

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 484/TT/2019

Coram:

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

Date of Order: 08.02.2021

In the matter of:

Approval under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and truing-up of the transmission tariff of the 2014-19 period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of the 2019-24 period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 of **Asset-I:** Vallur TPS-Melakottaiyur 400 kV D/C line and **Asset-II:** Chittoor-Thiruvalam 400 kV D/C Quad line and new 400 kV Thiruvalam Sub-station along with 1X63 MVAr Bus reactor at Thiruvalam Sub-station and associate bays and equipment at Thiruvalam and Chittoor under "Supplementary Transmission System associated with Vallur TPS" in Southern Region.

And in the matter of:

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

....Petitioner

Vs

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



5. Electricity Department,
Government of Pondicherry,
Pondicherry-605001.
6. Eastern Power Distribution Company of Andhra Pradesh Ltd.,
APEPDCL, P&T Colony,
Seethmmadhara, Vishakhapatnam, Andhra Pradesh.
7. Southern Power Distribution Company of Andhra Pradesh Ltd.,
Srinivasasa Kalyana Mandapam Backside,
Tiruchanoor Road, Kesavayana Gunta,
Tirupati, Chittoor District,
Andhra Pradesh- 517501.
8. Southern Power Distribution Company of Andhra Pradesh Ltd.,
Corporate Office, Mint Compound,
Hyderabad-500063, Telangana.
9. Northern Power Distribution Company of Andhra Pradesh Ltd.,
Opp. NIT Petrol Pump, Chaitanyapuri, Kazipet,
Warangal – 506 004, Telangana.
10. Bangalore Electricity Supply Company Ltd.,
Corporate Office, K. R. Circle,
Bangalore-560001 Karnataka.
11. Gulbarga Electricity Supply Company Ltd.,
Station Main Road,
Gulbarga, Karnataka.
12. Hubli Electricity Supply Company Ltd.,
Navanagar, PB Road,
Hubli, Karnataka.
13. MESCOM Corporate Office,
Paradigm Plaza, AB Shetty Circle,
Mangalore-575001, Karnataka.
14. Chamundeswari Electricity Supply Corporation Ltd.,
927, L J Avenue,
Ground Floor, New Kantharaj Urs Road,
Saraswatipuram,
Mysore-570009, Karnataka.



15. Electricity Department,
Government of Goa,
Vidyuti Bhawan,
Panaji, Goa- 403001.
16. Transmission Corporation of Telangana Ltd.,
Vidhyut Sudha, Khairatabad,
Hyderabad-500082.
17. Tamil Nadu Transmission Corporation,
NPKRR Maaligai, 800, Anna Salai,
Chennai-600002.

.... Respondents

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

For Respondents : None

ORDER

The instant petition has been filed by Power Grid Corporation of India Ltd. (hereinafter referred to as “the Petitioner”), a deemed transmission licensee, for truing-up of the tariff of the period from 1.4.2014 to 31.3.2019 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) and for determination of the tariff 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/Combined Asset”) associated with “Supplementary Transmission System associated with Vallur TPS” in Southern Region (hereinafter referred to as “the transmission scheme”):

Asset- I: Vallur TPS-Melakottaiyur 400 kV D/C line,

Asset-II: Chittoor-Thiruvalam 400 kV D/C Quad line and new 400 kV Thiruvalam Sub-station along with 1X63 MVAr Bus reactor at Thiruvalam Sub-station and associate bays and equipment at Thiruvalam and Chittoor,



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

- “1) Approve the trued up Transmission Tariff for 2014-19 block and transmission tariff for 2019-24 block for the assets covered under this petition, as per para 10.2 and 11.0 above.*
- 2) Approve the Completion cost and additional capitalization incurred during 2014-19 and 2019-24*
- 3) Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided in Tariff Regulation 2014 and Tariff regulations 2019 as per para 10.2 and 11.0 above for respective block.*
- 4) Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 70 (1) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019, and other expenditure (if any) in relation to the filing of petition.*
- 5) Allow the petitioner to bill and recover Licensee fee and RLDC fees and charges, separately from the 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 11.6 above.*
- 8) Allow the petitioner to claim the capital spares at the end of tariff block as per actual.*
- 9) Allow the Petitioner to bill and recover GST on Transmission Charges separately from the respondents, if GST on transmission is levied at any rate in future. Further, any taxes including GST and duties including cess etc. imposed by any statutory/Govt./municipal authorities shall be allowed to be recovered from the beneficiaries.*

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



Background

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

a. The Investment Approval (IA) and expenditure sanction for the transmission project was accorded by the Board of Directors of the Petitioner vide Memorandum No. CP/Suppl. Vallur dated 26.8.2010 with an estimated cost of ₹17036 lakh including an IDC of ₹1344 lakh based on 1st Quarter, 2010 price level. The Petitioner has submitted Revised Cost Estimate (RCE) which was approved by the Board of Directors of the Petitioner's Company vide Memorandum No.C/CP/RCE-Suppl.Vallur TPS dated 1.2.2016. As per RCE, the estimated cost of Supplementary Transmission System Associated with Vallur TPS is ₹16856 lakh including IDC of ₹831 lakh based on June, 2015 price level.

b. The tariff of Asset-I from COD to 31.3.2014 was trued-up and tariff for the 2014-19 tariff period was allowed vide order dated 26.10.2016 in Petition No. 160/TT/2016. The tariff from COD to 31.3.2019 of Asset-II was allowed vide order dated 5.4.2016 in Petition No. 258/TT/2013. The scope of the project "Supplementary Transmission System associated with Vallur TPS" in Southern Region is as under:

Transmission Line:

- i. Vallur TPS – Alamanthy 400 kV D/C Line; (by extending one 400 kV D/C Line of original Vallur TPS transmission system from LILO point to Alamanthy by suitably utilizing LILO of Nellore – Sriperumbudur 400 kV D/C line at Alamanthy)
- ii. Vallur TPS – Melakottaiyur 400 kV D/C Line; (by extending second 400 kV D/C Line of original Vallur TPS transmission system from LILO point to Alamanthy by suitably utilizing LILO of Kolar – Sriperumbudur line at Melakottaiyur)
- iii. Thiruvalem (PGCIL) – Chittoor 400 kV D/C quad line.

Sub-stations:

- i. Establishment of new 765/400 kV Sub-station at Thiruvalem (initially charged at 400 kV)
- ii. Extension of 400/220 kV Sub-station at Chittoor (APTRANSCO)



c. The instant petition covers Asset- I: Vallur TPS-Melakottaiyur 400 kV D/C line and Asset-II: Chittoor-Thiruvalem 400 kV D/C Quad line and new 400 kV Thiruvalem Sub-station along with 1X63 MVAr Bus reactor at Thiruvalem Sub-station and associate bays and equipment at Thiruvalem and Chittoor. The instant petition does not include Vallur TPS – Alamanthy 400 kV D/C Line.

d. Vallur TPS-Alamathy 400 kV D/C line was put into commercial operation alongwith LILO of Alamanthy-Sriperumbudur 400 kV D/C line at Vallur TPS (NTPC-TNEB JV) executed under the scheme "Transmission System associated with Chennai NTPC-TNEB JVTPS". The COD of LILO was 1.8.2011. After completion of LILO of Alamathy-Sriperumbudur 400 kV D/C line at Vallur TPS (NTPC-TNEB JV) the original line was re-configured as below:

- a) Vallur TPS- Alamathy 400 kV D/C line
- b) Vallur TPS- Sriperumbudur 400 kV D/C line

In view of the above, VallurTPS –Alamanthy 400 kV D/C line is covered Transmission System associated with Chennai NTPC-TNEB JVTPS.

e. Accordingly, the instant petition covers only Asset-I and Asset-II and the complete scope of the work is covered in the instant petition.

