

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 8/TT/2023

Coram:

**Shri Jishnu Barua, Chairperson
Shri Arun Goyal, Member**

Date of Order: 07.02.2024

In the matter of:

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and truing up of transmission tariff of 2014-19 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of 2019-24 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for **Asset-1:** Loop in portion of LILO of Kadapa-Hindupur 400 kV Double Circuit (D/C) line (both circuits) at NP Kunta Sub-station along with associated bays, **Asset-2:** Loop out portion of LILO of Kadapa-Hindupur 400 kV D/C line (both circuits) at NP Kunta Sub-station along with associated bays, **Asset-3:** 2 numbers of 220 kV line bays (Bay No. 217 & 218) at NP Kunta Sub-station and **Asset-4:** 4 numbers of 220 kV line bays (Bay No. 213, 214, 219 & 220) at NP Kunta Sub-station under "Transmission System for Ultra Mega Solar Park in Anantpur District, Andhra Pradesh-Part B (Phase-II)".

And in the matter of:

Power Grid Corporation of India Limited,
SAUDAMINI, Plot No-2,
Sector-29, Gurgaon-122001 (Haryana).

...Petitioner

Versus

1. Tamil Nadu Generation and Distribution Corporation Limited,
NPKRR Maaligai, 800, Anna Salai,
Chennai-600002.
2. Transmission Corporation of Andhra Pradesh Limited,
Near Axis Bank ATM, ELURU Road,
Gunadala, Vijaywada-520004.
3. Kerala State Electricity Board Limited,
Vaidyuthi Bhavanam, Pattom,
Thiruvananthapuram-695004.



4. Electricity Department,
Government of Goa, Vidyuti Bhawan,
Panaji, Goa-403001.
5. Electricity Department, Government of Pondicherry,
Pondicherry-605001.
6. Eastern Power Distribution Company of Andhra Pradesh Limited,
APEPDCL, P&T Colony, Seethmmadhara,
Vishakhapatnam, Andhra Pradesh.
7. Southern Power Distribution Company of Andhra Pradesh Limited,
Srinivasasa Kalyana Mandapam Backside, Tiruchanoor Road,
Kesavayana, Gunta, Tirupati-517501.
8. Southern Power Distribution Company of Telangana Limited,
6-1-50, Corporate Office, Mint Compound,
Hyderabad, Telangana-500063.
9. Northern Power Distribution Company of Telangana Limited,
H. No. 2-5-3 1/2, Vidyut Bhawan, Corporate Office, Nakkal Gutta,
Hanamkonda, Warangal-506001.
10. Bangalore Electricity Supply Company Limited,
Corporate Office, K. R. Circle,
Bangalore-560001.
11. Gulbarga Electricity Supply Company Limited,
Station Main Road,
Gulbarga, Karnataka.
12. Hubli Electricity Supply Company Limited,
Navanagar, PB Road,
Hubli, Karnataka.
13. Mangalore Electricity Supply Company Limited,
MESCOM Corporate Office, Paradigm Plaza,
AB Shetty Circle, Mangalore, Karnataka-575001.
14. Chamundeswari Electricity Supply Corporation Limited,
927, L J Avenue, Ground Floor,
New Kantharaj Urs Road,
Saraswathipuram, Mysore, Karnataka-570009.
15. Andhra Pradesh Solar Power Corporation Private Limited,
6-3-856/A3, Neeraj Public School Lane,
Opposite to Green Park Hotel,
Ameerpet, Hyderabad-500016.

...Respondent(s)



For Petitioner : Ms. Ashita Chauhan, PGCIL
Shri Mohd. Mohsin, PGCIL
Shri Zafrul Hassan, PGCIL
Shri A. Naresh Kumar, PGCIL

For Respondents : None

ORDER

The instant petition has been filed by Power Grid Corporation of India Limited for truing up of transmission tariff for the 2014-19 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) and the determination of transmission tariff for the 2019-24 tariff period 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 transmission assets under “Transmission System for Ultra Mega Solar Park in Anantpur District, Andhra Pradesh-Part B (Phase-II)” in Southern Region (hereinafter referred to as “the transmission project”):

Asset-1: Loop in Portion of LILO of Kadapa-Hindupur 400 kV D/C line (both circuits) at NP Kunta Sub-station along with associated bays;

Asset-2: Loop out Portion of LILO of Kadapa-Hindupur 400 kV D/C line (both circuits) at NP Kunta Sub-station along with associated bays;

Asset-3: 2 numbers of 220 kV line bays (Bay No. 217 & 218) at NP Kunta Sub-station; and

Asset-4: 4 numbers of 220 kV line bays (Bay No. 213, 214, 219 & 220) at NP Kunta Sub-station.



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

- “1) Approve the trued up Transmission Tariff for 2014-19 block and transmission tariff for 2019-24 block for the assets covered under this petition, as per para 11.1 and 12.1 above.*
- 2) Approve the Completion cost, and additional capitalization incurred during 2014-19 and allow the projected additional capitalization during 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 11.1 and 12.1 above for respective block.*
- 4) Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 70 (1) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019, and other expenditure (if any) in relation to the filing of petition.*
- 5) Allow the petitioner to bill and recover Licensee fee and RLDC fees and charges, separately from the 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 claim the overall security expenses and consequential IOWC on that security expenses separately.*
- 8) Allow the petitioner to claim the capital spares at the end of tariff block as per actual.*
- 9) Allow the Petitioner to bill and recover GST on Transmission Charges separately from the respondents, if GST on transmission is levied at any rate in future. Further, any taxes including GST and duties including cess etc. imposed by any statutory/Govt./municipal authorities shall be allowed to be recovered from the beneficiaries.*

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

Background

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

- a. The Board of Directors (BoD) of the Petitioner Company have accorded Investment Approval (IA) and expenditure sanction for the transmission



project in its 324th meeting held on 12.1.2016 at the estimated cost of ₹9909 lakh including Interest During Construction (IDC) of ₹523 lakh based on August, 2015 price level.

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

Transmission Line:

- i. LILO of Cuddapah-Hindupur 400 kV D/C (Quad) line (both circuits) at 400 kV NP Kunta Sub-station

Sub-station:

- i. 400/200 kV NP Kunta Sub-station

400 kV

Line bays: 4 Numbers

220 kV

Line bays: 6 Numbers

c. The Commission, vide order dated 6.8.2015 in Petition No. 29/MP/2015, granted regulatory approval for execution of the transmission assets for Ultra Mega Solar Power Park (UMSPP) having capacity of 1000 MW in Anantpur district, Andhra Pradesh for the following transmission schemes:

Phase-I Scheme (250 MW)

- i. Establishment of 3x500 MVA, 400/220 kV Sub-station at NP Kunta Pooling Station
- ii. LILO of 400 kV Kadapa (Cuddapah)-Kolar S/C line at NP Kunta Pooling Station
- iii. 2 Numbers 220 kV line bays at NP Kunta Pooling Station
- iv. 1x125 MVAR Bus Reactor at NP Kunta Pooling Station
- v. ±100 MVAR STATCOM at 400 kV NP Kunta Pooling Station



Phase-II Scheme (750 MW)

- i. LILO of Kadapa (Cuddapah)-Hindupur 400 kV D/C (Quad) line at NP Kunta Pooling Station
- ii. 6 Numbers of 220 kV line bays at NP Kunta Pooling Station

Phase-III Scheme (500 MW)

- i. Augmentation of transformation capacity at NP Kunta station with 4th, 1x500 MVA, 400/220 kV transformer
 - ii. 4 Numbers of 220 kV line bays at NP Kunta Pooling Station
- d) Phase-II of NP Kunta Solar Park, part of the transmission project, is covered in the instant petition and details of the transmission assets under the transmission project are as follows:

Name of Assets	Petition No.
Asset-1: Loop in portion of LILO of Kadapa-Hindupur 400 kV D/C line (both circuits) at NP Kunta Sub-station along with associated bays	Tariff for the 2014-19 period was claimed and approved vide order dated 18.7.2022 in Petition No. 171/TT/2019
Asset-2: Loop out portion of LILO of Kadapa-Hindupur 400 kV D/C line (both circuits) at NP Kunta Sub-station along with associated bays	
Asset-3: 2 numbers of 220 kV Line bays (Bay No. 217 & 218) at NP Kunta sub-station	
Asset-4: 4 numbers of 220 kV line bays (Bay No. 213,214, 219 & 220) at NP Kunta Sub-station	

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

Assets	SCOD	COD	Time over-run
Asset-1	12.5.2017	4.8.2018	449 days
Asset-2	12.7.2018	12.10.2018	92 days
Asset-3	12.5.2017	26.4.2017	Nil
Asset-4	12.5.2017	3.8.2018	448 days

- f) COD of Asset-2, Asset-3 and Asset-4 are approved under proviso (ii) to Regulation 4(3) of the 2014 Tariff Regulations.



4. The Respondents are distribution licensees, transmission licensees, and power departments procuring transmission services from the Petitioner and are its main beneficiaries, all in the Southern Region.

5. The Petitioner has served the petition on the Respondents and notice regarding filing of this petition has been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003. No comments or suggestions have been received from the general public in response to the aforesaid notices published in the newspapers by the Petitioner. No reply has been filed by any of the Respondents.

6. The hearing in this matter was held on 30.10.2023, and the order was reserved.

7. During the hearing held on 30.10.2023, Commission directed the Petitioner to submit the petition number in which the tariff for the 400 kV ICT bays for the 2014-19 tariff period was granted. In response to the query, the Petitioner vide affidavit dated 9.11.2023 has submitted that the scope of the transmission project does not contain any ICTs. Further, the tariff for 400 kV line bays have been claimed along with the associated transmission lines in the instant petition.

8. This order is issued considering the submissions made by the Petitioner vide affidavits dated 2.3.2023 and 9.11.2023.

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 FOR 2014-19 TARIFF PERIOD

10. The details of the trued-up transmission charges claimed by the Petitioner in respect of the transmission assets from their COD to 2019 are as follows:



(₹ in lakh)

Particulars	Asset-1	Asset-2
	2018-19 (pro-rata for 240 days)	2018-19 (pro-rata for 171 days)
Depreciation	63.78	53.55
Interest on Loan	64.18	53.13
Return on Equity	71.40	59.93
Interest on Working Capital	9.00	6.93
O&M Expenses	97.65	69.82
Total	306.01	243.36

(₹ in lakh)

Particulars	Asset-3		Asset-4
	2017-18 (pro-rata for 340 days)	2018-19	2018-19 (pro-rata for 241 days)
Depreciation	3.46	8.41	0.77
Interest on Loan	3.22	7.70	0.82
Return on Equity	3.87	9.44	0.86
Interest on Working Capital	4.69	5.50	6.38
O&M Expenses	86.72	96.20	127.04
Total	101.96	127.25	135.87

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

(₹ in lakh)

Particulars	Asset-1	Asset-2
	2018-19 (pro-rata for 240 days)	2018-19 (pro-rata for 171 days)
O&M Expenses	12.38	12.42
Maintenance Spares	22.28	22.35
Receivables	77.57	86.58
Total Working Capital	112.23	121.35
Rate of Interest (in %)	12.20	12.20
Interest on Working Capital	9.00	6.93

(₹ in lakh)

Particulars	Asset-3		Asset-4
	2017-18 (pro-rata for 340 days)	2018-19	2018-19 (pro-rata for 241 days)
O&M Expenses	7.76	8.02	16.03
Maintenance Spares	13.97	14.43	28.86
Receivables	18.24	21.21	34.30
Total Working Capital	39.97	43.66	79.19



Particulars	Asset-3		Asset-4
	2017-18 (pro-rata for 340 days)	2018-19	2018-19 (pro-rata for 241 days)
Rate of Interest (in %)	12.60	12.60	12.20
Interest on Working Capital	4.69	5.50	6.38

Date of Commercial Operation (COD)

12. The Commission, vide order dated 18.7.2022 in Petition No. 171/TT/2019, has held as follows:

“18. Taking into consideration CEA Energisation Certificates of Asset-2 and Asset-4 and RLDC Energisation Certificates of Asset-2, Asset-3 and Asset-4, COD of Asset-2, Asset-3 and Asset- 4 is provisionally approved as 12.10.2018, 26.4.2017 and 3.8.2018, respectively, under proviso (ii) to Regulation 4(3) of the Tariff Regulations, 2014. Since CMD Certificates in respect of Asset-2, Asset-3 and Asset-4 as required under the Grid Code and CEA Certificate for Asset-3 have not been furnished by the Petitioner at present, the same shall be submitted by the Petitioner at the time of truing up of tariff of 2014-19 period. Issue of liability of payment of transmission charges with respect to Asset-2, Asset-3 and Asset-4 has been discussed in the subsequent relevant paragraph of the order.”

13. As per the above directions, the Petitioner has submitted CMD Certificate in support of the COD for Asset-1, Asset-2, Asset-3 and Asset-4 and CEA energisation Certificate in support of the COD for Asset-3.

