CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

Petition No. 270/TT/2020

Coram:

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

Date of Order: 25.01.2021

In the matter of:

Approval under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and truing-up of transmission tariff of the 2014-19 period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of the 2019-24 period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 of Asset-1: 3x110 MVAR Line reactor for 765 kV D/C Raipur PS-Wardha Line 1 Ckt-2 to be charged as Bus reactor at Wardha Sub-station. Asset-2a: 765 kV 3X110 MVAR Bus Reactor at Wardha Sub-station, Asset-2b: 3x110 MVAR Line Reactor for 765 kV D/C Raipur-Wardha Line 1 Ckt-1 charged as Bus Reactor at Wardha Sub-station, Asset-2c: 765 kV D/C Raipur Pooling Station-Wardha line-I Transmission Line, Asset-2d: 765 kV 240 MVAR Switchable Line Reactor of Wardha I bay at Raipur Pooling Station (Charged as a Bus Reactor). Asset-2e: 765 kV 240 MVAR Switchable Line Reactor of Wardha II bay at Raipur Pooling Station (Charged as a Bus Reactor) under "Integration of Pooling Stations in Chhattisgarh with central part of WR for IPP generation projects in Chhattisgarh" in Western Region (IPP-C).

And in the Matter of:

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

....Petitioner

Vs

- Madhya Pradesh Power Management Company Ltd., Shakti Bhawan, Rampur Jabalpur-482 008
- 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., Prakashganga, 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-390 007.
- 7. Electricity Department, Government of Goa, Vidyut Bhawan, Panaji, Near Mandvi Hotel, Goa-403 001.
- 8. Electricity Department, Administration of Daman & Diu, Daman-396 210.
- DNH Power Distribution Corporation Ltd., Vidyut Bhawan, 66 KV Road, Near Secretariat Amli, Silvassa-396 230.
- 10. Chhattisgarh State Power Transmission Co. Ltd., Office of The Executive Director (C&P). State Load Despacth Building, Dangania, Raipur-492 013.

Chhattisgarh State Power Distribution Co. Ltd.,

11. P.O. Sunder Nagar, Dangania, Raipur, Chhattisgarh-492 013.

.... Respondents

For Petitioner : Shri S. S. Raju, PGCIL

Shri A. K. Verma, PGCIL

For Respondents: None

<u>ORDER</u>

The instant petition has been filed by Power Grid Corporation of India Ltd. (hereinafter referred to as "the Petitioner"), a deemed transmission licensee, for truing-up of the tariff of the period from 1.4.2014 to 31.3.2019 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as "the 2014 Tariff Regulations") and for determination of the tariff of the period from 1.4.2019 to 31.3.2024 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as "the 2019 Tariff Regulations") in respect of the following assets under "Integration of Pooling Stations in Chhattisgarh with central part of WR for IPP generation projects in Chhattisgarh" in Western Region (hereinafter referred to as "the transmission scheme"):

Asset-1: 3x110 MVAR Line reactor for 765 kV D/C Raipur PS-Wardha Line 1 Ckt-2 to be charged as Bus reactor at Wardha Sub-station;

Asset-2a: 765 kV 3X110 MVAR Bus Reactor at Wardha Sub-station;

Asset-2b: 3x110 MVAR Line Reactor for 765 kV D/C Raipur-Wardha Line 1 Ckt-1 charged as Bus Reactor at Wardha Sub-station;

Asset-2c: 765 kV D/C Raipur Pooling Station-Wardha line-I Transmission Line;

Asset-2d: 765 kV 240 MVAR Switchable Line Reactor of Wardha I bay at Raipur Pooling Station (Charged as a Bus Reactor);

Asset-2e: 765 kV 240 MVAR Switchable Line Reactor of Wardha II bay at Raipur Pooling Station (Charged as a Bus Reactor)

- 2. The Petitioner has made the following prayers in this petition:-
 - "1) Allow the add cap for 2014-19 and 2019-24 tariff block as claimed as per Para 6.8 and 10.1 above.
 - 2) Allow Additional ROE of 0.5% for Assets 2a, 2b, 2c, 2d & 2e in true up of 2014-19 block as approved in order dated 29.04.2016 in petition No :104/TT/2014



- 3) 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 9.1 and 10.1 above.
- 4) 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.
- 5) 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.
- 6) 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.
- 7) 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.
- 8) Allow the petitioner to file a separate petition before Hon'ble Commission for claiming the overall security expenses and consequential IOWC on that security expenses as mentioned at para 9.7 above.
- 9) Allow the petitioner to claim the capital spares at the end of tariff block as per actual.
- 10) Allow the Petitioner to bill and recover GST on Transmission Charges separately from the beneficiaries, if GST on transmission is 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 the transmission scheme was accorded by the Board of Directors of the Petitioner vide Memorandum No. C/CP/Chhattisgarh-IPP dated 5.8.2011 with an estimated cost of ₹139197 lakh including an IDC of ₹6712 lakh based on 1st Quarter, 2011 price level. The Petitioner has submitted Revised Cost Estimate (RCE) dated 9.12.2014 as accorded by its Board of Directors. As per RCE, the estimated cost of the transmission scheme is ₹167151.82 lakh based on June 2014, price level. The

Petitioner vide affidavit dated 3.6.2020 has submitted that the entire scope under IA is complete and is covered under the instant petition.

- b. The tariff from COD to 31.3.2014 was trued up and tariff for the 2014-19 tariff period in case of Asset-1 was determined vide order dated 10.12.2018 (read with corrigendum dated 30.1.2019 in Petition No. 126/TT/2018) and tariff from 1.4.2014 to 31.3.2019 for Assets-2a, 2b, 2c, 2d and 2e was determined vide order dated 29.4.2016 in Petition No. 104/TT/2014 as per the 2014 Tariff Regulations.
- c. As per the IA, the instant assets were scheduled to be put into commercial operation within 28 months of the IA i.e. by 1.1.2014, against which Asset-1 was put into commercial operation on 1.3.2014 and Assets-2a, 2b, 2c, 2d and 2e achieved COD on 3.11.2014, 1.4.2014, 17.11.2014, 21.8.2014 and 29.8.2014 respectively. Thus, there is time over-run of 2 months in case of Asset-1 which was not condoned by the Commission. The Commission, vide order dated 29.4.2016 in Petition No. 104/TT/2014, condoned the entire time over-run in case of Assets-2a, 2b, 2c, 2d and 2e.
- d. The Petitioner has submitted that Assets-2a, 2b, 2c, 2d and 2e were put into commercial operation within 40 months and hence are eligible for grant of additional RoE of 0.5% as provided in Appendix-I of the 2014 Tariff Regulations.
- e. The broad scope of the instant transmission project in Western Region is as under:-

Transmission Line:

Raipur Pooling Station-Wardha 765 kV D/C line

Sub-stations:

- i. Bay extension at 765 kV Raipur Pooling station and 765 kV Wardha Sub-station
- f. The details of the earlier petitions (order dated 10.12.2018 read with corrigendum dated 30.1.2019 in Petition No. 126/TT/2018; and order dated 29.4.2016 in Petition No. 104/TT/2014) in which tariff for the transmission

assets were determined and their nomenclature in those petitions is given hereunder:

SI. No.	Description of the asset	Asset nomenclature in order dated 10.12.2018 and corrigendum dated 30.1.2019 in Petition No. 126/TT/2018	Asset nomenclature in instant petition
1.	3x110 MVAR Line reactor for 765 kV D/C Raipur PS-Wardha Line 1 Ckt-2 to be charged as Bus reactor at Wardha Substation	Asset-1	Asset-1
SI. No.	Description of the asset	Asset nomenclature vide order dated 29.4.2016 in Petition No. 104/TT/2014	Asset nomenclature in instant
2.	765 kV 3X110 MVAR Bus Reactor at Wardha Sub-station	Asset-1	Asset-2a
3.	3x110 MVAR Line Reactor for 765 kV D/C Raipur-Wardha Line 1 Ckt-1 charged as Bus Reactor at Wardha Sub-station	Asset-2	Asset-2b
4.	765 kV D/C Raipur Pooling Station- Wardha Line-I Transmission Line	Asset-3A	Asset-2c
5.	765 kV 240 MVAR Switchable Line Reactor of Wardha I bay at Raipur Pooling Station (Charged as a Bus Reactor)	Asset-3B	Asset-2d
6.	765 kV 240 MVAR Switchable Line Reactor of Wardha II bay at Raipur Pooling Station (charged as a Bus Reactor)	Asset-3C	Asset-2e

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

Asset	Asset Description	SCOD	COD	Time over-run
Asset-1	3x110 MVAR Line reactor for 765 kV D/C Raipur PS - Wardha Line 1 Ckt-2 to be charged as Bus reactor at Wardha Sub-station	1.1.2014	1.3.2014	2 months (not condoned)
Asset-2a	765 kV 3X110 MVAR Bus Reactor at Wardha Sub-station	1.1.2014	3.11.2014	10 months (entirely condoned)
Asset-2b	3x110 MVAR Line Reactor for 765 kV D/C Raipur-Wardha Line 1 Ckt-1 charged as Bus Reactor at Wardha Sub-station	1.1.2014	1.4.2014	3 months (entirely condoned)
Asset-2c	765 kV D/C Raipur Pooling Station-Wardha Line-I Transmission Line	1.1.2014	17.11.2014	10.5 months (entirely condoned)
Asset-2d	765 kV 240 MVAR Switchable Line Reactor of Wardha I bay at Raipur Pooling Station (Charged	1.1.2014	21.8.2014	8 months (entirely condoned)

	as a Bus Reactor)			
Asset-2e	765 kV 240 MVAR Switchable Line Reactor of Wardha II bay at Raipur Pooling Station (charged as a Bus Reactor)	1.1.2014	29.8.2014	8 months (entirely condoned)

- h. The Commission vide order dated 29.4.2016 in Petition No. 104/TT/2014 approved the COD of the Asset-2b ("Asset-2" in order dated 29.4.2016 in Petition No. 104/TT/2014) on provisional basis as the Petitioner had not submitted RLDC certificate of successful trial operation. The Petitioner in the instant petition has submitted RLDC charging certificate dated 6.5.2016. Taking into consideration of RLDC charging certificate, the COD of the Asset-2b is approved as 1.4.2014.
- i. The details of the tariff approved for the 2014-19 tariff period for the instant transmission assets and trued-up transmission tariff claimed by the Petitioner in the instant petition is as under:

Assets	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-1	AFC approved vide order dated 30.1.2019 in Petition No. 126/TT/2018	562.34	640.18	656.36	740.55	803.62
	AFC claimed by the Petitioner based on truing up in the instant petition	564.4	643.63	659.56	719	770.15
Asset-2a	AFC approved vide order dated 29.4.2016 in Petition No. 104/TT/2014	275.95	753.09	825.21	854.54	836.74
	AFC claimed by the Petitioner based on truing up in the instant petition	276.50	742.54	799.01	841.20	841.75
Asset-2b	AFC approved vide order dated 29.4.2016 in Petition No. 104/TT/2014	850.38	1045.67	1146.11	1165.38	1139.58
ASSCI-ZD	AFC claimed by the Petitioner based on truing up in the instant petition	852.25	1023.27	1097.16	1118.11	1110.22
	AFC approved vide order dated 29.4.2016 in Petition No. 104/TT/2014	8893.91	24622.71	24913.51	24389.39	23739.30
Asset-2c	AFC claimed by the Petitioner based on truing up in the instant petition	8897.42	24553.59	24862.22	24363.52	23783.07

Asset-2d	AFC approved vide order dated 29.4.2016 in Petition No. 104/TT/2014	241.12	503.52	587.42	612.81	608.16
	AFC claimed by the Petitioner based on truing up in the instant petition	241.59	456.77	500.29	545.44	581.61
Assat Os	AFC approved vide order dated 29.4.2016 in Petition No. 104/TT/2014	221.75	486.66	569.13	591.93	587.97
Asset-2e	AFC claimed by the Petitioner based on truing up in the instant petition	222.2	438.35	481.58	523.98	558.31

- 4. The Respondents are distribution licensees, transmission licensees and power departments, which 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 the newspapers in accordance with Section 64 of the Electricity Act, 2003. No comments/ objections have been received from the general public in response to the aforesaid notice published in the newspaper by the Petitioner. MP Power Management Company Ltd. (MPPMCL), Respondent No. 1 has filed its reply vide affidavit dated 17.3.2020 and has raised issues such as grossed up RoE, actual taxes paid and GST. In response, the Petitioner vide affidavit dated 13.7.2020 has filed its rejoinder to the reply filed by MPPMCL. The issues raised by MPPMCL and the clarification given by the Petitioner have been dealt with in the relevant portions of this order.
- 6. This order is issued considering the submissions made by the Petitioner vide affidavits dated 6.1.2020, 13.7.2020 and 18.8.2020; reply affidavit dated 3.6.2020 of the Petitioner to Technical Validation letter dated 17.3.2020; MPPMCL's reply affidavit dated 17.3.2020 and the Petitioner's rejoinder thereon.

- 7. The hearing in this matter was held on 28.7.2020 through video conference and the 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 claimed by the Petitioner in respect of the instant transmission assets for the 2014-19 tariff period are as under:

(₹ in lakh)

Asset-1									
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19				
Depreciation	143.79	169.29	176.57	198.41	218.73				
Interest on Loan	156.90	174.60	170.31	178.10	181.17				
Return on Equity	163.93	195.29	204.97	230.27	253.69				
Interest on working capital	15.36	17.23	17.68	19.11	20.36				
O & M Expenses	84.42	87.22	90.12	93.11	96.20				
Total	564.40	643.63	659.65	719.00	770.15				

(₹ in lakh)

Asset-2a									
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19				
Depreciation	72.10	196.63	216.33	233.50	238.60				
Interest on Loan	77.30	204.24	212.40	212.51	197.96				
Return on Equity	85.33	235.00	259.34	280.22	287.02				
Interest on working capital	7.31	19.45	20.82	21.86	21.97				
O & M Expenses	34.46	87.22	90.12	93.11	96.20				
Total	276.50	742.54	799.01	841.20	841.75				

(₹ in lakh)

Asset-2b									
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19				
Depreciation	235.70	289.35	314.67	326.57	331.03				
Interest on Loan	233.82	277.78	288.77	278.46	256.90				
Return on Equity	276.48	343.15	376.07	391.88	398.08				
Interest on working capital	21.83	25.77	27.53	28.09	28.01				
O & M Expenses	84.42	87.22	90.12	93.11	96.20				
Total	852.25	1023.27	1097.16	1118.11	1110.22				

Asset-2c									
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19				
Depreciation	2747.71	7656.10	7869.56	7899.01	7902.83				
Interest on Loan	2639.11	7079.35	6910.05	6343.09	5727.94				



Return on Equity	3160.86	8848.02	9091.84	9127.41	9156.49
Interest on working capital	204.76	565.21	572.57	561.79	549.19
O & M Expenses	144.98	404.91	418.20	432.22	446.62
Total	8897.42	24553.59	24862.22	24363.52	23783.07

Asset-2d								
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19			
Depreciation	38.38	80.53	93.87	108.24	120.12			
Interest on Loan	44.79	88.22	95.29	101.63	104.56			
Return on Equity	46.57	97.81	113.96	131.21	145.38			
Interest on working capital	8.69	15.77	16.93	18.14	19.15			
O & M Expenses	103.16	174.44	180.24	186.22	192.40			
Total	241.59	456.77	500.29	545.44	581.61			

(₹ in lakh)

Asset-2e								
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19			
Depreciation	33.87	74.83	87.89	101.52	112.65			
Interest on Loan	39.47	82.22	89.60	95.17	97.97			
Return on Equity	41.27	91.50	107.34	123.41	136.67			
Interest on working capital	8.13	15.36	16.51	17.66	18.62			
O & M Expenses	99.46	174.44	180.24	186.22	192.40			
Total	222.20	438.35	481.58	523.98	558.31			

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

(₹ in lakh)

Asset-1								
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19			
O & M Expenses	7.04	7.27	7.51	7.76	8.02			
Maintenance Spares	12.66	13.08	13.52	13.97	14.43			
Receivables	94.07	107.27	109.94	119.83	128.36			
Total	113.77	127.62	130.97	141.56	150.81			
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50			
Interest on Working Capital	15.36	17.23	17.68	19.11	20.36			

