

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 208/TT/2020

Coram:

Shri P. K. Pujari, Chairperson

Shri I. S. Jha, Member

Shri P. K. Singh, Member

Date of Order: 27.09.2021

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 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of the 2019-24 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for **Combined Asset** comprising of **Asset-I:** Narendra (New Kudgi)-Narendra (Existing) 400 kV D/C Quad Transmission Line along with associated bays and equipment at Narendra (New Kudgi) Sub-station and Narendra (Existing) Sub-station, **Asset-II:** One Circuit of Narendra (New Kudgi)-Kolhapur (New) 765 kV D/C Transmission Line (initially charged at 400 kV) along with new 765/400 kV GIS sub-station at Narendra (New Kudgi) (initially charged at 400 kV) and extension of Kolhapur (New) Sub-station associated bays at Narendra (New Kudgi) and Kolhapur (New), **Asset-III:** Second Circuit of Narendra (New Kudgi)-Kolhapur (New) 765 kV D/C Transmission Line (initially charged at 400 kV) along with associated bays and equipment at Narendra (New Kudgi) and Kolhapur (New) and **Asset-IV:** LILO of 400 kV D/C Kolhapur-Mapusa at 400 kV Kolhapur GIS (New) along with associated bays and 125 MVAR Bus Reactor along with associated bays at 400 kV Kolhapur GIS (New) under the Transmission System associated with System Strengthening-XVII in Southern Region.

And in the matter of:

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

.....Petitioner

Versus

1. Karnataka Power Transmission Corporation Limited,
Kaveri Bhavan, Bangalore-560009.
2. Transmission Corporation of Andhra Pradesh Limited,
Vidyut Soudha, Hyderabad-500082.
3. Kerala State Electricity Board,
Vaidyuthi Bhavanam,
Pattom, Thiruvananthapuram-695004.



4. Tamil Nadu Generation and Distribution Corporation Limited,
(Formerly Tamilnadu Electricity Board-TNEB),
NPKRR Maaligai, 800, Anna Salai, Chennai-600002.
5. Electricity Department,
Govt. of Pondicherry, Pondicherry-605001.
6. Eastern Power Distribution Company of Andhra Pradesh Limited,
P&T Colony, Seethmmadhara,
Vishakhapatnam, Andhra Pradesh.
7. Southern Power Distribution Company of Andhra Pradesh Limited,
Srinivasasa Kalyana Mandapam Backside,
Tiruchanoor Road, Kesavayana Gunta, Tirupati-517501,
Chittoor District, Andhra Pradesh.
8. Central Power Distribution Company of Andhra Pradesh Limited,
Corporate Office, Mint Compound,
Hyderabad-500063 (Telangana).
9. Northern Power Distribution Company of Andhra Pradesh Limited,
Opp. NIT Petrol Pump, Chaitanyapuri, Kazipet,
Warangal-506004 (Telangana).
10. Bangalore Electricity Supply Company Limited,
Corporate Office, K. R. Circle,
Bangalore-560001 (Karnataka).
11. Gulbarga Electricity Supply Company Limited,
Station Main Road, Gulbarga, Karnataka.
12. Hubli Electricity Supply Company Limited,
Navanagar, PB Road, Hubli, Karnataka.
13. MESCOM Corporate Office,
Paradigm Plaza, AB Shetty Circle
Mangalore-575001 (Karnataka).
14. Chamundeswari Electricity Supply Corporation Limited,
927, L J Avenue,
Ground Floor, New Kantharaj URS Road,
Saraswaturam, Mysore-570009 (Karnataka).
15. Electricity Department,
Government of Goa,
Vidyuti Bhawan, Panaji, Goa-403001.
16. Transmission Corporation of Telangana Limited,
Vidhyut Sudha, Khairatabad,
Hyderabad-500082.



17. Tamil Nadu Transmission Corporation
NPKRR Maaligai, 800, Anna Salai
Chennai-600002.

.....Respondent(s)

For Petitioner : Shri S. S. Raju, PGCIL
Shri D. K. Biswal, PGCIL
Shri A. K. Verma, PGCIL
Shri V. P. Rastogi, PGCIL

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

ORDER

The Petitioner, Power Grid Corporation of India Limited, a deemed transmission licensee, has filed the instant petition for truing up of transmission tariff for the 2014-19 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) and for determination of transmission tariff for the period from 1.4.2019 to 31.3.2024 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) in respect of the following transmission assets forming part of the Combined Asset under the Transmission System associated with System Strengthening-XVII in Southern Region (hereinafter referred to as “the transmission system”):

Asset-I: Narendra (New Kudgi)-Narendra (Existing) 400 kV D/C Quad Transmission Line along with associated bays and equipment at Narendra (New Kudgi) Sub-station and Narendra (Existing) Sub-station;

Asset-II: One Circuit of Narendra (New Kudgi)-Kolhapur (New) 765 kV D/C Transmission Line (initially charged at 400 kV) along with new 765/400 kV GIS sub-station at Narendra (New Kudgi) (initially charged at 400 kV) and extension



of Kolhapur (New) Sub-station associated bays at Narendra (New Kudgi) and Kolhapur (New);

Asset-III: Second Circuit of Narendra (New Kudgi)-Kolhapur (New) 765 kV D/C Transmission Line (initially charged at 400 kV) along with associated bays and equipment at Narendra (New Kudgi) and Kolhapur (New); and

Asset-IV: LILO of 400 kV D/C Kolhapur-Mapusa at 400 kV Kolhapur GIS (New) along with associated bays and 125 MVAR Bus Reactor along with associated bays at 400 kV Kolhapur GIS (New).

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

- “1) Approve the trued up Transmission Tariff for 2014-19 block and transmission tariff for 2019-24 block for the assets covered under this petition, as per para 10.2 and 11.0 above.*
- 2) Approve the Completion cost and additional capitalization incurred during 2014-19, also allow the projected additional capitalization during 2019-24.*
- 3) Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided in Tariff Regulation 2014 and Tariff regulations 2019 as per para 10.2 and 11.0 above for respective block.*
- 4) Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 70 (1) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019, and other expenditure (if any) in relation to the filing of petition.*
- 5) Allow the petitioner to bill and recover Licensee fee and RLDC fees and charges, separately from the 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 11.6 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 beneficiaries, if GST on transmission is levied at any rate in future. Further, any taxes including GST and duties including cess etc. imposed by any statutory/Govt./municipal authorities shall be allowed to be recovered from the beneficiaries.

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

3. **Backdrop of the case**

a) The scope of the transmission system was discussed and agreed in the 31st and 33rd Standing Committee Meeting of Southern Region constituents held on 16.11.2020 and 21.10.2011 respectively. Subsequently, the scope of work was discussed and approved in the 18th meeting of SRPC held on 23.12.2011 which is as follows:

Transmission Lines

- i. Narendra (New Kudgi)-Kolhapur (New) 765 kV D/C Transmission Line (initially charged at 400 kV);
- ii. LILO of both circuits of Kolhapur-Mapusa 400 kV D/C Transmission Line at Kolhapur (New); and
- iii. Narendra (New Kudgi)-Narendra (Existing) 400 kV D/C Quad Transmission Line.

Sub-stations

- i. Establishment of 765/400 kV GIS Sub-station at Narendra (New Kudgi), (initially charged at 400 kV);
- ii. Establishment of 765/400 kV GIS Sub-station at Kolhapur (New), (initially charged at 400 kV); and
- iii. Extension of 400/200 kV Sub-station at Narendra (AIS).

b) The Petitioner was entrusted with implementation of the transmission system and the Investment Approval (I.A.) for the same was accorded by the Board of Directors of the Petitioner company vide Memorandum No. C/CP/SRSS-XVII dated 2.7.2012 at an estimated cost of ₹150874.00 lakh, including IDC of ₹6197.00 lakh (based on April 2012 price level).

c) The Scheduled Commercial Operation Date (SCOD) of transmission assets under the transmission system was 26.3.2015 against which the actual COD for Asset-I, Asset-II, Asset-III and Asset-IV was 11.12.2015, 19.11.2015,



11.12.2015 and 12.11.2015 respectively. The entire scope of work under the transmission system is complete and is covered in the present petition.

d) The transmission tariff of (Asset-I, Asset-II and Asset-III) and (Asset-IV) for the period from their respective COD to 31.3.2019 was allowed by the Commission vide orders dated 26.5.2016 and 25.5.2016 in Petition No. 61/TT/2015 and Petition No.283/TT/2015 respectively.

e) The Commission vide order dated 26.5.2016 had condoned the entire time over-run in case of Asset-I, Asset-II and Asset-III, whereas vide order dated 25.5.2016, the Commission partially condoned the time over-run in case of Asset-IV.

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

5. The Petitioner has served the petition on the Respondents and notice regarding filing of this petition has been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003. No comments or suggestions have been received from the general public in response to the aforesaid notices published in the newspapers. Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO), Respondent No. 4, has filed its reply vide affidavit dated 30.6.2021 and has raised the issues of Additional Capital Expenditure (ACE) during the 2014-19 and 2019-24 tariff periods, Initial Spares and sharing of transmission charges. The Petitioner has submitted its rejoinder vide affidavit dated 8.7.2021. The issues raised by TANGEDCO and clarifications thereto given by the Petitioner are considered in the relevant portions of this order.



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

7. This order is issued considering the submissions made by the Petitioner in the petition vide affidavit dated 21.12.2019, the Petitioner's affidavit dated 27.11.2020 filed in response to technical validation letter, the Petitioner's affidavit dated 21.6.2021, TANGEDCO's reply filed vide affidavit dated 30.6.2021 and the Petitioner's rejoinder to TANGEDCO's reply filed vide affidavit dated 8.7.2021.

8. Having heard the representatives of the Petitioner, learned counsel for TANGEDCO and after perusal of the materials on record, we proceed to dispose of the petition.

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 in respect of the transmission assets for the 2014-19 tariff period are as follows:

(₹ in lakh)

Particulars	Asset-I			
	2015-16	2016-17	2017-18	2018-19
Depreciation	620.27	2063.39	2109.89	2134.59
Interest on Loan	175.55	717.25	824.04	988.36
Return on Equity	654.57	2180.28	2232.27	2266.01
O&M Expenses	129.97	438.77	453.39	468.46
Interest on Working Capital	40.56	138.43	143.96	149.92
Total	1620.92	5538.12	5763.55	6007.34

(₹ in lakh)

Particulars	Asset-II			
	2015-16	2016-17	2017-18	2018-19
Depreciation	1076.27	3026.34	3110.52	3135.26
Interest on Loan	295.07	1037.28	1187.27	1414.49
Return on Equity	1229.11	3453.48	3549.16	3587.69
O&M Expenses	109.15	307.94	318.14	328.73
Interest on Working Capital	65.89	190.04	198.19	205.47
Total	2775.49	8015.08	8363.28	8671.64



(₹ in lakh)

Particulars	Asset-III			
	2015-16	2016-17	2017-18	2018-19
Depreciation	270.28	915.13	945.53	950.93
Interest on Loan	74.12	309.19	356.70	421.02
Return on Equity	301.34	1020.59	1055.32	1064.34
O&M Expenses	74.93	252.92	261.30	270.00
Interest on Working Capital	19.00	65.65	68.70	70.99
Total	739.67	2563.48	2687.55	2777.28

(₹ in lakh)

Particulars	Asset-IV			
	2015-16	2016-17	2017-18	2018-19
Depreciation	308.00	865.83	961.25	1024.54
Interest on Loan	84.38	297.84	389.27	509.34
Return on Equity	354.97	1005.44	1126.17	1206.79
O&M Expenses	135.78	364.13	376.18	388.69
Interest on Working Capital	24.70	70.04	77.79	84.56
Total	907.83	2603.28	2930.66	3213.92

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

(₹ in lakh)

Particulars	Asset-I			
	2015-16	2016-17	2017-18	2018-19
O&M Expenses	35.39	36.56	37.78	39.04
Maintenance Spares	63.71	65.82	68.01	70.27
Receivables	882.83	923.02	960.59	1,001.23
Total Working Capital	981.93	1,025.40	1,066.38	1,110.54
Rate of Interest (in %)	13.50	13.50	13.50	13.50
Interest on Working Capital	40.56	138.43	143.96	149.92

(₹ in lakh)

Particulars	Asset-II			
	2015-16	2016-17	2017-18	2018-19
O&M Expenses	24.84	25.66	26.51	27.39
Maintenance Spares	44.71	46.19	47.72	49.31
Receivables	1263.46	1335.85	1393.88	1445.27
Total Working Capital	1333.01	1407.70	1468.11	1521.97
Rate of Interest (in %)	13.50	13.50	13.50	13.50
Interest on Working Capital	65.89	190.04	198.19	205.47

(₹ in lakh)

Particulars	Asset-III			
	2015-16	2016-17	2017-18	2018-19
O&M Expenses	20.40	21.08	21.78	22.50
Maintenance Spares	36.73	37.94	39.20	40.50
Receivables	402.86	427.25	447.93	462.88
Total Working Capital	459.99	486.27	508.91	525.88
Rate of Interest (in %)	13.50	13.50	13.50	13.50



Particulars	Asset-III			
	2015-16	2016-17	2017-18	2018-19
Interest on Working Capital	19.00	65.65	68.70	70.99

(₹ in lakh)

