CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

Petition No. 17/TT/2020

Coram:

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

Date of Order: 04.02.2021

In the matter of:

Approval under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and truing-up of transmission tariff of the 2014-19 period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of the 2019-24 period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 in respect of **Asset-I**: Gooty-Madhugiri 400 kV D/C Transmission Line along with the associated bays and 63 MVAr Bus Reactor at Madhugiri, **Asset-II**: 2 X 500 MVA transformers along with associated bays at Madhugiri, **Asset-III**: 220 kV line bays at Madhugiri for termination of 220 kV D/C Madhugiri-Antharasanhalli line, **Asset-IV**: 220 kV line bays at Madhugiri for termination of 220 kV D/C Madhugiri-Madhugiri line and **Asset-V**: 220 kV line bays at Madhugiri for termination of 220 kV D/C Madhugiri-Nittur line under "System Strengthening Scheme XIII" in Southern Region.

And in the Matter of:

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

....Petitioner

۷s

- 1. Karnataka Power Transmission Corporation Ltd., Kaveri Bhavan, Bangalore 560009.
- 2. Transmission Corporation of Andhra Pradesh Ltd., Vidyut Soudha, Hyderabad– 500082.
- Kerala State Electricity Board,
 Vaidyuthi Bhavanam.
 Pattom, Thiruvananthapuram 695004.
- Tamil Nadu Generation and Distribution Corporation Ltd., (Formerly Tamilnadu Electricity Board -TNEB), NPKRR Maaligai, 800, Anna Salai, Chennai – 600002.



- Electricity Department,
 Government of Pondicherry, Pondicherry 605001.
- 6. Eastern Power Distribution Company of Andhra Pradesh Ltd., P&T Colony, Seethmmadhara, Vishakhapatnam, Andhra Pradesh.
- Southern Power Distribution Company of Andhra Pradesh Ltd., Srinivasasa Kalyana Mandapam Backside, Tiruchanoor Road, Kesavayana Gunta, Tirupati – 517501, Chittoor District, Andhra Pradesh.
- Central Power Distribution Company of Andhra Pradesh Ltd.,
 Corporate Office, Mint Compound,
 Hyderabad 500063, Telangana.
- Northern Power Distribution Company of Andhra Pradesh Ltd.,
 Opp. NIT Petrol Pump, Chaitanyapuri, Kazipet,
 Warangal 506004, Telangana.
- Bangalore Electricity Supply Company Ltd., Corporate Office, K.R. Circle, Bangalore – 560001, Karnataka.
- 11. Gulbarga Electricity Supply Company Ltd., Station Main Road, Gulburga, Karnataka.
- 12. Hubli Electricity Supply Company Ltd., Navanagar, PB Road, Hubli, Karnataka.
- Mangalore Electricity Supply Company Ltd., Corporate Office, Paradigm Plaza, AB Shetty Circle, Mangalore – 575 001, Karnataka.
- Chamundeswari Electricity Supply Corporation Ltd.,
 927, L J Avenue, Ground Floor, New Kantharaj Urs Road,
 Saraswatipuram, Mysore 570 009, Karnataka.
- Electricity Department,
 Government of Goa,
 Vidyuti Bhawan, Panaji, Goa 403001.
- Transmission Corporation of Telangana Ltd.,
 Vidhyut Sudha, Khairatabad,
 Hyderabad, 500082.



17. Tamil Nadu Transmission Corporation Ltd., NPKRR Maaligai, 800, Anna Salai,

Chennai – 600002.

For Petitioner : Shri S.S. Raju, PGCIL

Shri A.K. Verma, PGCIL Shri B. Dash, PGCIL ...Respondents

For Respondents : Shri Shahbaaz Hussain, Advocate, KPTCL

<u>ORDER</u>

The instant petition has been filed by Power Grid Corporation of India Ltd., (hereinafter referred to as "the Petitioner"), a deemed transmission licensee, for truing-up of transmission tariff from the date of commercial operation (COD) to 31.3.2019 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as "the 2014 Tariff Regulations") and for determination of the tariff for the period from 1.4.2019 to 31.3.2024 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as "the 2019 Tariff Regulations") in respect of the following assets under "System Strengthening Scheme XIII" in Southern Region (hereinafter referred to as "the Transmission Project"):

Asset-I: Gooty-Madhugiri 400 kV D/C Transmission Line along with the associated bays and 63 MVAr Bus Reactor at Madhugiri;

Asset-II: 2 X 500 MVA transformers along with the associated bays at Madhugiri;

Asset-III: 220 kV line bays at Madhugiri for termination of 220 kV D/C Madhugiri-Antharasanhalli line;

Asset-IV: 220 kV line bays at Madhugiri for termination of 220 kV D/C Madhugiri-Madhugiri line, and

Asset-V: 220 kV line bays at Madhugiri for termination of 220 kV D/C Madhugiri-Nittur line.



- 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 and approve projected additional capitalization during 2019-24.
 - 3) Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided in Tariff Regulation 2014 and Tariff regulations 2019 as per para 10.2 and 11.0 above for respective block.
 - 4) Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 70 (1) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019, and other expenditure (if any) in relation to the filing of petition.
 - 5) Allow the petitioner to bill and recover Licensee fee and RLDC fees and charges, separately from the beneficiaries in terms of Regulation 70 (3) and (4) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019.
 - 6) Allow the petitioner to bill and adjust impact on Interest on Loan due to change in Interest rate on account of floating rate of interest applicable during 2019-24 period, if any, from the respondents.
 - 7) Allow the petitioner to file a separate petition before Hon'ble Commission for claiming the overall security expenses and consequential IOWC on that security expenses as mentioned at para 11.6 above.
 - 8) Allow the petitioner to claim the capital spares at the end of tariff block as per actual.
 - 9) Allow the Petitioner to bill and recover GST on Transmission Charges separately from the respondents, if GST on transmission is levied at any rate in future. Further, any taxes including GST and duties including cess etc. imposed by any statutory/Govt./municipal authorities shall be allowed to be recovered from the beneficiaries.

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

Background

- 3. The brief facts of the case are as under:
 - a) The Investment Approval (IA) for implementation of the Transmission Project was accorded by the Board of Directors of the Petitioner on 22.10.2011 vide Memorandum Ref: C/CP/SRSS-XIII dated 27.10.2011 at an estimated cost of ₹48749 lakh including IDC of ₹1940 lakh based on 2nd guarter, 2011 price



level. Subsequently, the Board of Directors of the Petitioner accorded approval for Revised Cost Estimate (RCE) at an estimated cost of ₹63946 lakh including IDC of ₹3667 lakh based on April 2015 price level.

b) The scope of work covered under the Transmission Project is as under:

Transmission Line:

- i. Gooty-Madhugiri 400 kV D/C line;
- ii. Madhugiri-Yelahanka 400 kV D/C (Quad) line with a small portion to be strung on multi-circuit tower of the SRSS-XII scheme with high ampacity conductor in Bengaluru Area;

Sub-station:

- 400/220 kV Sub-station (New) at Madhugiri with 2X500 MVA transformers with provision of establishing a 765/400 kV substation in future in the same switchyard;
- ii. Extension of Gooty 400/220 kV Sub-station;
- iii. Extension of Yelahanka 400/220 kV Sub-station;

Reactive Compensation:

- i. 1X63 MVAR Bus Reactor at 400/220 kV Sub-station at Madhugiri.
- c) As per Investment Approval, the instant assets were scheduled to be put into commercial operation within 32 months of investment approval i.e. by 27.6.2014. However, Assets-I, II, III, IV and V were put into commercial operation on 1.12.2015. Thus, there was a time over-run of 17 months (517 days) in case of instant assets and the Commission vide order dated 19.7.2016 in Petition No. 403/TT/2014 condoned the said delay.
- d) The tariff in respect of the instant assets from their COD to 31.3.2019 was initially approved as one single asset vide order dated 19.7.2016 in Petition No. 403/TT/2014. It was observed that the transmission charges approved shall be borne by the Karnataka Discoms (Respondents 10 to 14) from 1.12.2015 upto COD of the downstream assets as the downstream assets under the scope of Karnataka Discoms (Respondents 10 to 14) were not put into commercial operation and, thereafter, to be included in the PoC computation. The relevant portion of the order dated 19.7.2016 is extracted hereunder:



- "76. Drawing analogy from the above, we are of the view that the assets have been planned to cater drawl requirements of Karnataka DISCOMs and due to non-availability of downstream, the assets have not been put in regular use, we direct that the transmission charges from the COD of the instant asset shall be borne by the Karnataka DISCOMs till the commissioning of downstream network. After that the billing, collection and disbursement of the transmission charges approved shall be governed by the provisions of Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010, as amended from time to time, as provided in Regulation 43 of the 2014 Tariff Regulations."
- e) Aggrieved by the order dated 19.7.2016 in Petition No. 403/TT/2014, the Petitioner filed Review Petition No. 54/RP/2016 mainly on the ground that the asset covered in the petition was developed as a part of the transmission project for the beneficiaries of Southern Region and not only for Karnataka. Therefore, the transmission charges for the instant assets should be included in the PoC mechanism. The Commission rejected the Review Petition vide order dated 18.7.2017 and directed the Petitioner to file a fresh petition giving segregated capital cost of (a) 400 kV Gooty-Madhugiri D/C transmission line along with associated bays and the other elements of new Madhugiri Substation, and (b) 2x500 MVA transformers at Madhugiri Sub-station. The relevant portion of the order dated 18.7.2017 is extracted below.
 - "14. We have considered the contention of Review Petitioner and TANGEDCO and the comments of SRPC and CEA. COD of the instant assets was approved under proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations as 1.12.2015 and it was held in the order dated 19.7.2016 that the transmission charges for the instant assets shall be borne by Karnataka Discoms from 1.12.2015 till the commissioning of the downstream network, as the assets have not been put to regular use. As per the comments of CEA and SRPC, the 400 kV Gooty-Madhugiri D/C line has been put to use from 25.8.2016 with the charging of the Madhugiri-Bidadi 400 kV D/C Quad line (TBCB-L&T) on 25.8.2016, by making an interim arrangement at Bidadi as per the discussion held in CEA. As a result, the power flow in the range of 400-500 MW in 400 kV D/C Gooty-Madhugiri also started from that date thereby benefiting the SR beneficiaries. However, the 2x500 MVA transformers at Madhugiri Sub-station (as claimed by petitioner in Petition No.403/TT/2014) could be put to use only with the commissioning of the downstream assets by KPTCL. Accordingly, we are of the view that as the 400 kV Gooty-Madhugiri D/C transmission line is providing beneficial services to the beneficiaries of SR and helping the grid. As such, the transmission charges of the said line should be borne by Karnataka Discoms till commissioning of Madhugiri-Bidadi line, i.e. till 24.8.2016 thereafter the transmission charges shall be included in the PoC computation. We agree with CEA that the 2x500 MVA transformers at Madhugiri Substation can be put to use only with the commissioning of the downstream assets by Karnataka Discoms. As such, we are of the view that its transmission charges of 2x500 MVA transformers at Madhugiri Sub-station should be borne by Karnataka Discoms from 1.12.2015 till the commissioning of the

downstream network of KPTCL. To that extent, our decision in the impugned order shall stand revised.

- 15. It is observed that the in order dated 19.7.2016, combined tariff was allowed for the 400 kV Gooty-Madhugiri D/C transmission line alongwith associated bays and new Madhugiri Sub-station with 2x500 MVA transformers at Madhugiri Substation. The Review Petitioner is directed to file a fresh petition giving segregated capital cost of (a) 400 kV Gooty-Madhugiri D/C transmission line along with associated bays and the other elements of new Madhugiri Sub-station, and (b) 2x500 MVA transformers at Madhugiri Sub-station within 6 weeks from the date of issue of this order. The Review Petitioner shall not be required to file the filing fees and publish notice in the newspapers as it only pertains to segregation of tariff. Pending filing of the petition and issue of segregated tariff, the Review Petitioner is directed to segregate the tariff allowed in the impugned order at its end based on the apportioned cost for 2x500 MVA transformer at Madhugiri substation from the rest of the transmission system, which the Review Petitioner shall be required to raise the transmission charges for 2x500 MVA transformer at Madhugiri sub-station on Karnataka Discoms, the transmission charges for the rest of the system shall be serviced through PoC mechanism."
- e) Accordingly, the Petitioner filed Petition No. 245/TT/2017 for determination of transmission tariff for Gooty-Madhugiri 400 kV D/C line and 2 x 500 MVA transformers along with downstream bays at Madhugiri Sub-station for the 2014-19 tariff period. It is relevant to mention here that subsequent to the Commission's order dated 18.7.2017 in Review Petition No. 54/RP/2016, the Petitioner split the assets into five assets in Petition No. 245/TT/2017. The tariff for the five assets for the period from COD to 31.3.2019 was approved vide order dated 4.9.2018 in Petition No. 245/TT/2017 as per the 2014 Tariff Regulations and the same is being trued up in the instant petition.
- f) The Petitioner vide affidavit dated 17.8.2020 has submitted that the asset Madhugiri-Yelahanka 400 kV D/C (Quad) line along with a small portion to be strung on multi-circuit tower covered under the SRSS-XII scheme has achieved COD as 2.2.2020 and the same is governed by provisions of the 2019 Tariff Regulations. The Petitioner has submitted that a separate petition will be filed for claiming tariff of these assets subsequently.
- 4. The Respondents are the transmission licensees and distribution licensees, who are procuring transmission services from the Petitioner, mainly beneficiaries of the Southern Region.

- 5. The Petitioner has served the petition on the Respondents and notice of the petition has also been published in newspapers in accordance with Section 64 of the Electricity Act, 2003. No comments or objections have been received from the general public in response to the aforesaid notice published in the newspapers by the Petitioner. A general notice dated 14.1.2020 was published on the website of the Commission directing the beneficiaries/ Respondents to file reply in the matter. However, none of the Respondents have filed any reply to the petition. In the course of hearing on 22.7.2020, learned counsel for Karnataka Power Transmission Corporation Ltd. (KPTCL), Respondent No. 1 sought time to file reply to the petition. KPTCL raised objections dated 29.7.2020 and submitted that the burden of the transmission charges for non-utilization of the transmission assets should not be entirely placed on Karnataka Discoms (Respondents 10 to 14) and that the transmission charges of the transmission assets should be socialized under POC.
- 6. This order is issued considering the submissions of the Petitioner in affidavits dated 31.10.2019, 12.3.2020, 17.8.2020 and KPTCL's objections dated 29.7.2020.
- 7. The hearing in this matter was held on 22.7.2020 through video conference and order was reserved.
- 8. We have heard the representatives of the Petitioner, learned counsel for KPTCL and have perused the material on record. Accordingly, we proceed to dispose of the petition.