Asset-2a								
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19			
O & M Expenses	7.04	7.27	7.51	7.76	8.02			
Maintenance Spares	12.66	13.08	13.52	13.97	14.43			
Receivables	112.89	123.76	133.17	140.20	140.29			
Total	132.59	144.11	154.20	161.93	162.74			
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50			
Interest on Working Capital	7.31	19.45	20.82	21.86	21.97			



Asset-2b								
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19			
O & M Expenses	7.04	7.27	7.51	7.76	8.02			
Maintenance Spares	12.66	13.08	13.52	13.97	14.43			
Receivables	142.04	170.55	182.86	186.35	185.04			
Total	161.74	190.90	203.89	208.08	207.49			
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50			
Interest on Working Capital	21.83	25.77	27.53	28.09	28.01			

(₹ in lakh)

Asset-2c								
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19			
O & M Expenses	32.67	33.74	34.85	36.02	37.22			
Maintenance Spares	58.80	60.74	62.73	64.83	66.99			
Receivables	4009.33	4092.27	4143.70	4060.59	3963.85			
Total	4100.80	4186.75	4241.28	4161.44	4068.06			
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50			
Interest on Working	204.76	565.21	572.57	561.79	549.19			
Capital								

(₹ in lakh)

Asset-2d								
Particulars	2014-15	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	65.90	76.13	83.38	90.91	96.94			
Total	105.30	116.84	125.44	134.36	141.83			
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50			
Interest on Working Capital	8.69	15.77	16.93	18.14	19.15			

(₹ in lakh)

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	Asset-2e							
Particulars	2014-15	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	62.87	73.06	80.27	87.33	93.05			
Total	102.27	113.77	122.33	130.78	137.94			
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50			
Interest on Working Capital	8.13	15.36	16.51	17.66	18.62			

Capital Cost

The Commission vide order dated 10.12.2018 and corrigendum dated
 30.1.2019 in Petition No. 126/TT/2018 admitted capital cost of ₹4478.04 lakh as on



- 31.3.2019 for Asset-1 and vide order dated 29.4.2016 in Petition No. 104/TT/2014 allowed the capital cost of ₹4684.24 lakh, ₹6739.08 lakh, ₹149590.00 lakh, ₹2539.61 lakh and ₹2416.98 lakh for Assets-2a, 2b, 2c, 2d and 2e respectively.
- 12. The details of the approved apportioned capital cost, as on COD and Additional Capital Expenditure (ACE) upto 31.3.2019 approved by the Commission vide order dated 10.12.2018 in Petition No. 126/TT/2018 (along with corrigendum dated 30.1.2019) and vide order dated 29.4.2016 in Petition No. 104/TT/2014 are as under:

A t -	RCE appor- tioned	Capital cost as on		Total completion				
Assets	approved capital cost	COD (admitted)	2014-15	2015-16	2016-17	2017-18	2018-19	cost as on 31.3.2019
Asset-1	4421.6	2320.71	927.4	107.42	223.49	899.02	0.00	4478.04
Asset-2a	4961.19	3187.43	503.89	467.98	524.94	0.00	0.00	4684.24
Asset-2b	7065.13	3777.07	1544.54	915	502.47	0.00	0.00	6739.08
Asset-2c	149753.31	139836.8	1566.18	8008.44	178.68	0.00	0.00	149590.10
Asset-2d	2752.44	960.05	588.47	650.62	340.47	0.00	0.00	2539.61
Asset-2e	2619.75	860.09	585.28	666.05	305.56	0.00	0.00	2416.98

13. The details of RCE apportioned approved capital cost, actual audited expenditure upto COD and ACE during the 2014-19 period claimed by the Petitioner in the instant true-up petition are as under:

	RCE appor- tioned	Capital		Additional Capital Expenditure				
Assets	approved capital cost	cost as on COD	2014-15	2015-16	2016-17	2017-18	2018-19	completion cost as on 31.3.2019
Asset-1	4421.6	2371.39	899.53	107.42	223.49	632.41	137.06	4371.30
Asset-2a	4961.19	3319.2	372.12	315.42	486.19	198.14	0.00	4691.07
Asset-2b	7065.13	3823.65	1497.96	597.95	486.49	31.56	137.06	6574.67
Asset-2c	149753.31	140122.3	1280.7	7041.19	1092.48	73.47	84.89	149695.03
Asset-2d	2752.44	982.72	570.31	102.60	423.87	141.62	310.09	2531.21
Asset-2e	2619.75	881.14	569.13	101.69	413.95	112.81	310.09	2388.81

14. The completion cost including ACE is within the RCE approved apportioned capital cost as mentioned above, in respect of the transmission assets. Therefore, there is no cost over-run in respect of the instant assets.

Time over-run

15. As against the scheduled date of commercial operation (SCOD) of 1.1.2014 in terms of IA dated 5.8.2011, the Asset-1 was put into commercial operation on 1.3.2014 and Assets-2a, 2b, 2c, 2d and 2e achieved COD on 3.11.2014, 1.4.2014, 17.11.2014, 21.8.2014 and 29.8.2014 respectively. Thus, there is time over-run of 2 months in case of Asset-1 and the same was not condoned by the Commission. The Commission vide order dated 29.4.2016 in Petition No. 104/TT/2014 condoned the entire time over-run in case of Assets-2a, 2b, 2c, 2d and 2e which were 10 months, 3 months, 10.5 months, 8 months and 8 months respectively.

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

- 16. The Petitioner has claimed Interest During Construction (IDC) for the instant assets and has submitted the Auditor's Certificates in support of the same. The Petitioner has submitted computation of IDC along with the year-wise details of the IDC discharged.
- 17. The allowable IDC has been worked out considering the information submitted by the Petitioner for the individual assets separately on cash basis. The loan details submitted in Form-9C for the 2014-19 tariff period and the IDC computation sheet have been considered for the purpose of IDC calculation on cash and accrued basis. The un-discharged IDC as on COD has been considered as ACE during the year in which it has been discharged.

18. Accordingly, based on the information furnished by the Petitioner, IDC considered is summarized hereunder:-

(₹ in lakh)

Assets	IDC as per Auditor's Certificate	IDC disallowed/ computational difference	IDC admissible	IDC dis-charged as on COD/ 31.3.2014	IDC undischarged as on COD/31.3.2014
Α	В	С	D=B-C	E	F=D-E
Asset-1	172.74	21.71	151.03	123.16	27.87
Asset-2a	500.72	16.44	484.28	352.51	131.77
Asset-2b	411.02	0.00	411.02	364.44	46.58
Asset-2c	10546.99	0.00	10546.99	10261.51	285.48
Asset-2d	86.01	0.00	86.01	63.36	22.65
Asset-2e	77.17	0.00	77.17	56.12	21.05

19. The Petitioner has claimed an IEDC of ₹16.55 lakh, ₹39.17 lakh, ₹52.53 lakh, ₹728.26 lakh, ₹7.33 lakh and ₹6.55 lakh for Assets-1, 2a, 2b, 2c, 2d and 2e respectively and has submitted Auditor's certificate in support of the same. The Petitioner has also submitted that the entire IEDC has been discharged as on COD in respect of the instant transmission assets. In case of Asset-1, IEDC admitted vide order dated 10.12.2018 in Petition No. 126/TT/2018 (read with corrigendum dated 30.1.2019) was ₹15.45 lakh and in case of Assets-2a, 2b, 2c, 2d and 2e, IEDC admitted vide order dated 29.4.2016 in Petition No. 104/TT/2014 was ₹39.17 lakh, ₹52.53 lakh, ₹728.26 lakh, ₹7.33 lakh and ₹6.55 lakh respectively. The same has been considered in the instant petition.

Initial Spares

20. The Petitioner has claimed Initial Spares for Assets-1, 2a, 2b and 2c. The Petitioner has not claimed any initial spares for Asset-2d and Asset-2e. Regulation 13(d) of the 2014 Tariff Regulations provides that Initial Spares shall be capitalized as a percentage of the Plant and Machinery cost up to cut-off date, subject to ceiling norms. The Initial Spares claimed by the Petitioner are as under:

Asset	Plant & Machinery Cost upto cut-off date (excluding IDC and IEDC) (A) (₹ in lakh)	Initial Spares Claimed (B) (₹ in lakh)	Ceiling Limit (C) (in %)
Asset-1	3610.83	103.24	2.5
Asset-2a	3524.79	194.23	6
Asset-2b	5466.75	324.58	6
Asset-2c	1232.83	68.61	6
Asset-2c	133522.48	1039.74	1
Asset-2d	2129.96	0.00	6
Asset-2e	2000.42	0.00	6

21. We have considered the submissions of the Petitioner. Asset-1 was put into commercial operation in the 2009-14 tariff period and Assets- 2a, 2b and 2c were put into commercial operation in the 2014-19 period. Therefore, the 2009 Tariff Regulations are applicable for Asset-1 and 2014 Tariff Regulations are applicable for Assets-2a, 2b and 2c. The cut-off date for all assets is 31.3.2017 and the capital cost upto the said cut-off date is considered for the computation of Initial Spares. The Petitioner's claim of Initial Spares is within norms specified in the 2014 Tariff Regulations for Assets-2a, 2b and 2c, whereas, there is an excess claim with respect to Asset-1 as per the 2009 Tariff Regulations. Accordingly, the Initial Spares allowed are as under:-

Asset	Capital Cost considered as on cut-off date (₹ in lakh) (A)	Initial Spares claimed (₹ in lakh) (B)	Norms as per 2009/2014 Tariff Regulations (in %) (C)	Initial Spares allowable as per norms (₹ in lakh) D=(A-B)*C/(100- C)	Initial Spares allowed (₹ in lakh) (E)
Sub-station	(Brownfield) –	2009 Tariff Re	egulations		
Asset-1	3610.83	103.24	2.5	89.94	89.94
Sub-station	(Brownfield) –	2014 Tariff Re	gulations		
Asset-2a	3524.79	194.23	6	212.59	194.23
Asset-2b	5466.75	324.58	6	328.22	324.58
Asset-2c	1232.83	68.61	6	74.31	68.61
Asset-2d	2129.96	0.00	6	135.95	0.00
Asset-2e	2000.42	0.00	6	127.69	0.00

Transmissio	Transmission Line – 2014 Tariff Regulations						
Asset-2c	133522.48	1039.74	1	1338.21	1039.74		

22. Accordingly, excess Initial Spares of ₹13.30 lakh in case of Asset-1 has been deducted from the opening capital cost as on 1.4.2014. Initial Spares claimed by the Petitioner in case of all other are found to be within the limits as provided in the 2014 Tariff Regulations and accordingly it is allowed.

Capital cost as on COD/1.4.2014

23. The capital cost of the transmission assets has been calculated in accordance with Regulations 9(3) and 9(6) of the 2014 Tariff Regulations. Accordingly, the capital cost allowed as on COD is summarized as under:-

(₹ in lakh)

	Capital cost as on		s on COD due to		Excess	Capital cost	
Asset	COD/1.4.20 14 (as per Auditor Certificate)	IDC Disallowed	Un- discharged	IEDC Disallowed	Initial Spares	considered as on COD	
	1	2	3	4	5	6=1-2-3-4-5	
Asset-1	2371.39	21.71	27.87	1.10	13.30	2307.40	
Asset-2a	3319.20	16.44	131.77	0.00	0.00	3170.99	
Asset-2b	3823.65	0.00	46.58	0.00	0.00	3777.07	
Asset-2c	140122.31	0.00	285.48	0.00	0.00	139836.83	
Asset-2d	982.72	0.00	22.65	0.00	0.00	960.07	
Asset-2e	881.14	0.00	21.05	0.00	0.00	860.09	

Additional Capital Expenditure (ACE)

24. The Petitioner has claimed the following ACE based on actual expenditure for the instant transmission assets and submitted the Auditor's Certificates in support of the same:

Assets	Appor- tioned	Admitted capital		Additional Capital Expenditure					
	capital	approved cost as on capital COD	2014-15	2015-16	2016-17	2017-18	2018-19	cost as on	



	cost							31.3.2019
Asset-1	4421.6	2320.71	899.53	107.42	223.49	632.41	137.06	4371.30
Asset-2a	4961.19	3187.43	372.12	315.42	486.19	198.14	0.00	4691.07
Asset-2b	7065.13	3777.07	1497.96	597.95	486.49	31.56	137.06	6574.67
Asset-2c	149753.31	139836.8	1280.7	7041.19	1092.48	73.47	84.89	149695.03
Asset-2d	2752.44	960.05	570.31	102.6	423.87	141.62	310.09	2531.21
Asset-2e	2619.75	860.09	569.13	101.69	413.95	112.81	310.09	2388.81
Total	171573.42	150942.2	5189.75	8266.27	3126.47	1190.01	979.19	170252.10

25. The Petitioner has claimed ACE for the year 2014-15 to 2016-17 on account of balance and retention payment and unexecuted work under Regulations 14(1)(i) and 14(1)(ii) of the 2014 Tariff Regulations. Further, ACE during 2017-18 and 2018-19 has been claimed under Regulation 14(2)(iv) of the 2014 Tariff Regulations. The Petitioner has submitted Auditor's Certificate dated 2.8.2019 for the claimed ACE.

26. Accordingly, ACE allowed for the instant transmission assets is as under:

(₹ in lakh)

Assets	Ad	dditional Cap	ital Expenditu	re on cash basi	s
ASSELS	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-1	927.40	107.42	223.49	632.41	137.06
Asset-2a	503.89	315.42	486.19	198.14	0.00
Asset-2b	1544.53	597.95	486.49	31.56	137.06
Asset-2c	1566.17	7041.19	1092.48	73.47	84.89
Asset-2d	588.47	107.09	423.87	141.62	310.09
Asset-2e	585.28	106.59	413.95	112.81	310.09

27. Accordingly, the capital cost as on COD/1.4.2014, ACE for the 2014-19 period and capital cost as on 31.3.2019 considered for truing-up of the tariff for the 2014-19 period is as under:-

	Admitted capital	Addit	ional Capita	Expendit	ure (admit	ted)	Total capital
Assets	cost as on COD/ 1.4.2014	2014-15	2015-16	2016-17	2017-18	2018-19	cost as on 31.3.2019
Asset-1	2307.40	927.40	107.42	223.49	632.41	137.06	4335.18
Asset-2a	3170.99	503.89	315.42	486.19	198.14	0.00	4674.63
Asset-2b	3777.07	1544.53	597.95	486.49	31.56	137.06	6574.66
Asset-2c	139836.83	1566.17	7041.19	1092.48	73.47	84.89	149695.03
Asset-2d	960.07	588.47	107.09	423.87	141.62	310.09	2531.21
Asset-2e	860.09	585.28	106.59	413.95	112.81	310.09	2388.81

Total	150912.45	5715.74	8275 66	3126 47	1190.01	979 19	170199.52
i i Utai	130312.43	3/ 13./ 4	0213.00	3120.71	1130.01	313.13	170133.32

28. Accordingly, the capital cost claimed by the Petitioner in the instant petition, allowed earlier vide order dated 10.12.2018 (read with corrigendum dated 30.1.2019) and vide order dated 29.4.2016 in Petition. No. 104/TT/2014 and trued-up in the instant order is shown as under:

(₹ in lakh)

	Capital cost as on COD/1.4.20 14 on cash		Total capital cost as				
	basis (admitted)	2014-15	2015-16	2016-17	2017-18	2018-19	on 31.3.2019
Allowed earlier vide order dated 10.12. 2018 and corrigendum dated 30.1.2019 in Petition. No. 126/TT/2018 and vide order dated 29.4.2016 in Petition. No. 104/TT/2014	150942.20	5715.76	10815.51	2075.61	899.02	0.00	170448.10
Claimed in the instant petition	150942.20	5189.75	8266.27	3126.47	1190.01	979.19	170252.10
Allowed after true-up in this order	150912.45	5715.74	8275.66	3126.47	1190.01	979.19	170199.52

29. Based on the above capital cost, the tariff from 1.4.2014 to 31.3.2019 in case of Asset-1 and from 3.11.2014 (COD) to 31.3.2019 in Asset-2a (period of 149 days in 2014-15), from 1.4.2014 to 31.3.2019 in Asset-2b (period of 365 days in 2014-15), from 17.11.2014 to 31.3.2019 in Asset-2c (period of 135 days in 2014-15), from 21.8.2014 to 31.3.2019 in Asset-2d (period of 223 days in 2015-16) and from 29.8.2014 to 31.3.2019 in Asset-2e (period of 215 days in 2015-16) is determined in subsequent paragraphs.