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

Asset	SCOD	COD	Time over-run
Asset-I	1.5.2013	1.4.2013	-
Asset-II		1.4.2014	Out of 11 months of time over-run,7 months condoned, 4 months not condoned

g. The trued up transmission tariff claimed by the Petitioner is as under:

Assets	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-I	AFC approved vide order dated 26.10.2016 in Petition No. 160/TT/2016	1021.04	1017.75	999.00	970.41	941.86



Assets	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
	Claimed by the Petitioner in the instant petition	1021.29	1017.97	998.55	968.27	940.31
Asset-II	AFC approved vide order dated 5.4.2016 in Petition No. 258/TT/2013	1798.78	2005.78	2054.12	2029.57	1993.98
	Claimed by the Petitioner in the instant petition	1801.08	2034.00	2115.98	2077.39	2043.42

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

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

6. For Asset-I, tariff for 2009-14 tariff period was determined by the Commission vide order dated 27.11.2015 in Petition No. 48/TT/2013. For this asset, tariff for 2009-14 tariff period was trued up vide order dated 26.10.2016 in Petition No. 160/TT/2016. While truing up the tariff for 2009-14 tariff period, the Commission had observed that in view of appeal (230 of 2016) filed by TANGEDCO before Appellate Tribunal for Electricity (APTEL) against order dated 27.11.2015 in Petition No. 48/TT/2013 on the issue of cost over-run, the tariff allowed for 2009-14 tariff period was trued-up and tariff of 2014-19 tariff was determined subject to the outcome of the appeal before APTEL. The said appeal is still pending adjudication before APTEL. Therefore, the trued up tariff for the 2014-19 period and tariff determined for the 2019-24 period in this order is subject to the outcome of Appeal No. 230 of 2016.



7. This order is issued considering the submissions made in the Petition dated 7.10.2019 and Petitioner's affidavits dated 5.5.2020 and 14.8.2020.

8. The hearing in this matter was held on 22.7.2020 through video conference and the order was reserved.

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 Tariff Period

10. The details of the trued up transmission charges claimed by the Petitioner in respect of the transmission assets is as under:

(₹ in lakh)

Asset-I					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	304.17	311.13	314.25	314.63	314.63
Interest on Loan	328.73	308.28	281.97	250.65	221.40
Return on Equity	339.16	348.51	351.82	352.24	353.19
Interest on working capital	23.78	23.73	23.33	22.67	22.07
O & M Expenses	25.45	26.32	27.18	28.08	29.02
Total	1021.29	1017.97	998.55	968.27	940.31

(₹ in lakh)

Asset-II					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	413.92	489.47	524.71	531.09	533.12
Interest on Loan	528.00	572.85	561.03	496.56	445.15
Return on Equity	484.64	580.84	626.10	634.61	638.59
Interest on working capital	50.72	56.30	58.50	57.99	57.60
O & M Expenses	323.80	334.54	345.64	357.14	368.96
Total	1801.08	2034.00	2115.98	2077.39	2043.42

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

(₹ in lakh)

Asset-I					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O & M Expenses	2.12	2.19	2.27	2.34	2.42
Maintenance Spares	3.82	3.95	4.08	4.21	4.35



Receivables	170.22	169.66	166.43	161.38	156.72
Total	176.16	175.80	172.78	167.93	163.49
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	23.78	23.73	23.33	22.67	22.07

(₹ in lakh)

Asset-II					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O & M Expenses	26.98	27.88	28.80	29.76	30.75
Maintenance Spares	48.57	50.18	51.85	53.57	55.34
Receivables	300.18	339.00	352.66	346.23	340.57
Total	375.73	417.06	433.31	429.56	426.66
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	50.72	56.30	58.50	57.99	57.60

Capital Cost

12. The Commission vide order dated 26.10.2016 in Petition No. 160/TT/2016 and vide order dated 5.4.2016 in Petition No. 258/TT/2013 allowed the capital cost of ₹5944.43 lakh and ₹10181.24 lakh for Asset-I and Asset-II respectively.

13. The details of FR apportioned approved capital cost, actual expenditure upto COD, Additional Capital Expenditure (ACE) incurred during the 2014-19 period as claimed by the Petitioner are as under:

Assets	FR Apportioned Approved Capital cost	RCE Apportioned Approved Capital cost	Capital cost as on COD* (on cash basis)	Additional Capital Expenditure*					Total completion cost as on 31.3.2019
				2014-15	2015-16	2016-17	2017-18	2018-19	
Asset-I	4638	5964.36	5680.99	159.35	104.09	14.13	0.00	0.00	5958.56
Asset-II	12398	10891.92	7296.82*	1869.59	1308.39	232.72	55.05	21.91	10784.48
Total	17036	16856.28	12977.81	2028.94	1412.48	246.85	55.05	21.91	16743.04

*IDC and IEDC of ₹118.33 lakh disallowed by the Commission on account of time over-run.

14. The completion cost including ACE is within the RCE apportioned approved capital cost as mentioned in paragraph 13 above. Therefore, there is no cost over-run in respect of the transmission assets.



Interest During Construction (IDC) and Incidental expenditure during construction (IEDC)

15. The Petitioner has claimed IDC for the transmission assets and has submitted the Auditor's Certificates in support of the same. The Petitioner has submitted computation of IDC along with year-wise details of the IDC discharged.

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

17. In case of Asset-I, the Commission vide order dated 26.10.2016 in Petition No. 160/TT/2016 had allowed IDC of ₹331.09 lakh. The same is considered as part of the capital cost as on 31.3.2014 for true-up of the 2014-19 period.

18. There is a time over-run of 11 months in case of Asset-II, out of which 7 months was condoned by the Commission vide order dated 5.4.2016 in Petition No. 258/TT/2013. Break-up of IDC from infusion of debt upto SCOD and from SCOD to actual COD in case of Asset-II is as under:

(₹ in lakh)

IDC from the date of infusion of debt to SCOD (1.5.2013)	IDC from SCOD to Actual COD (1.4.2014)	Total IDC
347.34	152.83	500.17

19. Accordingly, IDC for 4 months has been worked out as ₹55.57 lakh on *pro-rata* basis. Thus, IDC amounting to ₹55.57 lakh has not been included in the capital cost



as on COD. Based on the information furnished by the Petitioner, IDC considered is summarized as under:

(₹ in lakh)					
Assets	IDC as per Auditor's Certificate	IDC Disallowed	IDC Admissible	IDC Dis-charged as on COD/ 31.3.2014	IDC Un-discharged as on COD / 31.3.2014
A	B	C	D=B-C	E	F=D-E
Asset-I	331.09	0.00	331.09	331.09	0.00
Asset-II	500.17	55.57	444.60	444.60	0.00

20. The Petitioner has claimed IEDC of ₹464.55 lakh and ₹623.31 lakh for Assets-I and II respectively and has submitted Auditor's certificate in support of the same. The Petitioner has also submitted that the entire IEDC has been discharged as on COD in respect of the transmission assets. In case of Asset-I, IEDC admitted vide order dated 26.10.2016 in Petition No. 160/TT/2016 was ₹464.55 lakh. The same has been considered in the instant petition. In case of Asset-II, as the time over-run of 4 months has not been condoned, IEDC for ₹62.75 lakh has been disallowed from the capital cost as on COD. The Petitioner has submitted that the entire IEDC has been discharged as on COD.

21. The details of IDC and IEDC disallowed in the instant petition in Asset-II is as under:

(₹ in lakh)		
Calculation of disallowed IDC and IEDC in Asset-II		
Particular	Amount claimed	Amount disallowed
IDC		
IDC claimed	500.17	
IDC disallowed		55.57
IEDC		
IEDC claimed	623.31	
IEDC disallowed		62.75
Total IDC and IEDC disallowed		118.32

Initial Spares

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

*“(d) Transmission System
Transmission line: 1.00%
Transmission sub-station (Green Field): 4.00%
Transmission sub-station (Brown Field): 6.00%
GIS Sub-station: 5.00%”*

23. The Petitioner has claimed Initial Spares only for Asset-II. 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 ceiling norms.