Particulars	Asset-IV			
	2015-16	2016-17	2017-18	2018-19
O&M Expenses	29.37	30.34	31.35	32.39
Maintenance Spares	52.86	54.62	56.43	58.30
Receivables	392.75	433.88	488.44	535.65
Total Working Capital	474.98	518.84	576.22	626.34
Rate of Interest (in %)	13.50	13.50	13.50	13.50
Interest on Working Capital	24.70	70.04	77.79	84.56

Capital Cost

11. The Commission vide orders dated 26.5.2016 and 25.5.2016 in Petition No. 61/TT/2015 and Petition No.283/TT/2015 respectively had allowed capital cost as on COD and 31.3.2019 including projected ACE for the transmission assets. The capital cost of the transmission assets has been calculated in accordance with Regulation 9(3) of the 2014 Tariff Regulations and it is as follows:

(₹ in lakh)

Asset	Admitted Capital Cost (as on COD)	Admitted ACE during 2014-2019				Admitted Capital Cost as on 31.3.2019
		2015-16	2016-17	2017-18	2018-19	
Asset-I	38192.07	472.16	1631.59	135.00	0.00	40430.82
Asset-II	56375.85	938.68	4799.9	1405.00	0.00	63518.92
Asset-III	16525.18	262.89	1235.22	230.47	0.00	18253.76
Asset-IV	15084.04	989.53	4426.49	1453.17	0.00	21953.23

12. The details of the apportioned approved cost, capital cost as on COD and 31.3.2019 and ACE during 2014-19 period as claimed by the Petitioner for the transmission assets are as follows:



Asset	Apportioned approved cost as per FR	Capital Cost as on COD (on cash basis)	ACE during 2014-2019				(₹ in lakh)
			2015-16	2016-17	2017-18	2018-19	Capital Cost as on 31.3.2019
Asset-I	41762.00	38395.07	230.55	998.85	760.25	175.47	40560.19
Asset-II	68311.00	56624.82	689.71	2379.49	858.17	120.09	60672.28
Asset-III	18378.00	16610.86	177.21	966.65	209.00	0.00	17963.72
Asset-IV	22422.78	15414.44	989.53	1869.26	2215.40	402.7	20891.33

Cost Over-run

13. The capital cost as on 31.3.2019 including ACE during the 2014-19 tariff period is within the approved capital cost and, therefore, there is no cost over-run.

Time Over-run

14. As per I.A., the transmission assets under the transmission system were scheduled to be commissioned on 26.3.2015 against which Asset-I, Asset-II, Asset-III and Asset-IV were put under commercial operation with a time over-run of 260 days, 238 days, 260 days and 231 days.

15. The Commission vide order dated 26.5.2016 had condoned the entire time over-run in case of Asset-I, Asset-II and Asset-III, whereas vide order dated 25.5.2016, the Commission partially (2.5 months) condoned the time over-run in case of Asset-IV.

Interest During Construction (IDC)

16. The Petitioner has claimed IDC in respect of the transmission assets and has submitted the Auditor's certificate in support of the same. The Petitioner has submitted computation of IDC along with year-wise details of IDC discharged which is as follows:



Asset	IDC (as per Auditor's Certificate)	IDC (discharged up to COD)	IDC (discharged)	Total
			2015-16	
Asset-I	344.74	141.74	203.00	344.74
Asset-II	676.99	428.02	248.97	676.99
Asset-III	137.21	51.52	85.69	137.21
Asset-IV	275.87	211.80	64.07	275.87

17. The Petitioner has submitted additional information regarding Foreign IDC computation. The other submissions regarding Foreign IDC are as follows:

a) The Petitioner avails loans periodically after pooling the fund requirement of all the transmission projects which are under different stages of construction. Fund requirement for all the on-going transmission projects is anticipated for next two to three months and accordingly funds are raised through Domestic Borrowings (Bonds/CP/Bank Loans) or Borrowing in Foreign Currency-ECB (Through World Bank, Asian Development Bank etc.);

b) As per policy of the Petitioner, out of total loans taken for the pooled requirement of all transmission projects, loans are earmarked, to a particular project/ element based on actual fund outflow for that particular project/ element. IDC paid on such loan (taken for pooled requirement of transmission projects under construction) is allocated to a particular project/ element in proportion to the loan so earmarked to that project. In addition to IDC, other expenses covered under borrowing cost (i.e. guarantee fee, commitment charges, front end fee etc. in respect of foreign currency loan) are also allocated to individual project/ element in proportion to the loan amount earmarked to a particular project/ element;

c) Foreign currency loans are also contracted for a basket of projects. Loan (Foreign Currency) Agreement speaks for overall limit of the loan amount, name of foreign currency and projects for which lender (WB, ADB etc.) has agreed to fund. These loans are also availed (drawn) by the Petitioner based on actual outflow of funds during a certain period for all transmission projects under construction covered in loan agreement. Loans get accumulated with every drawl up to the sanction limit. Such loans as well as debt service (repayment of loan



and interest payment thereon) is also done in foreign currency. Repayment of loan and payment of interest has to be released to the lender as per schedule of repayment agreed for the loan as a whole consisting of the entire basket of projects;

d) The total foreign currency loan drawn in first stage is allocated to different projects based on actual utilisation of loan for respective projects. Accordingly, interest and other financial charges against a particular loan is allocated to different projects in proportion to loan utilised by respective projects periodically. These interest and financial charges so allocated get accumulated till COD of the project/ element (part of the project). In case of COD of particular element (part of the project), foreign currency loan drawn for a specific project is apportioned to the individual elements of that project in proportion to the expenses related to that element as compared to total expenses of the project (related to foreign currency loan part);

e) Foreign currency loans are considered, in tariff forms, equivalent to INR value taking exchange rate as on COD. IDC statement shows INR value of interest paid (In foreign currency) taking amount of actual foreign currency paid multiplied by exchange rate prevailing on the day on payment of interest. INR value of un-discharged interest (to be paid subsequently after COD) is shown as actual liability in foreign currency multiplied by exchange rate as on COD;

f) The necessity of availing the loan for pooled-fund requirement of all the on-going project, then earmarking the drawn loan amount to a particular project/ element based on the actual cash outflow for that project/ element, enforces to allocate IDC of the entire loan to those projects/ elements to which loan amount is earmarked. IDC thus allocated to a particular project/ element is shown in the cost certificate;

g) This practice leads to a situation where providing details showing actual calculation of IDC for a particular project/ element is not practical.

18. The details of periodical IDC (interest + other financial charges) allocated to the transmission assets have also been submitted. In view of the above submissions, the



Petitioner has sought review of IDC on the basis of project as a whole. The Petitioner has also requested that apportioned IDC as claimed in respect of deployed foreign currency loan may be admitted.

19. We have considered the submissions of the Petitioner. The Petitioner vide affidavit dated 21.6.2021 has submitted the additional details of IDC in respect of the transmission assets. The summary of IDC claimed vide Auditor's Certificate and vide affidavit dated 21.6.2021 are as follows:

(₹ in lakh)

Asset	IDC claimed (as per Auditor's Certificate)	IDC claimed (vide affidavit dated 21.6.2021)
Asset-I	344.74	484.29
Asset-II	676.99	676.99
Asset-III	137.21	196.74
Asset-IV	275.87	76.79

20. IDC claimed vide affidavit dated 21.6.2021 has been found to be higher in respect of Asset-I and Asset-III whereas IDC claimed in respect of Asset-IV is lower. However, there is no change in IDC claimed in respect of Asset-II. Accordingly, IDC claimed vide Auditor's Certificate in respect of Asset-I to Asset-III has been considered. As regards IDC in respect of Asset-IV, the detail/ information submitted vide affidavit dated 21.6.2021 reveals the computation of IDC to the extent of ₹76.79 lakh only. Therefore, due to non-availability of details of computation of IDC of ₹275.87 lakh, IDC claimed in respect of Asset-IV is considered as ₹76.79 lakh.

21. The loan amount as on COD has been mentioned in Forms 6 and 9C. The allowable IDC is worked out based on the information available on record and relying on loan amount as per Form 9C. IDC claimed and considered as on COD and summary of discharge of IDC liability up to COD and thereafter for the purpose of tariff determination is as follows:



(₹ in lakh)

Asset	IDC (as per Auditor Certificate) (A)	IDC (as per affidavit dated 21.6.2021) (B)	IDC Claim (Considered) (C)	IDC (Disallowed) (difference in claim and due to time over- run not condoned) (D)	IDC (Allowed in the instant order) (F=C-D)	IDC (Discharged up to COD)	IDC (Discharged) 2015-16
Asset-I	344.74	484.29	344.74	0.00	344.74	141.74	203.00
Asset-II	676.99	676.99	676.99	0.00	676.99	428.02	248.97
Asset-III	137.21	196.74	137.21	0.00	137.21	51.52	85.69
Asset-IV	275.87	76.79	76.79	255.97	19.90	19.90	0.00

Incidental Expenditure During Construction (IEDC)

22. The Petitioner has claimed IEDC for the transmission assets as per the Auditor's Certificate and the entire IEDC is on cash basis and was paid up to COD.

The details of IEDC claimed and allowed are as follows:

(₹ in lakh)

Asset	IEDC (as per Auditor's Certificate) (A)	IEDC (Disallowed) (due to time over-run not condoned) (B)	IEDC (Allowed) (C=A-B)
Asset-I	1198.57	0.00	1198.57
Asset-II	1857.25	0.00	1857.25
Asset-III	395.28	0.00	395.28
Asset-IV	539.71	215.05	324.66

Initial Spares

23. The Petitioner has claimed Initial Spares for the transmission assets in accordance with Regulation 13(d) of the 2014 Tariff Regulations subject to the following ceiling norms:

“(d) Transmission system

(i) Transmission line - 1.00%

(ii) Transmission Sub-station (Green Field) - 4.00%

(iii) Transmission Sub-station (Brown Field) - 6.00%

(iv) Series Compensation devices and HVDC Station - 4.00%

(v) Gas Insulated Sub-station (GIS) - 5.00%

.....”

24. The Petitioner has claimed the Initial Spares in respect of the sub-stations and transmission lines as follows:



Asset	Particulars	Plant & Machinery Cost (A) (₹ in lakh)	Initial Spares Claimed (B) (₹ in lakh)	Ceiling Limit (in %) (C)	Initial Spares Worked out (₹ in lakh)	Excess Initial Spares (₹ in lakh)
					$D = \frac{[(A-B)*C]}{(100-C)}$	
Asset-I	Sub-station (GIS)	3732.43	55.58	5.00	193.52	7.73
Asset-II	Sub-station (GIS)	8472.22	639.75	5.00	412.24	
Asset-III	Sub-station (GIS)	1896.5	105.08	5.00	94.29	
Asset-IV	Sub-station (GIS)	8685.91	346.29	5.00	438.93	
TOTAL		22787.06	1146.70		1138.97	7.73

Asset	Particulars	Plant & Machinery Cost (A) (₹ in lakh)	Initial Spares Claimed (B) (₹ in lakh)	Ceiling Limit (%) (C)	Initial Spares Worked out (₹ in lakh)	Excess Initial Spares (₹ in lakh)
					$D = \frac{[(A-B)*C]}{(100-C)}$	
Asset-I	Transmission Line	30668.66	306.69	1.00	306.69	76.83
Asset-II	Transmission Line	47931.83	639.01	1.00	477.71	
Asset-III	Transmission Line	15005.3	86.40	1.00	150.70	
Asset-IV	Transmission Line	8031.19	60.33	1.00	80.51	
TOTAL		101636.98	1092.43		1015.60	76.83

25. The Petitioner has submitted that the Initial Spares claimed in sub-station (GIS) are ₹1146.70 lakh against which the Initial Spares worked out are ₹1138.97 lakh. The Petitioner has further submitted that the excess initial spares of ₹7.73 lakh are reduced from the capital cost as on COD of Asset-II. The Petitioner has submitted that the Initial Spares claimed in Transmission Line are ₹1092.43 lakh against which the initial spares worked out are ₹1015.60 lakh. The Petitioner has further submitted that the excess Initial Spares of ₹76.83 lakh are reduced from the capital cost as on COD of Asset-II.

26. TANGEDCO has submitted that the Commission vide order dated 26.5.2016 in Petition No. 61/TT/2015 had deducted the excess Initial Spares in case of Asset-II and



Asset-III for sub-station and that the Petitioner has now claimed excess Initial Spares. TANGEDCO has referred to the order dated 7.9.2016 in Review Petition No. 35/RP/2016 and contended that the Commission has given clarification with regard to considering the element-wise cost for the purpose of Initial Spares. TANGEDCO has, therefore, submitted that the Petitioner's claim of Initial Spares as per the Appellate Tribunal for Electricity (APTEL) judgment dated 14.9.2019 in Appeal No. 74 of 2017 considering the project as a whole in case of Asset-II and Asset-III may be disallowed.

27. TANGEDCO has further submitted that in Appeal No. 74 of 2017, the APTEL has held that the project as a whole is required to be considered for allowing Initial Spares. The judgment in Appeal No. 165 of 2012 has not been considered by the APTEL in its recent judgment in the right perspective, in spite of the same being brought to the notice of the APTEL in the counter affidavit in the said appeal. The judgment in Appeal No. 74 of 2017 being contradictory to the earlier judgment of the APTEL, the same is required to be read down or clarified by a larger bench of the APTEL. In the meanwhile, this issue is required to be kept pending and Initial Spares cannot be granted to the Petitioner. TANGEDCO has requested to restrict Initial Spares based on the capital cost of individual asset.