Debt-Equity Ratio

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

	As on 31.3.	.2014	As on 31.3.2	2019
Asset-1	Amount (₹ in lakh)	%	Amount (₹ in lakh)	%
Debt	1615.18	70.00	3034.64	70.00
Equity	692.22	30.00	1300.54	30.00
Total	2307.40	100.00	4335.18	100.00
	Α		As on 31.3.2	2019
Asset-2a	Amount (₹ in lakh)	(%)	Amount (₹ in lakh)	(%)
Debt	2219.69	70.00	3272.24	70.00
Equity	951.30	30.00	1402.39	30.00
Total	3170.99	100.00	4674.63	100.00
	As on 31.3.		As on 31.3.2	
Asset-2b	Amount (₹ in lakh)	(%)	Amount (₹ in lakh)	(%)
Debt	2643.95	70.00	4602.28	70.00
Equity	1133.12	30.00	1972.38	30.00
Total	3777.07	100.00	6574.66	100.00
	As on 31.3.	2014	As on 31.3.2	
Asset-2c	Amount (₹ in lakh)	(%)	Amount (₹ in lakh)	(%)
Debt	97885.78	70.00	104786.52	70.00
Equity	41951.05	30.00	44908.51	30.00
Total	139836.83	100.00	149695.03	100.00
	As on 31.3.		As on 31.3.2	
Asset-2d	Amount (₹ in lakh)	(%)	Amount (₹ in lakh)	(%)
Debt	672.05	70.00	1771.85	70.00
Equity	288.02	30.00	759.36	30.00
Total	960.07	100.00	2531.21	100.00
	As on 31.3.	2014	As on 31.3.2	2019
Asset-2e	Amount (₹ in lakh)	(%) age	Amount (₹ in lakh)	(%)
Debt	602.06	70.00	1672.18	70.00
Equity	258.03	30.00	716.63	30.00
Total	860.09	100.00	2388.81	100.00

Interest on Loan (IoL)

31. The Petitioner has claimed IoL based on actual interest rates for each year during the 2014-19 period. The Petitioner has prayed for change in interest rates prevailing as on 1.4.2019 for respective loans. We have considered the submissions

of the Petitioner and calculated IoL based on actual interest rate, in accordance with Regulation 26 of the 2014 Tariff Regulations as following:

- (i) Gross amount of loan, repayment of instalments and weighted average rate of interest on actual average loan have been considered as per the petition.
- (ii) The repayment for the tariff period 2014-19 has been considered to be equal to the depreciation allowed for that period.
- 32. IoL is allowed in accordance with Regulation 26 of the 2014 Tariff Regulations as under:

(₹ in lakh)

	Α	sset-1						
Particular	2014-15	2015-16	2016-17	2017-18	2018-19			
Gross Normative Loan	1615.18	2264.36	2339.55	2496.00	2938.70			
Cumulative Repayments upto								
Previous Year	9.09	150.86	318.11	492.65	689.03			
Net Loan-Opening	1606.09	2113.50	2021.45	2003.35	2249.66			
Addition due to Additional								
Capitalization	649.18	75.19	156.44	442.70	95.94			
Repayment during the year	141.77	167.25	174.54	196.38	216.69			
Net Loan-Closing	2113.50	2021.45	2003.35	2249.66	2128.91			
Average Loan	1859.80	2067.47	2012.40	2126.51	2189.29			
Weighted Average Rate of	8.40	8.42	0.45	0 27	8.27			
Interest on Loan (%)	8.40	8.42	8.45	8.37	8.27			
Interest on Loan	156.21	174.08	169.95	177.91	181.16			

(₹ in lakh)

	Ass	et-2a			,
Particular	2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	2219.69	2572.42	2793.21	3133.54	3272.24
Cumulative Repayments upto Previous Year	0.00	71.57	266.91	481.96	714.17
Net Loan-Opening	2219.69	2500.84	2526.30	2651.59	2558.08
Addition due to Additional Capitalization	352.72	220.79	340.33	138.70	0.00
Repayment during the year	71.57	195.34	215.04	232.21	237.31
Net Loan-Closing	2500.84	2526.30	2651.59	2558.08	2320.77
Average Loan	2360.27	2513.57	2588.94	2604.83	2439.42
Weighted Average Rate of Interest on Loan (%)	7.98	8.09	8.18	8.13	8.09
Interest on Loan	76.94	203.40	211.66	211.88	197.44

Asset-2b						
	Particular	2014-15	2015-16	2016-17	2017-18	2018-19



Gross Normative Loan	2643.95	3725.13	4143.70	4484.25	4506.34
Cumulative Repayments	0.00	235.26	524.17	838.40	1164.53
uptoPrevious Year					
Net Loan-Opening	2643.95	3489.87	3619.53	3645.85	3341.81
Addition due to Additional	1081.18	418.57	340.54	22.09	95.94
Capitalization					
Repayment during the year	235.26	288.91	314.23	326.13	330.59
Net Loan-Closing	3489.87	3619.53	3645.85	3341.81	3107.16
Average Loan	3066.91	3554.70	3632.69	3493.83	3224.48
Weighted Average Rate of	7.62	7.82	7.95	7.97	7.97
Interest on Loan (%)					
Interest on Loan	233.83	277.83	288.85	278.58	257.06

Asset-2c								
Particular	2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19			
Gross Normative Loan	97885.81	98982.13	103910.96	104675.70	104727.13			
Cumulative Repayments upto Previous Year	0.00	2746.86	10400.64	18267.87	26164.56			
Net Loan-Opening	97885.81	96235.27	93510.33	86407.83	78562.57			
Addition due to Additional Capitalization	1096.32	4928.83	764.74	51.43	59.42			
Repayment during the year	2746.86	7653.78	7867.23	7896.69	7900.50			
Net Loan-Closing	96235.27	93510.33	86407.83	78562.57	70721.49			
Average Loan	97060.54	94872.80	89959.08	82485.20	74642.03			
Weighted Average Rate of Interest on Loan (%)	7.35	7.46	7.68	7.69	7.67			
Interest on Loan	2639.14	7079.49	6910.37	6343.60	5728.62			

(₹ in lakh)

Asset-2d							
Particular	2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19		
Gross Normative Loan	672.05	1083.98	1158.95	1455.67	1554.80		
Cumulative Repayments upto Previous Year	0.00	37.95	117.75	210.89	318.40		
Net Loan-Opening	672.05	1046.03	1041.20	1244.78	1236.41		
Addition due to Additional Capitalization	411.93	74.97	296.72	99.13	217.06		
Repayment during the year	37.95	79.80	93.14	107.51	119.40		
Net Loan-Closing	1046.03	1041.20	1244.78	1236.41	1334.07		
Average Loan	859.04	1043.62	1142.99	1240.59	1285.24		
Weighted Average Rate of Interest on Loan (%)	8.54	8.46	8.35	8.21	8.15		
Interest on Loan	44.80	88.28	95.41	101.81	104.80		

Asset-2e								
Particular	2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19			
Gross Normative Loan	602.06	1011.76	1086.38	1376.15	1455.12			
Cumulative Repayments upto	0.00	33.45	107.56	194.73	295.52			



Previous Year					
Net Loan-Opening	602.06	978.31	978.81	1181.42	1159.59
Addition due to Additional	409.70	74.61	289.77	78.97	217.06
Capitalization					
Repayment during the year	33.45	74.11	87.17	100.79	111.92
Net Loan-Closing	978.31	978.81	1181.42	1159.59	1264.74
Average Loan	790.19	978.56	1080.12	1170.51	1212.17
Weighted Average Rate of	8.48	8.41	8.31	8.15	8.10
Interest on Loan (%)					
Interest on Loan	39.47	82.29	89.72	95.35	98.21

33. Accordingly, IoL approved vide order dated 10.12.2018 (read with corrigendum dated 30.1.2019) in Petition No. 126/TT/2018 in respect of Asset-1 and vide order dated 29.4.2016 in Petition No. 104/TT/2014 for Assets-2a, 2b, 2c, 2d and 2e; that claimed by the Petitioner in the instant petition; and allowed and trued-up in this order are as follows:

(₹ in lakh)

Asset-1					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed earlier vide order dated 10.12.2018 and corrigendum dated 30.1.2019 in Petition No. 126/TT/2018	156.31	173.57	169.36	186.95	195.50
Claimed by the Petitioner in the instant petition	156.90	174.60	170.31	178.10	181.17
Allowed after true-up in this order	156.21	174.08	169.95	177.91	181.16

(₹ in lakh)

Asset-2a						
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19	
Allowed earlier vide order dated 29.4.2016 in P No. 104/TT/2014	77.10	207.36	220.84	217.81	197.22	
Claimed by the Petitioner in the instant petition	77.30	204.24	212.40	212.51	197.96	
Allowed after true-up in this order	76.94	203.40	211.66	211.88	197.44	

Asset-2b						
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19	
Allowed earlier vide order dated 29.4.2016 in P No. 104/TT/2014	232.64	282.68	300.67	289.36	260.95	
As claimed by the Petitioner	233.82	277.78	288.77	278.46	256.90	
Allowed after true-up in this order	233.83	277.83	288.85	278.58	257.06	

Asset-2c						
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19	
Allowed earlier vide order dated 29.4.2016 in P No. 104/TT/2014	2638.86	7099.25	6905.04	6268.39	5718.09	
Claimed by the Petitioner in the instant petition	2639.11	7079.35	6910.05	6343.09	5727.94	
Allowed after true-up in the instant petition	2639.14	7079.49	6910.37	6343.60	5728.62	

(₹ in lakh)

Asset-2d					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed earlier vide order dated 29.4.2016 in P No. 104/TT/2014	44.80	103.97	124.28	123.85	112.93
As claimed by the Petitioner in the instant petition	44.79	88.22	95.29	101.63	104.56
Allowed after true-up in the instant order	44.80	88.28	95.41	101.81	104.80

(₹ in lakh)

Asset-2e						
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19	
Allowed earlier vide order dated 29.4.2016 in P No. 104/TT/2014	39.47	98.30	118.33	117.35	107.11	
Claimed by the Petitioner in the instant petition	С	82.22	89.60	95.17	97.97	
Allowed after true-up in this order	39.47	82.29	89.72	95.35	98.21	

Return on Equity (RoE)

34. The Petitioner is entitled to RoE for the instant transmission assets in terms of Regulations 24 and 25 of the 2014 Tariff Regulations. The Petitioner has also claimed additional RoE of 0.50% in respect of Assets-2a, 2b, 2c, 2d and 2e. The Petitioner has submitted that it is liable to pay income tax at MAT rates and has claimed 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	19.625
2015-16	21.382	19.624
2016-17	21.338	19.715
2017-18	21.337	19.704
2018-19	21.549	19.704

- 35. MPPMCL has submitted that the Petitioner has grossed up RoE on the basis of actual taxes paid during 2016-17 and 2017-18 but for 2018-19, it has been grossed up on the basis of applicable rate of MAT, surcharge and cess. The Petitioner has not placed on record the assessment order for the period 2016-17 and 2017-18. The Petitioner has not claimed grossed up RoE on the basis of actual taxes paid for the year 2018-19. Even at the end of the 2019-20, the Petitioner has not finalized its income tax assessment order for 2016-17, 2017-18 and 2018-19. MPPMCL has also submitted that the Petitioner has not submitted a copy of the assessment order for 2014-15 and 2015-16, and the audited accounts of the actual taxes paid for 2016-17 and 2017-18 and in absence of these basic documents it is impossible to scrutinize the claim of the Petitioner.
- 36. In response, the Petitioner vide affidavit dated 13.7.2020 has submitted that the Income Tax assessment has been completed and Assessment Orders have been issued by the Income Tax Department in case of 2014-15, 2015-16 and 2016-17. It has further submitted that the Income Tax returns have been filed with the Income Tax Department for the years 2017-18 and 2018-19. It also submitted that necessary assessment orders have been furnished to the Commission along with reply to Technical Validation in Petition No. 20/TT/2020.
- 37. We have considered the submissions of the Petitioner and MPPMCL and perused the record. The Petitioner has been assessed and paid tax under the MAT. The Petitioner has also filed the Assessment Orders have been issued by the Income Tax Department in case of 2014-15, 2015-16 and 2016-17. The Petitioner has

complied with the provisions of the Income Tax, Act, 1961 and the provisions of the tariff regulations.

38. The Commission in order dated 27.4.2020 in Petition No. 274/TT/2019 has arrived at the effective tax rate based on the notified MAT rates for the Petitioner. 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 overrecovery of grossed up rate on return on equity after truing up, shall be recovered or refunded to beneficiaries or the long term transmission customers/ DICs as the case may be on year to year basis.

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

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

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

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

	cess) (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

Additional ROE

- 40. The Petitioner has claimed additional RoE of 0.5% for Assets- 2a, 2b, 2c, 2d and 2e as the same was allowed by the Commission vide order dated 29.4.2016 in Petition No. 104/TT/2014. Additional RoE has been allowed since the assets were completed within the timeline specified in Appendix-I of the 2014 Tariff Regulations as provided under the first proviso to Regulation 24(2) of the 2014 Tariff Regulations and the same has been considered in the instant order.
- 41. The following effective tax rates based on notified MAT rates are considered for the purpose of grossing up of rate of RoE:

Year	MAT Rate	Grossed up RoE [Base Rate/(1-t)] (%)									
	(%)	Asset-1	Assets-2a, 2b, 2c, 2d and 2e								
2014-15	20.9605	19.610	20.243								
2015-16	21.3416	19.705	20.341								
2016-17	21.3416	19.705	20.341								
2017-18	21.3416	19.705	20.341								
2018-19	21.5488	19.758	20.395								

42. Accordingly, RoE allowed for the instant transmission assets is as under:-

(₹ in lakh)

Asset-1							
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19		
Opening Equity	692.22	970.44	1002.67	1069.71	1259.42		
Addition due to ACE	278.22	32.23	67.05	189.71	41.12		
Closing Equity	970.44	1002.67	1069.71	1259.42	1300.54		
Average Equity	831.33	986.55	1036.19	1164.57	1279.98		
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500		
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)	163.02	194.40	204.18	229.48	252.90		



Asset-2a						
Particulars	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19	
Opening Equity	951.30	1102.46	1197.09	1342.95	1402.39	
Addition due to ACE	151.17	94.63	145.86	59.44	0.00	
Closing Equity	1102.46	1197.09	1342.95	1402.39	1402.39	
Average Equity	1026.88	1149.78	1270.02	1372.67	1402.39	
Return on Equity (Base Rate) (%)	16.000	16.000	16.000	16.000	16.000	
Tax Rate applicable (%)	20.961	21.342	21.342	21.342	21.549	
Rate of Return on Equity (Pre-tax)	20.243	20.341	20.341	20.341	20.395	
Return on Equity (Pre-tax)	84.86	233.88	258.33	279.21	286.02	

Asset-2b							
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19		
Opening Equity	1133.12	1596.47	1775.85	1921.79	1931.26		
Addition due to ACE	463.35	179.38	145.95	9.47	41.12		
Closing Equity	1596.47	1775.85	1921.79	1931.26	1972.38		
Average Equity	1364.79	1686.16	1848.82	1926.53	1951.82		
Return on Equity (Base Rate) (%)	16.000	16.000	16.000	16.000	16.000		
Tax Rate applicable (%)	20.961	21.342	21.342	21.342	21.549		
Rate of Return on Equity (Pre-tax)	20.243	20.341	20.341	20.341	20.395		
Return on Equity (Pre-tax)	276.27	342.98	376.07	391.88	398.07		

(₹ in lakh)

Asset-2c							
Particulars	2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19		
Opening Equity	41951.02	42420.87	44533.23	44860.97	44883.01		
Addition due to ACE	469.85	2112.36	327.74	22.04	25.47		
Closing Equity	42420.87	44533.23	44860.97	44883.01	44908.48		
Average Equity	42185.95	43477.05	44697.10	44871.99	44895.74		
Return on Equity (Base Rate) (%)	16.000	16.000	16.000	16.000	16.000		
Tax Rate applicable (%)	20.961	21.342	21.342	21.342	21.549		
Rate of Return on Equity (Pre-tax)	20.243	20.341	20.341	20.341	20.395		
Return on Equity (Pre-tax)	3158.52	8843.67	9091.84	9127.41	9156.49		

(₹ in lakh)

