

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 303/TT/2020

Coram:

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

Date of Order:18.02.2021

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 the 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-A**: 400 kV D/C (Quad) Vadodara-Asoj Transmission Line along with associated bays at Asoj (GETCO Sub-station), **Asset-B1**:400 kV Bay at Vadodara GIS for 400 kV D/C Vadodara-Asoj circuit-1, **Asset-B2**: 400 kV Bay at Vadodara GIS for 400 kV D/C Vadodara-Asoj circuit-2, **Asset-C1**: 765 kV 240 MVAR Switchable Line Reactor of circuit-I of 765 kV D/C Aurangabad-Padghe Line charged as Bus Reactor at Aurangabad Sub-station, **Asset-C2**:765 kV 240MVAR Switchable Line Reactor of circuit-II of 765 kV D/C Aurangabad-Padghe Line charged as Bus reactor at Aurangabad Sub-station and **Asset-D**: Aurangabad-Padghe 765 kV D/C Line and Padghe (Powergrid)-Padghe/Kudus (MSETCL) 400 kV D/C Quad Line alongwith associated bays and establishment of 765/400 kV 2X1500 MVA Padghe GIS Sub-station under "System Strengthening in North/West Part of WR for IPP Projects in Chattisgarh (IPP-E)" in Western Region.

And in the matter of:

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

....Petitioner

Vs

1. Madhya Pradesh Power Management Company Ltd.,
Shakti Bhawan, Rampur,
Jabalpur-482008.
2. Madhya Pradesh Power Transmission Company Ltd.,
Shakti Bhawan, Rampur,
Jabalpur-482008.



3. Madhya Pradesh Audyogik Kendra,
Vikas Nigam (Indore) Ltd.,
3/54, Press Complex, Agra-Bombay Road, Indore-452008.
4. Maharashtra State Electricity Distribution Co. Ltd.,
Hongkong Bank Building, 3rd Floor,
M.G. Road, Fort, Mumbai-400001.
5. Maharashtra State Electricity Transmission Co. Ltd.,
Prakash Ganga, 6th Floor, Plot No. C-19, E-Block,
Bandra Kurla Complex, Bandra (East) Mumbai-400051.
6. Gujarat Urja Vikas Nigam Ltd.,
Sardar Patel Vidyut Bhawan,
Race Course Road, Vadodara-390007.
7. Electricity Department,
Govt. of Goa, Vidyut Bhawan, Panaji,
Near Mandvi Hotel, Goa-403001.
8. Electricity Department,
Administration of Daman & Diu,
Daman-396210.
9. DNH Power Distribution Corporation Ltd.,
Vidyut Bhawan, 66 kV Road, Near Secretariat Amla,
Silvassa-396230.
10. Chhattisgarh State Power Transmission Co. Ltd.,
Office of the Executive Director (C&P),
State Load Dispatch Building,
Dangania, Raipur-492013.
11. Chhattisgarh State Power Distribution Co. Ltd.,
P.O. Sunder Nagar, Dangania, Raipur,
Chhattisgarh-492013.

...Respondents

For Petitioner : Shri S. S. Raju, PGCIL
Shri B. Dash, PGCIL

For Respondents : None

ORDER

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 the transmission tariff from COD to 31.3.2019 under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) and for determination of tariff of the period from 1.4.2019 to 31.3.2024 under 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 in North/West Part of WR for IPP Projects in Chattisgarh (IPP-E)” in Western Region (hereinafter referred to as “the Transmission Project”):

Asset-A: 400 kV D/C (Quad) Vadodara-Asoj Transmission Line along with associated bays at Asoj (GETCO Sub-station);

Asset-B1: 400 kV Bay at Vadodara GIS for 400 kV D/C Vadodara-Asoj circuit-1;

Asset-B2: 400 kV Bay at Vadodara GIS for 400 kV D/C Vadodara-Asoj circuit-2;

Asset-C1: 765 kV 240 MVAR Switchable Line Reactor of circuit-I of 765 kV D/C Aurangabad-Padghe Line Ckt-I charged as Bus Reactor at Aurangabad Sub-station;

Asset-C2: 765 kV 240 MVAR Switchable Line Reactor of 765 kV D/C Aurangabad-Padghe Line Circuit-II charged as Bus Reactor at Aurangabad Sub-station; and

Asset-D: Aurangabad-Padghe 765 kV D/C Line and Padghe (Powergrid)-Padghe/Kudus (MSETCL) 400 kV D/C Quad Line alongwith associated bays and establishment of 765/400 kV 2X1500 MVA Padghe GIS Sub-station.

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

“1) Allow the addcap for 2014-19 and 2019-24 tariff block as claimed as per Para 5.9 above.



- 2) *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 8.1 and 9.1 above.*
- 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 Hon'ble Commission as provided in Tariff Regulation 2014 and Tariff regulations 2019 as per para 8.1 and 9.1 above for respective block.*
- 4) *Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 70 (1) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019, and other expenditure (if any) in relation to the filing of petition.*
- 5) *Allow the petitioner to bill and recover Licensee fee and RLDC fees and charges, separately from the beneficiaries in terms of Regulation 70 (3) and (4) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019.*
- 6) *Allow the petitioner to bill and adjust impact on Interest on Loan due to change in Interest rate on account of floating rate of interest applicable during 2019-24 period, if any, from the beneficiaries.*
- 7) *Allow the petitioner to file a separate petition before Hon'ble Commission for claiming the overall security expenses and consequential IOWC on that security expenses as mentioned at para 9.7 above.*
- 8) *Allow the petitioner to claim the capital spares at the end of tariff block as per actual.*
- 9) *Allow the Petitioner to bill and recover GST on Transmission Charges separately from the beneficiaries, if GST on transmission is withdrawn from negative list at any time 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 vide Memorandum No. C/CP/Chhattisgarh IPP dated 27.12.2011 at an estimated cost of ₹174665 lakh including IDC of ₹11143 lakh based on 2nd quarter,



2011 price level. The Board of Directors of the Petitioner accorded approval for Revised Cost Estimate (RCE) vide Memorandum No. C/CP/RCE/IPP dated 9.3.2016 at estimated cost of ₹222871 lakh including IDC of ₹17264 lakh based on August, 2014 price level. Further, the Revised Cost Estimate-2 (RCE-2) of the Transmission Project was accorded by the Board of Directors of the Petitioner vide Memorandum No. C/CP/RCE/ SS North-West/ IPP dated 22.10.2018 at estimated cost of ₹239567 lakh including IDC of ₹32149 lakh based on March, 2018 price level.

b) The transmission tariff for transmission Asset-A was allowed vide order dated 23.3.2016 in Petition No. 287/TT/2013. For transmission Assets-B1 and B2 the tariff was allowed vide order dated 23.3.2016 in Petition No. 139/TT/2015. For transmission Assets-C1 and C2 the tariff was allowed vide order dated 27.4.2016 in Petition No. 115/TT/2014 and for transmission Asset-D the tariff was allowed vide order dated 5.2.2019 in Petition No. 147/TT/2018. The details of the transmission tariff allowed earlier from the COD to 31.3.2019 in respect of the transmission assets is summarized hereunder:

Assets	Description	Previous Order No.
Asset-A	400 kV D/C (Quad) Vadodara-Asoj Transmission Line along with associated bays at Asoj (GETCO Sub-station)	Order dated 23.3.2016 in Petition No. 287/TT/2013
Asset-B1	400 kV Bay at Vadodara GIS for 400 kV D/C Vadodara-Asoj circuit-1	Order dated 23.3.2016 in Petition No.139/TT/2015
Asset-B2	400 kV Bay at Vadodara GIS for 400 kV D/C Vadodara-Asoj circuit-2	
Asset-C1	765 kV 240 MVAR Switchable Line Reactor of circuit-I of 765 kV D/C Aurangabad-Padghe Line charged as Bus Reactor at Aurangabad Sub-station	Order dated 27.4.2016 in Petition No. 115/TT/2014
Asset-C2	765 kV 240 MVAR Switchable Line Reactor of circuit-II of 765 kV D/C Aurangabad-Padghe Line charged as Bus Reactor at Aurangabad Sub-station	
Asset-D	Aurangabad-Padghe 765 kV D/C Line and Padghe (Powergrid)-Padghe/Kudus (MSETCL) 400 kV D/C Quad Line alongwith associated bays and establishment of 765/400 kV 2X1500 MVA Padghe GIS Sub-station	Order dated 5.2.2019 in Petition No. 147/TT/2018



c) The scope of work covered under the "System Strengthening in North/West Part of WR for IPP Projects in Chattisgarh (IPP-E)" is as under:

Transmission Line:

- i. Aurangabad (Powergrid) – Padghe (Powergrid) 765 kV D/C Line
- ii. Padhge (Powergrid) - Padghe/Kudus (MSETCL)-`400 kV D/C (Quad) Line
- iii. Vadodara - Asoj 400 kV D/C (Quad) Line

Sub-stations:

- i. Establishment of 765/400 kV, 2 X 1500 MVA Padghe GIS Sub-station.
- ii. Bay Extensions at 765/400 kV Aurangabad (Powergrid), Vadodara (Powergrid) and Asoj (GETCO) Sub-station
- iii. Bay extensions at 400 kV Padghe/Kudus (MSETCL) Sub-station.

Reactive Compensation

- (i) 765 kV, 3 X 80 kV Padhe Sub-station
 - 765 kV, 3 x 80 MVAR Line Reactors- 2 Nos.
 - 765 kV, 3 x 80 MVAR Bus Reactor- 1 No.
- (ii) 765/400 kV Aurangabad Sub-station (Extension)
 - 765 kV, 3 x 80 MVAR Line Reactors- 2 Nos.

d) The Petitioner vide affidavit dated 8.6.2020 has submitted that the entire scope of work covered under the "System Strengthening in North/West Part of WR for IPP Projects in Chattisgarh (IPP-E)" has been completed and is covered in the instant petition.

e) The details of commercial operation along with the time over-run of the transmission assets covered in the instant petition are as under:

Assets	SCOD	COD	Time over-run
Asset-A	26.8.2014	1.4.2014	No time over-run
Asset-B1	1.9.2014	8.6.2015	9 Months 8 Days



Asset-B2	1.9.2014	29.6.2015	9 Months 29 Days
Asset-C1	27.8.2014	2.8.2014	No time over-run
Asset-C2	27.8.2014	7.8.2014	No time over-run
Asset-D	27.8.2014	31.12.2017	40 Months 4 Days

f) The Commission vide order dated 23.2.2016 in Petition No. 139/TT/2015 condoned the entire time over-run of 9 months and 8 days and 9 months and 29 days in respect of transmission Assets B1 and B2 respectively and observed that IDC and IEDC for the period of time over-run shall be capitalized. Further, the entire time over-run of 40 months and 4 days in respect of transmission Asset-D was condoned by the Commission vide order dated 5.2.2019 in Petition No. 147/TT/2018.

g) The true-up transmission tariff claimed by the Petitioner in the instant petition, along with details of the tariff approved earlier in respect of the transmission assets is as under:

		(₹ in lakh)				
Assets	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-A	Annual Fixed Charges approved vide order dated 23.3.2016 in Petition No. 287/TT/2013	924.71	1044.96	1065.60	1043.12	1020.98
	Claimed by the Petitioner based on true-up in the instant petition	927.04	1041.15	1064.60	1047.35	1028.37
Asset-B1	Annual Fixed Charges approved vide order dated 23.3.2016 in Petition No. 139/TT/2015	0.00	200.17	324.22	347.23	346.04
	Claimed by the Petitioner based on true-up in the instant petition	0.00	187.92	278.02	288.06	293.66
Asset-B2	Annual Fixed Charges approved vide order dated 23.3.2016 in Petition No. 139/TT/2015	0.00	186.69	324.49	347.45	346.30
	Claimed by the Petitioner based on true-up in the instant petition	0.00	175.10	278.18	288.29	293.88
Asset-C1	Annual Fixed Charges approved vide order dated 27.4.2016 in Petition No. 115/TT/2014	391.82	746.25	770.48	760.12	750.59
	Claimed by the Petitioner based on true-up in the instant petition	351.71	598.54	607.17	610.03	606.27
Asset-C2	Annual Fixed Charges approved vide order dated 27.4.2016 in Petition No. 115/TT/2014	403.81	785.09	810.63	799.10	788.41
	Claimed by the Petitioner based on true-up in the instant petition	363.31	633.47	645.12	650.05	645.59



Asset-D	Annual Fixed Charges approved vide order dated 5.2.2019 in Petition No. 147/TT/2018	0.00	0.00	0.00	8994.49	37120.78
	Claimed by the Petitioner based on true-up in the instant petition	0.00	0.00	0.00	8946.83	36461.32

4. The Respondents are the transmission and distribution licensees, who are procuring transmission services from the Petitioner, mainly beneficiaries of the Western Region.

5. The Petitioner has served the petition on the Respondents and notice regarding filing of this 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. Madhya Pradesh Power Management Company Ltd. (MPPMCL), Respondent No. 1 has filed its reply vide affidavit dated 17.3.2020 and has raised the issues of effective tax rate considered for the calculation of Return on Equity (RoE), Additional Capital Expenditure (ACE) for transmission Assets-B1 and B2 for 2014-19 and 2019-24 tariff periods. In response, the Petitioner vide affidavit dated 5.8.2020 has addressed the issues raised by MPPMCL.

6. This order is issued considering the submissions made by the Petitioner in affidavits dated 18.1.2020, 8.6.2020 and 1.9.2020, reply filed by MPPMCL vide affidavit dated 17.3.2020 and the rejoinder affidavit of the Petitioner filed vide affidavit dated 5.8.2020.

