

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 667/TT/2020

Coram:

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

Date of Order: 29.11.2021

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 2014-19 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of 2019-24 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for **Asset-I:** 400 kV D/C Surjyamaninagar (Tripura)-Indo-Bangladesh Border Transmission Line (operated at 132 kV) and **Asset-I(A):** 2 Nos. of 132 kV line bays of 400 kV D/C Surjyamaninagar-Indo-Bangladesh border TL at Surjyamaninagar (operated at 132 kV) under "Radial Interconnection between India (NER) and Bangladesh-Indian Portion" in North-Eastern Region.

And in the matter of:

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

.... Petitioner

Vs.

1. Assam Electricity Grid Corporation Limited,
(Formerly Assam Power Distribution Company Ltd.),
Bijulee Bhawan, Paltan Bazar,
Guwahati – 781001, Assam.



2. Meghalaya Energy Corporation Limited,
(Formerly Meghalaya State Electricity Board),
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,
(Formerly Electricity Department, Government of Manipur),
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.
8. Bangladesh Power Development Board,
WAPDA Building,
Motijheel Commercial Area,
Dhaka-100, Bangladesh.

....Respondent(s)

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

For Respondents: None

ORDER

The Petitioner, Power Grid Corporation of India Limited, has filed the instant petition for trueing up of transmission tariff from the date of commercial operation (COD) to 31.3.2019 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff



Regulations”) and determination of transmission tariff for the period from 1.4.2019 to 31.3.2024 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) in respect of the transmission assets forming part of the Combined Asset under “Radial Interconnection between India (NER) and Bangladesh-Indian Portion” in North-Eastern Region (hereinafter referred to as “the transmission project”) as follows:

Asset-I: 400 kV D/C Surjyamaninagar (Tripura)-Indo- Bangladesh Border Transmission Line (operated at 132 kV).

Asset-I(A): 2 nos. of 132 kV line bays of 400 kV D/C Surjyamaninagar-Indo-Bangladesh border TL at Surjyamaninagar (operated at 132 kV).

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

“1) Approve the trued-up Transmission Tariff for 2014-19 block and transmission tariff for 2019-24 block for the assets covered under this petition, as per para 11.1 and 13.1 above.

2) 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 11.1 and 13.1 above for respective block.

3) 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.

4) 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.

5) 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.

6) 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 13.1 above.

7) *Allow the initial Spare as a project as whole.*

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) and expenditure sanction for the transmission project was accorded by the Board of Directors of the Petitioner vide Memorandum No. C/CP/Radial Interconnection (India-Bangladesh) dated 5.2.2015 at an estimated cost of ₹7623 lakh, including IDC of ₹236 lakh based on December, 2014 price level. The Revised Cost Estimate (RCE) was approved by Board of Directors of the Petitioner vide Memorandum No. C/CP/RCE: Indo-Bangladesh dated 16.6.2016 at cost of ₹10038 lakh including IDC of ₹224 lakh based on December, 2015 price level.

(b) The scope of work covered under the transmission project is as follows:

Transmission Lines

a. Surjyamaninagar (Tripura)-Indo- Bangladesh border 400 kV D/C line (operated at 132 kV level).

Sub-stations

b. Two number of 132 kV line bay extensions at Surjyamaninagar Sub-station of Tripura State Electricity Corporation Limited (TSECL).

(c) The entire scope of work under the transmission project has been completed and is covered in the instant petition.



(d) The transmission assets were scheduled to be commissioned within 12 months from the date of IA matching with completion of the Bangladesh portion of work. However, the timeline of 12 months for implementation of the project was to be reckoned from the date of signing of BPTA with Bangladesh Power Development Board, i.e., 4.5.2015. Therefore, the project was scheduled to be commissioned by 3.5.2016.

(e) The details of scheduled commercial operation date (SCOD), date of commercial operation (COD) and time over-run are as follows:

Particulars	SCOD	COD	Time over-run
Asset – I	3.5.2016	18.3.2016	-
Asset – I(A)		14.4.2016	-

(f) The transmission tariff in respect of Asset-I and Asset-I(A) was approved by the Commission, from their respective COD to 31.3.2019, vide order dated 8.12.2016 in Petition No. 18/TT/2016.

(g) The Annual Fixed Charges (AFC) approved by the Commission vide order dated 8.12.2016 in Petition No. 18/TT/2016 and trued up tariff claimed by the Petitioner in respect of the transmission assets for 2014-19 tariff period are as follows:

(₹ in lakh)

Particulars	Asset – I			
	2015-16 (Pro-rata for 14 days)	2016-17	2017-18	2018-19
AFC approved vide order dated 8.12.2016 in Petition No.18/TT/2016.	43.62	1236.61	1308.21	1272.89
AFC claimed by the Petitioner based on truing up in the instant petition.	42.71	1246.92	1319.87	1291.03

(₹ in lakh)

Particulars	Asset – I(A)		
	2016-17 (Pro-rata for 352 days)	2017-18	2018-19
AFC approved vide order dated 8.12.2016 in Petition No.18/TT/2016.	188.34	271.19	267.78



AFC claimed by the Petitioner based on truing up in the instant petition.	177.20	270.18	283.09
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4. The Respondents are distribution licensees, power departments and transmission licensees, who are procuring transmission services from the Petitioner, mainly beneficiaries of the North-Eastern Region.

5. The Petitioner has served the petition on the Respondents and notice of this application has also been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003. No comments or suggestions have been received from the general public in response to the aforesaid notices published in the newspapers by the Petitioner. None of the Respondents have filed any reply in the matter.

6. Hearing in this matter was held on 6.7.2021 through video conference and order was reserved.

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

8. This order is issued considering the submissions made by the Petitioner in the petition vide affidavit dated 3.10.2019 and Petitioner's affidavit dated 12.2.2021.

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

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



(₹ in lakh)

Particulars	Asset – I			
	2015-16 (Pro-rata for 14 days)	2016-17	2017-18	2018-19
Depreciation	12.68	376.71	411.73	413.67
Interest on Loan	14.37	406.99	403.63	369.62
Return on Equity	14.21	421.77	460.97	464.39
Interest on Working Capital	0.98	28.46	30.12	29.49
O&M Expenses	0.47	12.99	13.42	13.86
Total	42.71	1246.92	1319.87	1291.03

(₹ in lakh)

Particulars	Asset – I(A)		
	2016-17 (Pro-rata for 352 days)	2017-18	2018-19
Depreciation	35.75	65.77	71.25
Interest on Loan	35.74	60.94	60.12
Return on Equity	38.04	69.22	74.91
Interest on Working Capital	5.63	7.75	8.09
O&M Expenses	62.04	66.50	68.72
Total	177.20	270.18	283.09

10. The details of the trued-up IWC claimed by the Petitioner in respect of the transmission assets are as follows:

(₹ in lakh)

Particulars	Asset – I			
	2015-16 (Pro rata for 14 days)	2016-17	2017-18	2018-19
O&M Expenses	1.04	1.08	1.12	1.16
Maintenance Spares	1.87	1.95	2.01	2.08
Receivables	189.13	207.82	219.98	215.17
Total	192.04	210.85	223.11	218.41
Rate of Interest (in %)	13.50	13.50	13.50	13.50
Interest on Working Capital	0.98	28.46	30.12	29.49

(₹ in lakh)