28. In response, the Petitioner has submitted that the APTEL in its judgment in Appeal No. 74 of 2017 has allowed the computation of Initial Spares based on overall project cost after considering the facts/ orders issued by it in its various previous judgments and accordingly, Initial Spares have been calculated considering the overall project cost and excess Initial Spares in case of Sub-station and Transmission Lines have been reduced from the capital cost of Asset-II as on COD.



29. We have considered the submissions of the Petitioner and TANGEDCO. The issue raised by TANGEDCO that the APTEL did not consider certain documents while passing judgement dated 14.9.2019 in Appeal No. 74 of 2017 cannot be argued before the Commission. The Commission is bound by judgement of the APTEL. APTEL in its judgment dated 14.9.2019 in Appeal No. 74 of 2017 had observed that the Commission, for the purpose of prudence check, may restrict the Initial Spares to the cost of the individual asset initially and later at the time of trueing up allow Initial Spares as per the ceiling on the overall project cost. The relevant portion of the said judgment is extracted as follows:

“18.13. 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.”

30. In the instant petition, all the transmission assets under the transmission system have been put into commercial operation during the 2014-19 period and have been combined in the 2019-24 tariff period. The overall project cost is arrived at only while determination of the transmission tariff in the 2019-24 tariff period. Accordingly, the Initial Spares are allowed on the basis of the individual capital cost of the transmission assets in the 2014-19 tariff period and on the basis of the overall project cost in the 2019-24 tariff period. As per the 2014 Tariff Regulations, the allowable ceiling for Initial Spares for the GIS sub-station and transmission line are 5% and 1% respectively.

31. Initial Spares for the transmission assets are allowed as per respective percentage of the Plant and Machinery Cost as on the cut-off date on individual basis. The Initial Spares allowed for the transmission assets are as follows:



Asset	Particulars	Estimated Completion Cost (₹ in lakh) (A)	Initial Spares Claimed (₹ in lakh) (B)	Ceiling Limit (%) (C)	Initial Spares Worked out (₹ in lakh)	Excess Initial Spares (₹ in lakh)	Initial Spares allowed (₹ in lakh)
					$D = [(A-B)*C / (100-C)]$		
Asset-I	Sub-station (GIS)	3732.43	55.58	5	193.52	N/A	55.58
Asset-II	Sub-station (GIS)	8472.22	639.75	5	412.24	227.51	412.24
Asset-III	Sub-station (GIS)	1896.5	105.08	5	94.29	10.79	94.29
Asset-IV	Sub-station (GIS)	8685.91	346.29	5	438.93	N/A	346.29

Asset	Particulars	Estimated Completion Cost (₹ in lakh) (A)	Initial Spares Claimed (₹ in lakh) (B)	Ceiling Limit (%) (C)	Initial Spares Worked out (₹ in lakh)	Excess Initial Spares (₹ in lakh)	Initial Spares allowed (₹ in lakh)
					$D = [(A-B)*C / (100-C)]$		
Asset -I	Transmission Line	30668.66	306.69	1	306.69	N/A	306.69
Asset -II	Transmission Line	47931.83	639.01	1	477.71	161.30	477.71
Asset -III	Transmission Line	15005.50	86.40	1	150.70	N/A	86.40
Asset -IV	Transmission Line	8031.19	60.33	1	80.51	N/A	60.33

32. The excess initial spares have been reduced from the capital cost as on COD.

The details of the capital cost as on COD now approved after adjustment of IDC, IEDC and excess Initial Spares is as follows:

(₹ in lakh)						
Asset	Capital Cost claimed as on COD	Un-discharged IDC as on COD	IDC disallowed due to time over-run not condoned	IEDC disallowed due to time over-run not condoned	Excess Initial Spares disallowed as on COD	Capital Cost allowed as on COD
1	2	3	4	5	6	7=(2-3-4-5-6)
Asset-I	38395.07	203.00	0.00	0.00	0.00	38192.07
Asset-II	56624.82	248.97	0.00	0.00	388.82	55987.03
Asset-III	16610.86	85.69	0.00	0.00	10.79	16514.38
Asset-IV	15414.44	0.00	255.97	215.05	0.00	14943.42



Additional Capital Expenditure

33. The Commission vide orders dated 26.5.2016 and 25.5.2016 in Petition No. 61/TT/2015 and Petition No. 283/TT/2015 had allowed ACE of ₹17979.59 lakh for the transmission assets during 2014-19 towards balance and retention payments as follows:

(₹ in lakh)				
Asset	2015-16	2016-17	2017-18	Total
Asset-I	472.16	1631.59	135.00	2238.75
Asset-II	938.68	4799.39	1405.00	7143.07
Asset-III	262.89	1235.22	230.47	1728.58
Asset-IV	989.53	4426.49	1453.17	6869.19

34. The Petitioner has claimed ACE based on actual expenditure as follows:

(₹ in lakh)					
Asset	2015-16	2016-17	2017-18	2018-19	Total
Asset-I	230.55	998.85	760.25	175.47	2165.12
Asset-II	689.71	2379.49	858.17	120.09	4047.46
Asset-III	177.21	966.65	209.00	0.00	1352.86
Asset-IV	989.53	1869.26	2215.40	402.70	5476.89

35. The Petitioner has submitted that ACE pertains to balance and retention payments and payment towards un-executed works. The Petitioner has submitted that ACE during 2015-16, 2016-17 and 2017-18 has been claimed under Regulations 14(1)(i) and 14(1)(ii) of the 2014 Tariff Regulations and ACE during 2018-19 has been claimed under Regulations 14(2)(iv) of the 2014 Tariff Regulations.

36. The cut-off date for the transmission assets was 31.3.2018. ACE claimed for 2018-19 is beyond cut-off date. The Petitioner vide affidavit dated 27.11.2020 has submitted the package-wise break-up as follows:

Asset	Year	Vendor Name	Nature of Work	₹ in lakh
Asset-I	2018-19	Tree Compensation	Transmission line	6.37
		Karamtara Engineering Pvt. Ltd	Transmission line	16.86
		Isolux De Mexico S.A, De, Cv, Me	Sub-station	120.09
		Larsen & Toubro Ltd	Transmission line	32.15
		TOTAL 2018-19		



Asset	Year	Vendor Name	Nature of Work	₹ in lakh
Asset-II	2018-19	Kalyani Projects	Sub-station	23.84
		Larsen & Toubro Ltd	Transmission line	43.18
		Bajaj Electricals Ltd	Transmission line	53.07
		TOTAL 2018-19		120.09

Asset	Year	Vendor Name	Nature of Work	₹ in lakh
Asset-IV	2018-19	ABB	Sub-station	182.67
		Bajaj Electricals Ltd	Transmission line	49.05
		Sterlite	Transmission line	23.79
		Madhu Infracon Pvt Ltd	Sub-station	29.67
		Misc. site packages	Substation	117.52
		TOTAL 2018-19		402.70

37. TANGEDCO has submitted that the Petitioner has included tree compensation with respect to transmission line as liability amounting to ₹6.37 lakh as ACE in case of Asset-I. TANGEDCO has submitted that in Form-5 submitted by the Petitioner, there is no liability resting on the Petitioner with respect to the compensation towards transmission line in case of Asset-I. TANGEDCO has submitted that Form-5 contradicts the compensation liability as tabulated in ACE during 2018-19. TANGEDCO has further submitted that the Petitioner has also failed to furnish the details of deferred works after the cut-off date during 2018-19 for the transmission assets. TANGEDCO has requested to disallow the claim of ACE by the Petitioner.

38. In response, the Petitioner has submitted that package-wise and party-wise details of ACE have already been submitted. The Petitioner has requested that ACE claimed under Regulations 14(1)(i), 14(1)(ii) and 14(2)(iv) of the 2014 Tariff Regulations may be allowed.

39. We have considered the submissions of the Petitioner and TANGEDCO. ACE claimed by the Petitioner has been allowed under Regulations 14(1)(i), 14(1)(ii) of the 2014 Tariff Regulations and ACE claimed after cut-off date is allowed under



Regulation 14(2)(iv) of the 2014 Tariff Regulations as it is towards liability for works executed prior to the cut-off date. The entitled un-discharged IDC liability as on COD has been allowed as ACE during the year of its discharge. ACE allowed for the 2014-19 period in respect of the transmission assets is as follows:

(₹ in lakh)

Asset	Particulars	ACE				Total ACE
		2015-16	2016-17	2017-18	2018-19	
Asset-I	ACE	230.55	998.85	760.25	175.47	2368.12
	IDC Discharged	203.00	0.00	0.00	0.00	
	Total	433.55	998.85	760.25	175.47	
Asset-II	ACE	689.71	2379.49	858.17	120.09	4296.43
	IDC Discharged	248.97	0.00	0.00	0.00	
	Total	938.68	2379.49	858.17	120.09	
Asset-III	ACE	177.21	966.65	209.00	0.00	1438.55
	IDC Discharged	85.69	0.00	0.00	0.00	
	Total	262.90	966.65	209.00	0.00	
Asset-IV	ACE	989.53	1869.26	2215.40	402.70	5476.89
	IDC Discharged	0.00	0.00	0.00	0.00	
	Total	989.53	1869.26	2215.40	402.70	

40. Accordingly, the capital cost allowed for the 2014-19 period is as follows:

(₹ in lakh)

Asset	Apportioned Approved FR Cost	Capital Cost (as on COD)	ACE				Capital Cost (as on 31.3.2019)
			2015-16	2016-17	2017-18	2018-19	
Asset-I	41762.00	38192.07	433.55	998.85	760.25	175.47	40560.19
Asset-II	68311.00	55987.03	938.68	2379.49	858.17	120.09	60283.46
Asset-III	18378.00	16514.38	262.90	966.65	209.00	0.00	17952.93
Asset-IV	22422.78	14943.42	989.53	1869.26	2215.40	402.70	20420.31

Debt-Equity Ratio

41. The debt-equity ratio has been allowed in accordance with Regulation 19 of the 2014 Tariff Regulations. As per Regulation 19 of the 2014 Tariff Regulations, the debt-equity ratio allowed for the transmission assets by the Commission vide orders dated 26.5.2016 and 25.5.2016 in Petition No. 61/TT/2015 and Petition No. 283/TT/2015 respectively for determination of transmission tariff as on COD shall be



considered. Accordingly, the details of the debt-equity ratio as on COD and as on 31.3.2019 for the transmission assets are as follows:

Asset-I	Capital Cost (as on COD)		Capital Cost (as on 31.3.2019)	
	Amount (₹ in lakh)	(in %)	Amount (₹ in lakh)	(in %)
Debt	27407.30	71.76	29064.98	71.66
Equity	10784.77	28.24	11495.21	28.34
Total	38192.07	100.00	40560.19	100.00

Asset-II	Capital Cost (as on COD)		Capital Cost (as on 31.3.2019)	
	Amount (₹ in lakh)	(in %)	Amount (₹ in lakh)	(in %)
Debt	39190.92	70.00	42198.42	70.00
Equity	16796.11	30.00	18085.04	30.00
Total	55987.03	100.00	60283.46	100.00

Asset-III	Capital Cost (as on COD)		Capital Cost (as on 31.3.2019)	
	Amount (₹ in lakh)	(in %)	Amount (₹ in lakh)	(in %)
Debt	11561.71	70.01	12568.70	70.01
Equity	4952.66	29.99	5384.23	29.99
Total	16514.38	100.00	17952.93	100.00

Asset-IV	Capital Cost (as on COD)		Capital Cost (as on 31.3.2019)	
	Amount (₹ in lakh)	(in %)	Amount (₹ in lakh)	(in %)
Debt	10466.37	70.04	14300.19	70.03
Equity	4477.05	29.96	6120.12	29.97
Total	14943.42	100.00	20420.31	100.00

Depreciation

42. The Petitioner's claim towards depreciation in this petition was found higher than the depreciation allowed for the transmission assets vide orders dated 26.5.2016 and 25.5.2016 in Petition No. 61/TT/2015 and Petition No. 283/TT/2015 respectively. The Petitioner has neither given any justification for claiming higher depreciation than that was allowed earlier nor made any specific prayer for allowing higher depreciation in this petition. A similar issue had come up in Petition No. 19/TT/2020 which was dealt by the Commission vide order dated 9.5.2020.