7. The hearing in this matter was held on 10.8.2020 through video conference and order was reserved.



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

Truing-up of Annual Fixed Charges of the 2014-19 Tariff Period

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

(₹ in lakh)

Asset-A					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	232.06	271.16	286.28	290.90	292.28
Interest on Loan	278.25	301.57	288.36	256.80	229.35
Return on Equity	255.65	300.13	316.33	321.40	323.82
Interest on working capital	25.14	27.85	28.52	28.29	28.02
O & M Expenses	135.94	140.44	145.11	149.93	154.90
Total	927.04	1041.15	1064.60	1047.32	1028.37

(₹ in lakh)

Asset-B1					
Particulars	2015-16 (Pro-rata for 298 days)	2016-17	2017-18	2018-19	
Depreciation	42.56	68.58	75.05	78.37	
Interest on Loan	49.20	72.05	68.07	64.32	
Return on Equity	47.21	74.38	79.83	83.78	
Interest on working capital	5.59	7.99	8.27	8.46	
O & M Expenses	43.36	55.02	56.84	58.73	
Total	187.92	278.02	288.06	293.66	

(₹ in lakh)

Asset-B2					
Particulars	2015-16 (Pro-rata for 277 days)	2016-17	2017-18	2018-19	
Depreciation	39.70	68.58	75.05	78.37	
Interest on Loan	45.86	72.21	68.29	64.54	
Return on Equity	44.03	74.38	79.83	83.78	
Interest on working capital	5.21	7.99	8.28	8.46	
O & M Expenses	40.30	55.02	56.84	58.73	
Total	175.10	278.18	288.29	293.88	

(₹ in lakh)

Asset-C1					
Particulars	2014-15 (Pro-rata for 242 days)	2015-16	2016-17	2017-18	2018-19
Depreciation	67.85	122.83	127.15	130.16	130.79
Interest on Loan	83.89	142.03	134.91	124.78	112.99
Return on Equity	76.59	140.28	145.53	149.28	150.39

Page 9 of 89



Interest on working capital	11.44	18.96	19.34	19.59	19.70
O & M Expenses	111.94	174.44	180.24	186.22	192.40
Total	351.71	598.54	607.17	610.03	606.27

(₹ in lakh)

Asset-C2					
Particulars	2014-15 (Pro-rata for 237 days)	2015-16	2016-17	2017-18	2018-19
Depreciation	72.34	134.41	139.90	143.75	144.47
Interest on Loan	88.14	151.87	145.11	135.15	122.44
Return on Equity	81.55	153.00	159.68	164.44	165.69
Interest on working capital	11.63	19.75	20.19	20.49	20.59
O & M Expenses	109.64	174.44	180.24	186.22	192.40
Total	363.30	633.47	645.12	650.05	645.59

(₹ in lakh)

Asset-D		
Particulars	2017-18 (Pro-rata for 91 days)	2018-19
Depreciation	2628.12	10835.13
Interest on Loan	2849.86	11292.02
Return on Equity	2978.37	12314.44
Interest on Working Capital	196.53	801.50
O&M Expenses	293.95	1218.23
Total	8946.83	36461.32

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

(₹ in lakh)

Asset-A					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O & M Expenses	11.33	11.70	12.09	12.49	12.91
Maintenance Spares	20.39	21.07	21.77	22.49	23.24
Receivables	154.51	173.53	177.43	174.55	171.40
Total	186.23	206.30	211.29	209.53	207.55
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	25.14	27.85	28.52	28.29	28.02

(₹ in lakh)

Asset-B1				
Particulars	2015-16 (Pro-rata for 298 days)	2016-17	2017-18	2018-19
O & M Expenses	4.44	4.59	4.74	4.89
Maintenance Spares	7.99	8.25	8.53	8.81
Receivables	38.47	46.34	48.01	48.94
Total	50.90	59.18	61.28	62.64



Rate of Interest (%)	13.50	13.50	13.50	13.50
Interest on Working Capital	5.59	7.99	8.27	8.46

(₹ in lakh)

Asset-B2				
Particulars	2015-16 (Pro-rata for 277 days)	2016-17	2017-18	2018-19
O & M Expenses	4.44	4.59	4.74	4.89
Maintenance Spares	7.99	8.25	8.53	8.81
Receivables	38.56	46.36	48.05	48.98
Total	50.99	59.20	61.32	62.68
Rate of Interest (%)	13.50	13.50	13.50	13.50
Interest on Working Capital	5.21	7.99	8.28	8.46

(₹ in lakh)

Asset-C1					
Particulars	2014-15 (Pro-rata for 242 days)	2015-16	2016-17	2017-18	2018-19
O & M Expenses	14.07	14.54	15.02	15.52	16.03
Maintenance Spares	25.33	26.17	27.04	27.93	28.86
Receivables	88.42	99.76	101.20	101.67	101.05
Total	127.82	140.47	143.26	145.12	145.94
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	11.44	18.96	19.34	19.59	19.70

(₹ in lakh)

Asset-C2					
Particulars	2014-15 (Pro-rata for 237 days)	2015-16	2016-17	2017-18	2018-19
O & M Expenses	14.07	14.54	15.02	15.52	16.03
Maintenance Spares	25.33	26.17	27.04	27.93	28.86
Receivables	93.25	105.58	107.52	108.34	107.60
Total	132.65	146.29	149.58	151.79	152.49
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	11.63	19.75	20.19	20.49	20.59

(₹ in lakh)

Asset-D		
Particulars	2017-18 (Pro-rata for 91 days)	2018-19
O & M Expenses	98.25	101.52
Maintenance Spares	176.86	182.73
Receivables	5980.94	6076.89
Total	6256.05	6361.14
Rate of Interest (%)	12.60	12.60
Interest on Working Capital	196.53	801.50

Capital Cost

11. The Petitioner vide Auditor's Certificates dated 31.7.2019, 7.11.2019 and 9.11.2019 has submitted the capital cost incurred up to COD, 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 up to 31.3.2019 claimed by the Petitioner for the transmission assets are as under:

Asset	Apportioned approved capital cost as per RCE	Capital cost as on COD (on accrual basis)	ACE					Total capital cost as on 31.3.2019
			2014-15	2015-16	2016-17	2017-18	2018-19	
Asset-A	6162.78	3827.39	1029.83	434.42	119.04	52.43	0.00	5463.11
Asset-B1	1946.31	790.19	0.00	395.80	144.59	39.91	85.91	1456.40
Asset-B2	1946.31	790.19	0.00	395.80	144.59	39.91	85.91	1456.40
Asset-C1	3556.52	1619.85	719.8	65.14	114.08	12.86	11.13	2542.86
Asset-C2	3556.52	1757.12	788.93	82.88	144.59	16.35	11.13	2801.01
Asset-D	222399.26	204041.80	0.00	0.00	0.00	2547.67	5054.61	211644.11

12. The estimated completion cost of the transmission assets as on 31.3.2019 including ACE is within the RCE approved apportioned capital cost.

Time Over-run

13. There is no time over-run in the case of Assets-A, C1 and C2. The time over-run in case of Assets-B1, B2 and D has already been condoned by the Commission as stated in paragraph 3 above of this order.

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

14. The Petitioner has claimed IDC of ₹127.75 lakh, ₹55.09 lakh, ₹55.09 lakh, ₹82.18 lakh, ₹93.42 and ₹31407.41 lakh for transmission Assets-A, B1, B2, C1, C2 and D 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 IDC discharged.

15. The allowable IDC has been worked out considering the information submitted by the Petitioner for the transmission assets on cash basis. The loan details submitted in Form-9C for the 2014-19 tariff period and IDC computation sheet have been considered for the purpose of computation of IDC on cash basis and on accrued 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 for the instant Assets-B1, B2 and D as the entire time over-run has already been condoned by the Commission vide order dated 23.3.2016 in Petition No.139/TT/2015 and order dated 5.2.2019 in Petition No. 147/TT/2018 respectively.

16. Accordingly, based on the information furnished by the Petitioner, IDC considered is summarized as under:

(₹ in lakh)

Asset	IDC claimed by Petitioner (as per Auditor's Certificate)	Entitled IDC calculated 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
	A	B	C=A-B	D	E=B-D
Asset-A	127.75	127.75	0.00	0.00	127.75
Asset-B1	55.09	55.09	0.00	15.60	39.49



Asset-B2	55.09	55.09	0.00	8.84	46.25
Asset-C1	82.18	81.48	0.70	34.39	47.09
Asset-C2	93.42	92.67	0.75	36.60	56.07
Asset-D	31407.41	31407.41	0.00	3739.03	27668.38

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

Asset	Un-discharged portion of entitled IDC as on COD	IDC being discharged as ACE				
		2014-15	2015-16	2016-17	2017-18	2018-19
Asset-B1	15.60	0.00	15.60	0.00	0.00	0.00
Asset-B2	8.84	0.00	8.84	0.00	0.00	0.00
Asset-C1	34.39	33.68	0.71	0.00	0.00	0.00
Asset-C2	36.60	35.48	1.12	0.00	0.00	0.00
Asset-D	3739.03	0.00	0.00	0.00	1014.50	2724.53

18. The Petitioner has also claimed IEDC of ₹18.73 lakh, ₹18.73 lakh, ₹(-27.86) lakh, ₹(-31.09) lakh and ₹3471.81 lakh for transmission Assets-B1, B2, C1, C2 and D respectively and has not claimed any IEDC for transmission Asset-A. The Petitioner has submitted the Auditor's certificate in support of the same along with year-wise details of the actual amount of IEDC discharged i.e. Form-12A. The Petitioner has also submitted that the entire IEDC has been discharged as on COD in respect of the transmission assets. Hence, the entire amount of IEDC claimed in respect of transmission assets 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:

(₹ in lakh)

Asset	Particulars	Plant and Machinery Cost (excluding IDC and IEDC, land cost and cost of civil works) (A) (₹ in lakh)	Initial Spares Claimed (B) (₹ in lakh)	Ceiling (%) (C)	Initial Spares worked out by Petitioner	Excess Spares Claimed based on individual Element Ceiling Limit E = B-D
					$D = [(A-B) * C / (100-C)]$	
Asset-A	Transmission Line	4027.06	0.00	1.00	40.68	Nil
	Sub-station (AIS)	1308.3	45.85	6.00	80.58	Nil
Asset-B1	Sub-station (GIS)	1418.43	101.00	5.00	69.34	31.66
Asset-B2	Sub-station (GIS)	1418.43	101.00	5.00	69.34	31.66
Asset-C1	Sub-station (AIS)	2282.32	130.55	6.00	137.35	Nil
Asset-C2	Sub-station (AIS)	2530.7	100.19	6.00	155.14	Nil
Asset-D	Transmission Line	142812.58	1300.01	1.00	1429.42	Nil
	Sub-station (AIS)	15916.19	337.23	6.00	994.40	Nil
	Sub-station (GIS)	19633.49	692.10	5.00	996.92	Nil

21. The Petitioner has further submitted that the Initial Spares for the transmission assets have been claimed on the combined project cost of elements (i.e. transmission line, sub-station (AIS) and sub-station (GIS)) and has prayed to revise the Initial Spares allowed earlier in light of the judgement of the Appellate Tribunal for Electricity (APTEL) dated 14.9.2019 in Appeal No.74 of 2017. The details of the Initial spares claimed by the Petitioner for various elements on the basis of project cost are as under:



(₹ in lakh)

Assets	Particulars	Plant and Machinery Cost (excluding IDC and IEDC, land cost and cost of civil works) (A) (₹ in lakh)	Initial Spares Claimed (B) (₹ in lakh)	Ceiling Limit (%) (C)	Initial Spares worked out by Petitioner	Excess Spares Claimed based on individual Element Ceiling Limit E = B-D
					$D = [(A-B) * C / (100-C)]$	
Combined Asset	Transmission Line	146839.64	1300.01	1.00	1470.10	Nil
	Sub-station (AIS)	22037.51	613.82	6.00	1367.47	Nil
	Sub-station (GIS)	22470.35	894.10	5.00	1135.59	Nil

22. We have considered the submissions of the Petitioner. APTEL in its judgement dated 14.9.2019 in Appeal No. 74 of 2017 observed that the Commission for the purpose of prudence check may restrict the Initial Spares to the cost of the individual asset and later at the time of truing up allow initial spares as per the ceiling on the overall project cost. The relevant portion of the said judgement is extracted here under:

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

23. The transmission assets were put into commercial operation during the 2014-19 tariff period. Accordingly, the norms specified for the Initial Spares in the 2014 Tariff Regulations are applicable for computation of the allowable Initial Spares asset/element-wise. As per the said judgement of APTEL dated 14.9.2019, the Initial Spares are to be allowed as a percentage of the overall project cost subsequently. In the present case, though the transmission assets were put into commercial operation during the 2014-19 tariff period, the overall project cost of the transmission assets has to be ascertained when all the transmission assets are combined while claiming the tariff for the 2019-24 tariff period. Therefore, the Initial



Spares are allowed on the basis of the cost of the individual asset for the 2014-19 tariff period and the Initial Spares will be allowed on the basis of the overall project cost in the 2019-24 tariff period when the transmission assets are combined and the overall project cost is arrived at in line with the APTEL's judgment dated 14.9.2019 in Appeal No. 74 of 2017. Accordingly, the details of the Initial Spares allowed for the 2014-19 tariff period are as under:

(₹ in lakh)							
Asset	Particulars	Plant and Machinery Cost (excluding IDC and IEDC, land cost and cost of civil works) (A) (₹ in lakh)	Initial Spares Claimed (B) (₹ in lakh)	Ceiling Limit (%) (C)	Allowable Initial Spares worked out	Excess Initial Spares disallowed (₹ in lakh)	Initial Spares allowed (₹ in lakh)
					$D = [(A-B) * C / (100-C)]$		
Asset-A	Transmission Line	3982.64	0.00	1.00	40.23	Nil	0.00
	Sub-station (AIS)	1283.36	45.85	6.00	78.99	Nil	45.85
Asset-B1	Sub-station (GIS)	1296.67	101.00	5.00	62.93	38.07	62.93
Asset-B2	Sub-station (GIS)	1296.67	101.00	5.00	62.93	38.07	62.93
Asset-C1	Sub-station (AIS)	2259.32	130.55	6.00	135.88	Nil	130.55
Asset-C2	Sub-station (AIS)	2504.44	100.19	6.00	153.46	Nil	100.19
Asset-D	Transmission Line	142812.58	1300.01	1.00	1,429.42	Nil	1300.01
	Sub-station (AIS)	15916.19	337.23	6.00	994.40	Nil	337.23
	Sub-station (GIS)	19633.49	692.10	5.00	996.92	Nil	692.10

Capital cost as on COD

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

(₹ in lakh)					
Asset	Capital cost as on COD as per Auditor's Certificate	Less: IDC as on COD due to		Less: Disallowed Initial Spares	Capital cost considered as on COD (on cash basis)
		Computational difference	Un-discharged		
Asset-A	3827.39	0.00	0.00	0.00	3827.39



Asset-B1	790.19	0.00	15.60	38.07	736.52
Asset-B2	790.19	0.00	8.84	38.07	743.28
Asset-C1	1619.85	0.70	34.39	0.00	1584.76
Asset-C2	1757.12	0.75	36.60	0.00	1719.77
Asset-D	204041.81	0.00	3739.03	0.00	200302.78

Additional Capital Expenditure (ACE)

25. The Petitioner has claimed ACE of ₹1635.72 lakh with respect to transmission Asset-A during the 2014-19 tariff period. With regard to transmission Asset-B1, the Petitioner has claimed an ACE of ₹681.75 lakh during the 2014-19 tariff period including accrued IDC of ₹15.54 lakh discharged during the year 2015-16. As regards transmission Asset-B2, the Petitioner has claimed ACE of ₹674.99 lakh during the 2014-19 tariff period including accrued IDC of ₹8.78 lakh discharged during the year 2015-16. With reference to transmission Asset-C1, the Petitioner has claimed ACE of ₹957.41 lakh during the 2014-19 tariff period including accrued IDC of ₹33.69 lakh discharged during the year 2014-15 and ₹0.71 lakh during the year 2015-16. With regard to transmission Asset-C2, the Petitioner has claimed an ACE of ₹1079.70 lakh during the 2014-19 tariff period including accrued IDC of ₹34.69 lakh discharged during the year 2014-15 and ₹1.12 lakh during the year 2015-16. As regards transmission Asset-D, the Petitioner has claimed an ACE of ₹11341.31 lakh during the 2014-19 tariff period including accrued IDC of ₹1014.50 lakh during the year 2017-18 and ₹2724.53 lakh during the year 2015-16.

26. The Petitioner, vide affidavits dated 18.1.2020 and 8.6.2020, has submitted that the 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. The ACE in case of the



transmission Assets-A, C1 and C2 during the 2014-17 period and for transmission Assets-B1 and B2 during 2015-18 period has been claimed under Regulations 14(1)(i) and (ii) of the 2014 Tariff Regulations and the same is within the cut-off date. Further, the Petitioner has submitted that the ACE in case of the transmission Asset-D during 2017-19 has been claimed under Regulation 14(1) (i) of the 2014 Tariff Regulations and is within the cut-off date. The ACE in case of the transmission Assets-A, C1 & C2 and Assets-B1 & B2 during the periods 2017-19 and 2018-19 respectively has been claimed under Regulation 14(3)(v) of the 2014 Tariff Regulations and is beyond the cut-off date.