Particulars	Asset – I(A)		
	2016-17 (Pro-rata for 352days)	2017-18	2018-19
O&M Expenses	5.36	5.54	5.73
Maintenance Spares	9.65	9.98	10.31
Receivables	30.64	45.03	47.18
Total	45.65	60.55	63.22
Rate of Interest (in %)	12.80	12.80	12.80
Interest on Working Capital	5.63	7.75	8.09



Capital Cost

11. The Commission vide order dated 8.12.2016 in Petition No.18/TT/2016 in respect of the transmission assets approved the capital cost as on COD and Additional Capital Expenditure (ACE) up to 31.3.2019. The details of the same are as follows:

Particulars	Approved Cost (FR)	Revised approved cost	Capital Cost allowed as on COD	ACE		(₹ in lakh)
				2015-16	2016-17	Total Capital Cost as on 31.3.2019
Asset – I	6746.50	8311.50	6364.75	81.32	1199.10	7645.17
Asset – I(a)	876.53	1726.29	286.12	-	870.93	1157.05

12. The Petitioner in the instant petition has submitted Auditor's certificate dated 27.7.2019 based on which the capital cost as on COD and estimated ACE incurred in respect of the transmission assets are as follows:

Particulars	Apportioned Approved Cost (RCE)	Capital Cost as on COD	ACE			(₹ in lakh)
			2015-16	2016-17	2017-18	Total Capital Cost as on 31.3.2019
Asset – I	8311.50	6419.06	250.65	1091.60	73.32	7834.63
Asset – I(A)	1726.29	320.70	0.00	812.55	185.56	1318.81

Cost Over-run

13. The Petitioner has claimed capital cost of ₹6419.06 lakh and ₹320.70 lakh for Asset-I and Asset-I(A) respectively as on COD.

14. The total completion cost including ACE in respect of transmission assets is ₹9153.44 lakh and approved RCE is ₹10037.79 lakh. Hence, the completion cost in respect of the transmission assets is within the approved FR cost and, therefore,



there is no cost over-run with regard to transmission assets.

Time Over-run

15. As per IA, transmission assets were scheduled to be put under commercial operation within 12 months from the date of signing of Bulk Power Transmission Agreement (BPTA) with Bangladesh Power Development Board (BPDB), which is 4.5.2015. Accordingly, the scheduled date of commercial operation was 3.5.2016. Asset-I and Asset-I(A) were put into commercial operation on 18.3.2016 and 14.4.2016 respectively. Thus, there is no time over-run in commissioning of the transmission assets.

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

16. The Petitioner has claimed IDC in respect of the transmission assets and has submitted Auditor's Certificate dated 27.7.2019 in support of the same. The Petitioner has furnished computation of IDC along with year-wise details of IDC discharged.

17. The allowable IDC has been worked out considering the information submitted by the Petitioner in respect of the transmission assets separately on cash basis. The loan details submitted in Form-9C for 2014-19 tariff period and IDC computation, on cash and accrued basis, have been considered for the purpose of IDC calculation. The un-discharged IDC as on COD has been considered as ACE during the year in which it has been discharged.

18. Accordingly, based on the information furnished by the Petitioner, IDC considered is as follows:



(₹ in lakh)

Particulars	IDC as per Auditor's Certificate	IDC Admissible	IDC Discharged as on COD	IDC Un-discharged as on COD	IDC Discharge during
					2016-17
	A	B	C	D=B-C	E
Asset-I	161.55	161.55	0.00	161.55	161.55
Asset-I(A)	8.80	8.79	0.00	8.79	8.79

19. The Petitioner has claimed IEDC of ₹313.53 lakh and ₹55.47 lakh for Asset-I and Asset-I(A) respectively and has submitted Auditor's Certificate in support of the same. The Petitioner has submitted that entire IEDC in respect of the transmission assets has been discharged as on COD. IEDC claimed is within the percentage of hard cost. Hence, the same is allowed.

Initial Spares

20. Initial Spares are provided under Regulation 13(d) of the 2014 Tariff Regulations subject to the following ceiling norms:

- “(d) Transmission system
 (i) Transmission line – 1.00%
 (ii) Transmission Sub-station (Green Field) – 4.00%
 (iii) Transmission Sub-station (Brown Field) – 6.00%
 (iv) Series Compensation devices and HVDC Station – 4.00%
 (v) Gas Insulated Sub-station (GIS) – 5.00%
 (vi) Communication system – 3.5%

21. The Petitioner has claimed the following Initial Spares in respect of the transmission assets:



(₹ in lakh)

Particulars	Description	Estimated Completion Cost(A)	Initial Spares Claimed (B)	Ceiling Limit (%) (C)	Initial Spares Worked Out	Excess Initial Spares
					$D = [(A-B) * C / (100-C)]$	
Asset – I	Transmission Line	7359.55	49.04	1.0	73.84	0.00
Asset – I(A)	Sub-station	785.77	27.89	6.0	48.38	0.00
Asset – I(A)	PLCC	468.77	69.55	3.5	14.48	55.07

22. We have considered the submission of the Petitioner. The Petitioner has claimed Initial Spares for sub-station @6% and PLCC/ Communication System @3.5% for Asset-I(A). However, the Commission vide order dated 8.12.2016 in Petition No. 18/TT/2016, allowed Initial Spares in respect of the transmission assets for sub-station @4% and for PLCC/ Communication System @3.5% for Asset-I(A). Accordingly, the details of the Initial Spares allowed in respect of the transmission assets for 2014-19 tariff period are as follows:

Sub-station

Particulars	Capital Cost/ Plant & Machinery cost considered as on cut-off date (₹ in lakh)	Initial Spares claimed (₹ in lakh)	Norms as per 2014 Tariff Regulations (in %)	Initial Spares allowable as per 2014 Tariff Regulations (₹ in lakh)	Initial Spares allowed (₹ in lakh)	Initial Spares discharged as on COD (₹ in lakh)
Asset-I(A)	785.77	27.89	4.00	31.58	27.89	27.89



Transmission Line

Asset	Capital Cost/ Plant & Machinery cost considered as on cut-off date (₹ in lakh)	Initial Spares claimed (₹ in lakh)	Norms as per 2014 Tariff Regulations (in %)	Initial Spares allowable as per 2014 Tariff Regulations (₹ in lakh)	Initial Spares allowed (₹ in lakh)	Initial Spares discharged as on COD (₹ in lakh)
Asset-I	7359.55	49.04	1.00	73.84	49.04	73.84

PLCC/Communication System

Particulars	Capital Cost/Plant & Machinery cost considered as on cut-off date (₹ in lakh)	Initial Spares claimed (₹ in lakh)	Norms as per 2014 Tariff Regulations (in %)	Initial Spares allowable as per 2014 Tariff Regulations (₹ in lakh)	Initial Spares allowed (₹ in lakh)	Initial Spares discharged as on COD (₹ in lakh)
Asset-I(A)	468.77	69.55	3.50	14.48	14.48	14.48

Capital Cost allowed as on COD

23. Accordingly, the capital cost allowed as on COD is summarized as follows:

Particulars	Capital Cost as on COD as per Auditor's Certificate	Less: IDC as on COD due to		Less: Excess initial spares disallowed	Capital Cost as on COD (on cash basis)
		IDC Disallowed	Un-discharged IDC		
Asset-I	6419.06	0.00	161.55	0.00	6257.51
Asset-I(A)	320.70	0.00	8.80	55.07	256.83

Additional Capital Expenditure ("ACE")

24. The Commission vide order dated 8.12.2016 in Petition No.18/TT/2016 allowed ACE in respect of the transmission assets for 2014-19 tariff period as follows:

(₹ in lakh)



Particulars	2015-16	2016-17
Asset – I	81.32	1199.10
Asset – I(A)	-	870.93

25. The Petitioner has claimed the following ACE after adjustment of IDC and IEDC, Initial Spares and liability in respect of the transmission assets covered in the instant petition:

Particulars	(₹ in lakh)		
	2015-16	2016-17	2017-18
Asset – I	250.65	1091.60	73.32
Asset – I(A)	0.00	812.55	185.56

26. The Petitioner has submitted that ACE in 2014-19 has been claimed under Regulations 14(1)(i) of the 2014 Tariff Regulations and the same is within the cut-off date. The Petitioner has submitted Auditor's Certificate in support of the same.

