rate of Return on Equity (Pre-tax)	19.758
Return on Equity (Pre-tax)	92.03



(₹ in lakh)

Asset-7	
Particulars	2018-19 (Pro rata for 91 days)
Opening Equity	107.82
Addition due to Additional Capitalization	31.39
Closing Equity	139.21
Average Equity	123.51
Return on Equity (Base Rate) (in %)	15.500
Tax Rate applicable (in %)	21.549
Rate of Return on Equity (Pre-tax)	19.758
Return on Equity (Pre-tax)	6.08

47. The details of the RoE allowed for the transmission asset vide order dated 10.12.2019 in Petition No. 175/TT/2018, as claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

(₹ in lakh)			
Asset	Particulars	2017-18	2018-19
Asset-1	Allowed vide order dated 10.12.2019 in Petition No. 175/TT/2018	0.00	2.99
	As claimed by the Petitioner	0.00	3.03
	Approved after Truing Up	0.00	3.03
Asset-2	Allowed vide order dated 10.12.2019 in Petition No. 175/TT/2018	0.00	91.04
	As claimed by the Petitioner	0.00	92.37
	Approved after Truing Up	0.00	92.37
Asset-3	Allowed vide order dated 10.12.2019 in Petition No. 175/TT/2018	44.15	69.00
	As claimed by the Petitioner	44.31	69.02
	Approved after Truing Up	44.31	69.02
Asset-4	Allowed vide order dated 10.12.2019 in Petition No. 175/TT/2018	0.00	20.70
	As claimed by the Petitioner	0.00	22.57
	Approved after Truing Up	0.00	22.50
Asset-5	Allowed vide order dated 10.12.2019 in Petition No. 175/TT/2018	0.00	41.67
	As claimed by the Petitioner	0.00	44.14
	Approved after Truing Up	0.00	44.14
Asset-6	Allowed vide order dated 10.12.2019 in Petition No. 175/TT/2018	0.00	89.35
	As claimed by the Petitioner	0.00	92.40
	Approved after Truing Up	0.00	92.03
Asset-7	Allowed vide order dated 10.12.2019 in Petition No. 175/TT/2018	0.00	5.95
	As claimed by the Petitioner	0.00	6.12
	Approved after Truing Up	0.00	6.08



Operation & Maintenance Expenses (O&M Expenses)

48. The Petitioner has claimed O&M Expenses for Assets-2 and Asset-4 only. The details of the O&M Expenses claimed by the Petitioner are as follows:

(₹ in lakh)

Asset-2	
Particulars	2018-19 (Pro rata for 257 days)
Sub-station bays	
400 kV GIS Silchar ICT 03_Main Bay	1
132 kV Silchar ICT 3 _132kV Side	1
Norm (₹ lakh/bay)	
400 kV (GIS)	58.73
132 kV & Below	34.36
Total Sub-station O&M	93.09
Total O&M Expenses	65.55

(₹ in lakh)

Asset-4	
Particulars	2018-19 (Pro rata for 121 days)
Sub-station bays	
Mokokchung: 220 kV GIS Bus Reactor	1
Norm (₹ lakh/bay)	
220 kV (GIS)	48.10
Total Sub-station O&M	48.10
Total O&M Expenses	15.95

49. The details of the O&M Expenses allowed for transmission assets vide order dated 10.12.2019 in Petition No. 175/TT/2018, as claimed by the Petitioner in the instant petition and as trued-up in the instant order are as follows:

(₹ in lakh)

Asset	Particulars	2017-18	2018-19
Asset-2	Allowed vide order dated 10.12.2019 in Petition No. 175/TT/2018	0.00	75.24
	As claimed by the Petitioner	0.00	65.54
	Approved after Truing Up	0.00	65.55
Asset-4	Allowed vide order dated 10.12.2019 in Petition No. 175/TT/2018	0.00	16.03
	As claimed by the Petitioner	0.00	15.95
	Approved after Truing Up	0.00	15.95



Interest on Working Capital (IWC)

50. The Petitioner is entitled to claim interest on working capital as per Regulation 28(1)(c) of the 2014 Tariff Regulations as follows:

i. Working Capital for Maintenance spares:

Working Capital for Maintenance spares have been worked out based on 15% of Operation and Maintenance Expenses specified in Regulation 28.

ii. Working Capital for O & M Expenses:

Working Capital for O&M Expenses has been considered for one month of the allowed O&M Expenses.

iii. Working Capital for Receivables:

Working Capital for receivables have been worked out on the basis of 2 months of annual transmission charges as worked out.

iv. Rate of interest on working capital:

Rate of interest on working capital is considered on normative basis in accordance with Clause (3) of Regulation 28 of the 2014 Tariff Regulations.