27. The Petitioner has further submitted that the ACE up to 31.3.2019 has been considered in the Auditor's certificate as per actuals whereas the 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)

Assets	Party	Package	Financial Year				
			2014-15	2015-16	2016-17	2017-18	2018-19
Asset-A	Shyama Power	Transmission Line Work	624.97	38.38	38.49	0.00	0.00
	Alstom T&D	Sub-station Work	126.03	116.15	0.00	0.00	0.00
	Alstom T&D	PLCC Work	0.00	32.83	0.00	0.00	0.00
	EMC & NHVS	PLCC Work	8.75	6.99	6.05	0.00	0.00
	Sai Balaji	Transmission Line Work	0.00	11.75	0.00	0.00	0.00
Total			759.75	206.10	44.54	0.00	0.00
Asset-B1	EMC & NHVS	Sub-station Work	0.00	263.25	89.88	30.00	0.00
Total			0.00	263.25	89.88	30.00	0.00
Asset-B2	EMC & NHVS	Sub-station Work	0.00	263.25	89.88	30.00	0.00
Total			0.00	263.25	89.88	30.00	0.00
Asset-C1	Alstom T&D	Sub-station Work	268.89	32.49	0.00	0.00	0.00
	Alstom T&D	Sub-station Work	203.34	0.00	0.00	0.00	0.00
	ABB	Sub-station Work	149.34	6.32	0.00	0.00	0.00



Total			621.58	38.81	0.00	0.00	0.00
Asset-C2	Alstom T&D	Sub-station Work	399.04	32.08	0.00	0.00	0.00
	Alstom T&D	Sub-station Work	161.00	0.00	0.00	0.00	0.00
	ABB	Sub-station Work	228.89	9.23	0.00	0.00	0.00
Total			788.93	41.31	0.00	0.00	0.00
Asset-D	New Northeast Electric Group High Voltage Switchgear Co. Ltd.	Sub-station Work	0.00	0.00	0.00	0.00	39.80
	EMC Ltd.	Sub-station Work	0.00	0.00	0.00	170.22	0.00
	CGL & CG Electric	Sub-station Work	0.00	0.00	0.00	168.56	104.62
	Alstom T&D	Sub-station Work	0.00	0.00	0.00	32.40	0.00
	Paresh Construction	Building & Civil Work	0.00	0.00	0.00	11.39	0.00
	Torrent Power	Transmission Line Work	0.00	0.00	0.00	5.80	0.00
	BNC Power Projects Ltd.	Sub-station Work	0.00	0.00	0.00	5.03	0.00
	Hightage Electric LLP	Sub-station Work	0.00	0.00	0.00	2.37	0.00
	Monarch Electronics	Sub-station Work	0.00	0.00	0.00	0.61	0.00
	Onkar Chagan Raut	Tree Cutting	0.00	0.00	0.00	0.73	5.71
	Ramesh Sakharam Borsa	Tree Cutting	0.00	0.00	0.00	0.69	2.47
	Sanjog Enterprises	Sub-station Work	0.00	0.00	0.00	2.02	0.00
	Taurus Powertronics Pvt. Ltd.	Sub-station Work	0.00	0.00	0.00	5.78	0.00
	Vacuum Plant & Instrument Mfg. Co.	Sub-station Work	0.00	0.00	0.00	2.74	0.00
	Madhu Infracon Pvt. Ltd.	Sub-station Work	0.00	0.00	0.00	0.00	4.56
	Kulkarni & Construction	Building & Civil Work	0.00	0.00	0.00	12.55	0.00
	Alstom T&D	Sub-station Work	0.00	0.00	0.00	48.44	0.00
	Crop/Tree Compensation	Compensation	0.00	0.00	0.00	12.98	82.82
	Land Compensation	Land	0.00	0.00	0.00	0.00	16.28
	KPTL	Transmission Line Work	0.00	0.00	0.00	248.40	0.00
	KEC	Transmission Line Work	0.00	0.00	0.00	382.89	43.25
	Shnadong	Transmission	0.00	0.00	0.00	0.00	8.79



		Line Work						
	Nanjing	Transmission Line Work	0.00	0.00	0.00	0.00	235.46	
	Sterlite	Transmission Line Work	0.00	0.00	0.00	26.07	0.00	
	Galaxy	Transmission Line Work	0.00	0.00	0.00	0.00	4.59	
	Ramavath Electricals	Transmission Line Work	0.00	0.00	0.00	70.06	0.00	
	Vajranarayana Power Services	Transmission Line Work	0.00	0.00	0.00	38.75	0.00	
	Shyama Power	Transmission Line Work	0.00	0.00	0.00	0.00	65.34	
Total			0.00	0.00	0.00	1248.48	613.68	

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

(₹ in lakh)

Assets	Party	Package	Financial Year				
			2014-15	2015-16	2016-17	2017-18	2018-19
Asset-A	Shyama Power	Transmission Line Work	152.91	124.53	63.61	44.43	0.00
	Alstom T&D	Sub-station Work	117.17	103.69	0.00	8.00	0.00
	EMC & NHVS	PLCC Work	0.00	0.00	0.00	10.89	0.00
Total			270.08	228.32	74.50	52.43	0.00
Asset-B1	EMC & NHVS	Sub-station Work	0.00	132.55	54.71	9.91	85.91
Total			0.00	132.55	54.71	9.91	85.91
Asset-B2	EMC & NHVS	Sub-station Work	0.00	132.55	54.71	9.91	85.91
Total			0.00	132.55	54.71	9.91	85.91
Asset-C1	Alstom T&D	Sub-station Work	45.75	21.75	92.05	12.86	0.00
	Alstom T&D	Sub-station Work	28.13	0.00	0.00	0.00	0.00
	ABB	Sub-station Work	24.34	4.58	22.03	0.00	11.13
Total			98.22	26.33	114.08	12.86	11.13
Asset-C2	Alstom T&D	Sub-station Work	0.00	36.43	115.56	16.34	0.00
	ABB	Sub-station Work	0.00	5.14	29.03	0.00	11.13
Total			0.00	41.57	144.59	16.34	11.13
Asset-D	New Northeast Electric Group High Voltage Switchgear Co. Ltd.	Sub-station Work	0.00	0.00	0.00	0.00	1071.62
	EMC Ltd.	Sub-station Work	0.00	0.00	0.00	191.95	213.40
	CGL & CG Electric	Sub-station Work	0.00	0.00	0.00	80.51	65.11
	Alstom T&D	Sub-station Work	0.00	0.00	0.00	47.60	30.13



	Paresh Construction	Building & Civil Work	0.00	0.00	0.00	0.00	36.27
	Radha Enterprises	Building & Civil Work	0.00	0.00	0.00	0.00	57.90
	Madhu Infracon Pvt. Ltd.	Sub-station Work	0.00	0.00	0.00	0.00	13.32
	Kulkarni & Construction	Building & Civil Work	0.00	0.00	0.00	10.69	45.82
	Alstom T&D	Sub-station Work	0.00	0.00	0.00	59.20	221.45
	KPTL	Transmission Line Work	0.00	0.00	0.00	306.60	957.55
	KEC	Transmission Line Work	0.00	0.00	0.00	602.64	1439.52
	BS Ltd.	Transmission Line Work	0.00	0.00	0.00	0.00	247.61
	M/s Guanzhou	Transmission Line Work	0.00	0.00	0.00	0.00	2.50
	Shyama Power	Transmission Line Work	0.00	0.00	0.00	0.00	38.73
Total			0.00	0.00	0.00	1248.48	613.68

29. MPPMCL has submitted that the Petitioner has claimed ACE for Assets-B1 and B2 for the years 2018-19 and 2019-20 on account of balance and retention payment. MPPMCL has further submitted that the Petitioner has claimed true up of tariff from COD to 31.3.2019 in the current petition. Therefore, ACE claimed for Assets-B1 and B2 during 2019-20 cannot be trued up and the same may be disallowed. In response, the Petitioner has submitted that the ACE claimed during the 2019-20 with respect to transmission Assets-B1 and B2 is on estimation basis which is anticipated to be incurred on account of balance and retention payments.

30. We have considered the submissions of MPPMCL and the Petitioner. The ACE claimed by the Petitioner for Assets-A, B1, B2, C1, C2 and D is on account of works deferred for execution, balance and retention payment and accrued IDC discharged during the 2014-19 tariff period. The ACE claimed by the Petitioner with respect to Assets-A, C1 and C2 during the 2014-17 period and with respect to Assets-B1 and B2 during the 2015-18 period is within the cut-off date. Further, the



ACE claimed by the Petitioner with respect to Asset-D during the 2017-19 period is also within the cut-off date. The ACE in case of transmission Assets-A, C1, C2 and Assets-B1 and B2 during the 2017-19 period and 2018-19 is beyond the cut-off date. The same has been considered for computation of total capital cost as on 31.3.2019. Further, ACE during 2014-15 to 2018-19 is allowed under Regulations 14(1) (i) and (ii) and 14(3) (v) of the 2014 Tariff Regulations.

31. With regard to the contention of MPPMCL, it is observed that ACE claimed by the Petitioner during 2019-20 with respect to Assets-B1 and B2 is on account of balance and retention payment which is based on estimation. The same is being allowed as ACE and will be taken into account in the 2019-24 tariff determination portion of this order to work out the estimated allowable completion cost as on 31.3.2024 and the allowable transmission charges during the 2019-24 tariff period. Further, the ACE allowed on estimation basis during 2019-20 period is subject to true up. The Petitioner is directed to submit the details of actual ACE claimed along with the justifications at the time of truing up of tariff of the 2019-24 period.

32. The details of ACE allowed are as follows:

Asset-A	ACE				
	2014-15	2015-16	2016-17	2017-18	2018-19
ACE to the extent of Balance & Retention Payments and work deferred for execution	1029.83	434.42	119.04	52.43	0.00
Add: IDC Discharged	0.00	0.00	0.00	0.00	0.00
Total ACE allowed	1029.83	434.42	119.04	52.43	0.00

Asset-B1	ACE			
	2015-16	2016-17	2017-18	2018-19
ACE to the extent of Balance & Retention Payments and work deferred for execution	395.80	144.59	39.91	85.91



Add: IDC Discharged	15.60	0.00	0.00	0.00
Total ACE allowed	411.40	144.59	39.91	85.91

(₹ in lakh)

Asset-B2	ACE			
	2015-16	2016-17	2017-18	2018-19
ACE to the extent of Balance & Retention Payments and work deferred for execution	395.80	144.59	39.91	85.91
Add: IDC Discharged	8.84	0.00	0.00	0.00
Total ACE allowed	404.64	144.59	39.91	85.91

(₹ in lakh)

Asset-C1	ACE				
	2014-15	2015-16	2016-17	2017-18	2018-19
ACE to the extent of Balance & Retention Payments and work deferred for execution	719.80	65.14	114.08	12.86	11.13
Add: IDC Discharged	33.68	0.71	0.00	0.00	0.00
Total ACE allowed	753.48	65.85	114.08	12.86	11.13

(₹ in lakh)

Asset-C2	ACE				
	2014-15	2015-16	2016-17	2017-18	2018-19
ACE to the extent of Balance & Retention Payments and work deferred for execution	788.93	82.88	144.59	16.35	11.13
Add: IDC Discharged	35.49	1.12	0.00	0.00	0.00
Total ACE allowed	824.42	84.00	144.59	16.35	11.13

(₹ in lakh)

Asset-D	ACE	
	2017-18	2018-19
ACE to the extent of Balance & Retention Payments and work deferred for execution	2547.67	5054.61
Add: IDC Discharged	1014.50	2724.53
Total ACE allowed	3562.17	7779.14

Capital Cost summary from COD to 31.3.2019

33. Accordingly, the capital cost considered for computation of tariff is summarised as under:



(₹ in lakh)

Asset Name	Capital Cost as on COD	ACE					Total Capital Cost including ACE as on 31.3.2019
		2014-15	2015-16	2016-17	2017-18	2018-19	
Asset-A	3827.39	1029.83	434.42	119.04	52.43	0.00	5463.11
Asset-B1	736.52	0.00	411.40	144.59	39.91	85.91	1418.33
Asset-B2	743.28	0.00	404.64	144.59	39.91	85.91	1418.33
Asset-C1	1584.76	753.48	65.85	114.08	12.86	11.13	2542.16
Asset-C2	1719.77	824.41	84.00	144.59	16.35	11.13	2800.25
Asset-D	200302.78	0.00	0.00	0.00	3562.17	7779.14	211644.09

(₹ in lakh)

Asset-A	Capital Cost as on COD	ACE					Total Capital Cost including ACE as on 31.3.2019
		2014-15	2015-16	2016-17	2017-18	2018-19	
Approved earlier vide order dated 23.3.2016 in Petition No. 287/TT/2013	3827.39	1067.55	468.16	0.00	0.00	0.00	5363.10
Claimed by the Petitioner in the instant petition	3827.39	1029.83	434.42	119.04	52.43	0.00	5463.11
Allowed after true-up in this order	3827.39	1029.83	434.42	119.04	52.43	0.00	5463.11

(₹ in lakh)

Asset-B1	Capital Cost as on COD	ACE				Total Capital Cost including ACE as on 31.3.2019
		2015-16	2016-17	2017-18	2018-19	
Approved earlier vide order dated 23.3.2016 in Petition No. 139/TT/2015	743.00	655.56	267.03	57.74	0.00	1723.33
Claimed by the Petitioner in the instant petition	774.65	411.34	144.59	39.91	85.91	1456.40
Allowed after true-up in this order	736.52	411.40	144.59	39.91	85.91	1418.33

(₹ in lakh)

Asset-B2	Capital Cost as on COD	ACE				Total Capital Cost including ACE as on 31.3.2019
		2015-16	2016-17	2017-18	2018-19	
Approved earlier vide order dated 23.3.2016 in Petition No. 139/TT/2015	749.59	648.97	267.03	57.74	0.00	1723.33
Claimed by the Petitioner in the instant petition	781.41	404.58	144.59	39.91	85.91	1456.40
Allowed after true-up in this order	743.28	404.64	144.59	39.91	85.91	1418.33



(₹ in lakh)

Asset-C1	Capital Cost as on COD	ACE					Total Capital Cost including ACE as on 31.3.2019
		2014-15	2015-16	2016-17	2017-18	2018-19	
Approved earlier vide order dated 27.4.2016 in Petition No. 115/TT/2014	1619.85	1430.36	389.85	0.00	0.00	0.00	3440.06
Claimed by the Petitioner in the instant petition	1585.45	753.49	65.85	114.08	12.86	11.13	2542.86
Allowed after true-up in this order	1584.76	753.48	65.85	114.08	12.86	11.13	2542.16

(₹ in lakh)

Asset-C2	Capital Cost as on COD	ACE					Total Capital Cost including ACE as on 31.3.2019
		2014-15	2015-16	2016-17	2017-18	2018-19	
Approved earlier vide order dated 27.4.2016 in Petition No. 115/TT/2014	1757.13	1498.66	417.66	0.00	0.00	0.00	3672.98
Claimed by the Petitioner in the instant petition	1721.31	823.62	84.01	144.59	16.35	11.13	2801.01
Allowed after true-up in this order	1719.77	824.41	84.00	144.59	16.35	11.13	2800.25

(₹ in lakh)

Asset-D	Capital Cost as on COD	ACE		Total Capital Cost including ACE as on 31.3.2019
		2017-18	2018-19	
Approved earlier vide order dated 5.2.2019 in Petition No. 147/TT/2018	199081.90	3662.55	14980.86	217725.27
Claimed by the Petitioner in the instant petition	200302.80	3562.17	7779.14	211644.11
Allowed after true-up in this order	200302.78	3562.17	7779.14	211644.09

Debt-Equity Ratio

34. The Petitioner has considered debt-equity ratio of 70:30 as on COD and for ACE post COD. The debt-equity ratio of 70:30 has been considered for capital cost as on COD and for ACE during the 2014-19 period 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 period is as follows:

Asset-A	As on COD		As on 31.3.2019	
	Amount (₹ in lakh)	(%)	Amount (₹ in lakh)	(%)
Debt	2679.17	70.00	3824.18	70.00
Equity	1148.22	30.00	1638.93	30.00
Total	3827.39	100.00	5463.11	100.00
Asset-B1	As on COD		As on 31.3.2019	
	Amount (₹ in lakh)	(%)	Amount (₹ in lakh)	(%)
Debt	515.57	70.00	992.85	70.00
Equity	220.95	30.00	425.48	30.00
Total	736.52	100.00	1418.33	100.00
Asset-B2	As on COD		As on 31.3.2019	
	Amount (₹ in lakh)	(%)	Amount (₹ in lakh)	(%)
Debt	520.30	70.00	992.85	70.00
Equity	222.98	30.00	425.48	30.00
Total	743.28	100.00	1418.33	100.00
Asset-C1	As on COD		As on 31.3.2019	
	Amount (₹ in lakh)	(%)	Amount (₹ in lakh)	(%)
Debt	1109.34	70.00	1779.53	70.00
Equity	475.42	30.00	762.64	30.00
Total	1584.76	100.00	2542.16	100.00
Asset-C2	As on COD		As on 31.3.2019	
	Amount (₹ in lakh)	(%)	Amount (₹ in lakh)	(%)
Debt	1203.84	70.00	1960.19	70.00
Equity	515.93	30.00	840.06	30.00
Total	1719.77	100.00	2800.25	100.00
Asset-D	As on COD		As on 31.3.2019	
	Amount (₹ in lakh)	(%)	Amount (₹ in lakh)	(%)
Debt	140211.95	70.00	148150.88	70.00
Equity	60090.83	30.00	63493.21	30.00
Total	200302.78	100.00	211644.09	100.00

Interest on Loan (IoL)

35. IoL has been worked out in accordance with Regulation 26 of the 2014 Tariff Regulations. The Petitioner has claimed IoL based on actual interest rates for each



year during the 2014-19 period. The Petitioner has considered the weighted average rate of IoL on the basis of prevailing rates as on 1.4.2014 for respective loans and has prayed to consider the floating rate of interest applicable during the 2014-19 period, if any, during the truing-up of tariff.

