

CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

Petition No. 423/TT/2019

Coram:

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

Date of order: 29.06.2022

In the matter of:

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and truing up of transmission tariff of the 2014-19 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of the 2019-24 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for transmission assets under "Expansion/Upgradation of SCADA/EMS System of SLDCs of the North Eastern Region".

And in the matter of:

Power Grid Corporation of India Limited,
SAUDAMINI, Plot No-2,
Sector-29, Gurgaon-122 001 (Haryana).

.....Petitioner

Vs

1. Assam Electricity Grid Corporation Limited,
Bijulee Bhawan, Paltan Bazar,
Guwahati-781001, Assam.
2. Meghalaya Energy Corporation Limited,
Short Round Road, "Lumjingshai",
Shillong-793001, Meghalaya.
3. Government of Arunachal Pradesh,
Itanagar, Arunachal Pradesh.
4. Power and Electricity Department,
Government of Mizoram,
Aizawl, Mizoram.



5. Manipur State Electricity Distribution Company Limited,
Keishampat, Imphal.
6. Department of Power,
Government of Nagaland,
Kohima, Nagaland.
7. Tripura State Electricity Corporation Limited,
Vidyut Bhawan, North Banamalipur,
Agartala, Tripura (W)-799001, Tripura.

...Respondent(s)

For Petitioner: Shri S.S. Raju, PGCIL
Shri D.K. Biswal, PGCIL
Shri Ved Prakash Rastogi, PGCIL
Shri Amit Yadav, PGCIL

For Respondent: None

ORDER

The Petitioner, Power Grid Corporation of India Limited (PGCIL), has filed the instant petition for truing up of tariff from COD to 31.3.2019 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) and for determination of tariff for the period from 1.4.2019 to 31.3.2024 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “ the 2019 Tariff Regulations”) in respect of the following assets (hereinafter referred to as “the transmission assets”) under the “Expansion/Upgradation of SCADA/EMS System of SLDCs of North Eastern Region” (hereinafter referred to as “the transmission system”):

Asset-I: Main SCADA EMS System of SLDCs of Assam;

Asset-II: Main SCADA EMS System of SLDCs of Meghalaya;

Asset-III: Main SCADA EMS System of SLDCs of Tripura;

Asset-IV: Main SCADA EMS System of SLDCs of Manipur;



Asset-V: Main SCADA EMS System of SLDCs of Mizoram;

Asset-VI: Main SCADA EMS System of SLDCs of Arunachal Pradesh; and

Asset-VII: Main SCADA EMS System of SLDCs of Nagaland.

2. The Petitioner has made the following prayers:

“1) Approve the trued up Transmission Tariff for 2014-19 block and transmission tariff for 2019-24 block for the assets covered under this petition, as per para 11.1 and 12.1 above.

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

3) a) Allow the Petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided in Tariff Regulation 2014 and Tariff regulations 2019 as per para 10.2 and 11.0 above for respective block.

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

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

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

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

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

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

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



Background

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

a. The Investment Approval (IA) for implementation of “Expansion/Upgradation of SCADA/EMS System of SLDCs of the North Eastern Region” was accorded by the Board of Directors of the Petitioner’s Company in its 298th meeting held on 5.2.2014 communicated vide Memorandum Ref: C/CP/NERSCADA dated 17.2.2014, at an estimated cost of ₹5618.00 lakh including IDC of ₹317.00 lakh, based on December 2013 price level.

b. The approval for Expansion/ Upgradation of SCADA/EMS System of SLDCs of North Eastern Region was discussed and approved in the 12th TCC and NERPC meeting held on 14th and 15.11.2011 at Amritsar, 13th TCC and NERPC meeting held on 9.7.2013 at Faridabad, Special TCC held on 9.2.2013 at Shillong and 14th TCC and NERPC held on 4.9.2013 at Agartala.

c. The scope of work covered under the transmission system is broadly as follows:

- i. Installation of new EMS/SCADA platform equipped with Hardware & Software at existing SLDCs of Assam, Tripura establishment of SLDCs at Arunachal Pradesh, Mizoram, and Manipur and Nagaland.
- ii. Installation of RTUs and Integration of RTUs/ SAS to Control Centre on IEC 60870-5-101/104 protocol.
- iii. Integration of Control Centers of SLDCs with Main and Backup NERLDC on ICCP protocol.
- iv. Installation of New Video Projection System (VPS) for SLDCs of Assam, Tripura, Meghalaya, Mizoram, Manipur, Arunachal Pradesh & Nagaland.



- v. Installation of Video Conferencing System (VCS) at SLDCs for online meeting among SLDCs and NERLDC.
 - vi. Installation of Auxiliary Power Supply (APS) System for Control Centers.
 - vii. Construction of Control Room Building on top of existing SLDC building for Meghalaya.
- d. The details of commercial operation of the transmission assets covered in the instant petition are as follows:

S. No.	Asset Description	Previous Order	Asset nomenclature in instant order	Actual COD
1	Main SCADA EMS System of SLDCs of Assam	Order dated 29.11.2017 in Petition No. 113/TT/2016	Asset-I	1.4.2016
2	Main SCADA EMS System of SLDCs of Meghalaya		Asset-II	1.4.2016
3	Main SCADA EMS System of SLDCs of Tripura		Asset-III	1.4.2016
4	Main SCADA EMS System of SLDCs of Manipur	Order dated 3.12.2018 in Petition No. 8/TT/2018	Asset-IV	9.11.2016
5	Main SCADA EMS System of SLDCs of Mizoram		Asset-V	10.4.2017
6	Main SCADA EMS System of SLDCs of Arunachal Pradesh		Asset-VI	15.1.2018
7	Main SCADA EMS System of SLDCs of Nagaland		Asset-VII	15.1.2018

- e. The complete scope of the transmission system is covered in the instant petition.
- f. The transmission assets were scheduled to be put into commercial operation within 27 months from the date of approval of IA i.e. 5.2.2014. Accordingly, the Scheduled Date of Commissioning (SCOD) of the transmission



system comes to 5.5.2016. Accordingly, there is a time over-run in case of Asset-IV, Asset-V, Asset-VI and Asset-VII.

g. Summary of the decision taken in order dated 3.12.2018 in Petition No. 8/TT/2018 for time over-run are as follows:

Asset nomenclature in instant order	Asset Description	Asset nomenclature in Petition No. 8/TT/2018	Actual COD	Delay (in days)	Delay condoned / not condoned
Asset-IV	Main SCADA EMS System of SLDCs of Manipur	Asset-1	9.11.2016	188	188 days condoned
Asset-V	Main SCADA EMS System of SLDCs of Mizoram	Asset-2	10.4.2017	340	334 days condoned 6 days not condoned
Asset-VI	Main SCADA EMS System of SLDCs of Arunachal Pradesh	Asset-3	15.1.2018	620	501 days condoned 119 days not condoned
Asset-VII	Main SCADA EMS System of SLDCs of Nagaland	Asset-4	15.1.2018	620	501 days condoned 119 days not condoned

4. The Commission *vide* order dated 29.11.2017 in Petition No. 113/TT/2016 allowed transmission tariff in respect of Asset-I, Asset-II and Asset-III and *vide* order dated 3.12.2018 in Petition No. 8/TT/2018 allowed transmission tariff in respect of Asset-IV, Asset-V, Asset-VI and Asset-VII from COD to 31.3.2019.

5. The Respondents are distribution licensees and power departments, which are procuring transmission service from the Petitioner, mainly beneficiaries of the North Eastern Region.

6. The Petitioner has served the petition on the Respondents and notice of this petition has been published in 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 newspapers by the Petitioner. Further, none of the Respondents has filed any replies in the instant petition.



7. The hearing in this matter was held on 2.11.2021 and the Commission reserved the order in the matter. However, the order could not be issued before Shri P.K. Pujari, former Chairperson, demitted the office. Therefore, the matter was heard again on 23.6.2022 and order was reserved.

8. This order is issued considering the submissions made by the Petitioner in the petition dated 4.10.2019 and affidavits dated 23.9.2021 and 13.10.2021.

9. 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 PERIOD

10. The Petitioner vide affidavit dated 23.9.2021 has claimed the following trued-up transmission charges in respect of the transmission assets:

(₹ in lakh)

Asset Particulars	Asset-I			Asset-II		
	2016-17	2017-18	2018-19	2016-17	2017-18	2018-19
Depreciation	47.59	57.87	66.04	54.24	62.42	77.44
Interest on Loan	17.21	15.92	13.70	22.65	19.67	19.66
Return on Equity	18.76	22.81	26.10	24.06	27.32	33.74
O&M Expenses	0.00	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	1.82	2.11	2.31	2.20	2.38	2.85
Total	85.38	98.71	108.15	103.15	111.79	133.69

(₹ in lakh)

Asset Particulars	Asset-III			Asset-IV		
	2016-17	2017-18	2018-19	2016-17 (Pro-rata 143 days)	2017-18	2018-19
Depreciation	86.53	110.08	122.57	28.53	85.55	93.79
Interest on Loan	30.34	29.87	24.93	10.47	26.33	22.12
Return on Equity	34.10	43.38	48.43	11.24	33.72	37.06
O&M Expenses	0.00	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	3.29	4.00	4.27	1.10	3.17	3.33
Total	154.26	187.33	200.20	51.34	148.77	156.30



(₹ in lakh)

Asset Particulars	Asset-V		Asset-VI	
	2017-18 (Pro-rata 356 days)	2018-19	2017-18 (Pro-rata 76 days)	2018-19
Depreciation	64.14	79.47	17.82	91.66
Interest on Loan	21.37	20.87	6.35	28.79
Return on Equity	25.28	31.40	7.03	36.22
O&M Expenses	0.00	0.00	0.00	0.00
Interest on Working Capital	2.38	2.83	0.67	3.36
Total	113.17	134.57	31.87	160.03

(₹ in lakh)

Asset Particulars	Asset-VII	
	2017-18 (Pro-rata for 76 days)	2018-19
Depreciation	18.42	97.66
Interest on Loan	6.38	29.88
Return on Equity	7.26	38.59
O&M Expenses	0.00	0.00
Interest on Working Capital	0.69	3.56
Total	32.75	169.69

11. The details of the trued-up Interest on Working Capital (IWC) claimed by the Petitioner vide affidavit dated 23.9.2021 in respect of the transmission assets is as follows:

(₹ in lakh)

Asset Particulars	Asset-I			Asset-II		
	2016-17	2017-18	2018-19	2016-17	2017-18	2018-19
WC for O&M Expenses	0.00	0.00	0.00	0.00	0.00	0.00
WC for Maintenance Spares	0.00	0.00	0.00	0.00	0.00	0.00
WC for Receivables	14.23	16.45	18.03	17.19	18.63	22.28
Total Working Capital	14.23	16.45	18.03	17.19	18.63	22.28
Rate of Interest (%)	12.80	12.80	12.80	12.80	12.80	12.80
Interest on Working Capital	1.82	2.11	2.31	2.20	2.38	2.85

(₹ in lakh)

Asset Particulars	Asset-III			Asset-IV		
	2016-17	2017-18	2018-19	2016-17 (Pro-rata 143 days)	2017-18	2018-19
WC for O&M Expenses	0.00	0.00	0.00	0.00	0.00	0.00



Asset	Asset-III			Asset-IV		
Particulars	2016-17	2017-18	2018-19	2016-17 (Pro-rata 143 days)	2017-18	2018-19
WC for Maintenance Spares	0.00	0.00	0.00	0.00	0.00	0.00
WC for Receivables	25.71	31.22	33.37	21.84	24.80	26.05
Total Working Capital	25.71	31.22	33.37	21.84	24.80	26.05
Rate of Interest (%)	12.80	12.80	12.80	12.80	12.80	12.80
Interest on Working Capital	3.29	4.00	4.27	1.10	3.17	3.33

(₹ in lakh)

Asset	Asset-V		Asset-VI	
Particulars	2017-18 (Pro-rata 356 days)	2018-19	2017-18 (Pro-rata 76 days)	2018-19
WC for O&M Expenses	0.00	0.00	0.00	0.00
WC for Maintenance Spares	0.00	0.00	0.00	0.00
WC for Receivables	19.34	22.43	25.51	26.67
Total Working Capital	19.34	22.43	25.51	26.67
Rate of Interest (%)	12.60	12.60	12.60	12.60
Interest on Working Capital	2.38	2.83	0.67	3.36

(₹ in lakh)

Asset	Asset-VII	
Particulars	2017-18 (Pro-rata for 76 days)	2018-19
WC for O&M Expenses	0.00	0.00
WC for Maintenance Spares	0.00	0.00
WC for Receivables	26.21	28.28
Total Working Capital	26.21	28.28
Rate of Interest (%)	12.60	12.60
Interest on Working Capital	0.69	3.56

Capital Cost as on the date of commercial operation

12. The capital cost of the transmission asset has been considered in accordance with Regulation 9(2) of the 2014 Tariff Regulations.