Capital Cost

14. The capital cost of the transmission project has been calculated in accordance with the Regulation 9(1) and Regulation 9(2) of the 2014 Tariff Regulations.

15. The Commission, vide order dated 18.7.2022 in Petition No. 171/TT/2019, allowed capital cost as on COD for all the transmission assets and Additional Capital Expenditure (ACE) for the 2014-19 tariff period. The details of the capital cost allowed by the Commission in the aforesaid order is as follows:



(₹ in lakh)

Assets	FR apportioned approved cost	Capital cost as on COD (as per Auditor certificate)	Capital cost allowed as on COD	ACE		Capital cost allowed as on 31.3.2019
				2017-18	2018-19	
Asset-1	4567.14	3511.12	1722.35	0.00	300.43	2022.78
Asset-2	3865.56	3421.55	2335.71	0.00	193.59	2529.30
Asset-3	492.18	159.82	0.00	140.43	37.82	178.25
Asset-4	984.37	858.86	0.00	0.00	43.50	43.50
Total	9909.25	7951.35	4058.06	140.43	575.34	4773.83

16. The Petitioner in the instant true-up petition has submitted the following capital cost as per the Auditor's Certificate dated 19.11.2022 for true-up in the 2014-19 tariff period:

(₹ in lakh)

Assets	FR apportioned approved cost	Capital cost upto COD	ACE Claimed		Total capital cost as on 31.3.2019
			2017-18	2018-19	
Asset-1	4567.14	3511.12	0.00	219.10	3730.22
Asset-2	3865.56	3216.93	0.00	0.00	3216.93
Asset-3	492.18	159.82	140.43	37.81	338.06
Asset-4	984.37	858.86	0.00	68.99	927.85
Total	9909.25	7746.73	140.43	325.90	8213.06

17. With respect to the difference in capital cost as on COD as per the Auditor's Certificate in the case of Asset-2, the Petitioner has submitted that the expenditure claimed in Petition No. 171/TT/2019 was on an estimated basis vide Management Certificate dated 12.12.2018, and now the same has been updated with actuals as per the Auditor's Certificate.

Cost over-run

18. The Petitioner has submitted that the capital cost of ₹3511.12 lakh, ₹3216.93 lakh, ₹159.82 lakh and ₹858.86 lakh was incurred for Asset-1, Asset-2, Asset-3, and Asset-4 respectively as on COD. The total completion cost up to 31.3.2019, including



ACE in respect of the transmission assets is ₹8213.06 lakh against the approved FR cost of ₹9909.00 lakh. The completion cost of the transmission assets is within the approved FR cost. Therefore, there is no cost over-run for the transmission assets.

19. We have considered the submissions of the Petitioner. The estimated completion cost of the transmission assets is within the FR apportioned approved cost.

Time over-run

20. As per the IA, the transmission assets were scheduled to be put into commercial operation within 30 months from the date of the IA for the loop out portion and 16 months for loop in portion, i.e. 12.7.2018 and 12.5.2017, respectively. The transmission assets were put into actual commercial operation on 4.8.2018 for Asset-1, 12.10.2018 for Asset-2, 26.4.2017 for Asset-3, and 3.8.2018 for Asset-4.

21. The time over-run in the case of the transmission assets has already been dealt with by the Commission in its order dated 18.7.2022 in Petition No. 171/TT/2019. The details of the time over-run condoned/ not condoned is as follows:

Asset	SCOD	Actual COD	Time over-run	Time over-run Condoned	Time over-run not condoned
Asset-1	12.5.2017	4.8.2018	449 days	24 days	425 days
Asset-2	12.7.2018	12.10.2018	92 days	92 days	Nil
Asset-3	12.5.2017	26.4.2018	No delay	Nil	Nil
Asset-4	12.5.2017	3.8.2018	448 days	Nil	448 days

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

22. The Petitioner has claimed IDC in respect of the Asset-1 and Asset-2 covered in the instant petition and has submitted the statement showing IDC claim, discharge of IDC liability as on COD and thereafter as follows:



(₹ in lakh)

Assets	IDC as per Auditor Certificate	IDC discharged up to COD	IDC discharged during the year	
			2018-19	2019-20
Asset-1	156.18	134.38	19.42	2.39
Asset-2	163.44	103.78	52.38	7.28

23. The Petitioner has submitted IDC computation statement which contains the name of loan, drawl date, loan amount, interest rate and interest claimed. The IDC is worked out on the basis of the details given in the IDC statement. Further, the loan amount as on COD has been mentioned in Form-6 and Form-9C. The allowable IDC has been worked out based on the information available on record and relying on loan amount as per Form-9C. The IDC considered as on COD and summary of discharge of IDC liability up to COD and thereafter for the purpose of tariff determination is as follows:

Assets	IDC as per Auditor Certificate	IDC disallowed due to time over-run not condoned	IDC allowed	IDC discharged upto COD	IDC discharged during the year	
					2018-19	2019-20
Asset-1	156.18	119.44	36.74	36.65	0.09	0.00
Asset-2	163.44	0.89	162.55	103.00	52.38	7.17

24. Further, the Petitioner has claimed IEDC for the transmission assets after reducing the IEDC disallowed due to time over-run earlier not condoned by the Commission. The Petitioner has submitted that the IEDC mentioned in the Auditor's Certificate is on a cash basis and was paid up to the COD.

25. IEDC considered as on COD for the purpose of tariff determination is as follows:

(₹ in lakh)

Assets	IEDC as per Auditor's Certificate	IEDC disallowed due to time over-run not condoned	IEDC allowed
Asset-1	188.45	85.66	102.79
Asset-2	207.37	0.00	207.37
Asset-3	11.27	0.00	11.27
Asset-4	53.15	25.49	27.66

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Initial Spares

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

“(d) *Transmission System*

(i) <i>Transmission line</i>	: 1.00%
(ii) <i>Transmission sub-station (Green Field)</i>	: 4.00%
(iii) <i>Transmission sub-station (Brown Field)</i>	: 6.00%
(iv) <i>Series Compensation devices and HVDC Station</i>	: 4.00%
(iv) <i>Gas Insulated Sub-station</i>	: 5.00%
(v) <i>Communication System</i>	: 3.5%”

27. The Commission has observed that the Petitioner in Petition No. 171/TT/2019 had claimed Initial Spares for the transmission assets as per the norms of Green Field Transmission Sub-station, and the Commission, vide order dated 18.7.2022 in Petition No. 171/TT/2019 allowed the Initial Spares as follows:

(₹ in lakh)

Assets	Particulars	Plant and Machinery cost (excluding IDC and IEDC, land cost and cost of civil works)	Initial spares claimed	Initial spare as % of capital cost
Asset-1	Sub-station	1335.52	29.25	2.19%
Asset-2		1335.52	29.25	2.19%
Asset-3		0.00	0.00	-
Asset-4		874.70	21.28	2.43%

28. The Initial Spares claimed by the Petitioner in the instant petition are as follows:

(₹ in lakh)

Assets	Particulars	Plant and Machinery cost (excluding IDC and IEDC, land cost and cost of civil works)	Initial Spares claimed	Norm (in %)
Asset-1	Sub-station	1314.27	29.25	6.00
Asset-2		1270.77	29.25	6.00
Asset-4		874.70	21.28	6.00

29. The Petitioner has submitted the details of year-wise Initial Spares discharged for the transmission assets as follows:



(₹ in lakh)

Assets	Particulars	Initial Spares (As per Auditor Certificate)	Discharged up to COD	Discharged in 2018-19
Asset-1	Sub-station	29.25	23.40	5.85
Asset-2		29.25	20.48	8.77
Asset-4		21.28	20.64	0.64

30. The Petitioner has further submitted that the Initial Spares discharged after COD are included in the ACE of the respective year and not included in the capital cost up to COD.

31. We have considered the submissions of the Petitioner. We have considered the norm of 4% approved by the Commission in an order dated 18.7.2022 in Petition No. 171/TT/2019 for the sub-stations. The Initial Spares claimed by the Petitioner is within the norms under the 2014 Tariff Regulations. Accordingly, the Initial Spares claimed is allowed, and it is as follows:

(₹ in lakh)

Asset	Particulars	Plant and Machinery cost (excluding IDC and IEDC, land cost & cost of civil works) up to cut-off date (₹ in lakh)	Initial Spares claimed (₹ in lakh)	Norms as per the 2014 Tariff Regulations (in %)	Initial Spares allowable (₹ in lakh)	Excess Initial Spares (₹ in lakh)	Initial Spares allowed (₹ in lakh)
		A	B	C	$D = (A - B) * C / (100 - C)$	$E = D - B$	
Asset-1	Sub-station	1314.27	29.25	4.00	53.54	(24.29)	29.25
Asset-2	Sub-station	1270.77	29.25	4.00	51.73	(22.48)	29.25
Asset-4	Sub-station	874.70	21.28	4.00	35.56	(14.28)	21.28



Central Finance Assistance (CFA)

32. The Petitioner has submitted that the Central Finance Assistance for the development of Solar Park and external transmission system has been provided by the Ministry of New and Renewable Energy. Ministry of New & Renewable Energy (NSM Coord. Group) issued Administrative Guidelines for the release of funds for the implementation of the Scheme for development of Solar Park and Ultra Mega Solar Power projects vide order ref: 30/26/2014-15/NSM, dated 12.12.2014. Further, amendments in guidelines have been issued by the Ministry of New & Renewable Energy (MNRE) vide office Memorandum No. F. No. 30/26/2014-15/NSM dated 29.9.2016. The relevant extract regarding the quantum of the CFA to the Solar Park Developers and CTU or STU is as follows:

“The CFA for development of solar park and for development of external transmission system will be apportioned in the ratio of 60:40 i.e. Rs 12 lakh per MW or 30% of the project cost, whichever is lower may be provided to the Solar Power Park Developers (SPPDs) towards development of solar parks and Rs. 8 lakh per MW or 30% of the project cost, whichever is lower will be provided to the CTU or STU towards development of external transmission system.....”

33. Accordingly, the Petitioner has submitted the details of the CFA released by MNRE to the Petitioner vide letters dated 27.10.2016 and 28.12.2016. The Petitioner has further submitted that the MNRE sanctioned the CFA grant vide office Memorandum No. F.No.30/52/2014-15/NSM dated 28.2.2017. The relevant extract of the order are as follows:

“2. I am also directed to convey approval for setting up external power evacuation system for Anathapuramu Solar Park, Andhra Pradesh by PGCIL for evacuation of 1500MW solar power from Anathapuramu Solar Park, Andhra Pradesh with total Central Finance Assistance (CFA) of Rs 120, 00, 00,000/- (Rupees One Hundred and Twenty Crore only).

3. As per Administrative Guidelines 30/26/2014-15/NSM, dated 12.12.2014 and subsequent clarification vide OM no. 30/26/2014-15/NSM dated 29.09.2016, an amount of Rs 60,26,47,625/- (Rupees Sixty Crore Twenty Six Lakh Forty Seven Thousand Six Hundred and Twenty Five only) is due to SECI, New Delhi towards award of work for external power evacuation system of for Anathapuramu Solar Park. The amount of Rs 60,26,47,625/-



(Rupees Sixty Crore Twenty Six Lakh Forty Seven Thousand Six Hundred and Twenty Five only) includes Rs 60,00,00,000/- (Rupees Sixty Crore only) towards development of external power evacuation system for Anathapuramu Solar Park, Andhra Pradesh and Rs 26,47,625/- (Rupees Twenty Six Lakh Forty Seven Thousand Six Hundred and Twenty Five only) towards fund handling charges to SECI.

4. Accordingly, sanction of the President of India is hereby conveyed for release of Rs. 26,74,10,125/- (Rupees Twenty Six Crore Seventy Four Lakh Ten Thousand and Twenty Five only) to Solar Energy Corporation of India (SECI), New Delhi after adjusting Rs 33,52,37,500/- (Rs Thirty Three Crore Fifty Two Lakh Thirty Seven Thousand and Five Hundred only) of excess amount of CFA released to Andhra Pradesh Solar Power Corporation Ltd. (APSPCL) for development of internal infrastructure of Anathapuramu Solar Park, Andhra Pradesh by this Ministry under the Solar Park scheme, APSPCL will release Rs 33,52,37,500/- (Rs Thirty Three Crore Fifty Two Lakh Thirty Seven Thousand and Five Hundred only) to PGCIL as CFA towards development of external power evacuation system of Anathapuramu Solar Park.”

34. Further, the Petitioner has received a grant of ₹109,55,54,100/- (Rupees one hundred nine crore fifty-five lakh fifty-four thousand and one hundred only) from SECI {i.e. (₹26,47,62,500 on 30.8.2017), (₹33,52,37,500 on 31.1.2018) during 2017-18 and (₹49,55,54,000 on 16.10.2019) during 2019-20} towards transmission system for Ultra Mega Solar Park in Anantpur (Phase-I, II & III). The balance applicable grant for Phase-I, II & III is yet to be disbursed, and the same shall be adjusted accordingly.