Asset-2d						
Particulars	2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19	
Opening Equity	288.02	464.56	496.68	623.83	666.32	
Addition due to ACE	176.54	32.12	127.15	42.49	93.03	
Closing Equity	464.56	496.68	623.83	666.32	759.34	
Average Equity	376.29	480.62	560.26	645.07	712.83	
Return on Equity (Base Rate) (%)	16.000	16.000	16.000	16.000	16.000	
Tax Rate applicable (%)	20.961	21.342	21.342	21.342	21.549	
Rate of Return on Equity (Pre-tax)	20.243	20.341	20.341	20.341	20.395	
Return on Equity (Pre-tax)	46.54	97.76	113.96	131.21	145.38	

(₹ in lakh)

Asset-2e



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	258.03	433.61	465.58	589.76	623.60
Addition due to ACE	175.58	31.98	124.18	33.84	93.03
Closing Equity	433.61	465.58	589.76	623.60	716.63
Average Equity	345.82	449.60	527.67	606.68	670.12
Return on Equity (Base Rate) (%)	16.000	16.000	16.000	16.000	16.000
Tax Rate applicable (%)	20.961	21.342	21.342	21.342	21.549
Rate of Return on Equity (Pre-tax)	20.243	20.341	20.341	20.341	20.395
Return on Equity (Pre-tax)	41.24	91.45	107.33	123.41	136.67

43. Accordingly, RoE allowed vide order dated 10.12.2018 (read with corrigendum dated 30.1.2019) in Petition No. 126/TT/2018 in respect of Asset-1 and order dated 29.4.2016 in Petition No. 104/TT/2014 in respect of Assets-2a, 2b, 2c, 2d and 2e; claimed by the Petitioner in the instant petition; and allowed and trued-up in instant order is as follows:

(₹ in lakh)

Asset-1						
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19	
Allowed earlier vide order dated 10.12.2018 and corrigendum dated 30.1.2019 in No. 126/TT/2018	163.81	194.25	203.98	237.00	263.44	
Claimed by the Petitioner in the instant petition	163.93	195.29	204.97	230.27	253.69	
Allowed after true-up in this order	163.02	194.40	204.18	229.48	252.90	

(₹ in lakh)

Asset-2a						
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19	
Allowed earlier vide order dated 29.4.2016 in P. No. 104/TT/2014	85.26	239.54	269.83	285.85	285.85	
As claimed by the Petitioner in the instant petition	85.33	235.00	259.34	280.22	287.02	
Allowed after true-up in this order	84.86	233.88	258.33	279.21	286.02	

(₹ in lakh)

Asset-2b							
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19		
Allowed earlier vide order dated 29.4.2016 in P. No. 104/TT/2014	276.28	352.66	395.91	411.24	411.24		
As claimed by the Petitioner in the instant petition	276.48	343.15	376.07	391.88	398.08		
Allowed after true-up in this order	276.27	342.98	376.07	391.88	398.07		

Asset-2c							
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19		



Allowed earlier vide order dated 29.4.2016 in P. No. 104/TT/2014	3158.53	8873.24	9123.04	9128.49	9128.49
Claimed by the Petitioner in the instant petition	3160.86	8848.02	9091.84	9127.41	9156.49
Allowed after true-up in this order	3158.52	8843.67	9091.84	9127.41	9156.49

Asset-2d										
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19					
Allowed earlier vide order dated 29.4.2016 in P. No. 104/TT/2014	46.54	114.35	144.59	154.98	154.98					
Claimed by the Petitioner in the instant petition	46.57	97.81	113.96	131.21	145.38					
Allowed after true-up in this order	46.54	97.76	113.96	131.21	145.38					

(₹ in lakh)

Asset-2e									
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19				
Allowed earlier vide order dated 29.4.2016 in P. No. 104/TT/2014	41.24	108.52	138.17	147.49	147.49				
Claimed by the Petitioner in the instant petition	41.27	91.50	107.34	123.41	136.67				
Allowed after true-up in this order	41.24	91.45	107.33	123.41	136.67				

Depreciation

44. The Petitioner's claim towards depreciation for the instant transmission assets was found higher than the depreciation allowed earlier in order dated 10.12.2018 (read with corrigendum dated 30.01.2019) in Petition No. 126/TT/2018 for Asset-1 and vide order dated 29.4.2016 in Petition No. 104/TT/2014 for Assets-2a, 2b, 2c, 2d and 2e. The Petitioner has neither given any justification for claiming higher depreciation as allowed earlier nor made any specific prayer for allowing higher depreciation in this petition. It has been further observed that in Petition No. 126/TT/2018 and in Petition No. 104/TT/2014, the Petitioner had claimed the capital cost of IT equipment as part of the sub-station cost and therefore depreciation for IT equipment was allowed @5.28%. The Petitioner now at the time of truing-up of tariff of the 2014-19 period has segregated the cost of the IT equipment from the cost of

Sub-station and has considered the rate of depreciation of IT Equipment @15% and salvage value for "IT Equipment" as NIL as per the 2014 Tariff Regulations.

45. We have considered the submissions of the Petitioner. Asset-1 was put into commercial operation during the 2009-14 period and the tariff from the 1.4.2014 to 31.3.2019 was allowed vide order dated 10.12.2018 (read with corrigendum dated 30.1.2019) in Petition No. 126/TT/2018. Whereas, Assets-2a, 2b, 2c, 2d and 2e were put into commercial operation during the 2014-19 period and the tariff from the respective COD to 31.3.2019 was allowed vide order dated 29.4.2016 in Petition No. 104/TT/2014. It is pertinent to point out that the Petitioner did not claim any capital expenditure towards "IT Equipment" in the Petition No.104/TT/2014, even though there was a clear provision in the 2014 Tariff Regulations providing depreciation @15% for IT Equipment. Having failed to make a claim as per the 2014 Tariff Regulations, the Petitioner has now, at the time of truing-up, apportioned a part of the capital expenditure as "IT Equipment". In a similar case, the Commission vide order dated 9.5.2020 in Petition No. 19/TT/2020 has 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 30.8.2012and 9.5.2013in Petition No.343/2010 and Petition No. 147/TT/2011 respectively. Further, the tariff of the 2009-14 period was trued up and tariff for the 2014-19 period was allowed vide order dated 25.2.2016 in Petition No.10/TT/2015. The Petitioner did not claim any capital expenditure towards "IT Equipment" in the above said three petitions where tariff for the instant assets for the 2009-14 period was allowed, tariff of the 2009-14 period was trued up and tariff for 2014-19 period was allowed even though there was a clear provision in the 2009 Tariff Regulations and 2014 Tariff Regulations providing depreciation @15% for IT Equipment. Having failed to make a claim as per the 2009 Tariff Regulations(the period during which COD of assets was achieved), the Petitioner has now, at the time of truing up of the tariff allowed for the 2014-19 period has apportioned a part of the capital expenditure to "IT Equipment". The Petitioner has adopted similar methodology not only in this but in some of the other petitions listed along with the instant petition on 26.2.2020. It is observed that the Petitioner has for the first time apportioned a part of the capital expenditure towards IT Equipment and has claimed depreciation under the head "IT Equipment" @15% at the time of truing up of the tariff of 2014-19 period. Regulation 8(1) of the 2014 Tariff Regulations provides for truing up of the capital expenditure including the additional capital expenditure, incurred upto 31.3.2019, admitted by the Commission after prudence check. We are of the view that scope of truing up exercise is restricted to truing up of the capital expenditure already admitted and apportionment or reapportionment of the capital expenditure cannot be allowed at the time of truing up. Therefore, we are not inclined to consider the Petitioner's prayer for apportionment of capital expenditure towards IT Equipment and allowing depreciation @ 15% from 1.4.2014 onwards. Accordingly, the depreciation @ 5.28% has been considered for IT Equipment as part of the sub-station upto 31.3.2019while 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."

- 46. In line with the above order dated 9.5.2020, depreciation has been considered @5.28% for IT Equipment as part of the sub-station upto 31.3.2019 while truing-up the capital expenditure for the 2014-19 period. During the 2019-24 tariff period, the IT Equipment has been considered separately and depreciation has been allowed @15% for the balance depreciable value of IT Equipment in accordance with Regulation 33 read with Sr. No. (p) of the Appendix-I (Depreciation Schedule) of the 2019 Tariff Regulations.
- 47. The Gross Block during the tariff period 2014-19 with regard to the transmission asset has been depreciated at Weighted Average Rate of Depreciation (WAROD) and working of WAROD is given in Annexure-1. The depreciation for the 2014-19 period is trued-up for the instant transmission assets as per the methodology provided under Regulation 27 of the 2014 Tariff Regulations and the same is as under:

Asset-1								
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19			
Opening Gross Block	2307.40	3234.80	3342.22	3565.71	4198.12			
Additional Capitalisation	927.40	107.42	223.49	632.41	137.06			
Closing Gross Block	3234.80	3342.22	3565.71	4198.12	4335.18			
Average Gross Block	2771.10	3288.51	3453.96	3881.91	4266.65			
Weighted Average Rate of Depreciation (WAROD) (%)	5.12%	5.09%	5.05%	5.06%	5.08%			
Balance useful life of the asset								
at the beginning of the year	25	24	23	22	21			

Aggregated Depreciable Value	2493.99	2959.66	3108.57	3493.72	3839.98
Combined Depreciation					
during the year	141.77	167.25	174.54	196.38	216.69
Cumulative Depreciation at the					
end of the year	150.86	318.11	492.65	689.03	905.73
Remaining Aggregate					
Depreciable Value at the end					
of the year	2343.13	2641.55	2615.92	2804.69	2934.26

Asset-2a								
Particulars	2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19			
Opening Gross Block	3170.99	3674.88	3990.30	4476.49	4674.63			
Additional Capitalisation	503.89	315.42	486.19	198.14	0.00			
Closing Gross Block	3674.88	3990.30	4476.49	4674.63	4674.63			
Average Gross Block	3422.94	3832.59	4233.40	4575.56	4674.63			
Weighted Average Rate of Depreciation (WAROD) (%)	5.12	5.10	5.08	5.08	5.08			
Balance useful life of the asset at the beginning of the year	25	25	24	23	22			
Aggregated Depreciable Value	3080.64	3449.33	3810.06	4118.00	4207.17			
Combined Depreciation during the year	71.57	195.34	215.04	232.21	237.31			
Cumulative Depreciation at the end of the year	71.57	266.91	481.96	714.17	951.48			
Remaining Aggregate Depreciable Value at the end of the year	3009.07	3182.42	3328.10	3403.84	3255.69			

(₹ in lakh)

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Asset-2b								
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19			
Opening Gross Block	3777.07	5321.60	5919.55	6406.04	6437.60			
Additional Capitalisation	1544.53	597.95	486.49	31.56	137.06			
Closing Gross Block	5321.60	5919.55	6406.04	6437.60	6574.66			
Average Gross Block	4549.34	5620.58	6162.80	6421.82	6506.13			
Weighted Average Rate of Depreciation (WAROD) (%)	5.17	5.14	5.10	5.08	5.08			
Balance useful life of the asset at the beginning of the year	25	24	23	22	21			
Aggregated Depreciable Value	4094.40	5058.52	5546.52	5779.64	5855.52			
Combined Depreciation during the year	235.26	288.91	314.23	326.13	330.59			
Cumulative Depreciation at the end of the year	235.26	524.17	838.40	1164.53	1495.12			
Remaining Aggregate Depreciable Value at the end of the year	3859.14	4534.35	4708.12	4615.11	4360.40			

Asset-2c							
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19		



	(Pro-rata)				
Opening Gross Block	139836.83	141403.00	148444.19	149536.67	149610.14
Additional Capitalisation	1566.17	7041.19	1092.48	73.47	84.89
Closing Gross Block	141403.00	148444.19	149536.67	149610.14	149695.03
Average Gross Block	140619.92	144923.60	148990.43	149573.41	149652.59
Weighted Average Rate of Depreciation (WAROD) (%)	5.28%	5.28%	5.28%	5.28%	5.28%
Balance useful life of the asset at the beginning of the year	35	35	34	33	32
Aggregated Depreciable Value	126557.92	130431.24	134091.39	134616.06	134687.33
Combined Depreciation during the year	2746.86	7653.78	7867.23	7896.69	7900.50
Cumulative Depreciation at the end of the year	2746.86	10400.64	18267.87	26164.56	34065.06
Remaining Aggregate Depreciable Value at the end of the year	123811.06	120030.60	115823.52	108451.51	100622.26

Asset-2d									
Particulars	2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19				
Opening Gross Block	960.07	1548.54	1655.63	2079.50	2221.12				
Additional Capitalisation	588.47	107.09	423.87	141.62	310.09				
Closing Gross Block	1548.54	1655.63	2079.50	2221.12	2531.21				
Average Gross Block	1254.31	1602.09	1867.57	2150.31	2376.17				
Weighted Average Rate of Depreciation (WAROD) (%)	4.95%	4.98%	4.99%	5.00%	5.02%				
Balance useful life of the asset at the beginning of the year	25	25	24	23	22				
Aggregated Depreciable Value	1128.87	1441.88	1680.81	1935.28	2138.55				
Combined Depreciation during the year	37.95	79.80	93.14	107.51	119.40				
Cumulative Depreciation at the									
end of the year	37.95	117.75	210.89	318.40	437.79				
Remaining Aggregate Depreciable Value at the end	4000 00	100110		101000	.=				
of the year	1090.93	1324.13	1469.92	1616.88	1700.76				

Asset-2e									
Particulars	2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19				
Opening Gross Block	860.09	1445.37	1551.96	1965.91	2078.72				
Additional Capitalisation	585.28	106.59	413.95	112.81	310.09				
Closing Gross Block	1445.37	1551.96	1965.91	2078.72	2388.81				
Average Gross Block	1152.73	1498.67	1758.94	2022.32	2233.77				
Weighted Average Rate of Depreciation (WAROD) (%)	4.93	4.95	4.96	4.98	5.01				
Balance useful life of the asset at the beginning of the year	25	25	24	23	22				



Aggregated Depreciable Value	1037.46	1348.80	1583.04	1820.08	2010.39
Combined Depreciation during the year	33.45	74.11	87.17	100.79	111.92
Cumulative Depreciation at the end of the year	33.45	107.56	194.73	295.52	407.44
Remaining Aggregate Depreciable Value at the end of the year	1004.00	1241.24	1388.31	1524.56	1602.95

48. Accordingly, the depreciation allowed earlier vide order dated 10.12.2018 (read with corrigendum dated 30.1.2019) in Petition No. 126/TT/2018 for Asset-1 and order dated 29.4.2016 in Petition No. 104/TT/2014 for Assets-2a, 2b, 2c, 2d and 2e; claimed by the Petitioner in the instant petition; and allowed and trued-up in instant order is as follows:

(₹ in lakh)

Asset-1								
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19			
Allowed earlier vide order dated 10.12. 2018 and corrigendum dated 30.1.2019 in P. No. 126/TT/2018	142.49	168.00	175.29	203.90	227.37			
Claimed by the Petitioner in the instant petition	143.79	169.29	176.57	198.41	218.73			
Allowed after true-up in this order	141.77	167.25	174.54	196.38	216.69			

(₹ in lakh)

Asset-2a								
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19			
Allowed earlier vide order dated 29.4.2016 in P. No. 104/TT/2014	71.84	199.28	223.02	235.62	235.62			
Claimed by the Petitioner in the instant petition	72.10	196.63	216.33	233.50	238.60			
Allowed after true-up in this order	71.57	195.34	215.04	232.21	237.31			

(₹ in lakh)

Asset-2b								
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19			
Allowed earlier vide order dated 29.4.2016 in P. No. 104/TT/2014	235.70	289.35	314.67	326.57	331.03			
Claimed by the Petitioner in the instant petition	235.24	296.83	330.79	342.52	342.52			
Allowed after true-up in this order	235.26	288.91	314.23	326.13	330.59			

(₹ in lakh)

Asset-2c



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed earlier vide order dated 29.4.2016 in P. No. 104/TT/2014	2746.85	7678.54	7893.51	7897.91	7897.91
Claimed by the Petitioner in the instant petition	2747.71	7656.10	7869.56	7899.01	7902.83
Allowed after true-up in this order	2746.86	7653.78	7867.23	7896.69	7900.50

Asset-2d								
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19			
Allowed earlier vide order dated 29.4.2016 in P. No. 104/TT/2014	37.96	93.94	119.42	128.11	128.11			
Claimed by the Petitioner in the instant petition	38.38	80.53	93.87	108.24	120.12			
Allowed after true-up in this order	37.95	79.80	93.14	107.51	119.40			

(₹ in lakh)