36. We have considered the submissions of the Petitioner. It is observed that SBI and HDFC loans with respect to the transmission assets have been deployed with floating rates of interest in the instant petition. 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.

37. The details of the trued up IoL allowed for the transmission assets are as follows:

(₹ in lakh)

Asset-A					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	2679.17	3400.05	3704.15	3787.48	3824.18
Cumulative Repayments up to Previous Year	0.00	229.32	497.55	780.69	1068.45
Net Loan-Opening	2679.17	3170.73	3206.60	3006.79	2755.74
Additions due to ACE	720.88	304.10	83.33	36.70	0.00
Repayment during the year	229.32	268.23	283.14	287.76	289.14
Net Loan-Closing	3170.73	3206.60	3006.79	2755.74	2466.60
Average Loan	2924.95	3188.67	3106.70	2881.26	2611.17
Weighted Average Rate of Interest on Loan (%)	9.52	9.47	9.30	8.95	8.83
Interest on Loan	278.39	301.97	289.04	257.73	230.54

(₹ in lakh)

Asset-B1				
Particulars	2015-16 (Pro-rata for 298 days)	2016-17	2017-18	2018-19
Gross Normative Loan	515.57	803.56	904.77	932.71
Cumulative Repayments up to Previous Year	0.00	40.92	105.87	175.71
Net Loan-Opening	515.57	762.64	798.90	757.01
Additions due to ACE	287.99	101.21	27.94	60.14
Repayment during the year	40.92	64.95	69.83	73.16



Net Loan-Closing	762.64	798.90	757.01	743.99
Average Loan	639.10	780.77	777.95	750.50
Weighted Average Rate of Interest on Loan (%)	9.09	8.96	8.54	8.42
Interest on Loan	47.29	69.95	66.46	63.18

(₹ in lakh)

Asset-B2				
Particulars	2015-16 (Pro-rata for 277 days)	2016-17	2017-18	2018-19
Gross Normative Loan	520.30	803.56	904.77	932.71
Cumulative Repayments up to Previous Year	0.00	38.17	103.13	172.96
Net Loan-Opening	520.30	765.39	801.65	759.75
Additions due to ACE	283.26	101.21	27.94	60.14
Repayment during the year	38.17	64.95	69.83	73.16
Net Loan-Closing	765.39	801.65	759.75	746.74
Average Loan	642.84	783.52	780.70	753.25
Weighted Average Rate of Interest on Loan (%)	9.06	8.95	8.54	8.42
Interest on Loan	44.08	70.10	66.68	63.39

(₹ in lakh)

Asset-C1					
Particulars	2014-15 (Pro-rata for 242 days)	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	1109.34	1636.77	1682.88	1762.74	1771.74
Cumulative Repayments up to Previous Year	0.00	67.24	189.12	315.32	444.54
Net Loan-Opening	1109.34	1569.53	1493.75	1447.42	1327.20
Additions due to ACE	527.44	46.10	79.86	9.00	7.79
Repayment during the year	67.24	121.88	126.20	129.22	129.84
Net Loan-Closing	1569.53	1493.75	1447.42	1327.20	1205.14
Average Loan	1339.43	1531.64	1470.59	1387.31	1266.17
Weighted Average Rate of Interest on Loan (%)	9.44	9.27	9.18	9.01	8.95
Interest on Loan	83.88	142.03	135.04	125.00	113.30

(₹ in lakh)

Asset-C2					
Particulars	2014-15 (Pro-rata for 237 days)	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	1203.84	1780.94	1839.74	1940.95	1952.40
Cumulative Repayments up to Previous Year	0.00	71.67	205.03	343.90	486.62
Net Loan-Opening	1203.84	1709.27	1634.71	1597.05	1465.78
Additions due to ACE	577.10	58.80	101.21	11.45	7.79

Page 29 of 89



Repayment during the year	71.67	133.36	138.87	142.72	143.43
Net Loan-Closing	1709.27	1634.71	1597.05	1465.78	1330.14
Average Loan	1456.56	1671.99	1615.88	1531.42	1397.96
Weighted Average Rate of Interest on Loan (%)	9.32	9.09	8.99	8.84	8.78
Interest on Loan	88.12	151.93	145.26	135.39	122.77

(₹ in lakh)

Asset-D		
Particulars	2017-18 (Pro-rata for 91 days)	2018-19
Gross Normative Loan	140211.95	142705.47
Cumulative Repayments up to Previous Year	0.00	2614.06
Net Loan-Opening	140211.95	140091.41
Additions due to ACE	2493.52	5445.41
Repayment during the year	2614.06	10778.20
Net Loan-Closing	140091.41	134758.61
Average Loan	140151.68	137425.01
Weighted Average Rate of Interest on Loan (%)	8.16	8.22
Interest on Loan	2849.99	11295.46

38. Accordingly, IoL approved vide order dated 23.3.2016 in Petition No. 287/TT/2013, vide order dated 23.3.2016 in Petition No. 139/TT/2015, vide order dated 27.4.2016 in Petition No. 115/TT/2014 and vide order dated 5.2.2019 in Petition No. 147/TT/2018, claimed in the instant petition for the 2014-19 tariff period and allowed after true up of the 2014-19 tariff period with respect to the transmission assets is as under:

(₹ in lakh)

Assets	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-A	Approved earlier vide order dated 23.3.2016 in Petition No. 287/TT/2013	276.70	303.70	292.91	265.95	239.19
	Claimed by the Petitioner in the instant petition	278.25	301.57	288.36	256.80	229.35
	Allowed after true-up in this order	278.39	301.97	289.04	257.73	230.54
Asset-B1	Approved earlier vide order dated 23.3.2016	0.00	53.19	88.61	91.09	84.76



	in Petition No. 139/TT/2015					
	Claimed by the Petitioner in the instant petition	0.00	49.20	72.05	68.07	64.32
	Allowed after true-up in this order	0.00	47.29	69.95	66.46	63.18
Asset-B2	Approved earlier vide order dated 23.3.2016 in Petition No. 139/TT/2015	0.00	49.51	88.52	90.96	84.66
	Claimed by the Petitioner in the instant petition	0.00	45.86	72.21	68.29	64.54
	Allowed after true-up in this order	0.00	44.08	70.10	66.68	63.39
Asset-C1	Approved earlier vide order dated 27.4.2016 in Petition No. 115/TT/2014	96.74	193.08	189.85	173.55	157.86
	Claimed by the Petitioner in the instant petition	83.89	142.03	134.91	124.78	112.99
	Allowed after true-up in this order	83.88	142.03	135.04	125.00	113.30
Asset-C2	Approved earlier vide order dated 27.4.2016 in Petition No. 115/TT/2014	102.18	207.12	203.72	186.28	169.46
	Claimed by the Petitioner in the instant petition	88.14	151.87	145.11	135.15	122.44
	Allowed after true-up in this order	88.12	151.93	145.26	135.39	122.77
Asset-D	Approved earlier vide order dated 5.2.2019 in Petition No. 147/TT/2018	0.00	0.00	0.00	2959.15	11835.15
	Claimed by the Petitioner in the instant petition	0.00	0.00	0.00	2849.86	11292.02
	Allowed after true-up in this order	0.00	0.00	0.00	2849.99	11295.46

Return on Equity (RoE)

39. The Petitioner has claimed RoE for the transmission assets in terms of Regulations 24 and 25 of the 2014 Tariff Regulations. The Petitioner has submitted



that they are liable to pay income tax at MAT rates and has claimed the following effective tax rates for the 2014-19 tariff period:

Year	Claimed effective tax (%)	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

40. MPPMCL has submitted that the Petitioner has claimed grossed up RoE on the basis of actual taxes paid during the years 2016-17 and 2017-18. MPPMCL has further submitted that the Petitioner has grossed up RoE for the year 2018-19 on the basis of applicable MAT, surcharge and cess and not on the basis of actual taxes paid for the year 2018-19. MPPMCL has submitted that Petitioner has neither placed on record the assessment orders for the years 2014-15, 2015-16, 2016-17 and 2017-18 nor enclosed the audited accounts in respect of actual taxes paid for 2016-17 and 2017-18 periods.

41. In response, the Petitioner has submitted that the assessment orders for years 2014-15, 2015-16 and 2016-17 have been issued by the Income Tax Department. The Petitioner has further submitted that Income Tax returns for years 2017-18 and 2018-19 have been filed with the Income Tax Department. The Petitioner has submitted that assessment orders for the years 2014-15 and 2015-16 periods have already been submitted in Petition No. 20/TT/2020. The Petitioner has submitted the copy of the assessment order for the year 2016-17 along with the rejoinder vide affidavit dated 5.8.2020.



42. We have considered the submissions of the Petitioner and MPPMCL. As regards the MPPMCL's contentions that Petitioner's grossed up rate of RoE for the periods 2016-17 and 2017-18 is not based on MAT rates, it is observed that effective rate of tax considered for the periods 2014-15, 2015-16 and 2016-17 are based on assessment orders issued by Income Tax Authorities and the effective rate of tax has been considered for the periods 2017-18 and 2018-19 are based on the Income Tax returns filed for the purpose of grossing up the RoE rate of respective years. In view of the clarification given by the Petitioner, we are of the view that there is no merit in MPPMCL contention.

43. The Commission, vide order dated 27.4.2020 in Petition No. 274/TT/2019 has arrived at the effective tax rate for the Petitioner based on the notified MAT rates. 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

44. The same MAT rates as considered in the 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.

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

45. Accordingly, the trued up RoE allowed for the transmission assets is as follows:

(₹ in lakh)

Asset-A					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	1148.22	1457.17	1587.49	1623.20	1638.93
Addition due to ACE	308.95	130.32	35.71	15.73	0.00
Closing Equity	1457.17	1587.49	1623.20	1638.93	1638.93
Average Equity	1302.69	1522.33	1605.34	1631.06	1638.93
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50
Tax Rate applicable (%)	20.961	21.342	21.342	21.342	21.549
Rate of Return on Equity (Pre-tax)	19.610	19.705	19.705	19.705	19.758
Return on Equity (Pre-tax)	255.46	299.97	316.33	321.40	323.82

(₹ in lakh)

Asset-B1				
Particulars	2015-16 (Pro-rata for 298 days)	2016-17	2017-18	2018-19
Opening Equity	220.95	344.36	387.74	399.71
Addition due to ACE	123.41	43.38	11.97	25.77
Closing Equity	344.36	387.74	399.71	425.48
Average Equity	282.66	366.05	393.72	412.59
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)	45.35	72.13	77.58	81.52

(₹ in lakh)

Asset-B2				
Particulars	2015-16 (Pro-rata for 277 days)	2016-17	2017-18	2018-19
Opening Equity	222.98	344.36	387.74	399.71
Addition due to ACE	121.38	43.38	11.97	25.77
Closing Equity	344.36	387.74	399.71	425.48
Average Equity	283.67	366.05	393.72	412.59
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)	42.30	72.13	77.58	81.52

(₹ in lakh)

Asset-C1					
Particulars	2014-15 (Pro-rata for 242 days)	2015-16	2016-17	2017-18	2018-19
Opening Equity	475.42	701.47	721.22	755.44	759.30
Addition due to ACE	226.04	19.75	34.22	3.86	3.34
Closing Equity	701.47	721.22	755.44	759.30	762.64
Average Equity	588.44	711.34	738.33	757.37	760.97
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50
Tax Rate applicable (%)	20.961	21.342	21.342	21.342	21.549
Rate of Return on Equity (Pre-tax)	19.610	19.705	19.705	19.705	19.758
Return on Equity (Pre-tax)	76.51	140.17	145.49	149.24	150.35

(₹ in lakh)

Asset-C2					
Particulars	2014-15 (Pro-rata for 237 days)	2015-16	2016-17	2017-18	2018-19
Opening Equity	515.93	763.25	788.44	831.82	836.72
Addition due to ACE	247.32	25.20	43.38	4.90	3.34
Closing Equity	763.25	788.44	831.82	836.72	840.06
Average Equity	639.59	775.84	810.13	834.27	838.39
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50



Rate) (%)					
Tax Rate applicable (%)	20.961	21.342	21.342	21.342	21.549
Rate of Return on Equity (Pre-tax)	19.610	19.705	19.705	19.705	19.758
Return on Equity (Pre-tax)	81.44	152.88	159.64	164.39	165.65

(₹ in lakh)

Asset-D		
Particulars	2017-18 (Pro-rata for 91 days)	2018-19
Opening Equity	60090.83	61159.48
Addition due to ACE	1068.65	2333.73
Closing Equity	61159.48	63493.21
Average Equity	60625.16	62326.35
Return on Equity (Base Rate) (%)	15.50	15.50
Tax Rate applicable (%)	21.342	21.549
Rate of Return on Equity (Pre-tax)	19.705	19.758
Return on Equity (Pre-tax)	2978.36	12314.44

46. Accordingly, RoE approved earlier vide order dated 23.3.2016 in Petition No. 287/TT/2013, vide order dated 23.3.2016 in Petition No. 139/TT/2015, vide order dated 27.4.2016 in Petition No. 115/TT/2014 and vide order dated 5.2.2019 in Petition No. 147/TT/2018, claimed in the instant petition for the 2014-19 period and allowed after true up of the 2014-19 period with respect to the transmission assets is as under:

(₹ in lakh)						
Assets	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-A	Approved earlier vide order dated 23.3.2016 in Petition No. 287/TT/2013	256.57	301.74	315.51	315.51	315.51
	Claimed by the Petitioner in the instant petition	255.65	300.13	316.33	321.40	323.82
	Allowed after true-up in this order	255.46	299.97	316.33	321.40	323.82
Asset-B1	Approved earlier vide order dated 23.3.2016 in Petition No. 139/TT/2015	0.00	51.29	90.13	99.69	101.38
	Claimed by the Petitioner in the	0.00	47.21	74.38	79.83	83.78



	instant petition					
	Allowed after true-up in this order	0.00	45.35	72.13	77.58	81.52
Asset-B2	Approved earlier vide order dated 23.3.2016 in Petition No. 139/TT/2015	0.00	47.82	90.13	99.69	101.38
	Claimed by the Petitioner in the instant petition	0.00	44.03	74.38	79.83	83.78
	Allowed after true-up in this order	0.00	42.30	72.13	77.58	81.52
Asset-C1	Approved earlier vide order dated 27.4.2016 in Petition No. 115/TT/2014	91.08	190.92	202.38	202.38	202.38
	Claimed by the Petitioner in the instant petition	76.59	140.28	145.53	149.28	150.39
	Allowed after true-up in this order	76.51	140.17	145.49	149.24	150.35
Asset-C2	Approved earlier vide order dated 27.4.2016 in Petition No. 115/TT/2014	95.75	203.81	216.09	216.09	216.09
	Claimed by the Petitioner in the instant petition	81.55	153.00	159.68	164.44	165.69
	Allowed after true-up in this order	81.44	152.88	159.64	164.39	165.65
Asset-D	Approved earlier vide order dated 5.2.2019 in Petition No. 147/TT/2018	0.00	0.00	0.00	2946.83	12368.12
	Claimed by the Petitioner in the instant petition	0.00	0.00	0.00	2978.37	12314.44
	Allowed after true-up in this order	0.00	0.00	0.00	2978.36	12314.44

Depreciation

47. The Petitioner has claimed depreciation considering capital expenditure as on COD and ACE during 2014-19 (including IDC discharged during the periods 2014-15, 2015-16, 2016-17, 2017-18 and 2018-19) for the transmission assets.