13. The Commission *vide* order dated 29.11.2017 in Petition No. 113/TT/2016 and order dated 3.12.2018 in Petition No. 8/TT/2018 had approved the following capital cost as on COD:



(₹ in lakh)

Asset	AppORTIONED APPROVED COST	Capital Cost allowed as on COD
Asset-I	548.37	290.19
Asset-II	709.72	402.49
Asset-III	1069.21	477.88
Asset-IV	745.26	428.02
Asset-V	642.45	379.24
Asset-VI	992.28	567.74
Asset-VII	910.28	589.59

14. The Petitioner vide affidavit dated 13.9.2021 referring to Clause 12.3 of Statement of Reasons (SOR) of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) (First Amendment) Regulations, (hereinafter referred to as the “2015 Amendment Regulations”) dated 24.11.2015 has submitted that communication equipment such as SCADA are to be considered as IT equipment and has revised its submissions considering communication equipment such as SCADA as IT equipment and accordingly claimed depreciation at the rate of 15%. The Petitioner has further submitted that in Petition No. 113/TT/2016 and Petition No.8/TT/2018 and the instant true up petition, the Petitioner has inadvertently claimed the depreciation rate of 6.33% instead of 15% considering the transmission assets. Accordingly, the Petitioner vide affidavit dated 23.9.2021 has filed the revised tariff forms and has prayed for considering the revised capital cost. The Petitioner has claimed the following capital cost as on COD and actual additional capital expenditure for transmission assets:

(₹ in lakh)

Asset	AppORTIONED APPROVED COST	On cash basis				Capital Cost as on 31.3.2019
		Capital Cost as on COD	ACE during 2016-17	ACE during 2017-18	ACE during 2018-19	
Asset-I	548.37	297.89	47.05	81.73	27.24	453.91

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Asset	Apportioned Approved Cost	On cash basis				
		Capital Cost as on COD	ACE during 2016-17	ACE during 2017-18	ACE during 2018-19	Capital Cost as on 31.3.2019
Asset-II	709.72	411.21	1.65	98.97	114.81	626.64
Asset-III	1069.21	491.09	185.53	114.71	51.66	842.99
Asset-IV	745.26	435.32	115.12	47.17	55.27	652.88
Asset-V	642.45	384.84	0.00	114.30	63.45	562.59
Asset-VI	992.28	586.96	0.00	0.00	80.77	667.73
Asset-VII	910.28	619.49	0.00	0.09	122.71	742.29

Interest during construction (IDC)

15. The Petitioner has claimed the following IDC for the transmission assets vide Auditor Certificate along with the IDC discharge statement:

Asset	IDC as per Certificate	IDC Discharged upto COD	IDC discharged in 2016-17	IDC discharged in 2017-18	(₹ in lakh)	
					IDC discharged in 2018-19	IDC discharged in 2018-19
Asset-I	8.80	0.55	8.20	0.05	0.00	0.00
Asset-II	11.44	1.83	9.29	0.32	0.00	0.00
Asset-III	14.46	0.65	13.60	0.21	0.00	0.00
Asset-IV	22.73	15.31	0.04	7.38	0.00	0.00
Asset-V	18.62	13.29	0.00	4.86	0.47	0.47
Asset-VI	45.54	36.99	0.00	0.40	8.15	8.15
Asset-VII	33.95	27.23	0.00	2.62	4.10	4.10

16. IDC is worked out based on the details given in the submissions. Further, the loan amount as on COD has been mentioned in Forms 6 and Form 9C. The allowable IDC is worked out based on the information available on record and relying on loan amount as per tariff Form 9C.

17. The details of IDC for the transmission assets claimed as per Auditor Certificate, IDC allowed, and IDC discharged is as follows:



(₹ in lakh)

Asset	IDC claimed as per Auditor Certificate dated 1.7.2021	IDC disallowed due to computational difference and time overrun not condoned	IDC allowed	IDC allowed on cash basis as on COD	Un-discharged IDC liability as on COD	Discharge of IDC liability allowed as ACE		
						2016-17	2017-18	2018-19
Asset-I	8.80	0.07	8.73	0.51	8.22	8.20	0.02	0.00
Asset-II	11.44	0.33	11.11	1.79	9.32	9.29	0.03	0.00
Asset-III	14.46	0.24	14.22	0.58	13.64	13.60	0.04	0.00
Asset-IV	22.73	0.25	22.48	15.31	7.17	0.04	7.13	0.00
Asset-V	18.62	0.49	18.13	13.28	4.84	0.00	4.84	0.00
Asset-VI	45.54	9.42	36.12	33.24	2.87	0.00	0.40	2.47
Asset-VII	33.95	9.79	24.16	11.46	12.70	0.00	8.60	4.10

Incidental Expenditure During Construction (IEDC)

18. The Petitioner has claimed IEDC in respect of the transmission assets as per the Auditor's Certificate. The IEDC considered as on the date of commercial operation for the purpose of tariff determination in this order is as follows:

(₹ in lakh)

Assets	IEDC as per Auditor Certificate (A)	IEDC disallowed due to time over-run (B)	IEDC allowed (C=A-B)
Asset-I	12.48	0.00	12.48
Asset-II	16.37	0.00	16.37
Asset-III	20.80	0.00	20.80
Asset-IV	29.01	0.00	29.01
Asset-V	38.69	0.20	38.49
Asset-VI	76.83	6.35	70.48
Asset-VII	84.50	6.98	77.52

Initial Spares

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

“(d) Transmission System
Transmission line: 1.00%
Transmission sub-station (Green Field): 4.00%



Transmission sub-station (Brown Field): 6.00%
GIS Sub-station: 5.00%

20. The Petitioner has claimed the Initial Spares in the instant petition for the following transmission assets:

(₹ in lakh)

Asset	Plant and Machinery excluding IDC, IEDC, Land cost and cost of Civil works as on cut-off date (A)	Initial Spares Claimed by the Petitioner (B)	Ceiling limit (%) (C)	Initial Spares worked out by the Petitioner
				$D = [(A-B)*C/(100-C)]$
For SCADA/EMS				
Asset-IV	405.41	3.33	3.50	14.58
Asset-V	403.47	3.33	3.50	14.51
Asset-VI	395.61	3.33	3.50	14.23
Asset-VII	400.62	3.33	3.50	14.41
Total	1605.11	13.32		57.73

21. Based on the information available on record, the Initial Spares for the communication assets are allowed as per respective percentage of the Plant and Machinery Cost as on the cut-off date on individual basis. The Initial spares claimed by the Petitioner is within ceiling limit of 3.5% as specified under 13(d) of the 2014 Tariff Regulations. Accordingly, the Initial Spares computed and allowed as per the 2014 Tariff Regulations are as follows:

(₹ in lakh)

Asset	Plant and Machinery cost (excluding IDC, IEDC, Land cost and cost of Civil works as on cut-off date) (A)	Initial Spares Claimed by the Petitioner (B)	Ceiling limit (%) (C)	Initial Spares worked out by the Petitioner	Initial Spares Allowed (E)	Excess Initial Spares Disallowed (F=B-C)
				$D = [(A-B)*C/(100-C)]$		
For SCADA/EMS						
Asset-IV	405.41	3.33	3.50	14.58	3.33	0.00



Asset	Plant and Machinery cost (excluding IDC, IEDC, Land cost and cost of Civil works as on cut-off date) (A)	Initial Spares Claimed by the Petitioner (B)	Ceiling limit (%) (C)	Initial Spares worked out by the Petitioner	Initial Spares Allowed (E)	Excess Initial Spares Disallowed (F=B-C)
				$D = [(A-B)*C/(100-C)]$		
Asset-V	403.47	3.33	3.50	14.51	3.33	0.00
Asset-VI	395.61	3.33	3.50	14.23	3.33	0.00
Asset-VII	400.62	3.33	3.50	14.41	3.33	0.00

22. The details of the capital cost as on COD approved in the instant petition after adjustment of IDC and excess Initial Spares is as follows:

(₹ in lakh)					
Asset	Capital Cost claimed as on COD as per Auditor's Certificate	Un-discharged IDC (B)	IDC disallowed (C)	IEDC disallowed (D)	Capital Cost allowed as on COD on cash basis (E) = (A-B-C-D)
Asset-I	297.89	8.22	0.07	0.00	289.60
Asset-II	411.21	9.32	0.33	0.00	401.56
Asset-III	491.09	13.64	0.24	0.00	477.21
Asset-IV	435.32	7.17	0.25	0.00	427.90
Asset-V	384.84	4.84	0.49	0.20	379.30
Asset-VI	586.96	2.87	9.42	6.35	568.32
Asset-VII	619.49	12.70	9.79	6.98	590.02

Additional Capital Expenditure (ACE)

23. The Commission *vide* order dated 29.11.2017 in Petition No. 113/TT/2016 and order dated 3.12.2018 in Petition No. 8/TT/2018 had allowed ACE for the 2014-19 tariff period on account of balance & retention payments and towards discharge of IDC liability in accordance with Regulation 14(1) of the 2014 Tariff Regulations. ACE allowed is as follows:



(₹ in lakh)

Asset	ACE admitted for 2016-17	ACE admitted for 2017-18	ACE admitted for 2018-19	Total ACE admitted
Asset-I	158.67	0.00	0.00	158.67
Asset-II	191.49	0.00	0.00	191.49
Asset-III	278.23	0.00	0.00	278.23
Asset-IV	115.16	89.52	71.28	275.96
Asset-V	0.00	204.30	12.10	216.40
Asset-VI	0.00	0.40	133.49	133.89
Asset-VII	0.00	0.09	152.73	152.82

24. Against this, the Petitioner in the instant true up petition has claimed ACE on account of any undischarged liability towards final payment/ withheld payment due to contractual exigencies for works executed within the cut-off date in accordance with Regulation 14(1)(i) of the 2014 Tariff Regulations. The details of ACE claimed by the Petitioner are as follows:

(₹ in lakh)

Asset	ACE Claimed for 2016-17	ACE claimed for 2017-18	ACE claimed for 2018-19
Asset-I	47.05	81.73	27.24
Asset-II	1.65	98.97	114.81
Asset-III	185.53	114.71	51.66
Asset-IV	115.12	47.17	55.27
Asset-V	0.00	114.30	63.45
Asset-VI	0.00	0.00	80.77
Asset-VII	0.00	0.09	122.71

25. We have considered the submissions of the Petitioner. The actual ACE claimed by the Petitioner has been allowed under Regulation 14(1)(i) of the 2014 Tariff Regulations as it is on account of undischarged liability towards final payment/ withheld payment due to contractual exigencies for works executed within the cut-off date. The un-discharged IDC liability as on COD has been allowed as ACE during the year of its



discharge. ACE allowed from COD to 31.3.2019 in respect of the transmission assets

is as follows:

(₹ in lakh)				
Asset	Particulars	ACE allowed for 2016-17	ACE allowed for 2017-18	ACE allowed for 2018-19
Asset-I	Expenditure as per Auditor Certificate	47.05	81.73	27.24
	Discharge of IDC Liability	8.20	0.02	0.00
	Total ACE allowed	55.25	81.75	27.24
Asset-II	Expenditure as per Auditor Certificate	1.65	98.97	114.81
	Discharge of IDC Liability	9.29	0.03	0.00
	Total ACE allowed	10.94	99.00	114.81
Asset-III	Expenditure as per Auditor Certificate	185.53	114.71	51.66
	Discharge of IDC Liability	13.60	0.04	0.00
	Total ACE allowed	199.13	114.75	51.66
Asset-IV	Expenditure as per Auditor Certificate	115.12	47.17	55.27
	Discharge of IDC Liability	0.04	7.13	0.00
	Total ACE allowed	115.16	54.30	55.27
Asset-V	Expenditure as per Auditor Certificate	0.00	114.30	63.45
	Discharge of IDC Liability	0.00	4.84	0.00
	Total ACE allowed	0.00	119.14	63.45
Asset-VI	Expenditure as per Auditor Certificate	0.00	0.00	80.77
	Discharge of IDC Liability	0.00	0.40	2.47
	Total ACE allowed	0.00	0.40	83.24
Asset-VII	Expenditure as per Auditor Certificate	0.00	0.09	122.71
	Discharge of IDC Liability	0.00	8.60	4.10
	Total ACE allowed	0.00	8.69	126.81

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

(₹ in lakh)					
Asset	Admitted Capital Cost as on COD	ACE allowed			Total Capital Cost as on 31.3.2019
		2016-17	2017-18	2018-19	
Asset-I	289.60	55.25	81.75	27.24	453.84
Asset-II	401.56	10.94	99.00	114.81	626.31
Asset-III	477.21	199.13	114.75	51.66	842.75
Asset-IV	427.90	115.16	54.30	55.27	652.63
Asset-V	379.30	0.00	119.14	63.45	561.90
Asset-VI	568.32	0.00	0.40	83.24	651.96
Asset-VII	590.02	0.00	8.69	126.81	725.52



Debt-Equity ratio

27. The Petitioner has claimed debt-equity ratio of 70:30 as on the date of commercial operation. Further, the Petitioner vide affidavit dated 13.10.2021 has also submitted the year wise details of debt-equity for the ACE claimed during the 2014-19 and 2019-24 tariff periods.