27. We have considered the submissions of Petitioner. The un-discharged IDC as on COD has been allowed as ACE during the year of discharge. ACE claimed by the Petitioner has been allowed under Regulation 14(1)(i) of the 2014 Tariff Regulations which pertains to un-discharged liabilities recognized to be payable at a future date. Accordingly, ACE allowed in respect of the transmission assets for 2014-19 tariff period is as follows:

Asset	Particulars	(₹ in lakh)		
		2015-16	2016-17	2017-18
Asset - I	Balance & Retention Payment	250.65	1091.60	73.32
	IDC Discharged	0.00	161.55	0.00
Asset – I(A)	Balance & Retention Payment	0.00	812.55	185.56
	IDC Discharged	0.00	8.80	0.00

28. The capital cost allowed as on 31.3.2019 after inclusion of ACE in respect of the transmission assets is as follows:



(₹ in lakh)

Assets	Particulars	Capital cost as on COD on cash basis	2015-16	2016-17	2017-18	2018-19	Total Capital cost including ACE as on 31.3.2019
Asset-I	Allowed vide order dated 8.12.2016 in Petition No. 18/TT/2016.	6364.75	81.32	1199.10	0.00	0.00	7645.17
	Claimed by the Petitioner in the instant petition.	6257.51	250.65	1253.15	73.32	0.00	7834.63
	Allowed after truing up in this order.	6257.51	250.65	1253.15	73.32	0.00	7834.63
Asset-I(A)	Allowed vide order dated 8.12.2016 in Petition No. 18/TT/2016.	286.12	0.00	870.93	0.00	0.00	1157.05
	Claimed by the Petitioner in the instant petition.	257.01	0.00	821.17	185.56	0.00	1263.74
	Allowed after truing up in this order.	256.83	0.00	821.35	185.56	0.00	1263.74

Debt-Equity Ratio

29. The Petitioner has claimed debt-equity ratio of 70:30 as on COD and for ACE. The debt-equity ratio of 70:30 has been considered for capital cost as on COD and ACE during 2014-19 tariff period as provided under Regulation 19 of the 2014 Tariff Regulations. The details of debt-equity ratio in respect of the transmission assets as on COD and 31.3.2019 are as follows:

Asset – I	Amount as on COD (₹ in lakh)	(In %)	Amount as on 31.3.2019 (₹ in lakh)	(In %)
Debt	4380.26	70.00	5484.25	70.00
Equity	1877.25	30.00	2350.38	30.00
Total	6257.51	100.00	7834.63	100.00
Asset – I(A)	Amount as on COD (₹ in lakh)	(In %)	Amount as on 31.3.2019 (₹ in lakh)	(In %)
Debt	179.78	70.00	884.62	70.00
Equity	77.05	30.00	379.12	30.00
Total	256.83	100.00	1263.74	100.00



Depreciation

30. Depreciation has been allowed out as per the methodology provided in Regulation 27 of the 2014 Tariff Regulations. Depreciation has been allowed considering capital expenditure as on 1.4.2014 and approved ACE during the 2014-19 tariff period. The Gross Block during the 2014-19 tariff period has been depreciated at Weighted Average Rate of Depreciation (WAROD) and working of WAROD is given at Annexure-I and Annexure-II. WAROD has been worked out after taking into account the depreciation rates of asset as prescribed in the 2014 Tariff Regulations and depreciation allowed during the 2014-19 tariff period is as follows:

Particulars	(₹ in lakh)			
	Asset – I			
	2015-16 (Pro-rata for 14 days)	2016- 17	2017- 18	2018- 19
Opening Gross Block	6257.51	6508.16	7761.31	7834.63
ACE	250.65	1253.15	73.32	0.00
Closing Gross Block	6508.16	7761.31	7834.63	7834.63
Average Gross Block	6382.84	7134.74	7797.97	7834.63
Weighted Average rate of Depreciation (WAROD) (in %)	5.28	5.28	5.28	5.28
No. of completed years of asset at the beginning of the year (Year)	0	0	1	2
Balance useful life of the Asset at the beginning of the year (Year)	35	35	34	33
Aggregated Depreciable Value	5744.55	6421.26	7018.17	7051.17
Depreciation during the year	12.89	376.71	411.73	413.67
Remaining Aggregated Depreciable Value	5731.66	6031.66	6216.83	5836.16

Particulars	(₹ in lakh)		
	Asset – I(A)		
	2016-17 (Pro-rata for 352 days)	2017-18	2018-19
Opening Gross Block	256.83	1078.18	1263.74
ACE	821.35	185.56	0.00
Closing Gross Block	1078.18	1263.74	1263.74
Average Gross Block	667.50	1170.96	1263.74
Weighted Average Rate of Depreciation (WAROD) (in %)	5.55	5.62	5.64



No. of completed years of the asset at the beginning of the year (Year)	0	0	1
Balance useful life of the Asset-at the beginning of the year (Year)	24	24	23
Aggregated Depreciable Value	600.75	1053.86	1137.37
Depreciation during the year	35.75	65.76	71.24
Remaining Aggregated Depreciable Value	565.00	952.35	964.61

31. The details of the depreciation allowed in respect of the transmission assets vide order dated 8.12.2016 in Petition No.18/TT/2016, as claimed by the Petitioner in the instant petition and as trued up in the instant order is as follows:

(₹ in lakh)

Particulars	Asset - I			
	2015-16 (Pro-rata for 14 days)	2016-17	2017-18	2018-19
Allowed vide order dated 8.12.2016 in Petition No. 18/TT/2016	13.03	374.51	406.16	406.16
Claimed by the Petitioner in the instant petition	12.68	376.71	411.73	413.67
Approved after true-up in this order	12.89	376.71	411.73	413.67

(₹ in lakh)

Particulars	Asset – I(A)		
	2016-17(Pro-rata for 352 days)	2017-18	2018-19
Allowed vide order dated 8.12.2016 in Petition No. 18/TT/2016	39.20	65.38	65.38
Claimed by the Petitioner in the instant petition	35.75	65.77	71.25
Approved after true-up in this order	35.75	65.76	71.24

Interest on Loan (“IoL”)

32. The Petitioner has claimed the Weighted Average Rate of IoL based on its actual loan portfolio and rate of interest. Accordingly, IoL is calculated based on



actual interest rate, in accordance with Regulation 26 of the 2014 Tariff Regulations.