35. The Petitioner has submitted the following details of total grant received and adjustment in the capital cost of projects Phase-I, II and III:

(₹ in lakh)

Project	CFA grant received (30.8.2017)	CFA grant received (31.1.2018)	CFA grant received (16.10.2019)	Total
Transmission System for Ultra Mega Solar Park in Anantpur District, Andhra Pradesh-(Part-A) (Phase-I)	2647.63	3352.38	4955.54	10955.54
Transmission System for Ultra Mega Solar Park in Anantpur District, Andhra Pradesh - Part B (Phase-II)				
Transmission System for Ultra Mega Solar Park in Anantpur District, Andhra Pradesh - Part C (Phase-III)				



36. The Petitioner has submitted the following details of a grant received to date, adjusted in transmission projects associated with Ultra Mega Solar Park in Anantapur District, Andhra Pradesh:

(₹ in lakh)	
Project	Grant received till now and adjusted
Transmission System for Ultra Mega Solar Park in Anantapur District, Andhra Pradesh-(Part-A) (Phase-I)	6755.3
Transmission System for Ultra Mega Solar Park in Anantapur District, Andhra Pradesh - Part B (Phase-II)	3626.98
Transmission System for Ultra Mega Solar Park in Anantapur District, Andhra Pradesh - Part C (Phase-III)	573.26
Total	10955.54

37. The Commission, vide order dated 18.7.2022 in Petition No. 171/TT/2019, had considered the total grant allocated to the transmission assets covered under the transmission project while determining the tariff of the 2014-19 period. The details of the same are as follows:

(₹ in lakh)	
Assets	Grant Received
Asset-1	1583.67
Asset-2	1025.22
Asset-3	159.82
Asset-4	858.86
Total	3627.57

38. The Petitioner has submitted that in Petition No. 171/TT/2019, the grant amounting to ₹3627.57 lakh was inadvertently adjusted against the allocation of ₹3626.98 lakh in the instant transmission project. The difference of ₹0.59 lakh in the grant adjustment has now been corrected in the instant petition. The details of the total grant allocated in respect of the transmission assets covered in the present transmission project (i.e. Phase-II) as submitted by the Petitioner are as follows:



(₹ in lakh)

Assets	Grant Received
Asset-1	1583.67
Asset-2	1025.22
Asset-3	159.82
Asset-4	858.27
Total	3626.98

39. Proviso to Regulation 9(6) of the 2014 Tariff Regulations provides as follows:

“Provided that 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 shall be excluded from the Capital Cost for the purpose of computation of interest on loan, return on equity and depreciation.”

40. Proviso (iii) to Regulation 19(1) of the 2014 Tariff Regulations provides as follows:

“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.”

41. We have considered the submissions of the Petitioner. The total grant allocated to the transmission assets associated with Phase-II of NP Kunta is about ₹3626.98 lakh, and the same has been received by the Petitioner. Accordingly, the same has been considered by the Commission while determining tariffs for the transmission assets for the 2014-19 period.

42. As per the above provisions, funding through a grant is not required to be considered for the purpose of the debt-equity ratio.

Capital Cost as on COD

43. The capital cost of the transmission assets has been calculated in accordance with Regulation 9(1) and Regulation 9(2) of the 2014 Tariff Regulations. The details of the capital cost now approved as on COD after adjustment of CFA, IDC, IEDC and Initial Spares are as follows:



(₹ in lakh)

Assets	Capital cost claimed as on COD (A)	Disallowed as on COD (B)		Undischarged IDC as on COD (C)	Grant received and adjusted upto COD (D)	Capital cost allowed as on COD
		IDC due to time over-run not condoned	IEDC due to time over-run not condoned			(E = A-B-C-D)
Asset-1	3511.12	119.44	85.66	0.09	1583.67	1722.26
Asset-2	3216.93	0.89	0.00	59.55	1025.22	2131.27
Asset-3	159.82	0.00	0.00	0.00	159.82	0.00
Asset-4	858.86	0.00	25.49	0.00	833.37	0.00

Additional Capital Expenditure (ACE)

44. The Commission, vide order dated 18.7.2022 in Petition No. 171/TT/2019, allowed ACE in respect of the transmission assets for the 2014-19 tariff period as follows:

(₹ in lakh)

Particulars	Admitted ACE				
	Asset-1	Asset-2	Asset-3		Asset-4
	2018-19	2018-19	2017-18	2018-19	2018-19
ACE to the extent of balance & retention payments	300.43	140.97	140.43	37.82	68.99
Work deferred for execution/ACE to the extent of unexecuted work	0.00	0.00	0.00	0.00	0.00
IDC discharged	0.00	52.62	0.00	0.00	0.00
Less: Excess Initial Spares	0.00	0.00	0.00	0.00	0.00
Less: Grant received adjusted	0.00	0.00	0.00	0.00	25.49
Total ACE allowed	300.43	193.59	140.43	37.82	43.50

45. Against this, the Petitioner has claimed the following ACE based on the actual expenditure in accordance with Regulation 14(1)(i) and Regulation 14(1)(ii) of the 2014 Tariff Regulations:

Asset-1

(₹ in lakh)

Particulars	Regulations	Actual ACE
		2018-19
Balance and retention payments for liabilities other than IDC	14(1)(i)	214.35
Addition in Gross Block	14(1)(ii)	4.75



Particulars	Regulations	Actual ACE
		2018-19
IDC Discharged after COD	14(1)(i)	0.00
Total		219.10

Asset-2

(₹ in lakh)

Particulars	Regulations	Actual ACE
		2018-19
Balance and retention payments for liabilities other than IDC	14(1)(i)	0.00
Addition in Gross Block	14(1)(ii)	0.00
IDC Discharged after COD	14(1)(i)	52.38
Total		52.38

Asset-3

(₹ in lakh)

Particulars	Regulations	Actual ACE	
		2017-18	2018-19
Balance and retention payments for liabilities other than IDC	14(1)(i)	140.43	37.81
Addition in Gross Block	14(1)(ii)	0.00	0.00
IDC Discharged after COD	14(1)(i)	0.00	0.00
Total		140.43	37.81

Asset-4

(₹ in lakh)

Particulars	Regulations	Actual ACE
		2018-19
Balance and retention payments for liabilities other than IDC	14(1)(i)	44.09
Addition in Gross Block	14(1)(ii)	0.00
IDC Discharged after COD	14(1)(i)	0.00
Total		44.09

46. The vendor-wise details of ACE claimed by the Petitioner for the transmission assets are as follows:

Asset-1:

(₹ in lakh)

Vendor	2018-19		2018-19
	Work Executed	Liability Release	Total
Kalpataru Power Transmission Limited	0.00	64.17	64.17
Megha Engineering Limited	0.00	0.00	0.00
Bharat Heavy Electricals Limited	0.00	0.00	0.00
Miscellaneous Jiangdong Fittings Equipment C	0.00	4.79	4.79
Vishwas Infra Structures	0.00	0.00	0.00



Vendor	2018-19		2018-19
	Work Executed	Liability Release	Total
V Sanjeevaraju	0.00	0.00	0.00
Guru Datta Mayur Constructions	0.00	0.00	0.00
Techno Electric & Engineering Company Limited	4.75	145.39	150.14
Total	4.75	214.35	219.10

Asset-3:

(₹ in lakh)

Vendor	2017-18		2018-19		Total	
	Work Executed	Liability Release	Work Executed	Liability Release	2017-18	2018-19
Techno Electric & Engineering Company Limited	0.00	75.17	0.00	37.81	75.17	37.81
Megha Engineering Limited	0.00	65.26	0.00	0.00	65.26	0.00
Total	0.00	140.43	0.00	37.81	140.43	37.81

Asset-4:

(₹ in lakh)

Vendor	2018-19		
	Work Executed	Liability Release	Total
Techno Electric & Engineering Company Limited	0.00	44.09	44.09
Total	0.00	44.09	44.09

47. We have considered the submissions of the Petitioner. The undischarged IDC has been allowed as ACE during the year of its discharge. The allowed ACE is summarized as follows:

Asset-1

(₹ in lakh)

Particulars	Regulation	ACE allowed
		2018-19
Balance and retention payments for liabilities other than IDC	14(1)(i) and 14(1)(ii)	219.10*
IDC Discharged after COD		0.09
Total ACE		219.19

*Includes Initial Spares of ₹5.85 lakh



Asset-2

(₹ in lakh)

Particulars	Regulation	ACE allowed
		2018-19
Balance and retention payments for liabilities other than IDC	14(1)(i) and 14(1)(ii)	0.00*
IDC Discharged after COD		52.38
Total ACE		52.38

*Includes Initial Spares of ₹8.77 lakh

Asset-3

(₹ in lakh)

Particulars	Regulation	ACE allowed	
		2017-18	2018-19
Balance and retention payments for liabilities other than IDC	14(1)(i) and 14(1)(ii)	140.43	37.81
Total ACE		140.43	37.81

Asset-4

(₹ in lakh)

Particulars	Regulation	ACE allowed
		2018-19
Balance and retention payments for liabilities other than IDC	14(1)(i) and 14(1)(ii)	44.09*
Total ACE		44.09

*Includes Initial Spares of ₹0.64 lakh

48. We have considered the submissions of the Petitioner. We observe that the ACE claims towards balance and retention payments and unexecuted works within the cut-off date have been allowed under Regulation 14(1)(i) and Regulation 14(1)(ii) of the 2014 Tariff Regulations. Capital Cost and ACE allowed in respect of the transmission assets for the 2014-19 period is as follows:

(₹ in lakh)

Assets	Apportioned approved Cost	Capital cost allowed as on COD	Actual ACE		Capital cost as on 31.3.2019
			2017-18	2018-19	
Asset-1	4567.14	1722.26	0.00	219.19	1941.45
Asset-2	3865.56	2131.27	0.00	52.38	2183.65
Asset-3	492.18	0.00	140.43	37.81	178.24
Asset-4	984.37	0.00	0.00	44.09	44.09



Debt-Equity ratio

49. The Petitioner has considered the Debt-Equity ratio of 70:30 as on COD and for ACE. The debt-equity ratio of 70:30 has been allowed in respect of the transmission assets in accordance with Regulation 19(1) of the 2014 Tariff Regulations, and the same has been summarised as follows:

Asset-1

Funding	Capital Cost as on COD (₹ in lakh)	(in %)	ACE in 2014-19 (₹ in lakh)	(in %)	Capital Cost as on 31.3.2019 (₹ in lakh)	(in %)
Debt	1205.58	70.00	153.43	70.00	1359.02	70.00
Equity	516.68	30.00	65.76	30.00	582.44	30.00
Total	1722.26	100.00	219.19	100.00	1941.45	100.00

Asset-2

Funding	Capital Cost as on COD (₹ in lakh)	(in %)	ACE in 2014-19 (₹ in lakh)	(in %)	Capital Cost as on 31.3.2019 (₹ in lakh)	(in %)
Debt	1491.89	70.00	36.67	70.00	1528.56	70.00
Equity	639.38	30.00	15.71	30.00	655.10	30.00
Total	2131.27	100.00	52.38	100.00	2183.65	100.00

Asset-3

Funding	Capital Cost as on COD (₹ in lakh)	(in %)	ACE in 2014-19 (₹ in lakh)	(in %)	Capital Cost as on 31.3.2019 (₹ in lakh)	(in %)
Debt	0.00	70.00	124.77	70.00	124.77	70.00
Equity	0.00	30.00	53.47	30.00	53.47	30.00
Total	0.00	100.00	178.24	100.00	178.24	100.00

Asset-4

Funding	Capital Cost as on COD (₹ in lakh)	(in %)	ACE in 2014-19 (₹ in lakh)	(in %)	Capital Cost as on 31.3.2019 (₹ in lakh)	(in %)
Debt	0.00	70.00	30.86	70.00	30.86	70.00
Equity	0.00	30.00	13.23	30.00	13.23	30.00
Total	0.00	100.00	44.09	100.00	44.09	100.00

Depreciation

50. The Petitioner has claimed depreciation under Regulation 27 of the 2014 Tariff Regulations. The Gross Block during the 2014-19 tariff period has been depreciated at



the weighted average rate of depreciation (WAROD). WAROD at Annexure-I has been worked out considering the depreciation rates as specified in the 2014 Tariff Regulations, and depreciation allowed during the 2014-19 tariff period is as follows:

		(₹ in lakh)	
	Particulars	Asset-1	Asset-2
		2018-19 (pro-rata 240 days)	2018-19 (pro-rata 171 days)
	Depreciation		
A	Opening Gross Block	1722.26	2131.27
B	ACE	219.19	52.38
C	Closing Gross Block (A+B)	1941.45	2183.65
D	Average Gross Block (A+C)/2	1831.86	2157.46
E	Weighted Average Rate of Depreciation (in %)	5.29	5.30
F	Balance useful life of the asset	33	31
G	Elapsed life at the beginning of the year (Year)	0	0
H	Aggregate Depreciable Value	1648.67	1941.71
I	Combined Depreciation during the year	63.77	53.54
J	Aggregate Cumulative Depreciation	63.77	53.54
K	Remaining Depreciable Value (H-J)	1584.90	1888.17