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

The details of the trued-up transmission charges in respect of the instant assets 9. claimed by the Petitioner are as under:

(₹ in lakh)

Asset-I								
Particulars	2015-16 (Pro-rata for 122 days)	2016-17	2017-18	2018-19				
Depreciation	515.96	1598.73	1653.08	1668.43				
Interest on Loan	242.11	909.94	1036.97	1142.92				
Return on Equity	629.17	1994.70	2109.71	2139.97				
Interest on working capital	40.48	130.14	137.84	142.24				
O & M Expenses	154.68	479.37	495.28	511.71				
Total	1582.40	5112.88	5432.88	5605.27				

(₹ in lakh)

12 111 1411								
Asset-II								
Particulars	2015-16 (Pro-rata for 122 days)	2016-17	2017-18	2018-19				
Depreciation	65.39	202.17	208.89	215.14				
Interest on Loan	71.31	209.86	200.58	190.13				
Return on Equity	74.07	228.99	237.11	245.36				
Interest on working capital	8.75	26.85	27.37	27.88				
O & M Expenses	70.60	218.86	226.12	233.62				
Total	290.12	886.73	900.07	912.13				

(₹ in lakh)

Asset-III								
Particulars	2015-16 (Pro-rata for 122 days)	2016-17	2017-18	2018-19				
Depreciation	4.46	14.91	16.04	16.17				
Interest on Loan	5.12	16.66	16.70	15.50				
Return on Equity	5.30	17.83	19.38	19.66				
Interest on working capital	1.95	6.12	6.34	6.50				
O & M Expenses	29.07	90.12	93.10	96.20				
Total	45.90	145.64	151.56	154.03				

(₹ in lakh)

1								
Asset-IV								
Particulars	2015-16 (Pro-rata for 122 days)	2016-17	2017-18	2018-19				
Depreciation	4.61	15.16	16.35	16.48				
Interest on Loan	5.78	18.32	18.33	16.99				
Return on Equity	5.47	18.12	19.75	20.03				
Interest on working capital	1.97	6.17	6.40	6.55				
O & M Expenses	29.07	90.12	93.10	96.20				
Total	46.90	147.89	153.93	156.25				

(₹ in lakh)

Asset-V

Particulars	2015-16 (Pro-rata for 122 days)	2016-17	2017-18	2018-19
Depreciation	4.61	15.11	16.30	16.42
Interest on Loan	5.69	18.02	18.02	16.69
Return on Equity	5.47	18.08	19.68	19.96
Interest on working capital	1.97	6.16	6.39	6.54
O & M Expenses	29.07	90.12	93.10	96.20
Total	46.81	147.49	153.49	155.81

10. The details of trued-up Interest on Working Capital (IWC) claimed by the Petitioner for the instant assets are as under:

(₹ in lakh)

Asset-I									
Particulars	2015-16 (Pro-rata for 122 days)	2016-17	2017-18	2018-19					
O & M Expenses	38.67	39.95	41.27	42.64					
Maintenance Spares	69.61	71.91	74.29	76.76					
Receivables	791.20	852.15	905.48	934.21					
Total	899.48	964.01	1021.04	1053.61					
Rate of Interest (%)	13.50	13.50	13.50	13.50					
Interest on Working Capital	40.48	130.14	137.84	142.24					

(₹ in lakh)

Asset-II								
Particulars	2015-16 (Pro-rata for 122 days)	2016-17	2017-18	2018-19				
O & M Expenses	17.65	18.24	18.84	19.47				
Maintenance Spares	31.77	32.83	33.92	35.04				
Receivables	145.06	147.79	150.01	152.02				
Total	194.48	198.86	202.77	206.53				
Rate of Interest (%)	13.50	13.50	13.50	13.50				
Interest on Working Capital	8.75	26.85	27.37	27.88				

(₹ in lakh)

Asset-III								
Particulars	2015-16 (Pro-rata for 122 days)	2016-17	2017-18	2018-19				
O & M Expenses	7.27	7.51	7.76	8.02				
Maintenance Spares	13.08	13.52	13.97	14.43				
Receivables	22.95	24.27	25.26	25.67				
Total	43.30	45.30	46.99	48.12				
Rate of Interest (%)	13.50	13.50	13.50	13.50				
Interest on Working Capital	1.95	6.12	6.34	6.50				



Asset-IV								
Particulars	2015-16 (Pro-rata for 122 days)	2016-17	2017-18	2018-19				
O & M Expenses	7.27	7.51	7.76	8.02				
Maintenance Spares	13.08	13.52	13.97	14.43				
Receivables	23.45	24.65	25.65	26.04				
Total	43.80	45.68	47.38	48.49				
Rate of Interest (%)	13.50	13.50	13.50	13.50				
Interest on Working Capital	1.97	6.17	6.40	6.55				

Asset-V								
Particulars	2015-16 (Pro-rata for 122 days)	2016-17	2017-18	2018-19				
O & M Expenses	7.27	7.51	7.76	8.02				
Maintenance Spares	13.08	13.52	13.97	14.43				
Receivables	23.41	24.58	25.58	25.97				
Total	43.76	45.61	47.31	48.42				
Rate of Interest (%)	13.50	13.50	13.50	13.50				
Interest on Working Capital	1.97	6.16	6.39	6.54				

Capital Cost

11. The Petitioner vide Auditor's Certificate dated 30.7.2019 has submitted the capital cost incurred upto COD (1.12.2015), ACE from COD to 31.3.2019 and estimated ACE during the period from 1.4.2019 to 31.3.2020. The details of approved apportioned capital cost, capital cost as on COD and ACE incurred upto 31.3.2019 as claimed by the Petitioner for the instant assets are as under:

(₹ in lakh)

	Apportioned	Capital cost	ACE ACE		ALF		Total capital
Asset	approved capital cost as per RCE	as on COD (on cash basis)		2016-17	2017-18	2018-19	cost as
Asset-I	37604.25	31890.31*	290.42	3234.05	546.98	282.51	36244.27
Asset-II	4462.90	3826.04*	56.42	0.00	257.03	0.00	4139.49
Asset-III	343.00	269.89*	9.66	44.59	7.48	0.00	331.62
Asset-IV	348.00	276.21*	9.66	44.59	7.48	0.00	337.94
Asset-V	349.00	274.95*	9.66	44.59	7.48	0.00	336.68
Total	43107.15	36537.40	375.82	3367.82	826.45	282.51	41390.00

(* includes un-discharged IDC)



12. We have considered the submissions of the Petitioner. It is observed that the estimated completion cost of the instant assets as on 31.3.2019 including ACE is within the RCE approved apportioned capital cost. Therefore, there is no cost overrun.

Time Over-run

13. As discussed in the above paragraph, the Commission vide order dated 19.7.2016 in Petition No. 403/TT/2014 condoned the time over-run of 17 months in case of the instant assets and allowed capitalisation of IDC and IEDC for the period of time over-run.

Interest During Construction (IDC)

- 14. The Petitioner has claimed IDC of ₹1316.81 lakh, ₹176.39 lakh, ₹12.44 lakh, ₹18.77 lakh and ₹17.51 lakh for Assets-I, II, III, IV and V respectively and has also submitted the Auditor's certificate in support of the same. The Petitioner has submitted the computation of IDC along with year-wise details of the discharged IDC.
- 15. The allowable IDC has been worked out considering the information submitted by the Petitioner for the instant assets on cash basis. The loan details submitted in Form-9C for the 2014-19 tariff period and the IDC computation sheet have been considered for the purpose of computation of IDC on cash basis and on accrual basis. The un-discharged IDC as on COD has been considered as ACE during the year in which it has been discharged. IDC is being allowed till actual COD of the instant assets as the entire time overrun of 17 months was condoned by the Commission vide order dated 19.7.2016 in Petition No. 403/TT/2014.
- 16. Accordingly, based on the information furnished by the Petitioner, the IDC considered is summarized as follows:

Asset	IDC approved in order dated 4.9.2018 in Petition No. 245/TT/2017	IDC claimed by Petitioner (as per Auditor's Certificate)	Entitled IDC up to COD	IDC disallowed as on COD due to computational difference	Un- discharged portion of entitled IDC as on COD	IDC allowed on cash basis as on COD
		Α	В	C=A-B	D	E=B-D
Asset-	1316.81	1316.81	1316.81	0.00	134.30	1182.51
Asset-	171.44	176.39	171.44	4.95	171.44	0.00
Asset-	12.32	12.44	12.32	0.12	11.63	0.69
Asset- IV	18.75	18.77	18.75	0.02	4.12	14.63
Asset- V	17.52	17.51	17.51	0.00	2.10	15.41

17. The un-discharged portion of IDC is allowed as ACE during the respective year of discharge and the same is summarized as under:

(₹ in lakh)

	Un-discharged portion of	IDC discharged as AC	
Asset	entitled IDC as on COD	2015-16	2016-17
Asset-I	134.30	24.23	110.07
Asset-II	171.44	159.14	12.30
Asset-III	11.63	11.36	0.28
Asset-IV	4.12	0.95	3.16
Asset-V	2.10	0.00	2.10

Incidental Expenditure During Construction (IEDC)

18. The Petitioner has claimed IEDC of ₹1953.84 lakh, ₹246.45 lakh, ₹18.52 lakh, ₹18.52 lakh and ₹18.52 lakh for Assets-I, II, III, IV and V respectively and has submitted the Auditor's Certificate in support of the same along with year-wise details of the actual amount of IEDC discharged in Form-12A. The Petitioner has also submitted that the entire IEDC has been discharged as on COD in respect of the

instant assets. IEDC claimed in respect of the instant assets is within the Hard Cost indicated in the Abstract Cost Estimate. Hence, IEDC claimed has been allowed.

Initial Spares

19. Regulation 13(d) of the 2014 Tariff Regulations provides that Initial Spares shall be capitalized as a percentage of plant and machinery cost up to cut-off date, subject to following ceiling norms: -

"(d) Transmission System Transmission line: 1.00%

Transmission sub-station (Green Field): 4.00% Transmission sub-station (Brown Field): 6.00%

GIS Sub-station: 5.00%"

20. The Petitioner has claimed the following Initial Spares for the transmission assets and prayed to allow the same as per the actuals:

Assets	Particulars	Estimated Completion Cost (A) (₹ in lakh)	Initial Spares (B) (₹ in lakh)	Ceiling (%) (C)	Initial Spares worked out by Petitioner D = [(A-B) * C/ (100-C)]
Asset-I	Sub-station (AIS)	3687.01	111.58	4.0	148.98
Asset-II	Sub-station (AIS)	3837.38	142.61	4.0	153.95
Asset-III	Sub-station (AIS)	221.07	8.32	4.0	8.86
Asset-IV	Sub-station (AIS)	221.06	7.13	4.0	8.91
Asset-V	Sub-station (AIS)	221.06	8.32	4.0	8.86
Asset	Particulars	Estimated Completion Cost (A)	Initial Spares (B)	Ceiling (%)	Initial Spares worked out by Petitioner
7.000		(₹ in lakh)	(₹ in lakh)	(C)	D = [(A-B) * C/ (100-C)]
Asset-I	Transmission Line	21012.39	193.34	1.0	210.29

21. We have considered the submissions of the Petitioner. The instant assets were put into commercial operation on 1.12.2015. Therefore, the cut-off date is 31.3.2018 and the capital cost up to the cut-off date has been considered for computation of

Initial Spares. The Petitioner's claim of Initial Spares of the instant assets is within the norms specified in Regulation 13(d) of the 2014 Tariff Regulations and hence allowed. The details of the initial spares are as under:

	Sub-station (AIS) Element								
Asset	Plant & machinery cost up to cut-off date (excluding IDC and IEDC as per Auditor's Initial Spares claimed (B) (B) (F) in (%) (C) Allowable Initial Spares worked out		cost up to cut-off date (excluding IDC and IEDC as per Auditor's		Excess Initial Spares (₹ in	Initial Spares allowed (₹ in			
	Certificate) (A) (₹ in lakh)	(₹ in lakh)		D = [(A-B)*C /(100-C)]	lakh)	lakh)			
Asset-	3687.01	111.58	4.0	148.98	Nil	111.58			
Asset-	3837.38	142.61	4.0	153.95	Nil	142.61			
Asset-	221.07	8.32	4.0	8.86	Nil	8.32			
Asset-	221.06	7.13	4.0	8.91	Nil	7.13			
Asset- V	221.06	8.32	4.0	8.86	Nil	8.32			

	Transmission Line Element						
Asset	Plant & machinery cost up to cut-off date (excluding IDC and IEDC as per Auditor's	Initial Spares claimed (B)	res Ceiling Spares Initial Spares Limit worked out ₹ in		Spares	Initial Spares allowed (₹ in	
	Certificate) (A) (₹ in lakh)	(₹ in lakh)		D = [(A-B)*C /(100-C)]	lakh)	lakh)	
Asset-	21012.39	193.34	1.0	210.29	Nil	193.34	

Capital cost as on COD

22. Accordingly, the capital cost allowed as on COD is summarized as under:

	Capital cost as on Less: IDC as on COD due to				
Assets	COD as per Auditor's Certificate	Computation difference	Un-discharged	considered as on COD (on cash basis)	
Asset-I	31890.31	0.00	134.30	31756.01	
Asset-II	3826.04	4.95	171.44	3649.65	
Asset-III	269.89	0.12	11.63	258.14	



	Capital cost as on	Less: IDC as	on COD due to	Capital cost	
Assets	COD as per Auditor's Certificate	Computation difference	Un-discharged	considered as on COD (on cash basis)	
Asset-IV	276.21	0.02	4.12	272.07	
Asset-V	274.95	0.00	2.10	272.85	

Additional Capital Expenditure (ACE)

- 23. The Petitioner has claimed ACE of ₹4488.27 lakh with respect to Asset-I during the 2014-19 tariff period, including accrued IDC of ₹24.23 lakh discharged during 2015-16 and ₹110.08 lakh during 2016-17. With regard to Asset-II, the Petitioner has claimed ACE of ₹489.84 lakh during the 2014-19 tariff period including accrued IDC of ₹158.70 lakh discharged during 2015-16 and ₹17.69 lakh during 2016-17. With respect to Asset-III, the Petitioner has claimed ACE of ₹73.48 lakh during the 2014-19 tariff period including accrued IDC of ₹11.32 lakh discharged during 2015-16 and ₹0.43 lakh during 2016-17. With regard to Asset-IV, the Petitioner has claimed ACE of ₹65.87 lakh during the 2014-19 tariff period including accrued IDC of ₹0.95 lakh discharged during 2015-16 and ₹3.19 lakh during 2016-17. With respect to Asset-V, the Petitioner has claimed ACE of ₹63.83 lakh during the 2014-19 tariff period including accrued IDC of ₹2.10 lakh during 2016-17.
- 24. The Petitioner has submitted that ACE is mainly on account of un-discharged liability towards the final payment/ withheld payment due to contractual exigencies of works executed within the cut-off date and the works deferred for execution. ACE in case of the instant assets during the 2015-18 period has been claimed under Regulation 14(1)(i) and (ii) of the 2014 Tariff Regulations and is within the cut-off date. ACE in case of the instant assets during 2018-19 has been claimed under Regulation 14(3)(v) of the 2014 Tariff Regulations and is beyond the cut-off date.

25. The Petitioner has further submitted that ACE upto 31.3.2019 has been considered in the Auditor's Certificate as per the actuals whereas ACE claimed for the period from 1.4.2019 to 31.3.2020 is on estimated basis and may vary due to final claim/ reconciliation at the time of contract closing. The contract-wise details of works deferred for execution are as under:

(₹ in lakh)

	(₹ in iakn					α,
Assets	Party	Package		Financia		
ASSELS	laity	i ackage	2015-16	2016-17	2017-18	2018-19
l	Land Payments	Land	0.00	1666.27	0.00	0.00
ŀ	KEC	Sub-station Work	152.32	402.42	153.79	0.00
Asset-I	KBR Infratech Limited	Sub-station Work	7.56	0.00	142.69	0.00
I	Instalaciones Inabensa	Transmission Line Work	130.54	0.00	0.00	0.00
	Kalyani Projects and Blesso Construction	Building & Civil Work	0.00	0.00	0.00	259.51
Total			290.42	2068.69	296.48	259.51
			1			
Asset-II	KEC	Sub-station Work	56.42	0.00	173.73	0.00
Total			56.42	0.00	173.73	0.00
Asset-III	KEC	Sub-station Work	9.66	23.08	0.00	0.00
Total			9.66	23.08	0.00	0.00
					•	•
Asset-IV	KEC	Sub-station Work	9.66	24.07	0.00	0.00
Total			9.66	24.07	0.00	0.00
'						
Asset-V	KEC	Sub-station Work	9.66	25.34	0.00	0.00
Total			9.66	25.34	0.00	0.00

26. The contract-wise details of balance and retention payments are as under:

			Financial Year				
Asset	Party	Package	2015- 16	2016- 17	2017- 18	2018- 19	
	Kalyani Projects and Blesso Construction	Land	0.00	0.00	0.00	23.00	
Asset-I	KEC	Sub-station Work	0.00	328.16	34.13	0.00	
	CGL	Sub-station	0.00	0.00	10.95	0.00	

				Financial Year				
Asset	Party	Package	2015- 16	2016- 17	2017- 18	2018- 19		
		Work						
	Unitech	Transmission Line Work	0.00	197.08	0.00	0.00		
	Instalaciones Inabensa	Transmission Line Work	0.00	540.23	205.4	0.00		
	Shandong Ruitai	Transmission Line Work	0.00	73.69	0.00	0.00		
	Site Packages	Transmission Line Work	0.00	26.21	0.00	0.00		
Total			0.00	1165.37	250.50	23.00		
Asset-II	KEC	Sub-station Work	0.00	0.00	83.30	0.00		
Total			0.00	0.00	83.30	0.00		
			1	<u> </u>				
Asset-III	KEC	Sub-station Work	0.00	21.51	7.48	0.00		
Total			0.00	21.51	7.48	0.00		
		1	T	1				
Asset-IV	KEC	Sub-station Work	0.00	20.52	7.48	0.00		
Total			0.00	20.52	7.48	0.00		
Asset-V	KEC	Sub-station Work	0.00	19.25	7.48	0.00		
Total			0.00	19.25	7.48	0.00		