48. It is observed that earlier in Petition Nos. 287/TT/2013, 139/TT/2015, 115/TT/2014 and 147/TT/2018 wherein tariff was determined in respect of the transmission assets 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 cost of IT equipment from the cost of sub-station 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:

"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 30.8.2012 and 9.5.2013 in 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 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 up to 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 up to 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.”

49. In line with the above decision, depreciation for IT Equipment is considered @5.28% for IT Equipment as part of the sub-station up to 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.

50. 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 transmission Assets-A, B1, B2, C1, C2 and D has been depreciated at Weighted Average Rate of Depreciation (WAROD) and working of WAROD is attached as Annexures-1, 2, 3, 4, 5 and 6 respectively. The 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 transmission assets is as under:

(₹ in lakh)

Asset-A					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	3827.39	4857.22	5291.64	5410.68	5463.11
ACE	1029.83	434.42	119.04	52.43	0.00
Closing Gross Block	4857.22	5291.64	5410.68	5463.11	5463.11
Average Gross Block	4342.31	5074.43	5351.16	5436.90	5463.11
Weighted average rate of Depreciation (WAROD) (%)	5.28	5.29	5.29	5.29	5.29

Balance useful life of the asset at the beginning of the year	33.00	32.00	31.00	30.00	29.00
Aggregated Depreciable Value	3908.07	4566.99	4816.04	4893.21	4916.80
Remaining Depreciable value at the end of the year	3678.75	4069.44	4035.35	3824.76	3559.21
Combined Depreciation during the year	229.32	268.23	283.14	287.76	289.14

(₹ in lakh)

Asset-B1				
Particulars	2015-16 (Pro-rata for 298 days)	2016-17	2017-18	2018-19
Opening Gross Block	736.52	1147.92	1292.51	1332.42
ACE	411.40	144.59	39.91	85.91
Closing Gross Block	1147.92	1292.51	1332.42	1418.33
Average Gross Block	942.22	1220.22	1312.47	1375.38
Weighted average rate of Depreciation (WAROD) (%)	5.33	5.32	5.32	5.32
Balance useful life of the asset at the beginning of the year	24.00	24.00	23.00	22.00
Aggregated Depreciable Value	848.00	1098.19	1181.22	1237.84
Remaining Depreciable value at the end of the year	807.08	992.32	1005.51	988.97
Combined Depreciation during the year	40.92	64.95	69.83	73.16

(₹ in lakh)

Asset-B2				
Particulars	2015-16 (Pro-rata for 277 days)	2016-17	2017-18	2018-19
Opening Gross Block	743.28	1147.92	1292.51	1332.42
ACE	404.64	144.59	39.91	85.91
Closing Gross Block	1147.92	1292.51	1332.42	1418.33
Average Gross Block	945.60	1220.22	1312.47	1375.38
Weighted average rate of Depreciation (WAROD) (%)	5.33	5.32	5.32	5.32
Balance useful life of the asset at the beginning of the year	24.00	24.00	23.00	22.00
Aggregated Depreciable Value	851.04	1098.19	1181.22	1237.84
Remaining Depreciable value at the end of the year	812.87	995.07	1008.26	991.72
Combined Depreciation during the year	38.17	64.95	69.83	73.16

(₹ in lakh)

Asset-C1					
Particulars	2014-15 (Pro-rata for 242 days)	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	1584.76	2338.24	2404.09	2518.17	2531.03
ACE	753.48	65.85	114.08	12.86	11.13



Closing Gross Block	2338.24	2404.09	2518.17	2531.03	2542.16
Average Gross Block	1961.50	2371.17	2461.13	2524.60	2536.60
Weighted average rate of Depreciation (WAROD) (%)	5.17	5.14	5.13	5.12	5.12
Balance useful life of the asset at the beginning of the year	25.00	25.00	24.00	23.00	22.00
Aggregated Depreciable Value	1765.35	2134.05	2215.02	2272.14	2282.94
Remaining Depreciable value at the end of the year	1698.11	1944.93	1899.70	1827.60	1708.55
Combined Depreciation during the year	67.24	121.88	126.20	129.22	129.84

(₹ in lakh)

Asset-C2					
Particulars	2014-15 (Pro-rata for 237 days)	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	1719.77	2544.19	2628.18	2772.77	2789.12
ACE	824.42	84.00	144.59	16.35	11.13
Closing Gross Block	2544.19	2628.18	2772.77	2789.12	2800.25
Average Gross Block	2131.98	2586.18	2700.48	2780.95	2794.69
Weighted average rate of Depreciation (WAROD) (%)	5.18	5.16	5.14	5.13	5.13
Balance useful life of the asset at the beginning of the year	25.00	25.00	24.00	23.00	22.00
Aggregated Depreciable Value	1918.78	2327.57	2430.43	2502.85	2515.22
Remaining Depreciable value at the end of the year	1847.11	2122.54	2086.53	2016.23	1885.17
Combined Depreciation during the year	71.67	133.36	138.87	142.72	143.43

(₹ in lakh)

Asset-D		
Particulars	2017-18 (Pro-rata for 91 days)	2018-19
Opening Gross Block	200302.78	203864.95
ACE	3562.17	7779.14
Closing Gross Block	203864.95	211644.09
Average Gross Block	202083.87	207754.52
Weighted average rate of Depreciation (WAROD) (%)	5.19	5.19
Balance useful life of the asset at the beginning of the year	33.00	33.00
Aggregated Depreciable Value	180354.82	185458.41
Remaining Depreciable value at the end of the year	177740.76	172066.15
Combined Depreciation during the year	2614.06	10778.20



51. Accordingly, the depreciation approved earlier vide order dated 23.3.2016 in Petition No. 287/TT/2013, vide order dated 23.3.2016 in Petition No. 139/TT/2015, vide order dated 27.4.2016 in Petition No. 115/TT/2014 and vide order dated 5.2.2019 in Petition No. 147/TT/2018, claimed in the instant petition for the 2014-19 period and allowed after true up of the 2014-19 period with respect to the transmission assets is as under:

(₹ in lakh)						
Assets	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-A	Approved earlier vide order dated 23.3.2016 in Petition No. 287/TT/2013	230.42	271.14	283.53	283.53	283.53
	As claimed by the Petitioner in the instant petition	232.06	271.16	286.28	290.90	292.28
	Allowed after true-up in this order	229.32	268.23	283.14	287.76	289.14
Asset-B1	Approved earlier vide order dated 23.3.2016 in Petition No. 139/TT/2015	0.00	46.46	81.44	90.01	91.53
	As claimed by the Petitioner in the instant petition	0.00	42.56	68.58	75.05	78.37
	Allowed after true-up in this order	0.00	40.92	64.95	69.83	73.16
Asset-B2	Approved earlier vide order dated 23.3.2016 in Petition No. 139/TT/2015	0.00	43.59	81.79	90.36	91.89
	Claimed by the Petitioner in the instant petition	0.00	39.70	68.58	75.05	78.37
	Allowed after true-up in this order	0.00	38.17	64.95	69.83	73.16
Asset-C1	Approved earlier vide order dated 27.4.2016 in Petition No. 115/TT/2014	79.72	165.53	174.99	174.99	174.99
	As claimed by the Petitioner in the instant petition	67.85	122.83	127.15	130.16	130.79
	Allowed after true-up in this order	67.24	121.88	126.20	129.22	129.84
Asset-C2	Approved earlier vide order dated	83.71	176.56	186.66	186.66	186.66



	27.4.2016 in Petition No. 115/TT/2014					
	Claimed by the Petitioner in the instant petition	72.34	134.41	139.90	143.75	144.47
	Allowed after true-up in this order	71.67	133.36	138.87	142.72	143.43
Asset-D	Approved earlier vide order dated 5.2.2019 in Petition No. 147/TT/2018	0.00	0.00	0.00	2597.05	10883.95
	Claimed by the Petitioner in the instant petition	0.00	0.00	0.00	2628.12	10835.13
	Allowed after true-up in this order	0.00	0.00	0.00	2614.06	10778.20

Operation & Maintenance Expenses (O&M Expenses)

52. The O&M Expenses claimed by the Petitioner 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-A					
O&M Expenses claimed for:					
<ul style="list-style-type: none"> Vadodara-Asoj 400 kV Double Circuit (Quad) Transmission Line - 13.748 km Vadodara-Asoj 400 kV Double Circuit (Quad) Transmission Line - 0.695 km. 400 kV (AIS) Line bays at Asoj - 2 Bays 					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Norm (₹ lakh/bay)					
400 kV Bay (AIS)	60.30	62.30	64.37	66.51	68.71
Number of bays					
400 kV Bay (AIS)	2.00	2.00	2.00	2.00	2.00
O&M for HV and DC Lines (₹ lakh/km)					
Vadodara-Asoj 400 kV Double Circuit (Quad) Transmission Line	1.062	1.097	1.133	1.171	1.210
Line Length in km.					
Vadodara-Asoj 400 kV Double Circuit (Quad) Transmission Line	14.443	14.443	14.443	14.443	14.443
Total O&M Expense (Claimed)	135.94	140.44	145.11	149.93	154.90
Total O&M Expense (Approved)	135.94	140.44	145.10	149.93	154.90



(₹ in lakh)

Asset-B1				
O&M Expenses claimed for:				
<ul style="list-style-type: none"> 400 kV (GIS) Line bays for Vadodara-Asoj circuit-1 - 1 Bay 				
Particulars	2015-16 (Pro-rata for 298 days)	2016-17	2017-18	2018-19
Norm (₹ lakh/bay)				
400 kV Bay (GIS)	53.25	55.02	56.84	58.73
Number of bays				
400 kV Bay (GIS)	1.00	1.00	1.00	1.00
Total O&M Expense (Claimed)	43.36	55.02	56.84	58.73
Total O&M Expense (Approved)	43.36	55.02	56.84	58.73

(₹ in lakh)

Asset-B2				
O&M Expenses claimed for:				
<ul style="list-style-type: none"> 400 kV (GIS) Line bays for Vadodara-Asoj circuit-2 - 1 Bay 				
Particulars	2015-16 (Pro-rata for 277 days)	2016-17	2017-18	2018-19
Norm (₹ lakh/bay)				
400 kV Bay (GIS)	53.25	55.02	56.84	58.73
Number of bays				
400 kV Bay (GIS)	1.00	1.00	1.00	1.00
Total O&M Expense (Claimed)	40.30	55.02	56.84	58.73
Total O&M Expense (Approved)	40.30	55.02	56.84	58.73

(₹ in lakh)

Asset-C1					
O&M Expenses claimed for:					
<ul style="list-style-type: none"> Aurangabad: 3 X 80 MVAR Switchable Line Reactor Bay for Padhge circuit-1-1 Bay of 765 kV Aurangabad: 765 kV Line Bay for Aurangabad-Padhge circuit-1-1 Bay of 765 kV 					
Particulars	2014-15 (Pro-rata for 242 days)	2015-16	2016-17	2017-18	2018-19
Norm (₹ lakh/bay)					
765 kV Bay (AIS)	84.42	87.22	90.12	93.11	96.20



Number of bays					
765 kV Bay (AIS)	2.00	2.00	2.00	2.00	2.00
Total O&M Expense (Claimed)					
	111.94	174.44	180.24	186.22	192.40
Total O&M Expense (Approved)					
	111.94	174.44	180.24	186.22	192.40

(₹ in lakh)

Asset-C2					
O&M Expenses claimed for:					
<ul style="list-style-type: none"> • Aurangabad: 3 X 80 MVAR Switchable Line Reactor Bay for Padhge circuit-2-1 Bay of 765 kV • Aurangabad: 765 kV Line Bay for Aurangabad-Padhge circuit-2-1 Bay of 765 kV 					
Particulars	2014-15 (Pro-rata for 237 days)	2015-16	2016-17	2017-18	2018-19
Norm (₹ lakh/bay)					
765 kV Bay (AIS)	84.42	87.22	90.12	93.11	96.20
Number of bays					
765 kV Bay (AIS)	2.00	2.00	2.00	2.00	2.00
Total O&M Expense (Claimed)					
	109.64	174.44	180.24	186.22	192.40
Total O&M Expense (Approved)					
	109.63	174.44	180.24	186.22	192.40

(₹ in lakh)

Asset-D		
O&M Expenses claimed for:		
<ul style="list-style-type: none"> • 765 kV Aurangabad-Padhge Double Circuit Transmission Line-284.816 km. • 400 kV Padhge-Padhge Transmission Line – 16.742 km. • Kudus: 400 kV Line bays for Padhge-1 & 2 – 2 bays AIS • Padhge: 400 kV Line bays for ICT-1 & 2 – 2 Bays GIS • Padhge: 400 kV Line bays for Kudus-1 & 2– 2 Bays GIS • Padhge: 765 kV Line bays for ICT-1 & 2 – 2 Bays GIS • Padhge: 765 kV Line bays for Aurangabad-1 & 2– 2 Bays GIS • Padhge: 765 kV bay for Bus Reactor – 1 Bay GIS 		
Particulars	2017-18(Pro-rata for 91 days)	2018-19
Norm (₹ lakh/bay)		
400 kV Bay (AIS)	66.51	68.71
Number of bays		
400 kV Bay (AIS)	2.00	2.00
Norm (₹ lakh/bay)		
400 kV Bay (GIS)	56.84	58.73
Number of bays		
400 kV Bay (GIS)	4.00	4.00



Norm (₹ lakh/bay)		
765 kV Bay (GIS)	93.11	96.20
Number of bays		
765 kV Bay (GIS)	5.00	5.00
O&M for HV and DC Lines (₹ lakh/km)		
765 kV Aurangabad-Padhge Double Circuit Transmission and 400 kV Padhge-Padhge Transmission Line	1.171	1.210
Line length in km		
765 kV Aurangabad-Padhge Double Circuit Transmission and 400 kV Padhge-Padhge Transmission Line	301.558	301.558
Total O&M Expenses (Claimed)	293.95	1218.23
Total O&M Expenses (Approved)	293.96	1218.23

53. There is no deviation in the O & M Expenses approved vide order dated 23.3.2016 in Petition No. 287/TT/2013, vide order dated 23.3.2016 in Petition No. 139/TT/2015, vide order dated 27.4.2016 in Petition No. 115/TT/2014 and vide order dated 5.2.2019 in Petition No. 147/TT/2018, claimed in the instant petition and trued up in this order.

Interest on Working Capital (IWC)

54. The Petitioner is entitled to claim IWC as per Regulation 28(1)(c) of the 2014 Tariff Regulations. The components of the working capital and the Petitioner's entitlement to interest thereon are discussed hereunder:

(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 Clause (3) of Regulation 28 of the 2014 Tariff Regulations.