The Initial Spares claimed by the Petitioner are as under:

Asset-II	Plant & Machinery Cost upto cut-off date (excluding IDC and IEDC) (A) (₹ in lakh)	Initial Spares Claimed (B) (₹ in lakh)	Ceiling Limit (C) (in %)	Initial Spares Worked out by the Petitioner (₹ in lakh)
Sub-station	2963.10	101.46	6%	171.80
Transmission Line	4303.47	27.08	1%	42.77

24. We have considered the submissions of the Petitioner. The Asset-II was put into commercial operation during 2014-19 period. Therefore, the 2014 Tariff Regulations are applicable for Asset-II. The cut-off date for Asset-II is 31.3.2016 and the capital cost upto the said cut-off date is considered for the computation of Initial Spares. The Petitioner's claim of Initial Spares for Asset-II is within the norms specified in the 2014 Tariff Regulations and is accordingly allowed as under:

Asset-II	Capital Cost considered as on cut-off date (₹ in lakh)	Initial Spares claimed (₹ in lakh) (B)	Norms as per 2014 Tariff Regulations (in %) (C)	Initial Spares allowable as per norms (₹ in lakh) D=(A-	Initial Spares allowed (₹ in lakh) (E)
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	(A)			B)*C/(100-C)	
Sub-station	2963.10	101.46	6%	182.66	101.46
Transmission Line	4303.47	27.08	1%	43.20	27.08

Capital cost as on COD/1.4.2014

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

(₹ in lakh)

Asset	Capital cost as on COD/1.4.2014 (as per Auditor Certificate)	Less: IDC as on COD due to		IEDC Disallowed	Excess Initial Spares	Capital cost considered as on COD*
		IDC Disallowed	Un-discharged			
	1	2	3	4	5	6=1-2-3-4-5
Asset-I	5680.99	0.00	0.00	0.00	0.00	5680.99
Asset-II	7415.15	55.57	0.00	62.75	0.00	7296.83

* Includes discharged portion of Initial Spares only, Un-discharged Initial Spares as on COD has been claimed in ACE

Additional Capital Expenditure (ACE)

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

(₹ in lakh)

Assets	Appor-tioned Approved Capital Cost	Admitted Capital Cost as on COD	Additional Capital Expenditure					Total Capital Cost as on 31.3.2019
			2014-15	2015-16	2016-17	2017-18	2018-19	
Asset-I	5964.36	5680.99	159.35	104.09	14.13	0.00	0.00	5958.56
Asset-II	10891.92	7296.82*	1869.59	1308.39	232.72	55.05	21.91	10784.48
Total	16856.28	12977.81	2028.94	1412.48	246.85	55.05	21.91	16743.04

27. The Petitioner has claimed ACE for the years 2014-15 and 2015-16 in case of Asset-I and for the years 2014-15, 2015-16 and 2016-17 in case of Asset-II under



Regulation 14(1)(i) of the 2014 Tariff Regulations. Further, ACE during 2016-17 in case of Asset-I has been claimed under Regulation 14(3)(v) and during 2017-18 and 2018-19 in case of Asset-II has been claimed under Regulation 14(2)(iv) of 2014 Tariff Regulations. The Petitioner has submitted Auditor's Certificate dated 30.7.2019 for the claimed ACE.

28. The Petitioner has submitted that in case of Asset-II, the Commission vide order 5.4.2016 in Petition No. 258/TT/2013, had disallowed IDC and IEDC of ₹118.33 lakh on account of time over-run. Subsequently, LD amounting to ₹168.62 lakh was recovered from the contractor during 2015-16 and the same was reduced from the capital cost in the year 2015-16. On its recovery, IDC and IEDC disallowed to the extent of LD recovered amount of ₹118.33 lakh have been added back to the capital cost of year 2015-16. The Petitioner has further submitted that IDC and IEDC amounting to ₹118.33 lakh was reduced from the capital cost as on COD to arrive at the claimed capital cost as on COD. The Petitioner vide affidavit dated 14.8.2020 has submitted year wise reconciliation statement for ACE as shown under:

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross ACE	1869.59	1358.69	232.72	55.05	21.91
Less: LD Recovered	0.00	168.62	0.00	0.00	0.00
ACE after LD adjustment	1869.59	1190.07	232.72	55.05	21.91
Add: LD added back to the extent of IDC and IEDC disallowed (already deducted from cost as on COD)	0.00	118.33	0.00	0.00	0.00
Net ACE after LD adjustment	1869.59	1308.40	232.72	55.05	21.91

29. We have considered the Petitioner's submissions. It is observed that LD recovery of ₹168.62 lakh has been deducted from ACE in the year 2015-16. On its recovery, IDC and IEDC deducted from the capital cost as on COD have been added back to ACE in the year 2015-16. It is also observed that LD recovery is more than IDC and IEDC deducted on account of time over-run. Hence, there is net deduction of



₹50.29 lakh from the capital cost. Accordingly, ACE allowed for the transmission assets are as under:

(₹ in lakh)

Assets	Additional Capital Expenditure				
	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-I	159.35	104.09	14.13	0.00	0.00
Asset-II	1869.59	1308.39	232.72	55.05	21.91
Total	2028.94	1412.48	246.85	55.05	21.91

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

Assets	Admitted Capital Cost as on COD/ 1.4.2014	Additional Capital Expenditure					Total Capital Cost as on 31.3.2019
		2014-15	2015-16	2016-17	2017-18	2018-19	
Asset-I	5680.99	159.35	104.09	14.13	0.00	0.00	5958.56
Asset-II	7296.82	1869.59	1308.39	232.72	55.05	21.91	10784.48
Total	12977.81	2028.94	1412.48	246.85	55.05	21.91	16743.04

(₹ in lakh)

	Capital cost as on COD/1.4.20 14 on cash basis (admitted)	Additional Capital Expenditure					Total Capital cost as on 31.3.2019
		2014-15	2015-16	2016-17	2017-18	2018-19	
Allowed vide order dated 26.10.2016 in P. No. 160/TT/2016 and 5.4.2016 in P. No. 258/TT/2016	12977.81	2053.47	951.19	143.15	0.00	0.00	16125.67
Claimed in the instant petition	12977.81	2028.94	1412.48	246.85	55.05	21.91	16743.04
Allowed after true-up in this order	12977.81	2028.94	1412.48	246.85	55.05	21.91	16743.04

Debt-Equity Ratio

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

provided under Regulation 19 of the 2014 Tariff Regulations. The same has been summarised as under:

Asset-I	As on 31.3.2014		As on 31.3.2019	
	Amount (₹ in lakh)	(%)	Amount (₹ in lakh)	(%)
Debt	3976.69	70.00	4171.00	70.00
Equity	1704.30	30.00	1787.56	30.00
Total	5680.99	100.00	5958.56	100.00
Asset-II	As on COD		As on 31.3.2019	
	Amount (₹ in lakh)	(%)	Amount (₹ in lakh)	(%)
Debt	5107.78	70.00	7549.15	70.00
Equity	2189.05	30.00	3235.34	30.00
Total	7296.83	100.00	10784.49	100.00

Interest on Loan (IoL)

32. The Petitioner has claimed IoL based on actual interest rates for each year during the 2014-19 tariff period. The Petitioner has prayed for change in interest rates prevailing as on 1.4.2019 for respective loans. We have considered the submissions of the Petitioner and accordingly calculated IoL based on actual interest rate, in accordance with Regulation 26 of the 2014 Tariff Regulations. IoL has been worked out as detailed below:

- (i) Gross amount of loan, repayment of instalments and weighted average rate of interest on actual average loan have been considered as per the petition.
- (ii) The repayment for the tariff period 2014-19 has been considered to be equal to the depreciation allowed for that period.