43. In terms of order dated 9.5.2020 in Petition No. 19/TT/2020, depreciation has been considered for IT Equipment @5.28% as part of the sub-station up to 31.3.2019 while truing up the capital expenditure for the 2014-19 period. However, for the 2019-24 tariff period, the IT Equipment has been considered separately and depreciation has been allowed @15% for the balance depreciable value of IT Equipment in accordance with Regulation 33 of the 2019 Tariff Regulations. The Gross Block during the 2014-19 tariff period has been depreciated at Weighted Average Rate of Depreciation (WAROD). WAROD at Annexure-I has been worked out after taking into account the depreciation rates of transmission assets as prescribed in the 2014 Tariff Regulations and depreciation allowed in respect of the transmission assets during the 2014-19 tariff period is as follows:

(₹ in lakh)

Particulars	Asset-I			
	2015-16 (pro-rata 112 days)	2016-17	2017-18	2018-19
Opening Gross Block	38192.07	38625.62	39624.47	40384.72
ACE	433.55	998.85	760.25	175.47
Closing Gross Block	38625.62	39624.47	40384.72	40560.19
Average Gross Block	38408.85	39125.05	40004.60	40472.46
Weighted Average Rate of Depreciation (in %)	5.26	5.25	5.25	5.25
Aggregate Depreciable Value	34567.96	35212.54	36004.14	36425.21
Balance useful life of the asset (Year)	34	34	33	32
Lapsed life (Year)	0	0	1	2
Combined Depreciation during the year	617.79	2055.27	2101.76	2126.46
Cumulative depreciation at the end of the year	617.79	2673.05	4774.81	6901.27
Aggregate Remaining Depreciable Value at the end of the year	33950.17	32539.49	31229.33	29523.94

(₹ in lakh)

Particulars	Asset-II			
	2015-16 (pro-rata 134 days)	2016-17	2017-18	2018-19
Opening Gross Block	55987.03	56925.71	59305.20	60163.37
ACE	938.68	2379.49	858.17	120.09



Particulars	Asset-II			
	2015-16 (pro-rata 134 days)	2016-17	2017-18	2018-19
Closing Gross Block	56925.71	59305.20	60163.37	60283.46
Average Gross Block	56456.37	58115.46	59734.29	60223.42
Freehold land	832.51	832.51	832.51	832.51
Weighted Average Rate of Depreciation (in %)	5.16	5.16	5.16	5.16
Aggregate Depreciable Value	50061.47	51554.65	53011.60	53451.81
Balance useful life of the asset (Year)	33	33	32	31
Lapsed life (Year)	0	0	1	2
Combined Depreciation during the year	1065.81	2997.74	3081.92	3106.66
Cumulative depreciation at the end of the year	1065.81	4063.55	7145.48	10252.14
Aggregate Remaining Depreciable Value at the end of the year	48995.66	47491.10	45866.12	43199.67

(₹ in lakh)

Particulars	Asset-III			
	2015-16 (pro-rata 112 days)	2016-17	2017-18	2018-19
Opening Gross Block	16514.38	16777.28	17743.93	17952.93
Additional Capitalisation	262.90	966.65	209.00	0.00
Closing Gross Block	16777.28	17743.93	17952.93	17952.93
Average Gross Block	16645.83	17260.60	17848.43	17952.93
Weighted Average Rate of Depreciation (in %)	5.27	5.27	5.27	5.27
Aggregate Depreciable Value	14981.24	15534.54	16063.58	16157.63
Balance useful life of the asset (Year)	34	34	33	32
Lapsed life (Year)	0	0	1	2
Combined Depreciation during the year	268.64	909.75	940.17	945.56
Cumulative depreciation at the end of the year	268.64	1178.39	2118.55	3064.11
Aggregate Remaining Depreciable Value at the end of the year	14712.61	14356.15	13945.03	13093.52

(₹ in lakh)

Particulars	Asset-IV			
	2015-16 (pro-rata 141 days)	2016-17	2017-18	2018-19
Depreciation				
Opening Gross Block	14943.42	15932.95	17802.21	20017.61
ACE	989.53	1869.26	2215.40	402.70
Closing Gross Block	15932.95	17802.21	20017.61	20420.31
Average Gross Block	15438.18	16867.58	18909.91	20218.96
Freehold Land	250.05	250.05	250.05	250.05



Particulars	Asset-IV			
	2015-16 (pro-rata 141 days)	2016-17	2017-18	2018-19
Weighted Average Rate of Depreciation (in %)	5.08	5.04	5.00	4.99
Aggregate Depreciable Value	13669.32	14955.78	16793.87	17972.02
Balance useful life of the asset (Year)	29	29	28	27
Lapsed life (Year)	0	0	1	2
Combined Depreciation during the year	302.14	850.63	946.04	1009.33
Cumulative depreciation at the end of the year	302.14	1152.77	2098.81	3108.14
Aggregate Remaining Depreciable Value at the end of the year	13367.18	13803.00	14695.06	14863.88

44. The details of depreciation allowed for the transmission assets vide orders dated 26.5.2016 and 25.5.2016 in Petition No. 61/TT/2015 and Petition No. 283/TT/2015, claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:

(₹ in lakh)

Particulars	Asset-I			
	2015-16 (pro-rata 112 days)	2016-17	2017-18	2018-19
Allowed vide order dated 26.5.2016 in Petition No. 61/TT/2015	618.47	2075.84	2121.94	2125.51
Claimed by the Petitioner in the instant petition	620.27	2063.39	2109.89	2134.59
Approved after true-up in this order	617.79	2055.27	2101.76	2126.46

(₹ in lakh)

Particulars	Asset-II			
	2015-16 (pro-rata 134 days)	2016-17	2017-18	2018-19
Allowed vide order dated 26.5.2016 in Petition No. 61/TT/2015	1068.79	3062.14	3215.95	3251.10
Claimed by the Petitioner in the instant petition	1076.27	3026.34	3110.52	3135.26
Approved after true-up in this order	1065.81	2997.74	3081.92	3106.66

(₹ in lakh)

Particulars	Asset-III			
	2015-16 (pro-rata 112 days)	2016-17	2017-18	2018-19
Allowed vide order dated 26.5.2016 in Petition No. 61/TT/2015	268.53	915.29	951.56	956.92
Claimed by the Petitioner in the	270.28	915.13	945.53	950.93



Particulars	Asset-III			
	2015-16 (pro-rata 112 days)	2016-17	2017-18	2018-19
instant petition				
Approved after true-up in this order	268.64	909.75	940.17	945.56

(₹ in lakh)

Particulars	Asset-IV			
	2015-16 (pro-rata 141 days)	2016-17	2017-18	2018-19
Allowed vide order dated 25.5.2016 in Petition No. 283/TT/2015	304.94	916.64	1051.90	1087.08
Claimed by the Petitioner in the instant petition	308.00	865.83	961.25	1024.54
Approved after true-up in this order	302.14	850.63	946.04	1009.33

Interest on Loan (IoL)

45. The Petitioner has claimed the weighted average rate of IoL, based on its actual loan portfolio and rate of interest.

46. IoL has been calculated based on actual interest rate submitted by the Petitioner in accordance with Regulation 26 of the 2014 Tariff Regulations. The trued-up IoL allowed in respect of the transmission assets is as follows:

(₹ in lakh)

Particulars	Asset-I			
	2015-16 (pro-rata 112 days)	2016-17	2017-18	2018-19
Gross Normative Loan	27407.30	27710.79	28409.98	28942.16
Cumulative Repayments up to Previous Year	0.00	617.79	2673.05	4774.81
Net Loan-Opening	27407.30	27093.00	25736.93	24167.35
Additions	303.49	699.20	532.18	122.83
Repayment during the year	617.79	2055.27	2101.76	2126.46
Net Loan-Closing	27093.00	25736.93	24167.35	22163.71
Average Loan	27250.15	26414.96	24952.14	23165.53
Weighted Average Rate of Interest on Loan (in %)	2.1053	2.7160	3.3044	4.2707
Interest on Loan	175.56	717.43	824.51	989.34



(₹ in lakh)

Particulars	Asset-II			
	2015-16 (pro-rata 134 days)	2016-17	2017-18	2018-19
Gross Normative Loan	39190.92	39848.00	41513.64	42114.36
Cumulative Repayments up to Previous Year	0.00	1065.81	4063.55	7145.48
Net Loan-Opening	39190.92	38782.19	37450.09	34968.88
Additions	657.08	1665.64	600.72	84.06
Repayment during the year	1065.81	2997.74	3081.92	3106.66
Net Loan-Closing	38782.19	37450.09	34968.88	31946.28
Average Loan	38986.55	38116.14	36209.49	33457.58
Weighted Average Rate of Interest on Loan (in %)	2.0568	2.7105	3.2654	4.2112
Interest on Loan	293.59	1033.16	1182.38	1408.96

(₹ in lakh)

Particulars	Asset-III			
	2015-16 (pro-rata 112 days)	2016-17	2017-18	2018-19
Gross Normative Loan	11561.71	11745.74	12422.40	12568.70
Cumulative Repayments up to Previous Year	0.00	268.64	1178.39	2118.55
Net Loan-Opening	11561.71	11477.11	11244.01	10450.15
Additions	184.03	676.66	146.30	0.00
Repayment during the year	268.64	909.75	940.17	945.56
Net Loan-Closing	11477.11	11244.01	10450.15	9504.59
Average Loan	11519.41	11360.56	10847.08	9977.37
Weighted Average Rate of Interest on Loan (in %)	2.1018	2.7239	3.2900	4.2228
Interest on Loan	74.09	309.45	356.87	421.32

(₹ in lakh)

Particulars	Asset-IV			
	2015-16 (pro-rata 141 days)	2016-17	2017-18	2018-19
Gross Normative Loan	10466.37	11159.04	12467.52	14018.30
Cumulative Repayments up to Previous Year	0.00	302.14	1152.77	2098.81
Net Loan-Opening	10466.37	10856.90	11314.75	11919.49
Additions	692.67	1308.48	1550.78	281.89
Repayment during the year	302.14	850.63	946.04	1009.33
Net Loan-Closing	10856.90	11314.75	11919.49	11192.05
Average Loan	10661.64	11085.82	11617.12	11555.77
Weighted Average Rate of Interest on Loan (in %)	2.0398	2.6764	3.3434	4.3892
Interest on Loan	83.78	296.70	388.40	507.21



47. The details of IoL allowed for the transmission assets vide orders dated 26.5.2016 and 25.5.2016 in Petition No. 61/TT/2015 and Petition No. 283/TT/2015, claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:

(₹ in lakh)

Particulars	Asset-I			
	2015-16 (pro-rata 112 days)	2016-17	2017-18	2018-19
Allowed vide order dated 26.5.2016 in Petition No. 61/TT/2015	151.00	482.40	455.61	418.02
Claimed by the Petitioner in the instant petition	175.55	717.25	824.04	988.36
Approved after true-up in this order	175.56	717.43	824.51	989.34

(₹ in lakh)

Particulars	Asset-II			
	2015-16 (pro-rata 134 days)	2016-17	2017-18	2018-19
Allowed vide order dated 26.5.2016 in Petition No. 61/TT/2015	259.06	706.55	689.03	639.41
Claimed by the Petitioner in the instant petition	295.07	1037.28	1187.27	1414.49
Approved after true-up in this order	293.59	1033.16	1182.38	1408.96

(₹ in lakh)

Particulars	Asset-III			
	2015-16 (pro-rata 112 days)	2016-17	2017-18	2018-19
Allowed vide order dated 26.5.2016 in Petition No. 61/TT/2015	63.78	207.20	199.59	183.78
Claimed by the Petitioner in the instant petition	74.12	309.19	356.70	421.02
Approved after true-up in this order	74.09	309.45	356.87	421.32

(₹ in lakh)

Particulars	Asset-IV			
	2015-16 (pro-rata 141 days)	2016-17	2017-18	2018-19
Allowed vide order dated 25.5.2016 in Petition No. 283/TT/2015	75.99	223.02	242.46	232.30
Claimed by the Petitioner in the instant petition	84.38	297.84	389.27	509.34
Approved after true-up in this order	83.78	296.70	388.40	507.21



Return on Equity (RoE)

48. The Petitioner has claimed RoE for the transmission assets in terms of Regulations 24 and 25 of the 2014 Tariff Regulations. The Petitioner has submitted that it is liable to pay income tax at Minimum Alternate Tax (MAT) rates and has claimed the effective tax rates for the 2014-19 tariff period as follows:

Year	Claimed effective tax (in %)	Grossed up RoE (in %) [(Base Rate)/(1-t)]
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

49. We have considered the submissions of the Petitioner. The Commission in 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 as follows:

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

50. MAT rates considered in order dated 27.4.2020 for the purpose of grossing up of rate of RoE for truing up of the tariff of the 2014-19 tariff period, in terms of the provisions of the 2014 Tariff Regulations, is considered in the instant case which are as follows:

Year	Notified MAT rates (inclusive of surcharge & cess) (in %)	Base rate of RoE (in %)	Grossed up RoE [(Base Rate)/(1-t)] (in %)	Base rate of RoE including additional RoE (in %)	Grossed up RoE (in %) [(Base Rate including additional RoE)/(1-t)]
2014-15	20.961	15.50	19.610	16.00	20.243
2015-16	21.342	15.50	19.705	16.00	20.341
2016-17	21.342	15.50	19.705	16.00	20.341
2017-18	21.342	15.50	19.705	16.00	20.341
2018-19	21.549	15.50	19.758	16.00	20.395



51. RoE is trued-up on the basis of MAT rate applicable for the respective years and is allowed for the transmission assets for the 2014-19 tariff period as follows:

(₹ in lakh)

Particulars	Asset-I			
	2015-16 (pro-rata 112 days)	2016-17	2017-18	2018-19
Opening Equity	10784.77	10914.84	11214.49	11442.57
Additions	130.07	299.66	228.08	52.64
Closing Equity	10914.84	11214.49	11442.57	11495.21
Average Equity	10849.80	11064.66	11328.53	11468.89
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500
MAT Rate for respective year (in %)	21.342	21.342	21.342	21.549
Rate of Return on Equity (in %)	19.705	19.705	19.705	19.758
Return on Equity	654.24	2180.29	2232.29	2266.02

(₹ in lakh)

Particulars	Asset-II			
	2015-16 (pro-rata 134 days)	2016-17	2017-18	2018-19
Opening Equity	16796.11	17077.71	17791.56	18049.01
Additions	281.60	713.85	257.45	36.03
Closing Equity	17077.71	17791.56	18049.01	18085.04
Average Equity	16936.91	17434.64	17920.29	18067.02
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500
MAT Rate for respective year (in %)	21.342	21.342	21.342	21.549
Rate of Return on Equity (in %)	19.705	19.705	19.705	19.758
Return on Equity	1221.90	3435.50	3531.19	3569.68