55. The trued up IWC has been worked out for the transmission assets as per the methodology provided in Regulation 28 of the 2014 Tariff Regulations and allowed as under:

(₹ in lakh)

Asset-A					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O & M Expenses	11.33	11.70	12.09	12.49	12.91
Maintenance Spares	20.39	21.07	21.77	22.49	23.23
Receivables	154.03	173.07	177.01	174.18	171.06
Total Working Capital	185.75	205.84	210.87	209.16	207.20
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest of working capital	25.08	27.79	28.47	28.24	27.97

(₹ in lakh)

Asset-B1				
Particulars	2015-16 (Pro-rata for 298 days)	2016-17	2017-18	2018-19
O & M Expenses	4.44	4.59	4.74	4.89
Maintenance Spares	7.99	8.25	8.53	8.81
Receivables	37.33	44.98	46.46	47.47
Total Working Capital	49.76	57.81	59.73	61.18
Rate of Interest (%)	13.50	13.50	13.50	13.50
Interest of working capital	5.47	7.80	8.06	8.26

(₹ in lakh)

Asset-B2				
Particulars	2015-16 (Pro-rata for 277 days)	2016-17	2017-18	2018-19
O & M Expenses	4.44	4.59	4.74	4.89
Maintenance Spares	7.99	8.25	8.53	8.81
Receivables	37.43	45.00	46.50	47.51
Total Working Capital	49.85	57.84	59.76	61.21
Rate of Interest (%)	13.50	13.50	13.50	13.50
Interest of working capital	5.09	7.81	8.07	8.26

(₹ in lakh)

Asset-C1					
Particulars	2014-15 (Pro-rata for 242 days)	2015-16	2016-17	2017-18	2018-19
O & M Expenses	14.07	14.54	15.02	15.52	16.03
Maintenance Spares	25.33	26.17	27.04	27.93	28.86
Receivables	88.23	99.58	101.05	101.54	100.93
Total Working Capital	127.63	140.28	143.10	144.99	145.82
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest of working capital	11.42	18.94	19.32	19.57	19.69

(₹ in lakh)

Asset-C2					
Particulars	2014-15 (Pro-rata for 237 days)	2015-16	2016-17	2017-18	2018-19
O & M Expenses	14.07	14.54	15.02	15.52	16.03
Maintenance Spares	25.33	26.17	27.04	27.93	28.86
Receivables	93.04	105.39	107.36	108.20	107.47
Total Working Capital	132.43	146.09	149.42	151.65	152.36
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest of working capital	11.61	19.72	20.17	20.47	20.57

(₹ in lakh)

Asset-D		
Particulars	2017-18 (Pro-rata for 91 days)	2018-19
O & M Expenses	98.25	101.52
Maintenance Spares	176.86	182.73
Receivables	5981.01	6077.53



Total Working Capital	6256.13	6361.78
Rate of Interest (%)	12.60	12.60
Interest of working capital	196.23	800.36

56. Accordingly, IWC approved vide order dated 23.3.2016 in Petition No. 287/TT/2013, vide order dated 23.3.2016 in Petition No. 139/TT/2015, vide order dated 27.4.2016 in Petition No. 115/TT/2014 and vide order dated 5.2.2019 in Petition No. 147/TT/2018, claimed in the instant petition for the 2014-19 period and allowed after true up of the 2014-19 period with respect to the transmission assets is as under:

(₹ in lakh)						
Assets	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-A	Approved earlier vide order dated 23.3.2016 in Petition No. 287/TT/2013	25.09	27.94	28.55	28.19	27.85
	Claimed by the Petitioner in the instant petition	25.14	27.85	28.52	28.29	28.02
	Allowed after true-up in this order	25.08	27.79	28.47	28.24	27.97
Asset-B1	Approved earlier vide order dated 23.3.2016 in Petition No. 139/TT/2015	0.00	5.87	9.03	9.60	9.64
	Claimed by the Petitioner in the instant petition	0.00	5.59	7.99	8.27	8.46
	Allowed after true-up in this order	0.00	5.47	7.80	8.06	8.26
Asset-B2	Approved earlier vide order dated 23.3.2016 in Petition No. 139/TT/2015	0.00	5.47	9.03	9.61	9.64
	Claimed by the Petitioner in the instant petition	0.00	5.21	7.99	8.28	8.46
	Allowed after true-up in this order	0.00	5.09	7.81	8.07	8.26
Asset-C1	Approved earlier vide order dated 27.4.2016 in Petition No. 115/TT/2014	12.34	22.28	23.01	22.97	22.95
	Claimed by the Petitioner in the instant petition	11.44	18.96	19.34	19.59	19.70
	Allowed after true-up in this order	11.42	18.94	19.32	19.57	19.69
Asset-C2	Approved earlier vide order dated 27.4.2016 in Petition No. 115/TT/2014	12.54	23.16	23.92	23.84	23.80
	Claimed by the Petitioner in the instant petition	11.63	19.75	20.19	20.49	20.59



	Allowed after true-up in this order	11.61	19.72	20.17	20.47	20.57
Asset-D	Approved earlier vide order dated 5.2.2019 in Petition No. 147/TT/2018	0.00	0.00	0.00	197.53	815.35
	Claimed by the Petitioner in the instant petition	0.00	0.00	0.00	196.53	801.50
	Allowed after true-up in this order	0.00	0.00	0.00	196.23	800.36

Approved Annual Fixed Charges for the 2014-19 Tariff Period

57. The trued up annual transmission charges allowed for the transmission assets for the 2014-19 tariff period up are as under:

(₹ in lakh)

Asset-A					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	229.32	268.23	283.14	287.76	289.14
Interest on Loan	278.39	301.97	289.04	257.73	230.54
Return on Equity	255.46	299.97	316.33	321.40	323.82
Interest on Working Capital	25.08	27.79	28.47	28.24	27.97
O & M Expenses	135.94	140.44	145.10	149.93	154.90
Total	924.18	1038.41	1062.08	1045.06	1026.37

(₹ in lakh)

Asset-B1				
Particulars	2015-16 (Pro-rata for 298 days)	2016-17	2017-18	2018-19
Depreciation	40.92	64.95	69.83	73.16
Interest on Loan	47.29	69.95	66.46	63.18
Return on Equity	45.35	72.13	77.58	81.52
Interest on Working Capital	5.47	7.80	8.06	8.26
O & M Expenses	43.36	55.02	56.84	58.73
Total	182.39	269.86	278.78	284.84

(₹ in lakh)

Asset-B2				
Particulars	2015-16 (Pro-rata for 277 days)	2016-17	2017-18	2018-19
Depreciation	38.17	64.95	69.83	73.16
Interest on Loan	44.08	70.10	66.68	63.39
Return on Equity	42.30	72.13	77.58	81.52
Interest on Working Capital	5.09	7.81	8.07	8.26
O & M Expenses	40.30	55.02	56.84	58.73
Total	169.95	270.01	279.00	285.06



(₹ in lakh)

Asset-C1					
Particulars	2014-15 (Pro-rata for 242 days)	2015-16	2016-17	2017-18	2018-19
Depreciation	67.24	121.88	126.20	129.22	129.84
Interest on Loan	83.88	142.03	135.04	125.00	113.30
Return on Equity	76.51	140.17	145.49	149.24	150.35
Interest on Working Capital	11.42	18.94	19.32	19.57	19.69
O &M Expenses	111.94	174.44	180.24	186.22	192.40
Total	350.99	597.46	606.29	609.25	605.58

(₹ in lakh)

Asset-C2					
Particulars	2014-15 (Pro-rata for 237 days)	2015-16	2016-17	2017-18	2018-19
Depreciation	71.67	133.36	138.87	142.72	143.43
Interest on Loan	88.12	151.93	145.26	135.39	122.77
Return on Equity	81.44	152.88	159.64	164.39	165.65
Int. on Working Capital	11.61	19.72	20.17	20.47	20.57
O &M Expenses	109.63	174.44	180.24	186.22	192.40
Total	362.46	632.34	644.18	649.19	644.82

(₹ in lakh)

Asset-D		
Particulars	2017-18 (Pro-rata for 91 days)	2018-19
Depreciation	2614.06	10778.20
Interest on Loan	2849.99	11295.46
Return on Equity	2978.36	12314.44
Interest on Working Capital	196.23	800.36
O &M Expenses	293.96	1218.23
Total	8932.60	36406.68

58. The Annual Transmission Charges allowed vide order dated 23.3.2016 in Petition No. 287/TT/2013, vide order dated 23.3.2016 in Petition No. 139/TT/2015, vide order dated 27.4.2016 in Petition No. 115/TT/2014 and vide order dated 5.2.2019 in Petition No. 147/TT/2018, claimed in the instant petition for the 2014-19 period and allowed after true up of the 2014-19 period with respect to the transmission assets are as under:



(₹ in lakh)

Assets	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-A	Approved earlier vide order dated 23.3.2016 in Petition No. 287/TT/2013	924.72	1044.96	1065.60	1043.11	1020.98
	As claimed by the Petitioner in the instant petition	927.04	1041.15	1064.60	1047.32	1028.37
	Allowed after true-up in this order	924.18	1038.41	1062.08	1045.06	1026.37
Asset-B1	Approved earlier vide order dated 23.3.2016 in Petition No. 139/TT/2015	0.00	200.17	324.23	347.23	346.04
	As claimed by the Petitioner in the instant petition	0.00	187.92	278.02	288.06	293.66
	Allowed after true-up in this order	0.00	182.39	269.86	278.78	284.84
Asset-B2	Approved earlier vide order dated 23.3.2016 in Petition No. 139/TT/2015	0.00	186.69	324.49	347.46	346.30
	As claimed by the Petitioner in the instant petition	0.00	175.10	278.18	288.29	293.88
	Allowed after true-up in this order	0.00	169.95	270.01	279.00	285.06
Asset-C1	Approved earlier vide order dated 27.4.2016 in Petition No. 115/TT/2014	391.82	746.25	770.47	760.11	750.58
	As claimed by the Petitioner in the instant petition	351.71	598.54	607.17	610.03	606.27
	Allowed after true-up in this order	350.99	597.46	606.29	609.25	605.58
Asset-C2	Approved earlier vide order dated 27.4.2016 in Petition No. 115/TT/2014	403.81	785.09	810.63	799.09	788.41
	As claimed by the Petitioner in the instant petition	363.30	633.47	645.12	650.05	645.59
	Allowed after true-up in this order	362.46	632.34	644.18	649.19	644.82
Asset-D	Approved earlier vide order dated 5.2.2019 in Petition No. 147/TT/2018	0.00	0.00	0.00	8994.49	37120.78
	As claimed by the Petitioner in the instant petition	0.00	0.00	0.00	8946.83	36461.32
	Allowed after true-up in this order	0.00	0.00	0.00	8932.60	36406.68

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

59. The Petitioner has combined the transmission assets covered under the transmission project and has claimed a single tariff for the transmission assets.



The Petitioner has also submitted the tariff forms for the Combined Asset as a single asset. Accordingly, as per proviso (i) of Regulation 8(1) of the 2019 Tariff Regulations, single tariff for the Combined Asset has been worked out for the 2019-24 tariff period.

60. The transmission tariff claimed by the Petitioner for the Combined Asset for the 2019-24 tariff period is as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	12012.08	12257.74	12257.74	12257.74	12257.74
Interest on Loan	11497.52	10748.73	9741.85	8730.03	7696.72
Return on Equity	12979.27	13260.20	13260.20	13260.20	13260.20
Interest on Working Capital	657.71	659.78	648.56	637.47	624.58
O & M Expenses	2500.76	2587.49	2678.48	2773.92	2870.44
Total	39647.34	39513.94	38586.83	37659.36	36709.68

61. The Petitioner has claimed the following 'Interest on Working Capital' for the Combined Asset for the 2019-24 tariff period:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	208.40	215.62	223.21	231.16	239.20
Maintenance Spares	375.11	388.12	401.77	416.09	430.57
Receivables	4874.67	4871.58	4757.28	4642.93	4513.49
Total	5458.18	5475.32	5382.26	5290.18	5183.26
Rate of Interest (%)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	657.71	659.78	648.56	637.47	624.58

Effective Date of Commercial Operation (E-COD)

62. The Petitioner has claimed E-COD of the Combined Asset as 17.10.2017. Accordingly, based on the trued up admitted capital cost and actual COD of all the transmission assets, the E-COD is worked out as follows:



Asset	Trued up Capital Cost as on 31.3.2019 (₹ in lakh)	COD	No. of days of COD of Asset from COD of Project	Weight of cost (%)	Weighted Days
Asset-A	5463.11	1.4.2014	1370.00	2.42	33.22
Asset-B1	1418.33	8.6.2015	937.00	0.63	5.90
Asset-B2	1418.33	29.6.2015	916.00	0.63	5.77
Asset-C1	2542.16	2.8.2014	1247.00	1.13	14.07
Asset-C2	2800.25	7.8.2014	1242.00	1.24	15.44
Asset-D	211644.09	31.12.2017	0.00	93.94	0.00
Total	225286.28			100.00	74.40
Effective COD (latest COD less weighted days) – 17.10.2017					

63. E-COD is used to determine the lapsed life of the Project as a whole, which works out as 1 (one) year as on 1.4.2019 (i.e. the number of completed years as on 1.4.2019 from E-COD).

Weighted Average Life (WAL)

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

65. WAL has been determined based on the admitted capital cost of individual elements as on 31.3.2019 and their respective life as stipulated in the 2019 Tariff Regulations. Accordingly, the WAL of the Combined Asset has been worked out as 32 years as shown below:

Admitted Capital Cost 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	6016.84	25	150420.93	32.44 years,

Transmission Line	168140.23	35	5884908.04	rounded off to 32 years
Sub-Station Equipment	48298.74	25	1207468.62	
PLCC	416.17	15	6242.59	
IT Equipment & Software	724.67	6.67	4831.15	
Total	223596.66		7253871.33	

66. WAL as on 1.4.2019 as determined above is applicable prospectively (i.e. for 2019-24 tariff period onwards) and no retrospective adjustment of depreciation in previous tariff period is required to be done. As discussed, the Effective COD of the assets is 17.10.2017 and the lapsed life of the project as a whole, works out as one (1) year as on 1.4.2019 (i.e. the number of completed years as on 1.4.2019 from Effective COD). Accordingly, WAL has been used to determine the remaining useful life as on 31.3.2019 to be 31 years.

Capital Cost

67. Regulation 19 of the 2019 Tariff Regulation provides as follows:

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

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

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

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

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

(d) Interest during construction and incidental expenditure during construction as computed in accordance with these regulations;

(e) Capitalised initial spares subject to the ceiling rates in accordance with these regulations;

(f) Expenditure on account of additional capitalization and de-capitalisation determined in accordance with these regulations;

(g) Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the date of commercial operation as specified under Regulation 7 of these regulations;

- (h) Adjustment of revenue earned by the transmission licensee by using the assets before the date of commercial operation;*
- (i) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*
- (j) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of the generating station but does not include the transportation cost and any other appurtenant cost paid to the railway;*
- (k) Capital expenditure on account of biomass handling equipment and facilities, for co-firing;*
- (l) Capital expenditure on account of emission control system necessary to meet the revised emission standards and sewage treatment plant;*
- (m) Expenditure on account of fulfilment of any conditions for obtaining environment clearance for the project;*
- (n) Expenditure on account of change in law and force majeure events; and*
- (o) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.*

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

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

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

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

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



(a) The assets forming part of the project, but not in use, as declared in the tariff petition;

(b) De-capitalised Assets after the date of commercial operation on account of replacement or removal on account of obsolescence or shifting from one project to another project:

Provided that in case replacement of transmission asset is recommended by Regional Power Committee, such asset shall be 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.”