51. The Interest on Working Capital allowed for the transmission assets is as follows:

(₹ in lakh)

Asset-1	
Particulars	2018-19 (Pro rata for 257 days)
Working Capital for O & M Expenses (O&M Expenses for 1 month)	0.00
Working Capital for Maintenance Spares (15% of O&M Expenses)	0.00
Working Capital for Receivables (Equivalent to 2 months of fixed cost)	2.04
Total Working Capital	2.04
Rate of Interest on working capital (in %)	12.20
Interest of Working Capital	0.18

(₹ in lakh)

Asset-2	
Particulars	2018-19 (Pro rata for 257 days)
Working Capital for O & M Expenses (O&M Expenses for 1 month)	7.76
Working Capital for Maintenance Spares (15% of O&M Expenses)	13.96



Working Capital for Receivables (Equivalent to 2 months of fixed cost)	78.15
Total Working Capital	99.88
Rate of Interest on working capital (in %)	12.20
Interest of Working Capital	8.58

(₹ in lakh)

Asset-3		
Particulars	2017-18 (Pro-rata for 251 days)	2018-19
Working Capital for O & M Expenses (O&M Expenses for 1 month)	0.00	0.00
Working Capital for Maintenance Spares (15% of O&M Expenses)	0.00	0.00
Working Capital for Receivables (Equivalent to 2 months of fixed cost)	30.03	31.55
Total Working Capital	30.03	31.55
Rate of Interest on working capital (in %)	12.60	12.60
Interest of Working Capital	2.60	3.98

(₹ in lakh)

Asset-4	
Particulars	2018-19 (Pro rata for 121 days)
Working Capital for O & M Expenses (O&M Expenses for 1 month)	4.01
Working Capital for Maintenance Spares (15% of O&M Expenses)	7.22
Working Capital for Receivables (Equivalent to 2 months of fixed cost)	40.77
Total Working Capital	51.99
Rate of Interest on working capital (in %)	12.20
Interest of Working Capital	2.10

(₹ in lakh)

Asset-5	
Particulars	2018-19 (Pro rata for 276 days)
Working Capital for O & M Expenses (O&M Expenses for 1 month)	0.00
Working Capital for Maintenance Spares (15% of O&M Expenses)	0.00
Working Capital for Receivables (Equivalent to 2 months of fixed cost)	27.33
Total Working Capital	27.33
Rate of Interest on working capital (in %)	13.50
Interest of Working Capital	2.52

(₹ in lakh)

Asset-6	
Particulars	2018-19
Working Capital for O & M Expenses (O&M Expenses for 1 month)	0.00
Working Capital for Maintenance Spares (15% of O&M Expenses)	0.00
Working Capital for Receivables (Equivalent to 2 months of fixed cost)	43.25
Total Working Capital	43.25



Rate of Interest on working capital (in %)	12.20
Interest of Working Capital	5.28

(₹ in lakh)

Asset-7	
Particulars	2018-19 (Pro rata for 91 days)
Working capital for O & M Expenses (O&M Expenses for 1 month)	0.00
Working Capital for Maintenance Spares (15% of O&M Expenses)	0.00
Working Capital for Receivables (Equivalent to 2 months of fixed cost)	11.87
Total Working Capital	11.87
Rate of Interest on working capital (in %)	12.20
Interest of Working Capital	0.36

52. The details of IWC allowed for the transmission assets vide order dated 10.12.2019 in Petition No. 175/TT/2018, as claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

(₹ in lakh)

Asset	Particulars	2017-18	2018-19
Asset-1	Allowed vide order dated 10.12.2019 in Petition No. 175/TT/2018	0.00	0.17
	As claimed by the Petitioner	0.00	0.18
	Approved after Truing Up	0.00	0.18
Asset-2	Allowed vide order dated 10.12.2019 in Petition No. 175/TT/2018	0.00	8.99
	As claimed by the Petitioner	0.00	8.63
	Approved after Truing Up	0.00	8.58
Asset-3	Allowed vide order dated 10.12.2019 in Petition No. 175/TT/2018	2.60	3.98
	As claimed by the Petitioner	2.60	3.98
	Approved after Truing Up	2.60	3.98
Asset-4	Allowed vide order dated 10.12.2019 in Petition No. 175/TT/2018	0.00	2.01
	As claimed by the Petitioner	0.00	2.12
	Approved after Truing Up	0.00	2.10
Asset-5	Allowed vide order dated 10.12.2019 in Petition No. 175/TT/2018	0.00	2.38
	As claimed by the Petitioner	0.00	2.53
	Approved after Truing Up	0.00	2.52
Asset-6	Allowed vide order dated 10.12.2019 in Petition No. 175/TT/2018	0.00	5.14
	As claimed by the Petitioner	0.00	5.30
	Approved after Truing Up	0.00	5.28
Asset-7	Allowed vide order dated 10.12.2019	0.00	0.35



	in Petition No. 175/TT/2018		
	As claimed by the Petitioner	0.00	0.36
	Approved after Truing Up	0.00	0.36