33. The details of allowed IoL in respect of Asset-I is as follows:

Particular	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	3976.69	4088.24	4161.11	4171.00	4171.00
Cumulative Repayments upto Previous Year	284.38	588.55	899.68	1213.93	1528.56
Net Loan-Opening	3692.31	3499.69	3261.43	2957.06	2642.44
Addition due to Additional Capitalization	111.55	72.86	9.89	0.00	0.00
Repayment during the year	304.17	311.13	314.25	314.62	314.62
Net Loan-Closing	3499.69	3261.43	2957.06	2642.44	2327.81



Average Loan	3596.00	3380.56	3109.24	2799.75	2485.13
Weighted Average Rate of Interest on Loan (%)	9.142	9.119	9.069	8.953	8.909
Interest on Loan	328.73	308.28	281.97	250.65	221.40

34. Accordingly, IoL approved vide order dated 26.10.2016 in Petition No. 160/TT/2016, IoL claimed by the Petitioner in the instant petition and IoL allowed and trued up in respect of Asset-I vide this order is shown in the table below:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed earlier vide order dated 26.10.2016 in Petition No. 160/TT/2016	328.73	309.92	284.89	256.01	227.14
Claimed by the Petitioner in the instant petition	328.73	308.28	281.97	250.65	221.40
Allowed after true-up in this order	328.73	308.28	281.97	250.65	221.40

35. The details of allowed IoL in respect of Asset-II is as follows:

(₹ in lakh)

Particular	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	5107.78	6416.49	7332.37	7495.27	7533.81
Cumulative Repayments upto Previous Year	0.00	413.92	903.39	1428.10	1959.19
Net Loan-Opening	5107.78	6002.58	6428.97	6067.17	5574.62
Addition due to Additional Capitalization	1308.71	915.87	162.90	38.54	15.34
Repayment during the year	413.92	489.48	524.71	531.09	533.12
Net Loan-Closing	6002.58	6428.97	6067.17	5574.62	5056.85
Average Loan	5555.18	6215.78	6248.07	5820.90	5315.74
Weighted Average Rate of Interest on Loan (%)	9.505	9.216	8.979	8.531	8.374
Interest on Loan	528.00	572.85	561.03	496.56	445.15

36. Accordingly, IoL approved vide order dated 5.4.2016 in Petition No. 258/TT/2016, IoL claimed by the Petitioner in the instant petition and IoL allowed and trued up in respect of Asset-II is shown in the table below:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed earlier vide order dated 5.4.2016 in P. No. 258/TT/2016	533.45	584.01	571.43	528.96	481.98
Claimed by the Petitioner in the instant petition	528.00	572.85	561.03	496.56	445.15



Allowed after true-up in this order	528.00	572.85	561.03	496.56	445.15
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Return on Equity (RoE)

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

Year	Claimed effective tax (%)	Grossed up RoE [Base Rate/(1-t)] (%)
015-16	21.382	19.624
2016-17	21.338	19.715
2017-18	21.337	19.704
2018-19	21.549	19.704

38. The Commission in order dated 27.4.2020 in Petition No. 274/TT/2019 has arrived at the effective tax rate based on the notified MAT rates for the Petitioner. The relevant portion of the order dated 27.4.2020 is as under:

“26. We are conscious that the entities covered under MAT regime are paying Income Tax as per MAT rate notified for respective financial year under IT Act, 1961, which is levied on the book profit of the entity computed as per the Section 115JB of the IT Act, 1961. The Section 115JB(2) defines book profit as net profit in the statement of Profit & Loss prepared in accordance with Schedule-III of the Companies Act, 2013, subject to some additions and deductions as mentioned in the IT Act, 1961. Since the Petitioner has been paying income tax on income computed under Section 115JB of the IT Act, 1961 as per the MAT rates of the respective financial year, the notified MAT rate for respective financial year shall be considered as effective tax rate for the purpose of grossing up of RoE for truing up of the tariff of the 2014-19 tariff period in terms of the provisions of the 2014 Tariff Regulations. Interest imposed on any additional income tax demand as per the Assessment Order of the Income Tax authorities shall be considered on actual payment. However, penalty (for default on the part of the Assessee) if any imposed shall not be taken into account for the purpose of grossing up of rate of return on equity. Any under-recovery or over-recovery of grossed up rate on return on equity after truing up, shall be recovered or refunded to beneficiaries or the long term transmission customers/ DICs as the case may be on year to year basis.

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

Year	Notified MAT rates (inclusive of surcharge & cess)	Effective tax (in %)
2014-15	20.961	20.961



2015-16	21.342	21.342
2016-17	21.342	21.342
2017-18	21.342	21.342
2018-19	21.549	21.549

39. The same MAT rates as considered in the above order are considered for the purpose of grossing up of rate of RoE for trueing up of the tariff of the 2014-19 tariff period in terms of the provisions of the 2014 Tariff Regulations as under:

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

40. RoE allowed in respect of Asset-I is as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	1704.30	1752.10	1783.32	1787.56	1787.56
Addition due to Additional Capitalization	47.80	31.23	4.24	0.00	0.00
Closing Equity	1752.10	1783.32	1787.56	1787.56	1787.56
Average Equity	1728.20	1767.71	1785.44	1787.56	1787.56
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
Tax Rate applicable (%)	20.961	21.342	21.342	21.342	21.549
Rate of Return on Equity (Pre-tax)	19.610	19.705	19.705	19.705	19.758
Return on Equity (Pre-tax)	338.90	348.33	351.82	352.24	353.19

41. RoE approved vide order dated 26.10.2016 in Petition No. 160/TT/2016, RoE claimed by the Petitioner in the instant petition and RoE allowed and trueed up in respect of Asset-I in instant petition is shown in the table below:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 26.10.2016 in Petition No. 160/TT/2016	338.91	346.66	349.72	349.72	349.72
Claimed by the Petitioner in the instant petition	339.16	348.51	351.82	352.24	353.19
Allowed after true-up in this order	338.90	348.33	351.82	352.24	353.19



42. RoE allowed in respect of Asset-II is as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	2189.05	2749.93	3142.44	3212.26	3228.77
Addition due to Additional Capitalization	560.88	392.52	69.82	16.51	6.57
Closing Equity	2749.93	3142.44	3212.26	3228.77	3235.34
Average Equity	2469.49	2946.18	3177.35	3220.51	3232.05
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
Tax Rate applicable (%)	20.961	21.342	21.342	21.342	21.549
Rate of Return on Equity (Pre-tax)	19.610	19.705	19.705	19.705	19.758
Return on Equity (Pre-tax)	484.27	580.55	626.10	634.60	638.59

43. RoE approved vide order dated 5.4.2016 in Petition No. 258/TT/2016, RoE claimed by the Petitioner in the instant petition and RoE allowed and trued up in respect of Asset-II is shown in the table below:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 5.4.2016 in P. No. 258/TT/2016	484.99	565.62	594.75	598.96	598.96
Claimed by the Petitioner in the instant petition	484.64	580.84	626.10	634.61	638.59
Allowed after true-up in this order	484.27	580.55	626.10	634.60	638.59

Depreciation

44. The depreciation for 2014-19 period is trued up in respect of Assets-I and II as per the methodology provided in the Regulation 27 of the 2014 Tariff Regulations.