68. The Petitioner has claimed the capital cost of Combined Asset as ₹225363.88 lakh as on 31.3.2019.

69. The admitted trued up capital cost of ₹5463.11 lakh for transmission Asset-A, ₹1418.33 lakh for transmission Asset-B1, ₹1418.33 lakh for transmission Asset-B2, ₹2542.16 lakh for transmission Asset-C1, ₹2800.25 lakh for transmission Asset-C2 and ₹211644.09 lakh for transmission Asset-D 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 transmission assets 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)

Page 57 of 89



Element	Asset-A (A)	Asset-B1 (B)	Asset-B2 (C)	Asset-C1 (D)	Asset-C2 (E)	Asset-D (F)	Capital Cost for Combined Asset-I as on 1.4.2019 G = (A+B+C+D+E+F)
Freehold Land	0.00	0.00	0.00	0.00	0.00	1689.62	1689.62
Building & Other Civil Works	0.00	0.00	0.00	210.70	212.72	5593.42	6016.84
Transmission Line	4133.79	0.00	0.00	0.00	0.00	164006.44	168140.23
Sub-Station Equipment	1231.49	1334.33	1334.33	2322.15	2577.27	39499.19	48298.74
PLCC	65.50	51.00	51.00	0.00	0.00	248.67	416.17
IT Equipment & Software	32.33	33.00	33.00	9.32	10.27	606.75	724.67
Total	5463.11	1418.33	1418.33	2542.16	2800.25	211644.09	225286.28

Initial Spares

70. As stated above in this order, Initial Spares are allowed for the 2014-19 period on the basis of the cost of individual asset. The transmission assets covered in the transmission project are combined and the overall project cost is arrived at in the 2019-24 tariff period and therefore Initial Spares are allowed during the 2019-24 tariff period on the basis of the overall project cost as per APTEL's judgement dated 14.9.2019 in Appeal No.74 of 2017.

71. Accordingly, Initial Spares allowed in the 2019-24 tariff period are as under:

Asset	Particulars	Plant and Machinery Cost (excluding IDC/IEDC, Land cost and cost of civil works) (A) (₹ in lakh)	Initial Spares Claimed (B) (₹ in lakh)	Ceiling Limit (%) (C)	Allowable Initial Spares worked out	Initial Spares allowed as per norms and APTEL's judgement dated 14.9.2019 (₹ in lakh)	Initial Spares allowed in 2014-19 (₹ in lakh)
					$D = \frac{(A-B) * C}{(100-C)}$		
Asset-A	Transmission Line	3982.64	0.00	1.00	40.23	1300.01	0.00
Asset-D	Transmission Line	142812.58	1300.01	1.00	1429.42		1300.01
Total		146795.22	1300.01				1300.01



Asset-A	Sub-station (AIS)	1283.36	45.85	6.00	78.99		45.85
Asset-C1	Sub-station (AIS)	2259.32	130.55	6.00	135.88	613.82	130.55
Asset-C2	Sub-station (AIS)	2504.44	100.19	6.00	153.46		100.19
Asset-D	Sub-station (AIS)	15916.19	337.23	6.00	994.40		337.23
Total		21963.31	613.82				613.82
Asset-B1	Sub-station (GIS)	1296.67	101.00	5.00	62.93		62.93
Asset-B2	Sub-station (GIS)	1296.67	101.00	5.00	62.93	894.10	62.93
Asset-D	Sub-station (GIS)	19633.49	692.10	5.00	996.92		692.10
Total		22226.83	894.10				817.96
Grand Total		190985.36	2807.93			2807.93	2731.79

72. Accordingly, additional Initial Spares of ₹76.14 lakh (₹2807.93 lakh - ₹2731.79 lakh) are being allowed as part of the combined capital cost as on 1.4.2019 in line with APTEL's judgement dated 14.9.2019 in Appeal No. 74 of 2017.

73. Capital cost of the Combined Asset as on 1.4.2019 is worked out as under:

Capital Cost for Combined Asset as on 31.3.2019	Additional Initial Spares allowed as per APTEL's judgement dated 14.9.2019	Capital Cost for Combined Asset as on 1.4.2019
225286.28	76.14	225362.42

74. The trued-up capital cost of ₹225362.42 lakh for Combined Asset has been considered as the capital cost as on 1.4.2019 for working out tariff of the 2019-24 tariff period.

Additional Capital Expenditure (ACE)

75. Regulations 24 and 25 of the 2019 Tariff Regulations provide as under:



“24. Additional Capitalization within the original scope and up to 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.”

76. The Petitioner has claimed projected ACE for the 2019-24 period and submitted Auditor’s Certificates in support of the same. The details of projected ACE for 2019-20 period as per Auditor’s Certificates is ₹9971.64 lakh.

Asset	Projected ACE 2019-24	
	2019-20	
Asset-B1 (under Combined Asset)	35.85	
Asset-B2 (under Combined Asset)	35.85	
Asset-D (under Combined Asset)	9899.94	
Total	9971.64	

77. The Petitioner vide affidavit dated 8.6.2020 has submitted that the projected ACE of ₹9899.94 lakh has been claimed for the period 1.4.2019 to 31.3.2020 with respect to Asset-D under Combined Asset wherein ACE of ₹3384.15 lakh is on account of un-discharged liability towards final payment/withheld payment due to contractual exigencies for works executed up to the cut-off date and ACE of ₹6515.79 lakh is on account of works deferred for execution. The Petitioner has further submitted that ACE of ₹71.70 lakh claimed for the period 1.4.2019 to 31.3.2020 with respect to Assets-B1 and B2 under Combined Asset is on account of un-discharged liability towards final payment/withheld payment due to contractual exigencies for works executed up to the cut-off date. The contract-wise details for balance and retention payments are as detailed below:

Asset	Party	Package	Financial Year
			2019-20



Asset	Party	Package	Financial Year
			2019-20
Asset-B1	EMC & NHVS	Sub-station Work	35.85
Total			35.85
Asset-B2	EMC & NHVS	Sub-station Work	35.85
Total			35.85
Asset-D	New Northeast Electric Group High Voltage Switchgear Co. Ltd.	Sub-station Work	2176.53
	EMC Ltd.	Sub-station Work	522.59
	CGL & CG Electric	Sub-station Work	104.79
	Alstom T&D	Sub-station Work	196.84
	Paresh Construction	Building & Civil Work	39.26
	Radha Enterprises	Building & Civil Work	98.33
	Radhika Construction	Building & Civil Work	1.93
	Ramesh SakharamBorsa	Tree Cutting	0.28
	Taurus Powertronics Ltd.	Sub-station Work	0.12
	Madhu Infracon Pvt. Ltd.	Sub-station Work	0.80
	Kulkarni & Construction	Building & Civil Work	8.75
	KPTL	Transmission Line Work	7.82
	KEC	Transmission Line Work	197.58
	Ramavarth Electricals	Transmission Line Work	6.98
Shyama Power	Transmission Line Work	21.55	
Total			3384.15

78. MPPMCL has submitted that the Petitioner has not substantiated its claim of projected ACE of ₹9971.64 lakh claimed during 2019-20 with proper justifications and supporting documents. MPPMCL has further submitted that the projected ACE may be deferred till the truing up when the Petitioner will file actual ACE.

79. The Petitioner has submitted that ACE claimed is supported by the Auditor's certificate and that the ACE has been claimed on account of balance and retention payments and works deferred for execution. We have considered the submissions of the Petitioner and MPPMCL. It is observed that the projected ACE of ₹71.70 lakh claimed with respect to Assets-B1 & B2 under the Combined Asset falls beyond the cut-off date and projected ACE of ₹9899.94 lakh claimed with respect

to Asset-D under combined asset falls within the cut-off date. Further, it is observed that with respect to Asset-D, the Petitioner has provided the details of projected ACE of ₹3384.15 lakh claimed on account of balance and retention payment. The Petitioner has not given any details in this petition regarding the projected ACE of ₹6515.79 lakh claimed on account of works deferred for execution nor in the rejoinder affidavit to the reply of MPPMCL. However, the total projected ACE claimed by the Petitioner with respect to Asset-D under Combined Asset is supported by the Auditor's certificate. In view of the above, the projected ACE claimed by the Petitioner on account of balance and retention payment for works executed within the cut-off date and works deferred for execution is accepted and allowed. However, the same would be subject to truing up wherein the Petitioner is directed to submit the details of actual ACE along with justifications at the time of truing up. The projected ACE allowed has been considered for computation of total capital cost as on 31.3.2024. ACE claimed during the period 2019-20 to 2023-24 is allowed under Regulation 24(1) (a), (b) and (d) of the 2019 Tariff Regulations subject to true up.

80. ACE allowed subject to true up is summarized below:

Particulars	Regulation	(₹ in lakh)
		Combined Asset 2019-20
ACE to the extent of Balance & Retention Payments for works executed before the cut-off date and works deferred for execution	Regulation 24(1)(a), (b) and (d) of the 2019 Tariff Regulations	9971.64

Capital cost for the 2019-24 tariff period

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



(₹ in lakh)

Capital Cost allowed as on 1.4.2019	ACE allowed for the year 2019-20	Total Estimated Completion Cost up to 31.3.2024
225362.42	9971.64	235334.06

82. Against the overall RCE approved capital cost of ₹239567.70 lakh, the estimated project cost of the Combined Asset including ACE is ₹9971.64 lakh which is within the RCE cost.

Debt-Equity Ratio

83. Regulation 18 of the 2019 Tariff Regulations provides as under:

“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.”

84. The details of the debt-equity ratio considered for the purpose of computation of tariff for the 2019-24 tariff period is as follows:

Particulars	Capital Cost as on 1.4.2019 (₹ in lakh)	(%)	Total Capital Cost as on 31.3.2024 (₹ in lakh)	(%)
Debt	157753.79	70.00	164733.94	70.00
Equity	67608.63	30.00	70600.12	30.00
Total	225362.42	100.00	235334.06	100.00

Return on Equity (RoE)

85. 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 cut-off date beyond the original scope excluding Additional Capitalization due to Change in Law, shall be computed at the weighted average rate of interest on actual loan portfolio of the generating station or the transmission 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;

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

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

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

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

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

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

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

Illustration-

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



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

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

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

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

86. The Petitioner has submitted that MAT rate is applicable to the Petitioner. 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 Clause (3) of Regulation 31 of the 2019 Tariff Regulations. RoE allowed for the Combined Asset under Regulation 30 of the 2019 Tariff Regulations is as under:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	67608.63	70600.12	70600.12	70600.12	70600.12
Addition due to ACE	2991.49	0.00	0.00	0.00	0.00
Closing Equity	70600.12	70600.12	70600.12	70600.12	70600.12
Average Equity	69104.37	70600.12	70600.12	70600.12	70600.12
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)	12979.18	13260.11	13260.11	13260.11	13260.11



Interest on Loan (IoL)

87. 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 of de-capitalization of assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered 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”.

88. 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 the 2019-24 tariff period will be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of

true up. In view of above, IoL has been worked out in accordance with Regulation 32 of the 2019 Tariff Regulations. IoL allowed for the Combined Asset is as follows:

(₹ in lakh)					
Particular	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	157753.79	164733.94	164733.94	164733.94	164733.94
Cumulative Repayments up to Previous Year	16449.27	28462.93	40722.24	52981.56	65240.88
Net Loan-Opening	141304.52	136271.01	124011.70	111752.38	99493.06
Addition due to ACE	6980.15	0.00	0.00	0.00	0.00
Repayment during the year	12013.66	12259.32	12259.32	12259.32	12259.32
Net Loan-Closing	136271.01	124011.70	111752.38	99493.06	87233.75
Average Loan	138787.77	130141.35	117882.04	105622.72	93363.40
Weighted Average Rate of Interest on Loan (%)	8.29	8.27	8.27	8.27	8.25
Interest on Loan	11507.90	10758.98	9751.87	8739.91	7706.51

Depreciation

89. 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 up to 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.”

90. IT equipment has been considered as a part of the Gross Block and depreciated using WAROD. WAROD has been worked out and placed as Annexure-7 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 transmission assets is as follows:

(₹ in lakh)					
Particular	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	225362.42	235334.06	235334.06	235334.06	235334.06
Addition during the year 2019-24 due to projected ACE	9971.64	0.00	0.00	0.00	0.00
Closing Gross Block	235334.06	235334.06	235334.06	235334.06	235334.06
Average Gross Block	230348.24	235334.06	235334.06	235334.06	235334.06
Weighted average rate of Depreciation (WAROD) (%)	5.22	5.21	5.21	5.21	5.21
Balance useful life at the beginning of the year	31.00	30.00	29.00	28.00	27.00
Aggregated Depreciable Value	205865.22	210352.46	210352.46	210352.46	210352.46
Remaining Aggregate Depreciable Value at the end of the year	177402.30	169630.22	157370.90	145111.59	132852.27
Combined Depreciation during the year	12013.66	12259.32	12259.32	12259.32	12259.32
Aggregate Cumulative Depreciation	28462.93	40722.24	52981.56	65240.88	77500.19

Operation & Maintenance Expenses (O&M Expenses)

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

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

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<i>Norms for sub-station Bays (₹ Lakh per bay)</i>					
765 kV	45.01	46.60	48.23	49.93	51.68
400 kV	32.15	33.28	34.45	35.66	36.91
220 kV	22.51	23.30	24.12	24.96	25.84
132 kV and below	16.08	16.64	17.23	17.83	18.46
<i>Norms for Transformers (₹ Lakh per MVA)</i>					
765 kV	0.491	0.508	0.526	0.545	0.564
400 kV	0.358	0.371	0.384	0.398	0.411
220 kV	0.245	0.254	0.263	0.272	0.282
132 kV and below	0.245	0.254	0.263	0.272	0.282
<i>Norms for AC and HVDC lines (₹ Lakh per km)</i>					

Single Circuit (Bundled Conductor with six or more sub-conductors)	0.881	0.912	0.944	0.977	1.011
Single Circuit (Bundled 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 500 MW) (Except Gazuwaka BTB)	834	864	894	925	958
Gazuwaka HVDC Back-to-Back station (₹ Lakh per 500 MW)	1,666	1,725	1,785	1,848	1,913
500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)	2,252	2,331	2,413	2,498	2,586
±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 scheme (Rs Lakh) (3000 MW)	2,563	2,653	2,746	2,842	2,942

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

Provided further that:

- i. the operation and maintenance expenses for new HVDC bi-pole schemes commissioned after 1.4.2019 for a particular year shall be allowed pro-rata on the basis of normative rate of operation and



maintenance expenses of similar HVDC bi-pole scheme for the corresponding year of the tariff period;

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

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

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

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

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

92. The Petitioner has claimed O&M Expenses for the following transmission elements during the 2019-24 period:



I. Transmission Line

- (1) Vadodara-Asoj 400 kV Double Circuit (Quad) Transmission Line - 13.748 km
- (2) Vadodara-Asoj 400 kV Double Circuit (Quad) Transmission Line - 0.695 km
- (3) 765 kV Aurangabad-Padhge Double Circuit Transmission Line - 284.816 kms
- (4) 400 kV Padhge-Padhge Transmission Line - 16.742 km

II. Sub-stations:

- (1) 400 kV (AIS) Line bays at Asoj - 2 Bays
- (2) 400 kV (GIS) Line bays for Vadodara-Asoj circuit-1 - 1 Bay
- (3) 400 kV (GIS) Line bays for Vadodara-Asoj circuit-2 - 1 Bay
- (4) Aurangabad: 3 X 80 MVAR Switchable Line Reactor Bay for Padhge circuit-1 - 1 Bay of 765 kV
- (5) Aurangabad: 765 kV Line Bay for Aurangabad-Padhge circuit-1 - 1 Bay of 765 kV Aurangabad: 3 X 80 MVAR Switchable Line Reactor Bay for Padhge circuit-2 - 1 Bay of 765 kV
- (6) Aurangabad: 765 kV Line Bay for Aurangabad-Padhge circuit-2 - 1 Bay of 765 kV Kudus: 400 kV Line bays for Padhge-1 & 2 - 2 bays AIS
- (7) Padhge: 400 kV Line bays for ICT-1 & 2 - 2 Bays GIS
- (8) Padhge: 400 kV Line bays for Kudus-1 & 2 - 2 Bays GIS
- (9) Padhge: 765 kV Line bays for ICT-1 & 2 - 2 Bays GIS
- (10) Padhge: 765 kV Line bays for Aurangabad-1 & 2 - 2 Bays GIS
- (11) Padhge: 765 kV bay for Bus Reactor - 1 Bay GIS

III. 765 kV Sub-station ICT:

- (1) Padhge: 765 kV 1500 MVA ICT-1 and 2- 2 Transformers

IV. Communication System:

- i. PLCC



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

HV and DC Lines

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M for HV and DC Lines (as per norms)					
i. Vadodara-Asoj 400 kV Double Circuit (Quad) Transmission Line - 13.748 km					
ii. Vadodara-Asoj 400 kV Double Circuit (Quad) Transmission Line - 0.695 km					
iii. 765 kV Aurangabad-Padhge Double Circuit Transmission Line - 284.816 km	417.75	432.29	447.46	463.26	479.37
iv. 400 kV Padhge-Padhge Transmission Line - 16.742 km					
Total O&M Expenses	417.75	432.29	447.46	463.25	479.38

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)					
765 kV AIS	180.04	186.40	192.92	199.72	206.72
400 kV AIS	128.60	133.12	137.80	142.64	147.64
765 kV GIS	157.53	163.10	168.80	174.75	180.88
400 kV GIS	135.04	139.78	144.70	149.76	155.02
Total O&M Expenses	601.21	622.40	644.22	666.87	690.26

Transformer

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M for Transformer (as per norms)					
765 kV	1473.00	1524.00	1578.00	1635.00	1692.00
Total O&M Expenses	1473.00	1524.00	1578.00	1635.00	1692.00

PLCC

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M for PLCC (as per norms)					
PLCC	8.80	8.80	8.80	8.80	8.80
Total O&M Expenses	8.80	8.80	8.80	8.80	8.80

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Total O&M Expenses Claimed	2500.76	2587.49	2678.47	2773.95	2870.44



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

Therefore, the Petitioner’s claim for separate O&M Expenses for PLCC @2% is not allowed.