Approved Annual Fixed Charges for the 2014-19 Tariff Period

53. Accordingly, the annual fixed charges in respect of the transmission assets after truing-up for the 2014-19 tariff period are as follows:

(₹ in lakh)

Asset-1	
Particulars	2018-19 (Pro rata for 257 days)
Depreciation	2.70
Interest on Loan	2.72
Return on Equity	3.03
Interest on Working Capital	0.18
O & M Expenses	0.00
Total	8.63

(₹ in lakh)

Asset-2	
Particulars	2018-19 (Pro rata for 257 days)
Depreciation	82.28
Interest on Loan	81.40
Return on Equity	92.37
Interest on Working Capital	8.58
O & M Expenses	65.55
Total	330.18

(₹ in lakh)

Asset-3		
Particulars	2017-18 (Pro-rata for 251 days)	2018-19
Depreciation	39.58	61.48
Interest on Loan	37.41	54.83
Return on Equity	44.31	69.02
Interest on Working Capital	2.60	3.98
O & M Expenses	0.00	0.00
Total	123.90	189.31

(₹ in lakh)

Asset-4	
Particulars	2018-19 (Pro rata for 121 days)
Depreciation	20.04
Interest on Loan	20.50
Return on Equity	22.50
Interest on Working Capital	2.10
O & M Expenses	15.95
Total	81.09



(₹ in lakh)

Asset-5	
Particulars	2018-19 (Pro rata for 276 days)
Depreciation	39.32
Interest on Loan	38.04
Return on Equity	44.14
Interest on Working Capital	2.52
O & M Expenses	0.00
Total	124.02

(₹ in lakh)

Asset-6	
Particulars	2018-19
Depreciation	81.98
Interest on Loan	80.19
Return on Equity	92.03
Interest on Working Capital	5.28
O & M Expenses	0.00
Total	259.48

(₹ in lakh)

Asset-7	
Particulars	2018-19 (Pro rata for 91 days)
Depreciation	5.42
Interest on Loan	5.89
Return on Equity	6.08
Interest on Working Capital	0.36
O & M Expenses	0.00
Total	17.76

54. The details of the annual fixed charges allowed for the transmission assets vide orders dated 10.12.2019 in Petition No. 175/TT/2018, as claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

(₹ in lakh)

Asset	Particulars	2017-18	2018-19
Asset-1	Allowed vide order dated 10.12.2019 in Petition No. 175/TT/2018	0.00	8.52
	As claimed by the Petitioner	0.00	8.63
	Approved after Truing Up	0.00	8.63
Asset-2	Allowed vide order dated 10.12.2019 in Petition No. 175/TT/2018	0.00	336.66
	As claimed by the Petitioner	0.00	332.37
	Approved after Truing Up	0.00	330.18
Asset-3	Allowed vide order dated 10.12.2019 in Petition No. 175/TT/2018	123.71	189.65
	As claimed by the Petitioner	123.90	189.31



	Approved after Truing Up	123.90	189.31
Asset-4	Allowed vide order dated 10.12.2019 in Petition No. 175/TT/2018	0.00	76.19
	As claimed by the Petitioner	0.00	82.21
	Approved after Truing Up	0.00	81.09
Asset-5	Allowed vide order dated 10.12.2019 in Petition No. 175/TT/2018	0.00	117.13
	As claimed by the Petitioner	0.00	124.05
	Approved after Truing Up	0.00	124.02
Asset-6	Allowed vide order dated 10.12.2019 in Petition No. 175/TT/2018	0.00	252.77
	As claimed by the Petitioner	0.00	260.52
	Approved after Truing Up	0.00	259.48
Asset-7	Allowed vide order dated 10.12.2019 in Petition No. 175/TT/2018	0.00	17.27
	As claimed by the Petitioner	0.00	17.93
	Approved after Truing Up	0.00	17.76

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

55. The Petitioner has submitted tariff forms combining Asset-1 to Asset-7, wherein COD has been achieved prior to 1.4.2019, as Combined 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 the 2019-24 tariff period.

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

Particulars	(₹ in lakh)				
	2019-20	2020-21	201-22	2022-23	2023-24
Depreciation	463.15	486.56	486.56	486.56	486.56
Interest on Loan	424.88	411.96	375.46	338.79	300.75
Return on Equity	487.95	512.74	512.74	512.74	512.74
Interest on Working Capital	38.25	39.50	39.58	39.71	39.72
Operation and Maintenance	402.94	417.53	432.18	447.72	462.75
Total	463.15	486.56	486.56	486.56	486.56

57. The Petitioner has claimed the following Interest on Working Capital in respect of the Combined Asset for the 2019-24 tariff period:



(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M expenses	33.58	34.79	36.02	37.31	38.56
Maintenance Spares	60.44	62.63	64.83	67.16	69.41
Receivables	223.42	230.34	227.65	225.06	221.62
Total	317.44	327.76	328.50	329.53	329.59
Rate of Interest on working capital (in %)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	38.25	39.50	39.58	39.71	39.72