		(₹ in lakh)		
	Particulars	Asset-3		Asset-4
		2017-18 (pro-rata 340 days)	2018-19	2018-19 (pro-rata 241 days)
	Depreciation			
A	Opening Gross Block	0.00	140.43	0.00
B	ACE	140.43	37.81	44.09
C	Closing Gross Block (A+B)	140.43	178.24	44.09
D	Average Gross Block (A+C)/2	70.22	159.34	22.05
E	Weighted Average Rate of Depreciation (in %)	5.28	5.28	5.28
F	Balance useful life of the asset	25	25	25
G	Elapsed life at the beginning of the year (Year)	0	0	0
H	Aggregate Depreciable Value	63.19	143.40	19.84
I	Combined Depreciation during the year	3.45	8.41	0.77
J	Aggregate Cumulative Depreciation	3.45	11.87	0.77
K	Remaining Depreciable Value (H-J)	59.74	131.54	19.07

51. The details of depreciation approved vide order dated 18.7.2022 in Petition No. 171/TT/2019 in respect of the transmission assets, claimed by the Petitioner in the instant petition and trued up in the instant order are as follows:



Particulars	(₹ in lakh)	
	Asset-1 2018-19 (pro-rata 240 days)	Asset-2 2018-19 (pro-rata 171 days)
Allowed vide order dated 18.7.2022 in Petition No. 171/TT/2019	65.19	60.34
Claimed by the Petitioner in the instant petition	63.78	53.55
Approved after true-up in this order	63.77	53.54

Particulars	(₹ in lakh)		
	Asset-3 2017-18 (pro-rata 340 days)	2018-19	Asset-4 2018-19 (Pro-rata 241 days)
Allowed vide order dated 18.7.2022 in Petition No. 171/TT/2019	3.45	8.41	0.76
Claimed by the Petitioner in the instant petition	3.46	8.41	0.77
Approved after true-up in this order	3.45	8.41	0.77

Interest on Loan (IoL)

52. The Petitioner has claimed the weighted average rate of IoL based on its actual loan portfolio and rate of interest. We have considered the submissions of the Petitioner. IoL has been calculated based on the actual interest rate submitted by the Petitioner in accordance with Regulation 26 of the 2014 Tariff Regulations. The trued-up IoL allowed in respect of the transmission assets is as follows:

Particulars	(₹ in lakh)	
	Asset-1 2018-19 (pro-rata 240 days)	Asset-2 2018-19 (pro-rata 171 days)
Interest on Loan		
A Gross Normative Loan	1205.58	1491.89
B Cumulative Repayments upto Previous Year	0.00	0.00
C Net Loan-Opening (A-B)	1205.58	1491.89
D Additions	153.43	36.67
E Repayment during the year	63.77	53.54
F Net Loan-Closing (C+D-E)	1295.24	1475.01
G Average Loan (C+F)/2	1250.41	1483.45
H Weighted Average Rate of Interest on Loan (in %)	7.8062	7.6424
I Interest on Loan (G*H)	64.18	53.11



(₹ in lakh)

	Particulars	Asset-3		Asset-4
		2017-18 (pro-rata 340 days)	2018-19	2018-19 (pro-rata 241 days)
	Interest on Loan			
A	Gross Normative Loan	0.00	98.30	0.00
B	Cumulative Repayments upto Previous Year	0.00	3.45	0.00
C	Net Loan-Opening (A-B)	0.00	94.85	0.00
D	Additions	98.30	26.47	30.86
E	Repayment during the year	3.45	8.41	0.77
F	Net Loan-Closing (C+D-E)	94.85	112.90	30.09
G	Average Loan (C+F)/2	47.42	103.87	15.05
H	Weighted Average Rate of Interest on Loan (in %)	7.3000	7.4083	8.2124
I	Interest on Loan (G*H)	3.22	7.70	0.82

53. The details of IoL allowed vide order dated 18.7.2022 in Petition No. 171/TT/2019 for the transmission assets, claimed by the Petitioner in the instant petition and true-up IoL in the instant order are as follows:

(₹ in lakh)

Particulars	Asset-1	Asset-2
	2018-19 (pro-rata 240 days)	2018-19 (pro-rata 171 days)
Allowed vide order dated 18.7.2022 in Petition No. 171/TT/2019	67.86	59.92
Claimed by the Petitioner in the instant petition	64.18	53.13
Approved after true-up in this order	64.18	53.11

(₹ in lakh)

Particulars	Asset-3		Asset-4
	2017-18 (pro-rata 340 days)	2018-19	2018-19 (pro-rata 241 days)
Allowed vide order dated 18.7.2022 in Petition No. 171/TT/2019	3.18	7.58	0.79
Claimed by the Petitioner in the instant petition	3.22	7.70	0.82
Approved after true-up in this order	3.22	7.70	0.82

Return on Equity (RoE)

54. The Petitioner has claimed RoE in respect of the transmission assets in terms of Regulation 24 and Regulation 25 of the 2014 Tariff Regulations. The Petitioner has

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

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

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

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

56. The MAT rates, as considered in the above-mentioned order in Petition No. 274/TT/2019, are considered for the purpose of grossing up the rate of RoE for truing up of the tariff of the 2014-19 period in terms of the provisions of the 2014 Tariff Regulations. The same is as follows:

Year	Notified MAT rates (in %) (inclusive of surcharge & cess)	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

57. The Petitioner has claimed RoE for the 2014-19 tariff period after grossing up the RoE @15.50% with Effective Tax rates (based on MAT rates) each year as per



Regulation 25(3) of the 2014 Tariff Regulations. RoE is trued-up based on MAT rates applicable in the respective years and is allowed for the transmission assets for the 2014-19 tariff period which is as follows:

(₹ in lakh)

	Particulars	Asset-1	Asset-2
		2018-19 (pro-rata 240 days)	2018-19 (pro-rata 171 days)
	Return on Equity		
A	Opening Equity	516.68	639.38
B	Additions	65.76	15.71
C	Closing Equity (A+B)	582.44	655.10
D	Average Equity (A+C)/2	549.56	647.24
E	Return on Equity (Base Rate) (in %)	15.500	15.500
F	MAT Rate for respective year (in %)	21.549	21.549
G	Rate of Return on Equity (in %)	19.758	19.758
H	Return on Equity (D*G)	71.40	59.91

(₹ in lakh)

	Particulars	Asset-3		Asset-4
		2017-18 (pro-rata 340 days)	2018-19	2018-19 (pro-rata 241 days)
	Return on Equity			
A	Opening Equity	0.00	42.13	0.00
B	Additions	42.13	11.34	13.23
C	Closing Equity (A+B)	42.13	53.47	13.23
D	Average Equity (A+C)/2	21.06	47.80	6.61
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	21.342	21.549	21.549
G	Rate of Return on Equity (in %)	19.705	19.758	19.758
H	Return on Equity (D*G)	3.87	9.44	0.86

58. The details of RoE approved, vide order dated 18.7.2022 in Petition No. 171/TT/2019 for the transmission assets, claimed by the Petitioner in the instant petition and trued-up RoE in the instant order is as follows:



(₹ in lakh)

Particulars	Asset-1	Asset-2
	2018-19 (pro-rata 240 days)	2018-19 (pro-rata 171 days)
Allowed vide order dated 18.7.2022 in Petition No. 171/TT/2019	72.98	67.55
Claimed by the Petitioner in the instant petition	71.40	59.93
Approved after true-up in this order	71.40	59.91

(₹ in lakh)

Particulars	Asset-3		Asset-4
	2017-18 (pro-rata 340 days)	2018-19	2018-19 (pro-rata 241 days)
Allowed vide order dated 18.7.2022 in Petition No. 171/TT/2019	3.87	9.44	0.85
Claimed by the Petitioner in the instant petition	3.87	9.44	0.86
Approved after true-up in this order	3.87	9.44	0.86

Operation & Maintenance Expenses (O&M Expenses)

59. The O&M Expenses claimed by the Petitioner for the transmission assets for the 2014-19 period are as follows:

Particulars	Asset-1
	2018-19 (pro-rata 240 days)
400 kV Bays	
(i) Np Kunta: Kadapa Bay I: 1 bay	
(ii) Np Kunta: Kadapa Bay II: 1 bay	
400 kV Bays	2
Norms (₹ lakh/Bay)	68.71
Transmission line	
(i) Loop in portion of LILO of Cuddapah-Hindupur 400 kV D/C (Quad) (9.164 km)	
D/C Bundled (4 or more Sub Conductor (km)	9.164
Norms (₹ lakh/km)	1.21
Total O&M Expenses claimed (₹ in lakh)	97.65

Particulars	Asset-2
	2018-19 (pro-rata 171 days)
Bay(s)	
(i) Np Kunta: Hindupur Line Bay 1: 1 bay	
(ii) Np Kunta: Hindupur Line Bay 2: 1 bay	
400 kV Bays	2



Particulars	Asset-2
	2018-19 (pro-rata 171 days)
Norms (₹ lakh/Bay)	68.71
Transmission line	
(i) Loop out portion of LILO of Cuddapah-Hindupur 400 kV D/C (Quad) (9.59 km)	
D/C 4 conductors (km)	9.59
Norms (₹ lakh/km)	1.21
Total O&M Expenses claimed (₹ in lakh)	69.82

Particulars	Asset-3	
	2017-2018 (pro-rata 340 days)	2018-19
Bay(s)		
(i) Np Kunta: Line Bay 1: 1 bay		
(ii) Np Kunta: Line Bay 2: 1 bay		
220 kV Bays	2	2
Norms (₹ lakh/Bay)	46.55	48.1
Total O&M Expenses claimed (₹ in lakh)	86.72	96.20

Particulars	Asset-4
	2018-19 (pro-rata 241 days)
Bay(s)	
(i) Np Kunta: Line Bay I: 1 bay	
(ii) Np Kunta: Line Bay II: 1 bay	
(iii) Np Kunta: Line Bay III: 1 bay	
(iv) Np Kunta: Line Bay IV: 1 bay	
220 kV Bays	4
Norms (₹ lakh/Bay)	48.1
Total O&M Expenses claimed (₹ in lakh)	127.04

60. We have considered the submission of the Petitioner. The O&M Expenses allowed for the transmission assets as per the norms in the 2014 Tariff Regulations are as follows:

Particulars	Asset-1
	2018-19 (pro-rata 240 days)
Bay(s)	
(iii) Np Kunta: Kadapa Bay I: 1 bay	
(iv) Np Kunta: Kadapa Bay II: 1 bay	
400 kV Bays	2
Norms (₹ lakh/Bay)	68.71



Particulars	Asset-1	
	2018-19 (pro-rata 240 days)	
Transmission line		
(i) Loop In portion of LILO of Cuddapah-Hindupur 400 kV D/C (Quad) (9.164 km)		
D/C 4 conductors (km)	9.164	
Norms (₹ lakh/km)	1.21	
Total O&M Expenses (₹ in lakh)	97.65	

Particulars	Asset-2	
	2018-19 (pro-rata 171 days)	
Bay(s)		
(iii) Np Kunta: Hindupur Line Bay 1: 1 bay		
(iv) Np Kunta: Hindupur Line Bay 2: 1 bay		
400 kV Bays	2	
Norms (₹ lakh/Bay)	68.71	
Transmission line		
(i) Loop Out portion of LILO of Cuddapah-Hindupur 400 kV D/C (Quad) (9.59 km)		
D/C 4 conductors (km)	9.59	
Norms (₹ lakh/km)	1.21	
Total O&M Expenses (₹ in lakh)	69.82	

Particulars	Asset-3	
	2017-2018 (pro-rata 340 days)	2018-19
Bay(s)		
(iii) Np Kunta: Line Bay 1: 1 bay		
(iv) Np Kunta: Line Bay 2: 1 bay		
220 kV Bays	2	2
Norms (₹ lakh/Bay)	46.55	48.1
Total O&M Expenses (₹ in lakh)	86.72	96.20

Particulars	Asset-4	
	2018-19 (pro-rata 241 days)	
Bay(s)		
(v) Np Kunta: Line Bay 1: 1 bay		
(vi) Np Kunta: Line Bay 2: 1 bay		
(vii) Np Kunta: Line Bay 3: 1 bay		
(viii) Np Kunta: Line Bay 4: 1 bay		
220 kV Bays	4	
Norms (₹ lakh/Bay)	48.1	
Total O&M Expenses (₹ in lakh)	127.04	



61. The details of O&M Expenses approved vide order dated 18.7.2022 in Petition No. 171/TT/2019, claimed by the Petitioner in the instant petition and true-up O&M Expenses in the instant order are as follows:

Particulars	(₹ in lakh)	
	Asset-1 2018-19 (pro-rata 240 days)	Asset-2 2018-19 (pro-rata 171 days)
Allowed vide order dated 18.7.2022 in Petition No. 171/TT/2019	95.21	68.00
Claimed by the Petitioner in the instant petition	97.65	69.82
Approved after true-up in this order	97.65	69.82

Particulars	(₹ in lakh)		
	Asset-3 2017-18 (pro-rata 340 days)	2018-19	Asset-4 2018-19 (pro-rata 241 days)
Allowed vide order dated 18.7.2022 in Petition No. 171/TT/2019	86.72	96.20	127.04
Claimed by the Petitioner in the instant petition	86.72	96.20	127.04
Approved after true-up in this order	86.72	96.20	127.04

Interest on Working Capital (IWC)

62. IWC has been worked out as per the methodology provided in Regulation 28 of the 2014 Tariff Regulations and the details are as follows:

	Particulars	(₹ in lakh)	
		Asset-1 2018-19 (pro-rata 240 days)	Asset-2 2018-19 (pro-rata 171 days)
	Interest on Working Capital		
A	Working Capital for O&M Expenses (O&M Expenses for one Month)	12.38	12.42
B	Working Capital for Maintenance Spares (15% of O&M Expenses)	22.28	22.35
C	Working Capital for Receivables (Equivalent to two months of annual transmission charges)	77.56	86.56
D	Total Working Capital (A+B+C)	112.22	121.33
E	Rate of Interest on working capital (in %)	12.20	12.20
F	Interest of working capital (D*E)	9.00	6.93



(₹ in lakh)

	Particulars	Asset-4		
		2017-18 (pro-rata 340 days)	2018-19	2018-19 (pro-rata 241 days)
	Interest on Working Capital			
A	Working Capital for O&M Expenses (O&M Expenses for one Month)	7.76	8.02	16.03
B	Working Capital for Maintenance Spares (15% of O&M Expenses)	13.97	14.43	28.86
C	Working Capital for Receivables (Equivalent to two months of annual transmission charges)	18.24	21.21	34.29
D	Total Working Capital (A+B+C)	39.97	43.66	79.19
E	Rate of Interest on working capital (in %)	12.60	12.60	12.20
F	Interest of working capital (D*E)	4.69	5.50	6.38

63. The details of IWC allowed vide order dated 18.7.2022 in Petition No. 171/TT/2019 for transmission assets, claimed by the Petitioner in the instant petition and trued-up IWC in the instant order are as follows:

(₹ in lakh)

Particulars	Asset-1	Asset-2
	2018-19 (pro-rata 240 days)	2018-19 (pro-rata 171 days)
Allowed vide order dated 18.7.2022 in Petition No. 171/TT/2019	9.02	7.29
Claimed by the Petitioner in the instant petition	9.00	6.93
Approved after true-up in this order	9.00	6.93

(₹ in lakh)

Particulars	Asset-3		Asset-4
	2017-18 (pro-rata 340 days)	2018-19	2018-19 (pro-rata 241 days)
Allowed vide order dated 18.7.2022 in Petition No. 171/TT/2019	4.69	5.50	6.38
Claimed by the Petitioner in the instant petition	4.69	5.50	6.38
Approved after true-up in this order	4.69	5.50	6.38

Approved Annual Fixed Charges for 2014-19 Tariff Period

64. The trued-up AFC for the transmission assets for the tariff period 2014-19 is summarised as follows:



(₹ in lakh)

	Particulars	Asset-1	Asset-2
		2018-19 (pro-rata 240 days)	2018-19 (pro-rata 171 days)
	Annual Transmission Charges		
A	Depreciation	63.77	53.54
B	Interest on Loan	64.18	53.11
C	Return on Equity	71.40	59.91
D	Interest on Working Capital	9.00	6.93
E	O&M Expenses	97.65	69.82
F	Total (A+B+C+D+E)	306.00	243.31

(₹ in lakh)

	Particulars	Asset-3		Asset-4
		2017-18 (pro-rata 340 days)	2018-19	2018-19 (pro-rata 241 days)
	Annual Transmission Charges			
A	Depreciation	3.45	8.41	0.77
B	Interest on Loan	3.22	7.70	0.82
C	Return on Equity	3.87	9.44	0.86
D	Interest on Working Capital	4.69	5.50	6.38
E	O&M Expenses	86.72	96.20	127.04
F	Total (A+B+C+D+E)	101.96	127.25	135.87

65. The details of AFC allowed for transmission assets, vide order dated 18.7.2022 in Petition No. 171/TT/2019, and AFC claimed by the Petitioner in the instant petition and true-up in the instant order are as follows:

(₹ in lakh)

Particulars	Asset-1	Asset-2
	2018-19 (pro-rata 240 days)	2018-19 (pro-rata 171 days)
Allowed vide order dated 18.7.2022 in Petition No. 171/TT/2019	310.26	263.10
Claimed by the Petitioner in the instant petition	306.01	243.36
Approved after true-up in this order	306.00	243.31

(₹ in lakh)

Particulars	Asset-3		Asset-4
	2017-18 (pro-rata 340 days)	2018-19	2018-19 (pro-rata 241 days)
Allowed vide order dated 18.7.2022 in Petition No. 171/TT/2019	101.91	127.14	135.81
Claimed by the Petitioner in the instant petition	101.96	127.25	135.87
Approved after true-up in this order	101.96	127.25	135.87

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

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

(₹ in lakh)

Particulars	Asset-1				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	111.30	121.66	125.37	127.22	127.22
Interest on Loan	106.03	106.97	101.67	94.41	84.09
Return on Equity	118.46	129.52	133.48	135.45	135.45
Interest on Working Capital	8.40	8.88	9.03	9.11	9.06
O&M Expenses	76.97	79.66	82.44	85.31	88.28
Total	421.16	446.69	451.99	451.50	444.10

(₹ in lakh)

Particulars	Asset-2				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	129.63	143.56	143.56	143.56	143.56
Interest on Loan	122.35	126.12	115.92	105.71	94.42
Return on Equity	137.94	152.79	152.79	152.79	152.79
Interest on Working Capital	9.25	9.88	9.85	9.82	9.76
O&M Expenses	77.70	80.40	83.20	86.10	89.09
Total	476.87	512.75	505.32	497.98	489.62

(₹ in lakh)

Particulars	Asset-3				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	9.41	9.41	9.41	9.41	9.41
Interest on Loan	8.14	7.43	6.72	6.02	5.30
Return on Equity	10.04	10.04	10.04	10.04	10.04
Interest on Working Capital	2.38	2.44	2.50	2.56	2.62
O&M Expenses	45.02	46.60	48.24	49.92	51.68
Total	74.99	75.92	76.91	77.95	79.05

(₹ in lakh)

Particulars	Asset-4				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	2.33	2.33	2.33	2.33	2.33
Interest on Loan	2.42	2.22	2.03	1.83	1.64
Return on Equity	2.48	2.48	2.48	2.48	2.48
Interest on Working Capital	4.03	4.17	4.31	4.46	4.60
O&M Expenses	90.04	93.20	96.48	99.84	103.36
Total	101.30	104.40	107.63	110.94	114.41

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



(₹ in lakh)

Particulars	Asset-1				
	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	6.41	6.64	6.87	7.11	7.36
Maintenance Spares	11.55	11.95	12.37	12.80	13.24
Receivables	51.78	55.07	55.72	55.66	54.60
Total Working Capital	69.74	73.66	74.96	75.57	75.20
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	8.40	8.88	9.03	9.11	9.06

(₹ in lakh)

Particulars	Asset-2				
	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	6.48	6.70	6.93	7.18	7.42
Maintenance Spares	11.66	12.06	12.48	12.92	13.36
Receivables	58.63	63.22	62.30	61.39	60.20
Total Working Capital	76.77	81.98	81.71	81.49	80.98
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	9.25	9.88	9.85	9.82	9.76

(₹ in lakh)

Particulars	Asset-3				
	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	3.75	3.88	4.02	4.16	4.31
Maintenance Spares	6.75	6.99	7.24	7.49	7.75
Receivables	9.22	9.36	9.48	9.61	9.72
Total Working Capital	19.72	20.23	20.74	21.26	21.78
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	2.38	2.44	2.50	2.56	2.62

(₹ in lakh)

Particulars	Asset-4				
	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	7.50	7.77	8.04	8.32	8.61
Maintenance Spares	13.51	13.98	14.47	14.98	15.50
Receivables	12.45	12.87	13.27	13.68	14.07
Total Working Capital	33.46	34.62	35.78	36.98	38.18
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	4.03	4.17	4.31	4.46	4.60

Capital Cost

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

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



- (2) *The Capital Cost of a new project shall include the following:*
- (a) *The expenditure incurred or projected to be incurred up to the date of commercial operation of the project;*
 - (b) *Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;*
 - (c) *Any gain or loss on account of foreign exchange risk variation pertaining to the loan amount availed during the construction period;*
 - (d) *Interest during construction and incidental expenditure during construction as computed in accordance with these regulations;*
 - (e) *Capitalised Initial Spares subject to the ceiling rates in accordance with these regulations;*
 - (f) *Expenditure on account of additional capitalization and de-capitalisation determined in accordance with these regulations;*
 - (g) *Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the date of commercial operation as specified under Regulation 7 of these regulations;*
 - (h) *Adjustment of revenue earned by the transmission licensee by using the assets before the date of commercial operation;*
 - (i) *Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*
 - (j) *Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of the generating station but does not include the transportation cost and any other appurtenant cost paid to the railway;*
 - (k) *Capital expenditure on account of biomass handling equipment and facilities, for co-firing;*
 - (l) *Capital expenditure on account of emission control system necessary to meet the revised emission standards and sewage treatment plant;*
 - (m) *Expenditure on account of fulfilment of any conditions for obtaining environment clearance for the project;*
 - (n) *Expenditure on account of change in law and force majeure events; and*
 - (o) *Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.*
- (3) *The Capital cost of an existing project shall include the following:*
- (a) *Capital cost admitted by the Commission prior to 1.4.2019 duly trued up by excluding liability, if any, as on 1.4.2019;*
 - (b) *Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;*
 - (c) *Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*
 - (d) *Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*
 - (e) *Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal up to the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and*



(f) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.”

(4) The capital cost in case of existing or new hydro generating station shall also include:
 (a) cost of approved rehabilitation and resettlement (R&R) plan of the project in conformity with National R&R Policy and R&R package as approved; and
 (b) cost of the developer’s 10% contribution towards Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) and Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) project in the affected area.

(5) The following shall be excluded from the capital cost of the existing and new projects:
 (a) The assets forming part of the project, but not in use, as declared in the tariff petition;
 (b) De-capitalised Assets after the date of commercial operation on account of replacement or removal on account of obsolescence or shifting from one project to another project:

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

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

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

69. The Petitioner has claimed the following capital cost of the transmission assets during the 2019-24 tariff period:

Assets	Capital cost claimed (after adjusting grants received and IDC and IEDC) as on 31.3.2019	ACE Claimed			Estimated completion cost
		2019-20	2020-21	2021-22	
Asset-1	1941.45	321.96	70.41	70.10	2403.92
Asset-2	2184.43	527.29	0.00	0.00	2711.72
Asset-3	178.24	0.00	0.00	0.00	178.24



Asset-4	44.09	0.00	0.00	0.00	44.09
Total	4348.21	849.25	70.41	70.10	5337.97

70. We have considered the submissions of the Petitioner. The capital cost has been dealt with in line with Regulation 19(3) of the 2019 Tariff Regulations. The following element-wise capital cost (i.e., land, building, transmission line, sub-station and PLCC) admitted by the Commission as on 31.3.2019 has been considered as capital cost as on 1.4.2019:

(₹ in lakh)

Element	Asset-1	Asset-2	Asset-3	Asset-4
Freehold Land	0.00	0.00	0.00	0.00
Leasehold Land	0.00	0.00	0.00	0.00
Building Civil Works & Colony	0.00	0.00	0.00	0.00
Transmission Line	1408.83	1352.68	0.00	0.00
Sub Station	504.74	795.29	178.24	44.09
PLCC	27.89	35.68	0.00	0.00
IT Equipment (Incl. Software)	0.00	0.00	0.00	0.00
Total	1941.45	2184.65	178.24	44.09

71. The trued-up capital cost of ₹1941.45 lakh for Asset-1, ₹2183.65 lakh for Asset-2, ₹178.24 lakh for Asset-3 and ₹44.09 lakh for Asset-4 is considered as admitted capital cost as on 31.3.2019 for working out the tariff for 2019-24 tariff period.