28. Accordingly, the details of debt-equity ratio in respect of the transmission assets as on the date of commercial operation and as on 31.3.2019 allowed are as follows:

Funding	Capital Cost as on COD (₹ in lakh)	(%)	Capital Cost as on 31.3.2019 (₹ in lakh)	(%)
Asset-I				
Debt	202.72	70.00	317.70	70.00
Equity	86.88	30.00	136.15	30.00
Total	289.60	100.00	453.84	100.00
Asset-II				
Debt	281.09	70.00	438.45	70.01
Equity	120.47	30.00	187.85	29.99
Total	401.56	100.00	626.31	100.00
Asset-III				
Debt	334.05	70.00	589.92	70.00
Equity	143.16	30.00	252.82	30.00
Total	477.21	100.00	842.75	100.00
Asset-IV				
Debt	299.53	70.00	456.84	70.00
Equity	128.37	30.00	195.79	30.00
Total	427.90	100.00	652.63	100.00
Asset-V				
Debt	265.51	70.00	393.33	70.00
Equity	113.79	30.00	168.56	30.00
Total	379.30	100.00	561.90	100.00
Asset-VI				
Debt	397.82	70.00	456.38	70.00
Equity	170.49	30.00	195.59	30.00
Total	568.32	100.00	651.97	100.00
Asset-VII				
Debt	413.01	70.00	507.87	70.00
Equity	177.01	30.00	217.65	30.00
Total	590.02	100.00	725.52	100.00



Depreciation

29. The Gross Block during the tariff period 2014-19 has been depreciated at Weighted Average Rate of Depreciation (WAROD) (as placed in Annexure-I). WAROD has been worked out after considering the depreciation rates of asset as prescribed in the 2014 Tariff Regulations. The following tables show asset-wise trued up depreciation allowed in the instant petition:

(₹ in lakh)

Asset Particulars	Asset-I			Asset-II		
	2016-17	2017-18	2018-19	2016-17	2017-18	2018-19
Depreciation						
Opening Gross Block	289.60	344.85	426.60	401.56	412.50	511.50
ACE	55.25	81.75	27.24	10.94	99.00	114.81
Closing Gross Block	344.85	426.60	453.84	412.50	511.50	626.31
Average Gross Block	317.23	385.73	440.22	407.03	462.00	568.90
Weighted Average Rate of Depreciation (%)	15.00	15.00	15.00	13.32	13.51	13.60
Balance useful life at the beginning of the year	7	6	5	9	8	7
Elapsed life at the beginning of the year	0	1	2	0	1	2
Aggregated Depreciable Value	317.23	385.73	440.22	401.17	456.08	562.09
Depreciation during the year	47.58	57.86	66.03	54.23	62.40	77.39
Cumulative Depreciation at the end of the year	47.58	105.44	171.48	54.23	116.63	194.02
Remaining Aggregate Depreciable Value at the end of the year	269.64	280.28	268.75	346.94	339.45	368.07

(₹ in lakh)

Asset Particulars	Asset-III			Asset-IV		
	2016-17	2017-18	2018-19	2016-17 (Pro-rata 143 days)	2017-18	2018-19
Depreciation						
Opening Gross Block	477.21	676.34	791.09	427.90	543.06	597.36
ACE	199.13	114.75	51.66	115.16	54.30	55.27
Closing Gross Block	676.34	791.09	842.75	543.06	597.36	652.63
Average Gross Block	576.77	733.71	816.92	485.48	570.21	624.99
Weighted Average Rate of Depreciation (%)	15.00	15.00	15.00	15.00	15.00	15.00
Balance useful life at the beginning	7	6	5	7	7	6



Asset Particulars	Asset-III			Asset-IV		
	2016-17	2017-18	2018-19	2016-17 (Pro-rata 143 days)	2017-18	2018-19
of the year						
Elapsed life at the beginning of the year	0	1	2	0	0	1
Aggregated Depreciable Value	576.77	733.71	816.92	485.48	570.21	624.99
Depreciation during the year	86.52	110.06	122.54	28.53	85.53	93.75
Cumulative Depreciation at the end of the year	86.52	196.57	319.11	28.53	114.06	207.81
Remaining Aggregate Depreciable Value at the end of the year	490.26	537.14	497.80	456.95	456.15	417.18

(₹ in lakh)

Asset Particulars	Asset-V		Asset-VI	
	2017-18 (Pro-rata 356 days)	2018-19	2017-18 (Pro-rata 76 days)	2018-19
Depreciation				
Opening Gross Block	379.30	498.45	568.32	568.72
ACE	119.14	63.45	0.40	83.25
Closing Gross Block	498.45	561.90	568.72	651.97
Average Gross Block	438.87	530.17	568.52	610.34
Weighted Average Rate of Depreciation (%)	15.00	15.00	15.00	15.00
Balance useful life at the beginning of the year	7	7	7	7
Elapsed life at the beginning of the year	0	0	0	0
Aggregated Depreciable Value	438.87	530.17	568.52	610.34
Depreciation during the year	64.21	79.53	17.76	91.55
Cumulative Depreciation at the end of the year	64.21	143.73	17.76	109.31
Remaining Aggregate Depreciable Value at the end of the year	374.67	386.44	550.76	501.03

(₹ in lakh)

Asset Particulars	Asset-VII	
	2017-18 (Pro-rata 76 days)	2018-19
Depreciation		
Opening Gross Block	590.02	598.71
ACE	8.69	126.81
Closing Gross Block	598.71	725.52
Average Gross Block	594.37	662.11
Weighted Average Rate of Depreciation (%)	15.00	15.00



Asset	Asset-VII	
	2017-18 (Pro-rata 76 days)	2018-19
Balance useful life at the beginning of the year	7	7
Elapsed life at the beginning of the year	0	0
Aggregated Depreciable Value	594.37	662.11
Depreciation during the year	18.56	99.32
Cumulative Depreciation at the end of the year	18.56	117.88
Remaining Aggregate Depreciable Value at the end of the year	575.80	544.23

30. The details of the depreciation approved in order dated 29.11.2017 in Petition No. 113/TT/2016 and order dated 3.12.2018 in Petition No. 8/TT/2018, claimed by the Petitioner in the instant petition and trued up in this order is shown as follows:

(₹ in lakh)				
Asset	Particulars	2016-17	2017-18	2018-19
Asset-I	Approved <i>vide</i> order dated 29.11.2017 in Petition No. 113/TT/2016	23.39	28.41	28.41
	Claimed by the Petitioner in the instant petition	47.59	57.87	66.04
	Allowed after true-up in this order	47.58	57.86	66.03
Asset-II	Approved <i>vide</i> order dated 29.11.2017 in Petition No. 113/TT/2016	29.80	35.86	35.86
	Claimed by the Petitioner in the instant petition	54.24	62.42	77.44
	Allowed after true-up in this order	54.23	62.40	77.39
Asset-III	Approved <i>vide</i> order dated 29.11.2017 in Petition No. 113/TT/2016	39.06	47.86	47.86
	Claimed by the Petitioner in the instant petition	86.53	110.08	122.57
	Allowed after true-up in this order	86.52	110.06	122.54
Asset-IV	Approved <i>vide</i> order dated 3.12.2018 in Petition No. 8/TT/2018	12.04	37.22	42.31
	Claimed by the Petitioner in the instant petition	28.53	85.55	93.79
	Allowed after true-up in this order	28.53	85.53	93.75
Asset-V	Approved <i>vide</i> order dated 3.12.2018 in Petition No. 8/TT/2018	0.00	29.72	37.32
	Claimed by the Petitioner in the instant petition	0.00	64.14	79.47
	Allowed after true-up in this order	0.00	64.21	79.53
Asset-VI	Approved <i>vide</i> order dated 3.12.2018 in Petition No. 8/TT/2018	0.00	7.49	40.19



Asset	Particulars	2016-17	2017-18	2018-19
	Claimed by the Petitioner in the instant petition	0.00	17.82	91.66
	Allowed after true-up in this order	0.00	17.76	91.55
Asset-VII	Approved vide order dated 3.12.2018 in Petition No. 8/TT/2018	0.00	7.77	42.16
	Claimed by the Petitioner in the instant petition	0.00	18.42	97.66
	Allowed after true-up in this order	0.00	18.56	99.32

Interest on Loan (IoL)

31. The Petitioner has claimed the weighted average rate of IoL, based on its actual loan portfolio and rate of interest. Accordingly, IoL has been calculated based on actual interest rate, in accordance with Regulation 26 of the 2014 Tariff Regulations. Trued up IoL worked out and allowed in this order is as follows:

(₹ in lakh)

Asset	Asset-I			Asset-II		
	2016-17	2017-18	2018-19	2016-17	2017-18	2018-19
Particulars						
Interest on Loan						
Gross Normative Loan	202.72	241.40	298.63	281.09	288.78	358.08
Cumulative Repayments up to Previous Year	0.00	47.58	105.44	0.00	54.23	116.63
Net Loan-Opening	202.72	193.82	193.19	281.09	234.55	241.45
Additions	38.68	57.23	19.07	7.69	69.30	80.37
Repayment during the year	47.58	57.86	66.03	54.23	62.40	77.39
Net Loan-Closing	193.82	193.19	146.22	234.55	241.45	244.43
Average Loan	198.27	193.50	169.70	257.82	238.00	242.94
Weighted Average Rate of Interest on Loan (%)	8.6765	8.2244	8.0723	8.7839	8.2631	8.0878
Interest on Loan	17.20	15.91	13.70	22.65	19.67	19.65



(₹ in lakh)

Asset	Asset-III			Asset-IV		
	2016-17	2017-18	2018-19	2016-17 (Pro-rata 143 days)	2017-18	2018-19
Particulars						
Interest on Loan						
Gross Normative Loan	334.05	473.44	553.76	299.53	380.14	418.15
Cumulative Repayments up to Previous Year	0.00	86.52	196.57	0.00	28.53	114.06
Net Loan-Opening	334.05	386.92	357.19	299.53	351.61	304.09
Additions	139.39	80.32	36.16	80.61	38.01	38.69
Repayment during the year	86.52	110.06	122.54	28.53	85.53	93.75
Net Loan-Closing	386.92	357.19	270.81	351.61	304.09	249.03
Average Loan	360.48	372.06	314.00	325.57	327.85	276.56
Weighted Average Rate of Interest on Loan (%)	8.4157	8.0251	7.9369	8.2075	8.0293	7.9943
Interest on Loan	30.34	29.86	24.92	10.47	26.32	22.11

(₹ in lakh)

Asset	Asset-V		Asset-VI	
	2017-18 (Pro-rata 356 days)	2018-19	2017-18 (Pro-rata 76 days)	2018-19
Particulars				
Interest on Loan				
Gross Normative Loan	265.51	348.91	397.82	398.10
Cumulative Repayments up to Previous Year	0.00	64.21	0.00	17.76
Net Loan-Opening	265.51	284.70	397.82	380.34
Additions	83.40	44.42	0.28	58.28
Repayment during the year	64.21	79.53	17.76	91.55
Net Loan-Closing	284.70	249.60	380.34	347.07
Average Loan	275.11	267.15	389.08	363.71
Weighted Average Rate of Interest on Loan (%)	7.9715	7.8174	7.8152	7.9080
Interest on Loan	21.39	20.88	6.33	28.76

(₹ in lakh)

Asset	Asset-VII	
	2017-18 (Pro-rata 76 days)	2018-19
Particulars		
Interest on Loan		
Gross Normative Loan	413.01	419.10
Cumulative Repayments up to Previous Year	0.00	18.56
Net Loan-Opening	413.01	400.53



Asset	Asset-VII	
	2017-18 (Pro-rata 76 days)	2018-19
Particulars		
Additions	6.08	88.77
Repayment during the year	18.56	99.32
Net Loan-Closing	400.53	389.99
Average Loan	406.77	395.26
Weighted Average Rate of Interest on Loan (%)	7.5913	7.6914
Interest on Loan	6.43	30.40

32. The details of IoL approved in order dated 29.11.2017 in Petition No. 113/TT/2016 and order dated 3.12.2018 in Petition No. 8/TT/2018, claimed by the Petitioner in the instant petition and trued up in this order is shown in the table as follows:

Asset	Particulars	(₹ in lakh)		
		2016-17	2017-18	2018-19
Asset-I	Approved <i>vide</i> order dated 29.11.2017 in Petition No. 113/TT/2016	21.73	24.33	21.83
	Claimed by the Petitioner in the instant petition	17.21	15.92	13.70
	Allowed after true-up in this order	17.20	15.91	13.70
Asset-II	Approved <i>vide</i> order dated 29.11.2017 in Petition No. 113/TT/2016	29.62	32.65	29.47
	Claimed by the Petitioner in the instant petition	22.65	19.67	19.66
	Allowed after true-up in this order	22.65	19.67	19.65
Asset-III	Approved <i>vide</i> order dated 29.11.2017 in Petition No. 113/TT/2016	35.77	40.44	36.29
	Claimed by the Petitioner in the instant petition	30.34	29.87	24.93
	Allowed after true-up in this order	30.34	29.86	24.92
Asset-IV	Approved <i>vide</i> order dated 3.12.2018 in Petition No. 8/TT/2018	10.72	30.82	32.15
	Claimed by the Petitioner in the instant petition	10.47	26.33	22.12
	Allowed after true-up in this order	10.47	26.32	22.11
Asset-V	Approved <i>vide</i> order dated 3.12.2018 in Petition No. 8/TT/2018	0.00	26.28	30.46
	Claimed by the Petitioner in the instant petition	0.00	21.37	20.87
	Allowed after true-up in this order	0.00	21.39	20.88



Asset	Particulars	2016-17	2017-18	2018-19
Asset-VI	Approved <i>vide</i> order dated 3.12.2018 in Petition No. 8/TT/2018	0.00	6.69	34.01
	Claimed by the Petitioner in the instant petition	0.00	6.35	28.79
	Allowed after true-up in this order	0.00	6.33	28.76
Asset-VII	Approved <i>vide</i> order dated 3.12.2018 in Petition No. 8/TT/2018	0.00	6.65	34.19
	Claimed by the Petitioner in the instant petition	0.00	6.38	29.88
	Allowed after true-up in this order	0.00	6.43	30.40

Return on Equity (RoE)

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

Year	Claimed effective tax (in %)	Grossed-up RoE [(Base Rate)/(1-t)] (in %)
2016-17	21.338	19.704
2017-18	21.337	19.705
2018-19	21.549	19.758

34. The Commission, *vide* order dated 27.4.2020 in Petition No.274/TT/2019, had arrived at the effective tax rate for the Petitioner based on the notified MAT rates as follows:

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

35. The same MAT rates as considered in the above-mentioned order dated 27.4.2020 in Petition No. 274/TT/2019 are considered for the purpose of grossing up of



rate of RoE for truing up of the tariff of the 2014-19 period in terms of the provisions of the 2014 Tariff Regulations.