Effective Date of Commercial Operation (E-COD)

58. The Petitioner has claimed E-COD of the Combined Asset as 2.6.2018. Based on the trued-up admitted capital cost and actual COD of all the assets, E-COD has been worked out as follows:

Computation of Effective COD						
Asset	Actual COD	Admitted Capital Cost as on 31.3.2019	Weight of the cost (in %)	Number of Days from last COD	Weighted Days	Effective COD (Latest COD – Total weighted Days)
Asset-1	18.7.2018	79.98	0.97	166.00	1.62	2.6.2018
Asset-2	18.7.2018	2521.13	30.71	166.00	50.98	
Asset-3	24.7.2017	1169.69	14.25	525.00	74.81	
Asset-4	1.12.2018	1216.91	14.82	30.00	4.45	
Asset-5	29.6.2018	1101.41	13.42	185.00	24.82	
Asset-6	1.4.2018	1655.64	20.17	274.00	55.26	
Asset-7	31.12.2018	464.05	5.65	0.00	0.00	

59. E-COD is used to determine the lapsed life of the project as a whole, which works out as (0) year as on 1.4.2019 (i.e. the number of completed years as on 1.4.2019 from E-COD).

Weighted Average Life (WAL)

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

61. 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 Weighted Average Life (WAL) has been used as the useful life of the project as a whole.

62. WAL has been determined based on the admitted capital cost of individual elements as on 31.3.2019 and their respective life as stipulated 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 the Combined Asset has been worked out as 25 years and is demonstrated as follows:

Admitted Capital Cost as on 31.03.2019				
Particulars	Combined Asset Cost (₹ in lakh) (1)	Life as per 2019	Weighted Cost (3) = (1)x(2)	Weighted Average Life of Asset (in years) (4) = (3)/(1)
		Regulation (Years) (2)		
Transmission Line	18.90	35	661.44	
Sub-station Equipment	8131.30	25	203282.41	
IT Equipment and Software	58.61	7	390.76	
Total	8208.81		204334.60	24.89 years (rounded off to 25 years)

63. The WAL as on 1.4.2019 as determined above is applicable prospectively (i.e. for the 2019-24 tariff period onwards) and no retrospective adjustment of depreciation in previous tariff period is required to be done. As discussed in the preceding paragraphs, the Effective COD of the assets is 30.5.2018 and the lapsed life of the project as a whole, works out as zero (0) years as on 1.4.2019 (i.e. the number of completed years as on 1.4.2019 from Effective COD). Accordingly, WAL has been used to determine the remaining useful life as on 31.3.2019 to be 25 years.



Capital Cost

64. Regulations 19(3) and 19(5) of the 2019 Tariff Regulations provide as follows:

“19 Additional Capitalization

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

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

(5) The following shall be excluded from the capital cost of the existing and new projects:

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

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

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

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



65. 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 for the transmission assets is combined together is as follows:

								(₹ in lakh)
Element	Asset-1	Asset-2	Asset-3	Asset-4	Asset-5	Asset-6	Asset-7	Capital Cost for Combined Asset as on 31.3.2019
Transmission Line	18.90	0.00	0.00	0.00	0.00	0.00	0.00	18.90
Sub-Station Equipment	61.08	2489.26	1169.69	1190.18	1101.41	1655.64	464.05	8131.30
IT Equipment and Software	0.00	31.88	0.00	26.74	0.00	0.00	0.00	58.61
Total	79.98	2521.13	1169.69	1216.91	1101.41	1655.64	464.05	8208.81

Initial Spares

66. As stated in the relevant portion of this order above, Initial Spares are allowed for the 2014-19 period on the basis of the cost of individual assets. The transmission assets covered in the transmission project are combined during the 2019-24 tariff period and hence, the Initial Spares are allowed on the basis of the overall project cost in terms of the APTEL's judgement dated 14.9.2019 in Appeal No. 74 of 2017.

67. Accordingly, Initial Spares allowed for the 2019-24 tariff period are as follows:

Asset	P&M cost considered as on cut-off date (₹ in lakh)	Initial Spares claimed (₹ in lakh)	Norms as per 2014 Tariff Regulation (in %)	Initial Spares allowable as per 2014 Tariff Regulation (₹ in lakh)	Initial Spares allowed during 2014-19 period (₹ in lakh)	Initial Spares allowed for Combined Asset (₹ in lakh)
	(A)	(B)	(C)	(D) = (A-B)*C/(100-C)	(E)	(F) = (B)-(E)
Asset-1	72.39	1.92	6.0	4.50	1.92	
Asset-2	2647.63	109.94	6.0	161.98	109.94	
Asset-3	1118.42	0	6.0	71.39	0.00	
Asset-4	1433.15	190.56	6.0	79.31	79.31	
Asset-5	1053.82	33.71	6.0	65.11	33.71	
Asset-6	1512.01	96.32	6.0	90.36	90.36	