Asset-2e								
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19			
Allowed earlier vide order dated 29.4.2016 in P. No. 104/TT/2014	33.46	88.95	113.91	121.68	121.68			
Claimed by the Petitioner in the instant petition	33.87	74.83	87.89	101.52	112.65			
Allowed after true-up in this order	33.45	74.11	87.17	100.79	111.92			

Operation & Maintenance Expenses (O&M Expenses)

49. The details of the O&M Expenses claimed by the Petitioner for Assets-1 and 2a, 2b, 2c, 2d and 2e and allowed under Regulation 29(4)(a) of the 2014 Tariff Regulations for the purpose of tariff are as under:

(₹ in lakh)

Asset-1									
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19				
Sub-station									
Wardha: 765 kV bay for 3X110 MVAR line Reactor for Raipur-Wards line 1, Ckt-2 used as Bus Reactor	1	1	1	1	1				
Norms (₹ lakh/ bay)	84.42	87.22	90.12	93.11	96.20				
Total O&M Expenses (Claimed)	84.42	87.22	90.12	93.11	96.20				
Total O&M Expenses (Approved)	84.42	87.22	90.12	93.11	96.20				

Asset- 2a							
Particulars	2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19		



Sub-station					
Wardha: 765 kV bay 3x110 MVAR Bus Reactor	1	1	1	1	1
Norms (₹ lakh/ bay)	84.42	87.22	90.12	93.11	96.20
Total O&M Expenses					
(Claimed)	34.46	87.22	90.12	93.11	96.20
Total O&M Expenses (Approved)	34.46	87.22	90.12	93.11	96.20

Asset- 2b										
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19					
Sub-station	Sub-station									
Wardha: 765 kV bay 3x110 MVAR Line Reactor -1	1	1	1	1	1					
Norms (₹ lakh/ bay)	84.42	87.22	90.12	93.11	96.20					
Total O&M Expenses (Claimed)	84.42	87.22	90.12	93.11	96.20					
Total O&M Expenses (Approved)	84.42	87.22	90.12	93.11	96.20					

(₹ in lakh)

Asset- 2c									
Particulars	2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19				
Transmission Line									
765 kV Raipur-Wardha D/C line	369.107	369.107	369.107	369.107	369.107				
(KM)									
Norms (₹ lakh/ km)	1.06	1.10	1.13	1.17	1.21				
Total O&M Expenses (Claimed)	144.98	404.91	418.20	432.22	446.62				
Total O&M Expenses (Approved)	144.98	404.91	418.20	432.22	446.62				

(₹ in lakh)

					(milani)				
Asset- 2d									
Particulars	2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19				
Sub-station									
Raipur: Switchable Line Reactor of Wardha-1 765 kV bay	1	1	1	1	1				
Raipur: Wardha 765 kV bay -1	1	1	1	1	1				
Norms (₹ lakh/ bay)	84.42	87.22	90.12	93.11	96.20				
Total O&M Expenses (Claimed)	103.16	174.44	180.24	186.22	192.40				
Total O&M Expenses (Approved)	103.15	174.44	180.24	186.22	192.40				

Asset- 2e								
Particulars	2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19			
Sub-station								



Raipur: 765 kV Switchable Line Reactor of Wardha-II Bay	1	1	1	1	1
Raipur: 765 kV Wardha Line bay - 2	1	1	1	1	1
Norms (₹ lakh/ bay)	84.42	87.22	90.12	93.11	96.20
Total O&M Expenses (Claimed)	99.46	174.44	180.24	186.22	192.40
Total O&M Expenses (Approved)	99.45	174.44	180.24	186.22	192.40

Interest on Working Capital (IWC)

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

i. Maintenance spares:

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

ii. O & M Expenses:

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

iii. Receivables:

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

iv. Rate of interest on working capital:

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

51. IWC allowed for the assets is shown as under:-

Asset-1									
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19				
O & M Expenses	7.04	7.27	7.51	7.76	8.02				
Maintenance Spares	12.66	13.08	13.52	13.97	14.43				
Receivables	93.45	106.68	109.40	119.32	127.87				
Total	113.15	127.03	130.43	141.05	150.32				
Rate of Interest on working capital (%)	13.50	13.50	13.50	13.50	13.50				
Interest of Working Capital	15.27	17.15	17.61	19.04	20.29				

(₹ in lakh)

Asset-2a									
Particulars	2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19				
O & M Expenses	7.04	7.27	7.51	7.76	8.02				
Maintenance Spares	12.66	13.08	13.52	13.97	14.43				
Receivables	112.32	123.20	132.65	139.70	139.81				
Total	132.02	143.55	153.68	161.43	162.26				
Rate of Interest on working capital (%)	13.50	13.50	13.50	13.50	13.50				
Interest of Working Capital	7.28	19.38	20.75	21.79	21.90				

(₹ in lakh)

Asset-2b									
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19				
O & M Expenses	7.04	7.27	7.51	7.76	8.02				
Maintenance Spares	12.66	13.08	13.52	13.97	14.43				
Receivables	141.94	170.45	182.80	186.30	184.99				
Total	161.63	190.80	203.83	208.02	207.43				
Rate of Interest on working capital (%)	13.50	13.50	13.50	13.50	13.50				
Interest of Working Capital	21.82	25.76	27.52	28.08	28.00				

(₹ in lakh)

Asset-2c									
Particulars	2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19				
O & M Expenses	32.67	33.74	34.85	36.02	37.22				
Maintenance Spares	58.80	60.74	62.73	64.83	66.99				
Receivables	4007.87	4091.15	4143.36	4060.28	3963.56				
Total	4099.34	4185.63	4240.94	4161.13	4067.77				
Rate of Interest on working capital (%)	13.50	13.50	13.50	13.50	13.50				
Interest of Working Capital	204.69	565.06	572.53	561.75	549.15				

(₹ in lakh)

	Asset-2d								
Particulars	2014-15 (Pro-rata)	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	65.77	76.01	83.28	90.81	96.85				
Total	105.17	116.71	125.33	134.27	141.75				
Rate of Interest on working capital (%)	13.50	13.50	13.50	13.50	13.50				
Interest of Working Capital	8.67	15.76	16.92	18.13	19.14				

Asset-2e								
Particulars	2014-15 (Pro-rata)	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	62.74	72.94	80.16	87.24	92.97
Total	102.14	113.64	122.22	130.69	137.86
Rate of Interest on working capital (%)	13.50	13.50	13.50	13.50	13.50
Interest of Working Capital	8.12	15.34	16.50	17.64	18.61

52. Accordingly, the details of IWC approved in order dated 10.12.2018 (read with corrigendum dated 30.1.2019) in Petition No. 126/TT/2018 in respect of Asset-1 and order dated 29.4.2016 in Petition No. 104/TT/2014 in respect of Assets-2a, 2b, 2c, 2d and 2e; claimed by the Petitioner in this petition; and trued-up vide this order is as follows:

(₹ in lakh)

Asset-1								
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19			
Allowed earlier vide order dated 10.12.2018 and corrigendum dated 30.1.2019 in Petition No. 126/TT/2018	15.31	17.15	17.61	19.60	21.11			
Claimed by the Petitioner in the instant petition	15.36	17.23	17.68	19.11	20.36			
Allowed after true-up in this order	15.27	17.15	17.61	19.04	20.29			

(₹ in lakh)

Asset-2a								
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19			
Allowed earlier vide order dated 29.4.2016 in Petition No. 104/TT/2014	7.29	19.69	21.41	22.16	21.86			
Claimed by the Petitioner in the instant petition	7.31	19.45	20.82	21.86	21.97			
Allowed after true-up in this order	7.28	19.38	20.75	21.79	21.90			

Asset-2b									
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19				
Allowed earlier vide order dated 29.4.2016 in Petition No. 104/TT/2014	21.79	26.27	28.63	29.15	28.67				
Claimed by the Petitioner in the instant petition	21.83	25.77	27.53	28.09	28.01				
Allowed after true-up in this order	21.82	25.76	27.52	28.08	28.00				

(₹ in lakh)

Asset-2c									
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19				
Allowed earlier vide order dated 29.4.2016 in Petition No. 104/TT/2014	204.68	566.76	573.73	562.37	548.20				
Claimed by the Petitioner in the instant petition	204.76	565.21	572.57	561.79	549.19				
Allowed after true-up in this order	204.69	565.06	572.53	561.75	549.15				

(₹ in lakh)

Asset-2d										
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19					
Allowed earlier vide order dated 29.4.2016 in Petition No. 104/TT/2014	8.67	16.82	18.89	19.65	19.74					
Claimed by the Petitioner in the instant petition	8.69	15.77	16.93	18.14	19.15					
Allowed after true-up in this order	8.67	15.76	16.92	18.13	19.14					

(₹ in lakh)

Asset-2e									
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19				
Allowed earlier vide order dated 29.4.2016 in Petition No. 104/TT/2014	8.12	16.44	18.48	19.18	19.29				
Claimed by the Petitioner in the instant petition	8.13	15.36	16.51	17.66	18.62				
Allowed after true-up in this order	8.12	15.34	16.50	17.64	18.61				

Approved Annual Fixed Charges for the 2014-19 Tariff Period

53. Accordingly, the Annual Fixed Charges allowed in respect of instant transmission assets after truing-up for the 2014-19 tariff period are as under:-

Asset-1									
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19				
Depreciation	141.77	167.25	174.54	196.38	216.69				
Interest on Loan	156.21	174.08	169.95	177.91	181.16				
Return on Equity	163.02	194.40	204.18	229.48	252.90				
Int. on Working Capital	15.27	17.15	17.61	19.04	20.29				
Op. and Maintenance	84.42	87.22	90.12	93.11	96.20				
Total	560.69	640.10	656.40	715.92	767.25				

(₹ in lakh)

Asset-2a										
Particulars	2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19					
Depreciation	71.57	195.34	215.04	232.21	237.31					
Interest on Loan	76.94	203.40	211.66	211.88	197.44					
Return on Equity	84.86	233.88	258.33	279.21	286.02					
Int. on Working Capital	7.28	19.38	20.75	21.79	21.90					
Op. and Maintenance	34.46	87.22	90.12	93.11	96.20					
Total	275.11	739.22	795.91	838.21	838.87					

(₹ in lakh)

Asset-2b									
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19				
Depreciation	235.26	288.91	314.23	326.13	330.59				
Interest on Loan	233.83	277.83	288.85	278.58	257.06				
Return on Equity	276.27	342.98	376.07	391.88	398.07				
Int. on Working Capital	21.82	25.76	27.52	28.08	28.00				
Op. and Maintenance	84.42	87.22	90.12	93.11	96.20				
Total	851.61	1022.70	1096.79	1117.78	1109.92				

(₹ in lakh)

Asset-2c										
Particulars	2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19					
Depreciation	2746.86	7653.78	7867.23	7896.69	7900.50					
Interest on Loan	2639.14	7079.49	6910.37	6343.60	5728.61					
Return on Equity	3158.52	8843.67	9091.84	9127.42	9156.49					
Int. on Working Capital	204.69	565.06	572.53	561.75	549.15					
Op. and Maintenance	144.98	404.91	418.20	432.22	446.62					
Total	8894.19	24546.91	24860.17	24361.68	23781.38					

(₹ in lakh)

Asset-2d									
Particulars	2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19				
Depreciation	37.95	79.80	93.14	107.51	119.40				
Interest on Loan	44.80	88.28	95.41	101.81	104.80				
Return on Equity	46.54	97.76	113.96	131.22	145.38				
Int. on Working Capital	8.67	15.76	16.92	18.13	19.14				
Op. and Maintenance	103.15	174.44	180.24	186.22	192.40				
Total	241.11	456.04	499.67	544.89	581.11				

Asset-2e										
Particulars	2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19					
Depreciation	33.45	74.11	87.17	100.79	111.92					
Interest on Loan	39.47	82.29	89.72	95.35	98.21					
Return on Equity	41.24	91.45	107.33	123.41	136.67					
Int. on Working Capital	8.12	15.34	16.50	17.64	18.61					
Op. and Maintenance	99.45	174.44	180.24	186.22	192.40					



Total	221.74	437.64	480.96	523.42	557.81

54. The Annual Fixed Charges allowed in respect of Asset-1 vide order dated 10.12.2018 (read with corrigendum dated 30.1.2019) in Petition No.126/TT/2018 and in respect of Assets-2a, 2b, 2c, 2d and 2e vide order dated 29.4.2016 in Petition No. 104/TT/2014; claimed by the Petitioner in the instant petition; and as trued—up in the instant order are as under:

(₹ in lakh)

Asset-1									
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19				
Allowed earlier vide order dated 10.12.2018 and corrigendum dated 30.1.2019 in Petition No. 126/TT/2018	562.34	640.19	656.36	740.56	803.62				
Claimed by the Petitioner in the instant petition	564.40	643.63	659.65	719.00	770.15				
Allowed after true-up in this order	560.69	640.10	656.40	715.92	767.25				

(₹ in lakh)

Asset-2a									
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19				
Allowed earlier vide order dated 29.4.2016 in Petition No. 104/TT/2014	275.95	753.09	825.22	854.55	836.75				
Claimed by the Petitioner in the instant petition	276.50	742.54	799.01	841.20	841.75				
Allowed after true-up in this order	275.11	739.22	795.91	838.21	838.87				

(₹ in lakh)

Asset-2b										
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19					
Allowed earlier vide order dated 29.4.2016 in Petition No. 104/TT/2014	850.37	1045.66	1146.12	1165.38	1139.58					
Claimed by the Petitioner in the instant petition	852.25	1023.27	1097.16	1118.11	1110.22					
Allowed after true-up in this order	851.61	1022.70	1096.79	1117.78	1109.92					

Asset-2c						
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19	
Allowed earlier vide order dated 29.4.2016 in Petition No. 104/TT/2014	8893.90	24622.70	24913.52	24289.38	23739.31	
Claimed by the Petitioner in the instant petition	8897.42	24553.59	24862.22	24363.52	23783.07	



Allowed after true-up in this	8894.19	24546.91	24860.17	24361.68	23781.38
order					

(₹ in lakh)

Asset-2d							
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19		
Allowed earlier vide order dated 29.4.2016 in Petition No. 104/TT/2014	241.12	503.52	587.42	612.81	608.16		
Claimed by the Petitioner in the instant petition	241.59	456.77	500.29	545.44	581.61		
Allowed after true-up in this order	241.11	456.04	499.67	544.89	581.11		

(₹ in lakh)

Asset-2e							
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19		
Allowed earlier vide order dated 29.4.2016 in Petition No. 104/TT/2014	221.74	486.65	569.13	591.92	587.97		
Claimed by the Petitioner in the instant petition	222.20	438.35	481.58	523.98	558.31		
Allowed after true-up in this order	221.74	437.64	480.96	523.42	557.81		

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

- 55. The Petitioner has submitted tariff forms combining Assets-1, 2a, 2b, 2c, 2d and 2e, wherein the COD has been achieved prior to 1.4.2019, as a single asset. Accordingly, as per proviso (i) of Regulation 8(1) of the 2019 Tariff Regulations, single tariff for the Combined Asset is allowed for the 2019-24 tariff period.
- 56. The Petitioner has claimed the following transmission charges for the Combined Asset for the 2019-24 tariff period:-

Particulars	2019-20	2020-21	201-22	2022-23	2023-24
Depreciation	8955.61	8961.75	8953.13	8952.53	8952.53
Interest on Loan	5878.99	5149.45	4425.59	3958.44	3536.05
Return on Equity	9598.43	9605.13	9605.13	9605.13	9605.13
Interest on Working Capital	402.84	394.31	384.54	378.81	372.83
Operation and	812.43	840.54	869.67	900.02	931.10
Maintenance					
Total	25648.30	24951.18	24238.06	23794.93	23397.64



57. The Petitioner has claimed the following IWC 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	67.70	70.05	72.47	75.00	77.59
Maintenance Spares	121.86	126.08	130.45	135.00	139.67
Receivables	3153.48	3076.17	2988.25	2933.62	2876.76
Total	3343.04	3272.30	3191.17	3143.62	3094.02
Rate of Interest	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	402.84	394.31	384.54	378.81	372.83

Effective Date of Commercial Operation (E-COD)

58. The Petitioner has claimed E-COD of the Combined Asset as 30.10.2014. Accordingly, based on the trued-up admitted capital cost and actual COD of all the assets, the E-COD has been worked out as under:

(₹ in lakh)

Computation of Effective COD							
Asset	Actual COD	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Weight of the cost (%)	No. of Days from last COD	Weighted Days	Effective COD (Latest COD – Total weighted Days)	
Asset-1	1.3.2014	4335.18	2.55	261.00	6.65		
Asset-2a	3.11.2014	4674.63	2.75	14.00	0.38		
Asset-2b	1.4.2014	6574.66	3.86	230.00	8.88	29.10.2014	
Asset-2c	17.11.2014	149695.03	87.95	0.00	0.00	25.10.2014	
Asset-2d	21.8.2014	2531.21	1.49	88.00	1.31		
Asset-2e	29.4.2014	2388.81	1.40	80.00	1.12		
Total		170199.52	100		18.35		

59. The E-COD is used to determine the lapsed life of the project as a whole, which works out as four (4) years as on 1.4.2019 (i.e. the number of completed years as on 1.4.2019 from E-COD).