95. The O&M Expenses are allowed as per the norms specified under Regulations 35(3) and (4) of the 2019 Tariff Regulations. The O&M Expenses allowed for the Combined Asset are as under:

AC and HVDC Lines					(₹ in lakh)
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Norm (₹ lakh/km)					
D/C Bundled with 4 or more sub-conductor)	1.322	1.368	1.416	1.466	1.517
Line Length in km.					
Vadodara-Asoj 400 kV Double Circuit (Quad) Transmission Line - 13.748 kms	13.748	13.748	13.748	13.748	13.748
Vadodara-Asoj 400 kV Double Circuit (Quad) Transmission Line - 0.695 kms	0.695	0.695	0.695	0.695	0.695
765 kV Aurangabad-Padhge Double Circuit Transmission Line - 284.816 kms	284.816	284.816	284.816	284.816	284.816
400 kV Padhge-Padhge Transmission Line - 16.742 km.	16.742	16.742	16.742	16.742	16.742
O&M Expenses	417.75	432.29	447.46	463.26	479.37
Total O&M Expenses	417.75	432.29	447.46	463.26	479.37

Sub-station Bays					(₹ in lakh)
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Norm (₹ lakh/bay)					
765 kV AIS	45.010	46.600	48.230	49.930	51.680
400 kV AIS	32.150	33.280	34.450	35.660	36.910
765 kV GIS	31.507	32.620	33.761	34.951	36.176
400 kV GIS	22.505	23.296	24.115	24.962	25.837
Number of bays					
765 kV AIS	4	4	4	4	4
400 kV AIS	4	4	4	4	4
765 kV GIS	5	5	5	5	5
400 kV GIS	6	6	6	6	6



O&M Expense for 765 kV AIS	180.04	186.40	192.92	199.72	206.72
O&M Expense for 400 kV AIS	128.60	133.12	137.80	142.64	147.64
O&M Expense for 765 kV GIS	157.54	163.10	168.81	174.76	180.88
O&M Expense for 400 kV GIS	135.03	139.78	144.69	149.77	155.02
Total O&M Expenses	601.21	622.40	644.22	666.89	690.26

Transformer

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Norm (₹ lakh/MVA)					
765 kV Transformer	0.491	0.508	0.526	0.545	0.564
MVA Rating	1500	1500	1500	1500	1500
No. of Transformers	2	2	2	2	2
O&M Expense for 400 kV Transformer	1473.00	1524.00	1578.00	1635.00	1692.00
Total O&M Expenses	1473.00	1524.00	1578.00	1635.00	1692.00

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Total O&M Expenses Allowed	2491.96	2578.69	2669.67	2765.14	2861.64

Interest on Working Capital (IWC)

96. 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;”

97. 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 IWC as 12.05%.

98. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The Rate of Interest on working capital considered is 12.05% (SBI 1 year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for 2019-20, whereas, Rate of Interest for 2020-21 onwards has been considered as 11.25% (SBI 1 year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points). The components of the working capital and interest allowed thereon are as under:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O & M Expenses	207.66	214.89	222.47	230.43	238.47
Maintenance Spares	373.79	386.80	400.45	414.77	429.25
Receivables	4875.03	4866.44	4752.21	4637.94	4508.60
Total	5456.48	5468.14	5375.13	5283.14	5176.31
Rate of Interest (%)	12.05	11.25	11.25	11.25	11.25
Interest of working capital	657.51	615.17	604.70	594.35	582.33

Annual Fixed Charges for the 2019-24 Tariff Period

99. The annual fixed charges for the Combined Asset for the 2019-24 tariff period are summarized below:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	12013.66	12259.32	12259.32	12259.32	12259.32
Interest on Loan	11507.90	10758.98	9751.87	8739.91	7706.51
Return on Equity	12979.18	13260.11	13260.11	13260.11	13260.11



Interest on Working Capital	657.51	615.17	604.70	594.35	582.33
Operation and Maintenance	2491.96	2578.69	2669.67	2765.14	2861.64
Total	39650.21	39472.26	38545.68	37618.84	36669.91

Filing Fee and Publication Expenses

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

Licence Fee and RLDC Fees and Charges

101. The Petitioner has requested to allow it to bill and recover license fee and RLDC fees and charges, separately from the Respondents. The Petitioner shall be entitled for reimbursement of licence fee and RLDC fees and charges in accordance with Regulation 70(4) and (3) respectively, of the 2019 Tariff Regulations.

Goods and Services Tax

102. The Petitioner has sought to recover GST on transmission charges separately from the Respondents, if GST on transmission is withdrawn from negative list in future.

103. 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

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



claiming the overall security expenses and the consequential Interest on Working Capital. 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.

105. 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

106. The Petitioner has sought reimbursement of capital spares at the end of the 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

107. The billing, collection and disbursement of the transmission charges approved 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.

108. To summarise, the trued up Annual Fixed Charges allowed for the transmission assets for the 2014-19 tariff period are as under:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-A	924.18	1038.41	1062.08	1045.06	1026.37
Asset-B1	0.00	182.39	269.86	278.78	284.84
Asset-B2	0.00	169.95	270.01	279.00	285.06
Asset-C1	350.99	597.46	606.29	609.25	605.58
Asset-C2	362.46	632.34	644.18	649.19	644.82
Asset-D	0.00	0.00	0.00	8932.60	36406.68

The Annual Fixed Charges allowed for the Combined Asset for the 2019-24 tariff period in this order are as under:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Annual Fixed Charges	39650.21	39472.26	38545.68	37618.84	36669.91

109. This order disposes of Petition No. 303/TT/2020.

**Sd/
(Arun Goyal)
Member**

**Sd/
(I. S. Jha)
Member**

**Sd/
(P. K. Pujari)
Chairperson**



Petition No.:	303/TT/2020
Period	2014-19 True-up

Annexure - 1

Particulars	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	Additional Capital Expenditure (₹ in lakh)					Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations					
		2014-15	2015-16	2016-17	2017-18	2018-19			2014-15 (₹ in lakh)	2015-16 (₹ in lakh)	2016-17 (₹ in lakh)	2017-18 (₹ in lakh)	2018-19 (₹ in lakh)	
Transmission Line	3034.60	777.89	174.77	102.10	44.43	0.00	4133.79	5.28%	180.76	205.91	213.22	217.09	218.26	
Sub Station	764.67	243.19	215.63	0.00	8.00	0.00	1231.49	5.28%	46.79	58.91	64.60	64.81	65.02	
PLCC	0.00	8.75	39.81	16.94	0.00	0.00	65.50	6.33%	0.28	1.81	3.61	4.15	4.15	
IT Equipment and Software	28.12	0.00	4.21	0.00	0.00	0.00	32.33	5.28%	1.48	1.60	1.71	1.71	1.71	
TOTAL	3827.39	1029.83	434.42	119.04	52.43	0.00	5463.11		229.32	268.23	283.14	287.76	289.14	
									Average Gross Block (₹ in lakh)	4342.31	5074.43	5351.16	5436.90	5463.11
									Weighted Average Rate of Depreciation (₹ in lakh)	5.28%	5.29%	5.29%	5.29%	5.29%



Petition No.:	303/TT/2020
Period	2014-19 True-up

Annexure - 2

2014-19	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	Additional Capital Expenditure (₹ in lakh)				Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations			
		2015-16	2016-17	2017-18	2018-19			2015-16 (₹ in lakh)	2016-17 (₹ in lakh)	2017-18 (₹ in lakh)	2018-19 (₹ in lakh)
Sub Station	688.47	410.44	109.60	39.91	85.91	1334.33	5.28%	47.19	60.92	64.86	68.18
PLCC	48.05	0.96	1.99	0.00	0.00	51.00	6.33%	3.07	3.17	3.23	3.23
IT Equipment and Software	0.00	0.00	33.00	0.00	0.00	33.00	5.28%	0.00	0.87	1.74	1.74
TOTAL	736.52	411.40	144.59	39.91	85.91	1418.33		50.26	64.95	69.83	73.16
Average Gross Block (₹ in lakh)								942.22	1220.22	1312.47	1375.38
Weighted Average Rate of Depreciation (₹ in lakh)								5.33%	5.32%	5.32%	5.32%



Petition No.:	303/TT/2020
Period	2014-19 True-up

Annexure - 3

2014-19	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	Additional Capital Expenditure (₹ in lakh)				Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations			
		2015-16	2016-17	2017-18	2018-19			2015-16 (₹ in lakh)	2016-17 (₹ in lakh)	2017-18 (₹ in lakh)	2018-19 (₹ in lakh)
Sub Station	694.81	404.10	109.60	39.91	85.91	1334.33	5.28%	47.35	60.92	64.86	68.18
PLCC	48.47	0.54	1.99	0.00	0.00	51.00	6.33%	3.09	3.17	3.23	3.23
IT Equipment and Software	0.00	0.00	33.00	0.00	0.00	33.00	5.28%	0.00	0.87	1.74	1.74
TOTAL	743.28	404.64	144.59	39.91	85.91	1418.33		50.44	64.95	69.83	73.16
Average Gross Block (₹ in lakh)								945.60	1220.22	1312.47	1375.38
Weighted Average Rate of Depreciation (₹ in lakh)								5.33%	5.32%	5.32%	5.32%



Petition No.:	303/TT/20 20
Period	2014-19 True-up

Annexure - 4

Particulars	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	Additional Capital Expenditure (₹ in lakh)					Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations				
		2014-15	2015-16	2016-17	2017-18	2018-19			2014-15 (₹ in lakh)	2015-16 (₹ in lakh)	2016-17 (₹ in lakh)	2017-18 (₹ in lakh)	2018-19 (₹ in lakh)
Building	56.87	108.18	11.73	32.93	0.99	0.00	210.70	3.34%	3.71	5.71	6.45	7.02	7.04
Sub Station	1518.76	645.11	54.12	81.15	11.87	11.13	2322.15	5.28%	97.22	115.68	119.25	121.71	122.32
IT Equipment and Software	9.13	0.19	0.00	0.00	0.00	0.00	9.32	5.28%	0.49	0.49	0.49	0.49	0.49
TOTAL	1584.76	753.48	65.85	114.08	12.86	11.13	2542.16		101.41	121.88	126.20	129.22	129.84
Average Gross Block (₹ in lakh)									1961.50	2371.17	2461.13	2524.60	2536.60
Weighted Average Rate of Depreciation (₹ in lakh)									5.17%	5.14%	5.13%	5.12%	5.12%



Petition No.:	303/TT/2020
Period	2014-19 True-up

Annexure - 5

Particulars	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	Additional Capital Expenditure (₹ in lakh)					Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations				
		2014-15	2015-16	2016-17	2017-18	2018-19			2014-15 (₹ in lakh)	2015-16 (₹ in lakh)	2016-17 (₹ in lakh)	2017-18 (₹ in lakh)	2018-19 (₹ in lakh)
Building	69.36	87.73	14.30	40.11	1.21	0.00	212.72	3.34%	3.78	5.49	6.39	7.08	7.10
Sub Station	1640.34	736.48	69.69	104.48	15.14	11.13	2577.27	5.28%	106.05	127.34	131.93	135.09	135.79
IT Equipment and Software	10.06	0.20	0.01	0.00	0.00	0.00	10.27	5.28%	0.54	0.54	0.54	0.54	0.54
TOTAL	1719.77	824.42	84.00	144.59	16.35	11.13	2800.25		110.37	133.36	138.87	142.72	143.43
							Average Gross Block (₹ in lakh)		2131.98	2586.18	2700.48	2780.95	2794.69
							Weighted Average Rate of Depreciation (₹ in lakh)		5.18%	5.16%	5.14%	5.13%	5.13%



Petition No.:	303/TT/2020
Period	2014-19 True-up

Annexure - 6

Particulars	Admitted Capital Cost as on COD (₹ in lakh)	Additional Capital Expenditure (₹ in lakh)		Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations	
		2017-18	2018-19			2017-18 (₹ in lakh)	2018-19 (₹ in lakh)
Freehold Land	1689.62	0.00	0.00	1689.62	0.00%	0.00	0.00
Building	4954.17	237.80	401.45	5593.42	3.34%	169.44	180.12
Transmission Line	156234.40	2486.41	5285.63	164006.44	5.28%	8314.82	8520.00
Sub Station	36585.23	833.52	2080.44	39499.19	5.28%	1953.70	2030.63
PLCC	243.82	1.40	3.45	248.67	6.33%	15.48	15.63
IT Equipment and Software	595.54	3.04	8.17	606.75	5.28%	31.52	31.82
TOTAL	200302.78	3562.17	7779.14	211644.09		10484.97	10778.20
Average Gross Block (₹ in lakh)						202083.87	207754.52
Weighted Average Rate of Depreciation (₹ in lakh)						5.19%	5.19%



Petition No.:	303/TT/2020
Period	2019-24 Tariff

Annexure - 7

Particulars	Combined Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Additional Capital Expenditure (₹ in lakh)	Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations				
		2019-20			2019-20 (₹ in lakh)	2020-21 (₹ in lakh)	2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)
Freehold Land	1689.62	0.00	1689.62	0.00%	0.00	0.00	0.00	0.00	0.00
Building	6016.84	1826.92	7843.76	3.34%	231.47	261.98	261.98	261.98	261.98
Transmission Line	168140.23	5624.60	173764.83	5.28%	9026.29	9174.78	9174.78	9174.78	9174.78
Sub Station	48374.88	2496.20	50871.08	5.28%	2620.09	2685.99	2685.99	2685.99	2685.99
PLCC	416.17	23.92	440.09	6.33%	27.10	27.86	27.86	27.86	27.86
Leasehold Land	0.00	0.00	0.00	3.34%	0.00	0.00	0.00	0.00	0.00
IT Equipment and Software	724.67	0.00	724.67	15.00%	108.70	108.70	108.70	108.70	108.70
TOTAL	225362.42	9971.64	235334.06		12013.66	12259.32	12259.32	12259.32	12259.32
Average Gross Block (₹ in lakh)					230348.24	235334.06	235334.06	235334.06	235334.06
Weighted Average Rate of Depreciation (₹ in lakh)					5.22%	5.21%	5.21%	5.21%	5.21%