Asset-7	510.1	0	6.0	32.56	0.00	
Combined Asset	8347.52	432.45		505.21	315.24	117.21*

*Additional Initial Spares of ₹117.21 lakh (₹432.45 - ₹315.24) lakh are allowed for Sub-station for Combined Asset

68. Thus, in line with the APTEL's judgement dated 14.9.2019 in Appeal No. 74 of 2017, additional Initial Spares of ₹117.21 lakh are admissible. Accordingly, considering the details of Initial Spares discharged submitted by the Petitioner, out of additional Initial Spares of ₹117.21 lakh, ₹5.96 lakh is allowed as on 1.4.2019 and ₹111.25 lakh is allowed in ACE of 2019-20. The capital cost considered for Combined Asset as on 1.4.2019 is as follows:

Asset	Total Capital Cost as on 31.3.2019	Additional Initial Spares allowed as on 1.4.2019 as per APTEL's Judgment dated 14.09.2019	Total Capital Cost as on 1.4.2019
Combined Asset	8208.81	5.96	8214.76

Additional Capital Expenditure (ACE)

69. Regulation 24 of the 2019 Tariff Regulations provides as follows:

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

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

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

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

70. Regulation 25 of the 2019 Tariff Regulations provides as follows:-



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

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

(a) Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority, or order or decree of any court of law;

(b) Change in law or compliance of any existing law;

(c) Deferred works relating to ash pond or ash handling system in the original scope of work;

(d) Liability for works executed prior to the cut-off date;

(e) Force Majeure events;

(f) Liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments; and

(g) Raising of ash dyke as a part of ash disposal system.

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

(a) The useful life of the assets is not commensurate with the useful life of the project and such assets have been fully depreciated in accordance with the provisions of these regulations;

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

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

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

71. The Petitioner has claimed the following ACE in respect of the transmission assets during 2019-24 in accordance with Regulation 24(1) (a) and Regulation 24(1)(b) of the 2019 Tariff Regulations:-

(₹ in lakh)

Asset	ACE 2019-24 (as per auditor's certificate)
Asset-1	35.02
Asset-2	396.91
Asset-3	0.25
Asset-4	315.85
Asset-5	80.63
Asset-6	4.61
Asset-7	46.06
Total	879.33



72. Subject to true-up, the ACE in respect of the Combined Asset is considered as follows:

(₹ in lakh)		
Particulars	Regulation	ACE (2019-24)
ACE to extent of Balance & Retention Payments and work deferred for execution before cut-off date/ after cut-off date,	Regulation 24(1) (a) and regulation 24(1)(b) of the 2019 Tariff Regulations	879.70*

*includes Undischarged IDC ₹ 0.17 lakh & ₹ 0.20 lakh in Asset 2 & Asset 5 discharged in ACE during FY 2019-20

*includes Undischarged Spares ₹ 145.52 lakh & ₹ 33.71 lakh in Asset 4 & Asset 5 discharged in ACE during FY 2019-20

Capital Cost for the 2019-24 tariff period

73. Accordingly, the capital cost of the Combined Asset considered for the 2019-24 tariff period, subject to true-up, is as follows:

(₹ in lakh)		
Capital Cost (as on 1.4.2019)	ACE (2019-24)	Total Estimated Completion Cost (up to 31.3.2024)
8214.76	879.70	9094.46

74. Against the overall apportioned approved capital cost as per RCE of ₹ 9464.82 lakhs, the estimated project cost of the Combined Asset including Additional Capital Expenditure is ₹ 9094.46 which is within the approved cost. Therefore, there is no cost over-run as per the apportioned approved cost.

Debt-Equity Ratio

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

“18. Debt-Equity Ratio: (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.”

76. The details of the debt-equity considered for the purpose of tariff for the 2019-24 tariff period are as follows:

Funding	(₹ in lakh)			
	Capital Cost (₹ in lakh) (as on 1.4.2019)	(in %)	Capital Cost (₹ in lakh) (as on 31.3.2024)	(in %)
Debt	5750.38	70.00	6366.17	70.00
Equity	2464.39	30.00	2728.30	30.00
Total	8214.76	100.00	9094.46	100.00

Depreciation

77. Regulation 33(1), (2) and (5) of the 2019 Tariff Regulations provide as follows:

"33. Depreciation:(1) Depreciation shall be computed from the date of commercial operation of a generating station or unit thereof or a transmission 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 31st March of the year closing after a period of 12 years from the effective date of commercial operation of the station shall be spread over the balance useful life of the assets.