- 27. ACE claimed by the Petitioner for Assets-I, II, III, IV and V is on account of works deferred for execution, balance and retention payment and accrued IDC discharged during 2015-16 and 2016-17. ACE claimed by the Petitioner during 2015-18 period for the instant assets is within the cut-off date. ACE in case of the instant assets during 2018-19 is beyond the cut-off date. ACE during 2015-16 to 2018-19 is allowed under Regulations14(1)(i) and (ii) and 14(3)(v) of the 2014 Tariff Regulations. The same has been considered for computation of total capital cost as on 31.3.2019.
- 28. The details of ACE allowed for the instant assets are as follows:

	ACE					
Asset-I	2015-16	2016-17	2017-18	2018-19		
ACE to the extent of Balance & Retention Payments and work deferred for execution	290.42	3234.06	546.98	282.51		
Add: IDC Discharged	24.23	110.07	0.00	0.00		
Total ACE allowed	314.65	3344.13	546.98	282.51		

(₹ in lakh)

	ACE					
Asset-II	2015-16	2016-17	2017-18	2018-19		
ACE to the extent of Balance & Retention Payments and work deferred for execution	56.42	0.00	257.03	0.00		
Add: IDC Discharged	159.14	12.30	0.00	0.00		
Total ACE allowed	215.56	12.30	257.03	0.00		

(₹ in lakh)

	ACE					
Asset-III	2015-16	2016-17	2017-18	2018-19		
ACE to the extent of Balance & Retention Payments and work deferred for execution	9.66	44.59	7.48	0.00		
Add: IDC Discharged	11.36	0.28	0.00	0.00		
Total ACE allowed	21.02	44.87	7.48	0.00		

(₹ in lakh)

		,		
Asset-IV	2015-16	2016-17	2017-18	2018-19
ACE to the extent of Balance & Retention Payments and work deferred for execution	9.66	44.59	7.48	0.00
Add: IDC Discharged	0.95	3.16	0.00	0.00
Total ACE allowed	10.61	47.75	7.48	0.00

	ACE						
Asset-V	2015-16	2016-17	2017-18	2018-19			
ACE to the extent of Balance & Retention Payments and work deferred for execution	9.66	44.59	7.48	0.00			
Add: IDC Discharged	0.00	2.10	0.00	0.00			
Total ACE allowed	9.66	46.69	7.48	0.00			



Capital Cost summary from COD to 31.3.2019

29. Accordingly, the capital cost considered for computation of tariff for the instant assets is as under:

(₹ in lakh)

Assets	Capital Cost		AC	Total Capital Cost		
Name	as on COD	2015- 16	2016- 17	2017- 18	2018- 19	including ACE as on 31.3.2019
Asset-I	31756.01	314.65	3344.13	546.98	282.51	36244.28
Asset-II	3649.65	215.56	12.30	257.03	0.00	4134.54
Asset-III	258.14	21.02	44.87	7.48	0.00	331.50
Asset-IV	272.07	10.61	47.75	7.48	0.00	337.92
Asset-V	272.85	9.66	46.69	7.48	0.00	336.68

30. The details of ACE approved for the instant assets vide order dated 4.9.2018 in Petition No. 245/TT/2017, claimed by the Petitioner in the instant petition and allowed in the instant order are as under:

(₹ in lakh)

Asset-I	Capital cost as on COD	ACE 2015- 2016- 2017- 2018- 16 17 18 19				Total Capital cost including ACE as on 31.3.2019
Approved earlier vide order dated 4.9.2018 in Petition No. 245/TT/2017	31756.00	591.77	1897.67	738.62	0.00	34984.06
Claimed by the Petitioner in the instant petition	31756.01	314.65	3344.12	546.98	282.51	36244.27
Approved in the instant order	31756.01	314.65	3344.13	546.98	282.51	36244.28

	(* iii iaitii)					
Asset-II	Capital cost as on COD		AC	E		Total Capital cost including ACE as on
		2015-16	2016-17	2017-18	2018-19	31.3.2019
Approved earlier vide order dated 4.9.2018 in Petition No. 245/TT/2017	3649.65	215.12	537.91	15.30	0.00	4417.98
Claimed by the Petitioner in the instant petition	3649.65	215.12	17.69	257.03	0.00	4139.49
Approved in the instant order	3649.65	215.56	12.30	257.03	0.00	4134.54

Asset-III	Capital cost		AC	CE		Total Capital cost including ACE as on
		2015- 16	2016- 17	2017- 18	2018- 19	31.3.2019
Approved earlier vide order dated 4.9.2018 in Petition No. 245/TT/2017	258.14	20.98	44.89	7.48	0.00	331.49
Claimed by the Petitioner in the instant petition	258.14	20.98	45.02	7.48	0.00	331.62
Approved in the instant order	258.14	21.02	44.87	7.48	0.00	331.50

(₹ in lakh)

						(X III Iar	
Asset-IV	Capital cost as on	ACE co			st as on COD		Total Capital cost including ACE as on
	COD	2015-16	2016-17	2017-18	2018-19	31.3.2019	
Approved earlier vide order dated 4.9.2018 in Petition No. 245/TT/2017	271.63	10.61	47.78	7.48	0.00	337.50	
Claimed by the Petitioner in the instant petition	272.07	10.61	47.78	7.48	0.00	337.94	
Approved in the instant order	272.07	10.61	47.75	7.48	0.00	337.92	

(₹ in lakh)

	1					(₹ III lak			
Asset-V	Capital cost as on COD	ACE				ACE			Total Capital cost including ACE as on
	COD	2015-16	2016-17	2017-18	2018-19	31.3.2019			
Approved earlier vide order dated 4.9.2018 in Petition No. 245/TT/2017	271.58	9.66	46.69	7.48	0.00	335.41			
Claimed by the Petitioner in the instant petition	272.85	9.66	46.69	7.48	0.00	336.68			
Approved in the instant order	272.85	9.66	46.69	7.48	0.00	336.68			

Debt-Equity Ratio

31. The Petitioner has claimed debt-equity ratio of 70:30 as on COD and for ACE after the COD. The debt-equity ratio of 70:30 has been considered for capital cost as on COD and for ACE during 2015-16, 2016-17, 2017-18 and 2018-19 as provided

under Regulation 19 of the 2014 Tariff Regulations. The details of the debt-equity ratio as on COD and as on 31.3.2019 considered for the purpose of tariff computation for the 2014-19 tariff period is as follows:

	As on CO	OD	As on 31.3	.2019	
Asset-I	Amount (₹ in lakh)	(%)	Amount (₹ in lakh)	(%)	
Debt	22229.21	70.00	25371.02	70.00	
Equity	9526.80	30.00	10873.26	30.00	
Total	31756.01	100.00	36244.28	100.00	
	As on CO	OD	As on 31.3	.2019	
Asset-II	Amount (₹ in lakh)	(%)	Amount (₹ in lakh)	(%)	
Debt	2554.76	70.00	2894.18	70.00	
Equity	1094.89	30.00	1240.36	30.00	
Total	3649.65	100.00	4134.54	100.00	
	As on Co	OD	As on 31.3	.2019	
Asset-III	Amount (₹ in lakh)	(%)	Amount (₹ in lakh)	(%)	
Debt	180.70	70.00	232.06	70.00	
Equity	77.44	30.00	99.44	30.00	
Total	258.14	100.00	331.50	100.00	
	As on Co	OD	As on 31.3	.2019	
Asset-IV	Amount (₹ in lakh)	(%)	Amount (₹ in lakh)	(%)	
Debt	190.45	70.00	236.55	70.00	
Equity	81.62	30.00	101.36	30.00	
Total	272.07	100.00	337.92	100.00	
	As on CO	OD	As on 31.3.2019		
Asset-V	Amount (₹ in lakh)	(%)	Amount (₹ in lakh)	(%)	
Debt	191.00	70.00	235.69	70.00	
Equity	81.85	30.00	101.00	30.00	
Total	272.85	100.00	336.68	100.00	

Interest on Loan (IoL)

32. The Petitioner has claimed IoL based on actual interest rates for each year during the 2014-19 period.

- 33. We have considered the submissions of the Petitioner and calculated IoL based on actual interest rate, in accordance with Regulation 26 of the 2014 Tariff Regulations as following:
 - (i) Gross amount of loan, repayment of instalments and weighted average rate of interest on actual average loan have been considered as per the petition.
 - (ii) The repayment for the tariff period 2014-19 has been considered to be equal to the depreciation allowed for that period.
- 34. It is observed that the SBI and ICICI loan with respect to instant assets have been deployed with floating rates of interest. Accordingly, factoring in the impact of floating rate of interest, IoL has been considered based on the actual interest rate in accordance with Regulation 26 of the 2014 Tariff Regulations.
- 35. The details of the trued up IoL allowed for the instant assets in accordance with Regulation 26 of the 2014 Tariff Regulations is as under:

	A soot I			(m idini)
	Asset-I			
	2015-16			
Particulars	(Pro-rata for	2016-17	2017-18	2018-19
	122 days)			
Gross Normative Loan	22229.21	22449.48	24790.37	25173.26
Cumulative Repayments up to	0.00	E11 10	2108.77	3757.17
Previous Year	0.00	514.48	2100.77	3/5/.1/
Net Loan-Opening	22229.21	21935.00	22681.60	21416.09
Additions due to ACE	220.27	2340.89	382.89	197.76
Repayment during the year	514.48	1594.29	1648.40	1663.51
Net Loan-Closing	21935.00	22681.60	21416.09	19950.34
Average Loan	22082.10	22308.30	22048.85	20683.21
Weighted Average Rate of Interest on	3.29	4.00	4.70	5 52
Loan (%)	3.29	4.08	4.70	5.53
Interest on Loan	242.12	910.08	1037.35	1143.63

Asset-II							
Particulars	2015-16 (Pro-rata for 122 days)	2016-17	2017-18	2018-19			
Gross Normative Loan	2554.76	2705.65	2714.26	2894.18			



Asset-II									
Particulars	2015-16 (Pro-rata for 122 days)	2016-17	2017-18	2018-19					
Cumulative Repayments up to Previous Year	0.00	65.40	267.45	476.08					
Net Loan-Opening	2554.76	2640.25	2446.81	2418.11					
Additions due to ACE	150.89	8.61	179.92	0.00					
Repayment during the year	65.40	202.05	208.63	214.88					
Net Loan-Closing	2640.25	2446.81	2418.11	2203.22					
Average Loan	2597.51	2543.53	2432.46	2310.66					
Weighted Average Rate of Interest on Loan (%)	8.24	8.25	8.24	8.22					
Interest on Loan	71.31	209.73	200.31	189.88					

	Asset-III			
Particulars	2015-16 (Pro-rata for 122 days)	2016-17	2017-18	2018-19
Gross Normative Loan	180.70	195.41	226.82	232.06
Cumulative Repayments up to Previous Year	0.00	4.47	19.38	35.41
Net Loan-Opening	180.70	190.94	207.44	196.65
Additions due to ACE	14.72	31.41	5.24	0.00
Repayment during the year	4.47	14.91	16.04	16.16
Net Loan-Closing	190.94	207.44	196.65	180.48
Average Loan	185.82	199.19	202.04	188.57
Weighted Average Rate of Interest on Loan (%)	8.27	8.36	8.26	8.21
Interest on Loan	5.12	16.66	16.70	15.49

	Asset-IV			
Particulars	2015-16 (Pro-rata for 122 days)	2016-17	2017-18	2018-19
Gross Normative Loan	190.45	197.88	231.31	236.55
Cumulative Repayments up to Previous Year	0.00	4.61	19.77	36.13
Net Loan-Opening	190.45	193.27	211.55	200.43
Additions due to ACE	7.43	33.43	5.24	0.00
Repayment during the year	4.61	15.15	16.36	16.48
Net Loan-Closing	193.27	211.55	200.43	183.95
Average Loan	191.86	202.41	205.99	192.19
Weighted Average Rate of Interest on Loan (%)	9.03	9.05	8.90	8.84
Interest on Loan	5.78	18.32	18.32	16.99



	Asset-V				
Particulars	2015-16 (Pro-rata for 122 days)	2016-17	2017-18	2018-19	
Gross Normative Loan	191.00	197.76	230.45	235.69	
Cumulative Repayments up to Previous Year	0.00	4.62	19.74	36.03	
Net Loan-Opening	191.00	193.14	210.71	199.65	
Additions due to ACE	6.76	32.68	5.24	0.00	
Repayment during the year	4.62	15.12	16.29	16.42	
Net Loan-Closing	193.14	210.71	199.65	183.23	
Average Loan	192.07	201.92	205.18	191.44	
Weighted Average Rate of Interest on Loan (%)	8.89	8.92	8.78	8.72	
Interest on Loan	5.69	18.02	18.01	16.69	

36. The details of loL approved for the instant assets vide order dated 4.9.2018 in Petition No. 245/TT/2017, claimed by the Petitioner in the instant petition and allowed and trued-up in this order are as under:

Assets	Particulars	2015-16 (Pro-rata for 122 days)	2016-17	2017-18	2018-19
Asset-I	Approved earlier vide order dated 4.9.2018 in Petition No. 245/TT/2017	225.10	690.16	682.76	651.65
ASSEL-I	As claimed by the Petitioner in the instant Petition	242.11	909.94	1036.97	1142.92
	Allowed after truing-up	242.12	910.08	1037.35	1143.63
A 4 H	Approved earlier vide order dated 4.9.2018 in Petition No. 245/TT/2017	71.50	224.40	222.03	203.52
Asset-II	As claimed by the Petitioner in the instant Petition	71.31	209.86	200.58	190.13
	Allowed after truing-up	71.31	209.73	200.31	189.88
A so st III	Approved earlier vide order dated 4.9.2018 in Petition No. 245/TT/2017	5.14	16.52	16.76	15.64
Asset-III	As claimed by the Petitioner in the instant Petition	5.12	16.66	16.70	15.50
	Allowed after truing-up	5.12	16.66	16.70	15.49
Asset-IV	Approved earlier vide order dated 4.9.2018 in Petition No. 245/TT/2017	5.78	18.26	18.58	17.34
	As claimed by the Petitioner in the instant Petition	5.78	18.32	18.33	16.99

Assets	Particulars	2015-16 (Pro-rata for 122 days)	2016-17	2017-18	2018-19
	Allowed after truing-up	5.78	18.32	18.32	16.99
(Access) (Approved earlier vide order dated 4.9.2018 in Petition No. 245/TT/2017	5.68	17.90	18.19	16.97
Asset-V	As claimed by the Petitioner in the instant Petition	5.69	18.02	18.02	16.69
	Allowed after truing-up	5.69	18.02	18.01	16.69

Return on Equity (RoE)

37. The Petitioner is entitled to RoE for the instant 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 MAT rates and has claimed the following effective tax rates for the 2014-19 tariff period:

Year	Effective tax (%)	Grossed up RoE [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

- 38. The Commission in order dated 27.4.2020 in Petition No. 274/TT/2019 has arrived at the effective tax rate for the Petitioner based on the notified MAT rates. The relevant portion of the order dated 27.4.2020 is as under:
 - "26. We are conscious that the entities covered under MAT regime are paying Income Tax as per MAT rate notified for respective financial year under IT Act, 1961, which is levied on the book profit of the entity computed as per the Section 115JB of the IT Act, 1961. The Section 115JB(2) defines book profit as net profit in the statement of Profit & Loss prepared in accordance with Schedule-III of the Companies Act, 2013, subject to some additions and deductions as mentioned in the IT Act, 1961. Since the Petitioner has been paying income tax on income computed under Section 115JB of the IT Act, 1961 as per the MAT rates of the respective financial year, the notified MAT rate for respective financial year shall be considered as effective tax rate for the purpose of grossing up of RoE for truing-up of the tariff of the 2014-19 tariff period in terms of the provisions of the 2014 Tariff Regulations. Interest imposed on any additional income tax demand as per the Assessment Order of the Income Tax authorities shall be considered on actual payment. However, penalty (for default on the part of the Assessee) if any imposed shall not be taken into account for the purpose of grossing up of rate of return



on equity. 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 transmission customers/ DICs as the case may be on year to year basis.