(₹ in lakh)

Particulars	Asset-III			
	2015-16 (pro-rata 112 days)	2016-17	2017-18	2018-19
Opening Equity	4952.66	5031.53	5321.53	5384.23
Additions	78.87	290.00	62.70	0.00
Closing Equity	5031.53	5321.53	5384.23	5384.23
Average Equity	4992.10	5176.53	5352.88	5384.23
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500
MAT Rate for respective year (in %)	21.342	21.342	21.342	21.549
Rate of Return on Equity (in %)	19.705	19.705	19.705	19.758
Return on Equity	301.02	1020.03	1054.78	1063.82

(₹ in lakh)

Particulars	Asset-IV			
	2015-16 (pro-rata 141 days)	2016-17	2017-18	2018-19
Opening Equity	4477.05	4773.91	5334.69	5999.31



Particulars	Asset-IV			
	2015-16 (pro-rata 141 days)	2016-17	2017-18	2018-19
Additions	296.86	560.78	664.62	120.81
Closing Equity	4773.91	5334.69	5999.31	6120.12
Average Equity	4625.48	5054.30	5667.00	6059.71
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500
MAT Rate for respective year (in %)	21.342	21.342	21.342	21.549
Rate of Return on Equity (in %)	19.705	19.705	19.705	19.758
Return on Equity	351.13	995.95	1116.68	1197.28

52. The details of RoE allowed in respect of the transmission assets vide orders dated 26.5.2016 and 25.5.2016 in Petition No. 61/TT/2015 and Petition No. 283/TT/2015 respectively, claimed by the Petitioner in the instant petition and true-up in the instant order are as follows:

(₹ in lakh)

Particulars	Asset-I			
	2015-16 (pro-rata 112 days)	2016-17	2017-18	2018-19
Allowed vide order dated 26.5.2016 in Petition No. 61/TT/2015	654.60	2201.33	2253.55	2257.54
Claimed by the Petitioner in the instant petition	654.57	2180.28	2232.27	2266.01
Approved after true-up in this order	654.24	2180.29	2232.29	2266.02

(₹ in lakh)

Particulars	Asset-II			
	2015-16 (pro-rata 134 days)	2016-17	2017-18	2018-19
Allowed vide order dated 26.5.2016 in Petition No. 61/TT/2015	1225.27	3516.24	3699.63	3741.16
Claimed by the Petitioner in the instant petition	1229.11	3453.48	3549.16	3587.69
Approved after true-up in this order	1221.90	3435.50	3531.19	3569.68

(₹ in lakh)

Particulars	Asset-III			
	2015-16 (pro-rata 112 days)	2016-17	2017-18	2018-19
Allowed vide order dated 26.5.2016 in Petition No. 61/TT/2015	300.88	1027.53	1070.85	1077.66
Claimed by the Petitioner in the instant petition	301.34	1020.59	1055.32	1064.34
Approved after true-up in this order	301.02	1020.03	1054.78	1063.82



(₹ in lakh)

Particulars	Asset-IV			
	2015-16 (pro-rata 141 days)	2016-17	2017-18	2018-19
Allowed vide order dated 25.5.2016 in Petition No. 283/TT/2015	343.80	1025.03	1198.82	1241.78
Claimed by the Petitioner in the instant petition	354.97	1005.44	1126.17	1206.79
Approved after true-up in this order	351.13	995.95	1116.68	1197.28

Operation & Maintenance Expenses (O&M Expenses)

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

O&M Expenses Particulars	Asset-I			
	2015-16 (pro-rata 121 days)	2016-17	2017-18	2018-19
Sub-station:				
<u>400 kV bays:</u>				
Narendra: Kudgi Bay I_Narendra_Narendra				
Narendra: Kudgi Bay I_Narendra_Narendra				
<u>400 kV GIS bays:</u>				
Bijapur (Kudgi):Narendra Bay I_Bijapur (Kudgi)_Kudgi (GIS)				
Bijapur (Kudgi):Narendra Bay II_Bijapur (Kudgi)_Kudgi (GIS)				
400 kV bays	2	2	2	2
400 kV GIS bays	2	2	2	2
Transmission Line:				
Narendra (New Kudigi)-Narendra(Existing) 400 kV D/C Quad Transmission Line (176.510 kms)-Double Circuit (Bundle Conductor with Four Sub-Conductors)				
Total O&M Expenses (₹ in lakh)	129.97	438.77	453.39	468.46

O&M Expenses Particulars	Asset-II			
	2015-16 (pro-rata 134 days)	2016-17	2017-18	2018-19
<u>400 kV GIS bays:</u>				
Kolhapur: Kudgi Bay-II_Kolhapur_Kolhapur (GIS)				
Bijapur (Kudgi): Kolhapur Bay II_Bijapur (Kudgi)_Kudgi (GIS)				
Bijapur (Kudgi): Bus Reactor Bay at Kudgi				
400 kV GIS bays	3	3	3	3
Transmission line				
Kudgi-Kolhapur 765 kV D/C Line-I st Ckt. - (189.250 kms) Single Circuit (Six Conductor)				
Total O&M Expenses (₹ in lakh)	109.15	307.94	318.14	328.73



O&M Expenses	Asset-III			
Particulars	2015-16 (pro-rata 112 days)	2016-17	2017-18	2018-19
400 kV GIS bays:				
Kolhapur: Kudgi Bay-I_Kolhapur_Kolhapur (GIS) Bijapur (Kudgi): Kolhapur Bay I_Bijapur (Kudgi)_Kudgi (GIS)				
400 kV GIS bays	2	2	2	2
Transmission line				
Second Ckt Kudgi-Kolhapur Transmission Line-(189.250 kms) Single Circuit (Six Conductor)				
Total O&M Expenses (₹ in lakh)	74.93	252.92	261.30	270.00

O&M Expenses	Asset-IV			
Particulars	2015-16 (pro-rata 141 days)	2016-17	2017-18	2018-19
Sub-station:				
Kolhapur:400 kV Kolhapur GIS and LILO of 400 kV D/C Kolhapur-Mapusa at 400 kV Kolhapur GIS(New) Sub-station (6 numbers)				
400 kV bays	6	6	6	6
Transmission lines:				
1. 400 kV Kolhapur GIS and LILO of 400 kV D/ C Kolhapur-Mapusa at 400 kV Kolhapur GIS (New) Sub-station (40.330 km) - Double Circuit (Twin Conductor)				
2. 400 kV Kolhapur GIS and LILO of 400 kV D/ C Kolhapur-Mapusa at 400 kV Kolhapur GIS (New) Sub-station - (2.690 kms) Multi-circuit with Two Conductors				
Total O&M Expenses (₹ in lakh)	135.78	364.13	376.18	388.69

54. Regulation 29(3) of the 2014 Tariff Regulations specifies the norms for O&M Expenses for the transmission system. The norms specified in respect of the elements covered in the transmission assets are as follows:

Particulars	Unit of measure	2015-16	2016-17	2017-18	2018-19
Bays					
400 kV bays	(₹ lakh per bay)	62.30	64.37	66.51	68.71
400 kV GIS bays	(₹ lakh per bay)	51.54	53.25	55.02	56.84

Particulars	Unit of measure	2015-16	2016-17	2017-18	2018-19
D/C Twin/Triple Conductor	(₹ lakh per km)	0.731	0.755	0.78	0.806
D/C Bundled (4 or more sub-conductors)	(₹ lakh per km)	1.097	1.133	1.171	1.21
S/C (Bundle)	(₹ lakh per km)	0.731	0.755	0.78	0.806



Particulars	Unit of measure	2015-16	2016-17	2017-18	2018-19
Conductor-6 or more sub-conductors)					
Multi Ckt Twin/Triple	(₹ lakh per km)	1.282	1.324	1.368	1.413

55. We have considered the submission of the Petitioner. With respect to Asset-II and Asset-III, the Petitioner has claimed the O&M expenses under S/C transmission line. As per I.A., the Petitioner has to implement Narendra (new)-Kolhapur D/C line (189.250 km). The Petitioner has bifurcated the transmission asset into two parts namely Ckt.- I and Ckt.-II of Narendra (New Kudgi)-Kolhapur Transmission Line and claimed COD as 19.11.2015 (Asset-II) and 11.12.2015 (Asset-III). We are not inclined to grant O&M Expenses separately for Asset-II and Asset-III under S/C transmission line. Asset-II achieved COD on 19.11.2015 and, therefore, the O&M Expenses for Asset-II for 22 days from 19.11.2015 to COD of Asset-III i.e. 10.12.2015 are allowed under S/C. After COD of Asset-III on 11.12.2015, both the circuits of Narendra (new)-Kolhapur Transmission Line are operational and is in a double circuit line since 11.12.2015. In the following table, O&M expenses allowed for Double Circuit line of Narendra (New)-Kolhapur Transmission Line is being allowed under Asset-III (under Asset-II, O&M expenses for 22 days i.e. from 19.11.2015 to 10.12.2015 are shown). The O&M Expenses are allowed for the transmission assets as per the norms specified in the 2014 Tariff Regulations and are as follows:

O&M Expenses	Asset-I			
Particulars	2015-16 (pro-rata 121 days)	2016-17	2017-18	2018-19
Sub-station: 400 kV bays:				
Narendra: Kudgi Bay I_Narendra_Narendra				



O&M Expenses Particulars	Asset-I			
	2015-16 (pro-rata 121 days)	2016-17	2017-18	2018-19
Narendra: Kudgi Bay I_Narendra_Narendra				
400 kV GIS bays:				
Bijapur (Kudgi): Narendra Bay I_Bijapur (Kudgi)_Kudgi (GIS)				
Bijapur (Kudgi): Narendra Bay II_Bijapur (Kudgi)_Kudgi (GIS)				
400 kV bays	2	2	2	2
400 kV GIS bays	2	2	2	2
Transmission Line:				
Narendra (New Kudgi)-Narendra(Existing) 400 kV D/C Quad Transmission Line (176.510 kms) - Double Circuit (Bundle Conductor with Four Sub-Conductors)				
Total O&M Expenses (₹ in lakh)	129.97	438.77	453.39	468.46

O&M Expenses Particulars	Asset-II			
	2015-16 (pro-rata 134 days)	2016-17	2017-18	2018-19
400 kV GIS bays:				
Kolhapur:Kudgi Bay-II_Kolhapur_Kolhapur (GIS)				
Bijapur (Kudgi): Kolhapur Bay II_Bijapur (Kudgi)_Kudgi (GIS)				
Bijapur (Kudgi): Bus Reactor Bay at Kudgi				
400 kV GIS bays	3	3	3	3
Transmission Line:				
Narendra-Kolhapur 765 kV D/C Line-Ist Ckt - (189.250 kms) Single Circuit (Six Conductor) (O&M allowed from COD of Asset-II (19.11.2015) to COD of Asset-III (10.12.2015) i.e. for 22 days)				
Total O&M Expenses (₹ in lakh)	66.80	165.06	170.52	176.19

O&M Expenses Particulars	Asset-III			
	2015-16 (pro-rata 112 days)	2016-17	2017-18	2018-19
400 kV GIS bays:				
Kolhapur: Kudgi Bay-I_Kolhapur_Kolhapur (GIS)				
Bijapur (Kudgi):Kolhapur Bay I_Bijapur (Kudgi)_Kudgi (GIS)				
400 kV GIS bays	2	2	2	2
Transmission Line:				
Double Ckt. Kudgi-Kolhapur Transmission Line-(189.250 kms) Single Circuit (Six Conductor) (O&M allowed as double Circuit line from 11.12.2015 for Narendra-Kolhapur Transmission Line)				



O&M Expenses	Asset-II			
Particulars	2015-16 (pro-rata 134 days)	2016-17	2017-18	2018-19
Total O&M Expenses (₹ in lakh)	96.12	324.46	335.29	346.45

O&M Expenses	Asset-IV			
Particulars	2015-16 (pro-rata 141 days)	2016-17	2017-18	2018-19
Sub-station:				
Kolhapur: 400 kV Kolhapur GIS and LILO of 400 kV D/C Kolhapur-Mapusa at 400 kV Kolhapur GIS(New) Sub-station (6 numbers)				
400 kV bays	6	6	6	6
Transmission lines:				
1. 400 kV Kolhapur GIS and LILO of 400 kV D/ C Kolhapur-Mapusa at 400 kV Kolhapur GIS (New) Sub-station (40.330 km) - Double Circuit (Twin Conductor)				
2. 400 kV Kolhapur GIS and LILO of 400 kV D/ C Kolhapur-Mapusa at 400 kV Kolhapur GIS (New) Sub-station – (2.690 km) Multi-circuit with Two Conductors				
Total O&M Expenses (₹ in lakh)	135.77	364.13	376.18	388.69

56. The details of O&M Expenses allowed in respect of the transmission assets vide orders dated 26.5.2016 and 25.5.2016 in Petition No. 61/TT/2015 and Petition No. 283/TT/2015 respectively, claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:

(₹ in lakh)

Particulars	Asset-I			
	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Allowed vide order dated 26.5.2016 in Petition No. 61/TT/2015	129.97	438.77	453.39	468.46
Claimed by the Petitioner in the instant petition	129.97	438.77	453.39	468.46
Approved after true-up in this order	129.97	438.77	453.39	468.46

(₹ in lakh)