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

36. The Petitioner has claimed RoE for the 2014-19 period after grossing up the RoE with Effective Tax rates (based on MAT rates) each year as per the above said Regulation. RoE is trued-up on the basis of the MAT rate applicable for the respective years and is allowed as follows:

(₹ in lakh)

Asset Particulars	Asset-I			Asset-II		
	2016-17	2017-18	2018-19	2016-17	2017-18	2018-19
Return on Equity						
Opening Equity	86.88	103.45	127.98	120.47	123.72	153.41
Additions	16.57	24.53	8.17	3.25	29.70	34.44
Closing Equity	103.45	127.98	136.15	123.72	153.41	187.85
Average Equity	95.16	115.71	132.06	122.09	138.57	170.63
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	21.342	21.342	21.549	21.342	21.342	21.549
Rate of Return on Equity (%)	19.705	19.705	19.758	19.705	19.705	19.758
Return on Equity	18.75	22.80	26.09	24.06	27.30	33.71

(₹ in lakh)

Asset Particulars	Asset-III			Asset-IV		
	2016-17	2017-18	2018-19	2016-17 (Pro-rata 143 days)	2017-18	2018-19
Return on Equity						
Opening Equity	143.16	202.90	237.32	128.37	162.92	179.21
Additions	59.74	34.42	15.50	34.55	16.29	16.58
Closing Equity	202.90	237.32	252.82	162.92	179.21	195.79



Asset Particulars	Asset-III			Asset-IV		
	2016-17	2017-18	2018-19	2016-17 (Pro-rata 143 days)	2017-18	2018-19
Average Equity	173.03	220.11	245.07	145.64	171.06	187.50
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	21.342	21.342	21.549	21.342	21.342	21.549
Rate of Return on Equity (%)	19.705	19.705	19.758	19.705	19.705	19.758
Return on Equity	34.10	43.37	48.42	11.24	33.71	37.05

(₹ in lakh)

Asset Particulars	Asset-V		Asset-VI	
	2017-18 (Pro-rata 356 days)	2018-19	2017-18 (Pro-rata 76 days)	2018-19
Return on Equity				
Opening Equity	113.79	149.53	170.49	170.61
Additions	35.74	19.03	0.12	24.97
Closing Equity	149.53	168.56	170.61	195.59
Average Equity	131.66	159.05	170.55	183.10
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	21.342	21.549	21.342	21.549
Rate of Return on Equity (%)	19.705	19.758	19.705	19.758
Return on Equity	25.30	31.42	7.00	36.18

(₹ in lakh)

Asset Particulars	Asset-VII	
	2017-18 (Pro-rata 76 days)	2018-19
Return on Equity		
Opening Equity	177.01	179.61
Additions	2.61	38.04
Closing Equity	179.61	217.65
Average Equity	178.31	198.63
Return on Equity (Base Rate) (%)	15.500	15.500
MAT Rate for respective year (%)	21.342	21.549
Rate of Return on Equity (%)	19.705	19.758
Return on Equity	7.32	39.25

37. Accordingly, details of RoE allowed in order dated 29.11.2017 in Petition No. 113/TT/2016 and order dated 3.12.2018 in Petition No. 8/TT/2018, claimed by the Petitioner in the instant petition and trued-up in this order are as follows:



(₹ in lakh)

Asset	Particulars	2016-17	2017-18	2018-19
Asset-I	Allowed <i>vide</i> order dated 29.11.2017 in Petition No. 113/TT/2016	21.74	26.41	26.41
	Claimed by the Petitioner in the instant petition	18.76	22.81	26.10
	Approved after true-up in this order	18.75	22.80	26.09
Asset-II	Allowed <i>vide</i> order dated 29.11.2017 in Petition No. 113/TT/2016	29.31	34.94	34.94
	Claimed by the Petitioner in the instant petition	24.06	27.32	33.74
	Approved after true-up in this order	24.06	27.30	33.71
Asset-III	Allowed <i>vide</i> order dated 29.11.2017 in Petition No. 113/TT/2016	36.30	44.48	44.48
	Claimed by the Petitioner in the instant petition	34.10	43.38	48.43
	Approved after true-up in this order	34.10	43.37	48.42
Asset-IV	Allowed <i>vide</i> order dated 3.12.2018 in Petition No. 8/TT/2018	11.19	34.59	39.32
	Claimed by the Petitioner in the instant petition	11.24	33.72	37.06
	Approved after true-up in this order	11.24	33.71	37.05
Asset-V	Allowed <i>vide</i> order dated 3.12.2018 in Petition No. 8/TT/2018	0.00	27.62	34.69
	Claimed by the Petitioner in the instant petition	0.00	25.28	31.40
	Approved after true-up in this order	0.00	25.30	31.42
Asset-VI	Allowed <i>vide</i> order dated 3.12.2018 in Petition No. 8/TT/2018	0.00	6.96	37.35
	Claimed by the Petitioner in the instant petition	0.00	7.03	36.22
	Approved after true-up in this order	0.00	7.00	36.18
Asset-VII	Allowed <i>vide</i> order dated 3.12.2018 in Petition No. 8/TT/2018	0.00	7.22	39.18
	Claimed by the Petitioner in the instant petition	0.00	7.26	38.59
	Approved after true-up in this order	0.00	7.32	39.25

Operation & Maintenance Expenses (O&M Expenses)

38. The Petitioner has not claimed any O&M Expenses in respect of the transmission assets. In this respect, the Petitioner has submitted that the O&M Expenses of SCADA/EMS system established under ULDC Scheme for all the constituents is the responsibility of the respective state utilities. Accordingly, no O&M



Expenses have been considered for the 2014-19 tariff period in respect of the transmission assets.

Interest on Working Capital (IWC)

39. The IWC has been worked out as per the methodology provided in Regulation 28 of the 2014 Tariff Regulations and allowed as follows:

(₹ in lakh)

Asset Particulars	Asset-I			Asset-II		
	2016-17	2017-18	2018-19	2016-17	2017-18	2018-19
WC for O&M Expenses	0.00	0.00	0.00	0.00	0.00	0.00
WC for Maintenance Spares	0.00	0.00	0.00	0.00	0.00	0.00
WC for Receivables	14.23	16.45	18.02	17.19	18.63	22.27
Total Working Capital	14.23	16.45	18.02	17.19	18.63	22.27
Rate of Interest (%)	12.80	12.80	12.80	12.80	12.80	12.80
Interest on Working Capital	1.82	2.11	2.31	2.20	2.38	2.85

(₹ in lakh)

Asset Particulars	Asset-III			Asset-IV		
	2016-17	2017-18	2018-19	2016-17 (Pro-rata 143 days)	2017-18	2018-19
WC for O&M Expenses	0.00	0.00	0.00	0.00	0.00	0.00
WC for Maintenance Spares	0.00	0.00	0.00	0.00	0.00	0.00
WC for Receivables	25.71	31.21	33.36	21.84	24.79	26.04
Total Working Capital	25.71	31.21	33.36	21.84	24.79	26.04
Rate of Interest (%)	12.80	12.80	12.80	12.80	12.80	12.80
Interest on Working Capital	3.29	4.00	4.27	1.10	3.17	3.33

(₹ in lakh)

Asset Particulars	Asset-V		Asset-VI	
	2017-18 (Pro-rata 356 days)	2018-19	2017-18 (Pro-rata 76 days)	2018-19
WC for O&M Expenses	0.00	0.00	0.00	0.00
WC for Maintenance Spares	0.00	0.00	0.00	0.00
WC for Receivables	19.36	22.44	25.42	26.64
Total Working Capital	19.36	22.44	25.42	26.64
Rate of Interest (%)	12.60	12.60	12.60	12.60
Interest on Working Capital	2.38	2.83	0.67	3.36



(₹ in lakh)

Asset	Asset-VII	
	2017-18 (Pro-rata 76 days)	2018-19
WC for O&M Expenses	0.00	0.00
WC for Maintenance Spares	0.00	0.00
WC for Receivables	26.42	28.76
Total Working Capital	26.42	28.76
Rate of Interest (%)	12.60	12.60
Interest on Working Capital	0.69	3.62

40. The details of IWC approved *vide* order dated 29.11.2017 in Petition No. 113/TT/2016 and order dated 3.12.2018 in Petition No. 8/TT/2018, IWC claimed by the Petitioner in the instant petition and as trued up in this order are shown in the table as follows:

(₹ in lakh)

Asset	Particulars	2016-17	2017-18	2018-19
Asset-I	Approved <i>vide</i> order dated 29.11.2017 in Petition No. 113/TT/2016	1.46	1.73	1.67
	Claimed by the Petitioner in the instant petition	1.82	2.11	2.31
	Allowed after true-up in this order	1.82	2.11	2.31
Asset-II	Approved <i>vide</i> order dated 29.11.2017 in Petition No. 113/TT/2016	1.93	2.26	2.19
	Claimed by the Petitioner in the instant petition	2.20	2.38	2.85
	Allowed after true-up in this order	2.20	2.38	2.85
Asset-III	Approved <i>vide</i> order dated 29.11.2017 in Petition No. 113/TT/2016	2.42	2.89	2.80
	Claimed by the Petitioner in the instant petition	3.29	4.00	4.27
	Allowed after true-up in this order	3.29	4.00	4.27
Asset-IV	Approved <i>vide</i> order dated 3.12.2018 in Petition No. 8/TT/2018	0.74	2.24	2.48
	Claimed by the Petitioner in the instant petition	1.10	3.17	3.33
	Allowed after true-up in this order	1.10	3.17	3.33
Asset-V	Approved <i>vide</i> order dated 3.12.2018 in Petition No. 8/TT/2018	0.00	1.79	2.20
	Claimed by the Petitioner in the instant petition	0.00	2.38	2.83
	Allowed after true-up in this order	0.00	2.38	2.83



Asset	Particulars	2016-17	2017-18	2018-19
Asset-VI	Approved <i>vide</i> order dated 3.12.2018 in Petition No. 8/TT/2018	0.00	0.45	2.39
	Claimed by the Petitioner in the instant petition	0.00	0.67	3.36
	Allowed after true-up in this order	0.00	0.67	3.36
Asset-VII	Approved <i>vide</i> order dated 3.12.2018 in Petition No. 8/TT/2018	0.00	0.46	2.48
	Claimed by the Petitioner in the instant petition	0.00	0.69	3.56
	Allowed after true-up in this order	0.00	0.69	3.62

Approved Annual Fixed Charges for the 2014-19 Tariff Period

41. The trued up annual fixed charges for the instant transmission asset for the 2014-19 period is summarised as follows:

(₹ in lakh)

Asset	Asset-I			Asset-II		
	2016-17	2017-18	2018-19	2016-17	2017-18	2018-19
Particulars						
Depreciation	47.58	57.86	66.03	54.23	62.40	77.39
Interest on Loan	17.20	15.91	13.70	22.65	19.67	19.65
Return on Equity	18.75	22.80	26.09	24.06	27.30	33.71
O&M Expenses	0.00	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	1.82	2.11	2.31	2.20	2.38	2.85
Total	85.36	98.68	108.13	103.13	111.75	133.61

(₹ in lakh)

Asset	Asset-III			Asset-IV		
	2016-17	2017-18	2018-19	2016-17 (Pro-rata 143 days)	2017-18	2018-19
Particulars						
Depreciation	86.52	110.06	122.54	28.53	85.53	93.75
Interest on Loan	30.34	29.86	24.92	10.47	26.32	22.11
Return on Equity	34.10	43.37	48.42	11.24	33.71	37.05
O&M Expenses	0.00	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	3.29	4.00	4.27	1.10	3.17	3.33
Total	154.24	187.28	200.15	51.34	148.74	156.24

(₹ in lakh)

Asset	Asset-V		Asset-VI	
	2017-18 (Pro-rata 356 days)	2018-19	2017-18 (Pro-rata 76 days)	2018-19
Particulars				
Depreciation	64.21	79.53	17.76	91.55



Asset	Asset-V		Asset-VI	
	2017-18 (Pro-rata 356 days)	2018-19	2017-18 (Pro-rata 76 days)	2018-19
Interest on Loan	21.39	20.88	6.33	28.76
Return on Equity	25.30	31.42	7.00	36.18
O&M Expenses	0.00	0.00	0.00	0.00
Interest on Working Capital	2.38	2.83	0.67	3.36
Total	113.28	134.66	31.75	159.85

(₹ in lakh)

Asset	Asset-VII	
	2017-18 (Pro-rata for 76 days)	2018-19
Depreciation	18.56	99.32
Interest on Loan	6.43	30.40
Return on Equity	7.32	39.25
O&M Expenses	0.00	0.00
Interest on Working Capital	0.69	3.62
Total	33.00	172.59

42. Accordingly, the Annual Transmission Charges approved *vide* order dated 29.11.2017 in Petition No. 113/TT/2016 and order dated 3.12.2018 in Petition No. 8/TT/2018, claimed by the Petitioner in the instant petition and approved after truing up in this order is shown as follows:

(₹ in lakh)

Asset	Particulars	2016-17	2017-18	2018-19
Asset-I	Approved <i>vide</i> order dated 29.11.2017 in Petition No. 113/TT/2016	68.31	80.88	78.32
	Claimed by the Petitioner in the instant petition	85.38	98.71	108.15
	Allowed after true-up in this order	85.36	98.68	108.13
Asset-II	Approved <i>vide</i> order dated 29.11.2017 in Petition No. 113/TT/2016	90.67	105.72	102.46
	Claimed by the Petitioner in the instant petition	103.15	111.79	133.69
	Allowed after true-up in this order	103.13	111.75	133.61
Asset-III	Approved <i>vide</i> order dated 29.11.2017 in Petition No. 113/TT/2016	113.54	135.68	131.44
	Claimed by the Petitioner in the instant petition	154.26	187.33	200.20
	Allowed after true-up in this order	154.24	187.28	200.15
Asset-IV	Approved <i>vide</i> order dated 3.12.2018 in Petition No. 8/TT/2018	34.70	104.86	116.26