Weighted Average Life (WAL)

- 60. The WAL has been determined based on the admitted Capital Cost of individual elements as on 31.3.2019 and their respective life as specified in Regulation 33 of the 2019 Tariff Regulations.
- 61. The Combined Asset may have multiple elements such as land, building, transmission line, sub-station and PLCC and each element may have different span of life. Therefore, the concept of WAL has been used as the useful life of the project as a whole.
- 62. The WAL has been determined based on the admitted capital cost of individual elements as on 31.3.2019 and their respective life as stipulated in the 2019 Tariff Regulations. The element-wise life as defined in the 2009 Tariff Regulations or the 2014 Tariff Regulations prevailing at the time of actual COD of individual assets has been ignored for this purpose. The life as defined in 2019 Tariff Regulations has been considered for determination of WAL. Accordingly, the WAL of the Combined Asset has been worked out as 34 years as shown below:-

Admitted Capital Cost as on 31.3.2019							
Particulars	Combined Cost (₹ in lakh) (a)	Life as per 2019 Regulation (Years) (b)	Weight (C)=(a) x (b)	Weighted Avg Life = (d)= (c)/(a)			
Building & Other Civil Works	2551.85	25	63796.28				
Transmission Line	147640.44	35	5167415.42				
Sub-station Equipment	19475.74	25	486893.40	33.64 years			
PLCC	470.06	15	7050.83	(rounded off			
IT Equipment and Software	61.44	7	409.57	to 34 years)			
Total	170199.52		5725565.51				

63. The WAL as on 1.4.2019 as determined above is applicable prospectively (i.e. for 2019-24 tariff period onwards) and no retrospective adjustment of depreciation in previous tariff period is required to be done. As discussed above, the Effective COD of the assets is 29.10.2014 and the lapsed life of the project as a whole, works out as

four (4) years as on 1.4.2019 (i.e. the number of completed years as on 1.4.2019 from Effective COD). Accordingly, WAL has been used to determine the remaining useful life as on 31.3.2019 to be 30 years.

Capital Cost

- 64. Regulation 19 of the 2019 Tariff Regulations provide 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;
 - (I) Capital expenditure on account of emission control system necessary to meet the revised emission standards and sewage treatment plant;
 - (m) Expenditure on account of fulfilment of any conditions for obtaining environment clearance for the project;
 - (n) Expenditure on account of change in law and force majeure events; and
 - (o) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve

and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.

- (3) The Capital cost of an existing project shall include the following:
 - (a) Capital cost admitted by the Commission prior to 1.4.2019 duly trued up by excluding liability, if any, as on 1.4.2019;
 - (b) Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;
 - (c) Capital expenditure on account of renovation and modernisation as admitted by this Commission in accordance with these regulations;
 - (d) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
 - (e) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and
 - (f) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.
- (4) The capital cost in case of existing or new hydro generating station shall also include:
 - (a) cost of approved rehabilitation and resettlement (R&R) plan of the project in conformity with National R&R Policy and R&R package as approved; and
 - (b) cost of the developer's 10% contribution towards Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) and Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) project in the affected area.
- (5) The following shall be excluded from the capital cost of the existing and new projects:
 - (a) The assets forming part of the project, but not in use, as declared in the tariff petition;
 - (b) De-capitalised Assets after the date of commercial operation on account of replacement or removal on account of obsolescence or shifting from one project to another project:

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

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

- (c) In case of hydro generating stations, any expenditure incurred or committed to be incurred by a project developer for getting the project site allotted by the State Government by following a transparent process;
- (d) Proportionate cost of land of the existing project which is being used for generating power from generating station based on renewable energy; and
- (e) Any grant received from the Central or State Government or any statutory

body or authority for the execution of the project which does not carry any liability of repayment."

65. The Petitioner has claimed the capital cost of the individual assets which has been added to arrive at the capital cost claimed during 2019-24 period for consolidated assets as under:

(₹ in lakh)

Assets	RCE apportioned approved cost	Capital cost claimed as on 31.3.2019	ACE claimed in 2019-24	Estimated completion cost
Asset-1	4421.6	4371.3	0.00	4371.30
Asset-2a	4961.19	4691.07	0.00	4691.06
Asset-2b	7065.13	6574.67	181.98	6756.65
Asset-2c	149753.31	149695.00	55.86	149750.86
Asset-2d	2752.44	2531.22	0.00	2531.22
Asset-2e	2619.75	2388.80	0.00	2388.80
Total	171573.42	170252.1	237.83	170489.89

- 66. Against the overall RCE approved capital cost of ₹171573.42 lakh, the estimated completion cost including ACE is ₹170489.89 lakh. The individual cost of each asset is also within the respective RCE apportioned cost. Therefore, there is no cost over-run as per the RCE cost.
- 67. The capital cost has been dealt in line with Regulation 19(3) of the 2019 Tariff Regulations. The element-wise capital cost (i.e. land, building, transmission line, substation and PLCC) as admitted by the Commission as on 31.3.2019 for instant assets are clubbed together and considered as capital cost for Combined Asset as on 1.4.2019, as under:

					\ -	,
Element	Asset-1	Asset-2a	Asset-2b	Asset-2c	Asset-2d	Asset-2e
Free hold Land	0.00	0.00	0.00	0.00	0.00	0.00
Leasehold Land	0.00	0.00	0.00	0.00	0.00	0.00
Building & Other Civil						
Works	442.50	490.36	666.87	324.47	314.85	312.81
Transmission Line	0.00	0.00	0.00	147640.44	0.00	0.00
Sub-station Equipment	3879.02	4179.79	5903.30	1236.17	2208.91	2068.55

PLCC	0.00	0.00	0.00	470.06	0.00	0.00
IT Equipment and						
Software	13.66	4.48	4.50	23.90	7.45	7.45
Total	4335.18	4674.63	6574.66	149695.03	2531.21	2388.81

(₹ in lakh)

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Particulars	Capital Cost for Combined Asset as on 1.4.2019
Freehold Land	0.00
Leasehold Land	0.00
Building & Other Civil Works	2551.85
Transmission Line	147640.44
Sub-station Equipment	19475.74
PLCC	470.06
IT Equipment and Software	61.44
TOTAL	170199.52

68. The trued-up capital cost of ₹170199.52 lakh for Combined Asset is considered as admitted capital cost as on 1.4.2019 for working out tariff for the 2019-24 tariff period.

Additional Capital Expenditure (ACE)

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

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

(2) The generating company or the transmission licensee, as the case may be shall submit the details of works asset wise/work wise included in the original scope of work

along with estimates of expenditure, liabilities recognized to be payable at a future date and the works deferred for execution.

- 25. Additional Capitalisation within the original scope and after the cut-off date:
- (1) The ACE incurred or projected to be incurred in respect of an existing project or a new project on the following counts within the original scope of work and after the cutoff 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."
- 70. The Petitioner has claimed the projected ACE for 2019-24 period as under:-

Acceto	Projected ACE 2019-24
Assets	2019-20
Asset-1	0.00
Asset-2a	0.00
Asset-2b	181.98
Asset-2c	55.86
Asset-2d	0.00
Asset-2e	0.00
Total	237.83

- 71. It is observed that the projected ACE falls after the cut-off date in the instant petition. The Petitioner vide Auditor's certificate dated 2.8.2019 has submitted that the ACE claimed for the period 1.4.2019 to 31.3.2020 is on estimated expenditure. The Petitioner has submitted that the ACE claimed for the 2019-24 period is on account of un-discharged liability towards final payment/withheld payment due to contractual exigencies for works executed within the cut-off date. The ACE is claimed under Regulation 25 (1) (d) of 2019 Tariff Regulations.
- 72. ACE projected after cut-off date is due to the delay in finalisation of the amount to be paid by the Petitioner and is towards the liabilities to be met by Petitioner after finalisation of the amount. Accordingly, ACE claimed by the Petitioner is allowed. However, the Petitioner is directed to submit to true-up considering details of contracts, scope, original liability and undischarged liability as on 31.3.2019 and the Regulation under which such ACE is claimed at the time of true-up for the 2019-24 period. The allowed ACE is summarized below which is subject to true-up:-

(₹ in lakh)

Particulars	Regulation	Combined Asset 2019-20
ACE to the extent of Balance & Retention Payments & work deferred for execution before cut-off date	Regulation 25 (1) (d) of 2019 Tariff Regulations	237.83

Capital cost for the 2019-24 tariff period

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

Capital Cost allowed as on 1.4.2019	ACE allowed for the year 2019-20	Total estimated completion cost up to 31.3.2024
170199.52	237.83	170437.35

Debt-Equity Ratio

74. 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 system including communication system declared under commercial operation prior to 1.4.2019, debt: equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2019 shall be considered:

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

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

- (4) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2019, but where debt: equity ratio has not been determined by the Commission for determination of tariff for the period ending 31.3.2019, the Commission shall approve the debt: equity ratio in accordance with clause (1) of this Regulation.
- (5) Any expenditure incurred or projected to be incurred on or after 1.4.2019 as may be admitted by the Commission as ACE 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."

75. The details of the debt-equity considered for the purpose of computation of tariff for the 2019-24 tariff period is as under:

Combined Asset	Capital Cost as on 1.4.2019 (₹ in lakh)	% age	Total Capital Cost as on 31.3.2024 (₹ in lakh)	% age
Debt	119139.76	70.00	119306.24	70.00
Equity	51059.76	30.00	51131.11	30.00
Total	170199.52	100.00	170437.35	100.00

Return on Equity (RoE)

- 76. 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 system including communication system and run-of-river hydro generating station, and at the base rate of 16.50% for the storage type hydro generating stations including pumped storage hydro generating stations and run-of-river generating station with pondage:

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

Provided further that:

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

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

- iii. in case of a thermal generating station, with effect from 1.4.2020:
- a) rate of return on equity shall be reduced by 0.25% in case of failure to achieve the ramp rate of 1% per minute;

b) an additional rate of return on equity of 0.25% shall be allowed for every incremental ramp rate of 1% per minute achieved over and above the ramp rate of 1% per minute, subject to ceiling of additional rate of return on equity of 1.00%:

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

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

Rate of pre-tax return on equity = Base rate /(1-t)

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

Illustration-

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

Rate of return on equity = 15.50/(1-0.2155) = 19.758%

- (ii) In case of a generating company or a transmission licensee paying normal corporate tax including surcharge and cess:
 - (a) Estimated Gross Income from generation or transmission business for FY 2019-20 is Rs 1,000 crore;
 - (b) Estimated Advance Tax for the year on above is Rs 240 crore;
 - (c) Effective Tax Rate for the year 2019-20 = Rs 240 Crore/Rs 1000 Crore = 24%:
 - (d) Rate of return on equity = 15.50/(1-0.24) = 20.395%.
- (3) The generating company or the transmission licensee, as the case may be, shall true up the grossed up rate of return on equity at the end of every financial year based on actual tax paid together with any additional tax demand including interest thereon, duly adjusted for any refund of tax including interest received from the income tax authorities pertaining to the tariff period 2019-24 on actual gross income of any financial



year. However, penalty, if any, arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the generating company or the transmission licensee, as the case may be. Any under-recovery or over-recovery of grossed up rate on return on equity after truing up, shall be recovered or refunded to beneficiaries or the long term customers, as the case may be, on year to year basis."

77. 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 Regulation 31(3) of the 2019 Tariff Regulations. Accordingly, the RoE has been allowed for the instant Combined Asset is as under:-

(₹ in lakh)

Combined Asset									
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24				
Opening Equity	51059.76	51131.11	51131.11	51131.11	51131.11				
Addition due to Additional Capitalization	71.35	0.00	0.00	0.00	0.00				
Closing Equity	51131.11	51131.11	51131.11	51131.11	51131.11				
Average Equity	51095.43	51131.11	51131.11	51131.11	51131.11				
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500				
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)	9596.74	9603.44	9603.44	9603.44	9603.44				

Interest on Loan (IoL)

- 78. 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 decapitalization of assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered upto the date of de-capitalisation of such asset.
 - (4) Notwithstanding any moratorium period availed by the generating company or the transmission licensee, as the case may be, the repayment of loan shall be considered

from the first year of commercial operation of the project and shall be equal to the depreciation allowed for the year or part of the year.

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

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

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

- (6) The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.
- (7) The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing".
- 79. The weighted average rate of loL has been considered on the basis of the rate prevailing as on 1.4.2019. The Petitioner has prayed that the change in interest rate due to floating rate of interest applicable, if any, during the 2019-24 tariff period will be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of true-up. In view of above, the loL has been worked out in accordance with Regulation 32 of the 2019 Tariff Regulations. The loL allowed is as under:

(`in lakh)

Combined Asset									
Particular	2019-20	2020-21	201-22	2022-23	2023-24				
Gross Normative Loan	119139.76	119306.24	119306.24	119306.24	119306.24				
Cumulative Repayments	38262.61	47216.68	56176.88	65137.08	74097.28				
upto Previous Year									
Net Loan-Opening	80877.15	72089.56	63129.36	54169.16	45208.96				
Addition due to	166.48	0.00	0.00	0.00	0.00				
Additional Capitalization									
Repayment during the	8954.07	8960.20	8960.20	8960.20	8960.20				
year									
Net Loan-Closing	72089.56	63129.36	54169.16	45208.96	36248.76				
Average Loan	76483.35	67609.46	58649.26	49689.06	40728.86				
Weighted Average Rate	7.688	7.618	7.548	7.967	8.682				
of Interest on Loan (%)									
Interest on Loan	5880.12	5150.69	4426.61	3958.93	3535.92				

Depreciation

- 80. Regulation 33 of the 2019 Tariff Regulations provide as under:-
 - "33. Depreciation: (1) Depreciation shall be computed from the date of commercial operation of a generating station or unit thereof or a transmission system or element thereof including communication system. In case of the tariff of all the units of a generating station or all elements of a transmission system including communication system for which a single tariff needs to be determined, the depreciation shall be computed from the effective date of commercial operation of the generating station or the transmission system taking into consideration the depreciation of individual units:

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

- (2) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission. In case of multiple units of a generating station or multiple elements of a transmission system, weighted average life for the generating station of the transmission system shall be applied. Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis.
- (3) The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset:

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

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

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

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

- (4) Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.
- (5) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in **Appendix-I** to these regulations for the assets of the generating station and transmission system:

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



- (6) In case of the existing projects, the balance depreciable value as on 1.4.2019 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31.3.2019 from the gross depreciable value of the assets.
- (7) The generating company or the transmission licensee, as the case may be, shall submit the details of proposed capital expenditure five years before the completion of useful life of the project along with justification and proposed life extension. The Commission based on prudence check of such submissions shall approve the depreciation on capital expenditure.
- (8) In case of de-capitalization of assets in respect of generating station or unit thereof or transmission system or element thereof, the cumulative depreciation shall be adjusted by taking into account the depreciation recovered in tariff by the de-capitalized asset during its useful services."
- 81. The IT equipment has been considered as a part of the Gross Block and depreciated using Weighted Average Rate of Depreciation (WAROD). The salvage value of IT equipment has been considered nil, i.e. IT asset has been considered as 100% depreciable. The calculation of WAROD for the 2019-24 period is placed in Annexure-2. 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 worked out for the Combined Asset is as follows:-

(₹in lakh)

	Combined Asset								
Particulars	2019-20	2020-21	201-22	2022-23	2023-24				
Opening Gross Block	170199.52	170437.35	170437.35	170437.35	170437.35				
Addition during 2019-24 due to	237.83	0.00	0.00	0.00	0.00				
Projected Additional Capitalisation									
Closing Gross Block	170437.35	170437.35	170437.35	170437.35	170437.35				
Average Gross Block	170318.43	170437.35	170437.35	170437.35	170437.35				
Weighted Average Rate of	5.257	5.257	5.257	5.257	5.257				
Depreciation (WAROD) (%)									
Elapsed Life at the beginning of the	4.00	5.00	6.00	7.00	8.00				
year									
Balance Useful life of the asset	30.00	29.00	28.00	27.00	26.00				
Depreciation during the year	8954.07	8960.20	8960.20	8960.20	8960.20				
Aggregated Depreciable Value	153292.73	153399.76	153399.76	153399.76	153399.76				
Remaining Aggregate Depreciable	106076.05	97222.88	88262.67	79302.47	70342.27				
Value at the end of the year									