The details of IoL allowed are as follows:

(₹ in lakh)

Particulars	Asset – I			
	2015-16 (Pro-rata for 14 days)	2016-17	2017-18	2018-19
Gross Normative Loan	4380.26	4555.72	5432.93	5484.25
Cumulative Repayments up to Previous Year	0.00	12.89	389.61	801.34
Net Loan-Opening	4380.26	4542.83	5043.32	4682.92
Addition due to ACE	175.46	877.21	51.32	0.00
Repayment during the year	12.89	376.71	411.73	413.67
Net Loan-Closing	4542.83	5043.32	4682.92	4269.25
Average Loan	4461.54	4793.08	4863.12	4476.08
Weighted Average Rate of Interest on Loan (in %)	8.56	8.49	8.30	8.26
Interest on Loan	14.60	406.97	403.61	369.60

(₹ in lakh)

Particulars	Asset – I(A)		
	2016-17(Pro-rata for 352 days)	2017-18	2018-19
Gross Normative Loan	179.78	754.73	884.62
Cumulative Repayments up to Previous Year	0.00	35.75	101.51
Net Loan-Opening	179.78	718.98	783.11
Addition due to ACE	574.95	129.89	0.00
Repayment during the year	35.75	65.76	71.24
Net Loan-Closing	718.98	783.11	711.87
Average Loan	449.38	751.04	747.49
Weighted Average Rate of Interest on Loan (in %)	8.24	8.11	8.04
Interest on Loan	35.75	60.94	60.12

33. The details of IoL approved vide order dated 8.12.2016 in Petition No.18/TT/2016, claimed by the Petitioner in the instant petition and trued up in this order are as follows:



(₹ in lakh)

Particulars	Asset – I			
	2015-16 (Pro-rata for 14 days)	2016- 17	2017- 18	2018- 19
Allowed vide order dated 8.12.2016 in Petition No.18/TT/2016.	14.70	406.39	408.91	374.03
Claimed by the Petitioner in the instant petition.	14.37	406.99	403.63	369.62
Approved after true-up in this order.	14.60	406.97	403.61	369.60

(₹ in lakh)

Particulars	Asset – I(A)		
	2016-17 (Pro-rata for 352 days)	2017- 18	2018- 19
Allowed vide order dated 8.12.2016 in Petition No.18/TT/2016.	40.27	63.47	57.85
Claimed by the Petitioner in the instant petition.	35.74	60.94	60.12
Approved after true-up in this order.	35.75	60.94	60.12

Return on Equity (“RoE”)

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

Year	Claimed effective tax (in %)	Grossed up RoE [(Base Rate)/(1-t)] (in %)
2014-15	21.018	19.625
2015-16	21.382	19.716
2016-17	21.338	19.705
2017-18	21.337	19.704
2018-19	21.549	19.758

35. We have considered the submissions of the Petitioner. The Commission vide order dated 27.4.2020 in Petition No. 274/TT/2019 has arrived at the effective tax rate for the Petitioner based on the notified MAT rates and the same is as follows:



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

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

Year	MAT Rate (in %)	Grossed-up RoE [(Base Rate)/(1-t)] (in %)
2014-15	20.961	19.610
2015-16	21.342	19.705
2016-17	21.342	19.705
2017-18	21.342	19.705
2018-19	21.549	19.758

37. Accordingly, RoE allowed in respect of the transmission assets is as follows:

(₹ in lakh)

Particulars	Asset – I			
	2015-16 (Pro-rata for 14 days)	2016-17	2017-18	2018-19
Opening Equity	1877.25	1952.44	2328.38	2350.38
Addition due to ACE	75.19	375.94	22.00	0.00
Closing Equity	1952.44	2328.38	2350.38	2350.38
Average Equity	1914.85	2140.41	2339.38	2350.38
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500
Tax Rate applicable (in %)	21.342	21.342	21.342	21.549
Rate of Return on Equity (Pre-tax)	19.705	19.705	19.705	19.758
Return on Equity (Pre-tax)	14.43	421.77	460.97	464.39



(₹ in lakh)

Particulars	Asset – I(A)		
	2016-17 (Pro-rata for 352 days)	2017-18	2018-19
Opening Equity	77.05	323.45	379.12
Addition due to ACE	246.40	55.67	0.00
Closing Equity	323.45	379.12	379.12
Average Equity	200.25	351.28	379.12
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500
Tax Rate applicable (in %)	21.342	21.342	21.549
Rate of Return on Equity (Pre-tax)	19.705	19.705	19.758
Return on Equity (Pre-tax)	38.05	69.22	74.91

38. The details of RoE allowed vide order dated 8.12.2016 in Petition No.18/TT/2016, as claimed by the Petitioner in the instant petition and trued up in the instant order are as follows:

(₹ in lakh)

Particulars	Asset – I			
	2015-16 (Pro-rata for 14 days)	2016-17	2017-18	2018-19
Allowed vide order dated 8.12.2016 in Petition No. 18/TT/2016	14.41	414.49	449.77	449.77
Claimed by the Petitioner in the instant petition	14.21	421.77	460.97	464.39
Approved after true-up in this order	14.43	421.77	460.97	464.39

(₹ in lakh)

Particulars	Asset – I(A)		
	2016-17 (Pro-rata for 352 days)	2017-18	2018-19
Allowed vide order dated 8.12.2016 in Petition No. 18/TT/2016.	40.94	68.07	68.07
Claimed by the Petitioner in the instant petition	38.04	69.22	74.91
Approved after true-up in this order	38.05	69.22	74.91



Operation & Maintenance Expenses (“O&M Expenses”)

39. The details of the O&M Expenses claimed by the Petitioner in respect of the transmission assets and allowed under Regulation 29(4)(a) of the 2014 Tariff Regulations for the purpose of tariff are as follows:

(₹ in lakh)

Asset – I				
Particulars	2015-16 (Pro-rata for 14days)	2016-17	2017-18	2018-19
AC Lines				
400 kV D/C Surjamaninagar-Omilla transmission line (km)	17.200	17.200	17.200	17.200
Norm (₹ lakh/ km)				
D/C Twin/Triple Conductor	0.73	0.76	0.78	0.81
Total Transmission Line	12.57	12.99	13.42	13.86
Total O&M Expenses	0.48	12.99	13.42	13.86

(₹ in lakh)

Asset – I(A)			
Particulars	2016-17 (Pro-rata for 352days)	2017-18	2018-19
Substation			
132 kV Surajmaninagar: Surajmaninagar transmission line (km)	2	2	2
Norm (₹ lakh/ bay)			
132 kV & below	32.18	33.25	34.36
Total Transmission Line	64.36	66.50	68.72
Total O&M Expenses	62.07	66.50	68.72

40. The details of O&M Expenses approved vide order dated 8.12.2016 in Petition No.18/TT/2016, O&M Expenses claimed by the Petitioner in the instant petition and trued up O&M Expenses allowed in the instant order are as follows:



(₹ in lakh)

Particulars	Asset – I			
	2015-16 (Pro-rata for 14 days)	2016- 17	2017- 18	2018- 19
Allowed vide order dated 8.12.2016 in Petition No.18/TT/2016	0.48	12.99	13.42	13.86
Claimed by the Petitioner in the instant petition	0.47	12.99	13.42	13.86
Approved after true-up in this order	0.48	12.99	13.42	13.86