27. Accordingly, following effective tax rates based on notified MAT rates are considered for the purpose of grossing up of rate of return on equity:

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

39. The MAT rates considered in order dated 27.4.2020 in Petition No. 274/TT/2019 are considered for the purpose of grossing up of rate of RoE for truing up of the tariff of the 2014-19 period in terms of the provisions of the 2014 Tariff Regulations as under:

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

40. Accordingly, the trued-up RoE allowed for the instant assets is as follows:

Asset-I				
	2015-16			
Particulars	(Pro-rata for	2016-17	2017-18	2018-19
	122 days)			
Opening Equity	9526.80	9621.18	10624.42	10788.51
Addition due to ACE	94.38	1003.24	164.09	84.75
Closing Equity	9621.18	10624.42	10788.51	10873.26
Average Equity	9573.99	10122.80	10706.46	10830.88
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50
Tax Rate applicable (%)	21.342	21.342	21.342	21.549
Rate of Return on Equity (Pre-tax)	19.705	19.705	19.705	19.758
Return on Equity (Pre-tax)	628.85	1994.70	2109.71	2139.97

Asset-II					
	2015-16				
Particulars	(Pro-rata for	2016-17	2017-18	2018-19	
	122 days)				
Opening Equity	1094.89	1159.56	1163.25	1240.36	
Addition due to ACE	64.67	3.69	77.11	0.00	
Closing Equity	1159.56	1163.25	1240.36	1240.36	
Average Equity	1127.22	1161.40	1201.80	1240.36	
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	
Tax Rate applicable (%)	21.342	21.342	21.342	21.549	
Rate of Return on Equity (Pre-tax)	19.705	19.705	19.705	19.758	
Return on Equity (Pre-tax)	74.04	228.85	236.82	245.07	

(₹ in lakh)

	Asset-III			
Particulars	2015-16 (Pro-rata for 122 days)	2016-17	2017-18	2018-19
Opening Equity	77.44	83.74	97.20	99.44
Addition due to ACE	6.30	13.46	2.24	0.00
Closing Equity	83.74	97.20	99.44	99.44
Average Equity	80.59	90.47	98.32	99.44
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50
Tax Rate applicable (%)	21.342	21.342	21.342	21.549
Rate of Return on Equity (Pre-tax)	19.705	19.705	19.705	19.758
Return on Equity (Pre-tax)	5.29	17.83	19.37	19.65

(₹ in lakh)

Asset-IV				•
Particulars	2015-16 (Pro-rata for 122 days)	2016-17	2017-18	2018-19
Opening Equity	81.62	84.80	99.12	101.36
Addition due to ACE	3.18	14.32	2.24	0.00
Closing Equity	84.80	99.12	101.36	101.36
Average Equity	83.21	91.96	100.24	101.36
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50
Tax Rate applicable (%)	21.342	21.342	21.342	21.549
Rate of Return on Equity (Pre-tax)	19.705	19.705	19.705	19.758
Return on Equity (Pre-tax)	5.47	18.12	19.75	20.03

(₹ in lakh)

Asset-V						
Particulars	2015-16 (Pro-rata for 122 days)	2016-17	2017-18	2018-19		
Opening Equity	81.85	84.75	98.76	101.00		
Addition due to ACE	2.90	14.01	2.24	0.00		
Closing Equity	84.75	98.76	101.00	101.00		
Average Equity	83.30	91.75	99.88	101.00		
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50		

Page **28** of **80**



Asset-V						
Particulars	2015-16 (Pro-rata for 122 days)	2016-17	2017-18	2018-19		
Tax Rate applicable (%)	21.342	21.342	21.342	21.549		
Rate of Return on Equity (Pre-tax)	19.705	19.705	19.705	19.758		
Return on Equity (Pre-tax)	5.47	18.08	19.68	19.95		

41. The details of RoE approved for the instant assets vide order dated 4.9.2018 in Petition No. 245/TT/2017, claimed by the Petitioner in the instant petition; and allowed and trued-up in the instant order is as follows:

Assets	Particulars	2015-16 (Pro-rata for 122 days)	2016-17	2017-18	2018-19
	Approved earlier vide order dated 4.9.2018 in Petition No. 245/TT/2017	630.26	1958.84	2036.39	2058.11
Asset-I	As claimed by the Petitioner in the instant Petition	629.17	1994.70	2109.71	2139.97
	Allowed after truing-up	628.85	1994.70	2109.71	2139.97
Asset-II	Approved earlier vide order dated 4.9.2018 in Petition No. 245/TT/2017	73.88	243.19	259.46	259.91
ASSEL-II	As claimed by the Petitioner in the instant Petition	74.07	228.99	237.11	245.36
	Allowed after truing-up	74.04	228.85	236.82	245.07
	Approved earlier vide order dated 4.9.2018 in Petition No. 245/TT/2017	5.28	17.74	19.28	19.50
Asset-III	As claimed by the Petitioner in the instant Petition	5.30	17.83	19.38	19.66
	Allowed after truing-up	5.29	17.83	19.37	19.65
Asset-IV	Approved earlier vide order dated 4.9.2018 in Petition No. 245/TT/2017	5.45	18.01	19.64	19.86
ASSEL-IV	As claimed by the Petitioner in the instant Petition	5.47	18.12	19.75	20.03
	Allowed after truing-up	5.47	18.12	19.75	20.03
	Approved earlier vide order dated 4.9.2018 in Petition No. 245/TT/2017	5.44	17.92	19.51	19.73
Asset-V	As claimed by the Petitioner in the instant Petition	5.47	18.08	19.68	19.96
	Allowed after truing-up	5.47	18.08	19.68	19.95

Depreciation

42. The Petitioner has claimed depreciation considering capital expenditure as on COD and ACE during 2014-19 (including IDC discharged during 2015-16, 2016-17 and 2017-18) for the instant assets as under:

(₹ in lakh)

	Apportioned approved	Capital Cost		ACE (C	laimed)	•
Assets	Capital Cost as per RCE	as on COD	2015-16	2016-17	2017-18	2018-19
Asset-I	37604.25	31756.01	314.65*	3344.12*	546.98	282.51
Asset-II	4462.90	3649.65	215.12*	17.69*	257.03	0.00
Asset-III	343.00	258.14	20.98*	45.02*	7.48	0.00
Asset-IV	348.00	272.07	10.61*	47.78*	7.48	0.00
Asset-V	349.00	272.85	9.66*	46.69*	7.48	0.00
TOTAL	43107.15	36208.72	571.02	3501.30	826.45	282.51

^{(*} includes un-discharged IDC)

[&]quot;31. We have considered the submissions of the Petitioner. The instant assets were put into commercial operation during the 2009-14 period and the tariff from the respective CODs to 31.3.2014 was allowed vide orders dated 30.8.2012and 9.5.2013in Petition No.343/2010 and Petition No. 147/TT/2011 respectively. Further, the tariff of the 2009-14 period was trued up and tariff for the 2014-19 period was allowed vide order dated



^{43.} It is observed that in Petition No. 245/TT/2017 wherein tariff was determined for Asset-I for the 2014-19 tariff period, the Petitioner had submitted the capital cost of IT equipment in sub-station cost and as such the depreciation for IT equipment was allowed @5.28% of the corresponding capital cost. The Petitioner now at the time of truing-up of tariff of the 2014-19 period has segregated the IT equipment cost from sub-station cost and has considered depreciation rate for IT Equipment @15% and the salvage value for "IT Equipment" as NIL as per the 2014 Tariff Regulations. It is observed that the Petitioner has for the first time apportioned a part of the capital expenditure towards IT Equipment and has claimed depreciation under the head "IT Equipment" @15% at the time of truing-up of the tariff of the 2014-19 period. In a similar case, the Commission in order dated 9.5.2020 in Petition No. 19/TT/2020 held as under:

25.2.2016 in Petition No.10/TT/2015. The Petitioner did not claim any capital expenditure towards "IT Equipment" in the above said three petitions where tariff for the instant assets for the 2009-14 period was allowed, tariff of the 2009-14 period was trued up and tariff for 2014- 19 period was allowed even though there was a clear provision in the 2009 Tariff Regulations and 2014 Tariff Regulations providing depreciation @15% for IT Equipment. Having failed to make a claim as per the 2009 Tariff Regulations(the period during which COD of assets was achieved), the Petitioner has now, at the time of truing up of the tariff allowed for the 2014-19 period has apportioned a part of the capital expenditure to "IT Equipment". The Petitioner has adopted similar methodology not only in this but in some of the other petitions listed along with the instant petition on 26.2.2020. It is observed that the Petitioner has for the first time apportioned a part of the capital expenditure towards IT Equipment and has claimed depreciation under the head "IT Equipment" @15% at the time of truing up of the tariff of 2014-19 period. Regulation 8(1) of the 2014 Tariff Regulations provides for truing up of the capital expenditure including the additional capital expenditure, incurred upto 31.3.2019, admitted by the Commission after prudence check. We are of the view that scope of truing up exercise is restricted to truing up of the capital expenditure already admitted and apportionment or reapportionment of the capital expenditure cannot be allowed at the time of truing up. Therefore, we are not inclined to consider the Petitioner's prayer for apportionment of capital expenditure towards IT Equipment and allowing depreciation @ 15% from 1.4.2014 onwards. Accordingly, the depreciation @ 5.28% has been considered for IT Equipment as part of the substation upto 31.3.2019 while truing up the capital expenditure for the 2014-19 period. During 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 read with Sr. No. (p) of the Appendix-I (Depreciation Schedule) of the 2019 Tariff Regulations."

- 44. In line with the above order dated 9.5.2020, depreciation has been considered @5.28% for IT Equipment as part of the sub-station upto 31.3.2019 while truing-up the capital expenditure for the 2014-19 period. During 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 read with Sr. No. (p) of the Appendix-I (Depreciation Schedule) of the 2019 Tariff Regulations.
- 45. Depreciation has been computed considering capital expenditure as on COD and approved ACE during the 2014-19 tariff period. The Gross Block during the tariff period 2014-19 with regard to Assets-I, II, III, IV and V has been depreciated at Weighted Average Rate of Depreciation (WAROD) and working of WAROD is attached as Annexures-1, 2, 3, 4 and 5 respectively. WAROD has been worked out

after taking into account the depreciation rates of assets as prescribed in the 2014 Tariff Regulations and depreciation allowed during 2014-19 for the instant assets is as under:

(₹ in lakh)

Asset-I						
Particulars	2015-16 (Pro-rata for 122 days)	2016-17	2017-18	2018-19		
Opening Gross Block	31756.01	32070.66	35414.79	35961.77		
ACE	314.65	3344.13	546.98	282.51		
Closing Gross Block	32070.66	35414.79	35961.77	36244.28		
Average Gross Block	31913.34	33742.73	35688.28	36103.03		
WAROD (%)	4.84	4.72	4.62	4.61		
Balance useful life of the asset at the beginning of the year	33.00	33.00	32.00	31.00		
Aggregated Depreciable Value	26904.19	27800.82	28732.79	29036.86		
Remaining Depreciable value at the end of the year	26389.71	25692.05	24975.62	23616.17		
Combined Depreciation during the year	514.48	1594.29	1648.40	1663.51		

(₹ in lakh)

Asset-II						
Particulars	2015-16 (Pro-rata for 122 days)	2016-17	2017-18	2018-19		
Opening Gross Block	3649.65	3865.21	3877.51	4134.54		
ACE	215.56	12.30	257.03	0.00		
Closing Gross Block	3865.21	3877.51	4134.54	4134.54		
Average Gross Block	3757.43	3871.36	4006.03	4134.54		
WAROD (%)	5.22	5.22	5.21	5.20		
Balance useful life of the asset at the beginning of the year	25.00	25.00	24.00	23.00		
Aggregated Depreciable Value	3381.69	3484.22	3605.42	3721.09		
Remaining Depreciable value at the end of the year	3316.29	3216.77	3129.35	3030.12		
Combined Depreciation during the year	65.40	202.05	208.63	214.88		

Asset-III						
Particulars	2015-16 (Pro-rata for 122 days)	2016-17	2017-18	2018-19		
Opening Gross Block	258.14	279.16	324.02	331.50		
ACE	21.02	44.87	7.48	0.00		
Closing Gross Block	279.16	324.02	331.50	331.50		
Average Gross Block	268.65	301.59	327.76	331.50		
WAROD (%)	4.99	4.94	4.89	4.88		

Asset-III						
Particulars	2015-16 (Pro-rata for 122 days)	2016-17	2017-18	2018-19		
Balance useful life of the asset at the beginning of the year	24.00	24.00	23.00	22.00		
Aggregated Depreciable Value	241.78	271.43	294.99	298.35		
Remaining Depreciable value at the end of the year	237.31	252.05	259.57	246.77		
Combined Depreciation during the year	4.47	14.91	16.04	16.16		

	Asset-IV						
Particulars	2015-16 (Pro-rata for 122 days)	2016-17	2017-18	2018-19			
Opening Gross Block	272.07	282.69	330.44	337.92			
ACE	10.61	47.75	7.48	0.00			
Closing Gross Block	282.69	330.44	337.92	337.92			
Average Gross Block	277.38	306.56	334.18	337.92			
WAROD (%)	4.99	4.94	4.89	4.88			
Balance useful life of the asset at the beginning of the year	24.00	24.00	23.00	22.00			
Aggregated Depreciable Value	249.64	275.91	300.76	304.13			
Remaining Depreciable value at the end of the year	245.03	256.14	264.63	251.52			
Combined Depreciation during the year	4.61	15.15	16.36	16.48			

(₹ in lakh)

Asset-V						
Particulars	2015-16 (Pro-rata for 122 days)	2016-17	2017-18	2018-19		
Opening Gross Block	272.85	282.51	329.20	336.68		
ACE	9.66	46.69	7.48	0.00		
Closing Gross Block	282.51	329.20	336.68	336.68		
Average Gross Block	277.68	305.86	332.94	336.68		
WAROD(%)	4.99	4.94	4.89	4.88		
Balance useful life of the asset at the beginning of the year	24.00	24.00	23.00	22.00		
Aggregated Depreciable Value	249.91	275.27	299.65	303.01		
Remaining Depreciable value at the end of the year	245.29	255.53	263.61	250.56		
Combined Depreciation during the year	4.62	15.12	16.29	16.42		

46. The details of the depreciation approved for the instant assets vide order dated 4.9.2018 in Petition No. 245/TT/2017, claimed by the Petitioner in the instant petition and allowed in the instant order are as under:



Assets	Particulars	2015-16 (Pro-rata for 122 days)	2016- 17	2017- 18	2018- 19
	Approved earlier vide order dated 4.9.2018 in Petition No. 245/TT/2017	518.03	1608.60	1667.82	1682.28
Asset-I	As claimed by the Petitioner in the instant Petition	515.96	1598.73	1653.08	1668.43
	Allowed after truing-up	514.48	1594.29	1648.40	1663.51
Asset-II	Approved earlier vide order dated 4.9.2018 in Petition No. 245/TT/2017	65.57	215.52	229.60	229.85
ASSEL-II	As claimed by the Petitioner in the instant Petition	65.39	202.17	208.89	215.14
	Allowed after truing-up	65.40	202.05	208.63	214.88
	Approved earlier vide order dated 4.9.2018 in Petition No. 245/TT/2017	4.48	14.91	16.04	16.16
III	As claimed by the Petitioner in the instant Petition	4.46	14.91	16.04	16.17
	Allowed after truing-up	4.47	14.91	16.04	16.16
Asset-	Approved earlier vide order dated 4.9.2018 in Petition No. 245/TT/2017	4.62	15.13	16.34	16.46
IV	As claimed by the Petitioner in the instant Petition	4.61	15.16	16.35	16.48
	Allowed after truing-up	4.61	15.15	16.36	16.48
Asset-	Approved earlier vide order dated 4.9.2018 in Petition No. 245/TT/2017	4.61	15.06	16.23	16.36
V	As claimed by the Petitioner in the instant Petition	4.61	15.11	16.30	16.42
	Allowed after truing-up	4.62	15.12	16.29	16.42

Operation & Maintenance Expenses (O&M Expenses)