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

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

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

78. IT equipment has been considered as a part of the Gross Block and depreciated using weighted average rate of depreciation (WAROD). The weighted average rate of depreciation (WAROD) has been worked out at Annexure-II after



taking into account the depreciation rates of IT and non-IT assets as prescribed in the 2019 Tariff Regulations. The salvage value of IT equipment has been considered nil, i.e. IT asset has been considered as 100 per cent depreciable. The depreciation has been worked out considering the admitted capital expenditure as on 31.3.2019 and accumulated depreciation up to 31.3.2019. The depreciation allowed for the Combined Asset is as follows:

(₹ in lakh)					
Combined Asset					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	8214.76	9094.46	9094.46	9094.46	9094.46
Addition during 2019-24 due to Projected Additional Capitalisation	879.70	0.00	0.00	0.00	0.00
Closing Gross Block	9094.46	9094.46	9094.46	9094.46	9094.46
Average Gross Block	8654.61	9094.46	9094.46	9094.46	9094.46
Weighted Average Rate of Depreciation (WAROD) (in %)	5.35	5.35	5.35	5.35	5.35
Balance Useful life at the beginning of the year (Year)	25.00	24.00	23.00	22.00	21.00
Aggregated Depreciable Value	7795.21	8191.27	8191.27	8191.27	8191.27
Combined Depreciation during the year	462.85	486.27	486.27	486.27	486.27
Remaining Aggregated Depreciable Value Total	6999.56	6909.35	6423.08	5936.82	5450.55

Interest on Loan (IoL)

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

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



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

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

(4) Notwithstanding any moratorium period availed by the generating company or the transmission licensee, as the case may be, the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the depreciation allowed for the year or part of the year. (5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio after providing appropriate accounting adjustment for interest capitalized:

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

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

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

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

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



(₹ in lakh)

Combined Asset					
Particular	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	5750.38	6366.17	6366.17	6366.17	6366.17
Cumulative Repayments upto Previous Year	332.80	795.65	1281.92	1768.19	2254.46
Net Loan-Opening	5417.58	5570.51	5084.25	4597.98	4111.71
Addition due to Additional Capitalization	615.79	0.00	0.00	0.00	0.00
Repayment during the year	462.85	486.27	486.27	486.27	486.27
Net Loan-Closing	5570.51	5084.25	4597.98	4111.71	3625.44
Average Loan	5494.04	5327.38	4841.11	4354.84	3868.58
Weighted Average Rate of Interest on Loan (in %)	7.733	7.733	7.756	7.781	7.776
Interest on Loan	424.86	411.97	375.49	338.85	300.83

Return on Equity (RoE)

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

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

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

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

Provided further that:

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

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

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

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

b) an additional rate of return on equity of 0.25% shall be allowed for every incremental ramp rate of 1% per minute achieved over and above the ramp



rate of 1% per minute, subject to ceiling of additional rate of return on equity of 1.00%:

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

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

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

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

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

(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.”

82. RoE considered for the Combined Asset under Regulation 30 of the 2019 Tariff

Regulations is as follows:

(₹ in lakh)					
Combined Asset					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	2464.39	2728.30	2728.30	2728.30	2728.30
Addition due to Additional Capitalization	263.91	0.00	0.00	0.00	0.00
Closing Equity	2728.30	2728.30	2728.30	2728.30	2728.30



Average Equity	2596.34	2728.30	2728.30	2728.30	2728.30
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
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
Return on Equity (Pre-tax)	487.65	512.43	512.43	512.43	512.43

Operation & Maintenance Expenses (O&M Expenses)

83. Regulation 35(3) and Regulation 35(4) of the 2019 Tariff Regulations provide as follows:

“35 (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
<i>Norms for sub-station Bays (₹ Lakh per bay)</i>					
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
<i>Norms for Transformers (₹ Lakh per MVA)</i>					
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
<i>Norms for AC and HVDC lines (₹ Lakh per km)</i>					
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.881	0.912	0.944	0.977	1.011
Single Circuit (Bundled onductor 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
<i>Norms for HVDC stations</i>					



<i>Particulars</i>	<i>2019-20</i>	<i>2020-21</i>	<i>2021-22</i>	<i>2022-23</i>	<i>2023-24</i>
<i>HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)</i>	834	864	894	925	958
<i>Gazuwaka HVDC Back-to-Back station (₹ Lakh per 500 MW)</i>	1,666	1,725	1,785	1,848	1,913
<i>500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh)</i>	2,252	2,331	2,413	2,498	2,586
<i>±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh)</i>	2,468	2,555	2,645	2,738	2,834
<i>±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh)</i>	1,696	1,756	1,817	1,881	1,947
<i>±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW)</i>	2,563	2,653	2,746	2,842	2,942

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

Provided further that:

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

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



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

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

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

84. The O&M Expenses claimed by the Petitioner are in accordance with Regulations 35(3) and Regulation 35(4) of the 2019 Tariff Regulations and the same is considered for the Combined Asset as follows:-