Particulars	Asset – I(A)		
	2016-17 (Pro-rata for 352 days)	2017- 18	2018- 19
Allowed vide order dated 8.12.2016 in Petition No.18/TT/2016	62.07	66.50	68.72
Claimed by the Petitioner in the instant petition	62.04	66.50	68.72
Approved after true-up in this order	62.07	66.50	68.72

Interest on Working Capital (“IWC”)

41. The Petitioner has claimed IWC as per Regulation 28(1)(c) of the 2014 Tariff Regulations as follows:

i. Maintenance Spares:

Maintenance spares have been worked out based on 15% of Operation and Maintenance Expenses.

ii. O & M Expenses:

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

iii. Receivables:

The receivables have been worked out on the basis of 2 months of annual



transmission charges.

iv. Rate of Interest on Working Capital:

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

42. The tried up IWC allowed in respect of the transmission assets is as follows:

(₹ in lakh)

Particulars	Asset – I			
	2015-16 (Pro-rata for 14 days)	2016-17	2017-18	2018-19
Working Capital for O&M Expenses (O&M Expenses for One month)	1.05	1.08	1.12	1.16
Working Capital for Maintenance Spares (15% of O&M Expenses)	1.89	1.95	2.01	2.08
Working Capital for Receivables (Equivalent to Two months of annual fixed cost /annual transmission charges)	189.10	207.82	219.98	215.17
Total Working Capital	192.03	210.85	223.11	218.40
Rate of Interest on working capital (in %)	13.50	13.50	13.50	13.50
Interest on working Capital	0.99	28.46	30.12	29.48

(₹ in lakh)

Particulars	Asset – I(A)		
	2016-17 (Pro-rata for 14 days)	2017-18	2018-19
Working Capital for O&M Expenses (O&M Expenses for one month)	5.36	5.54	5.73
Working Capital for Maintenance Spares (15% of O&M Expenses)	9.65	9.98	10.31
Working Capital for Receivables (Equivalent to two months of annual fixed cost /annual	30.63	45.03	47.18



transmission charges)			
Total Working Capital	45.65	60.55	63.21
Rate of Interest on Working Capital (in %)	12.80	12.80	12.80
Interest on working Capital	5.64	7.75	8.09

43. The details of IWC approved vide order dated 8.12.2016 in Petition No.18/TT/2016, IWC claimed by the Petitioner and trued up IWC allowed in the instant order is as follows:

(₹ in lakh)

Particulars	Asset – I			
	2015-16 (Pro-rata for 14 days)	2016-17	2017-18	2018-19
Allowed vide order dated 8.12.2016 in Petition No.18/TT/2016	1.00	28.23	29.86	29.08
Claimed by the Petitioner in the instant petition	0.98	28.46	30.12	29.49
Approved after true-up in this order	0.99	28.46	30.12	29.48

(₹ in lakh)

Particulars	Asset – I(A)		
	2016-17 (Pro-rata for 352 days)	2017-18	2018-19
Allowed vide order dated 8.12.2016 in Petition No.18/TT/2016	5.87	7.77	7.77
Claimed by the Petitioner in the instant petition	5.63	7.75	8.09
Approved after true-up in this order	5.64	7.75	8.09

Approved Annual Fixed Charges for the 2014-19 Tariff Period

44. The trued up Annual Fixed Charges (AFC) allowed in respect of the transmission assets for 2014-19 tariff period are as follows:



(₹ in lakh)

Particulars	Asset – I			
	2015-16 (Pro-rata for 14 days)	2016-17	2017-18	2018-19
Depreciation	12.89	376.71	411.73	413.67
Interest on Loan	14.60	406.97	403.61	369.60
Return on Equity	14.43	421.77	460.97	464.39
Operation and Maintenance	0.48	12.99	13.42	13.86
Interest on Working Capital	0.99	28.46	30.12	29.48
Total	43.40	1246.91	1319.85	1291.01

(₹ in lakh)

Particulars	Asset – I(A)		
	2016-17 (Pro-rata for 352 days)	2017-18	2018-19
Depreciation	35.75	65.76	71.24
Interest on Loan	35.75	60.94	60.12
Return on Equity	38.05	69.22	74.91
Operation and Maintenance	62.07	66.50	68.72
Interest on Working Capital	5.64	7.75	8.09
Total	177.26	270.17	283.07

45. Accordingly, AFC allowed vide order dated 8.12.2016 in Petition No.18/TT/2016, trued up AFC claimed by the Petitioner in the instant petition and trued up AFC approved in the instant order are as follows:

(₹ in lakh)

Particulars	Asset – I			
	2015-16 (Pro-rata for 14 days)	2016- 17	2017- 18	2018- 19
Allowed vide order dated 8.12.2016 in Petition No.18/TT/2016	43.62	1236.61	1308.12	1272.90
Claimed by the Petitioner in the instant petition	42.71	1246.92	1319.87	1291.03
Approved after true-up in this order	43.40	1246.91	1319.85	1291.01



Particulars	(₹ in lakh) Asset – I(A)		
	2016-17 (Pro-rata for 352 days)	2017- 18	2018- 19
Allowed vide order dated 8.12.2016 in Petition No.18/TT/2016	188.35	271.19	267.79
Claimed by the Petitioner in the instant petition	177.20	270.18	283.09
Approved after true-up in this order	177.26	270.17	283.07

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

46. The Petitioner has combined the transmission assets into single asset and furnished combined tariff forms for 2019-24. Accordingly, as per proviso (i) of Regulation 8(1) of the 2019 Tariff Regulations, single tariff for the Combined Asset has been worked out for 2019-24 tariff period.

47. The Petitioner has claimed the following transmission charges in respect of the Combined Asset for 2019-24 tariff period:

Particulars	(₹ in lakh)				
	2019-20	2020-21	201-22	2022-23	2023-24
Depreciation	484.92	484.92	484.92	484.92	484.92
Interest on Loan	390.83	350.48	311.08	271.69	231.34
Return on Equity	512.66	512.66	512.66	512.66	512.66
Interest on Working Capital	23.32	22.84	22.32	21.80	21.22
O&M Expenses	55.93	57.59	59.32	61.08	62.93
Total	1467.66	1428.49	1390.30	1352.15	1313.07

48. The Petitioner has claimed the following IWC in respect of the Combined Asset for 2019-24 tariff period:



(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	4.66	4.80	4.94	5.09	5.24
Maintenance Spares	8.39	8.64	8.90	9.16	9.44
Receivables	180.45	176.12	171.41	166.70	161.44
Total Working Capital	193.50	189.56	185.25	180.95	176.12
Rate of Interest on working capital (%)	12.05	12.05	12.05	12.05	12.05
Interest on working Capital	23.32	22.84	22.32	21.80	21.22

Effective Date of Commercial Operation (E-COD)

49. The Petitioner has claimed E-COD of the Combined Asset as 22.3.2016. Based on the trued-up admitted capital cost and actual COD of the transmission assets, the same E-COD has been worked out as follows:

Computation of E-COD					
Particulars	Actual COD	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Weightage of the cost (in %)	Number of Days from last COD	Weighted Days
Asset – I	18.3.2016	7834.63	86.11	27.00	23.25
Asset – I(A)	14.4.2016	1263.74	14.19	0.00	0.00
Total		9129.86	100.00		23.25
E-COD (Latest COD – Total weighted Days)					
22.3.2016					

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

Weighted Average Life (“WAL”)

51. Regulation 33 of the 2019 Tariff Regulations has been considered for determination of WAL. The Combined Asset may have multiple elements such as land, building, transmission line, sub-station and PLCC and each element may have



different span of life. Therefore, the concept of WAL has been used as the useful life of the transmission project as a whole.