Operation & Maintenance Expenses (O&M Expenses)

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



"35. Operation and Maintenance Expenses:

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

Norms for sub-station Bays (₹ Lakh per bay) 765 kV	rpenses shall be admissible for t				0000 00	000000
765 kV	Particulars (7.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1	2019-20	2020-21	2021-22	2022-23	2023-24
32.15 33.28 34.45 35.66 36.91	or sub-station Bays (₹ Lakh per		10.00	10.00	40.00	54.00
220 kV						
132 kV and below						
Norms for Transformers (₹ Lakh per MVA) 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 0.245 0.263 0.272 0.282 Norms for AC and HVDC lines (₹ Lakh per km) 0.245 0.254 0.263 0.272 0.282 Norms for AC and HVDC lines (₹ Lakh per km) 0.881 0.912 0.944 0.977 1.0 Single Circuit (Bundled Conductor) with four owne sub-conductors) 0.755 0.781 0.809 0.837 0.3 Single Circuit (Twin & Triple Conductor) 0.503 0.521 0.539 0.558 0.3 Single Circuit (Single Conductor) 0.252 0.260 0.270 0.279 0.2 Double Circuit (Bundled conductor) 0.322 1.368 1.416 1.466 1.3 Conductor) 0.881 0.912 0.944 0.977 1.6 Double Circuit (Single Cond						
765 kV			16.64	17.23	17.83	18.46
400 kV	<u>for Transformers (₹ Lakh per M\</u>			I		T
220 kV						
132 kV and below						
Norms for AC and HVDC lines (₹ Lakh per km) Single Circuit (Bundled Conductor with six or more sub-conductors) 0.881 0.912 0.944 0.977 1.0 Single Circuit (Bundled conductor with four sub-conductors) 0.755 0.781 0.809 0.837 0.8 Single Circuit (Twin & Triple Conductor) 0.503 0.521 0.539 0.558 0.8 Single Circuit (Single Conductor) 0.252 0.260 0.270 0.279 0.2 Double Circuit (Bundled conductor with four or more sub-conductors) 1.322 1.368 1.416 1.466 1.5 Double Circuit (Twin & Triple Conductor) 0.881 0.912 0.944 0.977 1.0 Multi Circuit (Single Conductor) 0.377 0.391 0.404 0.419 0.4 Multi Circuit (Bundled Conductor with four or more sub-conductor) 2.319 2.401 2.485 2.572 2.6 Multi Circuit (Twin & Triple Conductor) 1.544 1.598 1.654 1.713 1.5 Norms for HVDC stations 1.544 1.598 1.654 1.713 1.5						
Single Circuit (Bundled Conductor with six or more sub-conductors) 0.881 0.912 0.944 0.977 1.0 Single Circuit (Bundled conductor with four sub-conductors) 0.755 0.781 0.809 0.837 0.8 Single Circuit (Twin & Triple Conductor) 0.503 0.521 0.539 0.558 0.5 Single Circuit (Single Conductor) 0.252 0.260 0.270 0.279 0.2 Double Circuit (Bundled conductor with four or more sub-conductors) 1.322 1.368 1.416 1.466 1.5 Double Circuit (Twin & Triple Conductor) 0.881 0.912 0.944 0.977 1.0 Double Circuit (Single Conductor) 0.377 0.391 0.404 0.419 0.4 Multi Circuit (Bundled Conductor with four or more sub-conductor) 2.319 2.401 2.485 2.572 2.6 Multi Circuit (Twin & Triple Conductor) 1.544 1.598 1.654 1.713 1.5 Norms for HVDC stations 1.544 1.598 1.654 1.713 1.5			0.254	0.263	0.272	0.282
with six or more sub-conductors) 0.881 0.912 0.944 0.977 1.0 Single Circuit (Bundled conductors) 0.755 0.781 0.809 0.837 0.8 Single Circuit (Twin & Triple Conductor) 0.503 0.521 0.539 0.558 0.8 Single Circuit (Single Conductor) 0.252 0.260 0.270 0.279 0.2 Double Circuit (Bundled conductor with four or more subconductors) 1.322 1.368 1.416 1.466 1.3 Double Circuit (Twin & Triple Conductor) 0.881 0.912 0.944 0.977 1.0 Multi Circuit (Bundled Conductor with four or more sub-conductor) 0.377 0.391 0.404 0.419 0.4 Multi Circuit (Twin & Triple Conductor) 1.544 1.598 1.654 1.713 1.5 Norms for HVDC stations 1.544 1.598 1.654 1.713 1.5	or AC and HVDC lines (₹ Lakh j	per km)				
Single Circuit (Bundled conductor with four sub-conductors) 0.755 0.781 0.809 0.837 0.8 Single Circuit (Twin & Triple Conductor) 0.503 0.521 0.539 0.558 0.8 Single Circuit (Single Conductor) 0.252 0.260 0.270 0.279 0.2 Double Circuit (Bundled conductor with four or more sub-conductors) 1.322 1.368 1.416 1.466 1.5 Double Circuit (Twin & Triple Conductor) 0.881 0.912 0.944 0.977 1.6 Multi Circuit (Single Conductor) 0.377 0.391 0.404 0.419 0.4 Multi Circuit (Bundled Conductor with four or more sub-conductor) 2.319 2.401 2.485 2.572 2.6 Multi Circuit (Twin & Triple Conductor) 1.544 1.598 1.654 1.713 1.5 Norms for HVDC stations 1.544 1.598 1.654 1.713 1.5	Circuit (Bundled Conductor	0.001	0.012	0.044	0.077	1 011
with four sub-conductors) 0.755 0.781 0.809 0.837 0.8 Single Circuit (Twin & Triple Conductor) 0.503 0.521 0.539 0.558 0.3 Single Circuit (Single Conductor) 0.252 0.260 0.270 0.279 0.2 Double Circuit (Bundled conductor with four or more subconductors) 1.322 1.368 1.416 1.466 1.3 Double Circuit (Twin & Triple Conductor) 0.881 0.912 0.944 0.977 1.0 Multi Circuit (Single Conductor) 0.377 0.391 0.404 0.419 0.4 Multi Circuit (Twin & Triple Conductor) 2.319 2.401 2.485 2.572 2.6 Multi Circuit (Twin & Triple Conductor) 1.544 1.598 1.654 1.713 1.5 Norms for HVDC stations 1.544 1.598 1.654 1.713 1.5	or more sub-conductors)	0.881	0.912	0.944	0.977	1.011
with four sub-conductors) 0.755 0.781 0.809 0.837 0.8 Single Circuit (Twin & Triple Conductor) 0.503 0.521 0.539 0.558 0.3 Single Circuit (Single Conductor) 0.252 0.260 0.270 0.279 0.2 Double Circuit (Bundled conductor with four or more subconductors) 1.322 1.368 1.416 1.466 1.3 Double Circuit (Twin & Triple Conductor) 0.881 0.912 0.944 0.977 1.0 Multi Circuit (Single Conductor) 0.377 0.391 0.404 0.419 0.4 Multi Circuit (Twin & Triple Conductor) 2.319 2.401 2.485 2.572 2.6 Multi Circuit (Twin & Triple Conductor) 1.544 1.598 1.654 1.713 1.5 Norms for HVDC stations 1.544 1.598 1.654 1.713 1.5	Circuit (Bundled conductor					
Single Circuit (Twin & Triple Conductor) 0.503 0.521 0.539 0.558 0.5 Single Circuit (Single Conductor) 0.252 0.260 0.270 0.279 0.2 Double Circuit (Bundled conductor with four or more subconductors) 1.322 1.368 1.416 1.466 1.5 Double Circuit (Twin & Triple Conductor) 0.881 0.912 0.944 0.977 1.6 Multi Circuit (Single Conductor) 0.377 0.391 0.404 0.419 0.4 Multi Circuit (Bundled Conductor with four or more sub-conductor) 2.319 2.401 2.485 2.572 2.6 Multi Circuit (Twin & Triple Conductor) 1.544 1.598 1.654 1.713 1.5 Norms for HVDC stations 1.544 1.598 1.654 1.713 1.5		0.755	0.781	0.809	0.837	0.867
Triple Conductor) 0.503 0.521 0.539 0.558 0.5 Single Circuit (Single Conductor) 0.252 0.260 0.270 0.279 0.2 Double Circuit (Bundled conductor with four or more subconductors) 1.322 1.368 1.416 1.466 1.5 Double Circuit (Twin & Triple Conductor) 0.881 0.912 0.944 0.977 1.6 Multi Circuit (Single Conductor) 0.377 0.391 0.404 0.419 0.4 Multi Circuit (Bundled Conductor with four or more sub-conductor) 2.319 2.401 2.485 2.572 2.6 Multi Circuit (Twin & Triple Conductor) 1.544 1.598 1.654 1.713 1.5 Norms for HVDC stations 1.544 1.598 1.654 1.713 1.5						
Single Circuit (Single Conductor) 0.252 0.260 0.270 0.279 0.2 Double Circuit (Bundled conductor with four or more subconductors) 1.322 1.368 1.416 1.466 1.5 Double Circuit (Twin & Triple Conductor) 0.881 0.912 0.944 0.977 1.0 Double Circuit (Single Conductor) 0.377 0.391 0.404 0.419 0.4 Multi Circuit (Bundled Conductor with four or more sub-conductor) 2.319 2.401 2.485 2.572 2.6 Multi Circuit (Twin & Triple Conductor) 1.544 1.598 1.654 1.713 1.3 Norms for HVDC stations 1.544 1.598 1.654 1.713 1.3	•	0.503	0.521	0.539	0.558	0.578
Double Circuit (Bundled conductor with four or more subconductors) 1.322 1.368 1.416 1.466 1.3 conductors Double Circuit (Twin & Triple Conductor) 0.881 0.912 0.944 0.977 1.0 conductor Double Circuit (Single Conductor) 0.377 0.391 0.404 0.419 0.4 conductor Multi Circuit (Bundled Conductor with four or more sub-conductor) 2.319 2.401 2.485 2.572 2.6 conductor Multi Circuit (Twin & Triple Conductor) 1.544 1.598 1.654 1.713 1.5 conductor Norms for HVDC stations 1.544 1.598 1.654 1.713 1.5 conductor	,					
conductor with four or more sub-conductors) 1.322 1.368 1.416 1.466 1.5 Double Circuit (Twin & Triple Conductor) 0.881 0.912 0.944 0.977 1.0 Double Circuit (Single Conductor) 0.377 0.391 0.404 0.419 0.4 Multi Circuit (Bundled Conductor with four or more sub-conductor) 2.319 2.401 2.485 2.572 2.6 Multi Circuit (Twin & Triple Conductor) 1.544 1.598 1.654 1.713 1.7 Norms for HVDC stations 1.544 1.598 1.654 1.713 1.7	Circuit (Single Conductor)	0.252	0.260	0.270	0.279	0.289
conductor with four or more sub-conductors) 1.322 1.368 1.416 1.466 1.5 Double Circuit (Twin & Triple Conductor) 0.881 0.912 0.944 0.977 1.0 Double Circuit (Single Conductor) 0.377 0.391 0.404 0.419 0.4 Multi Circuit (Bundled Conductor with four or more sub-conductor) 2.319 2.401 2.485 2.572 2.6 Multi Circuit (Twin & Triple Conductor) 1.544 1.598 1.654 1.713 1.7 Norms for HVDC stations 1.544 1.598 1.654 1.713 1.7	Circuit (Bundled					
Conductors) 0.881 0.912 0.944 0.977 1.0 Double Circuit (Single Conductor) 0.377 0.391 0.404 0.419 0.4 Multi Circuit (Bundled Conductor with four or more sub-conductor) 2.319 2.401 2.485 2.572 2.6 Multi Circuit (Twin & Triple Conductor) 1.544 1.598 1.654 1.713 1.7 Norms for HVDC stations 1.544 1.598 1.654 1.713 1.7		1.322	1.368	1.416	1.466	1.517
Conductor) 0.881 0.912 0.944 0.977 1.0 Double Circuit (Single Conductor) 0.377 0.391 0.404 0.419 0.4 Multi Circuit (Bundled Conductor with four or more sub-conductor) 2.319 2.401 2.485 2.572 2.6 Multi Circuit (Twin & Triple Conductor) 1.544 1.598 1.654 1.713 1.7 Norms for HVDC stations 1.544 1.598 1.654 1.713 1.7						
Conductor) 0.881 0.912 0.944 0.977 1.0 Double Circuit (Single Conductor) 0.377 0.391 0.404 0.419 0.4 Multi Circuit (Bundled Conductor with four or more sub-conductor) 2.319 2.401 2.485 2.572 2.6 Multi Circuit (Twin & Triple Conductor) 1.544 1.598 1.654 1.713 1.7 Norms for HVDC stations 1.544 1.598 1.654 1.713 1.7	Circuit (Twin & Triple					
Double Circuit (Single Conductor) 0.377 0.391 0.404 0.419 0.4 Multi Circuit (Bundled Conductor with four or more sub-conductor) 2.319 2.401 2.485 2.572 2.6 Multi Circuit (Twin & Triple Conductor) 1.544 1.598 1.654 1.713 1.7 Norms for HVDC stations 1.544 1.598 1.654 1.7 1.7		0.881	0.912	0.944	0.977	1.011
Multi Circuit (Bundled Conductor with four or more sub-conductor)2.3192.4012.4852.5722.6Multi Circuit (Twin & Triple Conductor)1.5441.5981.6541.7131.7Norms for HVDC stations	,	0.277	0.201	0.404	0.410	0.422
four or more sub-conductor) 2.319 2.401 2.485 2.572 2.6 Multi Circuit (Twin & Triple Conductor) 1.544 1.598 1.654 1.713 1.7 Norms for HVDC stations 1.544 1.598 1.654 1.7 1.7		0.377	0.391	0.404	0.419	0.433
Multi Circuit (Twin & Triple Conductor) Norms for HVDC stations		2 310	2 401	2 185	2 572	2.662
Conductor) 1.544 1.598 1.654 1.713	nore sub-conductor)	2.519	2.401	2.400	2.012	2.002
Norms for HVDC stations	rcuit (Twin & Triple	1 5 1 1	1 500	1 654	1 712	1.773
	tor)	1.044	1.590	1.004	1.713	1.773
	or HVDC stations					
HVDC Back-to-Back stations (Rs	Back-to-Back stations (Rs					
	, ,	834	864	894	925	958
Gazuwaka BTB)	aka BTB)					_
Gazuwaka HVDC Back-to-Back	aka HVDC Back-to-Back	1.666	1 705	1 705	1.040	4.042
Gazuwaka HVDC Back-10-Back		1,666	1,725	7,785	1,848	1,913
500 kV Rihand-Dadri HVDĆ						
bipole scheme (Rs Lakh) (1500 2,252 2,331 2,413 2,498 2,5	cheme (Rs Lakh) (1500	2,252	2,331	2,413	2,498	2,586
MW)	. , , ,					· · · · · · · · · · · · · · · · · · ·
±500 kV Talcher- Kolar HVDC	/ Talcher- Kolar HVDC					
		2,468	2,555	2,645	2,738	2,834
MW) =	, , , ,	,	, , , , ,	,	,	,
±500 kV Bhiwadi-Balia HVDC	/ Bhiwadi-Balia HVDC					
		1.696	1,756	1.817	1.881	1,947
MW)	, , , , , , ,	.,	,: 20	,	,	-,

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

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

Provided further that:

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

83. The O&M Expenses claimed by the Petitioner for the Combined Asset are as follows:-

(₹ in lakh)

Particulars	2019-20	2020-21	201-22	2022-23	2023-24
Sub-station					
No. of 765 kV bays	7	7	7	7	7
Norm (₹ lakh/bay)	45.01	46.60	48.23	49.93	51.68
Total Sub-station O&M	315.07	326.20	337.61	349.51	361.76
Transmission Line					
D/C Bundled with 4 or more	369.107	369.107	369.107	369.107	369.107
sub-conductor (KM)					
Norm (₹ lakh/KM)	1.32	1.37	1.42	1.47	1.52
Total Transmission Line					
O&M	487.96	504.94	522.66	541.11	559.94
Communication System					
PLCC (₹ lakh)	470.06	470.06	470.06	470.06	470.06
Norm (%)	2	2	2	2	2
Total PLCC O&M	9.40	9.40	9.40	9.40	9.40
Total O&M Expenses	812.43	840.54	869.67	900.02	931.10

84. The Petitioner has claimed O&M Expenses separately for the PLCC under Regulation 35(4) of the 2019 @2% of its original project cost in the instant petition and 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 and 2019 Tariff Regulations and the norms for sub-station has been specified accordingly. Accordingly, the Commission vide order dated 24.1.2021 in Petition No.126/TT/2020 has already concluded that no separate O&M Expenses can be allowed for PLCC under Regulation 35(4) of the 2019 Tariff Regulations even though PLCC is a communication system. Therefore, the Petitioner's claim for separate O&M Expenses for PLCC @2% is not allowed. The relevant portions of the order dated 24.1.2021 in Petition No.126/TT/2020 are extracted hereunder:

"103. Thus, although PLCC equipment is a communication system, it has been considered as a part of sub-station, as it is used both for protection and communication.