47. The O&M Expenses claimed by the Petitioner for Asset-, II, III, IV and V and allowed as per Regulation 29(4)(a) of the 2014 Tariff Regulations for the purpose of computation of tariff are the same and are as under:

(₹ in lakh)

Asset-I

O&M Expenses claimed for:

- Gooty-Madhugiri 400 kV Double Circuit Transmission Line 208.63 km.
- 400 kV (AIS) Line bays at Gooty-2 Bays
- 400 kV (AIS) Line bays at Madugiri-Tumkur-2 Bays
- 400 kV (AIS) 63 MVAR Bus Reactor Bay at Madugiri-Tumkur 1 Bay



Particulars	2015-16 (Pro-rata for 122 days)	2016-17	2017-18	2018-19			
Norm (₹ lakh/bay)							
400 kV Bay (AIS)	62.30	64.37	66.51	68.71			
Number of bays							
400 kV Bay (AIS)	5.00	5.00	5.00	5.00			
O&M for HV and DC Lines (₹ lakh/km)							
Gooty – Madhugiri 400 kV Double Circuit Transmission Line (Twin/Triple Conductor)	0.731	0.755	0.780	0.806			
Line Length in km.	<u>l</u>						
Gooty – Madhugiri 400 kV Double Circuit Transmission Line (Twin/Triple Conductor)	208.63	208.63	208.63	208.63			
Total O&M Expenses (Claimed)	154.68	479.37	495.28	511.71			
Total O&M Expenses (Approved)	154.67	479.37	495.28	511.71			

Asset-II

O&M Expenses claimed for:

- 400 kV (AIS) Line bays at 315 MVA ICT-I and ICT-II at Madhugiri 2 Bays
 220 kV (AIS) Line bays at 315 MVA ICT-I and ICT-II at Madhugiri 2 Bays

Particulars	2015-16 (Pro-rata for 122 days)	2016-17	2017-18	2018-19
Norm (₹ lakh/bay)				
400 kV Bay (AIS)	62.30	64.37	66.51	68.71
Number of bays				
400 kV Bay (AIS)	2.00	2.00	2.00	2.00
Norm (₹ lakh/bay)				
220 kV Bay (AIS)	43.61	45.06	46.55	48.10
Number of bays				
220 kV Bay (AIS)	2.00	2.00	2.00	2.00
Total O&M Expenses (Claimed)	70.60	218.86	226.12	233.62
Total O&M Expenses (Approved)	70.61	218.86	226.12	233.62

Asset-III

O&M Expenses claimed for:

• 220 kV (AIS) Line bays for Antharasanahalli at Madhugiri - 2 Bays

Particulars	2015-16 (Pro-rata for 122 days)	2016-17	2017-18	2018-19
Norm (₹ lakh/bay)				
220 kV Bay (AIS)	43.61	45.06	46.55	48.10
Number of bays				
220 kV Bay (AIS)	2.00	2.00	2.00	2.00
Total O&M Expenses (Claimed)	29.07	90.12	93.10	96.20
Total O&M Expenses (Approved)	29.07	90.12	93.10	96.20

(₹ in lakh)

Asset-IV

O&M Expenses claimed for:

• 220 kV (AIS) Line bays for Madhugiri (State) at Madhugiri - 2 Bays

220 KV (110) Ellio Bayo for Madriagin (State) at Madriagin 2 Bayo				
Particulars	2015-16 (Pro-rata for 122 days)	2016-17	2017-18	2018-19
Norm (₹ lakh/bay)				
220 kV Bay (AIS)	43.61	45.06	46.55	48.10
Number of bays				
220 kV Bay (AIS)	2.00	2.00	2.00	2.00
Total O&M Expenses (Claimed)	29.07	90.12	93.10	96.20
Total O&M Expenses (Approved)	29.07	90.12	93.10	96.20

(₹ in lakh)

Asset-V O&M Expenses claimed for:

• 220 kV (AIS) Line bays for Nittur at Madhugiri - 2 Bays

Particulars	2015-16 (Pro-rata for 122 days)	2016-17	2017-18	2018-19
Norm (₹ lakh/bay)				
220 kV Bay (AIS)	43.61	45.06	46.55	48.10
Number of bays				
220 kV Bay (AIS)	2.00	2.00	2.00	2.00
Total O&M Expenses (Claimed)	29.07	90.12	93.10	96.20
Total O&M Expenses (Approved)	29.07	90.12	93.10	96.20

48. There is no change in the O&M Expenses approved in order dated 4.9.2018 in Petition No. 245/TT/2017, claimed in the instant petition and trued up in this order.

Interest on Working Capital (IWC)

49. The Petitioner is entitled to claim Interest on Working Capital (IWC) as per Regulation 28(1)(c) of the 2014 Tariff Regulations as under:-

i. Maintenance spares:

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

ii. O & M Expenses:

O&M Expenses have been considered for one month of the allowed O&M Expenses.

iii. Receivables:

The receivables have been worked out on the basis of 2 months of annual transmission charges as worked out above.

iv. Rate of interest on working capital:

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

50. IWC has been worked out for the instant assets as per the methodology provided in Regulation 28 of the 2014 Tariff Regulations and allowed as under:

(₹ in lakh)

Asset-I					
Particulars	2015-16 (Pro-rata for 122 days)	2016-17	2017-18	2018-19	
O & M Expenses	38.67	39.95	41.27	42.64	
Maintenance Spares	69.60	71.90	74.29	76.76	
Receivables	790.28	851.41	904.75	933.49	
Total Working Capital	898.54	963.26	1020.31	1052.89	
Rate of Interest (%)	13.50	13.50	13.50	13.50	
Interest of Working Capital	40.43	130.04	137.74	142.14	



Asset-II					
Particulars	2015-16 (Pro-rata for 122 days)	2016-17	2017-18	2018-19	
O & M Expenses	17.65	18.24	18.84	19.47	
Maintenance Spares	31.77	32.83	33.92	35.04	
Receivables	145.05	147.72	149.87	151.89	
Total Working Capital	194.48	198.79	202.63	206.40	
Rate of Interest (%)	13.50	13.50	13.50	13.50	
Interest of Working Capital	8.75	26.84	27.36	27.86	

(₹ in lakh)

Asset-III					
Particulars	2015-16 (Pro-rata for 122 days)	2016-17	2017-18	2018-19	
O & M Expenses	7.27	7.51	7.76	8.02	
Maintenance Spares	13.08	13.52	13.97	14.43	
Receivables	22.95	24.27	25.26	25.67	
Total Working Capital	43.31	45.30	46.98	48.11	
Rate of Interest (%)	13.50	13.50	13.50	13.50	
Interest of Working Capital	1.95	6.12	6.34	6.50	

(₹ in lakh)

Asset-IV					
Particulars	2015-16 (Pro-rata for 122 days)	2016-17	2017-18	2018-19	
O & M Expenses	7.27	7.51	7.76	8.02	
Maintenance Spares	13.08	13.52	13.97	14.43	
Receivables	23.45	24.65	25.65	26.04	
Total Working Capital	43.80	45.67	47.38	48.49	
Rate of Interest (%)	13.50	13.50	13.50	13.50	
Interest of Working Capital	1.97	6.17	6.40	6.55	

Asset-V						
Particulars	2015-16 (Pro-rata for 122 days)	2016-17	2017-18	2018-19		
O & M Expenses	7.27	7.51	7.76	8.02		
Maintenance Spares	13.08	13.52	13.97	14.43		
Receivables	23.41	24.58	25.58	25.97		
Total Working Capital	43.76	45.61	47.30	48.41		
Rate of Interest (%)	13.50	13.50	13.50	13.50		
Interest of Working Capital	1.97	6.16	6.39	6.54		



51. The details of IWC approved for the instant assets vide order dated 4.9.2018 in Petition No. 245/TT/2017, claimed by the Petitioner in the instant petition, trued-up and allowed in this order is as under:

(₹ in lakh)

	(3.1)				t in lakn
Assets	Particulars	2015-16 (Pro-rata for 122 days)	2016- 17	2017- 18	2018- 19
	Approved earlier vide order dated 4.9.2018 in Petition No. 245/TT/2017	40.09	124.48	128.34	129.36
Asset-I	As claimed by the Petitioner in the instant Petition	40.48	130.14	137.84	142.24
	Allowed after truing-up	40.43	130.04	137.74	142.14
	Approved earlier vide order dated 4.9.2018 in Petition No. 245/TT/2017	8.72	27.81	28.86	28.86
Asset-II	Claimed by the Petitioner in the instant Petition	8.75	26.85	27.37	27.88
	Allowed after truing-up	8.75	26.84	27.36	27.86
Asset	Approved earlier vide order dated 4.9.2018 in Petition No. 245/TT/2017	1.94	6.11	6.34	6.50
Asset-	Claimed by the Petitioner in the instant Petition	1.95	6.12	6.34	6.50
	Allowed after truing-up	1.95	6.12	6.34	6.50
Asset-	Approved earlier vide order dated 4.9.2018 in Petition No. 245/TT/2017	1.96	6.16	6.40	6.55
IV	Claimed by the Petitioner in the instant Petition	1.97	6.17	6.40	6.55
	Allowed after truing-up	1.97	6.17	6.40	6.55
A = = = 1	Approved earlier vide order dated 4.9.2018 in Petition No. 245/TT/2017	1.95	6.15	6.38	6.54
Asset- V	Claimed by the Petitioner in the instant Petition	1.97	6.16	6.39	6.54
	Allowed after truing-up	1.97	6.16	6.39	6.54

Approved Annual Fixed Charges for the 2014-19 Tariff Period

52. Accordingly, the trued up annual transmission charges allowed for the instant assets for the 2014-19 tariff period up are as under:

Asset-I					
Particulars	2015-16 (Pro-rata for 122 days)	2016-17	2017-18	2018-19	
Depreciation	514.48	1594.29	1648.40	1663.51	
Interest on Loan	242.12	910.08	1037.35	1143.63	

Return on Equity	628.85	1994.70	2109.71	2139.97
Interest on Working Capital	40.43	130.04	137.74	142.14
O & M Expenses	154.67	479.37	495.28	511.71
Total	1580.55	5108.47	5428.49	5600.96

(₹ in lakh)

Asset-II				
Particulars	2015-16 (Pro-rata for 122 days)	2016-17	2017-18	2018-19
Depreciation	65.40	202.05	208.63	214.88
Interest on Loan	71.31	209.73	200.31	189.88
Return on Equity	74.04	228.85	236.82	245.07
Interest on Working Capital	8.75	26.84	27.36	27.86
O & M Expenses	70.61	218.86	226.12	233.62
Total	290.11	886.34	899.23	911.32

(₹ in lakh)

Asset-III				
Particulars	2015-16 (Pro-rata for 122 days)	2016-17	2017-18	2018-19
Depreciation	4.47	14.91	16.04	16.16
Interest on Loan	5.12	16.66	16.70	15.49
Return on Equity	5.29	17.83	19.37	19.65
Interest on Working Capital	1.95	6.12	6.34	6.50
O & M Expenses	29.07	90.12	93.10	96.20
Total	45.91	145.63	151.55	153.99

Asset-IV					
Particulars	2015-16 (Pro-rata for 122 days)	2016-17	2017-18	2018-19	
Depreciation	4.61	15.15	16.36	16.48	
Interest on Loan	5.78	18.32	18.32	16.99	
Return on Equity	5.47	18.12	19.75	20.03	
Interest on Working Capital	1.97	6.17	6.40	6.55	
O & M Expenses	29.07	90.12	93.10	96.20	
Total	46.90	147.88	153.93	156.24	

(₹ in lakh)

Asset-V				
Particulars	2015-16 (Pro-rata for 122 days)	2016-17	2017-18	2018-19
Depreciation	4.62	15.12	16.29	16.42
Interest on Loan	5.69	18.02	18.01	16.69
Return on Equity	5.47	18.08	19.68	19.95
Interest on Working Capital	1.97	6.16	6.39	6.54
O & M Expenses	29.07	90.12	93.10	96.20
Total	46.83	147.49	153.48	155.80

The details of AFC approved for the instant assets vide order dated 4.9.2018 in 53. Petition No. 245/TT/2017, claimed by the Petitioner in the instant petition and allowed in the instant order are as under:

Assets	Particulars	2015-16 (Pro-rata for 122 days)	2016- 17	2017-18	2018-19
	Annual Fixed Charges (AFC) approved vide order dated 4.9.2018	1566.88	4861.45	5010.59	5033.11
Asset-I	AFC claimed by the Petitioner based on truing up in the instant petition	1582.40	5112.88	5432.88	5605.27
	Allowed after truing-up	1580.55	5108.47	5428.49	5600.96
	AFC approved vide order dated 4.9.2018	289.69	929.78	966.07	955.76
Asset-II	AFC claimed by the Petitioner based on truing up in the instant petition	290.12	886.73	900.07	912.13
	Allowed after truing-up	290.11	886.34	899.23	911.32
	AFC approved vide order dated 4.9.2018	45.67	145.40	151.52	154.00
Asset- III	AFC claimed by the Petitioner based on truing up in the instant petition	45.90	145.64	151.56	154.03
	Allowed after truing-up	45.91	145.63	151.55	153.99
	AFC approved vide order dated 4.9.2018	46.64	147.68	154.06	156.41
Asset- IV	AFC claimed by the Petitioner based on truing up in the instant petition	46.90	147.89	153.93	156.25
	Allowed after truing-up	46.90	147.88	153.93	156.24

Assets	Particulars	2015-16 (Pro-rata for 122 days)	2016- 17	2017-18	2018-19
	AFC approved vide order dated 4.9.2018	46.51	147.15	153.41	155.80
Asset- V	AFC claimed by the Petitioner based on truing up in the instant petition	46.81	147.49	153.49	155.81
	Allowed after truing-up	46.83	147.49	153.48	155.80

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

54. The Petitioner has combined the instant assets into one single asset and has submitted the tariff forms after combining these assets. However, the Commission is considering only Assets-I, II and III as Combined Asset and Assets-IV and V are being considered separately. This is being done in view of the fact that vide order dated 4.9.2018 in Petition No. 245/TT/2017, the Commission held that the downstream assets with respect to Assets-II to V under the scope of Karnataka Discoms (Respondents 10 to 14) not being ready, the transmission charges for Assets-II to V from 1.12.2015 till COD of the downstream assets shall be borne by Karnataka Discoms. During the course of hearing of this Petition on 22.7.2020, the Petitioner informed that downstream asset (under scope of Karnataka Discoms arrayed as Respondents 10 to 14) with respect to Asset-IV was put into commercial operation on 17.8.2019 and that the downstream asset with respect to Asset-V was not yet ready. Since the downstream assets of Karnataka Discoms (Respondents 10 to 14) with respect to Assets-IV and V have not been commissioned during 2014-19 period, we are of the view that these assets should not be combined with Assets-I, II and III. Accordingly, as per proviso (i) of Regulation 8(1) of the 2019 Tariff Regulations, single tariff for the Combined Asset (Assets-I, II and III) has been worked out for the 2019-24 tariff period and tariff for Assets-IV and V has been worked out separately.