52. WAL has been determined based on the admitted capital cost of individual elements as on 31.3.2019 and their respective life as stipulated in the 2019 Tariff Regulations. The element-wise life as defined in the 2014 Tariff Regulations prevailing at the time of actual COD of individual asset has been ignored for this purpose. The life as defined in the 2019 Tariff Regulations has been considered for determination of WAL. Accordingly, WAL of the Combined Asset has been worked out as 33 years and the same is as follows:

Admitted Capital Cost as on 31.3.2019				
Particulars	Combined Asset Cost (Rs. in lakh) (1)	Life in Years (2)	Weighted Cost (3) = (1) x (2)	Weighted Average Life of Asset (in years) (4) = (3)/ (1)
Building	0.00	25	0.00	
Transmission Line	7834.63	35	274212.05	
Sub-Station Equipment	834.09	25	20852.20	
PLCC	429.65	15	6444.77	
IT Equipment and Software	0.00	7	0.00	
Total	9098.37		301509.02	33.00 years

53. WAL as on 1.4.2019 as determined above is applicable prospectively (i.e. for 2019-24 tariff period. No retrospective adjustment of depreciation in previous tariff period is required to be done. As discussed, E-COD of the Combined Asset is 22.3.2016 and lapsed life of the transmission project as a whole, works out as three (3) year as on 1.4.2019 (i.e. the number of completed years as on 1.4.2019 from Effective COD). Accordingly, WAL has been used to determine the remaining useful life as on 31.3.2019 to be 30 years.



Capital Cost

54. 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 Asset-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 ash disposal and utilization including handling and transportation facility;*
 - d. *Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*
 - e. *Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal up to the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and*
 - f. *Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.”*
- (4) *The capital cost in case of existing or new hydro generating station shall also include:*
- a. *cost of approved rehabilitation and resettlement (R&R) plan of the project in conformity with National R&R Policy and R&R package as approved; and*
 - b. *cost of the developer's 10% contribution towards Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) and Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) project in the affected area.*
- (5) *The following shall be excluded from the capital cost of the existing and new projects:*
- a. *The Asset-forming part of the project, but not in use, as declared in the tariff petition;*
 - b. *De-capitalised Asset-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 decapitalised 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 asset.

- 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.”

55. The Petitioner has claimed the capital cost of individual asset which has been added to arrive at the capital cost claimed during 2019-24 period in respect of the Combined Asset as per the following details:

Particulars	RCE Apportioned Approved Capital Cost	Capital Cost claimed as on 31.3.2019	ACE	Estimated Completion Cost as on 31.3.2024
			2019-24	
Combined Asset	10037.79	9098.37	0.00	9098.37
Total	10037.79	9098.37	0.00	9098.37

56. Against the overall apportioned approved capital cost (as per RCE) of ₹ 10037.79 lakh, the estimated completion cost is ₹9098.37 lakh. The individual capital cost of each transmission asset is also within the respective FR approved apportioned capital cost. Therefore, there is no cost over-run in respect of the Combined Asset.

57. The capital cost has been dealt in line with Regulation 19(3) of the 2019 Tariff Regulations. The element-wise capital cost (i.e., land, building, transmission line, sub- station and PLCC) as admitted by the Commission as on 31.3.2019 in respect of the transmission assets are clubbed together and has been considered as capital cost of the Combined Asset as on 1.4.2019 as per the following details:



(₹ in lakh)			
Elements	Asset-I	Asset-I(A)	Capital Cost for Combined Asset as on 31.3.2019
Free hold Land	0.00	0.00	0.00
Building & Other Civil Works	0.00	0.00	0.00
Transmission Line	7834.63	0.00	7834.63
Sub-station Equipment	0.00	834.09	834.09
PLCC	0.00	429.65	429.65
Leasehold Land	0.00	0.00	0.00
IT Equipment and Software	0.00	0.00	0.00
Total	7834.63	1263.74	9098.37

58. The trued-up capital cost of ₹ 9098.37 lakh for Combined Asset is considered as admitted capital cost as on 31.3.2019 for working out tariff of 2019-24 tariff period.

Additional Capital Expenditure (“ACE”)

59. The Petitioner has not projected any ACE for the 2019-24 tariff period.

Capital Cost for the 2019-24 Tariff Period

60. Capital cost of the Combined Asset considered for 2019-24 tariff period is as follows:

(₹ in lakh)		
Capital Cost as on 1.4.2019	Admitted ACE 2019-24	Capital Cost as on 31.3.2024
9098.37	0.00	9098.37

Debt-Equity Ratio

61. 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.”

62. The details of debt-equity considered for the purpose of computation of tariff



for 2019-24 period for the Combined Asset is as follows:

Particulars	Capital Cost as on 1.4.2019 (₹ in lakh)	(in %)	Total Capital Cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	6368.88	70.00	6368.88	70.00
Equity	2729.49	30.00	2729.49	30.00
Total	9098.37	100.00	9098.37	100.00

Depreciation

63. 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 Asset-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 asset”

(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.”

64. We have considered the submissions of the Petitioner. WAROD has been worked out and placed as Annexure-III after taking into account the depreciation rates 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 in respect of the Combined Asset is as follows:



(₹ in lakh)

Combined Asset					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	9098.37	9098.37	9098.37	9098.37	9098.37
Addition during the year 2019-24 due to projected ACE	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	9098.37	9098.37	9098.37	9098.37	9098.37
Average Gross Block	9098.37	9098.37	9098.37	9098.37	9098.37
Weighted average rate of Depreciation (WAROD) (in %)	5.33	5.33	5.33	5.33	5.33
Elapsed useful life at the beginning of the year (Year)	3	4	5	6	7
Balance useful life at the beginning of the year (Year)	30	29	28	27	26
Aggregated Depreciable Value	8188.53	8188.53	8188.53	8188.53	8188.53
Combined Depreciation during the year	484.91	484.91	484.91	484.91	484.91
Aggregate Cumulative Depreciation at the end of the year	1872.66	2357.57	2842.47	3327.38	3812.28
Remaining Aggregate Depreciable Value at the end of the year	6315.87	5830.96	5346.06	4861.15	4376.25

Interest on Loan ("IoL")

65. 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 asset, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered upto the date of de-capitalisation of such asset.

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



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

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

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

(6) The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.

(7) The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing”.