Asset	Particulars	2016-17	2017-18	2018-19
	Claimed by the Petitioner in the instant petition	51.34	148.77	156.30
	Allowed after true-up in this order	51.34	148.74	156.24
Asset-V	Approved <i>vide</i> order dated 3.12.2018 in Petition No. 8/TT/2018	0.00	85.41	104.67
	Claimed by the Petitioner in the instant petition	0.00	113.17	134.57
	Allowed after true-up in this order	0.00	113.28	134.66
Asset-VI	Approved <i>vide</i> order dated 3.12.2018 in Petition No. 8/TT/2018	0.00	21.59	113.94
	Claimed by the Petitioner in the instant petition	0.00	31.87	160.03
	Allowed after true-up in this order	0.00	31.75	159.85
Asset-VII	Approved <i>vide</i> order dated 3.12.2018 in Petition No. 8/TT/2018	0.00	22.11	118.01
	Claimed by the Petitioner in the instant petition	0.00	32.75	169.69
	Allowed after true-up in this order	0.00	33.00	172.59

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

43. The Petitioner vide affidavit dated 23.9.2021 has claimed following transmission charges for the 2019-24 tariff period for the transmission assets:

(₹ in lakh)

Asset	Asset-I				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	68.24	68.49	68.80	69.01	14.01
Interest on Loan	9.17	3.70	0.48	0.00	0.00
Return on Equity	25.63	25.73	25.84	25.92	25.92
Interest on Working Capital	1.55	1.48	1.43	1.43	0.60
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Total	104.59	99.40	96.55	96.36	40.53

(₹ in lakh)

Asset	Asset-II				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	87.00	89.09	89.75	90.32	53.81
Interest on Loan	17.19	10.77	3.73	0.14	0.00
Return on Equity	36.05	36.84	37.09	37.30	37.30
Interest on Working Capital	2.11	2.06	1.97	1.93	1.37
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Total	142.35	138.76	132.54	129.69	92.48



(₹ in lakh)

Asset	Asset-III				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	127.64	129.02	132.99	136.77	66.22
Interest on Loan	16.96	7.22	1.09	0.00	0.00
Return on Equity	47.94	43.46	49.95	51.38	51.38
Interest on Working Capital	2.90	2.79	2.78	2.84	1.77
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Total	195.44	187.49	186.81	190.99	119.37

(₹ in lakh)

Asset	Asset-IV				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	98.44	99.02	102.45	105.81	91.81
Interest on Loan	16.22	8.51	2.31	0.00	0.00
Return on Equity	36.98	37.19	38.48	39.74	39.74
Interest on Working Capital	2.28	2.18	2.16	2.19	1.98
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Total	153.92	146.90	145.40	147.74	133.53

(₹ in lakh)

Asset	Asset-V				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	84.78	86.36	89.72	92.06	92.06
Interest on Loan	16.59	10.37	4.65	0.99	0.00
Return on Equity	31.85	32.44	33.70	34.58	34.58
Interest on Working Capital	2.00	1.95	1.93	1.92	1.90
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Total	135.22	131.12	130.00	129.55	128.54

(₹ in lakh)

Asset	Asset-VI				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	99.49	101.48	104.85	108.01	108.01
Interest on Loan	24.40	17.08	10.08	3.53	0.00
Return on Equity	37.37	38.12	39.39	40.57	40.57
Interest on Working Capital	2.43	2.36	2.33	2.29	2.23
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Total	163.69	159.04	156.65	154.40	150.81

(₹ in lakh)

Asset	Asset-VII				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	109.30	112.41	116.02	118.96	118.96

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Asset	Asset-VII				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Interest on Loan	26.45	18.92	11.49	4.10	0.00
Return on Equity	41.06	42.23	43.58	44.68	44.68
Interest on Working Capital	2.66	2.62	2.58	2.53	2.46
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Total	179.47	176.18	173.67	170.27	166.10

44. The details of IWC claimed by the Petitioner for the transmission assets for the 2019-24 tariff period are as follows:

(₹ in lakh)

Asset	Asset-I				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
WC for O&M Expenses	0.00	0.00	0.00	0.00	0.00
WC for Maintenance Spares	0.00	0.00	0.00	0.00	0.00
WC for Receivables	12.86	12.25	11.90	11.88	4.98
Total Working Capital	12.86	12.25	11.90	11.88	4.98
Rate of Interest (%)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	1.55	1.48	1.43	1.43	0.60

(₹ in lakh)

Asset	Asset-II				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
WC for O&M Expenses	0.00	0.00	0.00	0.00	0.00
WC for Maintenance Spares	0.00	0.00	0.00	0.00	0.00
WC for Receivables	17.50	17.11	16.34	15.99	11.37
Total Working Capital	17.50	17.11	16.34	15.99	11.37
Rate of Interest (%)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	2.11	2.06	1.97	1.93	1.37

(₹ in lakh)

Asset	Asset-III				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
WC for O&M Expenses	0.00	0.00	0.00	0.00	0.00
WC for Maintenance Spares	0.00	0.00	0.00	0.00	0.00
WC for Receivables	24.03	23.12	23.03	23.55	14.68
Total Working Capital	24.03	23.12	23.03	23.55	14.68
Rate of Interest (%)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	2.90	2.79	2.78	2.84	1.77

(₹ in lakh)

Asset	Asset-IV				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
WC for O&M Expenses	0.00	0.00	0.00	0.00	0.00
WC for Maintenance Spares	0.00	0.00	0.00	0.00	0.00
WC for Receivables	18.92	18.11	17.93	18.21	16.42

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Asset	Asset-IV				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Total Working Capital	18.92	18.11	17.93	18.21	16.42
Rate of Interest (%)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	2.28	2.18	2.16	2.19	1.98

(₹ in lakh)

Asset	Asset-V				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
WC for O&M Expenses	0.00	0.00	0.00	0.00	0.00
WC for Maintenance Spares	0.00	0.00	0.00	0.00	0.00
WC for Receivables	16.63	16.17	16.03	15.97	15.80
Total Working Capital	16.63	16.17	16.03	15.97	15.80
Rate of Interest (%)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	2.00	1.95	1.93	1.92	1.90

(₹ in lakh)

Asset	Asset-VI				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
WC for O&M Expenses	0.00	0.00	0.00	0.00	0.00
WC for Maintenance Spares	0.00	0.00	0.00	0.00	0.00
WC for Receivables	20.13	19.61	19.31	19.04	18.54
Total Working Capital	20.13	19.61	19.31	19.04	18.54
Rate of Interest (%)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	2.43	2.36	2.33	2.29	2.23

(₹ in lakh)

Asset	Asset-VII				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
WC for O&M Expenses	0.00	0.00	0.00	0.00	0.00
WC for Maintenance Spares	0.00	0.00	0.00	0.00	0.00
WC for Receivables	22.07	21.72	21.41	20.99	20.42
Total Working Capital	22.07	21.72	21.41	20.99	20.42
Rate of Interest (%)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	2.66	2.62	2.58	2.53	2.46

Capital Cost

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

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

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

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



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

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

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



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

- (4) *The capital cost in case of existing or new hydro generating station shall also include:*
- (a) *cost of approved rehabilitation and resettlement (R&R) plan of the project in conformity with National R&R Policy and R&R package as approved; and*
 - (b) *cost of the developer's 10% contribution towards Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) and Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) project in the affected area.*
- (5) *The following shall be excluded from the capital cost of the existing and new projects:*
- (a) *The assets forming part of the project, but not in use, as declared in the tariff petition;*
 - (b) *De-capitalised Assets after the date of commercial operation on account of replacement or removal on account of obsolescence or shifting from one project to another project:*

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

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

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

46. The capital cost of ₹453.91 lakh, ₹626.63 lakh, ₹842.99 lakh, ₹652.88 lakh, ₹561.54 lakh, ₹651.43 lakh and ₹712.39 lakh as on 31.3.2019 for Asset-I, Asset-II, Asset-III, Asset-IV, Asset-V, Asset-VI and Asset-VII respectively has been claimed by the Petitioner for the 2019-24 tariff period.

47. The capital cost as worked out by the Commission is considered as admitted capital cost as on 1.4.2019 for working out tariff for 2019-24 tariff period in accordance with Regulation 19 of the 2019 Tariff Regulations. Admitted capital cost of ₹453.84 lakh, ₹626.31 lakh, ₹842.75 lakh, ₹652.63 lakh, ₹561.90 lakh, ₹651.96 lakh and



₹725.52 lakh as on 31.3.2019 for Asset-I, Asset-II, Asset-III, Asset-IV, Asset-V, Asset-VI and Asset-VII respectively has been considered as opening capital cost as on 1.4.2019.

Additional Capital Expenditure (ACE)

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

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

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

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

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

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

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 cut-off date may be admitted by the Commission, subject to prudence check:*

- a) *Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority, or order or decree of any court of law;*
- b) *Change in law or compliance of any existing law;*
- c) *Deferred works relating to ash pond or ash handling system in the original scope of work;*
- d) *Liability for works executed prior to the cut-off date;*
- e) *Force Majeure events;*
- f) *Liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments; and*



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

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

- (a) The useful life of the assets is not commensurate with the useful life of the project and such assets have been fully depreciated in accordance with the provisions of these regulations;*
- (b) The replacement of the asset or equipment is necessary on account of change in law or Force Majeure conditions;*
- (c) The replacement of such asset or equipment is necessary on account of obsolescence of technology; and*
- (d) The replacement of such asset or equipment has otherwise been allowed by the Commission.”*

49. The Petitioner has claimed the following ACE for the 2019-24 period under Regulation 24(1)(a), Regulation 24(1)(b), Regulation 25(1)(d) and Regulation 25(1)(f) of the 2019 Tariff Regulations on account of undischarged liability towards final payment for works executed and for works deferred for execution within cut-off date:

Asset	ACE claimed (on cash basis)		
	2019-20	2020-21	2021-22
Asset-I	2.08	1.26	2.80
Asset-II	26.52	1.32	7.57
Asset-III	15.86	2.50	50.47
Asset-IV	6.75	1.01	44.76
Asset-V	7.31	13.70	31.18
Asset-VI	23.72	2.74	42.20
Asset-VII	32.58	8.85	39.24

50. We have considered the submissions of the Petitioner. ACE claimed by the Petitioner has been allowed under Regulation 24(1)(a), Regulation 24(1)(b), Regulation 25(1)(d) and Regulation 25(1)(f) of the 2019 Tariff Regulations, as it is towards undischarged liabilities recognised to be payable at a future date and balance work deferred for execution. Accordingly, ACE for the 2019-24 tariff period and the capital cost as on 31.3.2024 for the transmission assets considered are as follows:



(₹ in lakh)

Asset	Capital Cost admitted as on 1.4.2019	ACE for			Capital Cost allowed as on 31.3.2024
		2019-20	2020-21	2021-22	
Asset-I	453.84	2.08	1.26	2.80	459.98
Asset-II	626.31	26.52	1.32	7.57	661.72
Asset-III	842.75	15.86	2.50	50.47	911.58
Asset-IV	652.63	6.75	1.01	44.76	705.15
Asset-V	561.90	7.31	13.70	31.18	614.09
Asset-VI	651.96	23.72	2.74	42.20	720.62
Asset-VII	725.52	32.58	8.85	39.24	806.19

Debt-Equity ratio

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

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

Provided that:

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

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

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



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

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

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

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

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

(6) Any expenditure incurred for the emission control system during the tariff period as may be admitted by the Commission as additional capital expenditure for determination of supplementary tariff, shall be serviced in the manner specified in clause (1) of this Regulation.”

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

Funding	Capital Cost as on 1.4.2019 (₹ in lakh)	%	Capital Cost as on 31.3.2024 (₹ in lakh)	%
Asset-I				
Debt	317.70	70.00	322.00	70.00
Equity	136.15	30.00	137.98	30.00
Total	453.84	100.00	459.98	100.00
Asset-II				
Debt	438.45	70.01	463.24	70.01
Equity	187.85	29.99	198.47	29.99
Total	626.31	100.00	661.72	100.00
Asset-III				
Debt	589.92	70.00	638.11	70.00
Equity	252.82	30.00	273.47	30.00
Total	842.75	100.00	911.58	100.00
Asset-IV				
Debt	456.84	70.00	493.61	70.00
Equity	195.79	30.00	211.54	30.00



Funding	Capital Cost as on 1.4.2019 (₹ in lakh)	%	Capital Cost as on 31.3.2024 (₹ in lakh)	%
Total	652.63	100.00	705.15	100.00
Asset-V				
Debt	393.33	70.00	429.87	70.00
Equity	168.56	30.00	184.22	30.00
Total	561.90	100.00	614.09	100.00
Asset-VI				
Debt	456.38	70.00	504.44	70.00
Equity	195.59	30.00	216.18	30.00
Total	651.97	100.00	720.63	100.00
Asset-VII				
Debt	507.87	70.00	564.34	70.00
Equity	217.65	30.00	241.85	30.00
Total	725.52	100.00	806.19	100.00

Depreciation

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

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

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

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

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

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

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

Provided also that the capital cost of the assets of the hydro generating station for



the purpose of computation of depreciated value shall correspond to the percentage of sale of electricity under long-term power purchase agreement at regulated tariff:

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

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

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

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

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

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

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

(9) Where the emission control system is implemented within the original scope of the generating station and the date of commercial operation of the generating station or unit thereof and the date of operation of the emission control system are the same, depreciation of the generating station or unit thereof including the emission control system shall be computed in accordance with Clauses (1) to (8) of this Regulation.

(10) Depreciation of the emission control system of an existing or a new generating station or unit thereof where the date of operation of the emission control system is subsequent to the date of commercial operation of the generating station or unit thereof, shall be computed annually from the date of operation of such emission control system based on straight line method, with salvage value of 10%, over a period of-

- a) twenty five years, in case the generating station or unit thereof is in operation for fifteen years or less as on the date of operation of the emission control system; or*
- b) balance useful life of the generating station or unit thereof plus fifteen years, in case the generating station or unit thereof is in operation for more than fifteen years as on the date of operation of the emission control system; or*



c) ten years or a period mutually agreed by the generating company and the beneficiaries, whichever is higher, in case the generating station or unit thereof has completed its useful life.”