Additional Capital Expenditure (ACE)

72. Regulation 24 and Regulation 25 of the 2019 Tariff Regulations provide as follows:

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

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

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



(f) Force Majeure events:

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

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

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

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

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

73. The Petitioner has claimed ACE of ₹321.96 lakh for Asset-1 and ₹527.29 lakh for Asset- 2 for the 2019-24 period under Regulation 24(1)(a) and Regulation 24(1)(b) of the 2019 Tariff Regulations on account of undischarged liabilities recognized to be payable at a future date and works deferred for execution. The same is as follows:



(₹ in lakh)

Assets	Asset Type	Projected ACE		
		2019-20	2020-21	2021-22
Asset-1	Sub-station	321.96	70.41	70.10
Asset-2		527.29	0.00	0.00

74. The details of ACE claimed by the Petitioner for the transmission assets are as follows:

Asset-1:

(₹ in lakh)

Vendor	2019-20		2020-21		2021-22		Total		
	Work Executed	Liability Release	Work Executed	Liability Release	Work Executed	Liability Release	2019-20	2020-21	2021-22
Kalpataru Power Transmission Limited	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Megha Engineering Limited	69.40	92.76	0.00	0.00	0.00	0.00	162.16	0.00	0.00
Bharat Heavy Electricals Limited	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Miscellaneous Jiangdong Fittings Equipment C	0.00	0.00	0.00	0.00	0.00	2.86	0.00	0.00	2.86
Vishwas Infra Structures	0.00	0.00	0.00	0.00	0.00	5.24	0.00	0.00	5.24
V Sanjeevaraju	0.00	0.00	0.00	0.00	0.00	1.82	0.00	0.00	1.82
Guru Datta Mayur Constructions	0.00	0.00	4.33	0.00	0.00	3.10	0.00	4.33	3.10
Techno Electric & Engineering Company Limited	138.94	20.86	0.00	66.08	0.00	57.08	159.80	66.08	57.08
Total	208.34	113.62	4.33	66.08	0.00	70.10	321.96	70.41	70.10

Asset-2

(₹ in lakh)

Vendor	2019-20		2019-20
	Work Executed	Liability Release	Total
Kalpataru Power Transmission Limited	176.70	78.46	255.16
Compensation Payments	59.56	0.00	59.56



Vendor	2019-20		2019-20
	Work Executed	Liability Release	Total
Megha Engineering Limited	186.73	0.00	186.73
EMC Limited	0.00	18.56	18.56
Total	422.99	97.02	520.01

75. We have considered the submissions of the Petitioner. The un-discharged IDC as on COD has been allowed as ACE during the year of its discharge. The ACE allowed is as follows:

Asset-1

(₹ in lakh)

Particulars	Regulation	ACE allowed		
		2019-20	2020-21	2021-22
Balance and retention payments for liabilities other than IDC	24(1)(a) and 24(1)(b)	321.96	70.41	70.10
IDC Discharged after COD		0.00	0.00	0.00
Total ACE		321.96	70.41	70.10

Asset-2

(₹ in lakh)

Particulars	Regulation	ACE allowed
		2019-20
Balance and retention payments for liabilities other than IDC	24(1)(a) and 24(1)(b)	520.01
IDC Discharged after COD		7.17
Total ACE		527.18

76. The total capital expenditure as on 31.3.2024 is within the apportioned approved cost. Accordingly, ACE for 2019-24 and the capital cost as on 31.3.2024 for the transmission assets considered are as follows:

(₹ in lakh)

Asset	Capital cost admitted as on 1.4.2019 (A)	ACE allowed for 2019-24 (B)			Capital cost allowed as on 31.3.2024
		2019-20	2020-21	2021-22	
Asset-1	1941.45	321.96	70.41	70.10	2403.92
Asset-2	2183.65	527.18	0.00	0.00	2710.83
Asset-3	178.24	0.00	0.00	0.00	178.24
Asset-4	44.09	0.00	0.00	0.00	44.09



Debt-Equity ratio

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

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

Provided that:

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

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

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

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

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

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

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



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

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

78. The debt-equity considered for the purpose of computation of tariff for the 2019-24 tariff period and allowed as per Regulation 18(3) of the 2019 Tariff Regulations is as follows:

Asset-1:

Funding	Capital Cost as on 1.4.2019 (₹ in lakh)	(in %)	ACE in 2019-24 (₹ in lakh)	(in %)	Capital Cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	1359.02	70.00	323.73	70.00	1682.74	70.00
Equity	582.44	30.00	138.74	30.00	721.18	30.00
Total	1941.45	100.00	462.47	100.00	2403.92	100.00

Asset-2:

Funding	Capital Cost as on 1.4.2019 (₹ in lakh)	(in %)	ACE in 2019-24 (₹ in lakh)	(in %)	Capital Cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	1528.56	70.00	369.03	70.00	1897.58	70.00
Equity	655.10	30.00	158.15	30.00	813.25	30.00
Total	2183.65	100.00	527.18	100.00	2710.83	100.00

Asset-3:

Funding	Capital Cost as on 1.4.2019 (₹ in lakh)	(in %)	ACE in 2019-24 (₹ in lakh)	(in %)	Capital Cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	124.77	70.00	0.00	70.00	124.77	70.00
Equity	53.47	30.00	0.00	30.00	53.47	30.00
Total	178.24	100.00	0.00	100.00	178.24	100.00

Asset-4:

Funding	Capital Cost as on 1.4.2019 (₹ in lakh)	(in %)	ACE in 2019-24 (₹ in lakh)	(in %)	Capital Cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	30.86	70.00	0.00	70.00	30.86	70.00
Equity	13.23	30.00	0.00	30.00	13.23	30.00
Total	44.09	100.00	0.00	100.00	44.09	100.00



Depreciation

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

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

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

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

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

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

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

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

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

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

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



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

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

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

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

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

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

a) twenty five years, in case the generating station or unit thereof is in operation for fifteen years or less as on the date of operation of the emission control system; or

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

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

80. We have considered the submissions of the Petitioner. WAROD at Annexure-II has been worked out considering the depreciation rates of IT and non-IT assets as specified in the 2019 Tariff Regulations. The depreciation has been worked out considering the admitted capital expenditure as on 31.3.2019 and accumulated



depreciation up to 31.3.2019. Accordingly, the depreciation allowed for the transmission assets for the 2019-24 period is as follows:

Asset-1:

						(₹ in lakh)
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Depreciation					
A	Opening Gross Block	1941.45	2263.41	2333.82	2403.92	2403.92
B	ACE	321.96	70.41	70.10	0.00	0.00
C	Closing Gross Block (A+B)	2263.41	2333.82	2403.92	2403.92	2403.92
D	Average Gross Block (A+C)/2	2102.43	2298.62	2368.87	2403.92	2403.92
E	Weighted average rate of Depreciation (WAROD) (in %)	5.29	5.29	5.29	5.29	5.29
F	Balance useful life of the asset	33	32	31	30	29
G	Aggregate Depreciable Value	1892.19	2068.75	2131.98	2163.53	2163.53
H	Depreciation during the year	111.30	121.66	125.37	127.22	127.22
I	Cumulative Depreciation	175.08	296.74	422.10	549.32	676.54
J	Remaining Depreciable Value (G-I)	1717.11	1772.02	1709.88	1614.20	1486.98

Asset-2

						(₹ in lakh)
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Depreciation					
A	Opening Gross Block	2183.65	2710.83	2710.83	2710.83	2710.83
B	ACE	527.18	0.00	0.00	0.00	0.00
C	Closing Gross Block (A+B)	2710.83	2710.83	2710.83	2710.83	2710.83
D	Average Gross Block (A+C)/2	2447.24	2710.83	2710.83	2710.83	2710.83
E	Weighted average rate of Depreciation (WAROD) (in %)	5.30	5.29	5.29	5.29	5.29
F	Balance useful life of the asset	31	30	29	28	27
G	Aggregate Depreciable Value	2202.52	2439.75	2439.75	2439.75	2439.75
H	Depreciation during the year	129.59	143.51	143.51	143.51	143.51
I	Cumulative Depreciation	183.13	326.64	470.15	613.65	757.16
J	Remaining Depreciable Value (G-I)	2019.39	2113.11	1969.60	1826.09	1682.59

Asset-3

						(₹ in lakh)
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Depreciation					
A	Opening Gross Block	178.24	178.24	178.24	178.24	178.24
B	ACE	0.00	0.00	0.00	0.00	0.00
C	Closing Gross Block (A+B)	178.24	178.24	178.24	178.24	178.24
D	Average Gross Block (A+C)/2	178.24	178.24	178.24	178.24	178.24



	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
E	Weighted average rate of Depreciation (WAROD) (in %)	5.28	5.28	5.28	5.28	5.28
F	Balance useful life of the asset	24	23	22	21	20
G	Aggregate Depreciable Value	160.42	160.42	160.42	160.42	160.42
H	Depreciation during the year	9.41	9.41	9.41	9.41	9.41
I	Cumulative Depreciation	21.28	30.69	40.10	49.51	58.92
J	Remaining Depreciable Value (G-I)	139.14	129.73	120.32	110.91	101.49

Asset-4

(₹ in lakh)

	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Depreciation					
A	Opening Gross Block	44.09	44.09	44.09	44.09	44.09
B	ACE	0.00	0.00	0.00	0.00	0.00
C	Closing Gross Block (A+B)	44.09	44.09	44.09	44.09	44.09
D	Average Gross Block (A+C)/2	44.09	44.09	44.09	44.09	44.09
E	Weighted average rate of Depreciation (WAROD) (in %)	5.28	5.28	5.28	5.28	5.28
F	Balance useful life of the asset	25	24	23	22	21
G	Aggregate Depreciable Value	39.68	39.68	39.68	39.68	39.68
H	Depreciation during the year	2.33	2.33	2.33	2.33	2.33
I	Cumulative Depreciation	3.10	5.42	7.75	10.08	12.41
J	Remaining Depreciable Value (G-I)	36.58	34.26	31.93	29.60	27.27

Interest on Loan (IoL)

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

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

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

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

(4) *Notwithstanding any moratorium period availed by the generating company or the transmission licensee, as the case may be, the repayment of loan shall be*



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

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

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

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

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

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

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

82. 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 the floating rate of interest applicable, if any, during the 2019-24 tariff period may be adjusted. Accordingly, the floating rate of interest, if any, will be considered at the time of true-up. IoL has been allowed in accordance with Regulation 32 of the 2019 Tariff Regulations. Accordingly, the IoL allowed for the 2019-24 tariff period is as follows:

Asset-1:

						(₹ in lakh)
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Interest on Loan					
A	Gross Normative Loan	1359.02	1584.39	1633.67	1682.74	1682.74
B	Cumulative Repayments up to Previous Year	63.77	175.08	296.74	422.10	549.32
C	Net Loan-Opening (A-B)	1295.24	1409.31	1336.94	1260.64	1133.42
D	Additions	225.37	49.29	49.07	0.00	0.00
E	Repayment during the year	111.30	121.66	125.37	127.22	127.22
F	Net Loan-Closing (C+D-E)	1409.31	1336.94	1260.64	1133.42	1006.20



	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
G	Average Loan (C+F)/2	1352.28	1373.13	1298.79	1197.03	1069.81
H	Weighted Average Rate of Interest on Loan (in %)	7.8409	7.7905	7.8283	7.8871	7.8601
I	Interest on Loan (G*H)	106.03	106.97	101.67	94.41	84.09

Asset-2:

(₹ in lakh)

	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Interest on Loan					
A	Gross Normative Loan	1528.56	1897.58	1897.58	1897.58	1897.58
B	Cumulative Repayments upto Previous Year	53.54	183.13	326.64	470.15	613.65
C	Net Loan-Opening (A-B)	1475.01	1714.45	1570.94	1427.43	1283.93
D	Additions	369.03	0.00	0.00	0.00	0.00
E	Repayment during the year	129.59	143.51	143.51	143.51	143.51
F	Net Loan-Closing (C+D-E)	1714.45	1570.94	1427.43	1283.93	1140.42
G	Average Loan (C+F)/2	1594.73	1642.70	1499.19	1355.68	1212.17
H	Weighted Average Rate of Interest on Loan (in %)	7.6692	7.6749	7.7297	7.7952	7.7871
I	Interest on Loan (G*H)	122.30	126.08	115.88	105.68	94.39

Asset-3:

(₹ in lakh)

	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Interest on Loan					
A	Gross Normative Loan	124.77	124.77	124.77	124.77	124.77
B	Cumulative Repayments upto Previous Year	11.87	21.28	30.69	40.10	49.51
C	Net Loan-Opening (A-B)	112.90	103.49	94.08	84.67	75.26
D	Additions	0.00	0.00	0.00	0.00	0.00
E	Repayment during the year	9.41	9.41	9.41	9.41	9.41
F	Net Loan-Closing (C+D-E)	103.49	94.08	84.67	75.26	65.85
G	Average Loan (C+F)/2	108.20	98.79	89.37	79.96	70.55
H	Weighted Average Rate of Interest on Loan (in %)	7.5228	7.5228	7.5228	7.5228	7.5184
I	Interest on Loan (G*H)	8.14	7.43	6.72	6.02	5.30

Asset-4:

(₹ in lakh)

	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Interest on Loan					
A	Gross Normative Loan	30.86	30.86	30.86	30.86	30.86
B	Cumulative Repayments upto Previous Year	0.77	3.10	5.42	7.75	10.08
C	Net Loan-Opening (A-B)	30.09	27.77	25.44	23.11	20.78