66. The Weighted Average Rate of Interest on IoL has been considered on the basis of the rates prevailing as on 1.4.2019. The Petitioner has prayed that change in interest rate due to floating rate of interest applicable, if any, during 2019-24 tariff period will be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of true-up. In view of above, IoL has been worked out in accordance with Regulation 32 of the 2019 Tariff Regulations. IoL allowed in respect of the Combined Asset is as follows:

(₹ in lakh)

Combined Asset					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	6368.88	6368.88	6368.88	6368.88	6368.88
Cumulative Repayments upto Previous Year	1387.76	1872.66	2357.57	2842.47	3327.38
Net Loan-Opening	4981.12	4496.21	4011.31	3526.40	3041.50
Addition due to ACE	0.00	0.00	0.00	0.00	0.00
Repayment during the year	484.91	484.91	484.91	484.91	484.91
Net Loan-Closing	4496.21	4011.31	3526.40	3041.50	2556.59
Average Loan	4738.67	4253.76	3768.86	3283.95	2799.04
Weighted Average Rate of Interest on Loan (in %)	8.247	8.239	8.254	8.273	8.264
Interest on Loan	390.82	350.47	311.07	271.67	231.33



Return on Equity (“RoE”)

67. Regulation 30 and Regulation 31 of the 2019 Tariff Regulations provide as follows:

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

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

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

Provided further that:

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

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

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

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

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

31. Tax on Return on Equity:(1) *The base rate of return on equity as allowed by the Commission under Regulation 30 of these regulations shall be grossed up*



with the effective tax rate of the respective financial year. For this purpose, the effective tax rate shall be considered on the basis of actual tax paid in respect of the financial year in line with the provisions of the relevant Finance Acts by the concerned generating company or the transmission licensee, as the case may be. The actual tax paid on income from other businesses including deferred tax liability (i.e. income from business other than business of generation or transmission, as the case may be) shall be excluded for the calculation of effective tax rate.

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

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

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."



68. The Petitioner has submitted that MAT rate is applicable to it. MAT rate applicable in 2019-20 has been considered for the purpose of RoE which shall be trued up with actual tax rate in accordance with Regulation 31(3) of the 2019 Tariff Regulations. RoE allowed in respect of the Combined Asset is as follows:

(₹ in lakh)

Combined Asset					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	2729.49	2729.49	2729.49	2729.49	2729.49
Addition due to ACE	0.00	0.00	0.00	0.00	0.00
Closing Equity	2729.49	2729.49	2729.49	2729.49	2729.49
Average Equity	2729.49	2729.49	2729.49	2729.49	2729.49
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
Tax Rate applicable (in %)	17.470	17.470	17.470	17.470	17.470
Rate of Return on Equity (Pre-tax)	18.780	18.780	18.780	18.780	18.780
Return on Equity (Pre-tax)	512.65	512.65	512.65	512.65	512.65

Operation & Maintenance Expenses (“O&M Expenses”)

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

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

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



Single Circuit (Bundled Conductor with six or more sub-conductors)	0.881	0.912	0.944	0.977	1.011
Single Circuit (Bundled conductor with four sub-conductors)	0.755	0.781	0.809	0.837	0.867
Single Circuit (Twin & Triple Conductor)	0.503	0.521	0.539	0.558	0.578
Single Circuit (Single Conductor)	0.252	0.260	0.270	0.279	0.289
Double Circuit (Bundled conductor with four or more sub-conductors)	1.322	1.368	1.416	1.466	1.517
Double Circuit (Twin & Triple Conductor)	0.881	0.912	0.944	0.977	1.011
Double Circuit (Single Conductor)	0.377	0.391	0.404	0.419	0.433
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.319	2.401	2.485	2.572	2.662
Multi Circuit (Twin & Triple Conductor)	1.544	1.598	1.654	1.713	1.773
Norms for HVDC stations					
HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)	834	864	894	925	958
Gazuwaka HVDC Back-to-Back station (₹ Lakh per 500 MW)	1,666	1,725	1,785	1,848	1,913
500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)	2,252	2,331	2,413	2,498	2,586
±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)	2,468	2,555	2,645	2,738	2,834
±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)	1,696	1,756	1,817	1,881	1,947
±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW)	2,563	2,653	2,746	2,842	2,942

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

Provided further that:

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



- period;*
- ii. *the O&M expenses norms for HVDC bi-pole line shall be considered as Double Circuit quad AC line;*
 - iii. *the O&M expenses of ± 500 kV Mundra-Mohindergarh HVDC bipole scheme (2000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ± 500 kV Talchar-Kolar HVDC bi-pole scheme (2000 MW);*
 - iv. *the O&M expenses of ± 800 kV Champa-Kurukshetra HVDC bi-pole scheme (3000 MW) shall be on the basis of the normative O&M expenses for ± 800 kV, Bishwanath-Agra HVDC bi-pole scheme;*
 - v. *the O&M expenses of ± 800 kV, Alipurduar-Agra HVDC bi-pole scheme (3000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ± 800 kV, Bishwanath-Agra HVDC bi-pole scheme; and*
 - vi. *the O&M expenses of Static Synchronous Compensator and Static Var Compensator shall be worked at 1.5% of original project cost as on commercial operation which shall be escalated at the rate of 3.51% to work out the O&M expenses during the tariff period. The O&M expenses of Static Synchronous Compensator and Static Var Compensator, if required, may be reviewed after three years.*
- (b) *The total allowable operation and maintenance expenses for the transmission system shall be calculated by multiplying the number of sub-station bays, transformer capacity of the transformer (in MVA) and km of line length with the applicable norms for the operation and maintenance expenses per bay, per MVA and per km respectively.*
- (c) *The Security Expenses and Capital Spares for transmission system shall be allowed separately after prudence check:*

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

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

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



(₹ in lakh)

Combined Asset					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Sub-station Bays					
Surajmaninagar: Surajmaninagar(km)	2	2	2	2	2
Norm (₹ lakh/bay)					
132 kV & below	16.08	16.64	17.23	17.83	18.46
Total Sub-station O&M Expenses	32.16	33.28	34.46	35.66	36.92
AC Lines					
400 kV D/C Surajmaninagar- Comilla (km)	17.2	17.2	17.2	17.2	17.2
Norm (₹ lakh/ km)	0.881	0.912	0.944	0.977	1.011
Total Transmission Line	15.15	15.69	16.24	16.80	17.39
Communication System					
PLCC (₹ in lakh)	431.03	431.03	431.03	431.03	431.03
Norms (in %)	2	2	2	2	2
Total Communication System	8.62	8.62	8.62	8.62	8.62
Total O&M Expenses	55.93	57.59	59.32	61.09	62.93

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

72. The O&M Expenses allowed in respect of the Combined Asset are as follows:



(₹ in lakh)

Combined Asset					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Sub-station Bays					
Surajmaninagar: Surajmaninagar	2	2	2	2	2
Norm (₹ lakh/bay)					
132 kV & below	16.08	16.64	17.23	17.83	18.46
Total Sub-station O&M Expenses	32.16	33.28	34.46	35.66	36.92
AC & HVDC Lines					
400 kV D/C Surajmaninagar-Comilla	17.2	17.2	17.2	17.2	17.2
Norm (₹ lakh/ km)	0.881	0.912	0.944	0.977	1.011
Total Transmission Line	15.15	15.69	16.24	16.80	17.39
Total O&M Expenses	47.31	48.97	50.70	52.46	54.31

Interest on Working Capital (“IWC”)

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

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

.....

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

(i) Receivables equivalent to 45 days of annual fixed cost;

(ii) Maintenance spares @ 15% of operation and maintenance expenses including security expenses; and

(iii) Operation and maintenance expenses, including security expenses for one month.”

(3) Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2019 or as on 1st April of the year during the tariff period 2019-24 in which the generating station or a unit thereof or the transmission system including communication system or element thereof, as the case may be, is declared under commercial operation, whichever is later:

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



(4) Interest on working capital shall be payable on normative basis notwithstanding that the generating company or the transmission licensee has not taken loan for working capital from any outside agency.”