Particulars	Asset-II			
	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Allowed vide order dated 26.5.2016 in Petition No. 61/TT/2015	109.14	307.94	318.14	328.73



Particulars	Asset-II			
	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Claimed by the Petitioner in the instant petition	109.15	307.94	318.14	328.73
Approved after true-up in this order	66.80	165.06	170.52	176.19

(₹ in lakh)

Particulars	Asset-III			
	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Allowed vide order dated 26.5.2016 in Petition No. 61/TT/2015	74.92	252.92	261.30	270.00
Claimed by the Petitioner in the instant petition	74.93	252.92	261.30	270.00
Approved after true-up in this order	96.12	324.46	335.29	346.45

(₹ in lakh)

Particulars	Asset-IV			
	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Allowed vide order dated 25.5.2016 in Petition No. 283/TT/2015	135.77	364.13	376.18	388.69
Claimed by the Petitioner in the instant petition	135.78	364.13	376.18	388.69
Approved after true-up in this order	135.77	364.13	376.18	388.69

Interest on Working Capital

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

(₹ in lakh)

Particulars	Asset-I			
	2015-16 (pro-rata 112 days)	2016-17	2017-18	2018-19
Working Capital for O&M Expenses (O&M Expenses for one Month)	35.39	36.56	37.78	39.04
Working Capital for Maintenance Spares (15% of O&M Expenses)	63.71	65.81	68.01	70.27
Working Capital for Receivables (Equivalent to two months of annual fixed costs/annual transmission charges)	881.26	921.67	959.29	1000.01
Total Working Capital	980.37	1024.04	1065.08	1109.31
Rate of Interest (in %)	13.50	13.50	13.50	13.50
Interest on Working Capital	40.50	138.25	143.79	149.76



(₹ in lakh)

Particulars	Asset-II			
	2015-16 (pro-rata 134 days)	2016-17	2017-18	2018-19
Working Capital for O&M Expenses (O&M Expenses for one Month)	24.84	13.76	14.21	14.68
Working Capital for Maintenance Spares (15% of O&M Expenses)	44.71	24.76	25.58	26.43
Working Capital for Receivables (Equivalent to two months of annual fixed costs/annual transmission charges)	1254.54	1302.07	1359.15	1409.56
Total Working Capital	1324.10	1340.59	1398.93	1450.67
Rate of Interest (in %)	13.50	13.50	13.50	13.50
Interest on Working Capital	65.45	180.98	188.86	195.84

(₹ in lakh)

Particulars	Asset-III			
	2015-16 (pro-rata 112 days)	2016-17	2017-18	2018-19
Working Capital for O&M Expenses (O&M Expenses for one Month)	26.18	27.04	27.94	28.87
Working Capital for Maintenance Spares (15% of O&M Expenses)	47.12	48.67	50.29	51.97
Working Capital for Receivables (Equivalent to two months of annual fixed costs/annual transmission charges)	413.93	438.86	459.96	475.37
Total Working Capital	487.22	514.57	538.20	556.21
Rate of Interest (in %)	13.50	13.50	13.50	13.50
Interest on Working Capital	20.13	69.47	72.66	75.09

(₹ in lakh)

Particulars	Asset-IV			
	2015-16 (pro-rata 141 days)	2016-17	2017-18	2018-19
Working Capital for O&M Expenses (O&M Expenses for one Month)	29.37	30.34	31.35	32.39
Working Capital for Maintenance Spares (15% of O&M Expenses)	52.86	54.62	56.43	58.30
Working Capital for Receivables (Equivalent to two months of annual fixed costs/annual transmission charges)	388.19	429.48	484.08	531.07
Total Working Capital	470.43	514.44	571.86	621.77
Rate of Interest (%)	13.50	13.50	13.50	13.50
Interest on Working Capital	24.47	69.45	77.20	83.94



58. The details of IWC allowed in respect of the transmission assets vide orders dated 26.5.2016 and 25.5.2015 in Petition No. 61/TT/2015 and Petition No. 283/TT/2015 respectively, claimed by the Petitioner in the instant petition and true-up in the instant order are as follows:

(₹ in lakh)

Particulars	Asset-I			
	2015-16 (pro-rata 112 days)	2016-17	2017-18	2018-19
Allowed vide order dated 26.5.2016 in Petition No. 61/TT/2015	39.96	133.79	136.25	136.39
Claimed by the Petitioner in the instant petition	40.56	138.43	143.96	149.92
Approved after true-up in this order	40.50	138.25	143.79	149.76

(₹ in lakh)

Particulars	Asset-II			
	2015-16 (pro-rata 134 days)	2016-17	2017-18	2018-19
Allowed vide order dated 26.5.2016 in Petition No. 61/TT/2015	64.80	184.70	192.62	193.82
Claimed by the Petitioner in the instant petition	65.89	190.04	198.19	205.47
Approved after true-up in this order	65.45	180.98	188.86	195.84

(₹ in lakh)

Particulars	Asset-III			
	2015-16 (pro-rata 112 days)	2016-17	2017-18	2018-19
Allowed vide order dated 26.5.2016 in Petition No. 61/TT/2015	18.71	63.46	65.58	65.98
Claimed by the Petitioner in the instant petition	19.00	65.65	68.70	70.99
Approved after true-up in this order	20.13	69.47	72.66	75.09

(₹ in lakh)

Particulars	Asset-IV			
	2015-16 (pro-rata 141 days)	2016-17	2017-18	2018-19
Allowed vide order dated 25.5.2016 in Petition No. 283/TT/2015	24.18	69.94	78.17	80.42
Claimed by the Petitioner in the	24.70	70.04	77.79	84.56



Particulars	Asset-IV			
	2015-16 (pro-rata 141 days)	2016-17	2017-18	2018-19
instant petition				
Approved after true-up in this order	24.47	69.45	77.20	83.94

Approved Annual Fixed Charges for the 2014-19 Period

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

(₹ in lakh)

Particulars	Asset-I			
	2015-16 (pro-rata 112 days)	2016-17	2017-18	2018-19
Depreciation	617.79	2055.27	2101.76	2126.46
Interest on Loan	175.56	717.43	824.51	989.34
Return on Equity	654.24	2180.29	2232.29	2266.02
O&M Expenses	129.97	438.77	453.39	468.46
Interest on Working Capital	40.50	138.25	143.79	149.76
Total	1618.05	5529.99	5755.73	6000.04

(₹ in lakh)

Particulars	Asset-II			
	2015-16 (pro-rata 134 days)	2016-17	2017-18	2018-19
Depreciation	1065.81	2997.74	3081.92	3106.66
Interest on Loan	293.59	1033.16	1182.38	1408.96
Return on Equity	1221.90	3435.50	3531.19	3569.68
O&M Expenses	66.80	165.06	170.52	176.19
Interest on Working Capital	65.45	180.98	188.86	195.84
Total	2713.54	7812.43	8154.87	8457.33

(₹ in lakh)

Particulars	Asset-III			
	2015-16 (pro-rata 112 days)	2016-17	2017-18	2018-19
Depreciation	268.64	909.75	940.17	945.56
Interest on Loan	74.09	309.45	356.87	421.32
Return on Equity	301.02	1020.03	1054.78	1063.82
O&M Expenses	96.12	324.46	335.29	346.45
Interest on Working Capital	20.13	69.47	72.66	75.09
Total	760.00	2633.17	2759.77	2852.24

(₹ in lakh)

Particulars	Asset-IV
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	2015-16 (pro-rata 141 days)	2016-17	2017-18	2018-19
Depreciation	302.14	850.63	946.04	1009.33
Interest on Loan	83.78	296.70	388.40	507.21
Return on Equity	351.13	995.95	1116.68	1197.28
O&M Expenses	24.47	69.45	77.20	83.94
Interest on Working Capital	135.77	364.13	376.18	388.69
Total	897.30	2576.86	2904.50	3186.44

60. Accordingly, AFC for the transmission assets allowed vide orders dated 26.5.2016 and 25.5.2015 in Petition No. 61/TT/2015 and Petition No.283/TT/2015 respectively, claimed by the Petitioner in the instant petition and approved after trueing up in the instant order is as follows:

(₹ in lakh)

Particulars	Asset-I			
	2015-16 (pro-rata 112 days)	2016-17	2017-18	2018-19
Allowed vide order dated 26.5.2016 in Petition No. 61/TT/2015	1594.01	5332.13	5420.74	5405.91
Claimed by the Petitioner in the instant petition	1620.92	5538.12	5763.55	6007.34
Approved after true-up in this order	1618.05	5529.99	5755.73	6000.04

(₹ in lakh)

Particulars	Asset-II			
	2015-16 (pro-rata 134 days)	2016-17	2017-18	2018-19
Allowed vide order dated 26.5.2016 in Petition No. 61/TT/2015	2727.05	7777.56	8115.36	8154.22
Claimed by the Petitioner in the instant petition	2775.49	8015.08	8363.28	8671.64
Approved after true-up in this order	2713.54	7812.43	8154.87	8457.33

(₹ in lakh)

Particulars	Asset-III			
	2015-16 (pro-rata 112 days)	2016-17	2017-18	2018-19
Allowed vide order dated 26.5.2016 in Petition No. 61/TT/2015	726.83	2466.40	2548.88	2554.34
Claimed by the Petitioner in the instant petition	739.67	2563.48	2687.55	2777.28
Approved after true-up in this order	760.00	2633.17	2759.77	2852.24

(₹ in lakh)

Particulars	Asset-IV



	2015-16 (pro-rata 141 days)	2016-17	2017-18	2018-19
Allowed vide order dated 25.5.2016 in Petition No. 283/TT/2015	884.68	2598.77	2947.52	3030.27
Claimed by the Petitioner in the instant petition	907.83	2603.28	2930.66	3213.92
Approved after true-up in this order	897.30	2576.86	2904.50	3186.44

Determination of Annual Fixed Charges for the 2019-24 Tariff Period

61. The Petitioner has combined the transmission assets and claimed the transmission charges for the Combined Asset for the 2019-24 tariff period as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	7273.29	7290.14	7295.83	7260.77	7244.25
Interest on Loan	3215.25	2896.82	2569.62	2240.08	1913.08
Return on Equity	7756.03	7774.99	7781.05	7781.05	7781.05
O&M Expenses	975.67	1009.47	1044.47	1080.66	1117.97
Interest on Working Capital	316.89	314.90	311.67	307.75	303.44
Total	19537.13	19286.32	19002.64	18670.31	18359.79

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

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	81.31	84.12	87.04	90.06	93.16
Maintenance Spares	146.35	151.42	156.67	162.10	167.70
Receivables	2402.11	2377.77	2342.79	2301.82	2257.35
Total Working Capital	2629.77	2613.31	2586.50	2553.98	2518.21
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	316.89	314.90	311.67	307.75	303.44

Effective Date of Commercial Operation (E-COD)

63. The Petitioner has claimed E-COD of the Combined Asset as 27.11.2015. Based on the trued-up capital cost and actual COD of the individual transmission assets, E-COD has been worked out as follows:

Asset	Capital Cost as on 31.3.2019	COD	Number of days from COD of Asset from COD of Project	Weight of cost	Weighted days	Effective COD (Latest COD – Total weighted Days)
	(₹ in lakh)					



Asset	Capital Cost as on 31.3.2019	COD	Number of days from COD of Asset from COD of Project	Weight of cost	Weighted days	Effective COD (Latest COD – Total weighted Days)
	(₹ in lakh)					
Asset-I	40560.19	11.12.2015	0	29.13%	0.00	27.11.2015
Asset-II	60283.46	19.11.2015	22	43.30%	9.53	
Asset-III	17952.93	11.12.2015	0	12.90%	0.00	
Asset-IV	20420.31	12.11.2015	29	14.67%	4.25	
Total	139216.89			100		

Weighted Average Life (WAL)

64. 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. Accordingly, WAL of the Combined Asset has been worked out as 33 years as follows:

Particulars	Life (in years) (1)	Capital Cost as on 31.3.2019 [^] (₹ in lakh) (2)	Weighted Cost (₹ in lakh) (3)= (1) x (2)	Weighted Average Life of Asset (in years) (4) = (3)/(2)
Building Civil Works	25	4904.05	122601.14	32.79 years (rounded off to 33 years)
Transmission Line	35	108852.62	3809841.84	
Sub Station	25	23421.84	585546.02	
PLCC	15	612.75	9191.27	
IT Equipment (Including Software)	6.67	343.06	2288.24	
Total		138134.33	4529468.50	

[^] Capital Cost considered for WAL does not include the value of land amounting to ₹1082.56 lakh.

65. WAL as on 1.4.2019 as determined above is applicable prospectively i.e. for the 2019-24 tariff period and no retrospective adjustment of depreciation in previous tariff period is required to be done. As discussed above, E-COD of the Combined Asset is 27.11.2015 and the lapsed life of the transmission system as a whole, works out as three (3) years as on 1.4.2019 (i.e. the number of completed years as on 1.4.2019 from E-COD). Accordingly, WAL has been used to determine the remaining useful life as on 31.3.2019 to be 30 years.

Capital Cost

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



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

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

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

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

- (a) *Capital cost admitted by the Commission prior to 1.4.2019 duly trued up by excluding liability, if any, as on 1.4.2019;*
- (b) *Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;*
- (c) *Capital expenditure on account of renovation and modernisation as admitted by this Commission in accordance with these regulations;*



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

67. The Petitioner has claimed capital cost of ₹139672.57 lakh as on 31.3.2019 for the Combined Asset. The same has been worked out by the Commission as on 31.3.2019 and considered as the opening capital cost as on 1.4.2019 for determination of tariff in accordance with Regulation 19 of the 2019 Tariff Regulations.