54. WAROD (as placed in Annexure-II) for the transmission assets have been worked out considering the depreciation rates assets as prescribed in the 2019 Tariff Regulations. The depreciation has been worked out considering the admitted capital expenditure as on 31.3.2019 and accumulated depreciation up to 31.3.2019. The depreciation allowed for the transmission assets is as follows:

(₹ in lakh)

Asset Particular	Asset-I				
	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	453.84	455.92	457.18	459.98	459.98
Addition during the year 2019-24 due to projected ACE	2.08	1.26	2.80	0.00	0.00
Closing Gross Block	455.92	457.18	459.98	459.98	459.98
Average Gross Block	454.88	456.55	458.58	459.98	459.98
Weighted average rate of Depreciation (WAROD) (%)	15.00	15.00	15.00	15.00	15.00
Balance useful life at the beginning of the year (in year)	4	3	2	1	0
Elapsed Life at the beginning of the year (in year)	3	4	5	6	7
Aggregated Depreciable Value	454.88	456.55	458.58	459.98	459.98
Depreciation during the year	68.23	68.48	68.79	69.00	14.01
Aggregate Cumulative Depreciation at the end of the year	239.71	308.19	376.98	445.98	459.98
Remaining Aggregated Depreciable Value at the end of the year	215.17	148.36	81.60	14.01	0.00

(₹ in lakh)

Asset Particular	Asset-II				
	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	626.31	652.83	654.15	661.72	661.72
Addition during the year 2019-24 due to projected ACE	26.52	1.32	7.57	0.00	0.00
Closing Gross Block	652.83	654.15	661.72	661.72	661.72
Average Gross Block	639.57	653.49	657.93	661.72	661.72
Weighted average rate of	13.60	13.63	13.64	13.64	13.64



Asset	Asset-II				
Particular	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation (WAROD) (%)					
Balance useful life at the beginning of the year (in year)	6	5	4	3	2
Elapsed Life at the beginning of the year (in year)	3	4	5	6	7
Aggregated Depreciable Value	631.87	645.79	650.23	654.02	654.02
Depreciation during the year	86.96	89.05	89.71	90.28	90.28
Aggregate Cumulative Depreciation at the end of the year	280.98	370.02	459.74	550.02	640.30
Remaining Aggregated Depreciable Value at the end of the year	350.89	275.76	190.49	104.00	13.72

(₹ in lakh)

Asset	Asset-III				
Particular	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	842.75	858.61	861.11	911.58	911.58
Addition during the year 2019-24 due to projected ACE	15.86	2.50	50.47	0.00	0.00
Closing Gross Block	858.61	861.11	911.58	911.58	911.58
Average Gross Block	850.68	859.86	886.34	911.58	911.58
Weighted average rate of Depreciation (WAROD) (%)	15.00	15.00	15.00	15.00	15.00
Balance useful life at the beginning of the year (in year)	4	3	2	1	0
Elapsed Life at the beginning of the year (in year)	3	4	5	6	7
Aggregated Depreciable Value	850.68	859.86	886.34	911.58	911.58
Depreciation during the year	127.60	128.98	132.95	136.74	66.20
Aggregate Cumulative Depreciation at the end of the year	446.71	575.69	708.64	845.38	911.58
Remaining Aggregated Depreciable Value at the end of the year	403.96	284.17	177.70	66.20	0.00

(₹ in lakh)

Asset	Asset-IV				
Particular	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	652.63	659.38	660.39	705.15	705.15
Addition during the year 2019-24 due to projected ACE	6.75	1.01	44.76	0.00	0.00
Closing Gross Block	659.38	660.39	705.15	705.15	705.15
Average Gross Block	656.00	659.88	682.77	705.15	705.15



Asset	Asset-IV				
Particular	2019-20	2020-21	2021-22	2022-23	2023-24
Weighted average rate of Depreciation (WAROD) (%)	15.00	15.00	15.00	15.00	15.00
Balance useful life at the beginning of the year (in year)	5	4	3	2	1
Elapsed Life at the beginning of the year (in year)	2	3	4	5	6
Aggregated Depreciable Value	656.00	659.88	682.77	705.15	705.15
Depreciation during the year	98.40	98.98	102.42	105.77	91.77
Aggregate Cumulative Depreciation at the end of the year	306.21	405.19	507.61	613.38	705.15
Remaining Aggregated Depreciable Value at the end of the year	349.79	254.69	175.16	91.77	0.00

(₹ in lakh)

Asset	Asset-V				
Particular	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	561.90	569.21	582.91	614.09	614.09
Addition during the year 2019-24 due to projected ACE	7.31	13.70	31.18	0.00	0.00
Closing Gross Block	569.21	582.91	614.09	614.09	614.09
Average Gross Block	565.55	576.06	598.50	614.09	614.09
Weighted average rate of Depreciation (WAROD) (%)	15.00	15.00	15.00	15.00	15.00
Balance useful life at the beginning of the year (in year)	6	5	4	3	2
Elapsed Life at the beginning of the year (in year)	1	2	3	4	5
Aggregated Depreciable Value	565.55	576.06	598.50	614.09	614.09
Depreciation during the year	84.83	86.41	89.77	92.11	92.11
Aggregate Cumulative Depreciation at the end of the year	228.57	314.97	404.75	496.86	588.98
Remaining Aggregated Depreciable Value at the end of the year	336.99	261.08	193.75	117.22	25.11

(₹ in lakh)

Asset	Asset-VI				
Particular	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	651.96	675.68	678.42	720.62	720.62
Addition during the year 2019-24 due to projected ACE	23.72	2.74	42.20	0.00	0.00
Closing Gross Block	675.68	678.42	720.62	720.62	720.62



Asset	Asset-VI				
Particular	2019-20	2020-21	2021-22	2022-23	2023-24
Average Gross Block	663.82	677.05	699.52	720.62	720.62
Weighted average rate of Depreciation (WAROD) (%)	15.00	15.00	15.00	15.00	15.00
Balance useful life at the beginning of the year (in year)	6	5	4	3	2
Elapsed Life at the beginning of the year (in year)	1	2	3	4	5
Aggregated Depreciable Value	663.82	677.05	699.52	720.62	720.62
Depreciation during the year	99.57	101.56	104.93	108.09	108.09
Aggregate Cumulative Depreciation at the end of the year	208.88	310.44	415.36	523.46	631.55
Remaining Aggregated Depreciable Value at the end of the year	454.94	366.61	284.15	197.16	89.07

(₹ in lakh)

Asset	Asset-VII				
Particular	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	725.52	758.10	766.95	806.19	806.19
Addition during the year 2019-24 due to projected ACE	32.58	8.85	39.24	0.00	0.00
Closing Gross Block	758.10	766.95	806.19	806.19	806.19
Average Gross Block	741.81	762.52	786.57	806.19	806.19
Weighted average rate of Depreciation (WAROD) (%)	15.00	15.00	15.00	15.00	15.00
Balance useful life at the beginning of the year (in year)	6	5	4	3	2
Elapsed Life at the beginning of the year (in year)	1	2	3	4	5
Aggregated Depreciable Value	741.81	762.52	786.57	806.19	806.19
Depreciation during the year	111.27	114.38	117.99	120.93	120.93
Aggregate Cumulative Depreciation at the end of the year	229.15	343.53	461.52	582.44	703.37
Remaining Aggregated Depreciable Value at the end of the year	512.66	418.99	325.05	223.74	102.82

Interest on Loan (IoL)

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

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



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

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

(4) Notwithstanding any moratorium period availed by the generating company or the transmission licensee, as the case may be, the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the depreciation allowed for the year or part of the year.

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

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

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

(5a) The rate of interest on loan for installation of emission control system shall be the weighted average rate of interest of actual loan portfolio of the emission control system or in the absence of actual loan portfolio, the weighted average rate of interest of the generating company 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.”

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



(₹ in lakh)

Asset	Asset-I				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	317.70	319.16	320.04	322.00	322.00
Cumulative Repayments up to Previous Year	171.48	239.71	308.19	322.00	322.00
Net Loan-Opening	146.22	79.45	11.85	0.00	0.00
Additions	1.46	0.88	1.96	0.00	0.00
Repayment during the year	68.23	68.48	13.81	0.00	0.00
Net Loan-Closing	79.45	11.85	0.00	0.00	0.00
Average Loan	112.84	45.65	5.92	0.00	0.00
Weighted Average Rate of Interest on Loan (%)	8.1226	8.1043	8.0853	8.0666	8.0434
Interest on Loan	9.17	3.70	0.48	0.00	0.00

(₹ in lakh)

Asset	Asset-II				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	438.45	457.02	457.95	463.24	463.24
Cumulative Repayments up to Previous Year	194.02	280.98	370.02	459.74	463.24
Net Loan-Opening	244.43	176.04	87.92	3.51	0.00
Additions	18.56	0.93	5.30	0.00	0.00
Repayment during the year	86.96	89.05	89.71	3.51	0.00
Net Loan-Closing	176.04	87.92	3.51	0.00	0.00
Average Loan	210.23	131.98	45.71	1.75	0.00
Weighted Average Rate of Interest on Loan (%)	8.1703	8.1587	8.1459	8.1334	8.1176
Interest on Loan	17.18	10.77	3.72	0.14	0.00

(₹ in lakh)

Asset	Asset-III				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	589.92	601.03	602.78	638.11	638.11
Cumulative Repayments up to Previous Year	319.11	446.71	575.69	638.11	638.11
Net Loan-Opening	270.81	154.32	27.09	0.00	0.00
Additions	11.10	1.75	35.33	0.00	0.00
Repayment during the year	127.60	128.98	62.42	0.00	0.00
Net Loan-Closing	154.32	27.09	0.00	0.00	0.00
Average Loan	212.56	90.70	13.54	0.00	0.00
Weighted Average Rate of Interest on Loan (%)	7.9753	7.9559	8.0198	8.1160	8.0945

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Asset	Asset-III				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Interest on Loan	16.95	7.22	1.09	0.00	0.00

(₹ in lakh)

Asset	Asset-IV				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	456.84	461.57	462.28	493.61	493.61
Cumulative Repayments up to Previous Year	207.81	306.21	405.19	493.61	493.61
Net Loan-Opening	249.03	155.36	57.08	0.00	0.00
Additions	4.73	0.71	31.33	0.00	0.00
Repayment during the year	98.40	98.98	88.42	0.00	0.00
Net Loan-Closing	155.36	57.08	0.00	0.00	0.00
Average Loan	202.19	106.22	28.54	0.00	0.00
Weighted Average Rate of Interest on Loan (%)	8.0194	8.0054	8.0721	8.1698	8.1586
Interest on Loan	16.21	8.50	2.30	0.00	0.00

(₹ in lakh)

Asset	Asset-V				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	393.33	398.45	408.04	429.87	429.87
Cumulative Repayments up to Previous Year	143.73	228.57	314.97	404.75	429.87
Net Loan-Opening	249.60	169.89	93.07	25.12	0.00
Additions	5.12	9.59	21.83	0.00	0.00
Repayment during the year	84.83	86.41	89.77	25.12	0.00
Net Loan-Closing	169.89	93.07	25.12	0.00	0.00
Average Loan	209.74	131.48	59.09	12.56	0.00
Weighted Average Rate of Interest on Loan (%)	7.9130	7.8874	7.8735	7.8726	7.8554
Interest on Loan	16.60	10.37	4.65	0.99	0.00

(₹ in lakh)

Asset	Asset-VI				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	456.38	472.98	474.90	504.44	504.44
Cumulative Repayments up to Previous Year	109.31	208.88	310.44	415.36	504.44
Net Loan-Opening	347.07	264.10	164.46	89.08	0.00
Additions	16.60	1.92	29.54	0.00	0.00
Repayment during the year	99.57	101.56	104.93	89.08	0.00

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Asset	Asset-VI				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Net Loan-Closing	264.10	164.46	89.08	0.00	0.00
Average Loan	305.59	214.28	126.77	44.54	0.00
Weighted Average Rate of Interest on Loan (%)	7.9982	7.9880	7.9727	7.9579	7.9403
Interest on Loan	24.44	17.12	10.11	3.54	0.00

(₹ in lakh)

Asset	Asset-VII				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	507.87	530.68	536.87	564.34	564.34
Cumulative Repayments up to Previous Year	117.88	229.15	343.53	461.52	564.34
Net Loan-Opening	389.99	301.52	193.34	102.82	0.00
Additions	22.81	6.20	27.47	0.00	0.00
Repayment during the year	111.27	114.38	117.99	102.82	0.00
Net Loan-Closing	301.52	193.34	102.82	0.00	0.00
Average Loan	345.76	247.43	148.08	51.41	0.00
Weighted Average Rate of Interest on Loan (%)	7.7958	7.7860	7.8915	8.0907	8.0840
Interest on Loan	26.95	19.26	11.69	4.16	0.00

Return on Equity (RoE)

57. Regulation 30 and Regulation 31 of the 2019 Tariff Regulations provides as follows:

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

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

Provided that return on equity in respect of Additional Capitalization after cut-off date beyond the original scope excluding Additional Capitalization on account of emission control system, shall be computed at the weighted average rate of interest on actual loan portfolio of the generating station or the transmission system or in the absence of actual loan portfolio of the generating station or the transmission system, the weighted average rate of interest of the generating company or the transmission licensee, as the case may be, as a whole shall be considered, subject to celling of 14%;



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.

(3) The return on equity in respect of additional capitalization on account of emission control system shall be computed at the base rate of one year marginal cost of lending rate (MCLR) of the State Bank of India as on 1st April of the year in which the date of operation (ODe) occurs plus 350 basis point, subject to ceiling of 14%;

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

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

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

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



Illustration-

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

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

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

(a) Estimated Gross Income from generation or transmission business for FY 2019-20 is Rs 1,000 crore;

(b) Estimated Advance Tax for the year on above is Rs 240 crore;

(c) Effective Tax Rate for the year 2019-20 = Rs 240 Crore/Rs 1000 Crore = 24%;

(d) Rate of return on equity = $15.50 / (1-0.24) = 20.395\%$.