55. The Petitioner has claimed the following transmission charges after combining all the assets for the 2019-24 tariff period:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	1942.75	1948.14	1948.14	1943.96	1939.87
Interest on Loan	1341.84	1228.50	1105.55	983.58	873.58
Return on Equity	2341.25	2350.34	2350.34	2350.34	2350.34
Interest on Working Capital	120.29	120.33	119.77	119.21	118.59
O & M Expenses	818.88	847.77	877.39	908.28	939.35
Total	6565.01	6495.08	6401.19	6305.37	6221.73

56. The Petitioner has claimed the following IWC after combining all the assets for the 2019-24 tariff period:

(₹ in lakh)

					(III Iakii)
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	68.24	70.65	73.12	75.69	78.28
Maintenance Spares	122.83	127.17	131.61	136.24	140.90
Receivables	807.17	800.76	789.19	777.37	764.97
Total	998.24	998.58	993.92	989.30	984.15
Rate of Interest (%)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	120.29	120.33	119.77	119.21	118.59

Effective Date of Commercial Operation (E-COD)

57. The Petitioner has claimed E-COD as 1.12.2015 after combining all the five assets. As stated earlier while Assets-I, II and III have been combined and rechristened as the Combined Asset, Assets-IV and V has not been combined in the present order. Based on the trued-up admitted capital cost and actual COD, the E-COD of Combined Asset (Assets-I, II and III) is worked out as under:

	Computation of Effective COD						
Assets	Actual COD	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Weight of the cost (%)	No. of Days from last COD	Weighted Days	Effective COD (Latest COD – Total weighted Days)	
Asset-I	1.12.2015	36244.28	89.03	0.00	0.00		
Asset-II	1.12.2015	4134.54	10.16	0.00	0.00	1.12.2015	
Asset-III	1.12.2015	331.50	0.81	0.00	0.00		
Total		40710.32	100.00		0.00		

	Computation of Effective COD					
Assets	Actual COD	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Weight of the cost (%)	No. of Days from last COD	Weighted Days	Effective COD (Latest COD – Total weighted Days)

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

Weighted Average Life (WAL)

59. WAL has been determined based on the admitted capital cost of individual elements as on 31.3.2019 and their respective life as stipulated in the 2019 Tariff Regulations. The element-wise life as defined in the 2014 Tariff Regulations prevailing at the time of actual COD of individual assets has been ignored for this purpose. The life as defined in the 2019 Tariff Regulations has been considered for determination of WAL. Accordingly, WAL of the Combined Asset has been worked out as 32 years and WAL for Assets-IV and V has been worked out as 24 years as shown under:

Admitted Capital Cost for the Combined Asset as on 31.03.2019						
Particulars (1)	Combined Asset (₹ in lakh) (2)	Life in Years (3)	Weighted Cost (₹ in lakh) (4) = (2)x(3)	Weighted Avg. Life of Asset (in years) (5) = (4)/ (2)		
Building & Other Civil Works	2531.26	25	63281.42			
Transmission Line	25718.85	35	900159.63			
Sub-Station Equipment	8410.53	25	210263.14			
PLCC	154.70	15	2320.46			
IT Equipment & Software	55.15	6.67	367.65			
Total	36870.47		1176392.30	31.91 years, rounded off to 32 years		

Admitted Capital Cost for Asset-IV as on 31.03.2019						
Particulars (1)	Asset-IV (₹ in lakh) (2)	Life in Years (3)	Weighted Cost (₹ in lakh) (4) = (2)x(3)	Weighted Avg. Life of Asset (in years) (5) = (4)/ (2)		
Building & Other Civil Works	88.01	25	2200.17			
Transmission Line	0.00	35	0.00			
Sub-Station Equipment	216.94	25	5423.53			
PLCC	32.97	15	494.56			
IT Equipment & Software	0.00	6.67	0.00			
Total	337.92		8118.26	24.02 years, rounded off to 24 years		

Admitted Capital Cost for Asset-V as on 31.03.2019						
Particulars (1)	Asset-V (₹ in lakh) (2)	Life in Years (3)	Weighted Cost (₹ in lakh) (4) = (2)x(3)	Weighted Avg. Life of Asset (in years) (5) = (4)/ (2)		
Building & Other Civil Works	87.74	25	2193.43			
Transmission Line	0.00	35	0.00			
Sub-Station Equipment	216.09	25	5402.30			
PLCC	32.85	15	492.78			
IT Equipment & Software	0.00	6.67	0.00			
Total	336.68		8088.51	24.02 years, rounded off to 24 years		

Capital Cost

- 60. Regulation 19 of the 2019 Tariff Regulation provides as under:
 - "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:
- (I) 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.

Additional Capitalization

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

(₹ in lakh)

Assets	FR Apportioned Approved Capital Cost	Capital cost claimed as on 31.3.2019	Additional Capitalisation claimed 2019-20	Estimated completion cost
Asset-I	37604.25	36244.27	39.26	36283.53
Asset-II	4462.90	4139.49	283.43	4422.92
Asset-III	343.00	331.62	0.00	331.62
Asset-IV	348.00	337.94	0.00	337.94
Asset-V	349.00	336.68	0.00	336.68
Total	43107.15	41390.00	322.69	41712.69

62. The admitted trued up capital cost of ₹36244.28 lakh for Asset-I, ₹4134.54 lakh for Asset-II, ₹331.50 lakh for Asset-III, ₹337.92 lakh for Asset-IV and ₹336.68 lakh for Asset-V as on 31.3.2019 has been considered as the opening capital cost as on 1.4.2019 for determination of tariff for 2019-24 tariff period in accordance with Regulation 19 of the 2019 Tariff Regulations. The element-wise capital cost (i.e. land,

building, transmission line, Sub-station and PLCC) as admitted by the Commission as on 31.3.2019 for the Assets-I to III are clubbed together and the combined capital cost has been considered as capital cost for the Combined Asset as on 1.4.2019, as per the following details:

(₹ in lakh)

Element	Asset-I (A)	Asset-II (B)	Asset-III (C)	Capital Cost for Combined Asset(Asset-I to Asset-III) as on 1.4.2019 D = (A+B+C)
Freehold Land	3839.85	0.00	0.00	3839.85
Building & Other Civil Works	2268.38	176.23	86.64	2531.26
Transmission Line	25718.85	0.00	0.00	25718.85
Sub-Station Equipment	4239.70	3958.31	212.52	8410.53
PLCC	122.35	0.00	32.34	154.70
IT Equipment & Software	55.15	0.00	0.00	55.15
Total	36244.28	4134.54	331.50	40710.32

63. Capital cost for Asset-IV as on 31.3.2019 has been considered as follows:

(₹ in lakh)

Particulars	Capital cost for Asset-IV as on 1.4.2019
Land	0.00
Building	88.01
Transmission Line	0.00
Sub Station	216.94
PLCC	32.97
IT Equipment and software	0.00
Total	337.92

64. Capital cost for Asset-V as on 31.3.2019 has been considered as follows:

(₹ in lakh)

Particulars	Capital cost for Asset-V as on 1.4.2019
Land	0.00
Building	87.74
Transmission Line	0.00
Sub Station	216.09
PLCC	32.85
IT Equipment and software	0.00
Total	336.68

65. The trued up capital cost of ₹40710.32 lakh for Combined Asset and ₹337.92 lakh and ₹336.68 lakh for Assets-IV and V respectively has been considered as admitted capital cost as on 1.4.2019 for working out tariff for the 2019-24 tariff period.

Additional Capital Expenditure (ACE)

- 66. Regulations 24 and 25 of the 2019 Tariff Regulations provide as under:
 - "24. Additional Capitalization within the original scope and upto the cut-off date
 - (1) The Additional Capital Expenditure in respect of a new project or an existing project incurred or projected to be incurred, on the following counts within the original scope of work, after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to prudence check:
 - (a) Undischarged liabilities recognized to be payable at a future date;
 - (b) Works deferred for execution:
 - (c) Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 23 of these regulations;
 - (d) Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority or order or decree of any court of law;
 - (e) Change in law or compliance of any existing law; and
 - (f) Force Majeure events:

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

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



- 25. Additional Capitalisation within the original scope and after the cut-off date:
- (1) The additional capital expenditure incurred or projected to be incurred in respect of an existing project or a new project on the following counts within the original scope of work and after the cut-off date may be admitted by the Commission, subject to prudence check:
- (a) Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority, or order or decree of any court of law;
- (b) Change in law or compliance of any existing law;
- (c) Deferred works relating to ash pond or ash handling system in the original scope of work:
- (d) Liability for works executed prior to the cut-off date;
- (e) Force Majeure events;
- (f) Liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments; and
- (g) Raising of ash dyke as a part of ash disposal system.
- (2) In case of replacement of assets deployed under the original scope of the existing project after cut-off date, the additional capitalization may be admitted by the Commission, after making necessary adjustments in the gross fixed assets and the cumulative depreciation, subject to prudence check on the following grounds:
- (a) The useful life of the assets is not commensurate with the useful life of the project and such assets have been fully depreciated in accordance with the provisions of these regulations;
- (b) The replacement of the asset or equipment is necessary on account of change in law or Force Majeure conditions;
- (c) The replacement of such asset or equipment is necessary on account of obsolescence of technology; and
- (d) The replacement of such asset or equipment has otherwise been allowed by the Commission."
- 67. The Petitioner has claimed projected ACE during 2019-20 and submitted Auditor's Certificates in support of the same. The projected ACE for 2019-20 as per Auditor's Certificates is ₹322.69 lakh.

(₹ in lakh)

Assets	Projected ACE in 2019-24	
	2019-20	
Asset-I (under Combined Asset)	39.26	
Asset-II (under Combined Asset)	283.43	

68. The Petitioner has submitted that ACE claimed for the period 1.4.2019 to 31.3.2020 is on account of un-discharged liability towards the final payment/ withheld



payment due to contractual exigencies for works executed upto the cut-off date. The contract-wise details of the balance and retention payments are as detailed below:

(₹ in lakh)

Assets	Party	Package	Financial Year
Assets	I dity	rackage	2019-20
Asset-I	Kalyani Projects and Blesso Construction	Building & Civil Work	39.26
Asset-II	BHEL	Sub-station Work	283.43
	Total		322.69

- 69. We have considered the submissions of the Petitioner. It is observed that the projected ACE falls beyond the cut-off date. The projected ACE claimed by the Petitioner is on account of balance and retention payment of the works executed within the cut-off date. The same has been considered for computation of total capital cost as on 31.3.2024. ACE claimed during 2019-20 is allowed under Regulation 25(1)(d) of the 2019 Tariff Regulations which is subject to true up.
- 70. The allowed ACE is summarized below which is subject to true-up:

(₹ in lakh)

Particulars	Regulation	Combined Asset 2019-20
ACE to the extent of Balance & Retention Payments for works executed before the cut-off date	Regulation 25(1)(d) of the 2019 Tariff Regulations	322.69

Capital cost for the 2019-24 tariff period

71. Accordingly, the capital cost of the Combined Asset, Assets-IV and Asset-V considered for the 2019-24 tariff period, subject t to truing-up, is as under:

Particulars	Capital Cost allowed as on 1.4.2019	ACE allowed for the year 2019-20	ACE allowed for the during 2020-24	Total Estimated completion cost up to 31.3.2024
Combined Asset	40710.32	322.69		41033.01
Asset-IV	337.92	0.00	NIL	337.92
Asset-V	336.68	0.00		336.68
Total	41384.92	322.69		41707.61

72. Against the overall RCE approved capital cost of ₹43107.15 lakh, the estimated project cost of the Combined Asset, Asset-IV and Asset-V including ACE is ₹41707.61 lakh which is within the RCE cost. Therefore, there is no cost over-run as per the RCE cost.

Debt-Equity Ratio

- 73. 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 project including communication, project 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 project including communication project 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 project including communication project 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."
- 74. The details of the debt-equity ratio considered for the purpose of computation of tariff for the 2019-24 tariff period for Combined Asset, Asset-IV and Asset-V are as follows:

Combined Asset	Capital Cost as on 1.4.2019 (₹ in lakh)	(%)	Total Capital Cost as on 31.3.2024 (₹ in lakh)	(%)
Debt	28497.27	70.00	28723.15	70.00
Equity	12213.06	30.00	12309.86	30.00
Total	40710.32	100.00	41033.01	100.00

Asset-IV	Capital Cost as on 1.4.2019 (₹ in lakh)	(%)	Total Capital Cost as on 31.3.2024 (₹ in lakh)	(%)
Debt	236.55	70.00	236.55	70.00
Equity	101.36	30.00	101.36	30.00
Total	337.92	100.00	337.92	100.00

Asset-IV	Capital Cost as on 1.4.2019 (₹ in lakh)	(%)	Total Capital Cost as on 31.3.2024 (₹ in lakh)	(%)
Debt	235.68	70.00	235.68	70.00
Equity	101.00	30.00	101.00	30.00
Total	336.68	100.00	336.68	100.00

Return on Equity (RoE)

- 75. Regulations 30 and 31 of the 2019 Tariff Regulations provide as under:
 - "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 project including communication project and run-of-river hydro generating station, and at the base rate of 16.50% for the storage type hydro generating stations including pumped storage hydro generating stations and run-of-river generating station with pondage:

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

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 project 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 project up to load dispatch centre or protection project 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;

- iv. 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:

Rate of pre-tax return on equity = 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:

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."
- 76. The Petitioner has submitted that MAT rate is applicable to it. Accordingly, the MAT rate applicable during 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. Accordingly, RoE allowed for the Combined Asset, Asset-IV



and Asset-V respectively under Regulation 30 of the 2019 Tariff Regulations is as under:

(₹ in lakh)

Combined Asset							
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24		
Opening Equity	12213.06	12309.86	12309.86	12309.86	12309.86		
Addition due to ACE	96.81	0.00	0.00	0.00	0.00		
Closing Equity	12309.86	12309.86	12309.86	12309.86	12309.86		
Average Equity	12261.46	12309.86	12309.86	12309.86	12309.86		
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50		
Tax Rate applicable (%)	17.472	17.472	17.472	17.472	17.472		
Rate of Return on Equity (Pre-tax)	18.782	18.782	18.782	18.782	18.782		
Return on Equity (Pre-tax)	2302.95	2312.04	2312.04	2312.04	2312.04		

(₹ in lakh)

Asset-IV						
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24	
Opening Equity	101.36	101.36	101.36	101.36	101.36	
Addition due to ACE	0.00	0.00	0.00	0.00	0.00	
Closing Equity	101.36	101.36	101.36	101.36	101.36	
Average Equity	101.36	101.36	101.36	101.36	101.36	
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50	
Tax Rate applicable (%)	17.472	17.472	17.472	17.472	17.472	
Rate of Return on Equity (Pre-tax)	18.782	18.782	18.782	18.782	18.782	
Return on Equity (Pre-tax)	19.04	19.04	19.04	19.04	19.04	

Asset-V						
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24	
Opening Equity	101.00	101.00	101.00	101.00	101.00	
Addition due to ACE	0.00	0.00	0.00	0.00	0.00	
Closing Equity	101.00	101.00	101.00	101.00	101.00	
Average Equity	101.00	101.00	101.00	101.00	101.00	
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50	
Tax Rate applicable (%)	17.472	17.472	17.472	17.472	17.472	
Rate of Return on Equity (Pre-tax)	18.782	18.782	18.782	18.782	18.782	
Return on Equity (Pre-tax)	18.97	18.97	18.97	18.97	18.97	

Interest on Loan (IoL)

- 77. Regulation 32 of the 2019 Tariff Regulations provides as under:
 - "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 ofdecapitalization 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 up to 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 project, 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".
- 78. The weighted average rate of IoL has been considered on the basis of proposed rate of interest as submitted by the Petitioner for the 2019-24 tariff period. The Petitioner has prayed that the change in interest rate due to floating rate of interest applicable, if any, during 2019-24 tariff period will be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of true up after prudence check. Petitioner should submit necessary documentary evidences at the



time of true up to substantiate such claim. In view of above, IoL has been allowed for the Combined Asset, Asset-IV and Asset-V respectively in accordance with Regulation 32 of the 2019 Tariff Regulations as under:

(₹ in lakh)

	Combined Asset							
Particular	2019-20	2020-21	2021-22	2022-23	2023-24			
Gross Normative Loan	28497.27	28723.15	28723.15	28723.15	28723.15			
Cumulative Repayments up to Previous Year	6163.22	8073.25	9988.67	11904.09	13819.50			
Net Loan-Opening	22334.04	20649.90	18734.48	16819.06	14903.64			
Addition due to ACE	225.88	0.00	0.00	0.00	0.00			
Repayment during the year	1910.03	1915.42	1915.42	1915.42	1915.42			
Net Loan-Closing	20649.90	18734.48	16819.06	14903.64	12988.23			
Average Loan	21491.97	19692.19	17776.77	15861.35	13945.94			
Weighted Average Rate of Interest on Loan (%)	6.10	6.09	6.07	6.05	6.12			
Interest on Loan	1310.20	1200.18	1079.87	960.35	852.89			

(₹ in lakh)

Asset-IV									
Particular	2019-20	2020-21	2021-22	2022-23	2023-24				
Gross Normative Loan	236.55	236.55	236.55	236.55	236.55				
Cumulative Repayments up to Previous Year	52.61	69.09	85.57	102.05	118.53				
Net Loan-Opening	183.95	167.47	150.99	134.51	118.02				
Addition due to ACE	0.00	0.00	0.00	0.00	0.00				
Repayment during the year	16.48	16.48	16.48	16.48	16.48				
Net Loan-Closing	167.47	150.99	134.51	118.02	101.54				
Average Loan	175.71	159.23	142.75	126.26	109.78				
Weighted Average Rate of Interest on Loan (%)	8.85	8.83	8.86	8.88	8.91				
Interest on Loan	15.56	14.07	12.64	11.22	9.78				