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

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

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

85. Accordingly, the O&M Expenses allowed for the instant transmission asset is as under:

(₹ in lakh)

Particulars	2019-20	2020-21	201-22	2022-23	2023-24
Sub-station					
No. of 765 kV bays	7	7	7	7	7
Norm (₹ lakh/bay)	45.01	46.60	48.23	49.93	51.68
Total Sub-station O&M	315.07	326.20	337.61	349.51	361.76
Transmission Line					
D/C Bundled with 4 or more sub-conductor (KM)	369.107	369.107	369.107	369.107	369.107
Norm (₹ lakh/KM)	1.32	1.37	1.42	1.47	1.52
Total Transmission Line					
O&M	487.96	504.94	522.66	541.11	559.94
Total O&M Expenses	803.03	831.14	860.27	890.62	921.70

Interest on Working Capital (IWC)

86. Regulations 34(1)(c), 34(3) and 34(4) and Regulation 3(7) of the 2019 Tariff Regulations provides as under:



- "34. Interest on Working Capital: (1) The working capital shall cover:
- (c) For Hydro Generating Station (including Pumped Storage Hydro Generating Station) and Transmission System:
 - (i) Receivables equivalent to 45 days of annual fixed cost;
 - (ii) Maintenance spares @ 15% of operation and maintenance expenses including security expenses; and
 - (iii) Operation and maintenance expenses, including security expenses for one month."
- "(3) Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2019 or as on 1st April of the year during the tariff period 2019-24 in which the generating station or a unit thereof or the transmission system including communication system or element thereof, as the case may be, is declared under commercial operation, whichever is later:

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

- (4) Interest on working capital shall be payable on normative basis notwithstanding that the generating company or the transmission licensee has not taken loan for working capital from any outside agency."
- "3. Definitions. 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;"
- 87. 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%. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. Rol 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, Rol for 2020-21 onwards has been considered as 11.25% (SBI 1-year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points). The components of the working capital and interest thereon allowed as under:

Particulars 2019-20		2019-20 2020-21 2021-22		2022-23	2023-24		
0	&	М					
Exp	enses	s	66.92	69.26	71.69	74.22	76.81



Maintenance					
Spares	120.45	124.67	129.04	133.59	138.25
Receivables	3152.01	3071.44	2984.66	2930.08	2873.20
Total	3339.38	3265.38	3185.38	3137.89	3088.26
Rate of					
Interest (%)	12.05	11.25	11.25	11.25	11.25
Interest of					
working					
capital	402.40	367.35	358.36	353.01	347.43

Annual Fixed Charges for the 2019-24 Tariff Period

88. The various components of the annual fixed charges for the Combined Transmission Asset for 2019-24 the tariff period are as under:

(₹ in lakh)

Particulars	2019-20	2020-21	201-22	2022-23	2023-24
Depreciation	8954.07	8960.20	8960.20	8960.20	8960.20
Interest on Loan	5880.12	5150.69	4426.61	3958.93	3535.92
Return on Equity	9596.74	9603.44	9603.44	9603.44	9603.44
Interest on Working Capital	402.40	367.35	358.36	353.01	347.43
Operation and Maintenance	803.03	831.14	860.27	890.62	921.70
Total	25636.35	24912.83	24208.88	23766.21	23368.69

Filing Fee and Publication Expenses

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

Licence Fee and RLDC Fees and Charges

90. 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(3) and 70(4) respectively, of the 2019 Tariff Regulations.



Goods and Services Tax

- 91. The Petitioner has sought to recover GST on transmission charges separately from the Respondents, if at any time GST on transmission is withdrawn from negative list in future. MPPMCL has submitted that the Petitioner's prayer for GST is premature and need not be considered at this stage. The Petitioner in its rejoinder has submitted that it may be allowed to recover GST on transmission charges separately from the Respondents if the same is levied any time in the future.
- 92. We have considered the submissions of the Petitioner and MPPMCL. GST is not levied on transmission service at present and we are of the view that Petitioner's prayer is pre-mature.

Security Expenses

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

94. 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 the 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

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

Sharing of Transmission Charges

- 96. The billing, collection and disbursement of the transmission charges approved in this order shall be governed by the provisions of Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010, as amended from time to time as provided in Regulation 43 of the 2014 Tariff Regulations for the 2014-19 tariff period and Regulation 57 of the 2019 Tariff Regulations for the 2019-24 tariff period.
- 97. To summarise, the trued-up Annual Fixed Charges allowed for the instant assets for the 2014-19 tariff period are as under:

(₹ in lakh)

Particulars	articulars 2014-15 2015-16		2016-17	2017-18	2018-19		
Asset-1	560.69	640.10	656.40	715.92	767.25		
Asset-2a	275.11	739.22	795.91	838.21	838.87		
Asset-2b	851.61	1022.70	1096.79	1117.78	1109.92		
Asset-2c	8894.19	24546.91	24860.17	24361.68	23781.38		

Asset-2d	241.11	456.04	499.67	544.89	581.11
Asset-2e	221.74	437.64	480.96	523.42	557.81

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

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Annual Fixed Charges	25636.35	24912.83	24208.88	23766.21	23368.69

98. This order disposes of Petition No. 270/TT/2020.

/-(Arun Goyal) Member Sd/ (I. S. Jha) Member

Petition No.:	270-TT-2020
Period	2014-19 True up

	2014-19	Admitted Capital	P	Additional	Capital Ex (₹ in lakh)	•	е	Admitted	Rate of		Annu	ıal Depreci (₹ in lakh)	ation	
	Capital Expenditure as on 1.4.2014	Cost as on COD/1.4.20 14 (₹ in lakh)	2014-15	2015-16	2016-17	2017-18	2018-19	Capital Cost as on 31.3.2019 (₹ in lakh)	Deprecia- tion	2014-15	2015-16	2016-17	2017-18	2018-19
	Building	175.34	118.14	70.87	78.15	0.00	0.00	442.50	3.34%	7.83	10.99	13.47	14.78	14.78
	Transmission Line							0.00	5.28%	0.00	0.00	0.00	0.00	0.00
	Sub Station	2118.59	809.07	36.55	145.34	632.41	137.06	3879.02	5.28%	133.22	155.55	160.35	180.88	201.19
Asset-1	PLCC							0.00	6.33%	0.00	0.00	0.00	0.00	0.00
	Leasehold Land							0.00	3.34%	0.00	0.00	0.00	0.00	0.00
	IT Equipment and software	13.47	0.19	0.00	0.00	0.00	0.00	13.66	5.28%	0.72	0.72	0.72	0.72	0.72
	TOTAL	2307.40	927.40	107.42	223.49	632.41	137.06	4335.18		141.77	167.25	174.54	196.38	216.69
							Avera	ige Gross Block	(₹ in lakh)	2771.10	3288.51	3453.96	3881.91	4266.65
		T						erage Rate of De	preciation	5.12%	5.09%	5.05%	5.06%	5.08%
	Building	230.02	96.28	71.39	78.82	13.85		490.36	3.34%	9.29	12.09	14.60	16.15	16.38
	Transmission Line	0.00	0.00	0.00	0.00	0.00		0.00	5.28%	0.00	0.00	0.00	0.00	0.00
	Sub Station	2936.67	407.43	244.03	407.37	184.29	0.00	4179.79	5.28%	165.81	183.01	200.21	215.83	220.69
Asset-2a	PLCC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.33%	0.00	0.00	0.00	0.00	0.00
	Leasehold Land	0.00	0.00	0.00	0.00	0.00		0.00	3.34%	0.00	0.00	0.00	0.00	0.00
	IT Equipment and software	4.30	0.18	0.00	0.00	0.00	0.00	4.48	5.28%	0.23	0.24	0.24	0.24	0.24
	TOTAL	3170.99	503.89	315.42	486.19	198.14	0.00	4674.63		175.33	195.34	215.04	232.21	237.31
			-				Avera	ige Gross Block	(₹ in lakh)	3422.94	3832.59	4233.40	4575.56	4674.63

I	Petition No.:	270-TT-2020
I	Period	2014-19 True up

	2014-19	Capital (₹ in lakh)				е	Admitted	Poto of	Annual Depreciation (₹ in lakh)					
	Capital Expenditure as on 1.4.2014	Cost as on COD/1.4.20 14 (₹ in lakh)	2014-15	2015-16	2016-17	2017-18	2018-19	Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Deprecia- tion	2014-15	2015-16	2016-17	2017-18	2018-19
						Wei	ghted Ave	erage Rate of De	preciation	5.12%	5.10%	5.08%	5.08%	5.08%
	Building	183.57	142.30	158.58	182.42	0.00	0.00	666.87	3.34%	8.51	13.53	19.23	22.27	22.27
	Transmission Line	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.28%	0.00	0.00	0.00	0.00	0.00
	Sub Station	3589.06	1402.18	439.37	304.07	31.56	137.06	5903.30	5.28%	226.52	275.14	294.76	303.62	308.08
Asset-	PLCC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.33%	0.00	0.00	0.00	0.00	0.00
2b	Leasehold Land	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.34%	0.00	0.00	0.00	0.00	0.00
	IT Equipment and software	4.45	0.05	0.00	0.00	0.00	0.00	4.50	5.28%	0.24	0.24	0.24	0.24	0.24
	TOTAL	3777.07	1544.53	597.95	486.49	31.56	137.06	6574.66		235.26	288.91	314.23	326.13	330.59
							Avera	ige Gross Block	(₹ in lakh)	4549.34	5620.58	6162.80	6421.82	6506.13
						Wei	ghted Ave	erage Rate of De	preciation	5.17%	5.14%	5.10%	5.08%	5.08%
	Building	139.52	10.52	11.47	125.33	16.26	21.37	324.47	3.34%	4.84	5.20	7.49	9.85	10.48
	Transmission Line	138371.96	1265.20	7029.41	900.38	9.97	63.52	147640.44	5.28%	7339.44	7558.42	7767.76	7791.80	7793.74
	Sub Station	853.48	278.01	0.31	57.13	47.24	0.00	1236.17	5.28%	52.40	59.75	61.27	64.02	65.27
Asset-2c	PLCC	448.03	12.39	0.00	9.64	0.00	0.00	470.06	6.33%	28.75	29.14	29.45	29.75	29.75
	Leasehold Land	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.34%	0.00	0.00	0.00	0.00	0.00
	IT Equipment and software	23.85	0.05	0.00	0.00	0.00	0.00	23.90	5.28%	1.26	1.26	1.26	1.26	1.26
	TOTAL	139836.83	1566.17	7041.19	1092.48	73.47	84.89	149695.03		7426.69	7653.78	7867.23	7896.69	7900.50

I	Petition No.:	270-TT-2020
I	Period	2014-19 True up

	2014-19	Admitted	, ,		Capital E		е			Annual Depreciation				
		Capital		T	(₹ in lakh)			Admitted	Rate of			(₹ in lakh)		
	Capital Expenditure as on 1.4.2014	Cost as on COD/1.4.20 14 (₹ in lakh)	2014-15	2015-16	2016-17	2017-18	2018-19	on 31.3.2019 (₹ in lakh)	Deprecia- tion	2014-15	2015-16	2016-17	2017-18	2018-19
		,					Avera	ge Gross Block	(₹ in lakh)	140619.92	144923.60	148990.43	149573.41	149652.59
Weighted Average Rate of Depreciation										5.28%	5.28%	5.28%		5.28%
	Building	184.67	55.35	13.38	57.14	0.00	4.31	314.85	3.34%	7.09	8.24	9.42	10.37	10.44
	Transmission Line	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.28%	0.00	0.00	0.00	0.00	0.00
	Sub Station	768.12	532.98	93.68	366.73	141.62	305.78	2208.91	5.28%	54.63	71.17	83.33	96.75	108.56
Asset-2d	PLCC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.33%	0.00	0.00	0.00	0.00	0.00
	Leasehold Land	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.34%	0.00	0.00	0.00	0.00	0.00
	IT Equipment and software		0.14	0.03	0.00	0.00	0.00	7.45	5.28%	0.39	0.39	0.39	0.39	0.39
	TOTAL	960.07	588.47	107.09	423.87	141.62	310.09	2531.21		62.11	79.80	93.14	107.51	119.40
							Avera	ige Gross Block	(₹ in lakh)	1254.31	1602.09	1867.57	2150.31	2376.17
						Wei	ighted Ave	erage Rate of De	preciation	4.95%	4.98%	4.99%	5.00%	5.02%
	Building	182.33	55.26	42.20	28.71	0.00	4.31	312.81	3.34%	7.01	8.64	9.82	10.30	10.38
	Transmission Line	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.28%	0.00	0.00	0.00	0.00	0.00
	Sub Station	670.49	529.88	64.35	385.24	112.81	305.78	2068.55	5.28%	49.39	65.08	76.95	90.10	101.15
Asset-2e	PLCC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.33%	0.00	0.00	0.00	0.00	0.00
	Leasehold Land	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.34%	0.00	0.00	0.00	0.00	0.00
	IT Equipment and software	7.27	0.14	0.04	0.00	0.00	0.00	7.45	5.28%	0.39	0.39	0.39	0.39	0.39

Petition No.:	270-TT-2020
Period	2014-19 True up

	2014-19	Admitted	• • •							Annual Depreciation					
		Capital	(₹ in lakh)				Admitted	Rate of	(₹ in lakh)						
	Capital Expenditure	Cost as on COD/1.4.20		2015-16	2016-17	2017-18	2018-19	Capital Cost as on 31.3.2019 (₹ in lakh)	Deprecia- tion		2015-16	2016-17	2017-18	2018-19	
	as on	14													
	1.4.2014	(₹ in lakh)													
	TOTAL	860.09	585.28	106.59	413.95	112.81	310.09	2388.81		56.79	74.11	87.17	100.79	111.92	
			Average Gross Block (₹ in lakh)						1152.73	1498.67	1758.94	2022.32	2233.77		
			Weighted Average Rate of Depreciation 4.93% 4.95% 4.96% 4.98% 5.							5.01%					

Petition No.:	270-TT-2020					
Period	2019-24 Tariff					

Accet	2019-24	Admitted Capital Cost as	Additional Capital Expenditure (₹ in lakh)	Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Deprecia- tion	Annual Depreciation (₹ in lakh)					
Asset	Capital Expenditure as on 1.4.2019	on 31.3.2019 (₹ in lakh)	2019-20			2019-20	2020-21	2021-22	2022-23	2023-24	
	Building	2551.85	15.08	2566.93	3.34%	85.48	85.74	85.74	85.74	85.74	
	Transmission Line	147640.44	0.00	147640.44	5.28%	7795.42	7795.42	7795.42	7795.42	7795.42	
	Sub Station	19475.74	222.75	19698.49	5.28%	1034.20	1040.08	1040.08	1040.08	1040.08	
Combined	PLCC	470.06	0.00	470.06	6.33%	29.75	29.75	29.75	29.75	29.75	
Assets	Leasehold Land	0.00	0.00	0.00	3.34%	0.00	0.00	0.00	0.00	0.00	
	IT Equipment and software	61.44	0.00	61.44	15.00%	9.22	9.22	9.22	9.22	9.22	
	TOTAL	170199.52	237.83	170437.35		8954.07	8960.20	8960.20	8960.20	8960.20	
						170318.43	170437.35	170437.35	170437.35	170437.35	
						5.26%	5.26%	5.26%	5.26%	5.26%	