	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
D	Additions	0.00	0.00	0.00	0.00	0.00
E	Repayment during the year	2.33	2.33	2.33	2.33	2.33
F	Net Loan-Closing (C+D-E)	27.77	25.44	23.11	20.78	18.45
G	Average Loan (C+F)/2	28.93	26.60	24.27	21.95	19.62
H	Weighted Average Rate of Interest on Loan (in %)	8.3500	8.3500	8.3500	8.3500	8.3500
I	Interest on Loan (G*H)	2.42	2.22	2.03	1.83	1.64

Return on Equity (RoE)

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

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

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

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

Provided further that:

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

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

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



a) rate of return on equity shall be reduced by 0.25% in case of failure to achieve the ramp rate of 1% per minute;

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

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

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

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

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

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

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

Illustration-

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

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

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

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

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



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

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

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

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

Asset-1:

						(₹ in lakh)
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Return on Equity					
A	Opening Equity	582.44	679.02	700.15	721.18	721.18
B	Additions	96.59	21.12	21.03	0.00	0.00
C	Closing Equity (A+B)	679.02	700.15	721.18	721.18	721.18
D	Average Equity (A+C)/2	630.73	689.58	710.66	721.18	721.18
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	17.472	17.472	17.472	17.472	17.472
G	Rate of Return on Equity (in %)	18.782	18.782	18.782	18.782	18.782
H	Return on Equity (D*G)	118.46	129.52	133.48	135.45	135.45

Asset-2:

						(₹ in lakh)
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Return on Equity					
A	Opening Equity	655.10	813.25	813.25	813.25	813.25
B	Additions	158.15	0.00	0.00	0.00	0.00
C	Closing Equity (A+B)	813.25	813.25	813.25	813.25	813.25
D	Average Equity (A+C)/2	734.17	813.25	813.25	813.25	813.25
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	17.472	17.472	17.472	17.472	17.472



	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
G	Rate of Return on Equity (in %)	18.782	18.782	18.782	18.782	18.782
H	Return on Equity (D*G)	137.89	152.74	152.74	152.74	152.74

Asset-3:

(₹ in lakh)

	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Return on Equity					
A	Opening Equity	53.47	53.47	53.47	53.47	53.47
B	Additions	0.00	0.00	0.00	0.00	0.00
C	Closing Equity (A+B)	53.47	53.47	53.47	53.47	53.47
D	Average Equity (A+C)/2	53.47	53.47	53.47	53.47	53.47
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	17.472	17.472	17.472	17.472	17.472
G	Rate of Return on Equity (in %)	18.782	18.782	18.782	18.782	18.782
H	Return on Equity (D*G)	10.04	10.04	10.04	10.04	10.04

Asset-4:

(₹ in lakh)

	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Return on Equity					
A	Opening Equity	13.23	13.23	13.23	13.23	13.23
B	Additions	0.00	0.00	0.00	0.00	0.00
C	Closing Equity (A+B)	13.23	13.23	13.23	13.23	13.23
D	Average Equity (A+C)/2	13.23	13.23	13.23	13.23	13.23
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	17.472	17.472	17.472	17.472	17.472
G	Rate of Return on Equity (in %)	18.782	18.782	18.782	18.782	18.782
H	Return on Equity (D*G)	2.48	2.48	2.48	2.48	2.48

Operation & Maintenance Expenses (O&M Expenses)

85. The O&M Expenses claimed by the Petitioner for the transmission assets for the 2019-24 period are as follows:

Particulars	Asset-1				
	2019-20	2020-21	2021-22	2022-23	2023-24
400 kV Bays					
(i) Np Kunta: Kadapa Bay I: 1 bay					
(ii) Np Kunta: Kadapa Bay II: 1 bay					
400 kV Bays	2	2	2	2	2
Norms (₹ lakh/Bay)	32.15	33.28	34.45	35.66	36.91
Transmission line					
Loop in portion of LILO of Cuddapah-Hindupur 400 kV D/C (Quad) (9.164 km)					
D/C Bundled (4 or more Sub-Conductor (km))	9.164	9.164	9.164	9.164	9.164



Particulars	Asset-1				
	2019-20	2020-21	2021-22	2022-23	2023-24
Norms (₹ lakh/km)	1.322	1.368	1.416	1.466	1.517
PLCC (@ 2% of capital cost)					
Capital cost for PLCC	0.56	0.56	0.56	0.56	0.56
Total O&M Expense (₹ in lakh)	76.97	79.66	82.44	85.31	88.28

Particulars	Asset-2				
	2019-20	2020-21	2021-22	2022-23	2023-24
Bay(s)					
(i) Np Kunta: Hindupur Line Bay 1: 1 bay					
(ii) Np Kunta: Hindupur Line Bay 2: 1 bay					
400 kV Bays	2	2	2	2	2
Norms (₹ lakh/Bay)	32.15	33.28	34.45	35.66	36.91
Transmission line					
Loop out portion of LILO of Cuddapah-Hindupur 400 kV D/C (Quad) (9.59 km)					
D/C Bundled (4 or more Sub Conductor (km))	9.59	9.59	9.59	9.59	9.59
Norms (₹ lakh/km)	1.322	1.368	1.416	1.466	1.517
PLCC (@ 2% of capital cost)					
Capital cost for PLCC	0.72	0.72	0.72	0.72	0.72
Total O&M Expense (₹ in lakh)	77.70	80.40	83.20	86.10	89.09

Particulars	Asset-3				
	2019-20	2020-21	2021-22	2022-23	2023-24
Bay(s)					
(i) Np Kunta: Line Bay 1: 1 bay					
(ii) Np Kunta: Line Bay 2: 1 bay					
220 kV Bays	2	2	2	2	2
Norms (₹ lakh/Bay)	22.51	23.3	24.12	24.96	25.84
Total O&M Expense (₹ in lakh)	45.02	46.60	48.24	49.92	51.68

Particulars	Asset-4				
	2019-20	2020-21	2021-22	2022-23	2023-24
Bay(s)					
(i) Np Kunta: Line Bay I: 1 bay					
(ii) Np Kunta: Line Bay II: 1 bay					
(iii) Np Kunta: Line Bay III: 1 bay					
(iv) Np Kunta: Line Bay IV: 1 bay					
220 kV Bays	4	4	4	4	4
Norms (₹ lakh/Bay)	22.51	23.3	24.12	24.96	25.84
Total O&M Expense (₹ in lakh)	90.04	93.20	96.48	99.84	103.36



86. The norms specified under Regulation 35(3)(a) and Regulation 35(4) of the 2019 Tariff Regulations provide as follows:

“35. Operation and Maintenance Expenses:

...

(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
Norms for sub-station Bays (₹ Lakh per bay)					
765 kV	45.01	46.60	48.23	49.93	51.68
400 kV	32.15	33.28	34.45	35.66	36.91
220 kV	22.51	23.30	24.12	24.96	25.84
132 kV and below	16.08	16.64	17.23	17.83	18.46
Norms for Transformers (₹ Lakh per MVA)					
765 kV	0.491	0.508	0.526	0.545	0.564
400 kV	0.358	0.371	0.384	0.398	0.411
220 kV	0.245	0.254	0.263	0.272	0.282
132 kV and below	0.245	0.254	0.263	0.272	0.282
Norms for AC and HVDC lines (₹ Lakh per km)					
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.881	0.912	0.944	0.977	1.011
Single Circuit (Bundled conductor with four sub-conductors)	0.755	0.781	0.809	0.837	0.867
Single Circuit (Twin & Triple Conductor)	0.503	0.521	0.539	0.558	0.578
Single Circuit (Single Conductor)	0.252	0.260	0.270	0.279	0.289
Double Circuit (Bundled conductor with four or more sub-conductors)	1.322	1.368	1.416	1.466	1.517
Double Circuit (Twin & Triple Conductor)	0.881	0.912	0.944	0.977	1.011
Double Circuit (Single Conductor)	0.377	0.391	0.404	0.419	0.433
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.319	2.401	2.485	2.572	2.662
Multi Circuit (Twin & Triple Conductor)	1.544	1.598	1.654	1.713	1.773
Norms for HVDC stations					
HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)	834	864	894	925	958
Gazuwaka HVDC Back-to-Back station (₹ Lakh per 500 MW)	1,666	1,725	1,785	1,848	1,913
500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)	2,252	2,331	2,413	2,498	2,586



Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<i>±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)</i>	2,468	2,555	2,645	2,738	2,834
<i>±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)</i>	1,696	1,756	1,817	1,881	1,947
<i>±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW)</i>	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. We have considered the submission of the Petitioner. The Petitioner has claimed O&M Expenses separately for PLCC under Regulation 35(4) of the 2019 Tariff Regulations for Asset-1 and Asset-2 @ 2% of its original project cost. The Petitioner has made a 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.

88. The O&M Expenses have been worked out in accordance with Regulation 35(3)(a) of the 2019 Tariff Regulations and the same is shown as follows:

Particulars	Asset-1				
	2019-20	2020-21	2021-22	2022-23	2023-24
400 kV Bays					
(iii) Np Kunta: Kadapa Bay I: 1 bay					
(iv) Np Kunta: Kadapa Bay II: 1 bay					
400 kV Bays	2	2	2	2	2
Norms (₹ lakh/Bay)	32.15	33.28	34.45	35.66	36.91
Transmission line					
Loop in portion of LILO of Cuddapah-Hindupur 400 kV D/C (Quad) (9.164 km)					



Particulars	Asset-1				
	2019-20	2020-21	2021-22	2022-23	2023-24
D/C Bundled (4 or more Sub Conductor (km))	9.164	9.164	9.164	9.164	9.164
Norms (₹ lakh/km)	1.322	1.368	1.416	1.466	1.517
Total O&M Expenses allowed (₹ in lakh)	76.41	79.10	81.88	84.75	87.72

Particulars	Asset-2				
	2019-20	2020-21	2021-22	2022-23	2023-24
Bay(s)					
(iii) Np Kunta: Hindupur Line Bay 1: 1 bay					
(iv) Np Kunta: Hindupur Line Bay 2: 1 bay					
400 kV Bays	2	2	2	2	2
Norms (₹ lakh/Bay)	32.15	33.28	34.45	35.66	36.91
Transmission line					
Loop out portion of LILO of Cuddapah-Hindupur 400 kV D/C (Quad) (9.59 km)					
D/C Bundled (4 or more Sub Conductor (km))	9.59	9.59	9.59	9.59	9.59
Norms (₹ lakh/km)	1.322	1.368	1.416	1.466	1.517
Total O&M Expense allowed (₹ in lakh)	76.98	79.68	82.48	85.38	88.37

Particulars	Asset-3				
	2019-20	2020-21	2021-22	2022-23	2023-24
Bay(s)					
(v) Np Kunta: Line Bay 1: 1 bay					
(vi) Np Kunta: Line Bay 2: 1 bay					
220 kV Bays	2	2	2	2	2
Norms (₹ lakh/Bay)	22.51	23.30	24.12	24.96	25.84
Total O&M Expense allowed (₹ in lakh)	45.02	46.60	48.24	49.92	51.68

Particulars	Asset-4				
	2019-20	2020-21	2021-22	2022-23	2023-24
Bay(s)					
(i) Np Kunta: Line Bay 1: 1 bay					
(ii) Np Kunta: Line Bay 2: 1 bay					
(vii) Np Kunta: Line Bay 3: 1 bay					
(viii) Np Kunta: Line Bay 4: 1 bay					
220 kV Bays	4	4	4	4	4
Norms (₹ lakh/Bay)	22.51	23.30	24.12	24.96	25.84
Total O&M Expense allowed (₹ in lakh)	90.04	93.20	96.48	99.84	103.36



Interest on Working Capital (IWC)

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

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

.....

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

- (i) *Receivables equivalent to 45 days of annual fixed cost;*
- (ii) *Maintenance spares @ 15% of operation and maintenance expenses including security expenses; and*
- (iii) *Operation and maintenance expenses, including security expenses for one month.*

.....