Asset-V									
Particular	2019-20	2020-21	2021-22	2022-23	2023-24				
Gross Normative Loan	235.69	235.69	235.69	235.69	235.69				
Cumulative Repayments up to Previous Year	52.45	68.87	85.29	101.71	118.13				
Net Loan-Opening	183.23	166.81	150.39	133.97	117.55				
Addition due to ACE	0.00	0.00	0.00	0.00	0.00				
Repayment during the year	16.42	16.42	16.42	16.42	16.42				



Net Loan-Closing	166.81	150.39	133.97	117.55	101.13
Average Loan	175.02	158.60	142.18	125.76	109.34
Weighted Average Rate of Interest on Loan (%)	8.75	8.75	8.75	8.75	8.75
Interest on Loan	15.31	13.88	12.44	11.01	9.57

Depreciation

- 79. Regulation 33 of the 2019 Tariff Regulations provides as under:
 - "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."
- 80. The IT equipment has been considered as a part of the Gross Block and depreciated using WAROD. WAROD has been allowed and placed as Annexure-6, 7 and 8 after taking into account the depreciation rates of IT and non-IT assets as prescribed in the 2019 Tariff Regulations. The salvage value of IT equipment has been considered Nil, i.e. IT asset has been considered as 100 per cent depreciable. The depreciation has been worked out considering the admitted capital expenditure as on 31.3.2019 and accumulated depreciation up to 31.3.2019. The depreciation allowed for the Combined Asset, Asset-IV and Asset-V is as follows:

Combined Asset									
Particular	2019-20	2020-21	2021-22	2022-23	2023-24				
Opening Gross Block	40710.32	41033.01	41033.01	41033.01	41033.01				
Addition during the year 2019- 24 due to projected ACE	322.69	0.00	0.00	0.00	0.00				
Closing Gross Block	41033.01	41033.01	41033.01	41033.01	41033.01				
Average Gross Block	40871.67	41033.01	41033.01	41033.01	41033.01				
WAROD(%)	4.67	4.67	4.67	4.67	4.67				
Balance useful life at the beginning of the year	29.00	28.00	27.00	26.00	25.00				
Aggregated Depreciable	33334.15	33479.36	33479.36	33479.36	33479.36				



Combined Asset									
Particular	2019-20	2020-21	2021-22	2022-23	2023-24				
Value									
Remaining Aggregate Depreciable Value at the end of the year	25260.90	23490.69	21575.28	19659.86	17744.44				
Combined Depreciation during the year	1910.03	1915.42	1915.42	1915.42	1915.42				
Aggregate Cumulative Depreciation	8073.25	9988.67	11904.09	13819.50	15734.92				

(₹ in lakh)

Asset-IV									
Particular	2019-20	2020-21	2021-22	2022-23	2023-24				
Opening Gross Block	337.92	337.92	337.92	337.92	337.92				
Addition during the year 2019-24 due to projected ACE	0.00	0.00	0.00	0.00	0.00				
Closing Gross Block	337.92	337.92	337.92	337.92	337.92				
Average Gross Block	337.92	337.92	337.92	337.92	337.92				
WAROD(%)	4.88	4.88	4.88	4.88	4.88				
Balance useful life at the beginning of the year	21.00	20.00	19.00	18.00	17.00				
Aggregated Depreciable Value	304.13	304.13	304.13	304.13	304.13				
Remaining Aggregate Depreciable Value at the end of the year	251.52	235.04	218.56	202.08	185.60				
Combined Depreciation during the year	16.48	16.48	16.48	16.48	16.48				
Aggregate Cumulative Depreciation	69.09	85.57	102.05	118.53	135.01				

Asset-V								
Particular	2019-20	2020-21	2021-22	2022-23	2023-24			
Opening Gross Block	336.68	336.68	336.68	336.68	336.68			
Addition during the year 2019-24 due to projected ACE	0.00	0.00	0.00	0.00	0.00			
Closing Gross Block	336.68	336.68	336.68	336.68	336.68			
Average Gross Block	336.68	336.68	336.68	336.68	336.68			
WAROD(%)	4.88	4.88	4.88	4.88	4.88			
Balance useful life at the beginning of the year	21.00	20.00	19.00	18.00	17.00			
Aggregated Depreciable Value	303.01	303.01	303.01	303.01	303.01			
Remaining Aggregate Depreciable Value at the end of the year	250.56	234.14	217.72	201.30	184.88			
Combined Depreciation during the year	16.42	16.42	16.42	16.42	16.42			
Aggregate Cumulative Depreciation	68.87	85.29	101.71	118.13	134.55			



Operation & Maintenance Expenses (O&M Expenses)

Regulation 35(3)(a) and (4) of the 2019 Tariff Regulations provide as under: 81.

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

Particulars	2019- 20	2020- 21	2021- 22	2022- 23	2023- 24			
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-conductors)	1.322	1.368	1.416	1.466	1.517			
Double Circuit (Twin & Triple Conductor)	0.881	0.912	0.944	0.977	1.011			
Double Circuit (Single Conductor)	0.377	0.391	0.404	0.419	0.433			
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.319	2.401	2.485	2.572	2.662			
Multi Circuit (Twin & Triple Conductor)	1.544	1.598	1.654	1.713	1.773			
Norms for HVDC stations								
HVDC Back-to-Back stations (Rs Lakh per	834	864	894	925	958			
500 MW) (Except Gazuwaka BTB)								
Gazuwaka HVDC Back-to-Back station (₹ Lakh per 500 MW)	1,666	1,725	1,785	1,848	1,913			
500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)	2,252	2,331	2,413	2,498	2,586			
±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)	2,468	2,555	2,645	2,738	2,834			
±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)	1,696	1,756	1,817	1,881	1,947			

±800 kV, Bishwanath-Agra HVDC bipole	2,563	2,653	2,746	2,842	2,942
scheme (Rs Lakh) (3000 MW)	ŕ	,	Í	ŕ	,

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 bipole 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."

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

HV and DC Lines (₹ in lakh)

				1	
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M for HV and DC Lines (as per norms)					
Gooty – Madhugiri 400 kV Double Circuit Transmission Line - 208.63 Kms.	183.80	190.27	196.95	203.83	210.92
Total O&M Expenses	183.80	190.27	196.95	203.83	210.92

Sub-Station Bays (₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M for Sub-station bays (as per norms)					
400 kV AIS	225.05	232.96	241.15	249.62	258.37
220 kV AIS	180.08	186.40	192.96	199.68	206.72
Total O&M Expenses	405.13	419.36	434.11	449.30	465.09

Transformer (₹ in lakh)

				,	αιτι <i>ι</i> ,
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M for Transformer (as per norms)					
400 kV	225.54	233.73	241.92	250.74	258.93
Total O&M Expenses	225.54	233.73	241.92	250.74	258.93

PLCC (₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M for PLCC (as per norms)					
PLCC	4.41	4.41	4.41	4.41	4.41
Total O&M Expenses	4.41	4.41	4.41	4.41	4.41

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Total O&M Expenses Claimed	818.88	847.77	877.39	908.28	939.35

83. 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 substation in the 2014 Tariff Regulations and the 2019 Tariff Regulations and the norms for sub-station has 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. The relevant portions of the order dated 24.1.2021 in Petition No.126/TT/2020 are extracted hereunder:

"103. Thus, although PLCC equipment is a communication system, it has been considered as a part of sub-station, as it is used both for protection and communication. Therefore, we are of the considered view that rightly, it was not considered for separate O&M Expenses while framing norms of O&M for 2019-24 tariff period. While specifying norms for bays and transformers, O&M Expenses for PLCC have been included within norms for O&M Expenses for sub-station. Norms of O&M Expenses @2% of the capital cost in terms of Regulation 35(4) of the 2019 Tariff Regulations have been specified for communication system such as PMU, RMU, OPGW etc. and not for PLCC equipment."

"105. In our view, granting of O&M Expenses for PLCC equipment @2% of its capital cost under Regulation 35(4) of the 2014 Tariff Regulations under the communication system head would tantamount to granting O&M Expenses twice for PLCC equipment as PLCC equipment has already been considered as part of the sub-station. Therefore, the Petitioner's prayer for grant of O&M Expenses for the PLCC equipment @2% of its capital cost under Regulation 35(4) of the 2014 Tariff Regulations is rejected.

106. The principle adopted in this petition that PLCC is part of sub-station and accordingly no separate O&M Expenses is admissible for PLCC equipment in the 2019-24 tariff period under Regulation 35(4) of the 2019 Tariff Regulations shall be applicable in case of all petitions where similar claim is made by the Petitioner. As already mentioned, the Commission, however, on the basis of the claim made by the Petitioner has inadvertently allowed O&M Expenses for PLCC equipment @2% of its original project cost, which is applicable for other "communication system", for 2019-24 period in 31 petitions given in Annexure-3 of this order. Therefore, the decision in this order shall also be applicable to all the petitions given in Annexure-3. Therefore, PGCIL is directed to bring this decision to the notice of all the stakeholders in the 31 petitions given in Annexure-3 and also make revised claim of O&M Expenses for PLCC as part of the sub-station at the time of truing up of the tariff allowed for 2019-24 period in respective petitions."

84. The O&M Expenses allowed as per the norms specified in the 2019 Tariff Regulations for the Combined Asset is as under:

AC and HVDC Lines (₹ in lakh) **Particulars** 2019-20 2020-21 2021-22 2022-23 2023-24 Norm (₹ lakh/km) D/C Twin/Triple 0.881 0.912 0.944 0.977 1.011 Conductor Line length in km Gooty - Madhugiri 400 208.63 208.63 208.63 208.63 208.63

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
kV Double Circuit					
Transmission Line -					
208.63 km.					
O&M Expenses	183.80	190.27	196.95	203.83	210.92
Total O&M Expenses	183.80	190.27	196.95	203.83	210.92

Sub-station Bays

(₹ in lakh)

	\(\frac{1}{2} = \frac{1}{2} =				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Norm (₹ lakh/bay)					
400 kV AIS	32.15	33.28	34.45	35.66	36.91
220 kV AIS	22.51	23.30	24.12	24.96	25.84
Number of bays					
400 kV AIS	7	7	7	7	7
220 kV AIS	4	4	4	4	4
O&M Expense for 400 kV AIS	225.05	232.96	241.15	249.62	258.37
O&M Expense for 220 kV AIS	90.04	93.20	96.48	99.84	103.36
Total O&M Expenses	315.09	326.16	337.63	349.46	361.73

Transformer (₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Norm (₹ lakh/MVA)					
400 kV Transformer	0.358	0.371	0.384	0.398	0.411
MVA Rating	315	315	315	315	315
No. of Transformers	2	2	2	2	2
O&M Expense for 400 kV Transformer	225.54	233.73	241.92	250.74	258.93
Total O&M Expenses	225.54	233.73	241.92	250.74	258.93

(₹ in lakh)

					\
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Total O&M Expenses Allowed	724.43	750.16	776.50	804.03	831.58

85. The O&M Expenses allowed as per the norms specified in the 2019 Tariff Regulations for the Asset-IV are as under:

Sub-station Bays

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Norm (₹ lakh/bay)					
220 kV AIS	22.51	23.30	24.12	24.96	25.84
Number of bays					
220 kV AIS	2	2	2	2	2
O&M Expense for 220 kV AIS	45.02	46.60	48.24	49.92	51.68
Total O&M Expenses	45.02	46.60	48.24	49.92	51.68

86. The O&M Expenses allowed as per the norms specified in the 2019 Tariff Regulations for the Asset-V are as under:

Sub-station Bays

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Norm (₹ lakh/bay)					
220 kV AIS	22.51	23.30	24.12	24.96	25.84
Number of bays					
220 kV AIS	2	2	2	2	2
O&M Expense for 220 kV AIS	45.02	46.60	48.24	49.92	51.68
Total O&M Expenses	45.02	46.60	48.24	49.92	51.68

Interest on Working Capital (IWC)

- 87. Regulations 34(1)(c), (3) and (4) and Regulation 3(7) of the 2019 Tariff Regulations provide as follows:
 - "34. Interest on Working Capital: (1) The working capital shall cover:
 - (c) For Hydro Generating Station (including Pumped Storage Hydro Generating Station) and Transmission Project:
 - (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 project including communication project or element thereof, as the case may be, is declared under commercial operation, whichever is later:

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

- (4) Interest on working capital shall be payable on normative basis notwithstanding that the generating company or the transmission licensee has not taken loan for working capital from any outside agency."
- "3. Definition- In these regulations, unless the context otherwise requires: -
- (7) 'Bank Rate' means the one year marginal cost of lending rate (MCLR) of the State Bank of India issued from time to time plus 350 basis points;"



- 88. The Petitioner has submitted that it has computed IWC for the 2019-24 period considering the SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of interest on working capital as 12.05%.
- 89. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. 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, whereas RoI for 2020-21 onwards has been considered as 11.25% (SBI 1 year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points). The components of the working capital and interest thereon allowed for Combined Asset and Assets-IV and V respectively are as under:

(₹ in lakh)

Combined Asset									
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24				
O & M Expenses	60.37	62.51	64.71	67.00	69.30				
Maintenance Spares	108.66	112.52	116.47	120.60	124.74				
Receivables	782.24	774.82	763.16	751.75	739.79				
Total	951.28	949.86	944.34	939.36	933.83				
Rate of Interest (%)	12.05	11.25	11.25	11.25	11.25				
Interest of Working Capital	114.63	106.86	106.24	105.68	105.06				

(₹ in lakh)

Asset-IV									
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24				
O & M Expenses	3.75	3.88	4.02	4.16	4.31				
Maintenance Spares	6.75	6.99	7.24	7.49	7.75				
Receivables	12.15	12.18	12.21	12.25	12.26				
Total	22.66	23.05	23.47	23.90	24.32				
Rate of Interest (%)	12.05	11.25	11.25	11.25	11.25				
Interest of Working Capital	2.73	2.59	2.64	2.69	2.74				

Asset-IV										
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24					
O & M Expenses	3.75	3.88	4.02	4.16	4.31					
Maintenance Spares	6.75	6.99	7.24	7.49	7.75					
Receivables	12.10	12.14	12.17	12.21	12.22					
Total	22.61	23.01	23.43	23.85	24.28					
Rate of Interest (%)	12.05	11.25	11.25	11.25	11.25					
Interest of Working Capital	2.72	2.59	2.64	2.68	2.73					

Annual Fixed Charges for the 2019-24 Tariff Period

90. The annual fixed charges for the Combined Asset, Asset-IV and Asset-V for the 2019-24 tariff period are as under:

(₹ in lakh)

Combined Asset										
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24					
Depreciation	1910.03	1915.42	1915.42	1915.42	1915.42					
Interest on Loan	1310.20	1200.18	1079.87	960.35	852.89					
Return on Equity	2302.95	2312.04	2312.04	2312.04	2312.04					
Interest on Working Capital	114.63	106.86	106.24	105.68	105.06					
Operation and Maintenance Expenses	724.43	750.16	776.50	804.03	831.58					
Total	6362.24	6284.66	6190.06	6097.51	6016.99					

(₹ in lakh)

	Asset-IV	1			-
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	16.48	16.48	16.48	16.48	16.48
Interest on Loan	15.56	14.07	12.64	11.22	9.78
Return on Equity	19.04	19.04	19.04	19.04	19.04
Interest on Working Capital	2.73	2.59	2.64	2.69	2.74
Operation and Maintenance Expenses	45.02	46.60	48.24	49.92	51.68
Total	98.82	98.78	99.04	99.35	99.71

(₹ in lakh)

	Asset-V				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	16.42	16.42	16.42	16.42	16.42
Interest on Loan	15.31	13.88	12.44	11.01	9.57
Return on Equity	18.97	18.97	18.97	18.97	18.97
Interest on Working Capital	2.72	2.59	2.64	2.68	2.73
Operation and Maintenance Expenses	45.02	46.60	48.24	49.92	51.68
Total	98.45	98.46	98.71	99.00	99.37

Filing Fee and Publication Expenses

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

Licence Fee and RLDC Fees and Charges

92. The Petitioner has requested to allow it to bill and recover license 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 reimbursement of licence fee and RLDC fees and charges in accordance with Regulation 70(3) and 70(4) respectively, of the 2019 Tariff Regulations.