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

58. The Petitioner has submitted that MAT rate is applicable to the Petitioner's company. Accordingly, the MAT rate applicable for 2019-20 has been considered for the purpose of RoE, which shall be trued-up with actual tax rate in accordance with Regulation 31(3) of the 2019 Tariff Regulations. RoE allowed for the transmission assets is as follows:

Asset	Asset-I				
	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	136.15	136.77	137.14	137.98	137.98
Additions	0.62	0.38	0.84	0.00	0.00
Closing Equity	136.77	137.14	137.98	137.98	137.98
Average Equity	136.46	136.95	137.56	137.98	137.98
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50
MAT Rate for respective year (%)	17.472	17.472	17.472	17.472	17.472
Rate of Return on Equity (%)	18.782	18.782	18.782	18.782	18.782
Return on Equity	25.63	25.72	25.84	25.92	25.92

(₹ in lakh)



(₹ in lakh)

Asset	Asset-II				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	187.85	195.81	196.20	198.47	198.47
Additions	7.96	0.39	2.27	0.00	0.00
Closing Equity	195.81	196.20	198.47	198.47	198.47
Average Equity	191.83	196.01	197.34	198.47	198.47
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50
MAT Rate for respective year (%)	17.472	17.472	17.472	17.472	17.472
Rate of Return on Equity (%)	18.782	18.782	18.782	18.782	18.782
Return on Equity	36.03	36.81	37.06	37.28	37.28

(₹ in lakh)

Asset	Asset-III				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	252.82	257.58	258.33	273.47	273.47
Additions	4.76	0.75	15.14	0.00	0.00
Closing Equity	257.58	258.33	273.47	273.47	273.47
Average Equity	255.20	257.95	265.90	273.47	273.47
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50
MAT Rate for respective year (%)	17.472	17.472	17.472	17.472	17.472
Rate of Return on Equity (%)	18.782	18.782	18.782	18.782	18.782
Return on Equity	47.93	48.45	49.94	51.36	51.36

(₹ in lakh)

Asset	Asset-IV				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	195.79	197.81	198.11	211.54	211.54
Additions	2.03	0.30	13.43	0.00	0.00
Closing Equity	197.81	198.11	211.54	211.54	211.54
Average Equity	196.80	197.96	204.83	211.54	211.54
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50
MAT Rate for respective year (%)	17.472	17.472	17.472	17.472	17.472
Rate of Return on Equity (%)	18.782	18.782	18.782	18.782	18.782
Return on Equity	36.96	37.18	38.47	39.73	39.73

(₹ in lakh)

Asset	Asset-V				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	168.56	170.75	174.86	184.22	184.22
Additions	2.19	4.11	9.35	0.00	0.00
Closing Equity	170.75	174.86	184.22	184.22	184.22
Average Equity	169.66	172.81	179.54	184.22	184.22
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50
MAT Rate for respective year (%)	17.472	17.472	17.472	17.472	17.472

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Asset	Asset-V				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Rate of Return on Equity (%)	18.782	18.782	18.782	18.782	18.782
Return on Equity	31.87	32.46	33.72	34.60	34.60

(₹ in lakh)

Asset	Asset-VI				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	195.59	202.70	203.52	216.18	216.18
Additions	7.12	0.82	12.66	0.00	0.00
Closing Equity	202.70	203.52	216.18	216.18	216.18
Average Equity	199.15	203.11	209.85	216.18	216.18
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50
MAT Rate for respective year (%)	17.472	17.472	17.472	17.472	17.472
Rate of Return on Equity (%)	18.782	18.782	18.782	18.782	18.782
Return on Equity	37.40	38.15	39.41	40.60	40.60

(₹ in lakh)

Asset	Asset-VII				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	217.65	227.42	230.08	241.85	241.85
Additions	9.77	2.66	11.77	0.00	0.00
Closing Equity	227.42	230.08	241.85	241.85	241.85
Average Equity	222.54	228.75	235.96	241.85	241.85
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50
MAT Rate for respective year (%)	17.472	17.472	17.472	17.472	17.472
Rate of Return on Equity (%)	18.782	18.782	18.782	18.782	18.782
Return on Equity	41.80	42.96	44.32	45.42	45.42

Operation & Maintenance Expenses (O&M Expenses)

59. As the O&M of SCADA/EMS system established under ULDC Scheme is the responsibility of the respective state utilities, the Petitioner has not claimed any O&M Expenses during the 2019-24 tariff period. Accordingly, no O&M Expenses are allowed for the 2019-24 tariff period.

Interest on Working Capital (IWC)

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

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



(a) For Coal-based/lignite-fired thermal generating stations:

- (i) Cost of coal or lignite and limestone towards stock, if applicable, for 10 days for pit-head generating stations and 20 days for non-pit-head generating stations for generation corresponding to the normative annual plant availability factor or the maximum coal/lignite stock storage capacity whichever is lower;*
- (ii) Advance payment for 30 days towards cost of coal or lignite and limestone for generation corresponding to the normative annual plant availability factor;*
- (iii) Cost of secondary fuel oil for two months for generation corresponding to the normative annual plant availability factor, and in case of use of more than one secondary fuel oil, cost of fuel oil stock for the main secondary fuel oil;*
- (iv) Maintenance spares @ 20% of operation and maintenance expenses including water charges and security expenses;*
- (v) Receivables equivalent to 45 days of capacity charge and energy charge for sale of electricity calculated on the normative annual plant availability factor; and*
- (vi) Operation and maintenance expenses, including water charges and security expenses, for one month.*

(b) For Open-cycle Gas Turbine/Combined Cycle thermal generating stations:

- (i) Fuel cost for 30 days corresponding to the normative annual plant availability factor, duly taking into account mode of operation of the generating station on gas fuel and liquid fuel;*
- (ii) Liquid fuel stock for 15 days corresponding to the normative annual plant availability factor, and in case of use of more than one liquid fuel, cost of main liquid fuel duly taking into account mode of operation of the generating stations of gas fuel and liquid fuel;*
- (iii) Maintenance spares @ 30% of operation and maintenance expenses including water charges and security expenses;*
- (iv) Receivables equivalent to 45 days of capacity charge and energy charge for sale of electricity calculated on normative plant availability factor, duly taking into account mode of operation of the generating station on gas fuel and liquid fuel; and*
- (v) Operation and maintenance expenses, including water charges and security expenses, for one month.*

(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.*

(2) The cost of fuel in cases covered under sub-clauses (a) and (b) of clause (1) of this Regulation shall be based on the landed fuel cost (taking into account normative transit and handling losses in terms of Regulation 39 of these regulations) by the generating station and gross calorific value of the fuel as per actual weighted average for the third quarter of preceding financial year in case of each financial year for which tariff is to be determined:

Provided that in case of new generating station, the cost of fuel for the first financial year shall be considered based on landed fuel cost (taking into account



normative transit and handling losses in terms of Regulation 39 of these regulations) and gross calorific value of the fuel as per actual weighted average for three months, as used for infirm power, preceding date of commercial operation for which tariff is to be determined.

(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:-

‘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;”

61. 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%.

62. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The Rate of Interest (RoI) considered is 12.05% (SBI 1-year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for 2019-20, for 2020-21 has been considered as 11.25% (SBI 1 year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points) and for 2021-22 onwards has been considered as 10.50% (SBI 1 year MCLR applicable as on 1.4.2021 of 7.00% plus 350 basis points). The components of the working capital and interest thereon allowed are as follows:

(₹ in lakh)

Asset	Asset-I				
	2019-20	2020-21	2021-22	2022-23	2023-24
WC for O&M Expenses (O&M Expenses for 1 month)	0.00	0.00	0.00	0.00	0.00



Asset	Asset-I				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
WC for Maintenance Spares (15% of O&M Expenses)	0.00	0.00	0.00	0.00	0.00
WC for Receivables (Equivalent to 45 days of annual fixed cost/annual transmission charges)	12.86	12.24	11.88	11.86	4.97
Total Working Capital	12.86	12.24	11.88	11.86	4.97
Rate of Interest (%)	12.05	11.25	10.50	10.50	10.50
Interest on Working Capital	1.55	1.38	1.25	1.24	0.52

(₹ in lakh)

Asset	Asset-II				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
WC for O&M Expenses (O&M Expenses for 1 month)	0.00	0.00	0.00	0.00	0.00
WC for Maintenance Spares (15% of O&M Expenses)	0.00	0.00	0.00	0.00	0.00
WC for Receivables (Equivalent to 45 days of annual fixed cost/annual transmission charges)	17.49	17.08	16.30	15.95	15.89
Total Working Capital	17.49	17.08	16.30	15.95	15.89
Rate of Interest (%)	12.05	11.25	10.50	10.50	10.50
Interest on Working Capital	2.11	1.92	1.71	1.67	1.67

(₹ in lakh)

Asset	Asset-III				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
WC for O&M Expenses (O&M Expenses for 1 month)	0.00	0.00	0.00	0.00	0.00
WC for Maintenance Spares (15% of O&M Expenses)	0.00	0.00	0.00	0.00	0.00
WC for Receivables (Equivalent to 45 days of annual fixed cost/annual transmission charges)	24.02	23.08	22.98	23.49	14.64
Total Working Capital	24.02	23.08	22.98	23.49	14.64
Rate of Interest (%)	12.05	11.25	10.50	10.50	10.50
Interest on Working Capital	2.89	2.60	2.41	2.47	1.54

(₹ in lakh)

Asset	Asset-IV				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
WC for O&M Expenses (O&M Expenses for 1 month)	0.00	0.00	0.00	0.00	0.00
WC for Maintenance Spares (15% of O&M Expenses)	0.00	0.00	0.00	0.00	0.00



Asset	Asset-IV				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
WC for Receivables (Equivalent to 45 days of annual fixed cost/annual transmission charges)	18.92	18.09	17.89	18.17	16.38
Total Working Capital	18.92	18.09	17.89	18.17	16.38
Rate of Interest (%)	12.05	11.25	10.50	10.50	10.50
Interest on Working Capital	2.28	2.03	1.88	1.91	1.72

(₹ in lakh)

Asset	Asset-V				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
WC for O&M Expenses (O&M Expenses for 1 month)	0.00	0.00	0.00	0.00	0.00
WC for Maintenance Spares (15% of O&M Expenses)	0.00	0.00	0.00	0.00	0.00
WC for Receivables (Equivalent to 45 days of annual fixed cost/annual transmission charges)	16.64	16.16	16.01	15.95	15.78
Total Working Capital	16.64	16.16	16.01	15.95	15.78
Rate of Interest (%)	12.05	11.25	10.50	10.50	10.50
Interest on Working Capital	2.00	1.82	1.68	1.67	1.66

(₹ in lakh)

Asset	Asset-VI				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
WC for O&M Expenses (O&M Expenses for 1 month)	0.00	0.00	0.00	0.00	0.00
WC for Maintenance Spares (15% of O&M Expenses)	0.00	0.00	0.00	0.00	0.00
WC for Receivables (Equivalent to 45 days of annual fixed cost/annual transmission charges)	20.14	19.61	19.29	19.02	18.52
Total Working Capital	20.14	19.61	19.29	19.02	18.52
Rate of Interest (%)	12.05	11.25	10.50	10.50	10.50
Interest on Working Capital	2.43	2.21	2.03	2.00	1.94

(₹ in lakh)

Asset	Asset-VII				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
WC for O&M Expenses (O&M Expenses for 1 month)	0.00	0.00	0.00	0.00	0.00
WC for Maintenance Spares (15% of O&M Expenses)	0.00	0.00	0.00	0.00	0.00
WC for Receivables (Equivalent to 45 days of annual fixed cost/annual transmission charges)	22.47	22.08	21.73	21.30	20.72

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Asset	Asset-VII				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Total Working Capital	22.47	22.08	21.73	21.30	20.72
Rate of Interest (%)	12.05	11.25	10.50	10.50	10.50
Interest on Working Capital	2.71	2.48	2.28	2.24	2.18

Annual Fixed Charges of the 2019-24 Tariff Period

63. The transmission charges allowed for the transmission asset for the 2019-24 tariff period are as follows:

(₹ in lakh)

Asset	Asset-I				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	68.23	68.48	68.79	69.00	14.01
Interest on Loan	9.17	3.70	0.48	0.00	0.00
Return on Equity	25.63	25.72	25.84	25.92	25.92
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	1.55	1.38	1.25	1.24	0.52
Total	104.58	99.28	96.35	96.16	40.44

(₹ in lakh)

Asset	Asset-II				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	86.96	89.05	89.71	90.28	90.28
Interest on Loan	17.18	10.77	3.72	0.14	0.00
Return on Equity	36.03	36.81	37.06	37.28	37.28
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	2.11	1.92	1.71	1.67	1.67
Total	142.27	138.55	132.21	129.37	129.23

(₹ in lakh)

Asset	Asset-III				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	127.60	128.98	132.95	136.74	66.20
Interest on Loan	16.95	7.22	1.09	0.00	0.00
Return on Equity	47.93	48.45	49.94	51.36	51.36
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	2.89	2.60	2.41	2.47	1.54
Total	195.38	187.24	186.39	190.57	119.10



(₹ in lakh)

Asset	Asset-IV				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	98.40	98.98	102.42	105.77	91.77
Interest on Loan	16.21	8.50	2.30	0.00	0.00
Return on Equity	36.96	37.18	38.47	39.73	39.73
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	2.28	2.03	1.88	1.91	1.72
Total	153.86	146.70	145.07	147.41	133.22

(₹ in lakh)

Asset	Asset-V				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	84.83	86.41	89.77	92.11	92.11
Interest on Loan	16.60	10.37	4.65	0.99	0.00
Return on Equity	31.87	32.46	33.72	34.60	34.60
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	2.00	1.82	1.68	1.67	1.66
Total	135.30	131.05	129.83	129.38	128.37

(₹ in lakh)

Asset	Asset-VI				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	99.57	101.56	104.93	108.09	108.09
Interest on Loan	24.44	17.12	10.11	3.54	0.00
Return on Equity	37.40	38.15	39.41	40.60	40.60
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	2.43	2.21	2.03	2.00	1.94
Total	163.85	159.03	156.48	154.24	150.64

(₹ in lakh)

Asset	Asset-VII				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	111.27	114.38	117.99	120.93	120.93
Interest on Loan	26.95	19.26	11.69	4.16	0.00
Return on Equity	41.80	42.96	44.32	45.42	45.42
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	2.71	2.48	2.28	2.24	2.18
Total	182.73	179.09	176.27	172.75	168.53

Filing Fee and the Publication Expenses

64. The Petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses. The Petitioner shall be entitled for reimbursement of the



filing fees and publication expenses in connection with the present petition, directly from the beneficiaries on pro-rata basis in accordance with Regulation 70(1) of the 2019 Tariff Regulations.