45. Depreciation allowed for Asset-I is as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	5680.99	5840.34	5944.43	5958.56	5958.56
Additional Capitalisation	159.35	104.09	14.13	0.00	0.00
Closing Gross Block	5840.34	5944.43	5958.56	5958.56	5958.56
Average Gross Block	5760.67	5892.39	5951.50	5958.56	5958.56
Weighted Average Rate of Depreciation (WAROD) (%)	5.28	5.28	5.28	5.28	5.28
Balance useful life of the asset at the beginning of the year	34.00	33.00	32.00	31.00	30.00

Elapsed life at the beginning of the year	1.00	2.00	3.00	4.00	5.00
Aggregated Depreciable Value	5184.60	5303.15	5356.35	5362.70	5362.70
Combined Depreciation during the year	304.17	311.13	314.25	314.62	314.62
Cumulative Depreciation at the end of the year	588.55	899.68	1213.93	1528.56	1843.18
Remaining Aggregate Depreciable Value at the end of the year	4596.05	4403.47	4142.41	3834.15	3519.52

46. Accordingly, depreciation approved vide order dated 26.10.2016 in Petition No. 160/TT/2016, the depreciation claimed by the Petitioner in the instant petition and depreciation allowed and trued up in respect of Asset-I is shown in the table below:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed earlier vide order dated 26.10.2016 in Petition No. 160/TT/2016	304.17	311.13	313.88	313.88	313.88
Claimed by the Petitioner in the instant petition	304.17	311.13	314.25	314.63	314.63
Allowed after true-up in this order	304.17	311.13	314.25	314.62	314.62

47. Depreciation allowed in respect of Asset-II is as follows:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	7296.83	9166.42	10474.81	10707.53	10762.58
Additional Capitalisation	1869.59	1308.39	232.72	55.05	21.91
Closing Gross Block	9166.42	10474.81	10707.53	10762.58	10784.49
Average Gross Block	8231.63	9820.62	10591.17	10735.06	10773.54
Weighted Average Rate of Depreciation (WAROD) (%)	5.028	4.984	4.954	4.947	4.948
Balance useful life of the asset at the beginning of the year	30.00	29.00	28.00	27.00	26.00
Elapsed life at the beginning of the year	0.00	1.00	2.00	3.00	4.00
Aggregated Depreciable Value	7263.01	8693.10	9386.60	9516.09	9550.72
Combined Depreciation during the year	413.92	489.48	524.71	531.09	533.12
Cumulative Depreciation at the end of the year	413.92	903.39	1428.10	1959.19	2492.31
Remaining Aggregate Depreciable Value at the end of the year	6849.09	7789.70	7958.50	7556.91	7058.42



48. Accordingly, depreciation approved vide order dated 5.4.2016 in Petition No. 258/TT/2016, the depreciation claimed by the Petitioner in the instant petition and allowed and trued up in respect of Asset-II is shown in the table below:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed earlier vide order dated 5.4.2016 in Petition No. 258/TT/2016	405.87	465.93	485.19	487.59	487.59
Claimed by the Petitioner in the instant petition	413.92	489.47	524.71	531.09	533.12
Allowed after true-up in this order	413.92	489.47	524.71	531.09	533.12

Operation & Maintenance Expenses (O&M Expenses)

49. The details of the O&M Expenses claimed by the Petitioner for Assets-I and II and allowed under Regulation 29(4)(a) of the 2014 Tariff Regulations for the purpose of tariff are as under:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Transmission Lines					
D/C Twin Triple Conductor (km)	36	36	36	36	36
Norms (₹ lakh / km)	0.71	0.73	0.76	0.78	0.81
Total O&M Expenses (Claimed)	25.45	26.32	27.18	28.08	29.02
Total O&M Expenses (Approved)	25.45	26.32	27.18	28.08	29.02

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Sub-station					
No. of bays 400 kV (AIS)	5	5	5	5	5
Norms (₹ lakh/ bay)	60.30	62.30	64.37	66.51	68.71
Sub-station O&M	301.50	311.50	321.85	332.55	343.55
Transmission Lines					
D/C Bundled with 4 or more sub-conductor) (km)	21	21	21	21	21
Norms (₹ lakh / km)	1.06	1.10	1.13	1.17	1.21
Transmission Line O&M	22.30	23.04	23.79	24.59	25.41
Total O&M Expenses (Claimed)	323.80	334.54	345.64	357.14	368.96
Total O&M Expenses (Approved)	323.80	334.54	345.64	357.14	368.96

Interest on Working Capital (IWC)

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

i. Maintenance spares:

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

ii. O & M Expenses:

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

iii. Receivables:

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

iv. Rate of interest on working capital:

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

51. IWC allowed in respect of Asset-I is shown as under:

	(₹ in lakh)				
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O & M Expenses	2.12	2.19	2.27	2.34	2.42
Maintenance Spares	3.82	3.95	4.08	4.21	4.35
Receivables	170.17	169.63	166.42	161.38	156.72
Total	176.11	175.77	172.77	167.93	163.49
Rate of Interest on working capital (%)	13.50	13.50	13.50	13.50	13.50
Interest of Working Capital	23.77	23.73	23.32	22.67	22.07

52. Accordingly, IWC approved vide order dated 26.10.2016 in Petition No. 160/TT/2016, IWC claimed by the Petitioner in the instant petition, IDC allowed and trued up in respect of Asset-I is shown in the table below:



(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed earlier vide order dated 26.10.2016 in Petition No. 160/TT/2016	23.78	23.73	23.33	22.72	22.11
Claimed by the Petitioner in the instant petition	23.78	23.73	23.33	22.67	22.07
Allowed after true-up in this order	23.77	23.73	23.32	22.67	22.07

53. IWC allowed in respect of Asset-II is shown as under:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O & M Expenses	26.98	27.88	28.80	29.76	30.75
Maintenance Spares	48.57	50.18	51.85	53.57	55.34
Receivables	300.12	338.95	352.66	346.23	340.57
Total	375.67	417.01	433.31	429.56	426.66
Rate of Interest on working capital (%)	13.50	13.50	13.50	13.50	13.50
Interest of Working Capital	50.72	56.30	58.50	57.99	57.60

54. Accordingly, IWC approved vide order dated 5.4.2016 in Petition No. 258/TT/2016, IWC claimed by the Petitioner in the instant petition, IWC allowed and trued up in respect of Asset-II is shown in the table below:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed earlier vide order dated 5.4.2016 in Petition No. 258/TT/2016	50.67	55.67	57.11	56.92	56.49
Claimed by the Petitioner in the instant petition	50.72	56.30	58.50	57.99	57.60
Allowed after true-up in this order	50.72	56.30	58.50	57.99	57.60

Approved Annual Fixed Charges for 2014-19 Tariff Period

55. Accordingly, the Annual Fixed Charges allowed in respect of Asset-I after truing up for the 2014-19 tariff period are as under:

(₹ in lakh)

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



Depreciation	304.17	311.13	314.25	314.62	314.62
Interest on Loan	328.73	308.28	281.97	250.65	221.40
Return on Equity	338.90	348.33	351.82	352.24	353.19
Int. on Working Capital	23.77	23.73	23.32	22.67	22.07
Op. and Maintenance	25.45	26.32	27.18	28.08	29.02
Total	1021.03	1017.78	998.55	968.26	940.30

56. The details of the Annual Fixed Charges as approved vide order dated 26.10.2016 in Petition No. 160/TT/2016, as claimed by the Petitioner in the instant petition and as trued up vide this order in respect of Asset-I is shown in the table below:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed earlier vide order dated 26.10.2016 in Petition No. 160/TT/2016	1021.04	1017.76	999.00	970.41	941.87
Claimed by the Petitioner in the instant petition	1021.29	1017.97	998.55	968.27	940.31
Allowed after true-up in this order	1021.03	1017.78	998.55	968.26	940.30

57. Accordingly, the Annual Fixed Charges allowed in respect of Asset-II after truing up for the 2014-19 tariff period are as under:

(₹ in lakh)					
Asset-II					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	413.92	489.48	524.71	531.09	533.12
Interest on Loan	528.00	572.85	561.03	496.56	445.15
Return on Equity	484.27	580.55	626.10	634.60	638.59
Int. on Working Capital	50.72	56.30	58.50	57.99	57.60
Op. and Maintenance	323.80	334.54	345.64	357.14	368.96
Total	1800.71	2033.71	2115.97	2077.38	2043.42

58. The details of the Annual Fixed Charges approved vide order dated 5.4.2016 in Petition No. 258/TT/2016, claimed by the Petitioner in the instant petition and trued up vide this order in respect of Asset-II is shown in the table below:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed earlier vide order dated 5.4.2016 in P. No. 258/TT/2016	1798.78	2005.78	2054.12	2029.57	1993.98
Claimed by the Petitioner in the instant petition	1801.08	2034.00	2115.98	2077.39	2043.42



Allowed after true-up in this order	1800.71	2033.71	2115.97	2077.38	2043.42
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Determination of Annual Fixed Charges for the 2019-24 Tariff Period

59. The Petitioner has submitted the tariff forms combining the Assets-I and II, wherein the COD has been achieved prior to 1.4.2019, as a single asset. Accordingly, as per proviso (i) of Regulation 8(1) of the 2019 Tariff Regulations, single tariff for the Combined Asset has been worked out for the 2019-24 tariff period.