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 Respondents to the Petitioner and the same shall be charged and billed separately by the Petitioner. Further additional taxes, if any, are to be paid by the Petitioner on account of demand from Government / Statutory authorities, the same may be allowed to be recovered from the beneficiaries.
- 94. We have considered the submission of the Petitioner. GST is not levied on transmission service at present and we are of the view that Petitioner's prayer is premature.

Security Expenses

95. The Petitioner has submitted that security expenses for the instant assets are not claimed in the instant petition and it would file a separate petition for claiming the overall security expenses and the consequential IWC. The Petitioner has requested to consider the actual security expenses incurred during 2018-19 for claiming estimated security expenses for 2019-20 which shall be subject to true up at the end of the year based on the actuals. The Petitioner has submitted that similar petition for security expenses for 2020-21, 2021-22, 2022-23 and 2023-24 shall be filed on a yearly basis on the basis of the actual expenses of previous year subject to true up at

the end of the year on actual expenses. The Petitioner has submitted that the difference, if any, between the estimated security expenses and actual security expenses as per the duly audited accounts may be allowed to be recovered from the beneficiaries on yearly basis.

96. We have considered the submissions of the Petitioner. We are of the view that the Petitioner should claim security expenses for all the transmission assets in one petition. It is observed that the Petitioner has already filed Petition No. 260/MP/2020 claiming consolidated security expenses on projected basis for the 2019-24 tariff period on the basis of actual security expenses incurred in 2018-19. Therefore, security expenses will be dealt with in Petition No. 260/MP/2020 in accordance with the applicable provisions of the 2019 Tariff Regulations.

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. KPTCL has objected to the recovery of transmission charges from Karnataka Discoms due to delay in execution of the downstream assets. KPTCL has submitted that the instant transmission assets are part of the transmission project in the Southern Region, and that the beneficiaries of entire Southern Region benefit from the effective operations of the transmission assets. KPTCL has referred to the APTEL's judgment dated 27.4.2011 in Appeal No. 72/2010 and submitted that the principle is well settled in the said judgment that if time over-run is beyond the control of the project developer, the generating company could be given the benefit of the additional cost incurred due to the time over-run along with condoning the delay.

APTEL accordingly allowed the capitalization of such additional cost incurred due to time over-run in the said judgment. Placing reliance on the said judgment of APTEL, KPTCL has submitted that identical issue of ROW was faced while executing the transmission system and as such the delay in execution of the downstream transmission assets is required to be condoned. In the background of above submissions, KPTCL has submitted that the burden of transmission charges for non-utilization of the transmission assets should not be placed on Karnataka Discoms alone and that the transmission charges should be socialized under the PoC mechanism as per the Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010 (hereinafter referred to as "the 2010 Sharing Regulations").

99. We have considered the submissions of KPTCL and have also perused earlier orders. The Commission is of the consistent view that if the transmission asset is prevented from being put to use due to reasons not attributable to the project developer (the Petitioner in the instant case), the entity responsible for the same should bear the transmission charges. In the instant case, Karnataka Discoms were responsible for the delay in putting to use of the instant asset. Accordingly, the Commission in order dated 19.7.2016 in Petition No. 403/TT/2014 held that the Karnataka Discoms should bear the transmission charges from the COD of the instant assets till the COD of the downstream assets under their scope. This was reiterated by the Commission in order dated 18.7.2017 in Review Petition No. 54/RP/2016 and order dated 4.9.2018 in Petition No. 245/TT/2017. KPTCL is reagitating the issue of sharing of transmission charges of the instant transmission at the time of truing-up which has already been settled by the Commission. We are not

inclined to reopen the issue which has already been settled and accordingly the submissions of KPTCL in the instant petition are rejected.

100. Accordingly, as decided by the Commission in order dated 4.9.2018 in Petition No. 245/TT/2017, the transmission charges of Asset-I shall be borne by Karnataka Discoms from 1.12.2015 to 24.8.2016 and thereafter it shall be included in the computation of PoC charges. In case of Assets II to V, the transmission charges from 1.12.2015 till the COD of the downstream assets shall be borne by Karnataka Discoms and thereafter it shall be included in the PoC charges as held in order dated 18.7.2017 in Petition 54/RP/2016. The billing, collection and disbursement of the transmission charges approved in this order shall be governed by the provisions of the Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010 or the Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2020, as applicable, as provided in Regulation 43 of the 2014 Tariff Regulations for the 2014-19 tariff period and Regulation 57 of the 2019 Tariff Regulations for the 2019-24 tariff period.

101. To summarise, the trued up AFC allowed for the Assets-I to V for the 2014-19 tariff period are as under:

Particulars	2015-16 (Pro-rata for 122 days)	2016-17	2017-18	2018-19
Asset-I	1580.55	5108.47	5428.49	5600.96
Asset-II	290.11	886.34	899.23	911.32
Asset-III	45.91	145.63	151.55	153.99
Asset-IV	46.90	147.88	153.93	156.24
Asset-V	46.83	147.49	153.48	155.80

102. The AFC allowed for the Combined Asset, Asset-IV and Asset-V for the 2019-24 tariff period in this order are as under:

(₹ in lakh)

Combined Asset										
Particulars 2019-20 2020-21 2021-22 2022-23 2023-24										
AFC	6362.24	6284.66	6190.06	6097.51	6016.99					

(₹ in lakh)

Asset-IV										
Particulars 2019-20 2020-21 2021-22 2022-23 2023-24										
AFC	98.82	98.78	99.04	99.35	99.71					

(₹ in lakh)

Asset-V											
Particulars 2019-20 2020-21 2021-22 2022-23 2023-24											
AFC	98.45	98.46	98.71	99.00	99.37						

This order disposes of Petition No. 17/TT/2020.

Sd/ (Arun Goyal) Member

Sd/ (I.S. Jha) Member

Petition No.:	17-TT-2020
Period	2014-19 True-up

Asset-I

2014-19	A decition I Constitut		ACE (₹ i	n lakh)		Admitted Capital	Rate of	Annual Depreciation as per Regulations				
Capital Expenditure as on COD	Admitted Capital Cost as on COD (₹ in lakh)	2015-16	2016-17	2017-18	2018-19	Cost as on 31.3.2019 (₹ in lakh)	Depreciation as per Regulations	2015-16 (₹ in lakh)	2016-17 (₹ in lakh)	2017-18 (₹ in lakh)	2018-19 (₹ in lakh)	
Freehold Land	2019.79	0.00	1666.27	153.79	0.00	3839.85	0.00%	0.00	0.00	0.00	0.00	
Building	1796.87	129.69	59.31	0.00	282.51	2268.38	3.34%	62.18	65.34	66.33	71.05	
Transmission Line	24445.61	140.13	927.69	205.42	0.00	25718.85	5.28%	1294.43	1322.62	1352.53	1357.96	
Substation	3338.31	30.63	690.28	180.48	0.00	4239.70	5.28%	177.07	196.10	219.09	223.86	
PLCC	105.29	14.16	0.39	2.51	0.00	122.35	6.33%	7.11	7.57	7.67	7.75	
IT Equipment and Software	50.14	0.04	0.19	4.78	0.00	55.15	5.28%	2.65	2.65	2.79	2.91	
TOTAL	31756.01	314.65	3344.13	546.98	282.51	36244.28		1543.44	1594.29	1648.40	1663.51	
						Average Gross Bl	ock (₹ in lakh)	31913.34	33742.73	35688.28	36103.03	
						Weighted Avera Depreciation		4.84%	4.72%	4.62%	4.61%	

Petition No.:	17-TT-2020
Period	2014-19 True-up

Asset-II

2014-19	A double 1 0 1 - 1		ACE (₹	in lakh)		Admitted Capital	Rate of	Annual	Depreciation as per Regulations		
Capital Expenditure as on COD	Admitted Capital Cost as on COD (₹ in lakh)	2015-16	2016-17	2017-18	2018-19	Cost as on 31.3.2019 (₹ in lakh)	Depreciation as per Regulations	2015-16 (₹ in lakh)	2016-17 (₹ in lakh)	2017-18 (₹ in lakh)	2018-19 (₹ in lakh)
Building	105.17	16.14	0.35	54.57	0.00	176.23	3.34%	3.78	4.06	4.97	5.89
Sub-station	3544.48	199.41	11.95	202.46	0.00	3958.31	5.28%	192.41	197.99	203.65	209.00
TOTAL	3649.65	215.56	12.30	257.03	0.00	4134.54		196.20	202.05	208.63	214.88
						Average Gross Bl	ock (₹ in lakh)	3757.43	3871.36	4006.03	4134.54
						Weighted Avera Depreciation	•	5.22%	5.22%	5.21%	5.20%

Petition No.:	17-TT-2020
Period	2014-19 True-up

Annexure - 3

Asset-III

2014-19			ACE (₹	in lakh)		Admitted Capital	Rate of	Rate of Annual Depreciation as per Regulations			
Capital Expenditure as on COD	Admitted Capital Cost as on COD (₹ in lakh)	2015-16	2016-17	2017-18	2018-19	Cost as on 31.3.2019 (₹ in lakh)	Depreciatio n as per Regulations	2015-16 (₹ in lakh)	2016-17 (₹ in lakh)	2017-18 (₹ in lakh)	2018-19 (₹ in lakh)
Building	51.98	7.93	19.24	7.48	0.00	86.64	3.34%	1.87	2.32	2.77	2.89
Sub-station	178.07	10.06	24.39	0.00	0.00	212.52	5.28%	9.67	10.58	11.22	11.22
PLCC	28.08	3.03	1.24	0.00	0.00	32.34	6.33%	1.87	2.01	2.05	2.05
TOTAL	258.14	21.02	44.87	7.48	0.00	331.50		13.41	14.91	16.04	16.16
						Average Gross Blo	ock (₹ in lakh)	268.65	301.59	327.76	331.50
						Weighted Avera Depreciation (4.99%	4.94%	4.89%	4.88%

Petition No.:	17-TT-2020
Period	2014-19 True-up

Asset-IV

2014-19	A localities I Occasition		ACE (₹ i	n lakh)		Admitted	Rate of	Annual	Depreciation	as per Regu	ılations
Capital Expenditure as on COD	Admitted Capital Cost as on COD (₹ in lakh)	2015-16	2016-17	2017-18	2018-19	Capital Cost as on 31.3.2019 (₹ in lakh)	Depreciation as per Regulations	2015-16 (₹ in lakh)	2016-17 (₹ in lakh)	2017-18 (₹ in lakh)	2018-19 (₹ in lakh)
Building	54.85	5.83	19.85	7.48	0.00	88.01	3.34%	1.93	2.36	2.81	2.94
Sub-station	187.69	2.89	26.36	0.00	0.00	216.94	5.28%	9.99	10.76	11.45	11.45
PLCC	29.53	1.89	1.55	0.00	0.00	32.97	6.33%	1.93	2.04	2.09	2.09
TOTAL	272.07	10.61	47.75	7.48	0.00	337.92		13.84	15.15	16.36	16.48
						Average Gross Block (₹ in lakh)		277.38	306.56	334.18	337.92
						Weighted Average Rate of Depreciation (₹ in lakh)		4.99%	4.94%	4.89%	4.88%

Petition No.:	17-TT-2020
Period	2014-19 True-up

Asset-V

2014-19	A		ACE (₹	in lakh)		Admitted	Rate of	Annua	I Depreciation	as per Regul	ations
Capital Expenditure as on COD	Admitted Capital Cost as on COD (₹ in lakh)	2015-16	2016-17	2017-18	2018-19	Capital Cost as on 31.3.2019 (₹ in lakh)	Depreciation as per Regulations	2015-16 (₹ in lakh)	2016-17 (₹ in lakh)	2017-18 (₹ in lakh)	2018-19 (₹ in lakh)
Building	54.99	5.64	19.63	7.48	0.00	87.74	3.34%	1.93	2.35	2.81	2.93
Sub -station	188.24	2.23	25.62	0.00	0.00	216.09	5.28%	10.00	10.73	11.41	11.41
PLCC	29.62	1.79	1.44	0.00	0.00	32.85	6.33%	1.93	2.03	2.08	2.08
TOTAL	272.85	9.66	46.69	7.48	0.00	336.68		13.86	15.12	16.29	16.42
						Average Gross lakh	`	277.68	305.86	332.94	336.68
						Weighted Average Rate of Depreciation (₹ in lakh)		4.99%	4.94%	4.89%	4.88%

Petition No.:	17-TT-2020
Period	2019-24 Tariff

2019-24	Combined Admitted Capital Cost as on	ACE (₹ in lakh)	Admitted Capital Cost as on 31,3,2024	Rate of Depreciation as per	,	Annual Depre	ciation as pe	r Regulations	S
Capital Expenditure as on 1.4.2019	1.4.2019 (₹ in lakh)	2019-20	(₹ in lakh)	Regulations	2019-20 (₹ in lakh)	2020-21 (₹ in lakh)	2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)
Freehold Land	3839.85	0.00	3839.85	0.00%	0.00	0.00	0.00	0.00	0.00
Building	2531.26	322.69	2853.95	3.34%	89.93	95.32	95.32	95.32	95.32
Transmission Line	25718.85	0.00	25718.85	5.28%	1357.96	1357.96	1357.96	1357.96	1357.96
Sub Station	8410.53	0.00	8410.53	5.28%	444.08	444.08	444.08	444.08	444.08
PLCC	154.70	0.00	154.70	6.33%	9.79	9.79	9.79	9.79	9.79
IT Equipment and Software	55.15	0.00	55.15	15.00%	8.27	8.27	8.27	8.27	8.27
TOTAL	40710.32	322.69	41033.01		1910.03	1915.42	1915.42	1915.42	1915.42
			Average Gross Bl	ock (₹ in lakh)	40871.67	41033.01	41033.01	41033.01	41033.01
			Weighted Avera Depreciation		4.67%	4.67%	4.67%	4.67%	4.67%

Petition No.:	17-TT-2020
Period	2019-24 Tariff

Annexure - 7

2019-24	Combined Admitted Capital Cost as on	ACE (₹ in lakh)	Admitted Capital Cost as on 31.3.2024	Rate of Depreciation as per	A	nnual Depre	ciation as pe	r Regulation	ıs
Capital Expenditure as on 1.4.2019	1.4.2019 (₹ in lakh)	2019-24	(₹ in lakh)	Regulations	2019-20 (₹ in lakh)	2020-21 (₹ in lakh)	2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)



		Weighted Average Rate of Depreciation (₹ in lakh)		4.88%	4.88%	4.88%	4.88%	4.88%	
			Average Gross Bl	ock (₹ in lakh)	337.92	337.92	337.92	337.92	337.92
TOTAL	337.92	0.00	337.92		16.48	16.48	16.48	16.48	16.48
PLCC	32.97	0.00	32.97	6.33%	2.09	2.09	2.09	2.09	2.09
Sub Station	216.94	0.00	216.94	5.28%	11.45	11.45	11.45	11.45	11.45
Building	88.01	0.00	88.01	3.34%	2.94	2.94	2.94	2.94	2.94

Petition No.:	17-TT-2020
Period	2019-24 Tariff

2019-24	Combined Admitted Capital Cost as on	Additional Capitalization (₹ in lakh)	Admitted Capital Cost as on 31,3,2024	Rate of Depreciation as per	A	nnual Depre	ciation as pe	er Regulatior	ıs		
Capital Expenditure as on 1.4.2019	1.4.2019 (₹ in lakh)	`	•	2019-24	(₹ in lakh)	Regulations	2019-20 (₹ in lakh)	2020-21 (₹ in lakh)	2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)
Building	87.74	0.00	87.74	3.34%	2.93	2.93	2.93	2.93	2.93		
Sub Station	216.09	0.00	216.09	5.28%	11.41	11.41	11.41	11.41	11.41		
PLCC	32.85	0.00	32.85	6.33%	2.08	2.08	2.08	2.08	2.08		
TOTAL	336.68	0.00	336.68		16.42	16.42	16.42	16.42	16.42		
			Average Gross Bl	ock (₹ in lakh)	336.68	336.68	336.68	336.68	336.68		
			Weighted Average Rate of Depreciation (₹ in lakh)		4.88%	4.88%	4.88%	4.88%	4.88%		