Initial Spares

68. The transmission assets covered under the transmission system have been combined and the overall project cost is arrived at in the 2019-24 tariff period and, therefore, Initial Spares allowed during the 2019-24 tariff period are on the basis of the overall project cost as per the APTEL's judgment dated 14.9.2019 in Appeal No. 74 of 2017. The Plant and Machinery cost (excluding IDC and IEDC) is considered as on cut-off date and is based on the Auditor Certificate which is as follows:

Asset	Particulars	Plant & Machinery Cost (A) (₹ in lakh)	Initial Spares Claimed (B) (₹ in lakh)	Ceiling Limit (%) (C)	Initial Spares Worked out (₹ in lakh)	Initial Spares allowable as per 2014 Tariff Regulations and APTEL judgment dated 14.9.2019 (E)	Additional initial spares allowed on combined transmission asset (₹ in lakh) (F=D-E)
					$D = [(A-B)*C / (100-C)]$		
Asset-I	Sub-station (GIS)	3732.43	55.58	5.00	193.52	55.58	230.58
Asset-II	Sub-station (GIS)	8472.22	639.75	5.00	412.24	412.24	
Asset-III	Sub-station (GIS)	1896.50	105.08	5.00	94.29	94.29	
Asset-IV	Sub-station (GIS)	8685.91	346.29	5.00	438.93	346.29	
TOTAL		22787.06	1146.70		1138.97	908.39	

Asset	Particulars	Plant & Machinery Cost (A) (₹ in lakh)	Initial Spares Claimed (B) (₹ in lakh)	Ceiling Limit (%) (C)	Initial Spares Worked out (₹ in lakh)	Initial Spares allowable as per 2014 Tariff Regulations and APTEL judgment dated 14.9.2019 (E)	Additional initial spares allowed on combined transmission asset (₹ in lakh) (F=D-E)
					$D = [(A-B)*C / (100-C)]$		
Asset-I	Transmission Line	30668.66	306.69	1.00	306.69	306.69	84.48
Asset-II	Transmission Line	47931.83	639.01	1.00	477.71	477.71	
Asset-III	Transmission Line	15005.3	86.40	1.00	150.70	86.40	
Asset-IV	Transmission Line	8031.19	60.33	1.00	80.51	60.33	
TOTAL		101636.98	1092.43		1015.60	931.13	



69. In terms of the APTEL's judgment dated 14.9.2019 in Appeal No. 74 of 2017, additional Initial Spares of ₹230.58 lakh and ₹84.48 lakh (total ₹315.05 lakh) for the Combined Asset have been allowed.

70. The capital cost as on 1.4.2019 allowed after adjusting Initial Spares is as follows:

(₹ in lakh)		
Capital Cost (as on 31.3.2019)	Additional Initial Spares allowed as per the APTEL's judgment dated 14.9.2019	Capital Cost (as on 1.4.2019)
139216.89	315.05	139531.94

Additional Capital Expenditure

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

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

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

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

72. The Petitioner has claimed projected ACE of ₹457.48 lakh for 2019-20 and ₹215.29 lakh for 2020-21 in respect of the Asset-II and Asset-IV of the Combined Asset during the 2019-24 tariff period.



73. As per the Auditor's Certificate, ACE claimed is beyond the cut-off date of 31.3.2018 and the Petitioner has submitted ACE details as follows:

Asset	Year	Vendor Name	Nature of Work	₹ in lakh
Asset-II	2019-20	Larsen & Toubro Ltd	Transmission line	204.00
		Bajaj Electricals Ltd	Sub-station	67.50
		Compensation	Transmission line	67.42
		TOTAL 2019-20		338.92
	2020-21	Compensation	Transmission line	157.30
		TOTAL 2020-21		157.30

Asset	Year	Vendor Name	Nature of Work	₹ in lakh
Asset-IV	2019-20	ABB	Substation	0.26
		Compensation	Transmission line	24.85
		Sai Electrotech	Sub-station	0.35
		Shri Krupa Construction	Sub-station	2.58
		Radhika Construction	Sub-station	40.02
		M/s V K Patil Engineer	Sub-station	34.15
		Misc. site packages	Sub-station	16.35
		TOTAL 2019-20		118.56
	2020-21	Compensation	Transmission line	57.99
		TOTAL 2020-21		57.99

74. TANGEDCO has submitted that the Petitioner has failed to furnish the details of deferred works after the cut-off date during the 2019-24 tariff period for the transmission assets and, therefore, requested to disallow the ACE claim of the Petitioner. In response, the Petitioner has submitted that the package-wise and party-wise details of ACE have already been submitted. The Petitioner has requested that ACE claimed under Regulation 25(1)(d) of the 2019 Tariff Regulations may be allowed.

75. We have considered the submission of the Petitioner and TANGEDCO. ACE claimed by the Petitioner has been allowed under Regulation 25(1)(d) of the 2019 Tariff Regulations, as it is towards liabilities for works executed prior to the cut-off



date. Accordingly, the capital cost as on 31.3.2024 for the Combined Asset is considered as follows:

Admitted Capital Cost (as on 1.4.2019)	Admitted ACE		(₹ in lakh)
	2019-20	2020-21	Capital Cost (as on 31.3.2024)
139531.94	457.48	215.29	140204.71

Debt-Equity Ratio

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

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

Provided that:

- i. where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of tariff:
- ii. the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:
- iii. any grant obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt: equity ratio.

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

(2) The generating company or the transmission licensee, as the case may be, shall submit the resolution of the Board of the company or approval of the competent authority in other cases regarding infusion of funds from internal resources in support of the utilization made or proposed to be made to meet the capital expenditure of the generating station or the transmission system including communication system, as the case may be.

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

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

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



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

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

77. The debt-equity considered for the purpose of computation of tariff for the 2019-24 tariff period for the Combined Asset is as follows:

Funding	Capital Cost (as on 1.4.2019) (₹ in lakh)	(in %)	Capital Cost (as on 31.3.2024) (₹ in lakh)	(in %)
Debt	98356.06	70.49	98827.00	70.49
Equity	41175.88	29.51	41377.71	29.51
Total	139531.94	100.00	140204.71	100.00

Depreciation

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

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

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

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

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

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



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

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

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

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

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

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

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

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

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

79. The IT equipment has been considered as a part of the Gross Block and depreciated using WAROD. WAROD at Annexure-II has been worked out after taking into account the depreciation rates of IT and non-IT assets as 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% 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 in respect of the Combined Asset is as follows:

(₹ in lakh)

Particular	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	139531.94	139989.42	140204.71	140204.71	140204.71
Addition during the year 2019-24 due to projected ACE	457.48	215.29	0.00	0.00	0.00
Closing Gross Block	139989.42	140204.71	140204.71	140204.71	140204.71
Average Gross Block	139760.68	140097.06	140204.71	140204.71	140204.71
Freehold Land	1082.56	1082.56	1082.56	1082.56	1082.56
Weighted average rate of Depreciation (WAROD) (%)	5.20	5.20	5.20	5.20	5.20
Balance useful life at the beginning of the year (Year)	30	29	28	27	26
Lapsed life (Year)	3	4	5	6	7
Aggregated Depreciable Value	124844.61	125147.36	125244.24	125244.24	125244.24
Combined Depreciation during the year	7265.94	7282.80	7288.48	7288.48	7288.48
Aggregate Cumulative Depreciation at the end of the year	30591.61	37874.41	45162.90	52451.38	59739.86
Remaining Aggregated Depreciable Value at the end of the year	94253.01	87272.95	80081.35	72792.86	65504.38

Interest on Loan

80. 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.”

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

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	98356.06	98676.30	98827.00	98827.00	98827.00
Cumulative Repayments up to Previous Year	23325.67	30591.61	37874.41	45162.90	52451.38
Net Loan-Opening	75030.40	68084.69	60952.59	53664.11	46375.62
Additions	320.24	150.70	0.00	0.00	0.00
Repayment during the year	7265.94	7282.80	7288.48	7288.48	7288.48
Net Loan-Closing	68084.69	60952.59	53664.11	46375.62	39087.14
Average Loan	71557.54	64518.64	57308.35	50019.87	42731.38



Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Weighted Average Rate of Interest on Loan (in %)	4.4999	4.4978	4.4933	4.4883	4.4848
Interest on Loan	3220.02	2901.92	2575.04	2245.04	1916.42

Return on Equity

82. 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 shall be computed at the weighted average rate of interest on actual loan portfolio of the generating station or the transmission system

Provided further that:

- i. *In case of a new project, the rate of return on equity shall be reduced by 1.00% for such period as may be decided by the Commission, if the generating station or transmission system is found to be declared under commercial operation without commissioning of any of the Restricted Governor Mode Operation (RGMO) or Free Governor Mode Operation (FGMO), data telemetry, communication system up to load dispatch centre or protection system based on the report submitted by the respective RLDC;*
- ii. *in case of existing generating station, as and when any of the requirements under (i) above of this Regulation are found lacking based on the report submitted by the concerned RLDC, rate of return on equity shall be reduced by 1.00% for the period for which the deficiency continues;*
- iii. *in case of a thermal generating station, with effect from 1.4.2020:*
 - a) *rate of return on equity shall be reduced by 0.25% in case of failure to achieve the ramp rate of 1% per minute;*
 - b) *an additional rate of return on equity of 0.25% shall be allowed for every incremental ramp rate of 1% per minute achieved over and above the ramp rate of 1% per minute, subject to ceiling of additional rate of return on equity of 1.00%:*

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

“31. Tax on Return on Equity (1) The base rate of return on equity as allowed by the Commission under Regulation 30 of these regulations shall be grossed up with the effective tax rate of the respective financial year. For this purpose, the effective tax rate shall be considered on the basis of actual tax paid in respect of the financial year in line with the provisions of the relevant Finance Acts by the concerned generating



company or the transmission licensee, as the case may be. The actual tax paid on income from other businesses including deferred tax liability (i.e. income from business other than business of generation or transmission, as the case may be) shall be excluded for the calculation of effective tax rate.

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

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

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

Illustration-

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

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

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

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

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

83. The Petitioner has submitted that MAT rate is applicable to the Petitioner's company. Accordingly, MAT rate applicable in 2019-20 has been considered for the purpose of RoE, which shall be trued-up with actual tax rate in accordance with



Regulation 31(3) of the 2019 Tariff Regulations. RoE allowed for the Combined Asset for the 2019-24 tariff period is as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	41175.88	41313.12	41377.71	41377.71	41377.71
Additions	137.24	64.59	0.00	0.00	0.00
Closing Equity	41313.12	41377.71	41377.71	41377.71	41377.71
Average Equity	41244.50	41345.41	41377.71	41377.71	41377.71
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (in %)	17.472	17.472	17.472	17.472	17.472
Rate of Return on Equity (in %)	18.782	18.782	18.782	18.782	18.782
Return on Equity	7746.54	7765.50	7771.56	7771.56	7771.56

Operation & Maintenance Expenses

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

	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses					
Sub-station:					
<u>400 kV bays:</u>					
Narendra:Kudgi Bay I_Narendra_Narendra Narendra:Kudgi Bay I_Narendra_Narendra					
<u>400 kV GIS bays:</u>					
Bijapur (Kudgi): Narendra Bay I_Bijapur (Kudgi)_Kudgi (GIS) Bijapur (Kudgi): Narendra Bay II_Bijapur (Kudgi)_Kudgi (GIS) Kolhapur: Kudgi Bay-I_Kolhapur_Kolhapur (GIS) Bijapur (Kudgi): Kolhapur Bay I_Bijapur (Kudgi)_Kudgi (GIS) Kolhapur: Kudgi Bay-II_Kolhapur_Kolhapur (GIS) Bijapur (Kudgi): Kolhapur Bay II_Bijapur (Kudgi)_Kudgi (GIS) Bijapur (Kudgi): Bus Reactor Bay At Kudgi\ Kolhapur: 400 kV Kolhapur GIS and LILO of 400 kV D/C Kolhapur-Mapusa at 400 kV Kolhapur GIS (New) Sub-station (6 numbers)					
400 kV bays	2	2	2	2	2
400 kV GIS bays	13	13	13	13	13
Transmission Lines:					
I. Narendra (New Kudigi)-Narendra(Existing) 400 kV D/C Quad Transmission Line (176.510 kms)-Double Circuit (Bundle Conductor with Four Sub-Conductors)					
II. Second Ckt. Kudgi-Kolhapur Transmission Line - (189.250 kms) Single Circuit (Six Conductor)					



	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses					
III. Kudgi-Kolhapur 765 kV D/C Line-1 st Ckt.-(189.250 kms) Single Circuit (Six Conductor)					
IV. 400 kV Kolhapur GIS and LILO of 400 kV D/ C Kolhapur-Mapusa at 400 kV Kolhapur GIS (New) Sub-station (40.330 km) - Double Circuit (Twin Conductor)					
V. 400 kV Kolhapur GIS and LILO of 400 kV D/ C Kolhapur-Mapusa at 400 kV Kolhapur GIS (New) Sub-station-(2.690 kms) Multicircuit with Two Conductors					
PLCC					
Original Capital Cost (₹ in lakh)	614.10	614.10	614.10	614.10	614.10
Total O&M Expenses (₹ in lakh)	975.67	1009.47	1044.47	1080.66	1117.97

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

“35. Operation and Maintenance Expenses: (3) Transmission system: (a) The following normative operation and maintenance expenses shall be admissible for the transmission system:

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Norms for sub-station Bays (₹ Lakh per bay)					
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
Norms for Transformers (₹ Lakh per MVA)					
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
Norms for AC and HVDC lines (₹ Lakh per km)					
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.881	0.912	0.944	0.977	1.011
Single Circuit (Bundled conductor with four sub-conductors)	0.755	0.781	0.809	0.837	0.867
Single Circuit (Twin & Triple Conductor)	0.503	0.521	0.539	0.558	0.578
Single Circuit (Single Conductor)	0.252	0.260	0.270	0.279	0.289
Double Circuit (Bundled conductor with four or more sub-	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
Norms for HVDC stations					



Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<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) (1500 MW)</i>	2,252	2,331	2,413	2,498	2,586
<i>±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)</i>	2,468	2,555	2,645	2,738	2,834
<i>±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)</i>	1,696	1,756	1,817	1,881	1,947
<i>±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW)</i>	2,563	2,653	2,746	2,842	2,942

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

Provided further that:

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



of Static Synchronous Compensator and Static Var Compensator, if required, may be reviewed after three years.