(₹ in lakh)					
Combined Asset					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Sub-station bays					
400 kV GIS Silchar ICT 03_Main Bay	1	1	1	1	1
220 kV GIS Mokokchung Bus Reactor	1	1	1	1	1
132 kV Silchar ICT 3 _132kV Side	1	1	1	1	1
Norm (₹ lakh/bay)					
400 kV (GIS)	22.51	23.30	24.12	24.96	25.84
220 kV (GIS)	15.76	16.31	16.88	17.47	18.09
132 kV & Below	16.08	16.64	17.23	17.83	18.46
Total Sub-station O&M	54.34	56.25	58.23	60.26	62.39
Transformers					
400 kV GIS ICT III at Silchar	315.00	315.00	315.00	315.00	315.00
400 kV ICT III at Silchar	200.00	200.00	200.00	200.00	200.00
400 kV ICT at Misa	315.00	315.00	315.00	315.00	315.00
220 kV ICT at Kopili	160.00	160.00	160.00	160.00	160.00
132 kV ICT at Nirjuli	50.00	50.00	50.00	50.00	50.00
Norm (₹ lakh/ MVA)					
400 kV	0.36	0.37	0.38	0.40	0.41
220 kV	0.25	0.25	0.26	0.27	0.28
132 kV	0.25	0.25	0.26	0.27	0.28
Total Transformer O&M	348.59	361.27	373.95	387.46	400.35
Total O&M Expenses	402.93	417.52	432.18	447.72	462.74



Interest on Working Capital (IWC)

85. Regulations 34(1)(c), 34(3) and 34(4) and Regulation 3(7) of the 2019 Tariff

Regulations specify as follows:

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

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

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

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

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

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

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

86. The Petitioner has submitted that it has computed IWC for the 2019-24 period considering the bank rate as on 1.4.2019.

87. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The rate of IWC 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, the rate of interest for 2020-21 onwards has been considered as 11.25% (SBI 1-year MCLR applicable



as on 1.4.2020 of 7.75% plus 350 basis points). The components of the working capital and interest allowed thereon for the Combined Asset are as follows:

(₹ in lakh)					
Combined Asset					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Working Capital for O & M Expenses (One month of O & M Expenses)	33.58	34.79	36.01	37.31	38.56
Working Capital for Maintenance Spares (15% of operation and maintenance expenses)	60.44	62.63	64.83	67.16	69.41
Working Capital for Receivables (45 days of annual fixed cost)	223.34	229.93	227.25	224.67	221.22
Total Working Capital	317.36	327.35	328.10	329.14	329.20
Rate of Interest (in %)	12.05	11.25	11.25	11.25	11.25
Interest of working capital	38.24	36.83	36.91	37.03	37.03

Annual Fixed Charges for the 2019-24 Tariff Period

88. The annual fixed charges for the Combined Asset for the 2019-24 tariff period are summarized as follows:

(₹ in lakh)					
Combined Asset					
Particulars	2019-20	2020-21	201-22	2022-23	2023-24
Depreciation	462.85	486.27	486.27	486.27	486.27
Interest on Loan	424.86	411.97	375.49	338.85	300.83
Return on Equity	487.65	512.43	512.43	512.43	512.43
Interest on Working Capital	38.24	36.83	36.91	37.03	37.03
Operation and Maintenance	402.93	417.52	432.18	447.72	462.74
Total	1816.53	1865.01	1843.28	1822.29	1799.30

Filing Fee and Publication Expenses

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

90. The Petitioner shall be entitled for reimbursement of the filing fees and publication expenses in connection with the present petition, directly from the



beneficiaries on pro-rata basis in accordance with Regulation 70(1) of the 2019 Tariff Regulations.

Licence Fee and RLDC Fees and Charges

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

Goods and Services Tax

92. 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 Respondents 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.

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

Security Expenses

94. The Petitioner has submitted that security expenses in respect of the Combined Asset are not claimed in the instant petition and it would file a separate petition for claiming the overall security expenses and the consequential IWC.



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

Capital Spares

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

Sharing of Transmission Charges

97. With effect from 1.7.2011, sharing of transmission charges for inter-State transmission system was governed by the Central Electricity Regulatory Commission (Sharing of Transmission Charges and Losses) Regulations, 2010. With effect from 1.11.2020, sharing of transmission charges is governed by the Central Electricity Regulatory Commission (Sharing of Transmission Charges and Losses) Regulations, 2020 (in short, "the 2020 Sharing Regulations"). Accordingly, the liabilities of the DICs for arrears of transmission charges determined through this order shall be computed DIC-wise in accordance with the provisions of respective Tariff Regulations and shall be recovered from the concerned DICs through Bill 2 under Regulation 15(2) (b) of the 2020 Sharing Regulations. For subsequent period, the billing, collection and



disbursement of the transmission charges approved in this order shall be governed by the provisions of the 2020 Sharing Regulations as provided in Regulation 57 of the 2019 Tariff Regulations.