60. The Petitioner has claimed the following transmission charges for the Combined Asset for 2019-24 tariff period:

(₹ in lakh)

Particulars	2019-20	2020-21	201-22	2022-23	2023-24
Depreciation	849.15	849.97	849.97	849.97	849.97
Interest on Loan	601.05	528.78	455.55	381.70	307.43
Return on Equity	944.28	945.15	945.15	945.15	945.15
Interest on Working Capital	45.69	45.08	44.32	43.57	42.72
Operation and Maintenance	222.25	229.98	237.99	246.28	254.83
Total	2662.42	2598.96	2532.98	2466.67	2400.10

61. The Petitioner has claimed the following IWC for the Combined Asset for the 2019-24 tariff period:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M expenses	18.52	19.17	19.83	20.52	21.24
Maintenance Spares	33.34	34.50	35.70	36.94	38.22
Receivables	327.35	320.42	312.29	304.11	295.09
Total	379.21	374.09	367.82	361.57	354.55
Rate of Interest	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	45.69	45.08	44.32	43.57	42.72

Effective Date of Commercial Operation (E-COD)

62. The Petitioner has claimed E-COD of the Combined Asset as 22.11.2013. Based on the trued up admitted capital cost and actual COD of the assets, E-COD has been worked out as follows:

(₹ in lakh)

Computation of Effective COD						
Asset	Actual COD	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Weight of the cost (%)	No. of Days from last COD	Weighted Days	Effective COD (Latest COD – Total weighted Days)
Asset-I	1.4.2013	5958.56	35.59%	365	129.90	22.11.2013
Asset-II	1.4.2014	10784.49	64.41%	0	0.00	
Total	1.4.2014	16743.05	100.00%			

63. E-COD is used to determine the lapsed life of the project as a whole, which works out as (5) five 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)

64. WAL has been determined based on the admitted capital cost of individual elements as on 31.3.2019 and their respective life as specified in Regulation 33 of the 2019 Tariff Regulations.

65. The Combined Asset may have multiple elements such as land, building, transmission line, Sub-station and PLCC and each element may have different span of life. Therefore, the concept of WAL has been used as the useful life of the project as a whole.

66. WAL has been determined based on the admitted capital cost of individual elements as on 31.3.2019 and their respective life as stipulated in the 2019 Tariff Regulations. The element-wise life as defined in the 2009 Tariff Regulations or the



2014 Tariff Regulations prevailing at the time of actual COD of individual assets has been ignored for this purpose. The life as defined in 2019 Tariff Regulations has been considered for determination of WAL. Accordingly, the WAL of the Combined Asset has been worked out as 32 years as shown below:

(₹ in lakh)				
Admitted Capital Cost as on 31.3.2019				
Particulars	Combined Cost (₹ in lakh) (a)	Life as per 2019 Regulation (Years) (b)	Weight (C)=(a) x (b)	Weighted Avg Life = (d)= (c)/(a)
Building & Other Civil Works	1455.66	25	36391.52	
Transmission Line	10972.09	35	384023.27	
Sub-station Equipment	4052.44	25	101310.98	
PLCC	101.24	15	1518.56	
IT Equipment and Software	0.00	7	0.00	
Total	16581.43		523244.33	31.56 years (rounded off to 32 years)

*Total Capital Cost as on 31.3.2019 is ₹16743.05lakh which includes land of ₹161.62 lakh which is not considered for weighted average life of the assets.

67. WAL as on 1.4.2019 as determined above is applicable prospectively (i.e. for 2019-24 tariff period onwards) and no retrospective adjustment of depreciation in previous tariff period is required to be done. As discussed above, the Effective COD of the assets is 22.11.2013 and the lapsed life of the project as a whole, works out as five (5) years as on 1.4.2019 (i.e. the number of completed years as on 1.4.2019 from Effective COD). Accordingly, WAL has been used to determine the remaining useful life as on 31.3.2019 to be 32 years.

Capital Cost

68. Regulations 19 of the 2019 Tariff Regulations provide as follows:

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

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



- (a) *The expenditure incurred or projected to be incurred up to the date of commercial operation of the project;*
- (b) *Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;*
- (c) *Any gain or loss on account of foreign exchange risk variation pertaining to the loan amount availed during the construction period;*
- (d) *Interest during construction and incidental expenditure during construction as computed in accordance with these regulations;*
- (e) *Capitalised initial spares subject to the ceiling rates in accordance with these regulations;*
- (f) *Expenditure on account of additional capitalization and de-capitalisation determined in accordance with these regulations;*
- (g) *Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the date of commercial operation as specified under Regulation 7 of these regulations;*
- (h) *Adjustment of revenue earned by the transmission licensee by using the assets before the date of commercial operation;*
- (i) *Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*
- (j) *Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of the generating station but does not include the transportation cost and any other appurtenant cost paid to the railway;*
- (k) *Capital expenditure on account of biomass handling equipment and facilities, for co-firing;*
- (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:
- 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
 - 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:
- The assets forming part of the project, but not in use, as declared in the tariff petition;
 - 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.

- 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;
- Proportionate cost of land of the existing project which is being used for generating power from generating station based on renewable energy; and
- 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."

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

(₹ in lakh)

Assets	RCE Apportioned Approved Cost	Capital Cost claimed as on 31.3.2019	Additional Capital Expenditure claimed in 2019-24	Estimated Completion Cost
Asset-I	5964.36	5958.56	0.00	5958.56
Asset-II	10891.92	10784.49	31.05	10815.53
Total	16856.28	16743.05	31.05	16774.09



70. Against the overall apportioned approved capital cost (as per RCE) of ₹16856.28 lakh, the estimated completion cost including ACE is ₹16774.09 lakh. The individual cost of each asset is also within the respective RCE apportioned approved cost. Therefore, there is no cost over-run as per the RCE cost.

71. 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 for transmission assets are clubbed together and the combined capital cost has been considered as capital cost for Combined Asset as on 1.4.2019, as per the following details:

(₹ in lakh)

Element	Asset-I	Asset-II
Free hold Land	0.00	161.62
Leasehold Land	0.00	0.00
Building & Other Civil Works	0.00	1455.66
Transmission Line	5957.32	5014.77
Sub-station Equipment	0.00	4052.44
PLCC	1.24	100.00
IT Equipment and Software	0.00	0.00
Total	5958.56	10784.49

(₹ in lakh)

Particulars	Capital Cost for combined asset as on 1.4.2019
Freehold Land	161.62
Leasehold Land	0.00
Building & Other Civil Works	1455.66
Transmission Line	10972.09
Sub-station Equipment	4052.44
PLCC	101.24
IT Equipment and Software	0.00
TOTAL	16743.05

72. The trued-up capital cost of ₹16743.05 lakh for Combined Asset is considered as admitted capital cost as on 1.4.2019 for working out tariff of the 2019-24 tariff period.

Additional Capital Expenditure (ACE)

73. Regulations 24 and 25 of the 2019 Tariff Regulations provides as under:

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

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

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

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

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

25. Additional Capitalisation within the original scope and after the cut-off date:

(1) The ACE incurred or projected to be incurred in respect of an existing project or a new project on the following counts within the original scope of work and after the 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.”