“3. **Definition** - In these regulations, unless the context otherwise requires:-

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

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

(₹ in lakh)					
Combined Asset					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Working Capital for O&M Expenses (O&M expenses for one month)	3.94	4.08	4.22	4.37	4.53
Working Capital for Maintenance Spares (15% of O&M Expenses)	7.10	7.34	7.60	7.87	8.15
Working Capital for Receivables (Equivalent to 45 days of annual fixed cost / annual transmission charges)	179.34	174.81	169.94	165.25	160.00
Total Working Capital	190.38	186.24	181.77	177.49	172.67
Rate of Interest on Working Capital (in %)	12.05	11.25	10.50	10.50	10.50
Interest on working capital	22.94	20.95	19.09	18.64	18.13

Annual Fixed Charges for the 2019-24 Tariff Period

75. The transmission charges allowed in respect of the Combined Asset for 2019-



24 tariff period are as follows:

(₹ in lakh)

Combined Asset					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	484.91	484.91	484.91	484.91	484.91
Interest on Loan	390.82	350.47	311.07	271.67	231.33
Return on Equity	512.65	512.65	512.65	512.65	512.65
Operation and Maintenance Expenses	47.31	48.97	50.70	52.46	54.31
Interest on Working Capital	22.94	20.95	19.09	18.64	18.13
Total	1458.63	1417.94	1378.41	1340.33	1301.32

Filing Fee and Publication Expenses

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

Licence Fee and RLDC Fees and Charges

77. The Petitioner shall be entitled for reimbursement of licence fee in accordance with Regulation 70(4) of the 2019 Tariff Regulations for 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 2019-24 tariff period.

Goods and Services Tax

78. The Petitioner has submitted that if GST is levied at any rate and at any point of time in future on charges of transmission of electricity, the same shall be borne and additionally paid by the Respondent(s) to the Petitioner and the same shall be charged and billed separately by the Petitioner. Further additional taxes, if any, are to



be paid by the Petitioner on account of demand from Government/Statutory Authorities, the same may be allowed to be recovered from the beneficiaries.

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

Security Expenses

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

81. 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 2019-24 tariff period on the basis of actual security expenses incurred in 2018-19 in Petition No. 260/MP/2020. The said petition has already been disposed of by the Commission vide order dated 3.8.2021. Therefore, the Petitioner's prayer in the instant petition for allowing it to file a separate petition for claiming the overall security expenses and consequential IWC has become infructuous.

Capital Spares

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



Sharing of Transmission Charges

83. The Commission vide order dated in Petition No. 18/TT/2016 observed as follows:

“61. The BPTA signed between BPDB and POWERGRID provides as under:

“3.2 BPDB shall pay the transmission tariff and other charges on account of the said transmission system mentioned at para 2.1 to POWERGRID INDIA with effect from the date of commercial operation in accordance with the norms/order/notification issued by CERC from time to time. POWERGRID INDIA shall ensure intimation to BPDB about Tariff hearing process of CERC and facilitate BPDB’s participation for the same. However, any other taxes and duties imposed by Government of Bangladesh shall be paid by BPDB.”

84. Therefore, the billing, collection and disbursement of the transmission charges approved shall be governed by the provisions of the BPTA signed between Bangladesh Power Development Board and the Petitioner. The transmission charges shall be paid by BPDB as per the provisions of Clause 3.0 of the BPTA and the same shall not be considered under POC pool. The line may be considered at zero cost in POC network model.

85. To summarize:

(a) The trued-up AFC allowed in respect of the transmission assets for 2014- 19 tariff period are as follows:

(₹ in lakh)

Particulars	Asset – I			
	2015-16 (Pro-rata for 14 days)	2016-17	2017-18	2018-19
AFC	43.40	1246.91	1319.85	1291.01

(₹ in lakh)

Particulars	Asset – I(A)		
	2016-17 (Pro-rata for 352 days)	2017-18	2018-19
AFC	177.26	270.17	283.07

(b) AFC allowed in respect of the Combined Asset for 2019-24 tariff period in the instant order are as follows:



(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Combined Asset	1458.63	1417.94	1378.41	1340.33	1301.32

86. Annexure-I, Annexure-II and Annexure-III given hereinafter shall form part of the order.

87. This order disposes of Petition No. 667/TT/2020 in terms of the above discussions and findings.

sd/-
(P.K. Singh)
Member

sd/-
(Arun Goyal)
Member

sd/-
(I.S. Jha)
Member



Petition No.:	667/TT/2020
Period	2014-19 Tariff

Annexure – I

Asset-I

2014-19	Admitted Capital Cost as on COD (₹ in lakh)	ACE (₹ in lakh)	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (%)	Annual Depreciation as per Regulations				
					2014-15 (₹ in lakh)	2015-16 (₹ in lakh)	2016-17 (₹ in lakh)	2017-18 (₹ in lakh)	2018-19 (₹ in lakh)
Capital Expenditure as on COD		2014-19							
Transmission Line	6257.51	1577.12	7834.63	5.28	-	336.98	376.71	411.73	413.67
TOTAL	6257.51	1577.12	7834.63		-	336.98	376.71	411.73	413.67
			Average Gross Block (₹ in lakh)		-	6382.84	7134.74	7797.97	7834.63
			Weighted Average Rate of Depreciation (%)		-	5.28	5.28	5.28	5.28



Petition No.:	667/TT/2020
Period	2014-19 Tariff

Annexure – II

Asset-I(A)

2014-19 Capital Expenditure as on COD	Admitted Capital Cost as on COD (₹ in lakh)	ACE (₹ in lakh) 2014-19	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depre ciatio n (%)	Annual Depreciation as per Regulations				
					2014-15 (₹ in lakh)	2015-16 (₹ in lakh)	2016-17 (₹ in lakh)	2017-18 (₹ in lakh)	2018-19 (₹ in lakh)
Sub Station	227.78	606.30	834.09	5.28	-	-	26.03	42.05	44.04
PLCC	29.05	400.61	429.65	6.33	-	-	11.03	23.71	27.20
TOTAL	256.83	1006.91	1263.74		-	-	37.06	65.76	71.24
			Average Gross Block (₹ in lakh)		-	-	667.50	1170.96	1263.74
			Weighted Average Rate of Depreciation (%)		-	-	5.55	5.62	5.64



Petition No.:	667/TT/2020
Period	2019-24 Tariff

Annexure – III

Combined Asset

Combined Assets									
2019-24	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	ACE	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (%)	Annual Depreciation as per Regulations				
Capital Expenditure as on 1.4.2019		2019-24			2019-20 (₹ in lakh)	2020-21 (₹ in lakh)	2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)
Transmission Line	7834.63	-	7834.63	5.28	413.67	413.67	413.67	413.67	413.67
Sub Station	834.09	-	834.09	5.28	44.04	44.04	44.04	44.04	44.04
PLCC	429.65	-	429.65	6.33	27.20	27.20	27.20	27.20	27.20
TOTAL	9098.37	-	9098.37		484.91	484.91	484.91	484.91	484.91
Average Gross Block (₹ in lakh)					9098.37	9098.37	9098.37	9098.37	9098.37
Weighted Average Rate of Depreciation (%)					5.33	5.33	5.33	5.33	5.33