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

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

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

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

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

87. The Petitioner has claimed O&M Expenses for Kudgi-Kolhapur Transmission Line Ckt.-I and Ckt.-II separately under S/C transmission Line. It is observed that both Ckt.-I and Ckt.-II of Kudgli-Kolaphapur were put under commercial operation on 19.11.2015 and 11.12.2015. Therefore, O&M Expenses for Kudgi-Kolhapur



Transmission Line (189.250 km) is being allowed as a Double Circuit line. The O&M Expenses allowed for the Combined Asset are as follows:

	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses					
Sub-station 400 kV					
Number of bays	2	2	2	2	2
Sub-station 400 kV GIS					
Number of bays	13	13	13	13	13
Transmission Lines					
Multi Ckt. Twin/Triple (km)	2.690	2.690	2.690	2.690	2.690
D/C Twin/Triple Conductor (km)	40.330	40.330	40.330	40.330	40.330
D/C Bundled (4 or more sub-conductors) (km)	365.760	365.760	365.760	365.760	365.760
Total O&M Expenses (₹ in lakh)	880.08	910.85	942.83	976.04	1010.10

Interest on Working Capital

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

“34. Interest on Working Capital:

(1) ...

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

- (i) Receivables equivalent to 45 days of 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. Definitions ...



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

89. The Petitioner has submitted that it has computed IWC for the 2019-24 tariff period considering the SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of IWC as 12.05%. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The Rate of Interest (RoI) considered is 12.05% (SBI 1 year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for 2019-20, 11.25% (SBI 1 year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points) for 2020-2021 and 10.50% (SBI 1 year MCLR applicable as on 1.4.2021 of 7.00% plus 350 basis points) from 2021-22 onwards. The components of the working capital and interest allowed thereon are as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Working Capital for O&M Expenses (O&M Expenses for 1 month)	73.34	75.90	78.57	81.34	84.18
Working Capital for Maintenance Spares (15% of O&M Expenses)	132.01	136.63	141.42	146.41	151.52
Working Capital for Receivables (Equivalent to 45 days of annual fixed cost/annual transmission charges)	2388.34	2361.03	2323.35	2286.38	2243.47
Total Working Capital	2593.69	2573.56	2543.35	2514.13	2479.16
Rate of Interest (in %)	12.05	11.25	10.50	10.50	10.50
Interest on Working Capital	312.54	289.53	267.05	263.98	260.31

Annual Fixed Charges for the 2019-24 Tariff Period

90. The transmission charges allowed for the Combined Asset for the 2019-24 tariff period are as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	7265.94	7282.80	7288.48	7288.48	7288.48



Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Interest on Loan	3220.02	2901.92	2575.04	2245.04	1916.42
Return on Equity	7746.54	7765.50	7771.56	7771.56	7771.56
O&M Expenses	312.54	289.53	267.05	263.98	260.31
Interest on Working Capital	880.08	910.85	942.83	976.04	1010.10
Total	19425.13	19150.59	18844.97	18545.11	18246.88

Filing Fee and the Publication Expenses

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

Licence Fee & RLDC Fees and Charges

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

Goods and Services Tax

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

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



Security Expenses

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

96. We have considered the submissions of the Petitioner. The Petitioner has claimed consolidated security expenses for all the transmission assets owned by it 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

97. 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

98. TANGEDCO has submitted that the 2020 Sharing Regulations were notified on 4.5.2020, which came into effect on 1.11.2020 and, hence, yearly transmission charges till 31.10.2020 should be shared as per the 2010 Sharing Regulations and from 1.11.2020, the transmission charges should be shared as per the 2020 Sharing Regulations and requested the Commission to issue suitable directions to allocate the trued-up yearly transmission charges as per both the Regulations.



99. In response, the Petitioner has submitted that tariff determination and sharing of transmission charges are two independent activities and same cannot be inter-linked. After determination of tariff of the assets by the Commission, the aspects of yearly transmission charges bifurcation as raised by TANGEDCO shall be taken care of by CTU at the time of billing.

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

101. To summarise:

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

(₹ in lakh)				
AFC	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Asset-I	1618.05 (pro rata 121 days)	5529.99	5755.73	6000.04
Asset-II	2713.54 (pro rata 134 days)	7812.43	8154.87	8457.33
Asset-III	760.00 (pro rata 121 days)	2633.17	2759.77	2852.24
Asset-IV	897.30 (pro rata 141 days)	2576.86	2904.50	3186.44

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



(₹ in lakh)				
2019-20	2020-21	2021-22	2022-23	2023-24
19425.13	19150.59	18844.97	18545.11	18246.88

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

103. This order disposes of Petition No. 208/TT/2020 in terms of the above discussions and findings.

sd/-
(P. K. Singh)
Member

sd/-
(I. S. Jha)
Member

sd/-
(P. K. Pujari)
Chairperson



Annexure-I

Asset-I

2014-19 Capital Cost	Admitted Capital Cost as on 1.4.2014/COD (₹ in lakh)	Allowed ACE (₹ in lakh)				Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depn.	Depreciation as per Regulations (₹ in lakh)			
		2015-16	2016-17	2017-18	2018-19			2015-16	2016-17	2017-18	2018-19
Land - Freehold	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00
Land - Leasehold	0.00	0.00	0.00	0.00	0.00	0.00	3.34	0.00	0.00	0.00	0.00
Building Civil Works & Colony	481.09	148.90	0.00	0.00	0.00	629.99	3.34	18.56	21.04	21.04	21.04
Transmission Line	33996.26	246.40	803.46	231.68	143.32	35421.12	5.28	1801.51	1829.22	1856.55	1866.45
Sub Station	3476.65	36.99	185.71	528.57	32.15	4260.07	5.28	184.54	190.42	209.28	224.08
PLCC	154.83	0.82	9.68	0.00	0.00	165.33	6.33	9.83	10.16	10.47	10.47
IT Equipment (Incl. Software)	83.24	0.44	0.00	0.00	0.00	83.68	5.28	4.41	4.42	4.42	4.42
Total	38192.07	433.55	998.85	760.25	175.47	40560.19		2018.84	2055.27	2101.76	2126.46
Average Gross Block								38408.85	39125.05	40004.60	40472.46
Weighted Average Rate								5.26%	5.25%	5.25%	5.25%

Annexure-I

Asset-II

2014-19 Capital Cost	Admitted Capital Cost as on 1.4.2014/COD (₹ in lakh)	Allowed ACE (₹ in lakh)				Admitted Capital Cost as on 31.3.2019	Rate of Depn.	Depreciation as per Regulations (₹ in lakh)			
		2015-16	2016-17	2017-18	2018-19			2015-16	2016-17	2017-18	2018-19
Land - Freehold	832.51	0.00	0.00	0.00	0.00	832.51	-	0.00	0.00	0.00	0.00
Land - Leasehold	0.00	0.00	0.00	0.00	0.00	0.00	3.34	0.00	0.00	0.00	0.00
Building Civil Works & Colony	1353.89	56.15	63.09	116.55	23.84	1613.52	3.34	46.16	48.15	51.15	53.49
Transmission Line	46659.55	615.29	1473.00	511.67	96.25	49355.77	5.28	2479.87	2535.00	2587.39	2603.44
Sub Station	6923.16	261.71	809.67	177.58	0.00	8172.13	5.28	372.45	400.74	426.80	431.49
PLCC	89.46	4.95	33.73	52.37	0.00	180.51	6.33	5.82	7.04	9.77	11.43
IT Equipment (Incl. Software)	128.45	0.58	0.00	0.00	0.00	129.03	5.28	6.80	6.81	6.81	6.81
Total	55987.03	938.68	2379.49	858.17	120.09	60283.46		2911.10	2997.74	3081.92	3106.66
Average Gross Block								56456.37	58115.46	59734.29	60223.42
Weighted Average Rate								5.16%	5.16%	5.16%	5.16%



Annexure-I

Asset- III

2014-19		Allowed ACE (₹ in lakh)				Admitted Capital Cost as on 31.3.2019	Rate of Depn.	Depreciation as per Regulations (₹ in lakh)			
Capital Cost	Admitted Capital Cost as on 1.4.2014/COD (₹ in lakh)	2015-16	2016-17	2017-18	2018-19			2015-16	2016-17	2017-18	2018-19
Land - Freehold	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00
Land - Leasehold	0.00	0.00	0.00	0.00	0.00	0.00	3.34	0.00	0.00	0.00	0.00
Building Civil Works & Colony	86.66	9.87	63.09	15.27	0.00	174.89	3.34	3.06	4.28	5.59	5.84
Transmission Line	14889.98	192.60	305.42	95.01	0.00	15483.01	5.28	791.28	804.42	814.99	817.50
Sub Station	1419.57	56.83	576.24	94.10	0.00	2146.74	5.28	76.45	93.17	110.86	113.35
PLCC	69.04	3.35	21.90	4.62	0.00	98.91	6.33	4.48	5.28	6.11	6.26
IT Equipment (Incl. Software)	49.13	0.25	0.00	0.00	0.00	49.38	5.28	2.60	2.61	2.61	2.61
Total	16514.38	262.90	966.65	209.00	0.00	17952.93		877.87	909.75	940.17	945.56
Average Gross Block								16645.83	17260.60	17848.43	17952.93
Weighted Average Rate								5.27%	5.27%	5.27%	5.27%

Annexure-I

Asset-IV

2014-19		Allowed ACE (₹ in lakh)				Admitted Capital Cost as on 31.3.2019	Rate of Depn.	Depreciation as per Regulations (₹ in lakh)			
Capital Cost	Admitted Capital Cost as on 1.4.2014/COD (₹ in lakh)	2015-16	2016-17	2017-18	2018-19			2015-16	2016-17	2017-18	2018-19
Land - Freehold	250.05	0.00	0.00	0.00	0.00	250.05	-	0.00	0.00	0.00	0.00
Land - Leasehold	0.00	0.00	0.00	0.00	0.00	0.00	3.34	0.00	0.00	0.00	0.00
Building Civil Works & Colony	929.44	119.25	835.66	454.11	147.19	2485.65	3.34	33.03	48.98	70.52	80.56
Transmission Line	6124.20	660.86	596.50	1138.33	72.84	8592.73	5.28	340.80	374.00	419.80	451.77
Sub Station	7416.87	199.65	421.32	622.40	182.67	8842.91	5.28	396.88	413.28	440.83	462.08
PLCC	141.89	9.77	15.78	0.56	0.00	168.00	6.33	9.29	10.10	10.62	10.63
IT Equipment (Incl. Software)	80.97	0.00	0.00	0.00	0.00	80.97	5.28	4.28	4.28	4.28	4.28
Total	14943.42	989.53	1869.26	2215.40	402.70	20420.31		784.29	850.63	946.04	1009.33
Average Gross Block								15438.18	16867.58	18909.91	20218.96
Weighted Average Rate								5.08%	5.04%	5.00%	4.99%



Annexure-II

2019-24 Capital Expenditure	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Projected ACE (₹ in lakh)		Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)				
		2019-20	2020-21			2019-20	2020-21	2021-22	2022-23	2023-24
Land - Freehold	1082.56	0.00	0.00	1082.56	-	0.00	0.00	0.00	0.00	0.00
Land - Leasehold	0.00	0.00	0.00	0.00	3.34%	0.00	0.00	0.00	0.00	0.00
Building Civil Works & Colony	4904.05	93.09	0.00	4997.14	3.34%	165.35	166.90	166.90	166.90	166.90
Transmission Line	108937.10	363.77	215.29	109516.16	5.28%	5761.48	5776.77	5782.45	5782.45	5782.45
Sub Station	23652.42	0.62	0.00	23653.04	5.28%	1248.86	1248.88	1248.88	1248.88	1248.88
PLCC	612.75	0.00	0.00	612.75	6.33%	38.79	38.79	38.79	38.79	38.79
IT Equipment (Incl. Software)	343.06	0.00	0.00	343.06	15.00%	51.46	51.46	51.46	51.46	51.46
Total	139531.94	457.48	215.29	140204.71		7265.94	7282.80	7288.48	7288.48	7288.48
Average Gross Block (₹ in lakh)						139760.68	140097.06	140204.71	140204.71	140204.71
Weighted Average Rate of Depreciation						5.20%	5.20%	5.20%	5.20%	5.20%