Licence Fee & RLDC Fees and Charges

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

Security Expenses

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

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



Goods and Services Tax

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

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

Capital Spares

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

Sharing of Transmission Charges

71. The Charges for the Unified Scheme under State sector mentioned shall be shared by the respective states in proportion to the capital cost of the respective state portion as per provision of Regulation 43(2) of the 2014 Tariff Regulations for the 2014-19 tariff period and as per the Regulation 57(2) of the 2019 Tariff Regulations for the 2019-24 tariff period.

72. To summarise:

- a) The trued-up Annual Fixed Charges approved for the transmission assets for the years 2016-19 in the 2014-19 tariff period are as follows:



(₹ in lakh)

Asset	Asset-I			Asset-II		
	2016-17	2017-18	2018-19	2016-17	2017-18	2018-19
Annual Fixed Charges	85.36	98.68	108.13	103.13	111.75	133.61

(₹ in lakh)

Asset	Asset-III			Asset-IV		
	2016-17	2017-18	2018-19	2016-17 (Pro-rata 143 days)	2017-18	2018-19
Annual Fixed Charges	154.24	187.28	200.15	51.34	148.74	156.24

(₹ in lakh)

Asset	Asset-V		Asset-VI	
	2017-18 (Pro-rata 356 days)	2018-19	2017-18 (Pro-rata 76 days)	2018-19
Annual Fixed Charges	113.28	134.66	31.75	159.85

(₹ in lakh)

Asset	Asset-VII	
	2017-18 (Pro-rata for 76 days)	2018-19
Annual Fixed Charges	33.00	172.59

- b) The Annual Fixed Charges allowed for the transmission assets for the 2019-24 tariff period are as follows:

(₹ in lakh)

Asset	Asset-I				
	2019-20	2020-21	2021-22	2022-23	2023-24
Annual Fixed Charges	104.58	99.28	96.35	96.16	40.44

(₹ in lakh)

Asset	Asset-II				
	2019-20	2020-21	2021-22	2022-23	2023-24
Annual Fixed Charges	142.27	138.55	132.21	129.37	129.23

(₹ in lakh)

Asset	Asset-III				
	2019-20	2020-21	2021-22	2022-23	2023-24
Annual Fixed Charges	195.38	187.24	186.39	190.57	119.10

(₹ in lakh)

Asset	Asset-IV				
	2019-20	2020-21	2021-22	2022-23	2023-24
Annual Fixed Charges	153.86	146.70	145.07	147.41	133.22

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(₹ in lakh)

Asset	Asset-V				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Annual Fixed Charges	135.30	131.05	129.83	129.38	128.37

(₹ in lakh)

Asset	Asset-VI				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Annual Fixed Charges	163.85	159.03	156.48	154.24	150.64

(₹ in lakh)

Asset	Asset-VII				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Annual Fixed Charges	182.73	179.09	176.27	172.75	168.53

73. The Annexure-I and Annexure-II to this order form part of the order.

74. This order disposes of Petition No. 423/TT/2019 in terms of the above discussions and findings.

sd/
(P. K. Singh)
Member

sd/
(Arun Goyal)
Member

sd/
(I.S. Jha)
Member



Annexure-I

Asset-I

Particulars	Admitted Capital Cost as on 1.4.2016	Admitted ACE			Admitted Capital Cost as on 31.3.2019	Rate of Depreciation as per Regulations	Annual Depreciations as per Regulations		
		2016-17	2017-18	2018-19			2016-17	2017-18	2018-19
SCADA/EMS Equipment	289.60	55.25	81.75	27.24	453.84	15.00%	47.58	57.86	66.03
Total	289.60	55.25	81.75	27.24	453.85		47.58	57.86	66.03
Average Gross Block							317.23	385.73	440.22
Weighted Average Rate of Depreciation							15.00%	15.00%	15.00%

Asset-II

Particulars	Admitted Capital Cost as on 1.4.2016	Admitted ACE			Admitted Capital Cost as on 31.3.2019	Rate of Depreciation as per Regulations	Annual Depreciations as per Regulations		
		2016-17	2017-18	2018-19			2016-17	2017-18	2018-19
Building Civil Works & Colony	57.86	1.34	0.00	17.79	76.99	3.34%	1.95	1.98	2.27
SCADA/EMS Equipment	343.70	9.60	99.00	97.02	549.31	15.00%	52.27	60.42	75.12
Total	401.56	10.94	99.00	114.81	626.31		54.23	62.40	77.39
Average Gross Block							407.03	462.00	568.90
Weighted Average Rate of Depreciation							13.32%	13.51%	13.60%

Asset-III

Particulars	Admitted Capital Cost as on 1.4.2016	Admitted ACE			Admitted Capital Cost as on 31.3.2019	Rate of Depreciation as per Regulations	Annual Depreciations as per Regulations		
		2016-17	2017-18	2018-19			2016-17	2017-18	2018-19
SCADA/EMS Equipment	477.21	199.13	114.75	51.66	842.75	15.00%	86.52	110.06	122.54
Total	477.21	199.13	114.75	51.66	842.75		86.52	110.06	122.54
Average Gross Block							576.77	733.71	816.92
Weighted Average Rate of Depreciation							15.00%	15.00%	15.00%



Asset-IV

Particulars	Admitted Capital Cost as on 9.11.2016	Admitted ACE			Admitted Capital Cost as on 31.3.2019	Rate of Depreciation as per Regulations	Annual Depreciations as per Regulations		
		2016-17	2017-18	2018-19			2016-17	2017-18	2018-19
SCADA/EMS Equipment	427.90	115.16	54.30	55.27	652.63	15.00%	72.82	85.53	93.75
Total	427.90	115.16	54.30	55.27	652.63		72.82	85.53	93.75
Average Gross Block							485.48	570.21	624.99
Weighted Average Rate of Depreciation							15.00%	15.00%	15.00%

Asset-V

Particulars	Admitted Capital Cost as on 10.4.2017	Admitted ACE		Admitted Capital Cost as on 31.3.2019	Rate of Depreciation as per Regulations	Annual Depreciations as per Regulations	
		2017-18	2018-19			2017-18	2018-19
SCADA/EMS Equipment	379.30	119.14	63.45	561.90	15.00%	65.83	79.53
Total	379.30	119.14	63.45	561.90		65.83	79.53
Average Gross Block						438.87	530.17
Weighted Average Rate of Depreciation						15.00%	15.00%

Asset-VI

Particulars	Admitted Capital Cost as on 15.1.2018	Admitted ACE		Admitted Capital Cost as on 31.3.2019	Rate of Depreciation as per Regulations	Annual Depreciations as per Regulations	
		2017-18	2018-19			2017-18	2018-19
SCADA/EMS Equipment	568.32	0.40	83.24	651.96	15.00%	85.28	91.55
Total	568.32	0.40	83.25	651.97		85.28	91.55
Average Gross Block						568.52	610.34
Weighted Average Rate of Depreciation						15.00%	15.00%

Asset-VII

Particulars	Admitted Capital Cost as on 15.1.2018	Admitted ACE		Admitted Capital Cost as on 31.3.2019	Rate of Depreciation as per Regulations	Annual Depreciations as per Regulations	
		2017-18	2018-19			2017-18	2018-19
SCADA/EMS Equipment	590.02	8.69	126.81	725.52	15.00%	89.15	99.32
Total	590.02	8.69	126.81	725.52		89.15	99.32
Average Gross Block						594.37	662.11
Weighted Average Rate of Depreciation						15.00%	15.00%



Annexure-II

Asset-I

2019-24	Admitted Capital Cost as on 1.4.2019	Projected ACE			Admitted Capital Cost as on 31.3.2024	Rate of Depreciation as per Regulations	Annual Depreciations as per Regulations				
Particulars		2019-20	2020-21	2021-22			2019-20	2020-21	2021-22	2022-23	2023-24
SCADA/EMS Equipment	453.84	2.08	1.26	2.80	459.98	15.00%	68.23	68.48	68.79	69.00	69.00
Total	453.84	2.08	1.26	2.80	459.98		68.23	68.48	68.79	69.00	69.00
Average Gross Block							454.88	456.55	458.58	459.98	459.98
Weighted Average Rate of Depreciation							15.00%	15.00%	15.00%	15.00%	15.00%

Asset-II

2019-24	Admitted Capital Cost as on 1.4.2019	Projected ACE			Admitted Capital Cost as on 31.3.2024	Rate of Depreciation as per Regulations	Annual Depreciations as per Regulations				
Particulars		2019-20	2020-21	2021-22			2019-20	2020-21	2021-22	2022-23	2023-24
Building Civil Works & Colony	76.99	0.00	0.00	0.00	76.99	3.34%	2.57	2.57	2.57	2.57	2.57
SCADA/EMS Equipment	549.31	26.52	1.32	7.57	584.72	15.00%	84.39	86.47	87.14	87.71	87.71
Total	626.31	26.52	1.32	7.57	661.72		86.96	89.05	89.71	90.28	90.28
Average Gross Block							639.57	653.49	657.93	661.72	661.72
Weighted Average Rate of Depreciation							13.60%	13.63%	13.64%	13.64%	13.64%

Asset-III

2019-24	Admitted Capital Cost as on 1.4.2019	Projected ACE			Admitted Capital Cost as on 31.3.2024	Rate of Depreciation as per Regulations	Annual Depreciations as per Regulations				
Particulars		2019-20	2020-21	2021-22			2019-20	2020-21	2021-22	2022-23	2023-24
SCADA/EMS Equipment	842.75	15.86	2.50	50.47	911.58	15.00%	127.60	128.98	132.95	136.74	136.74
Total	842.75	15.86	2.50	50.47	911.58		127.60	128.98	132.95	136.74	136.74
Average Gross Block							850.68	859.86	886.34	911.58	911.58
Weighted Average Rate of Depreciation							15.00%	15.00%	15.00%	15.00%	15.00%



Asset-IV

2019-24	Admitted Capital Cost as on 1.4.2019	Projected ACE			Admitted Capital Cost as on 31.3.2024	Rate of Depreciation as per Regulations	Annual Depreciations as per Regulations				
Particulars		2019-20	2020-21	2021-22			2019-20	2020-21	2021-22	2022-23	2023-24
SCADA/EMS Equipment	652.63	6.75	1.01	44.76	705.15	15.00%	98.40	98.98	102.42	105.77	105.77
Total	652.63	6.75	1.01	44.76	705.15		98.40	98.98	102.42	105.77	105.77
Average Gross Block							656.00	659.88	682.77	705.15	705.15
Weighted Average Rate of Depreciation							15.00%	15.00%	15.00%	15.00%	15.00%

Asset-V

2019-24	Admitted Capital Cost as on 1.4.2019	Projected ACE			Admitted Capital Cost as on 31.3.2024	Rate of Depreciation as per Regulations	Annual Depreciations as per Regulations				
Particulars		2019-20	2020-21	2021-22			2019-20	2020-21	2021-22	2022-23	2023-24
SCADA/EMS Equipment	561.90	7.31	13.70	31.18	614.09	15.00%	84.83	86.41	89.77	92.11	92.11
Total	561.90	7.31	13.70	31.18	614.09		84.83	86.41	89.77	92.11	92.11
Average Gross Block							565.55	576.06	598.50	614.09	614.09
Weighted Average Rate of Depreciation							15.00%	15.00%	15.00%	15.00%	15.00%

Asset-VI

2019-24	Admitted Capital Cost as on 1.4.2019	Projected ACE			Admitted Capital Cost as on 31.3.2024	Rate of Depreciation as per Regulations	Annual Depreciations as per Regulations				
Particulars		2019-20	2020-21	2021-22			2019-20	2020-21	2021-22	2022-23	2023-24
SCADA/EMS Equipment	651.96	23.72	2.74	42.20	720.62	15.00%	99.57	101.56	104.93	108.09	108.09
Total	651.96	23.72	2.74	42.20	720.62		99.57	101.56	104.93	108.09	108.09
Average Gross Block							663.82	677.05	699.52	720.62	720.62
Weighted Average Rate of Depreciation							15.00%	15.00%	15.00%	15.00%	15.00%



Asset-VII

2019-24	Admitted Capital Cost as on 1.4.2019	Projected ACE			Admitted Capital Cost as on 31.3.2024	Rate of Depreciation as per Regulations	Annual Depreciations as per Regulations				
Particulars		2019-20	2020-21	2021-22			2019-20	2020-21	2021-22	2022-23	2023-24
SCADA/EMS Equipment	725.52	32.58	8.85	39.24	806.19	15.00%	111.27	114.38	117.99	120.93	120.93
Total	725.52	32.58	8.85	39.24	806.19		111.27	114.38	117.99	120.93	120.93
Average Gross Block							741.81	762.52	786.57	806.19	806.19
Weighted Average Rate of Depreciation							15.00%	15.00%	15.00%	15.00%	15.00%