74. The Petitioner has claimed the projected ACE in 2019-24 period as under:

(₹ in lakh)

Assets	Projected ACE in 2019-24
	2019-20
Asset-I	0.00
Asset-II	31.05
Total	31.05

75. It is observed that the projected ACE claimed for Asset-II falls after the cut-off date in the instant petition. The Petitioner vide Auditor’s certificate dated 30.7.2019 has submitted that ACE claimed for the period from 1.4.2019 to 31.3.2020 has been verified by the Auditor of the Petitioner’s company from the books of accounts of the project for the period from 1.4.2019 to 30.6.2019. The Petitioner has submitted that ACE claimed in the 2019-20 is on account of un-discharged liability towards final payment/ withheld payment due to contractual exigencies for works executed within the cut-off date. ACE is claimed under Regulation 25(1)(d) of 2019 Tariff Regulations.

76. ACE projected after cut-off date is due to the delay in finalisation of the amount to be paid by the Petitioner and is towards the liabilities to be met by Petitioner after finalisation of the amount. Accordingly, ACE claimed by the Petitioner is allowed. However, the Petitioner is directed to submit details of contracts, scope, original liability and un-discharged liability as on 31.3.2019 at the time of true up for 2019-24 period. The allowed ACE is summarized below which is subject to true up:

(₹ in lakh)

Particulars	Regulation	Combined Asset
		2019-20



Particulars	Regulation	Combined Asset
		2019-20
ACE to the extent of Balance & Retention Payments & work deferred for execution before cut-off date	Regulation 25(1)(d) of the 2019 Tariff Regulations	31.05

Capital cost for the tariff period 2019-24

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

(₹ in lakh)		
Capital Cost allowed as on 1.4.2019	ACE allowed for the year 2019-20	Total Estimated Completion Cost up to 31.3.2024
16743.05	31.05	16774.10

Debt-Equity Ratio

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

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

Provided that:

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

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

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



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

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

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

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

(5) Any expenditure incurred or projected to be incurred on or after 1.4.2019 as may be admitted by the Commission as 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.”

79. The details of the debt-equity considered for the purpose of tariff of the 2019-24 tariff period for the Combined Asset is as under:

Particulars	Capital Cost as on 1.4.2019 (₹ in lakh)	(%)	Total Capital Cost as on 31.3.2024 (₹ in lakh)	(%)
Debt	11720.15	70.00	11741.89	70.00
Equity	5022.90	30.00	5032.21	30.00
Total	16743.05	100.00	16774.10	100.00

Return on Equity (RoE)

80. Regulations 30 and 31 of the 2019 Tariff Regulations provide as under:

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

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

Provided that return on equity in respect of Additional Capitalization after 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.”

81. The Petitioner has submitted that MAT rate is applicable to the Petitioner's Company. Accordingly, the MAT rate applicable during the 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. However, in the instant petition, the Petitioner has claimed RoE on the basis of MAT rate of 21.55% whereas the Petitioner in Petition No. 244/TT/2019 has claimed RoE based on the MAT rate of 17.472% on account of taxation laws (Amendment) ordinance 2019 published in the Gazette dated 20.9.2019. Accordingly, based on the submissions made by the Petitioner in Petition No. 244/TT/2019, RoE has been allowed for the transmission assets considering the applicable MAT rate of 17.472% as under:

(₹ in lakh)

Combined Asset					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	5022.90	5032.21	5032.21	5032.21	5032.21
Addition due to Additional Capitalization	9.31	0.00	0.00	0.00	0.00



Closing Equity	5032.21	5032.21	5032.21	5032.21	5032.21
Average Equity	5027.56	5032.21	5032.21	5032.21	5032.21
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
Tax Rate applicable (%)	17.472	17.472	17.472	17.472	17.472
Rate of Return on Equity (Pre-tax)	18.782	18.782	18.782	18.782	18.782
Return on Equity (Pre-tax)	944.28	945.15	945.15	945.15	945.15

Interest on Loan (IoL)

82. Regulation 32 of the 2019 Tariff Regulations provides as under:

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

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

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

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

(₹ in lakh)

Combined Asset					
Particular	2019-20	2020-21	201-22	2022-23	2023-24
Gross Normative Loan	11720.15	11741.89	11741.89	11741.89	11741.89
Cumulative Repayments upto Previous Year	4335.49	5184.63	6034.59	6884.55	7734.52
Net Loan-Opening	7384.66	6557.26	5707.30	4857.33	4007.37
Addition due to Additional Capitalization	21.74	0.00	0.00	0.00	0.00
Repayment during the year	849.14	849.96	849.96	849.96	849.96
Net Loan-Closing	6557.26	5707.30	4857.33	4007.37	3157.41
Average Loan	6970.96	6132.28	5282.31	4432.35	3582.39
Weighted Average Rate of Interest on Loan (%)	8.622	8.623	8.624	8.612	8.582
Interest on Loan	601.05	528.78	455.55	381.70	307.44

Depreciation

84. Regulation 33 of the 2019 Tariff Regulations provides as under:

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

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

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



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

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

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

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

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

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

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

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

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

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

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

85. IT equipment has been considered as a part of the Gross Block and depreciated using weighted average rate of depreciation (WAROD). The salvage value of IT equipment has been considered nil, i.e. IT asset has been considered as 100% depreciable. The calculation of WAROD for the 2019-24 period is placed in Annexure-



2. The depreciation has been worked out considering the admitted capital expenditure as on 31.3.2019 and accumulated depreciation up to 31.3.2019. The depreciation worked out for the Combined Asset is as follows:

(₹ in lakh)

Combined Asset					
Particulars	2019-20	2020-21	201-22	2022-23	2023-24
Opening Gross Block	16743.05	16774.10	16774.10	16774.10	16774.10
Addition during 2019-24 due to Projected Additional Capitalisation	31.05	0.00	0.00	0.00	0.00
Closing Gross Block	16774.10	16774.10	16774.10	16774.10	16774.10
Average Gross Block	16758.58	16774.10	16774.10	16774.10	16774.10
Weighted Average Rate of Depreciation (WAROD) (%)	5.067	5.067	5.067	5.067	5.067
Elapsed Life at the beginning of the year (years)	5.00	6.00	7.00	8.00	9.00
Balance Useful life of the asset (Years)	27.00	26.00	25.00	24.00	23.00
Depreciation during the year	849.14	849.96	849.96	849.96	849.96
Aggregated Depreciable Value	14937.26	14951.23	14951.23	14951.23	14951.23
Remaining Aggregate Depreciable Value	10601.77	9766.60	8916.64	8066.68	7216.72

Operation & Maintenance Expenses (O&M Expenses)

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

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

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<i>Norms for sub-station Bays (₹ Lakh per bay)</i>					
765 kV	45.01	46.60	48.23	49.93	51.68
400 kV	32.15	33.28	34.45	35.66	36.91
220 kV	22.51	23.30	24.12	24.96	25.84
132 kV and below	16.08	16.64	17.23	17.83	18.46
<i>Norms for Transformers (₹ Lakh per MVA)</i>					
765 kV	0.491	0.508	0.526	0.545	0.564
400 kV	0.358	0.371	0.384	0.398	0.411
220 kV	0.245	0.254	0.263	0.272	0.282
132 kV and below	0.245	0.254	0.263	0.272	0.282
<i>Norms for AC and HVDC lines (₹ Lakh per km)</i>					
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.881	0.912	0.944	0.977	1.011
Single Circuit (Bundled conductor with four sub-conductors)	0.755	0.781	0.809	0.837	0.867
Single Circuit (Twin & Triple Conductor)	0.503	0.521	0.539	0.558	0.578
Single Circuit (Single Conductor)	0.252	0.260	0.270	0.279	0.289



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

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

Provided further that:

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

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



the operation and maintenance expenses per bay, per MVA and per km respectively.