98. To summarise:

a) Trued-up Annual Fixed Charges allowed for the transmission assets for the 2014-19 tariff period are as follows:

(₹ in lakh)

Asset 1	
Particulars	2018-19 (Pro rata for 257 days)
AFC	8.63

(₹ in lakh)

Asset 2	
Particulars	2018-19 (Pro rata for 257 days)
AFC	330.18

(₹ in lakh)

Asset-3		
Particulars	2017-18 (Pro-rata for 251 days)	2018-19
AFC	123.90	189.31

(₹ in lakh)

Asset 4	
Particulars	2018-19 (Pro rata for 121 days)
AFC	81.09

(₹ in lakh)

Asset 5	
Particulars	2018-19 (Pro rata for 276 days)
AFC	124.02

(₹ in lakh)

Asset 6	
Particulars	2018-19
AFC	259.48



(₹ in lakh)

Asset 7	
Particulars	2018-19 (Pro rata for 91 days)
AFC	17.76

b) Annual Fixed Charges allowed for the Combined Asset for the 2019-24 tariff period in the instant order are as follows:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Combined Asset	1816.53	1865.01	1843.28	1822.29	1799.30

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

100. This order disposes of Petition No. 504/TT/2020 in terms of the above discussion and findings.

sd/-
(Pravas Kumar Singh)
Member

sd/-
(Arun Goyal)
Member

sd/-
(I. S. Jha)
Member

sd/-
(P. K. Pujari)
Chairperson



2014-19
True-Up

Annexure-I
Asset-I
(₹ lakh)

Particulars	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	ACE 2014-19	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations
					2018-19
Transmission Line	18.29	0.61	18.90	5.28	0.98
Sub Station	47.17	13.91	61.08	5.28	2.86
Total	65.46	14.52	79.98		3.84
Weighted Average Rate of Depreciation (in %)					5.28
Average Gross Block (₹ in lakh)					72.72



2014-19
True-Up

Annexure-I
Asset-II
(₹ lakh)

Particulars	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	ACE 2014-19	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations
					2018-19
Transmission Line	1875.64	613.61	2489.26	5.28	115.23
IT Equipment and software	29.71	2.17	31.88	5.28	1.63
Total	1905.35	615.78	2521.13		116.86
Weighted Average Rate of Depreciation (in %)					5.28
Average Gross Block (₹ in lakh)					2213.24



Particulars	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	ACE 2014-19		Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations	
		2017-18	2018-19			2017-18	2018-19
Sub Station	1020.90	138.21	10.58	1169.69	5.28	57.55	61.48
Total	1020.90	138.21	10.58	1169.69		57.55	61.48
Weighted Average Rate of Depreciation (in %)						5.28%	5.28
Average Gross Block (₹ in lakh)						1090.01	1164.40



2014-19
True-Up

Annexure-I
Asset-IV
(₹ lakh)

Particulars	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	ACE 2014-19	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations
					2018-19
Sub Station	1046.85	143.33	1190.18	5.28	59.06
IT Equipment and software	25.92	0.81	26.74	5.28	1.39
Total	1072.77	144.14	1216.91		60.45
Weighted Average Rate of Depreciation (in %)					5.28
Average Gross Block (₹ in lakh)					1144.84



2014-19
True-Up

Annexure-I
Asset-V
(₹ lakh)

Particulars	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	ACE 2014-19	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations
					2018-19
Sub Station	868.18	233.23	1101.41	5.28	52.00
Total	868.18	233.23	1101.41		52.00
Weighted Average Rate of Depreciation (in %)					5.28
Average Gross Block (₹ in lakh)					984.79



2014-19
True-Up

Annexure-I
Asset-VI
(₹ lakh)

Particulars	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	ACE 2014-19	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations
					2018-19
Sub Station	1449.72	205.91	1655.64	5.28	81.98
Total	1449.72	205.91	1655.64		81.98
Weighted Average Rate of Depreciation (in %)					5.28
Average Gross Block (₹ in lakh)					1552.68



2014-19
True-Up

Annexure-I
Asset-VII
(₹ lakh)

Particulars	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	ACE 2014-19	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations
					2018-19
Sub Station	359.40	104.65	464.05	5.28	21.74
Total	359.40	104.65	464.05		21.74
Weighted Average Rate of Depreciation (in %)					5.28
Average Gross Block (₹ in lakh)					411.72



Particulars	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	ACE 2019-24	Admitted Capital Cost as on 1.4.2024 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations (₹ in lakh)				
					2019-20	2020-21	2021-22	2022-23	2023-24
Transmission Line	18.90	16.04	34.94	5.28	1.42	1.84	1.84	1.84	1.84
Sub Station	8137.25	859.72	8996.97	5.28	452.34	475.04	475.04	475.04	475.04
IT Equipment and Software	58.61	3.94	62.55	15.00	9.09	9.38	9.38	9.38	9.38
Total	8214.76	879.70	9094.46		462.85	486.27	486.27	486.27	486.27
Weighted Average Rate of Depreciation (in %)					5.35	5.35	5.35	5.35	5.35
Average Gross Block (₹ in lakh)					8654.61	9094.46	9094.46	9094.46	9094.46