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

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

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

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

‘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;”*

90. The Petitioner has submitted that it has claimed 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%. The IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The Rate of Interest (ROI) considered is 12.05% (SBI 1-year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for 2019-20, 11.25% (SBI 1-year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points) for 2020-21 and from 2021-22 onwards has been considered as 10.50%



(SBI 1-year MCLR applicable as on 1.4.2020 of 7.00% plus 350 basis points). The components of the working capital and interest thereon allowed is as follows:

Asset-1:

		(₹ in lakh)				
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Working Capital for O&M Expenses (Equivalent to annualized O&M Expenses for 1 month)	6.37	6.59	6.82	7.06	7.31
B	Working Capital for Maintenance Spares (Equivalent to 15% of O&M Expenses)	11.46	11.86	12.28	12.71	13.16
C	Working Capital for Receivables (Equivalent to 45 days of annual transmission charges)	51.71	54.92	55.51	55.45	54.39
D	Total Working Capital (A+B+C)	69.54	73.38	74.61	75.22	74.85
E	Rate of Interest (in %)	12.05	11.25	10.50	10.50	10.50
F	Interest on working capital (D*E)	8.38	8.26	7.83	7.90	7.86

Asset-2:

		(₹ in lakh)				
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Working Capital for O&M Expenses (Equivalent to annualized O&M Expenses for 1 month)	6.41	6.64	6.87	7.11	7.36
B	Working Capital for Maintenance Spares (Equivalent to 15% of O&M Expenses)	11.55	11.95	12.37	12.81	13.26
C	Working Capital for Receivables (Equivalent to 45 days of annual transmission charges)	58.52	63.02	62.03	61.13	59.94
D	Total Working Capital (A+B+C)	76.48	81.62	81.28	81.05	80.55
E	Rate of Interest (in %)	12.05	11.25	10.50	10.50	10.50
F	Interest on working capital (D*E)	9.22	9.18	8.53	8.51	8.46

Asset-3:

		(₹ in lakh)				
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Working Capital for O&M Expenses (Equivalent to annualized O&M Expenses for 1 month)	3.75	3.88	4.02	4.16	4.31
B	Working Capital for Maintenance Spares (Equivalent to 15% of O&M Expenses)	6.75	6.99	7.24	7.49	7.75
C	Working Capital for Receivables (Equivalent to 45 days of annual transmission charges)	9.22	9.34	9.44	9.57	9.68
D	Total Working Capital (A+B+C)	19.72	20.21	20.70	21.22	21.74
E	Rate of Interest (in %)	12.05	11.25	10.50	10.50	10.50
F	Interest on working capital (D*E)	2.38	2.27	2.17	2.23	2.28



Asset-4:

		(₹ in lakh)				
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Working Capital for O&M Expenses (Equivalent to annualized O&M Expenses for 1 month)	7.50	7.77	8.04	8.32	8.61
B	Working Capital for Maintenance Spares (Equivalent to 15% of O&M Expenses)	13.51	13.98	14.47	14.98	15.50
C	Working Capital for Receivables (Equivalent to 45 days of annual transmission charges)	12.45	12.84	13.20	13.61	13.99
D	Total Working Capital (A+B+C)	33.46	34.58	35.71	36.90	38.11
E	Rate of Interest (in %)	12.05	11.25	10.50	10.50	10.50
F	Interest on working capital (D*E)	4.03	3.89	3.75	3.87	4.00

Annual Fixed Charges of the 2019-24 Tariff Period

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

Asset-1

		(₹ in lakh)				
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Depreciation	111.30	121.66	125.37	127.22	127.22
	Interest on Loan	106.03	106.97	101.67	94.41	84.09
	Return on Equity	118.46	129.52	133.48	135.45	135.45
	Interest on Working Capital	8.38	8.26	7.83	7.90	7.86
	O&M Expenses	76.41	79.10	81.88	84.75	87.72
	Total	420.58	445.51	450.23	449.73	442.34

Asset-2

		(₹ in lakh)				
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Depreciation	129.59	143.51	143.51	143.51	143.51
	Interest on Loan	122.30	126.08	115.88	105.68	94.39
	Return on Equity	137.89	152.74	152.74	152.74	152.74
	Interest on Working Capital	9.22	9.18	8.53	8.51	8.46
	O&M Expenses	76.98	79.68	82.48	85.38	88.37
	Total	475.98	511.19	503.14	495.82	487.47

Asset-3

		(₹ in lakh)				
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Depreciation	9.41	9.41	9.41	9.41	9.41
	Interest on Loan	8.14	7.43	6.72	6.02	5.30
	Return on Equity	10.04	10.04	10.04	10.04	10.04



Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Interest on Working Capital	2.38	2.27	2.17	2.23	2.28
O&M Expenses	45.02	46.60	48.24	49.92	51.68
Total	74.99	75.75	76.58	77.62	78.71

Asset-4

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	2.33	2.33	2.33	2.33	2.33
Interest on Loan	2.42	2.22	2.03	1.83	1.64
Return on Equity	2.48	2.48	2.48	2.48	2.48
Interest on Working Capital	4.03	3.89	3.75	3.87	4.00
O&M Expenses	90.04	93.20	96.48	99.84	103.36
Total	101.30	104.11	107.07	110.35	113.81

(₹ in lakh)

Filing Fee and Publication Expenses

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

License Fee and Publication Expenses

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

Goods and Services Tax

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



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

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

Security Expenses

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

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

Capital Spares

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



Sharing of Transmission Charges

99. The Petitioner has submitted that the transmission charges for the 2014-19 period will be recovered on a monthly basis as per order dated 18.7.2022 in the Petition No. 171/TT/2019, i.e. the transmission charges of Asset-1 shall be included in PoC pool with effect from its COD and the transmission charges for Asset-2 with effect from 12.10.2018 to 21.1.2019 shall be borne by APTRANSCO and thereafter the transmission charges will be included in PoC Pool, and transmission charges for Asset-3 and Asset-4 will be borne by APSPCPL. The Petitioner has further submitted that the transmission charges included in the PoC pool will be shared by the beneficiaries as per the applicable Sharing Regulations.

100. We have considered the submissions of the Petitioner. With effect from 1.7.2011, the sharing of transmission charges for inter-State transmission systems was governed by the 2010 Sharing Regulations and with effect from 1.11.2020 (after the repeal of the 2010 Sharing Regulations), the sharing of transmission charges is governed by the 2020 Sharing Regulations. The transmission charges approved in this order for Asset-1 shall be recovered in accordance with the applicable Sharing Regulations as per Regulation 43 of the 2014 Tariff Regulations and Regulation 57(2) of the 2019 Tariff Regulations. In the case of Asset-2, the transmission charges for the period from 12.10.2018 to 21.1.2019 shall be borne by APTRANSCO as per the Commission's order dated 18.7.2022 in Petition No. 171/TT/2019, and thereafter, the same shall be recovered in accordance with the applicable Sharing Regulations as per Regulation 43 of the 2014 Tariff Regulations and Regulation 57(2) of the 2019 Tariff Regulations. The transmission charges in the case of Asset-3 and Asset-4 shall be borne by APSPCPL till 4.6.2021 as per the Commission's order dated 18.7.2022 in Petition No.



171/TT/2019 and thereafter the same shall be recovered in accordance with the 2020 Sharing Regulations as per Regulation 57(2) of the 2019 Tariff Regulations.

101. To summarise:

- a. The trued-up Annual Fixed Charges (AFC) allowed for 2014-19 tariff period are as follows:

(₹ in lakh)

Particulars	Asset-1	Asset-2
	2018-19 (pro-rata for 240 days)	2018-19 (pro-rata for 171 days)
AFC	306.00	243.31

(₹ in lakh)

Particulars	Asset-3		Asset-4
	2017-18 (pro-rata for 340 days)	2018-19	2018-19 (pro-rata for 241 days)
AFC	101.96	127.25	135.87

- b. Annual Fixed Charges allowed for the 2019-24 tariff period in this order is as follows:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Asset-1	420.58	445.51	450.23	449.73	442.34
Asset-2	475.98	511.19	503.14	495.82	487.47
Asset-3	74.99	75.75	76.58	77.62	78.71
Asset-4	101.3	104.11	107.07	110.35	113.81

102. Annexure-I to Annexure-II given hereinafter form part of the instant order.

103. This order disposes of the Petition No. 8/TT/2023 in terms of the above discussions and findings.

sd/-
(Jishnu Barua)
Chairperson

sd/-
(Arun Goyal)
Member



Asset-1

2014-19 Capital Expenditure	Admitted Capital Cost as on 1.4.2014/COD (₹ in lakh)	ACE (₹ in lakh)		Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)
		2018-19	Total			2018-19
Transmission Line	1339.80	69.03	69.03	1408.83	5.28%	72.56
Sub Station	359.33	145.41	145.41	504.74	5.28%	22.81
PLCC	23.13	4.75	4.75	27.89	6.33%	1.61
Total	1722.26	219.19	219.19	1941.45		96.99
Average Gross Block (₹ in lakh)						1831.86
Weighted Average Rate of Depreciation						5.2946%



Asset-2

2014-19 Capital Expenditure	Admitted Capital Cost as on 1.4.2014/COD (₹ in lakh)	ACE (₹ in lakh)		Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)	
		2018-19	Total			2017-18	2018-19
Transmission Line	1320.23	32.45	32.45	1352.68	5.28%	-	70.56
Sub Station	776.22	19.08	19.08	795.29	5.28%	-	41.49
PLCC	34.82	0.86	0.86	35.68	6.33%	-	2.23
Total	2131.27	52.38	52.38	2183.65		0.00	114.28
Average Gross Block (₹ in lakh)						0.00	2157.46
Weighted Average Rate of Depreciation						0.00%	5.30%



Asset-3

2014-19 Capital Expenditure	Admitted Capital Cost as on 1.4.2014/COD (₹ in lakh)	ACE (₹ in lakh)			Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)		
		2017-18	2018-19	Total			2017-18	2018-19	
Sub Station	0.00	140.43	37.81	178.24	178.24	5.28%	3.71	8.41	
Total	0.00	140.43	37.81	178.24	178.24		3.71	8.41	
							Average Gross Block (₹ in lakh)	70.22	159.34
							Weighted Average Rate of Depreciation	5.28%	5.28%



Asset-4

2014-19	Admitted Capital Cost as on 1.4.2014/COD (₹ in lakh)	ACE (₹ in lakh)		Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)
Capital Expenditure		2018-19	Total			2018-19
Sub Station	0.00	44.09	44.09	44.09	5.28%	1.16
Total	0.00	44.09	44.09	44.09		1.16
Average Gross Block (₹ in lakh)						22.05
Weighted Average Rate of Depreciation						5.28%



Asset-1

2019-24 Capital Expenditure	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Projected ACE (₹ in lakh)				Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)				
		2019-20	2020-21	2021-22	Total			2019-20	2020-21	2021-22	2022-23	2023-24
Transmission Line	1408.83	0.00	0.00	0.00	0.00	1408.83	5.28%	74.39	74.39	74.39	74.39	74.39
Sub Station	504.74	321.96	70.41	70.10	462.47	967.21	5.28%	35.15	45.51	49.22	51.07	51.07
PLCC	27.89	0.00	0.00	0.00	0.00	27.89	6.33%	1.77	1.77	1.77	1.77	1.77
Total	1941.45	321.96	70.41	70.10	462.47	2403.92		111.30	121.66	125.37	127.22	127.22
Average Gross Block (₹ in lakh)								2102.43	2298.62	2368.87	2403.92	2403.92
Weighted Average Rate of Depreciation								5.29%	5.29%	5.29%	5.29%	5.29%

Asset-2

2019-24 Capital Expenditure	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Projected ACE (₹ in lakh)		Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciati on as per Regulation s	Annual Depreciation as per Regulations (₹ in lakh)				
		2019-20	Total			2019-20	2020-21	2021-22	2022-23	2023-24
Transmission Line	1352.68	337.72	337.72	1690.40	5.28%	80.34	89.25	89.25	89.25	89.25
Sub Station	795.29	189.34	189.34	984.64	5.28%	46.99	51.99	51.99	51.99	51.99
PLCC	35.68	0.12	0.12	35.79	6.33%	2.26	2.27	2.27	2.27	2.27
Total	2183.65	527.18	527.18	2710.83		129.59	143.51	143.51	143.51	143.51
Average Gross Block (₹ in lakh)						2447.24	2710.83	2710.83	2710.83	2710.83
Weighted Average Rate of Depreciation						5.30%	5.29%	5.29%	5.29%	5.29%



Asset-3

2019-24	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Projected ACE (₹ in lakh)						Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)					
		2019-20	2020-21	2021-22	2022-23	2023-24	Total			2019-20	2020-21	2021-22	2022-23	2023-24	
Capital Expenditure															
Sub Station	178.24	0.00	0.00	0.00	0.00	0.00	0.00	178.24	5.28%	9.41	9.41	9.41	9.41	9.41	
Total	178.24	0.00	0.00	0.00	0.00	0.00	0.00	178.24		9.41	9.41	9.41	9.41	9.41	
										Average Gross Block (₹ in lakh)	178.24	178.24	178.24	178.24	178.24
										Weighted Average Rate of Depreciation	5.28%	5.28%	5.28%	5.28%	5.28%



Asset-4

2019-24 Capital Expenditure	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Projected ACE (₹ in lakh)	Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)				
		Total			2019-20	2020-21	2021-22	2022-23	2023-24
Sub Station	44.09	-	44.09	5.28%	2.33	2.33	2.33	2.33	2.33
Total	44.09	-	44.09		2.33	2.33	2.33	2.33	2.33
Average Gross Block (₹ in lakh)					44.09	44.09	44.09	44.09	44.09
Weighted Average Rate of Depreciation					5.28%	5.28%	5.28%	5.28%	5.28%