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

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

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

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

Particulars	(₹ in lakh)				
	2019-20	2020-21	201-22	2022-23	2023-24
Transmission Line	59.48	61.56	63.72	65.96	68.26
Sub-station	160.75	166.40	172.25	178.30	184.55
PLCC	2.02	2.02	2.02	2.02	2.02
O&M Expenses	222.25	229.98	237.99	246.28	254.83

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

“103. Thus, although PLCC equipment is a communication system, it has been considered as a part of sub-station, as it is used both for protection and communication. Therefore, we are of the considered view that rightly, it was not



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

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

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

Therefore, the Petitioner's claim for separate O&M Expenses for PLCC @2%

is not allowed.

89. Accordingly, O&M Expenses allowed for the Combined Asset are as under:

Particulars	(₹ in lakh)				
	2019-20	2020-21	201-22	2022-23	2023-24
Sub-station					
400 kV Thiruvalem: Chittoor Bay I & II	2	2	2	2	2
400 kV Chittoor: Thiruvalem Bay I & II	2	2	2	2	2
400 kV Thiruvalem: Bus Reactor bay	1	1	1	1	1
Total no of bays	5	5	5	5	5
Norm (₹ lakh/bay)	32.150	33.280	34.450	35.660	36.910
Transmission Line					
Vallur TPS-Melakottayur 400 kV D/C line (km)	21	21	21	21	21
Norm (₹ lakh/km)	1.322	1.368	1.416	1.466	1.517
400 kV D/C Thiruvalem-Chittoor line (APTRANSCO) (km)	36	36	36	36	36



Norm (₹ lakh/km)	0.881	0.912	0.944	0.977	1.011
Total O&M Expenses	220.23	227.96	235.97	244.26	252.80

Interest on Working Capital (IWC)

90. Regulation 34 and Regulation 3(7) of the 2019 Tariff Regulations specifies as under:

“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:-*

(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;”*

91. 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%.

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



(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O & M Expenses	18.35	19.00	19.66	20.35	21.07
Maintenance Spares	33.03	34.19	35.40	36.64	37.92
Receivables	327.09	319.79	311.66	303.49	294.48
Total	378.47	372.98	366.72	360.48	353.47
Rate of Interest (%)	12.05	11.25	11.25	11.25	11.25
Interest of working capital	45.61	41.96	41.26	40.55	39.77

Annual Fixed Charges of the 2019-24 Tariff Period

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

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	849.14	849.96	849.96	849.96	849.96
Interest on Loan	601.05	528.78	455.55	381.70	307.44
Return on Equity	944.28	945.15	945.15	945.15	945.15
Interest on Working Capital	45.61	41.96	41.26	40.55	39.77
Operation and Maintenance	220.23	227.96	235.97	244.26	252.80
Total	2660.30	2593.82	2527.89	2461.62	2395.12

Filing Fee and Publication Expenses

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

Licence Fee and RLDC Fees and Charges

95. 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.



Goods and Services Tax

96. The Petitioner has sought to recover GST on transmission charges separately from the Respondents, if at any time GST on transmission is withdrawn from negative list in future. We have considered the submission of the Petitioner and are of the opinion that GST is not levied on transmission service at present. Therefore, we are of the view that Petitioner's prayer is premature.

Security Expenses

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

98. We have considered the submissions of the Petitioner. We are of the view that the Petitioner should claim security expenses for all the transmission assets in one petition. It is observed that the Petitioner has already filed the Petition No. 260/MP/2020 claiming consolidated security expenses on projected basis for the 2019-24 tariff period on the basis of actual security expenses incurred in 2018-19.



Therefore, security expenses will be dealt with in Petition No. 260/MP/2020 in accordance with the applicable provisions of the 2019 Tariff Regulations.

Capital Spares

99. 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

100. The billing, collection and disbursement of the transmission charges approved shall be governed by the provisions of the Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010 or the Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2020, as applicable, as provided in Regulation 43 of the 2014 Tariff Regulations for the 2014-19 tariff period and Regulation 57 of the 2019 Tariff Regulations for the 2019-24 tariff period.

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

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-I	1021.03	1017.78	998.55	968.26	940.30
Asset-II	1800.71	2033.71	2115.97	2077.38	2043.42

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

(₹ in lakh)					
Combined Asset	2019-20	2020-21	2021-22	2022-23	2023-24
Annual Fixed Charges	2660.30	2593.82	2527.89	2461.62	2395.12

102. This order disposes of Petition No. 484/TT/2019.

**Sd/
(Arun Goyal)
Member**

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



Petition No.:	484-TT-2019
Period	2014-19 True-up

Annexure - 1

Asset-I	2014-19	Admitted Capital Cost as on COD/1.4.2014 (₹ in lakh)	Additional Capital Expenditure (₹ in lakh)					Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation	Annual Depreciation (₹ in lakh)				
	Capital Expenditure as on 1.4.2014		2014-15	2015-16	2016-17	2017-18	2018-19			2014-15	2015-16	2016-17	2017-18	2018-19
	Transmission Line	5680.99	158.11	104.09	14.13	0.00	0.00	5957.32	5.28%	304.13	311.05	314.17	314.55	314.55
	PLCC	0.00	1.24	0.00	0.00	0.00	0.00	1.24	6.33%	0.04	0.08	0.08	0.08	0.08
	TOTAL	5680.99	159.35	104.09	14.13	0.00	0.00	5958.56		304.17	311.13	314.25	314.62	314.62
Average Gross Block (₹ in lakh)										5760.67	5892.39	5951.50	5958.56	5958.56
Weighted Average Rate of Depreciation										5.28%	5.28%	5.28%	5.28%	5.28%
Asset-II	Land	161.62	0.00	0.00	0.00	0.00	0.00	161.62		21.92	37.10	46.53	48.62	48.62
	Building	421.17	470.16	439.00	125.33	0.00	0.00	1455.66	3.34%	234.24	251.51	264.16	264.78	264.78
	Transmission Line	4337.05	198.45	455.90	23.37	0.00	0.00	5014.77	5.28%	154.43	194.65	207.69	211.36	213.39
	Sub-station	2368.19	1113.38	409.96	83.95	55.05	21.91	4052.44	5.28%	3.33	6.21	6.33	6.33	6.33
	PLCC	8.80	87.60	3.53	0.07			100.00	6.33%	21.92	37.10	46.53	48.62	48.62
	TOTAL	7296.83	1869.59	1308.39	232.72	55.05	21.91	10784.49		413.92	489.48	524.71	531.09	533.12
Average Gross Block (₹ in lakh)										8231.63	9820.62	10591.17	10735.06	10773.54
Weighted Average Rate of Depreciation										5.03%	4.98%	4.95%	4.95%	4.95%



Petition No.:	484-TT-2019
Period	2019-24 Tariff

Annexure - 2

Asset	2019-24	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Additional Capital Expenditure (₹ in lakh)	Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation	Annual Depreciation (₹ in lakh)				
	Capital Expenditure as on 1.4.2019		2019-20			2019-20	2020-21	2021-22	2022-23	2023-24
Combined Assets	Land	161.62	0.00	161.62	-	0.00	0.00	0.00	0.00	0.00
	Building	1455.66	0.00	1455.66	3.34%	48.62	48.62	48.62	48.62	48.62
	Transmission Line	10972.09	0.00	10972.09	5.28%	579.33	579.33	579.33	579.33	579.33
	Sub-station	4052.44	31.05	4083.49	5.28%	214.79	215.61	215.61	215.61	215.61
	PLCC	101.24	0.00	101.24	6.33%	6.41	6.41	6.41	6.41	6.41
	TOTAL	16743.05	31.05	16774.10		849.14	849.96	849.96	849.96	849.96
				Average Gross Block (₹ in lakh)		16758.58	16774.10	16774.10	16774.10	16774.10
				Weighted Average Rate of Depreciation		5.07%	5.07%	5.07%	5.07%	5.07%

